

Chapter 20. Biodiversity Planning Law

Summary	531
Key points	531
International biodiversity law and globalisation	532
Implementation and further development	533
The legal framework for biodiversity planning	534
Implementing biodiversity conventions at a regional level	535
The ASEAN countries	536
Box 1. The ASEAN Agreement	538
Implementing the CBD through national mechanisms	540
National biodiversity law	541
Biodiversity law in Australia	541
Box 2. Federal-State environment agreements	544
Biodiversity conservation aspects of the Act	545
Bioregional planning under the Act	547
Biodiversity monitoring under the Act	549
Suggested biodiversity planning law and policy elements	550
Box 3. A legislative checklist	551
Conclusion	552
Endnotes	553

Biodiversity Planning Law

International and national

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SUMMARY

The globalisation of environmental issues over the past 30 years has brought a rapid growth in the number and scope of international legal instruments and institutions relating to the conservation of biodiversity. Given the development and population pressures on both terrestrial and marine environments, there is an urgent need for improved legal frameworks for biodiversity conservation planning at the international, regional and national levels. The deficiencies of existing legal frameworks are particularly apparent in the ASEAN region. The ASEAN Agreement on the Conservation of Nature and Natural resources needs urgently to be ratified by all parties and to come into force. It can then be used as a more solid foundation for regional mechanisms and national laws and policies to more consistently and effectively address biodiversity planning and conservation. The frameworks put into place in Australia (mainly as a result of the 1992 Convention on Biological Diversity) can be used to guide the development of legislative mechanisms in the ASEAN countries and elsewhere. The integrated approach to biodiversity in Australia's federal Environment Protection and Biodiversity Conservation Act 1999 is a particularly good example of the legislative process for domestic implementation of the Convention's obligations. The main elements of a legal and policy framework for biodiversity planning at a national level can be drawn from the Australian experience.

Key points

- a number of major international institutions, such as UNEP and IUCN, have been instrumental in developing international legal frameworks for biodiversity conservation;
- international conventions relating to biodiversity conservation need to be adequately implemented by regional agreements and national legislation;

- biodiversity conservation planning is most effectively achieved by being embedded in legislation;
- the Australian approach presents a useful guide for the formulation of adequate legislative mechanisms.

International biodiversity law and globalisation

International environmental law has developed rapidly over the past 30 years; a number of conventions have been completed, both multilateral and bilateral instruments, to address global and regional issues. This approach has been accelerated by the processes of economic and political globalisation, which is gradually beginning to affect environmental regimes. This has led to developments such as the agreement on environment under the North American Free Trade Agreement,¹ and the environmental considerations taken into account (not necessarily satisfactorily) by the decision-making panels of the World Trade Organisation.²

In the past two decades, international environmental law has become increasingly driven by the concept of sustainable development, which now underpins to a great extent the global environmental debate.³ This is also the case in biodiversity conservation; principles and concepts related to sustainable development permeate the provisions of the more recent instruments and are, to some extent, being adopted at a national level. The following conventions and instruments are of prime importance to biodiversity conservation:

- Convention on Wetlands of International Importance, Especially as Waterfowl Habitat 1971;⁴
- Convention on International Trade in Endangered Species 1973;⁵
- Convention on the Conservation of Migratory Species of Wild Animals 1979;⁶
- Convention on the Conservation of Biological Diversity 1992;⁷ and
- Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa 1994.⁸

Each of these conventions is administered by a secretariat, with a Conference of the Parties conducted on a regular basis to promote implementation, draft protocols and exchange information.

In addition to the conventions, "soft law" instruments such as the World Charter for Nature,⁹ the Rio Declaration on Environment and Development,¹⁰ and Agenda 21¹¹ continue to have a significant bearing on the development of mechanisms for the conservation of biodiversity. The Statement of Forest

Principles of 1992,¹² which may in time blossom into a legally binding convention in some form,¹³ is also significant for biodiversity protection.

Implementation and further development

Implementation of the conventions related to biodiversity has been considerably assisted by various international organizations, including the United Nations Environment Program (UNEP) and the United Nations Development Program (UNDP), and by technical assistance from IUCN as well as financial institutions such as the World Bank and the Asian Development Bank (ADB). These institutions do important work in promoting the biodiversity agenda at a global level. The Commission on Environmental Law and the Environmental Law Centre of IUCN drafted the World Charter for Nature in the early 1980s, and were involved in the development of the other biodiversity-related conventions. The Environmental Law Program of UNEP has also been closely involved in various aspects of biodiversity law at an international level, and carried forward the work of IUCN in preparing the final drafts of the Convention on Biological Diversity (CBD).

UNEP's determination to continue to address biodiversity issues through the international legal framework received a significant boost in 2001 with the Governing Council's acceptance of Montevideo Program III,¹⁴ which is intended to set the mandate for the UNEP Environmental Law Program for the next decade. Chapter 1 of the program document strongly emphasizes the implementation, compliance and enforcement of environmental law at an international and national level through multilateral environmental agreements, and the development of strategies, mechanisms and national laws. Chapter 14 focuses on biological diversity; its provisions are consistent with the obligations found in the CBD¹⁵ and form a solid basis for the development of legal and policy mechanisms to achieve effective biodiversity planning:

Objective: To enhance the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

Strategy: Promote, in consultation and cooperation with the Conference of the Parties and the Secretariat of the Convention on Biological Diversity, the development and implementation of national, regional and global policies and legal instruments, as appropriate, for the conservation and sustainable use of biological diversity in all ecosystems, for the fair and equitable sharing of benefits arising out of such use and for biosafety.

- Action:** a) Promote the development and application of domestic laws for the conservation and sustainable use of biological diversity in situ and ex situ, including through ecosystem management and land use policies, as well as for the fair and equitable sharing of the benefits arising out of the utilization of genetic resources and for biosafety;
- b) Assist developing countries, particularly the least developed among them and the small island developing States, and countries with economies in transition, in the development and application of legislative, administrative and institutional measures for the implementation of international instruments concerning biological diversity;
- c) Contribute to the analysis of the relationship between intellectual property rights, the knowledge, innovations and practices of local and indigenous communities and the conservation and use of biological diversity in the context of studying ways and means to prevent and resolve conflict or incoherence between obligations under environmental and trade-related international agreements;
- d) Examine possible international responses to challenges posed by harmful invasive species, taking into account the cross-sector nature of those problems and work underway in other international fora;
- e) Support the implementation of relevant international environmental agreements, in particular the Convention on Biological Diversity and the Cartagena Protocol on Biosafety.

