Thematic report on protected areas or areas where special measures need to be taken to conserve biological diversity

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Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report.

Information on terrestrial protected areas contained in this report relates to documents and discussions from joint Commonwealth-State/Territory processes in developing the Interim Biogeographic Regions of Australia, the Collaborative Australian Protected Area Database, the Australian Guidelines for the Development of the National Reserve System and the draft Directions Statement for the Development of the National Reserve System, and other discussion between Parks Australia and the State/Territory park agencies and non-government organisations involved in the National Reserve System Program.

For marine protected areas information contained in this report relates to documents and discussions from joint Commonwealth-State/Territory processes in developing the Interim Marine and Coastal Regionalisation for Australia, the Collaborative Australian Protected Area Database, the Guidelines for Establishing the National Representative System of Marine Protected Areas and the Strategic Plan of Action for the National Representative System of Marine Protected Areas, Australia's Oceans Policy, marine planning processes in each jurisdiction, and other discussion between Parks Australia and the other Commonwealth and State/Territory park and fisheries management agencies and non-government organisations involved in establishing the National Representative System of Marine Protected Areas.

Protected areas or areas where special measures need to be taken to conserve biological diversity

System of protected areas

1.	. What is the relative priority afforded to development and implementation of a national system of protected areas in the context of other obligations arising from the Convention and COP Decisions?								
a)) High X (see below) b) Medium c) Low								
2.	2. Is there a systematic planning process for development and implementation of a national system of protected areas?								
	a) no								
	b) in early st	ages of developme	ent						
	c) in advance	ed stages of develo	pment						
	d) yes, please provide copies of relevant documents describing the process X (see below								
3.	3. Is there an assessment of the extent to which the existing network of protected areas covers all areas that are identified as being important for the conservation of biological diversity?								
	a) no								
	b) an assessment is being planned for								
	c) an assessn	nent is being under	rtaken						
	d) yes, please	e provide copies o	f the assessments	made			X (see below)		

${\it Regulatory\ framework}$

4.	Is there a policy framework and/or enabling legislation in place for the management of protected areas?	establishment and
	a) no	
	b) in early stages of development	
	c) in advanced stages of development	
	d) yes, please provide copies of relevant documents	X (see below)
5.	Have guidelines, criteria and targets been adopted to support selection, management of protected areas?	establishment and
	a) no	
	b) in early stages of development	
	c) in advanced stages of development	
	d) yes, please provide copies of guidelines, criteria and targets	X (see below)

6.	6. Does the management of protected areas involve the use of incentive measures, for instance, or entrance fees for park visitors, or of benefit-sharing arrangements with adjacent communities and other relevant stakeholders?							
	a) no							
	b) yes, incentive measures implemented for some protected areas (please provide some examples)	X (see below)						
	c) yes, incentive measures implemented for all protected areas (please provide some examples)							

Management approach

	11d11dgemeile dpp1edeil	
7.	Have the principal threats to protected areas and the biodiversity that they conta that programmes can be put in place to deal with the threats, their effects and drivers?	
	a) no	
	b) an assessment is being planned for	
	c) an assessment is in process	
	d) yes, an assessment has been completed	
	e) programmes and policies to deal with threats are in place (please provide basic information on threats and actions taken)	X (see below)
8.	Are protected areas established and managed in the context of the wider region in located, taking account of and contributing to other sectoral strategies?	which they are
	a) no	
	b) yes, in some areas	X (see below)
	c) yes, in all areas (please provide details)	
9.	Do protected areas vary in their nature, meeting a range of different management being operated through differing management regimes?	objectives and/or
	a) no, most areas are established for similar objectives and are under similar management regimes	
	b) many areas have similar objectives/management regimes, but there are also some exceptions	
	c) yes, protected areas vary in nature (please provide details)	X (see below)
10.	. Is there wide stakeholder involvement in the establishment and management of pr	otected areas?
	a) no	
	b) with some, but not all protected areas	
	c) yes, always (please provide details of experience)	X (see below)

11. Do protected areas established and managed by non-government bodies, citizen groups, private sea and individuals exist in your country, and are they recognized in any formal manner?				
a) no, they do not exist				
b) yes, they exist, however are not formally recognized				
c) yes, they exist and are formally recognized (please provide further information)	X (see below)			

Available resources

2. Are the human, institutional and financial resources available adequate for full implementation of the protected areas network, including for management of individual protected areas?						
a) no, they are severely limiting (please provide basic information on needs and shortfalls)						
b) no, they are limiting (please provide basic information on needs and shortfalls)						
c) Available resources are adequate (please provide basic information on needs and shortfalls)	X (see below)					
d) yes, good resources are available						
13. Has your country requested/received financial assistance from the Global Environ other international sources for establishment/management of protected areas?	ment Facility or					
a) no	X					
b) funding has been requested, but not received						
c) funding is currently being requested						
d) yes, funding has been received (please provide copies of appropriate documents)						

Assessment

14. Have constraints to implementation and management of an adequate system of protected areas been assessed, so that actions can be initiated to deal with these constraints?				
a) no				
b) yes, constraints have been assessed (please provide further information)				
 c) yes, actions to deal with constraints are in place (please provide further information) 	X (see below)			
15. Is a programme in place or in development to regularly assess the effectiveness of management and to act on this information?	protected areas			
a) no				
b) yes, a programme is under development (please provide further information)	X			
c) yes, a programme is in place (please provide further information)				

16. Has any assessment been made of the value of the material and non-material bene that protected areas provide?	fits and services
a) no	
b) an assessment is planned	X
c) an assessment is in process	
d) yes, an assessment has been made (please provide further information)	

Regional and international cooperation				
17. Is your country collaborating/communicating with neighbouring countries in the emanagement of transboundary protected areas?	establishment and/or			
a) no	X			
b) yes (please provide details)				
18. Are key protected areas professionals in your country members of the IUCN Wor Protected Areas, thereby helping to foster the sharing of information and experien				
a) no				
b) yes	X			
c) information is not available				
19. Has your country provided information on its protected areas to the UNEP World Monitoring Centre in order to allow for a scientific assessment of the status of the areas?				
a) no				
b) yes	X			
20. If your country has protected areas or other sites recognised or designated under a convention or programme (including regional conventions and programmes), plear reports submitted to those programmes or summaries of them. (See below.)				
21. Do you think that there are some activities on protected areas that your country has experience that will be of direct value to other Contracting Parties?	as significant			
a) no				
b) yes (please provide details)	X (see below)			

Further comments

Q1. Support for the development and implementation of a national system of protected areas

In Australia the nine separate terrestrial protected area systems in each of the jurisdictions (States, Territories and Commonwealth lands) that make up the federation of Australia are collectively known as the National Reserve System (NRS), while the eight separate marine protected area systems in each of the jurisdictions are collectively known as the National Representative System of Marine Protected Areas (NRSMPA).

