

.....
AUSTRALIA'S OCEAN POLICY

BEN ADDISON AND DONNA PETRACHENKO

Marine Division, Department of the Environment and Heritage

The purpose of this paper is to provide discussion on the development and implementation of *Australia's Oceans Policy*.

The first section of this paper will provide basic information on Australia as context for discussion on the impetus for the development of a national oceans policy for Australia.

The second section will describe the development and design of *Australia's Oceans Policy*.

The third section will discuss the nature of the resulting policy and how it is being implemented.

The fourth section will discuss the ongoing implementation and future evaluation of Oceans Policy. It will provide a forecast on the future of the policy.

The final section will suggest how the implementation of Oceans Policy might be improved in the future.

**INTRODUCTION: BASIC INFORMATION AND OVERVIEW
OF AUSTRALIA'S OCEAN POLICY**

BASIC INFORMATION ON AUSTRALIA

GOVERNMENT STRUCTURE

Australia was founded as a British colony in Sydney in 1788. Six colonies were formed in the 18th and 19th centuries eventually federating in 1901 to form the Commonwealth of Australia. The six colonies became the Australian States. Two territories were subsequently formed, the Northern Territory and the Australian Capital Territory.

Although Australia is an independent nation, the formal head of state is the monarch of Great Britain, Queen Elizabeth II, who is represented in Australia by the Governor General. The Governor General is appointed by the Queen on the advice of the Prime Minister as the Australian head of government. The role of the Governor General is by convention ceremonial, with decision making being the responsibility of the elected Government through the Parliament.

In addition to the federal jurisdiction each of the States and Territories has its own Parliament. State Parliaments are subject to the National Constitution as well as their own State Constitutions. Federal law overrides state law when there is an inconsistency between the two levels of legislation. Local Government acts as a third sphere of governance in Australia. Local Governments are formed under State or Territory Legislation. (Department of Foreign Affairs and Trade 2004)

LAND AREA

In terms of area, Australia is the world's sixth largest country with a total of 7,692,024 square kilometres of land on continental Australia. External territories, including the Australian Antarctic Territory, add a further 5,897,500 square kilometres to Australia's territory.

State or Territory	Land Area (km ²) ^{Geoscien}
Australian States and Territories	
Western Australia	2,529,875
Queensland	1,730,648
South Australia	1,349,129
Northern Territory	983,482
New South Wales	800,642
Victoria	227,416
Tasmania	68,401
Australian Capital Territory	2,431
Total	7,692,024
Australian External Territories	
Australian Antarctic Territory	5,896,500
Territory of Heard and McDonald Islands	370
Territory of Christmas Island	135
Coral Sea Islands Territory	81
Norfolk Island	35
Territory of Cocos (Keeling) Island	14
Territory of Ashmore and Cartier Islands	2
Total	5,897,137

Source: Geoscience Australia: Dimensions <http://www.ga.gov.au/education/facts/dimensions/>

LENGTH OF COASTLINE

Australia has a coastline 59,736 kilometres in length (Geoscience Australia 2003). The Australian Antarctic Territory has a coastline length of 7272 kilometres; however that figure can increase to as much as 7657 kilometres if allowances are made for the coastal ice shelf. (Australian Antarctic Division 2003)

MARINE JURISDICTION

Australia has one of the largest ocean jurisdictions of any country in the world. Australia has responsibilities for an area encompassing 14 million square kilometres (Department of the Environment and Heritage 2004a).

Australia's oceans are broken up into a number of maritime zones consistent with international law.

- Coastal waters extend from the Territorial Sea Baseline out to 3nm from the coastline. They fall within the jurisdiction of Australian State and Territory Governments.
- The Australian Territorial Sea extends 12nm from the baseline
- Contiguous Zone includes the area between 12 and 24nm from the baseline.

- The EEZ extends 200 nm from the baseline
- Australia has rights to sedentary organisms, the mineral and non-living resources of the seabed and subsoil of continuous claimable continental shelf that extends beyond the 200 nm limit of the EEZ. The exact limits of the extended continental shelf are yet to be finalised with the United Nations Commission on the Limits of the Continental Shelf.