If carried out with vigour, the Montevideo Program III will likely have an important effect on developing legal frameworks for the implementation of biodiversity law at an international, regional and national level, particularly in terms of promoting the links between international obligations as set out in the relevant conventions and the national legislation aimed at protecting biodiversity. The program indicates that "UNEP, in accordance with its catalytic role, will take action in these areas in coordination with States, conferences of the Parties, and secretariats of multilateral environmental agreements, other international organizations, non-State actors and persons". To date, however, UNEP has not announced a plan for implementing the Montevideo Program III.

The legal framework for biodiversity planning

Over the past few decades, legislators and policy-makers around the world have begun to understand that the law has a vital role to play in the imple-

mentation of any environmental protection initiative. Much of this law relates to pollution control, environmental impact assessment and the planning and development of cities and urban infrastructure. Only recently has emphasis been placed on the development of legal frameworks for nature conservation; these have been primarily expressed through national parks and wildlife legislation. In many countries, the planning process for nature conservation has been haphazard. Important areas have been protected not so much by conscious planning as by default (they were not able or required to be exploited for their natural resources).

It is clear that biodiversity management regimes can be successful only if they are based on careful and systematic planning. Good planning is in turn dependent on a comprehensive framework of laws that define procedures, responsibilities and obligations. In some jurisdictions, legal mechanisms of one form or another underpin each stage of environmental management; in others, the essential elements of the legal framework are absent or so fragmented as to make the environmental management scheme unworkable.

In the development of mechanisms for the protection of biological diversity, legislative frameworks need to take into account the cultural, political and economic circumstances of individual jurisdictions. In his discussion on the history of the Convention on Biological Diversity, Sir Martin Holdgate pointed out that: "Laws only work if there is understanding of the matters to which they apply."¹⁶ The cultural, political and economic circumstances of individual jurisdictions will have a bearing on what is both acceptable and effective. Successful legal mechanisms in developed jurisdictions can, however, be useful models for countries where the laws are less advanced but where similar problems of biological conservation exist.

Implementing biodiversity conventions at a regional level

This section focuses briefly on the protection of biodiversity at a regional level in Asia. It uses the regional legal framework found in the ASEAN¹⁷ countries as an example. The problems of maintaining biological diversity in the Asia Pacific region are well recognised in UNEP's GEO 2000 report:

The region includes parts of three of the world's eight biogeographic divisions, namely the Palaearctic, Indo-Malayan and Oceanian realms. The area also includes the world's highest mountain system (Himalayas), the second largest rain forest complex and more than half the world's coral reefs. The Southeast Asian sub-region is the centre of diversity of wild and domestic cereals and fruit species.

Of the 12 “mega-diverse” countries [...] four are in this region, namely Australia, China, Indonesia and Malaysia. China is ranked third in the world for biodiversity with more than 30 000 species of advanced plants and 6 347 kinds of vertebrates, representing 10 and 14 per cent respectively of the world total. [...] Australia has an estimated one million species of which about 85 per cent of flowering plants, 84 per cent of mammals, more than 45 per cent of birds, 89 per cent of reptiles, 93 per cent of frogs and 85 per cent of inshore, temperate-zone fish are endemic. [...]

In the past half-century, the rich biological resources of the region have been increasingly exploited both for international trade and to sustain the growing population. The direct harvesting and export of natural products, particularly timber and fish, the expansion of agriculture into primary forests, wetlands and grasslands, and the replacement of traditional native crops with high-yielding exotic species have had severe impacts on the region's biodiversity. In addition, urbanization, industrialization, pollution, mining, tourism, introduced species, hunting, illegal trade in endangered species and the lack of proper management practices have taken their toll. In the past decade, demand on biological resources increased sharply due to rapid economic and population growth.¹⁸

The report goes on to canvass the lack of adequate implementation of the existing legal frameworks in Asia to address the environmental problems it identifies. It notes the following:

Challenges associated with this new legislation have arisen from conflicts between environmental and resource conservation and the need for rapid economic growth and development. The full and effective enforcement of environmental legislation and sanctions for noncompliance remain elusive goals, despite the strengthening of legislation in recent years, the wide availability of legal recourse, and judiciaries active in promoting environmental compliance and enforcement, and giving recognition to emerging principles of environmental law. This is due primarily to a lack of political will, the relative weakness of environmental institutions, and inadequate funds and technical expertise.¹⁹

The ASEAN countries

Although the ASEAN Agreement on the Conservation of Nature and Natural Resources was completed in 1985, it is not yet in force. The ASEAN countries

originally comprised Brunei, Malaysia, Indonesia, Philippines, Singapore and Thailand; Cambodia, Lao PDR, Myanmar and Vietnam were added in the 1990s. All the ASEAN countries have introduced environmental legislation of varying comprehensiveness, but the political commitment and institutional capacity to implement and enforce the legislation varies considerably.²⁰ There has, however, been a long-term political commitment to environmental management across the ASEAN region. While the 1967 ASEAN Declaration establishing ASEAN as an organization contains no reference to environmental matters, a range of instruments generated in successive meetings of the ASEAN Ministers have clearly recognized ASEAN's role in addressing environmental management on a regional basis. These instruments include the following:

- Manila Declaration on the ASEAN Environment 1981;
- ASEAN Declaration on Heritage Parks and Reserves 1984;
- Bangkok Declaration on the ASEAN Environment 1984;
- ASEAN Agreement on the Conservation of Nature and Natural Resources 1985;
- Jakarta Resolution on Sustainable Development 1987;
- Manila Declaration of 1987;
- Kuala Lumpur Accord on the Environment and Development 1990;
- Singapore Resolution on Environment and Development and its Annex, the ASEAN Common Stand on Environment and Development 1992;
- Bandar Seri Begawan Resolution on Environment and Development 1994;²¹
- South East Asia Nuclear-Weapon Free Zone Treaty 1995.²²

Together, these instruments represent an impressive record of formal achievement and awareness-building. In terms of making a substantial contribution to a consistent framework for regional environmental management, however, or resolving present or anticipated transboundary environmental disputes, their influence has not been as great as might be expected.