At the national level the NRS goal of the establishment and maintenance of a "Comprehensive, Adequate and Representative System of Reserves" for Australia is endorsed by the Commonwealth, State and Territory Governments, as signatories to the National Strategy for Conservation of Australia's Biological Diversity (NSCABD), the National Strategy for Ecologically Sustainable Development, and the National Forest Policy Statement (Commonwealth of Australia 1992).

{Additions to the NRS come from a variety of sources including the dedication of crown lands to protected area status from other uses either on a parcel by parcel basis or a series of parcels stemming from a strategic exercise such as the regional forest agreement process, the purchase of specific properties on the open market by park agencies and bequests from private land holders to park agencies. Additions to the NRSMPA occur when governments permanently protect marine areas, usually through integrated marine planning processes, under fisheries or park management laws, with the effect of protecting biodiversity.}

The National Objectives and Targets for Biodiversity Conservation 2001-2005 (June 2001), signed by the Commonwealth and five States and Territories included as a target:

By 2005, a representative sample of each bioregion (as specified by the NRS Direction Statement) is protected within the National Reserve System or network of Indigenous Protected Areas or as private land managed for conservation under a conservation covenant.

Q2. Systematic Planning Processes for development and implementation of a national system of protected areas

Q2.1 Terrestrial Environment

Each jurisdiction has systematic planning processes for the protection of biological diversity including the development of their protected area estate.

Planning processes for the development of the NRS vary considerably between the jurisdictions, as does the environmental information frameworks, including vegetation mapping techniques and typology. Several jurisdictions have developed sophisticated expert systems for developing reserve optimisation strategies to inform planning processes. Examples of such expert systems include Cplan and CORE developed by the National Parks and Wildlife Service in New South Wales and REST used in the Regional Forest Agreement process (now titled Ecoplan) by Environment Australia. The Wildlife and Ecology Division of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have also played an important role over the years in developing standards for environmental data collection and new approaches to environmental data interpretation and analysis. Much of this work is directly relevant to planning the development of the national reserve system.

Since 1993, the Commonwealth Government, in cooperation with the State and Territory Governments, has run a grants program, titled the National Reserve System Program, to help develop further the NRS. The NRSP has provided a focus for developing scientific and policy frameworks to address reserve establishment across Australia to ensure that there is a common approach towards the development of the

NRS. Cornerstones of this approach have been a commitment by all jurisdictions towards the development of a comprehensive, adequate and representative (CAR) system of protected areas and the use of the Interim Biogeographic Regionalisation for Australia (IBRA) as the framework to plan and track progress towards meeting CAR objectives.

Since 1996, the Commonwealth Government significantly increased funding for the NRSP by providing \$76 million for the acquisition or covenanting of lands for inclusion in the NRS and has agreed to continue the program until 2006 which includes support for private protected areas and Indigenous Protected Areas (see Q11)

The Interim Biogeographic Regionalisation for Australia (IBRA)

A major tool for the development of the National Reserve System is the division of the Australian continent into regions based on natural boundaries, rather than State or Territory borders. The 85 biogeographic regions are defined by the major ecosystems present in each region and reflect patterns in geology, landform, soils, vegetation, fauna and climate. The development of this regionalisation is outlined in Thackway and Cresswell 1995 *An Interim Biogeographic Regionalisation for Australia* and the development of the current version (Version 5.1) in Environment Australia 2000 *Revision of the Interim Biogeographic Regionalisation for Australian*.

The IBRA is a cooperative approach by all nature conservation agencies to define the ecological patterns of the Australian continent. It has provided an important stratification of Australia's natural environment given the absence of a continental ecosystem or vegetation mapping and the strong relationship between the occurrence of Australia's biota and the physical environmental parameters included in IBRA. The regionalisation has been used to indicate gaps in the reserve system and as a framework for addressing the protection of native ecosystems, ie the comprehensiveness of the NRS. Some jurisdictions utilise or are considering linking vegetation mapping to bioregional boundaries. Queensland for example has mapped regional ecosystem types, delineating vegetation communities found within each bioregion. It is the goal of the National Vegetation Information System to provide a framework for unifying the varying vegetation mapping techniques and classifications used by the jurisdictions and develops a continental picture of the status of Australia's native vegetation. More information on NVIS can be found at: http://audit.ea.gov.au/ANRA/vegetation/vegetation frame.cfm?region type=AUS®ion code=AUS&info=NVIS framework.

Major geomorphic units within the bioregions have also been delineated as sub-regions to a detailed scale in many jurisdictions which, because of the strong relationship between land use and the sub-regions, provide a useful stratification for addressing threatening processes to native biota and the representativeness of the NRS, ie addressing ecosystems across their geographic range.

Future directions for the development of the National Reserve System

One key Commonwealth/State initiative for planning the future of the NRS has been the development of a *Directions Statement for the National Reserve System*. This is being prepared to assist government agencies, non-government organisations and the community in the ongoing development of this National Reserve System, and to assist stakeholders in the understanding of this process. The need to adequately mange protected areas, monitor, data sharing, standards for protection and future consideration of targets will be discussed in the paper.

Q2.2 Marine Environment

In the early 1990s Australian governments identified a need to protect representative examples of the full range of marine ecosystems and habitats in marine protected areas. The goal of the NRSMPA is:

to establish and manage a comprehensive, adequate and representative system of marine protected areas to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems, and to protect Australia's biological diversity at all levels. Tthe National Representative System of Marine Protected Areas (NRSMPA) common basis is the Interim Marine and Coastal Regionalisation for Australia Version 3.3 (1998) (IMCRA) and a nationally agreed policy framework, comprising Guidelines for Establishing the National Representative System of Marine Protected Areas (1998) (see Q 5) and the Strategic Plan of Action for the National Representative System of Marine Protected Areas (1999).1 The nationally agreed policy framework for the establishment of the NRSMPA represents an agreed collective effort of all jurisdictions.