(National Oceans Office 2001)

BIOGEOGRAPHY

The Australian continent is a large land mass that extends from 10° 41' 21" S at Cape York Peninsula in northern Queensland to 43° 38' 40" S at South East Cape in southern Tasmania, a distance of about 3,700km (Geoscience Australia 2005). Consequently continental Australia includes waters in both the temperate and tropical climatic zones. Australia also has responsibility for Macquarie Island, Heard and Macdonald Islands and a large portion of Antarctica all occurring within the polar climatic zone. The question of how the marine environment in these zones is broken down into distinct biogeographical regions has been the subject of considerable debate over the years (GBRMPA 1995).

In response to the need for a serviceable bioregional model for marine planning efforts, the governments of Australia cooperated on the development of the Interim Marine and Coastal Regionalisation of Australia (IMCRA). IMCRA focuses on continental shelf waters of less than 200 meters depth and identified bioregions based on species distribution and physical characteristics. These bioregions were typically hundreds to thousands of kilometres in size (IMCRA 1998).

The Australian Government is currently engaged in a project to identify bioregions in the deeper waters of Australia. There is further discussion on this project in section 3 part G *Research and Education*.

Australia's marine environment is influenced by three major ocean currents. The East Australian Current carries warm and salty water from the central Pacific Ocean, south along the east side of the Australian continent. The Leeuwin Current carries warm tropical water from the Indonesian through-flow south along the west Australian coastline, extending around the southern edge of the continent into the Great Australian Bight. The Antarctic Circumpolar Current is the largest single ocean current in the world, circling the Antarctic continent in an easterly direction. This current directly impacts on Australia's polar regions and feeds nutrient-rich cold waters into the temperate areas of southern Australia (National Oceans Office 2002).

Australia's marine environment is diverse and has an extraordinarily high level of endemism in some areas. For example, of the estimated 3400 species of fish in Australia, 600 are found in southern Australian waters. Of those 600 species 85% are believed endemic to Australia and a further 11% are shared only with neighbouring New Zealand (Poore 1995).

POPULATION

The population of Australia is relatively low, with an estimated 20.4 Million as of 20 September 2005 (Australian Bureau of Statistics 2005). Australia's population is massively urbanised and concentrated in the south-east. More than 80% of Australians live within the coastal zone (Australian Academy of Science 2004).

ECONOMIC DATA

Australia's oceans are an important economic resource for Australia. In 2002-03 Australia's marine industries directly contributed approximately AU\$26.7 billion to the Australian economy and through this activity added a further AU\$46 billion in value to other sectors of the economy. This economic activity equated to around 14% of Australia's GDP in that year.

Australia's marine industries are also important employers within the Australian economy. In 2002-03 around 253 000 persons were directly employed within the marine sector with a further 690 000 jobs associated with supporting the sector. As a result, in 2002-03 marine industries were directly and indirectly responsible for employing over 9% of the Australian workforce.

In 2002-03, the largest marine industry in Australia, in terms of value added to the Australian economy, was marine tourism which contributed around 42% of the total marine industries economic activity. Second largest was Australia's oil and gas sector which contributed around 41.8% of marine industries economic activity. In terms of growth within Australia's marine sector, oil and gas was the fastest growing component over the period 1995-96 to 2002-03 recording an average annual growth rate of 6% (Allen Consulting Group 2004).

State or Territory (Capital City)	2002 Population in millions
Australian Capital Territory (Canberra)	0.3
New South Wales (Sydney)	6.6
Northern Territory (Darwin)	0.2
Queensland (Brisbane)	3.8
South Australia (Adelaide)	1.5
Tasmania (Hobart)	0.4
Victoria (Melbourne)	4.9
Western Australia (Perth)	2.0
Total	19.7

Source: Department of Foreign Affairs and Trade: Australia Now
http://www.dfat.gov.au/facts/states_territory.html

THE IMPORTANCE OF ECOLOGICAL SUSTAINABLE DEVELOPMENT TO AUSTRALIA'S OCEANS POLICY

The Australian National Strategy for Ecologically Sustainable Development (Commonwealth of Australia 1992) requires that the Australian Government use the principles of ecological sustainable development in all natural resource management policies. The concept of ecologically sustainable development was used as a fundamental principle in the design of Oceans Policy.

The principles of ecologically sustainable development have also been embedded in the *Environment Protection and Biodiversity Conservation Act 1999*, the Australian Government's primary environment legislation.

With such a vast ocean territory, Australia commands large reserves of natural resources in a relatively pristine marine environment. To maximise Australia's ability to use these resources now and for future generations, Oceans Policy requires that Australia's marine jurisdiction be managed sustainably.