The objective of the first instrument, the 1981 Manila Declaration on the Environment, was as follows:

To ensure the protection of the ASEAN environment and the sustainability of its natural resources so that it can sustain continued development with the main aim of eradicating poverty and attaining the highest possible quality of life for the people of the ASEAN countries.²³

The declaration contained policy guidelines that would “encourage the enactment and enforcement of environmental protection measures in the ASEAN

countries.” It also recommended the establishment of an ASEAN Committee on the Environment. The declaration, along with subsequent declarations, resolutions and accords, has emphasized the idea of a regional cooperative approach to environmental and resource conservation matters. The first ASEAN Environment Program, in cooperation with UNEP, covered 1978 to 1982; subsequent programs and action plans were formulated on a regular basis.²⁴ The ASEAN Senior Officials on the Environment (ASOEN) have administered the program. ASOEN was established in 1990 and comprises representatives of all the ASEAN countries.²⁵ It brings together senior environmental officers from each member government on a regular basis. ASOEN is responsible for the enhancement of regional planning and decision-making, as well as the acceleration of regional programs. Under ASOEN, a number of working groups have been established for major aspects of the environment in the ASEAN region.²⁶

Box 1. The ASEAN Agreement on the Conservation of Nature and Natural Resources

The original six countries of ASEAN drew up the ASEAN Agreement in 1985, but it was not until 1995 that ASEAN began to seriously contemplate implementation of the agreement. The agreement requires six instruments of ratification to come into force; to date it has been ratified by Thailand, Indonesia and the Philippines. Although not yet in force, it nevertheless has the potential to influence environmental planning and management at a regional level, and to promote legislative reform at a national level, including legislation for the conservation of biodiversity. The agreement states in Article 1:

The Contracting Parties, within the framework of their respective national laws, undertake to adopt singly, or where necessary and appropriate through concerted action, the measures necessary to maintain essential ecological processes and life-support systems, to preserve genetic diversity, and to ensure the sustainable utilization of harvested natural resources under their jurisdiction in accordance with scientific principles and with a view to attaining the goal of sustainable development. To this end they shall develop national conservation strategies, and shall coordinate such strategies within the framework of a conservation strategy for the region.

Article 2, entitled “Development Planning” states:

- 1) The Contracting Parties shall take all necessary measures, within the framework of their respective national laws, to ensure that conservation

and management of natural resources are treated as an integral part of development planning at all stages and at all levels.

2) To that effect they shall, in the formulation of all development plans, give as full consideration to ecological factors as to economic and social ones.

3) The Contracting Parties shall, where necessary, take appropriate action with a view to conserving and managing natural resources of significant importance for two or several Contracting Parties.

This provision thus gives a clear signal that conservation measures should become an automatic part of planning regimes.

Chapter Two of the Agreement contains specific commitments to conservation of biodiversity, in terms of genetic diversity, sustainable use of species, endangered and endemic species and the protection of vegetation and forest cover.²⁷ Article 7 is also of interest, as it contains an early recognition in an international instrument of the importance of soils in the functioning of natural ecosystems, and urges the taking of measures, wherever possible, towards soil conservation, improvement and rehabilitation. A similar provision relating to water is found in Article 8.

The agreement also contains specific provisions in relation to land-use planning. While the emphasis is on natural resources, the thrust of the articles is biodiversity conservation as now understood in the 1992 Convention on Biological Diversity:

The Contracting Parties shall, wherever possible in the implementation of their development planning, give particular attention to the national allocation of land usage. They shall endeavour to take the necessary measures to ensure the integration of natural resource conservation into the land use planning process and shall, in the preparation and implementation of specific land use plans at all levels, give as full consideration as possible to ecological factors as to economic and social ones. In order to achieve optimum sustainable land use they undertake to base their land use plans as far as possible on the ecological capacity of the land.²⁸

The ASEAN Agreement represents a comprehensive approach to the conservation of the environment in the region, and is a basis for detailed regional plans in every area of environmental management, including plans for the conservation of biological resources. For example, the ASEAN Strategic Plan of

Action (1994–1998) includes a strategy for the conservation and sustainable use of biodiversity by promoting the development of a framework of the protection and conservation of endangered species and heritage areas, and strengthening capacities for research and development to enhance biodiversity conservation.²⁹ There is a need, however, for a stronger regional legal regime; a first step would be obtaining the remaining three ratifications to the ASEAN Agreement (from Malaysia, Singapore and Brunei), together with accessions by the newer ASEAN nations of Vietnam, Cambodia, Lao PDR and Myanmar.

Implementing the CBD through national mechanisms

International environmental law can be effective only when implemented by individual countries, preferably acting in concert with others. This is recognized in the approach of the CBD, which includes a wide range of provisions promoting national policies and subsequent legislation. Consistent with other conventions on the environment, these provisions are reasonably general and do not oblige states to adopt specific frameworks or measures. As stated by Birnie and Boyle:

The Convention's aim is provide a broad global framework for the development of measures to conserve the Earth's biodiversity, within which state parties will themselves develop the measures necessary to achieve the objectives that it sets out. It does not list species or habitats to be protected. States are required to develop a national strategy and plan a program for conservation of biodiversity and suitable use of biological resources. The further negotiation of annexes and protocols is emphasised.³⁰

The main provisions in the convention in terms of the development of legislation and planning mechanisms can be summarised as follows:

- A preamble paragraph notes: "Aware of the general lack of information and knowledge regarding biological diversity and of the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures";
- Develop national strategies, plans or programs for the conservation and sustainable use of biological diversity and integrate, as far as possible and appropriate, the conservation and sustainable use of biological diversity into sectoral or cross-sectoral plans, programs and policies (Article 6);
- Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations for in situ conservation (Article 7);

- Regulate and manage collection of biological resources from natural habitats for ex situ conservation so as not to threaten ecosystems and in situ populations of species (Article 8);
- Introduce appropriate procedures for environmental impact assessment of proposed projects that are likely to have significant adverse effects on biological diversity (Article 14);
- Take legislative, administrative or policy measures with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from commercial and other utilization of genetic resources (Article 15 (7));
- Take legislative, administrative or policy measures in relation to providing access to and transfer of technology, on fair and most favourable terms in relation to developing countries, while recognising the existence and influence of patents and other intellectual property rights in relation to technology concerning genetic resources (Article 16).