Interim Marine and Coastal Regionalisation for Australia (IMCRA)

IMCRA is an agreed regional framework for planning resource use and biodiversity conservation including establishing the NRSMPA. The framework's ecosystem-scale (100s – 1000s kilometres) classification of the Australian continental shelf has identified 60 bioregions in Australian waters.

As the agreed planning framework for marine conservation IMCRA provided the basis for developing a nationally agreed policy framework to support the identification and selection of marine protected areas. IMCRA continues to underpin the identification and selection of marine protected areas and jurisdictions seek to locate at least one marine protected area in each bioregion as part of developing the NRSMPA.

IMCRA is increasingly being used as a framework for national and local marine and natural resource management and planning processes. In recent years all jurisdictions have carried out surveys and analyses that will be used to refine and enhance IMCRA.

Strategic Plan of Action for the National Representative System of Marine Protected Areas

The Strategic Plan of Action integrates the policy and planning framework and outlines a set of actions to achieve the goals of the NRSMPA. The Plan provides a guide to understanding the NRSMPA by defining it in the context of an array of existing mechanisms and agreements that promote the conservation of Australia's marine biodiversity. The Plan concentrates on the establishment of NRSMPA, including performance assessment for the System, and a set of actions that reflect both national intention and government priorities. The Plan is a long-term national blueprint. It is not useful to monitor and report on it at periods of less than one year. Australian governments collaborate on key actions to implement the Plan.

Jurisdiction-based marine planning

State, Northern Territory and Commonwealth governments are developing and implementing marine planning processes separately to integrate management of the various uses of the marine environment, and specifically to identify areas for inclusion in the NRSMPA, based on the agreed policy framework. Most jurisdictions are finalising or have developed strategic policies to guide the establishment of marine protected areas within their jurisdiction.

With the largest marine jurisdiction, the Commonwealth Government is implementing *Australia's Oceans Policy* (1998), which outlines commitments and actions to the ongoing establishment of the NRSMPA for conservation purposes and to give regional security for industry access to ocean resources and their sustainable use. The integration of environmental, economic, social and cultural ocean uses are fundamental to the broad principles established in the Oceans Policy. The mechanism for achieving integration is to develop Regional Marine Plans based on large marine ecosystems.

National coordination

1.

Coordination is achieved through a national working group of officials representing each jurisdiction. The working group and each jurisdiction is working to implement relevant actions identified in the Strategic Plan of Action for the National Representative System of Marine Protected Areas. For example, the working group has developed an agreed basis for <u>Understanding and Applying the Principles of</u>

	1 The Mari	ne P	rotected	Areas	Program	website	will	change	in	mid-2003	. Some	referer	ices	provided here	may	be
located	elsewhere	on	the	revised	websit	te. All	ρι	ıblicatioı	ns	will c	ontinue	to	be	accessible	throu	igh
http://ww	w.ea.gov.au/	coast	ts/public	ations/.												

<u>Comprehensiveness</u>, <u>Adequacy and Representativeness for the NRSMPA</u> and reviewed the extent of marine habitat mapping nationally.

The Commonwealth Government has provided extensive funding over the past decade under a range of grants programs, most recently the Natural Heritage Trust's *Coasts and Clean Seas* program, to progress establishment of the NRSMPA, including funding provided to the States and Northern Territory for work to map habitats, develop planning approaches, and declare new marine protected areas.

Progress in establishing NRSMPA since 1992

The following table shows the current status of marine protected areas (MPAs) within jurisdictions, including:

- the proportion of IMCRA mesoscale bioregions that have marine protected areas (note that the table does not show IMCRA pelagic or demersal provinces and biotones)
- new marine protected areas declared since 1992
- new marine protected areas declared that have management plans or similar
- existing marine protected areas extended since 1992
- additional areas identified for possible future protection within an marine protected area
- whether each jurisdiction has a strategic framework for establishing a representative system of marine protected areas.

Jurisdiction	Bioregions with MPAs / Number of bioregions	MPAs declared since 1992	MPAs declared since 1992 with management plans in place	Existing MPAs extended since 1992	Further possible MPAs identified	MPA strategic process in place
Commonwealth	5/53	8	7	2	22	Yes
New South Wales	3/5	37	2	7	>20	Yes
Northern Territory	4/13	2	0	0	0	No
Queensland	11/13	5	5	1	10	Draft
South Australia	6/8	1	1	0	19	Draft
Tasmania	2/8	1	1	0	>10	Yes
Victoria	4/5	24	*	0	0	Yes
Western Australia	8/18	0	0	0	12	Yes
TOTAL	38/60	78	16	10	>93	Yes

^{*}Management plans for each reserve will be completed within 3 years and in the interim, a management strategy covering all reserves provides guidance on management direction.

Note: There are considerable variations between jurisdictions of the amount of area managed, population density and the level of marine use. For example, much of the marine area managed by the Northern Territory Government is extremely remote with little or no use. Obviously, each jurisdiction has significantly different limitations and requirements directing their approach to the conservation of biodiversity and the implementation of the NRSMPA.

Future Directions for the development of the National Representative System of Marine Protected Areas

The development of jurisdictional marine planning initiatives has seen an acceleration in the numbers of areas being identified for possible protection. This is particularly true for the Commonwealth Government, with the first Regional Marine Plan identifying 11 broad areas of interest off south-eastern Australia for further assessment. On the other hand, the Victorian Government has established an entire system of marine protected areas representative of the bioregions within its marine jurisdiction.

For heavily used marine protected areas, establishing detailed zoning schemes that adequately protect biodiversity while allowing ecologically sustainable activities, including fishing, is likely to be a priority.

Recent examples include the Solitary Islands Marine Reserve and Great Barrier Reef Marine Park.

Another emerging priority is the need to coordinate research efforts to report on the performance of the NRSMPA in protecting Australia's marine ecosystems.