BRIEF OVERVIEW OF NATURE OF AND EVOLUTION OF AUSTRALIA'S OCEANS POLICY

On 1 August 1994 Australia claimed a 200 nautical mile exclusive economic zone under the *United Nations Convention on the Law of the Seas* (UNCLOS) assuming responsibility for a massive area of ocean and natural resources (Commonwealth of Australia 1994). By this time it was obvious that we knew very little about our oceans and the wealth they potentially contained. The nations of the world were turning to the oceans for consumable natural resources and it was becoming increasingly apparent

that the marine environment could be a source of future growth and prosperity (McKinnon et al 1989).

The management of Australia's marine jurisdiction is shared between seven State and Territory Governments in addition to the Federal Government, and within each government's sphere of influence management is divided along sectoral lines that operate independently of one another with varying degrees of coordination.

The significance of the oceans to Australia's interests and the complexity of management arrangements in Australian waters led many stakeholders to call for a more strategic approach to oceans management. Given that Australia's marine environment is still in relatively good condition, marine experts from many fields saw an opportunity to take a pro-active role in oceans management and protect the sustainability of the marine environment before extensive damage occurred (Australian State of the Environment Committee 2001).

As a result, *Australia's Oceans Policy* was developed and launched in 1998 with the goal of coordinating marine activities in Australia to create an effective and efficient oceans management regime. By following the principles of Oceans Policy, the development of ocean resources could continue in an organised and environmentally sustainable fashion.

There were a number of challenges associated with the early life of Oceans Policy. The sheer diversity of interests proved to be difficult to integrate. Additionally, the State and Territory Governments were not signatories to *Australia's Oceans Policy*. Therefore any internal cross jurisdictional arrangements had to be negotiated in the political arena.

POLICY DEVELOPMENT PROCESS

INITIATION OF THE POLICY

By 1997 the Australian Government recognised that Australia needed to implement a policy for the management of our oceans. Numerous reports from a range of experts had been calling for an integrated approach to oceans management from as early as 1989 (McKinnon et al 1989). The policy development process was led by the Department of the Environment and Heritage, however given that Australia's oceans fall within the jurisdiction of both

state and federal governments an extensive consultation process was planned that would include all Australian governments, the community, peak interest groups and other major stakeholders.

Several technical papers (available for download at http://www.oceans.gov.au/support_information.jsp) were commissioned by the Australian Government on topics such as best practice oceans management planning methods, Indigenous Australian ocean policy interests, cultural considerations and international obligations. At the same

time the Australian Government consulted with the community to identify what issues were important to Australians and how the public thought the oceans should be managed. This consultation period culminated in the Australian Oceans Forum held in Canberra on 2 December 1997 (Department of the Environment, Sports and Territories 1998). The Forum hosted representatives from all of the coastal Australian Governments, scientists, policy makers and representatives of a broad range of industry, conservation and other non-government interests.

Based on the information gathered by the Forum and the consultation process, *Australia's Oceans Policy* was drafted for release in 1998, the International Year of the Ocean. The policy was completed and approved by the Prime Minister in late 1998. The State and Territory governments chose not to sign on to the policy and as a result it is binding only on the federal Australian Government.

Although Oceans Policy is not itself legislated, the policy must take into consideration all of the existing legislative instruments that govern Australia's oceans. The piece of legislation that is perhaps the most relevant to Oceans Policy is the *Environment Protection and Biodiversity Conservation Act 1999*. The Act is the key environmental legislation for the federal Australian Government designed to protect the biodiversity of Australia and ensure the sustainability of the environment, both terrestrial and marine.

OBJECTIVES

Australia's Oceans Policy begins with a vision statement:

Healthy oceans: cared for; understood and used wisely for the benefit of all, now and into the future.

Under this vision Oceans Policy lists 9 goals:

1. To exercise and protect Australia's rights and jurisdiction over offshore areas, including offshore resources.
2. To meet Australia's international obligations under the United Nations Convention on the Law of the Sea and other international treaties.
3. To understand and protect Australia's marine biological diversity, the ocean environment and its resources, and ensure ocean uses are ecologically sustainable.
4. To promote ecologically sustainable economic development and job creation.

5. To establish integrated oceans planning and management arrangements.
6. To accommodate community needs and aspirations.
7. To improve our expertise and capabilities in ocean-related management, science, technology and engineering.
8. To identify and protect our natural and cultural marine heritage.
9. To promote public awareness and understanding.