National biodiversity law

Taken to their full extent, the CBD provisions would involve overhauling national legislative and policy mechanisms to conform to the obligations of state parties under the convention. The CBD is one of a number of conventions which provide national obligations in relation to biodiversity and require a comprehensive and consistent approach.

Recently, Australia has undertaken such a review; the resulting law provides a useful model for action in other countries of the Asia region. The following section sets out the way in which Australia has approached the integration of environmental legal mechanisms at a federal level, and specifically how it has responded to the obligations of various conventions relating to biodiversity.

Biodiversity law in Australia

Australia has made important advances in environmental management, but the rate of species loss as a result of human activity in the past 200 years is a matter of continuing concern. This is reflected in the *GEO 2000 Report*:

Australia: changes to major ecosystems, 1788-1995

- about 40 per cent of all forests have been cleared;
- more than 60 per cent of coastal wetlands in southern and eastern Australia have been lost;
- nearly 90 per cent of temperate woodlands and mallee have been cleared;

- more than 99 per cent of temperate lowland grasslands in southeastern Australia have been lost;
- about 75 per cent of rainforests have been cleared;
- up to 85 per cent of some seagrass beds have died in recent decades;
- the world's worst record of mammal extinctions;
- 10 out of 144 marsupial species and 8 out of 53 native rodent species became extinct over the past 200 years;
- the current status of land animals and plants extinct, endangered or vulnerable includes 5 per cent of higher plants; 23 per cent of mammals; 9 per cent of birds; 7 per cent of reptiles; 16 per cent of amphibians; and 9 per cent of freshwater fish.

In addition, many species have been imported and are creating great damage. These include rabbits (approximately 200 million), foxes (5 million), cats (12 million), goats, Buffel grass, Rubber vine, Para grass, Siam weed, and the fungus *Phytophthora cinnamoni* (a pathogen threatening entire native plant communities in some areas of southern Australia). In addition, at least 55 species of marine fish and invertebrates, plus several seaweeds, have been introduced, either intentionally for aquaculture or accidentally in ships' ballast water or encrusted on their hulls. These species damage marine and coastal environments.³¹

In the past decade, a great deal of research work has been done at the federal and state level to ascertain more clearly the scope of biodiversity, and to develop adequate strategies and plans for its conservation.³² In 1996, the National Strategy for the Conservation of Australia's Biological Diversity was prepared by the Australian and New Zealand Environment and Conservation Council, in consultation with a wide range of federal and state governmental bodies in Australia as well as various groups in New Zealand. It draws direct links with the CBD, recognizes core principles of sustainable development such as the precautionary principle and inter-generational equity and sets out an ambitious series of objectives.³³ Among them is a commitment to support and encourage the development of and Australia's participation in international agreements for the conservation of biological diversity. It also recognizes that the main implementation measure for the CBD is "national strategies, plans or programs, to be developed in accordance with each country's particular conditions and capabilities."³⁴ The strategy states that the conservation of biological diversity should be integrated into decision-making at all levels of government. A specific objective is devoted to ensuring that the Biological Diversity Strategy is complemented by state and territory and bioregional strategies,

supported by effective legislation where necessary.³⁵ This is seen to accord with obligations set out in Article 6 of the CBD (see page 10).

The strategy, based in large part on the obligations found in the CBD, aims to promote: “an integrated approach to the conservation of Australia’s biodiversity, across State and Territory and local government boundaries and to approach national problems with nationwide strategies and standards.”³⁶

The strategy defines the following principles as a guide for implementation:

- biological diversity is best conserved in situ;
- although all levels of government have clear responsibilities, the cooperation of conservation groups, resource users, indigenous peoples, and the community in general is critical to the conservation of biological diversity;
- it is vital to anticipate, prevent and attack at source the causes of significant reduction or loss of biological diversity;
- processes for and decisions about the allocation and use of Australia’s resources should be efficient, equitable and transparent;
- lack of full knowledge should not be an excuse for postponing action to conserve biological diversity;
- the conservation of Australia’s biological diversity is affected by international activities and requires actions extending beyond Australia’s national jurisdiction;
- Australians operating beyond national jurisdiction should respect the principles of conservation and ecologically sustainable use of biological diversity and act in accordance with any relevant national or international laws;
- Central to the conservation of Australia’s biological diversity is the establishment of a comprehensive, representative and adequate system of ecologically viable protected areas integrated with the sympathetic management of all other areas, including agricultural and other resource production systems;
- The close, traditional association of Australia’s indigenous peoples with components of biological diversity should be recognised, as should the desirability of sharing equitably benefits arising from the innovative use of traditional knowledge of biological diversity.

During the development of the strategy, the federal government drafted the *Endangered Species Protection Act*, enacted in 1992. This legislation (now subsumed under the *Environment Protection and Biodiversity Conservation Act 1999*) operated only at a federal level. The state and territories have enacted

a range of legislation to protect endangered species in their jurisdictions. Some have incorporated provisions within national parks and wildlife legislation; others also introduced special legislation.³⁷

Strategy implementation was reviewed in 2001.³⁸ State and local biodiversity strategies have been put in place³⁹ and specific sectoral strategies (i.e. for commercial fishing) are being developed. While much has been achieved, there is still a great deal to be done. The review lists priority actions to 2005, including the establishment of effective cooperative mechanisms between the federal government and the states and territories on bioregional planning and management.⁴⁰ A number of other federal initiatives are also noted in the review, one of the most important of which is the enactment of the *Environment Protection and Biodiversity Conservation Act 1999*.