The Collaborative Australian Protected Areas Database (CAPAD)

In order to assess the extent of the National Reserve System and National Representative System of Marine Protected Areas, Environment Australia collates a database of protected areas named the Collaborative Australian Protected Areas Database (CAPAD). CAPAD, through the supply of spatial and attribute information, is a national of all declared protected areas in Australia that have been allocated an IUCN category. The update of the CAPAD dataset is undertaken biannually.

CAPAD has been complied on three occasions with datasets being produced in 1997, 1999/2000 and 2002. The allocation of an IUCN category allows the comparison of a diverse array of legislation and reserve types within and across jurisdictions. This comparison provides the framework to produce statistics on the National Reserve System in Australia as shown in Table 1. Australia's marine protected areas are summarized in Table 2.

Table 1: Summary of Australian Terrestrial Protected Areas by IUCN Categories (CAPAD2002)

IUCN Category	Number of Reserves	Hectares
Category IA	2,006	18,103,255
Category IA (Heritage Agreement Areas)	1,244	586,358
Category IB	32	3,963,356
Category II	641	28,766,907
Category III	696	390,948
Category IV	1,528	2,225,208
Category V	174	789,071
Category VI	456	22,640,674
Totals	6,812	77,488,801
PA as % of total land area (ha) of the		10.08%
Australian mainland		

 Table 2: Summary of Australian Marine Protected Areas (CAPAD2002)

IUCN Category	Number of Reserves	Hectares
Category IA	12	15,192,688
Category IB	2	202
Category II	20	2,140,279
Category III	0	0
Category IV	106	12,045,534
Category V	0	0
Category VI	38	35,236,024
Totals	178	64,614,727

NB An individual marine protected area may have multiple management zones. Each protected areas is assigned an IUCN management category based on category of dominant management zone. Area calculations are based on areas calculated for the management zones.

Q3 Assessing the Adequacy of the National Reserve System

3.1 Terrestrial Environment

The States and Territories have a range of internal processes for assessing the adequacy of their protected area estate that relate to the status of native vegetation communities and flora and fauna species. In addition there are myriad strategic policy initiatives that relate to bioregional planning frameworks, issue-

specific analyses such as forest conservation or planning in the rangelands or coastal zone. These are implemented through the maintenance of data systems on native flora and fauna, the establishment of taskforces or steering committees to oversee thematic analyses or strategic planning in particular regions. Some jurisdictions, including the Commonwealth have developed expert systems to identify gaps in the current reserve system and assess conservation and resource utilisation options. For example the Regional Forest Agreement process addressed conservation options within Australia's hardwood forests using expert systems to delineate key areas for protection.

Priorities for funding under the NRSP are reviewed by Environment Australia on a regular basis based on new information on the status of Australia's flora and fauna and gains in the level of protection.

An important Commonwealth Government initiative has been the establishment of the National Land and Water Resources Audit (NLWRA) under the Natural Heritage Trust which undertook a series of assessments which have provided information for the 2001 State of the Environment Reporting and the development of Natural Resource Management polices and strategies. Three assessment in particular have provided continental overviews of the status of Australia's biodiversity:

- 1. Landscape Health in Australia 2001
 (http://audit.ea.gov.au/ANRA/vegetation/vegetation_frame.cfm?region_type=AUS®ion_code
 =AUS&info=landscape_health)
- 2. Australian Native Vegetation Assessment 2001
 (http://audit.ea.gov.au/ANRA/vegetation/vegetation_frame.cfm?region_type=AUS®ion_code
 =AUS&info=veg type) and
- 3. Terrestrial Biodiversity Audit 2002 (http://audit.ea.gov.au/ANRA/vegetation/vegetation_frame.cfm?region_type=AUS®ion_code = AUS&info=bio asses).

Work is continuing on the development of the National Vegetation Information System (NVIS) improving our understanding of the extent and status of native ecosystems.

O3.2 Marine Environment

As part of implementing the Strategic Plan of Action (see response to Q.2) in 2001 Australian governments identified the extent of continental shelf bioregions ("IMCRA mesoscale bioregions") protected in the NRSMPA (see also Table in response to Q.2). This work was used to identify 41 bioregions that are possible priorities for additional marine protected areas due to the low percentage of area included within established marine protected areas. Other factors, especially, the actual level of threat to biological diversity in those bioregions, remain to be considered.

Deepwater bioregions are being assessed in a sequential manner under the Commonwealth government's regional marine planning process. In addition, the protection afforded to the large area covered by the Great Barrier Reef Marine Park is being refined with the identification of a system of highly protected zones that include representative samples of the area's bioregions."

Q4. Enabling Legislation

Commonwealth

The Federal Government is responsible for two key pieces of legislation regarding establishment and management of protected areas.

The Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth EPBC Act provides for the establishment and management of Commonwealth reserves, which include national parks, botanic gardens and marine reserves. In addition, the Act promotes the conservation of biodiversity by providing strong protection for:

- listed species and communities in Commonwealth areas (this includes listed threatened species and ecological communities, listed migratory species and listed marine species);
- cetaceans (all whales, dolphins and porpoises) in Commonwealth waters and outside Australian

waters:

- protected species in the Territories of Christmas Island, Cocos (Keeling) Islands and Coral Sea Islands; and World Heritage properties; Ramsar wetlands; Biosphere reserves; and conservation zones.
- wildlife species and wildlife products subject to international trade.

Parks Australia works closely with the jurisdictions and Wildlife Australia to ensure that the presence of listed species or communities are taken into consideration when assessing the potential contribution of Natural Heritage Trust applications for the development of a comprehensive, adequate and representative national reserve system.

The EPBC Act also enables the Commonwealth to enter into conservation agreements with landholders where appropriate and where State/Territory covenanting mechanisms are not used. Through the Act's bilateral agreements with the States, the NRSP will ensure that conservation agreements adequately protect private and leasehold land protected areas. For further information on the EPBC Act see: http://www.ea.gov.au/epbc/index.html

Great Barrier Reef Marine Park Act 1975

The *Great Barrier Reef Marine Park Act 1975* is the primary Act in respect of the Great Barrier Reef Marine Park. It includes provisions which:

- establish the Great Barrier Reef Marine Park
- establish the Great Barrier Reef Marine Park Authority, a Commonwealth authority responsible for the management of the Marine Park
- establish the Great Barrier Reef Consultative Committee to advise the Minister and the GBRMPA
- provide a framework for planning and management of the Marine Park, including through zoning plans, plans of management and permits
- prohibit operations for the recovery of minerals (which includes prospecting or exploration for minerals) in the Marine Park (unless approved by the GBRMPA for research)
- require compulsory pilotage for certain ships in prescribed areas of the Great Barrier Reef Region
- provide for regulations, collection of environmental management charge, enforcement etc.