Box 2. Federal-State environment agreements

Australia has a federal government, plus six states and two territories, each with the power to regulate and manage the conservation and exploitation of the natural resources falling within their borders (unless there is a particular reason for the federal government to intervene). From a constitutional viewpoint, the federal government could in fact intervene to a reasonable extent, but is often constrained by political reasons. As a result of the political limitations on its powers relating to conservation and management of natural resources (and the many legal and political conflicts experienced in the 1980s and early 1990s) the federal government, along with the state and territory governments, negotiated an Intergovernmental Agreement on the Environment in 1992. This set out more clearly the obligations of each level of government. The agreement was incorporated into federal and state statutes, which established a National Environment Protection Council.⁴¹ The *Environment Protection and Biodiversity Conservation Act 1999* is a natural extension of this agreement, and incorporates some of its approach, particularly in its provision for the negotiation of bilateral agreements between the federal government and the state and territory governments. These agreements recognise the respective roles and responsibilities of governments, ensure efficient, timely and effective processes, and minimise duplication in environmental assessment and approval.⁴²

Biodiversity conservation aspects of the Act

An important aspect of the *Environment Protection and Biodiversity Conservation Act* is its integrated approach, placing many of Australia's federal environmental responsibilities under one statute, governed by one set of principles. This contrasts with the traditional approach adopted in many countries, which addresses environment protection and biodiversity conservation in a sectoral manner (i.e. with separate statutes for national parks and wildlife, endangered species and environmental impact assessment). The Act establishes a system for managing matters of "national environmental significance". Foremost among the issues requiring specific environmental approvals from the federal government under the Act are those connected with major international environmental conventions, all of which are related to some aspect of biodiversity conservation. These include the following:

- the World Heritage Convention;⁴³
- the Ramsar Convention on Wetlands;⁴⁴
- Convention on Biological Biodiversity;⁴⁵
- CITES;⁴⁶ and
- The Bonn Convention.⁴⁷

The Act replaced five pieces of Australian legislation and also covers other areas not previously legislated in an explicit fashion. The statutes it replaces are also related to aspects of biodiversity conservation:

- the Environment Protection (Impact of Proposals) Act 1974, which provided for federally mandated environmental impact assessment and environmental inquiries (now found in Chapter 7 of the new Act);
- the *World Heritage Properties Conservation Act 1983*, which gave the federal government the power to protect Australian World Heritage properties, including those within the borders of the states (now covered by subsections 12–15A and a wide variety of related provisions of the new Act);
- the *Australian National Parks and Wildlife Conservation Act 1975*, which was the basis for the Australian National Parks and Wildlife Service (now known as the Biodiversity Unit within Environment Australia, and covered by Chapters 5 and 6 of the new Act);
- the *Whale Protection Act 1989*, which provided for the protection of whales and other cetaceans (now covered in subsections 224–247 of the new Act);
- the *Endangered Species Protection Act 1992*, which provided for the listing and protection of endangered species of flora and fauna (now covered by Chapter 5 of the new Act, from sections 171 to 390J).

The Act does not cover the entire field of environmental concerns at a national level. One controversial omission, which may be addressed over the next year or two, is the implementation of Australia's responsibilities under the 1992 Framework Convention on Climate Change.⁴⁸ In addition, land clearing/land degradation, one of Australia's major environmental problems,⁴⁹ is seen largely as a state and territory issue and is not the subject of any explicit federal approval processes. Both of these omissions are directly related to the conservation of biodiversity.

The Act also incorporated the concept of sustainable development, known in Australia as ecologically sustainable development (ESD). The Act is the most recent federal legislation to incorporate the concept and associated principles.⁵⁰ While the concept as such is not defined in the Act, the principles of ESD (which include a specific provision on biodiversity) are included:

- a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- c) inter-generational equity — in other words the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- e) improved valuation, pricing and incentive mechanisms should be promoted.

These principles are derived from various international sources, including the principles found in the Rio Declaration on Environment and Development of 1992.⁵¹

The Act defines the concept of "ecologically sustainable use of natural resources," a definition which illustrates the influence of the CBD. The Act refers to the concept of "sustainable use", stressing in its preamble:

...the importance of, and the need to promote, international, regional and global cooperation among States and intergovernmental organizations and the non-governmental sector for the conservation of biological diversity and the sustainable use of its components.

This can be compared with the definition of "sustainable use" in Article 2 of the CBD, which reads:

“Sustainable use” means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

The definition “ecologically sustainable use” in the new Act is similar in its thrust, though slightly broader. It focuses on natural resources, rather than components of biological diversity:

ecologically sustainable use of natural resources means use of the natural resources within their capacity to sustain natural processes while maintaining the life-support systems of nature and ensuring that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.⁵²

The Act is intended to provide a comprehensive framework for the protection of the environment in general, and the conservation of biodiversity in particular. It gives the federal Minister for the Environment the power to decide whether a particular action may have a “significant impact” on aspects of the environment under federal jurisdiction, and whether that action should proceed. The action in question includes “a project, a development, an undertaking, an activity or series of activities” (section 523). If the action is determined to have a significant impact, it is prohibited unless the Minister gives approval or declares that approval is not needed. If a “bilateral agreement” is in place between the federal and the state or territory government which gives the state or territory power to decide the matter for itself, ministerial approval is not required.

Bioregional planning under the Act

The Act includes specific provisions for the preparation of bioregional plans. While the provisions are limited to land under federal government control, they are important as an example of how the exercise of bioregional planning can be approached.

The Minister is empowered to prepare plans for bioregions within a Commonwealth area, and is obliged to carry out public consultation on a draft of the plan in accordance with the regulations.⁵³ Importantly, in terms of extending the reach of the federal government, the Minister can cooperate with a state or territory, or an agency of a state or any other person in the preparation of a bioregional plan for a bioregion that is not wholly within a federal area. This cooperation may include giving financial or other assistance.

A bioregional plan can provide for the following:

- a) the components of biodiversity, their distribution and conservation status;
- b) important economic and social values;
- c) objectives relating to biodiversity and other values;
- d) priorities, strategies and actions to achieve the objectives;
- e) mechanisms for community involvement in implementing the plan; and
- f) measures for monitoring and reviewing the plan.

The Minister is obliged to “have regard to” a bioregional plan in making any decision under this Act to which the plan is relevant. The Review of the National Strategy on Biological Diversity states that this provision “is likely to raise the profile of bioregional planning as a way of dealing with ecological concerns”.⁵⁴

While regulations have not yet been made in relation to bioregional planning under the Act, it can be said at this stage of implementation that the National Strategy — and the subsequent biodiversity strategies developed at state and territory level, combined with the mechanisms found in the Act for the conservation of biodiversity — provides a very good basis for the federal government to influence and promote bioregional planning across the continent. The states and territories will likely take on a large amount of responsibility for the day-to-day development of bioregional plans.

The Act requires management plans to be prepared for all federal reserves. This requirement is entirely consistent with the obligation to prepare bioregional plans, and can be regarded in the same light, given the extent of some of the Commonwealth terrestrial and marine reserves. The Act requires the reserves to be categorized according to the categories developed by IUCN; these categories are set out in the Act.⁵⁵

The Act sets out the mandatory content of management plans for the federal reserves, summarised as follows:

1. A management plan must provide for the protection and conservation of the reserve. It must do the following:
 - a) assign the reserve to an IUCN category (whether or not a Proclamation has assigned the reserve or a zone of the reserve to that IUCN category);
 - b) state how the reserve, or each zone of the reserve, is to be managed;
 - c) state how the natural features of the reserve, or of each zone of the reserve, are to be protected and conserved;

- d) if the Director holds land or seabed included in the reserve under lease, the plan must be consistent with the Director's obligations under the lease;
- e) specify any limitation or prohibition on the exercise of a power, or performance of a function, under an Act in or in relation to the reserve;
- f) specify any mining operation, major excavation or other work that may be carried on in the reserve, and the conditions under which it may be carried out;
- g) specify any other operation or activity that may be carried on in the reserve;
- h) indicate generally the activities that are to be prohibited or regulated in the reserve, and the means of prohibiting or regulating them; and
- i) indicate how the plan takes account of Australia's obligations under each agreement with one or more other countries that is relevant to the reserve (including the World Heritage Convention and the Ramsar Convention, if appropriate).

Biodiversity monitoring under the Act

Part 12 of the Act is directed to identifying and monitoring biodiversity. It gives power to the Minister to cooperate with, and give financial or other assistance to, any person for the purpose of identifying and monitoring components of biodiversity, including the following:

- a) identifying and monitoring components of biodiversity that are important for its conservation and ecologically sustainable use;
- b) identifying components of biodiversity that are inadequately understood;
- c) collecting and analysing information about the conservation status of components of biodiversity;
- d) collecting and analysing information about processes or activities that are likely to have a significant impact on the conservation and ecologically sustainable use of biodiversity;
- e) assessing strategies and techniques for the conservation and ecologically sustainable use of biodiversity; and
- f) systematically determining biodiversity conservation needs and priorities.⁵⁶

The components of biodiversity are defined in the Act as including "species, habitats, ecological communities, genes, ecosystems and ecological processes." These directly refer to the components of biological diversity set out in the Convention that are important for its conservation and ecologically sustainable use.⁵⁷ This direct reference to the CBD underlines the fact that the

Act should be interpreted in the light of the definitions in the Convention, as far as relevant, as well as the national obligations under the Convention.

The Act obliges the Minister to prepare inventories that identify and state the abundance of listed threatened species, migratory species and listed marine species on Commonwealth land. It requires Commonwealth land to be covered by an inventory within five years after the commencement of the Act.⁵⁸ Surveys must be done of cetaceans and listed threatened species, ecological communities, migratory species and marine species in federal marine areas within ten years after the commencement of the Act.⁵⁹

Suggested biodiversity planning law and policy elements

Drawing from the Australian experience, some basic elements of law and policy can be identified which may assist in developing more adequate systems of biodiversity planning and conservation in other jurisdictions:

- signature and ratification of international conventions relevant to biodiversity conservation;
- research into the abundance and scope of biological diversity and the making of inventories as a basis for bioregional planning;
- adequate plan-making processes within relevant government departments, both for land which has been minimally affected by development, and for land which has been affected by development activity but retains the capacity to support important elements of biological diversity;⁶⁰
- the making of national biological diversity conservation plans and bioregional plans, with realistic targets and time frames, with built-in review and updating processes;
- incorporation of ethno-biological knowledge in biological diversity conservation plans;
- enactment of national, and, in federal systems, state/provincial legislation to ensure implementation and enforcement of international obligations under the relevant biodiversity conventions;
- taking a “whole of government” legislative approach, i.e. each relevant ministry and department taking a similar approach to the conservation of biological diversity, to ensure that decision-making relating to exploitation is consistent with decision-making about conservation of biodiversity;
- strengthening the capacity of government officials to ensure that plans for biodiversity are developed in conjunction with other aspects of national and local planning, implementation and enforcement;

- establishment and adequate support of governmental institutions concerned with environment protection, national parks and wildlife services and research into conservation matters;
- provision of sufficient financial resources for the implementation, compliance and legal enforcement of plans and associated programs for protected areas, and strict protection of threatened species.

Box 3. A legislative checklist for biodiversity planning and conservation

1. The legislation should implement as far as possible the conventions relevant to biodiversity signed by the country.
2. The definitions of major terms should reflect those found in the relevant conventions.
3. The legislation should include a reference to sustainable development⁶¹ and its associated principles, such as those found in the *Australian Environment Protection and Biodiversity Conservation Act 1999*.⁶²
4. The preparation and review of national, state/provincial biodiversity plans on a regular basis should be made mandatory, as should plans for each sector and priority regions.
5. Biodiversity planning law should be fully integrated with normal spatial planning and environmental impact assessment for all development and conservation management activities, both within and outside cities and other settlements and in rural and natural areas.
6. The protection of threatened species should be explicitly addressed in the legislation.
7. Provision should be made for protected areas according to the categories established by IUCN: strict nature reserve; wilderness area; national park; natural monument; habitat/species management area; protected landscape/seascape; and managed resource protected area.⁶³
8. Management plans should be required for reserves and protected areas (all categories).⁶⁴
9. The community should have the legal right to contribute to planning processes for biodiversity conservation.
10. The traditional knowledge concerning the biological diversity possessed by indigenous communities should be recognised.
11. The legislation should allow for both civil and criminal enforcement of its provisions. Individuals and groups should have open access to the courts to take civil action to enforce the legislation without having to prove standing. The enforcement actions should include injunctions to stop

illegal activities and other court orders to restore or rehabilitate areas damaged by illegal activity. With the leave of the court, criminal actions should also be allowed.⁶⁵