For further information see: http://scaleplus.law.gov.au/html/pasteact/0/306/top.htm

State and Territory Legislation

A suite of State and Territory legislation is applicable to the establishment and management of protected areas. Some legislation is applicable to wildlife protection both within and outside of protected, but the key legislation for the establishment of protected areas is listed below for each state and territory of Australia.

Queensland	Nature Conservation Act 1992
New South Wales	National Parks and Wildlife Act, 1974 (NPW Act), Wilderness Act, 1987
Australian Capital Territory	Land (Planning and Environment) Act 1991
Victoria	National Parks Act 1975, Victorian Conservation Trust Act 1972
Tasmania	National Parks and Wildlife Act 1970
South Australia	National Parks and Wildlife Act 1972, Wilderness Protection Act 1992, Native Vegetation Act 1991
Western Australia	Conservation and Land Management Act 1985, Land Administration Act 1997
Northern Territory	Territory Parks and Wildlife Conservation Act

O5 Guidelines, Targets for the establishment and management of protected areas

Government commitments to the development of a comprehensive adequate and representative reserve

system were articulated both in the National Forest Policy Statement in 1992 and the National Strategy for Conservation of Australia's Biological Diversity in 1996.

Specific targets for the protection of ecosystems within reserves were first developed for the moist forest areas associated with the Regional Forest Agreement process. The Joint ANZECC / MCFFA National Forest Policy Statement Implementation Sub-committee (JANIS) development reservation targets for forest ecosystems linked to their status; ie: - a base target of 15% of the pre-1750 extent (ie European settlement of Australia) of forest ecosystems was set, unless ecosystems were considered vulnerable, or rare or endangered in which case higher reservation targets were applied. Where forest ecosystems are recognised as vulnerable, a 60% reservation target applied. A vulnerable forest ecosystem is one which is: approaching a reduction in areal extent of 70% within a bioregional context and which remains subject to threatening processes; or not depleted but subject to continuing and significant threatening processes which may reduce its extent. All remaining occurrences of rare and endangered forest ecosystems were to be reserved or protected by other means as far as is practicable. See: http://www.rfa.gov.au/rfa/national/janis/index.html for further details.

No specific reservation targets for ecosystems have been applied uniformly in non-forest areas across Australia by the States and Territories. The *Australian Guidelines for Establishing the National Reserve System* that were published in 1999 and drew upon the format developed for the *Guidelines for Establishing the National Representative System of Marine Protected Areas 1996* to promote consistency

Establishing the National Representative System of Marine Protected Areas 1996 to promote consistency in approach for terrestrial and marine environments. These do not set reservation targets, but focus rather on implementing the scientific framework for protected area development.

The jurisdictions have also been working together to improve the development and management of Australia's protected area systems. One mechanism for such cooperation is the Ministerial Committee on National Park and Protected Area Management, which reports to the LWBC with respect to best practice in reserve management and consistency in reserve management across the state and territories. See http://ea.gov.au/parks/best-practice/index.html for further details.

Guidelines for Establishing the National Representative System of Marine Protected Areas

The Guidelines were developed collaboratively by State, Northern Territory and Commonwealth governments in 1998 to assist government agencies in developing the NRSMPA and to help stakeholders understand this process. The Guidelines deal with key aspects of the establishment of marine protected areas including the functions of the NRSMPA and criteria for identifying and selecting marine protected areas. The Guidelines continue to be used by each jurisdiction to reinforce the national commitment to establishing the NRSMPA.

The Guidelines establish the following targets for the NRSMPA:

- include the full range of ecosystems recognized at an appropriate scale within and across each bioregion ("comprehensiveness")
- have the required level of reservation to ensure the ecological viability and integrity of populations, species and communities ("adequacy")
- reasonably reflect the biotic diversity of marine ecosystems ("representativeness")
- include some highly protected areas (IUCN Categories I and II) in each bioregion.

Q6 Incentives

There are many circumstances where "user pays" approaches have been adopted by the jurisdictions, including on Commonwealth reserves. This occurs mostly in high visitor use and potentially high impact areas, in particular the alpine areas of Australia's snowy mountains in NSW and Victoria and key coastal areas in all jurisdictions, such as Fraser Island in Queensland. Iconic Australian landmarks popular with overseas visitors also have very high visitor use and infrastructure requirements. Notable examples include; the Flinder Ranges in South Australia, Kakadu and Uluru in the Northern Territory, the Daintree rainforests in far north Queensland, the tall eucalypt forests of southwest Western Australia and South west Tasmania. Further information on visitor charges etc can be at the park agency links at the end of

this document.

Q7 Threats to biodiversity values in protected areas

The adaptive management of protected areas for biodiversity conservation and implementation of best practice management standards are key elements of the development of the National Reserve System.. A key aspect of preparation of management plans for protected areas is the identification of threats to values, and measures to ameliorate threats. Development of ecological monitoring programs in protected areas to assess condition of biodiversity values and assess effectiveness of management programs is of increasing priority for all jurisdictions. Other statutory requirements are also important for on-ground management on a daily basis. For example management actions for the maintenance of threatened species populations, would link with agreed recovery actions for threatened species listed under State/Territory and/or Commonwealth legislation and the implementation of Species Recovery Plans or Threat Abatement Plans developed for these taxa. For more information on threatened species legislations see: http://www.ea.gov.au/biodiversity/threatened/index.html.

The presence and control of invasive species in protected areas may relate to State/Territory regulations for the management or eradication of these taxa. Enabling legislation for protected area establishment ensures that certain environmental impact assessment processes for infrastructure developments etc within reserves and adjoining areas is followed.

The implementation of monitoring and evaluation frameworks is a key element of the implementation of best practice management. See Q8 response.