12. In federally organised countries, legislative provision should be made for the central government to cooperate with state/provincial governments on protection and planning processes for biodiversity conservation to ensure a consistent national approach.
13. The legislation should cover both terrestrial and marine environments.
14. The legislation should be broad enough to provide for the use of economic instruments and biodiversity credit schemes.⁶⁶

Conclusion

This chapter provides a brief overview of law at an international and national level which is of relevance to the area of biodiversity planning. The Australian *Environment Protection and Biodiversity Conservation Act 1999* is an example of an integrated nature conservation statute that could be very useful for other countries to study in terms of implementing biodiversity conventions. The problems of implementation of this Act (because of the federal nature of Australia's political and constitutional system) also need to be taken into account. In the Australian system the day-to-day management of natural resources is the responsibility of the states and territories, each of which have their own legislation dealing with biodiversity and related issues. In the Asian region, federally organised countries such as Malaysia would find the political and legal aspects of the new Australian statute of particular interest. The overall thrust of the Act — combining environment protection and biodiversity conservation — will be of interest to any country which is reforming or preparing legislation aimed at promoting biodiversity planning.

In most jurisdictions there is little in the way of specific legislative regimes that relate directly to planning for biodiversity conservation. Other environmental legislation, particularly that which addresses the establishment of national parks and conservation of wildlife (both within and outside protected areas), can provide the framework for such planning. But policy makers — both at the political and administrative level — still must be convinced of the need to introduce specific legislation to integrate conservation of biological diversity into all levels of decision-making. Building the capacity of government officials to understand the implications of improved legislative regimes for environmental conservation is an important first step in promoting the idea of drafting specific legislation for biodiversity planning and conservation.

Endnotes

1. The North American Agreement on Environmental Cooperation, which established the tri-national Commission on Environmental Cooperation between Mexico, Canada and the United States.
2. Issues relating to trade and the environment, including issues relating to biological diversity, such as trade in forest products, are determined by special panels established by the World Trade Organization.
3. See for example J.C. Dernbach, "Sustainable Development as a framework for national governance" (1998) 49 *Case Western Reserve Law Review* 1-103; Ben Boer, "Institutionalising Ecologically Sustainable Development: The Roles of National, State and Local Governments in Translating Grand Strategy into Action" 31 *Willamette Law Review* (1995) 307; note also that the World Summit on Sustainable Development, planned for September 2002 in Johannesburg will no doubt add further force to this debate.
4. 996 UNTS 245
5. 993 UNTS 243
6. (1990) 19 International Legal Materials 15
7. (1992) 31 International Legal Materials 1312
8. (1994) 33 International Legal Materials 1328
9. (183) 22 International Legal Materials 455
10. Rio Declaration on Environment and Development (1992) 31 International Legal Materials 874.
11. United Nations 1992.
12. Non-binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests (1992) 31 International Legal Materials 881.
13. For some of the subsequent history of the Forest Principles, particularly in relation to the establishment of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests, see Ben Boer, "Developments in International Environmental Law Relating to Forests" (1997) 14 *Environmental and Planning Law Journal* 378-385. The Forum, established by the Commission on Sustainable Development, is now proposed to be developed into a United Nations Forum on Forests (UNFF). The Intergovernmental Panel, in its final report to the Commission on Sustainable Development in 2000, also recommended that the United Nations Economic and Social Council and the General Assembly within five years consider "recommending the parameters of a mandate for developing a legal framework on all types of forests": (2000) 11 *Yearbook of International Environmental Law* 33; see also the report of the Intergovernmental Forum of Forests of the Commission on Sustainable Development in 2000, at <http://www.un.org/documents/ecosoc/cn17/2000/ecn172000-14.htm>. The report emphasizes, among other things, "planning and management on an ecosystem basis, in which special emphasis should be put on the continued integrity of genetic diversity".

14. The Program for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-First Century, developed in 2000, known as the Montevideo Program III, was adopted by the Governing Council of the United Nations Environment Program in February 2001; Decision 21/23 of the 2001 Governing Council of UNEP, February 2001; this is the third UNEP review of Environmental law, the first being completed in Montevideo in 1980 and the second in 1993.

15. See further below.

16. Martin Holdgate, *The Green Web*, Earthscan 1999, p. 214.

17. Association of South East Asian Nations.

18. *GEO 2000: Global Environmental Outlook*, United Nations Environment Program, Chapter 2; (references excluded).

19. See note 18, Chapter 2; for an overview of developments in environmental law in the Asian region see Ben Boer, "The Rise of Environmental Law in the Asian Region" (1999) 32 *University of Richmond Law Review* 1503-1553.

20. The main environmental legislation in these countries is as follows: Malaysia: *Environmental Quality Act 1974*; Indonesia: Law Concerning Environmental Management, (Law No. 23, 1997) Singapore: no framework environmental law, but has effective and well-implemented sectoral and specific laws; Philippines: no omnibus legislation, but a range of sectoral environmental laws; Brunei does not have any framework environmental legislation, but has a range of sectoral laws; see <http://sunsite.nus.edu.sg/apcel/dbase/brunei/reportb.html#Top>; Cambodia Law on Environmental Protection and Natural Resource Management 1996; Laos: no framework environmental law enacted as yet, but has some sectoral environmental laws; Vietnam: Law on Environmental Protection, 1993; Myanmar: no umbrella environmental legislation but a range of sectoral environmental laws; Thailand: *Enhancement and Conservation of National Environmental Quality Act 1992*.

21. This and the preceding instruments are found in Kheng Lian Koh (ed.). *Selected ASEAN Documents on the Environment*, APCEL Document Series, 1996, Asia Pacific Centre for Environmental Law, Faculty of Law, National University of Singapore.

22. (1996) 35 *International Legal Materials* 635.

23. See Koh *supra* note 21, 4.

24. For a detailed overview of the ASEAN environment programs, see Institute for Global Environmental Strategies, *Regional/Subregional Environmental Cooperation in Asia*, Kanagawa, Japan, February 2001, Chapter 3: Environmental Cooperation in Southeast Asia (ASEAN).