Q8 Context for Protected Establishment and Management

There are a diversity of strategic planning and policy frameworks, both Commonwealth and State/Territory, that relate to protected area development and management. Essentially protected area establishment and management are specifically addressed in each jurisdiction through "Parks Masterplans" such as in Queensland (http://www.env.qld.gov.au/cgi-bin/w3-msql/environment/park/managing/msqlwelcome.html?page=master.html) and the Northern Territory or otherwise covered by state biodiversity strategies, for example in Victoria (<a href="http://www.nre.vic.gov.au/web/root/domino/cm_da/nrenpa.nsf/frameset/NRE+Plants+and+Animals?OpenDocument&[http://www.nre.vic.gov.au/plntanml/biodiversity/sustain/contents.htm]).

Perhaps the best known examples of where other sectoral interests were addressed, in parallel with protected area establishment, has been the Commonwealth/State Regional Forest Agreement process. Key objectives of the RFA process was to:

- provide interim protection to forest areas which may be required for a Comprehensive, Adequate and Representative (CRA) forest reserve system;
- undertake Comprehensive Regional Assessments (CRAs) of environment, heritage, economic and social values of forests;
- negotiate Regional Forest Agreements (RFAs) between the Commonwealth and State Governments about the long term management and use of forests in a particular region.

Regional Forest Agreements are agreements between the Commonwealth and State governments which provide a blueprint for the future management of our forests, and the basis for an internationally competitive and ecologically sustainable forest products industry. The 20-year agreements aim to establish:

- a world class Comprehensive, Adequate and Representative (CAR) forest reserve system.
- certainty for industries and regional communities, enabling the development of internationally competitive and ecologically sustainable industries.
- ecologically sustainable management of the whole forest estate, both on and off reserves.

See http://www.rfa.gov.au/ for further information on the RFA process. The States of Queensland and NSW undertook additional forest processes in key forest areas. See http://www.racac.nsw.gov.au/overview/ for further information for NSW.

Other major examples of strategic planning, including reserve development are the Gascoyne Murchison Rangelands Strategy in Western Australia and State Vegetation Management Strategies. Commonwealth initiatives for the implementation of natural resource management (http://www.ea.gov.au/nrm/index.html)

also include mechanisms for the protection of native vegetation, some of which will be included in the protected area estate.

In 1994, the former ANZECC (Australian and New Zealand Environment and Conservation Council) initiated a benchmarking and best practice program involving investigations into key operations common to all conservation agencies. The aim of the program is to gather and pool the approaches and experiences of conservation agencies in reserve management so as to identify areas of 'best practice' and hence provide a resource that will assist and guide individual agencies to learn from, borrow and adapt ideas to improve their management practices. This work continues today through the Committee on National Parks and Protected Area Management under the Land, Water and Biodiversity Committee of the Natural Resource Management Ministerial Council. See http://www.ea.gov.au/parks/best-practice/index.html#committee for more information.

All marine protected areas are established with regard to the management context of the surrounding region, whether through formal coastal and marine planning processes, or through extensive consultative with management agencies.

O9. Differing Management Regimes

Crown reserves

In Australia the nine separate terrestrial protected area systems in each of the jurisdictions (States, Territories and Commonwealth lands) that make up the federation of Australia are collectively known as the National Reserve System (NRS), while the eight separate marine protected area systems in each of the jurisdictions are collectively known as the National Representative System of Marine Protected Areas (NRSMPA). Each piece of enabling legislation for protected areas makes provision for a range of protected areas with varying management objectives. Management objectives for all types of reserves are required to meet the IUCN definition of a protected area to be considered part of the NRS, and all protected area categories across each jurisdiction have notionally been assigned to one of the IUCN protected area categories.

There are over 40 types of crown reserves in Australia, from strict nature reserves and wilderness parks to forest and even game reserves. The Collaborative Australian Protected Area Database (CAPAD) provides the framework tracking and assigning the IUCN protected area management categories to specific reserves. See the listing of reserve types in Australia from CAPAD 2002 at: http://www.ea.gov.au/parks/nrs/capad/2002/national/nat-type02.html. There is an ongoing review process by jurisdictions and Parks Australia of the suitability of specific reserve tenures for the protection of biodiversity conservation values and listing in CAPAD

The on-ground management of protected areas in Australia is the responsibility of the State and Territory governments, except where they are occur on Commonwealth lands. Joint management arrangements between the jurisdiction and Indigenous groups occurs in some places such as Kakadu National Park in the Northern Territory administered by the Commonwealth.

Private Protected Areas

Sixty percent of Australia is managed as privately owned, either as freehold land (approximately 20%) or as Crown leasehold (approximately 40%). There has been a rapid growth in recent years of conservation covenants placed on the title of freehold lands and special conditions on leasehold lands to enable their management as private protected areas. This has been facilitated through the development of enabling State and Territory legislation supporting such initiatives through the National Trust of Australia, or

under specific state legislation or previsions under existing nature conservation legislation.

An important component of the NRSP initiatives under the Natural Heritage Trust were specific Commonwealth Government commitments to further the development of private protected areas and the establishment of Indigenous Protected Areas. Indigenous Protected Areas are being established through the National Reserve System Program in accordance with the IUCN protected area management categories. Since the inception of the Natural Heritage Trust, a total of almost nineteen million hectares of land has been approved for inclusion in the National Reserve System and Indigenous Protected Areas. Of this total area, around 4.5 million hectares were purchased in conjunction with State and Territory conservation agencies. Just over 650 thousand hectares were approved for inclusion as a result of the efforts of various non-government organisations. The remaining 13.7 million hectares were added to the National Reserve System through the voluntary establishment of Indigenous Protected Areas. The additions achieved via non-government organisations and the Indigenous Protected Areas were predominantly through conservation covenants, whereby the land remained under private ownership. These figures do not include any areas placed under conservation covenants through other programs.

Purchases of land by non-government organisations funded under the National Reserve System Program require the long term management of the property for biodiversity conservation under a legally binding agreement such as gazettal as a protected area, a voluntary nature conservation covenant - management agreement combination or a stewardship/conservation agreement.

The development of a national approach to protected areas on private lands is facilitated through the Interstate Management Agreements Network (IMAN), where representatives from the States and Territories and the Commonwealth met to discuss mechanisms for making State and Territory covenanting programs in Australia more effective in achieving biodiversity conservation.

Protected area networks in fragmented landscapes

In highly fragmented landscapes such as the major agricultural zones, there are generally few opportunities to protect sufficiently large tracts of unmodified native vegetation to meet comprehensive, adequate and representative reserve objectives. In these areas, the development of protected area networks provides a mechanism for achieving conservation objectives across the landscape. Given that highly fragmented systems occur mostly where there is a high degree of private land ownership, sites comprising protected area networks typically occur on both public and private lands. An example of protected area network development in Australia is the Grassy White Box Woodland project.

Grassy White Box Woodlands once covered several million hectares in the wheat-sheep belt of NSW. Less than 0.5% of these woodlands remain in near-natural condition with intact understorey and the community is recognized as threatened at the national level. These eucalyptus woodlands occur only as remnants patches on the western slopes of NSW. The Grassy Box Woodland Conservation Management Network project is targeting the conservation of the endangered grassy white box woodland ecosystem through protection of individual remnants using existing mechanisms such as voluntary conservation agreements, local environmental planning and nature refuges, supported and linked by an overarching management structure.

Similar protected area networks, where high quality remnants in proximity to each are protected through a range of mechanisms across a range of land tenures, are also being developed for threatened temperate grasslands and other eucalyptus woodland communities.

Marine Protected Areas

Australian marine protected areas cover the range of protection, from 'no-take' highly protected areas that exclude all extractive activities, including the world's largest highly protected area (Heard Island and McDonald Islands Marine Reserve), to 'sustainable use' areas that provide a sustainable flow of natural resources. The specific nature of protection varies depending on the objectives of the protected area. Many marine protected areas also entail zoning schemes that allow different levels of protection for different sub-areas or zones. Many are managed jointly across fisheries and park management

jurisdictions, and between State and Commonwealth governments.

Q10. Stakeholder Involvement

Public participation is an integral component of protected area management in Australia. Protected area legislation for all jurisdictions outlines process for involvement of stakeholders in the preparation of management plans for protected areas. Other means of stakeholder involvement are through such arrangements as advisory committees, 'Friends' groups, and volunteer activities. Such arrangements are variously established through legislation or on a more informal basis. The issue of stakeholder involvement in reserve establishment and management is addressed at a national scale through the Committee on National Parks and Protected Area Management under the Natural Resource Management Ministerial Council. Terms of Reference for the Committee is to 'identify issues and report on matters relating to the selection, planning and management of national parks and protected areas and the development of staff involved in their management'. The Committee comprises representatives of each state and territory park service, Environment Australia and New Zealand's Department of Conservation.

For further information on 'Best Practice' reports on this issue through the work of the Committee see: http://www.ea.gov.au/parks/best-practice/index.html#committee

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All governments consult widely and extensively in establishing marine protected areas and developing management arrangements. Most have formal policies and processes in place. An example is the Commonwealth Government's <u>processes</u> for declaring new marine protected areas, which include several phases of consultation and ongoing support for a range of stakeholder committees.

Q11. Development of Private Protected Areas

In addition to reserves on crown lands there are a growing number of private protected areas managed for biodiversity conservation by non-government organisations such as the Australian Bush Heritage Fund. In areas which have been substantially cleared, protected areas networks, where a series of small remnants both on crown and private land are managed as a single unit, are increasing in importance for protecting biodiversity values. Where such remnants are protected in perpetuity by covenants with high levels of legal protection, they may qualify for inclusion in the NRS and thus be counted in the Collaborative Australian Protected Area Database (CAPAD) where adequate locational data exists. The criteria by which private protected areas are included in the NRS and CAPAD are currently being addressed for resolution prior to CAPAD 2004.

A range of covenanting programs exists across the country. Most States/Territories have legislation providing for nature conservation covenants to be placed over private properties which limit the types of activities that may occur on the site. These range from covenants tied to title which can only be revoked through an extensive review process, to others which may be withdrawn at the request of the landholder/leaseholder. Mechanisms also exist in some states for covenants to be placed on title managed through a non-government organisation such as the Trust for Nature in Victoria and Nature Conservation Trust in New South Wales. The Commonwealth EPBC Act also includes provisions for conservation covenants to be placed over private lands through voluntary participation of the landholder.

A condition of funding under the NRSP is that covenants on private land protects their values in perpetuity. Parks Australia is working with the States and Territories in reviewing protection mechanisms for private protected areas to help ensure that, where adequate protection mechanisms exist, that they will be counted as part of the NRS.

Indigenous Protected Areas

The Indigenous Protected Areas program provides incentives for Indigenous people to participate in the National Reserve System through voluntary declaration of Protected Areas on their lands and support for greater involvement of Indigenous people in the management of existing statutory protected areas. The goals of the program are:

1.To establish partnerships between government and Indigenous land managers to support the

development of a comprehensive, adequate and representative national system of protected areas which is consistent with the international protected areas classification system, by: assisting Indigenous people to establish and manage protected areas on their estates for which they hold title; and assisting Indigenous Groups and Commonwealth, State and Territory agencies to develop partnerships and agreements for the cooperative management of existing protected areas.

- 2.To promote Indigenous involvement in protected area management by supporting the establishment of cooperatively managed protected areas in each jurisdiction, and promotion of national best practice approaches to cooperative partnerships in protected area management.
- 3.To promote and integrate Indigenous ecological and cultural knowledge into contemporary protected area management practices in accordance with internationally endorsed protected areas guidelines.

For information on Indigenous Protected Areas see: http://www.ea.gov.au/indigenous/ipa/index.html

Q12 Limiting Resources

There are divergent views amongst the jurisdictions and non-government organisations about appropriate levels of state and Commonwealth funding and on-ground resourcing levels for the development and management of a comprehensive, adequate and representative national reserve system. Reserve management costs in Australia are exacerbated by the remoteness of many large reserves adding considerably to the cost of deploying and maintaining personnel in the field. Currently there is national-wide focus on fire management in all crown lands, particularly national parks and the adequacy of existing approaches and resourcing.

There have been various attempts at costing the establishment of a CAR reserve system over the years, from Commonwealth Government inquiries such as the 1993 House of Representatives Standing Committee on Environment, Recreation and the Arts (HoRSCERA) Report *Biodiversity: The Role of Protected Areas*, and by other sources.