25. ASOEN was based on an earlier initiative, the ASEAN Experts Group on the Environment, which met annually from 1978.

26. The Working Groups are: Nature Conservation (now known as Nature Conservation and Biodiversity), ASEAN Seas and Marine Environment, Transboundary Pollution, Environmental Management, Environmental Economics and Environmental Information, Public Awareness and Education; see [http://www.aseansec.org/Joint Press Release, Ninth Meeting of the ASEAN Senior Officials on the Environment, Singapore, 23–25 September 1998](http://www.aseansec.org/Joint%20Press%20Release%20Ninth%20Meeting%20of%20the%20ASEAN%20Senior%20Officials%20on%20the%20Environment%20Singapore%2023-25%20September%201998).

27. See Articles 2 to 6.
28. See Article 12.
29. Institute for Global Environmental Strategies, note 23, above, at p 41.
30. P.W. Birnie and Alan Boyle. *Basic Documents on International Law and the Environment*, Oxford 1995, p. 390.
31. See note 18, above, chapter 2; the material is noted as being drawn from Commonwealth of Australia, *State of the Environment Report 1996*.
32. *National Strategy for the Conservation of Australia's Biological Diversity*, Dept. of the Environment, Sport and Territories.
33. Note 32 at p 5.
34. Note 32 at p 39.
35. Note 32, Objective 7.3, at p 43.
36. Introduction, National Strategy for the Conservation of Australia's Biological Diversity.
37. For example the *Threatened Species Act 1995* in New South Wales.
38. *Review of the National Strategy for the Conservation of Australia's Biological Diversity*, Australian and New Zealand Environment and Conservation Council (ANZECC) June 2001.
39. For example the *New South Wales Biodiversity Strategy*, National Parks and Wildlife Service 1999.
40. See note 39, page 100, Appendix C. The National Strategy for the Conservation of Australia's Biological Diversity: Priority actions for 2005. By the year 2005 Australia will have done the following:
 - a) established effective cooperative mechanisms for bioregional planning and management;
 - b) implemented management plans for the protected area network;
 - c) established a system of voluntary or cooperative reserves, or both, and other management schemes on private lands to complement the protection provided by the public estate in protected areas;
 - d) established networks of community groups and volunteers that play major roles in managing and monitoring biological diversity at the district level;
 - e) local governments that have assumed a major role in the conservation of Australia's biological diversity;
 - f) demonstrated maintenance of regional and district floras and faunas;
 - g) successfully rehabilitated at least ten endangered or vulnerable species;
 - h) successfully controlled three introduced mammals, ten introduced plants and one pathogen that pose major threats to biological diversity; and
 - i) sufficient information from long-term monitoring and other research to identify and understand the nature and extent of threats to Australia's biological diversity to develop actions for dealing with those threats.

41. See *National Environment Protection Council Act 1994*, and similar legislation at state and territory level; for some of the earlier history of the Intergovernmental Agreement, see Ben Boer, "Environmental and Resource Law in Australia" (1993) *Osgoode Hall Law Journal* 327
42. See Chapter 3, *Environment Protection and Biodiversity Conservation Act 1999*; only one bilateral agreement has been signed so far, between the federal and Tasmanian governments.
43. 1972 Convention for the Protection of the World Cultural and Natural Heritage 1037 UNTS 151.
44. 1971 Convention on Wetlands of International Importance, Especially as Waterfowl Habitat 996 UNTS 245.
45. 1992 Convention on Biological Diversity (1992) 31 International Legal Materials 818.
46. 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora 993 UNTS 243.
47. 1979 Convention on the Conservation of Migratory Species of Wild Animals (1980) 19 International Legal Materials 15.
48. (1992) 31 International Legal Materials 849; the extension of the Act to climate change issues is under consideration.
49. See Kate Lecchi, "Australia leads the World!...in Land Clearing Rates" (2001) 29 *Habitat* 22, and "New data reveal Australian land clearing rates 22% worse", Australian Conservation Foundation 2001. This research indicates that Australia is now fifth in the world on the list of land-clearing countries, after Brazil, Indonesia, Sudan and Zambia. See <http://www.acfonline.org.au/asp/pages/document.asp?IdDoc=603>
50. There are some 22 other pieces of federal legislation, dating from 1989 (the *Resource Assessment Commission Act 1989*) to include reference to sustainable development).
51. See note 9, above.
52. *Environment Protection and Biodiversity Conservation Act 1999* s 528.
53. No regulations have yet been promulgated on this subject.
54. See note 39, at page 18.
55. Section 346 (1); see further under Legislative Checklist below.
56. Section 171 (2).
57. Section 171 (3). Those matters are set out in Annex I to the Biodiversity Convention under Identification and Monitoring: 1. Ecosystems and habitats: containing high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes; 2. Species and communities which are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; or

social, scientific or cultural importance; or importance for research into the conservation and sustainable use of biological diversity, such as indicator species; and 3. Described genomes and genes of social, scientific or economic importance.

58. Section 172.

59. Section 173.

60. See for example J.A. McNeeley and S.J. Scherr, *Common Ground Common Future: How Ecoagriculture can help feed the world and save wild biodiversity*, IUCN and Future Harvest 2001. Ideally, the term "ecologically sustainable development" should be used, to emphasize the centrality of the protection of ecosystems in environmental decision-making. It is worth noting in passing that this term has now been adopted in environment-related legislation in all nine Australian jurisdictions; see Paul Stein "Are decision-makers too cautious with the Precautionary Principle?" 17 (2000) *Environmental and Planning Law Journal* 3, at 23, where it is noted that over 130 statutes now incorporate reference to principles of ecologically sustainable development.

62. See note 52.

63. See *Environment Protection and Biodiversity Conservation Act 1999* section 346.

64. See note 49, sections 265-373.

65. For example, criminal enforcement actions by individuals with the leave of the Court are allowed by the *Protection of the Environment Operations Act 1997* (New South Wales), section 219.

66. See for example Judson Agius, "Biodiversity credits: creating missing markets for biodiversity" (2001) 18 *Environmental and Planning Law Journal* pp. 481-503.