The National Reserve System Program provides financial support to the State, Territories and Local governments and non-government organisations to purchase land or covenant land for inclusion into the National Reserve System.

Projected expansion of the NRSMPA in Commonwealth waters will increase the level of resources required for declaring and managing marine protected areas.

Q14 Constraints to implementation and management of protected areas 14.1 The Terrestrial Environment

Issues arising out of State, Territory and Commonwealth Government and non-government organisation attempts to develop and implement a National Reserve System and in the 1999 Mid-term review of the NRS Program, revolve around five main areas:

- the lack of clear, agreed and measurable national targets for the NRS;
- the lack of clear and agreed national guidelines as to what types of protected areas comprise the NRS;
- the patchy and incomplete nature of the ecosystem-scale map coverage for Australia required to implement the NRS
- the lack of an agreed national plan of action for the NRS;
- funding for acquisition and management.

The National Reserve System Program is a cooperative program, thus the acquisition of key properties for the development of a CAR reserve system is reliant on negotiation on the open market. The development of the NRS is perhaps most constrained in the agricultural zones where the extensive clearing of native ecosystems provides few opportunities for the acquisition of private lands and due to the high productivity of many key sites are expensive to purchase, thus beyond the scope of most reserve acquisition budgets.

The recently released Australian Terrestrial Biodiversity Assessment by the National Land and Water

Resources Audit assessed protected management standards in 57 of the 85 bioregions and found that in only 33% of the bioregion had good or very good standard of management where a high proportion of reserves have management plans and ecological monitoring in place though not necessarily in a structured way. In 53% of the bioregions the management standard was considered fair, though resource degradation was considered retrievable, but in 14% of the bioregions permanent resource degradation was considered to be occurring (NLWRA 2003).

Q14.2 The Marine Environment

There are several challenges common to all Australian jurisdictions that affect the ongoing establishment of the NRSMPA and requiring a national approach.

Community awareness and engagement

An important challenge to agencies responsible for the establishment of the NRSMPA is building a constituency for marine conservation. Attempts to raise awareness and engage the community and to outline the benefits of marine protected areas for biodiversity conservation are often met by misinformation and distrust.

Emerging issues include the use of co-management arrangements with traditional custodians and the fact that the "user pays/user says" principle that is increasingly being adopted in fisheries management has created an expectation among some stakeholders that a similar approach will be adopted for marine protected areas.

Identification and selection

There are a number of challenges faced by each jurisdiction associated with the identification and selection of marine protected areas. The major challenge is the need to better understand the concept of "adequacy" in the marine environment. The development of operational criteria to define the adequacy of each marine protected area and the NRSMPA as a whole is a major priority.

The need to improve our understanding of the biogeographical relationships in deeper waters and consequently the bioregionalisation in these waters has emerged as a high priority and is being addressed by the Commonwealth through the relevant work of the National Oceans Office. This work is being designed to integrate with IMCRA, the current national bioregionalisation, and will be used as an input along with other relevant work in a future revision of IMCRA.

Other challenges include:

- technical issues associated with habitat mapping
- reviewing and enhancing spatial planning frameworks
- evaluating threats to marine biodiversity
- performance assessment of marine protected areas and the NRSMPA
- promoting the involvement of industry in marine protected area identification and selection processes.

Integrated Natural Resource Management (NRM)

The integration of various marine management regimes remains a challenge to each jurisdiction. Marine protected areas are one of a number of tools that support NRM and can assist in managing a diverse range of users. Which of these tools are preferred in what situations will vary enormously between and within jurisdictions. In addition the relationship between the different tools used for marine conservation and fisheries management is often confusing to stakeholders. Overcoming this confusion is a national issue that could be guided by the conservation and fisheries management agencies represented on the Task Force.

Management of protected areas

Assessing the performance the NRSMPA in achieving its goals of "comprehensiveness", "adequacy" and

"representativeness" remains a challenge nationally, requiring a nationally coordinated assessment and reporting framework.

While each jurisdiction has a separate responsibility for enforcement and there are limits to any national approach, there are benefits in developing cross-jurisdictional enforcement programs. In particular, marine protected area management prescriptions could be developed in close consultation with relevant enforcement agencies.

The NRSMPA is a forward-looking program. A challenge for all jurisdictions is the need to allocate resources for the future planning and management of marine protected areas. The historical approach of providing resources as a reaction to community concerns must be balanced against this need.

Q20 Sites recognised under International Conventions or Programmes

World Heritage Convention, Ramsar Wetlands Convention, Man and the Biosphere. Numerous regular reports submitted to the Conventions Secretariats

Q21 Australian Experience

Significant progress has been made with developing procedures that use GIS information to plan and prioritise additions to the protected area system in jurisdictions and nationally. Examples include Cplan and CORE software packages, developed by NSW National Parks & Wildlife Service, the TARGET package developed by CSIRO Sustainable Ecosystems, and the Marxan reserve selection software developed by Prof Hugh Possingham and others for use in the rezoning the Great Barrier Reef Marine Park and identifying areas of interest for possible protection in the South-east Regional Marine Plan. They can be used to assess the status of biodiversity at a suitable regional scale and assess the priorities for developing national and regional strategies.

Progress is expected to be made in assessing the socio-economic impacts on fisheries of declaring marine protected areas and establishing marine protected areas that provide mutual benefits for fisheries management and biodiversity conservation.

IBRA as a bioregional planning tool as discussed at Q2.

Further Information

National Reserve System Program (IBRA, Scientific Guidelines, Protected Areas):

http://www.ea.gov.au/parks/nrs/index.html

Related programs and funding under the Natural Heritage Trust:

http://www.nht.gov.au

Marine Protected Areas:

http://www.ea.gov.au/coasts/mpa/index.html

The Parks Australia homepage:

http://www.ea.gov.au/parks/index.html

State/Territory Park and Conservation Agency contacts

www.nationalparks.nsw.gov.au

www.nt.gov.au/ipe/pwcnt/

www.epa.qld.gov.au/

www.dehaa.sa.gov.au/parks/

www.dpiwe.tas.gov.au/inter.nsf/ThemeNodes/SSKA-4X33SG?open

www.parkweb.vic.gov.au/

www.calm.wa.gov.au/national_parks

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