These nine goals were developed to meet the general expectations of Australian ocean users and provide scope to address the range of issues that Oceans Policy covers. As a result the goals are broad and generalised statements of intent rather than focussed and quantifiable objectives (Commonwealth of Australia 1998).

The wide geographical range of Australia's oceans has implications for setting management objectives. Priorities vary from region to region, reflecting the different needs and issues of communities and the environment. In order to focus Oceans Policy in a regional context a series of regional marine plans are being developed, one for each area of reasonably ubiquitous ocean territory. These plans were intended to be the primary implementation tool for Oceans Policy and include an objective setting exercise with the purpose of creating a set of regionally specific objectives against which the effectiveness of management options can be measured. Regional objectives are tailored to meet the specific needs of ocean users in that area, but still fall under the broader goals of Oceans Policy. They are drafted based on extensive consultation with stakeholders from within the region.

Although the framework used in regional marine planning is essentially correct, the wide ranging interests and issues in each marine region have made it difficult to bring regional marine planning to bear on specific problems that require attention. As a result a new model for regional specific planning has been proposed in the form of bioregional planning. Bioregional plans will be created within the framework of the *Environment Protection and Biodiversity Conservation Act 1999*.

Under section 176 of the Act, bioregional plans will focus on the delivery of biodiversity conservation outcomes under the framework of ecologically sustainable development. The plans would offer a consolidated view of Government's environmental roles and responsibilities and priorities pertaining to each specific marine planning region and by doing so give greater guidance to industry about their obligations under legislation.

MAJOR PRINCIPLES

Australia's Oceans Policy incorporates a number of major planning principles.

ECOLOGICAL SUSTAINABLE DEVELOPMENT

All Australian governments are committed to ecologically sustainable development, as a way of 'using, conserving, and enhancing the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be increased' (Commonwealth of Australia 1992).

A key component of the ecological sustainable development concept is intergenerational equity. Ecologically sustainable development can only be achieved if the ecosystem can be maintained to such a level as the resources it provides are available for future generations.

The ability to continue to use natural resources in the long term is dependant on maintaining the health and integrity of the ecosystem that provides them. Oceans Policy requires that resources be used sustainably and that the security of ecosystem health is paramount. The policy must take into account existing legislation that protects biodiversity.

The principle of ecological sustainable development is now a fundamental part of environmental and resource management legislation at all Australian Government levels, and is part of the Intergovernmental Agreement on the Environment. The Agreement facilitates a nationally cooperative approach on the environment in Australia and clarifies the roles of each sphere of government (Department of the Environment and Heritage 2004b).

ECOSYSTEM BASED MANAGEMENT AND INTEGRATION

Australia's ocean ecosystems and their marine biological diversity are core national assets. If our use of them is well managed, they can meet a broad range of economic, social and cultural aspirations. They also provide a range of essential environmental services that would be extremely costly or impossible to restore or replace if ecosystem functioning was impaired.

Traditional management of natural resources occurs on a sector-by-sector basis and often based on political boundaries. Management agencies exist within each jurisdiction to manage the same resource. Regional marine plans used entire ecosystems as the basic planning unit

and as a result they seek to integrate across jurisdictions and sectors to ensure that all impacts on the ecosystem are considered concurrently. Bioregional plans will also be based on marine ecosystems and seek to maximise integration.

MULTIPLE-USE MANAGEMENT

Managing the oceans for multiple-use is a major platform of Oceans Policy.

In 1997 a report on multiple-use management was produced for the development of Oceans Policy. *Multiple Use Management in the Australian Marine Environment: Principles, Definitions and Elements* (Sainsbury et al 1997) states that implementation of multiple use management requires scientific support for decision making and in the operational use of performance measures.

Multiple use management requires all ocean resource use (extractive and non-extractive) to be considered jointly. This allows the cumulative impacts of ocean resource use and the interactions between different uses to be understood. Measures can then be put into place to manage conflicting uses. Multiple use management seeks to maintain ecosystem health while providing opportunities for a variety of uses that offer the greatest long-term community benefits (taking economic, environmental, social and cultural values into account).

PRECAUTIONARY APPROACH

In explaining the precautionary approach Oceans Policy states that incomplete information on possible impacts should not postpone action intended to reduce or avoid unacceptable levels of change, or to prevent serious or irreversible environmental degradation of the oceans. Also, if the potential impact of an activity is uncertain, priority should be given to maintaining ecosystem health and productivity.

BEST AVAILABLE SCIENCE

Oceans Policy acknowledges that our knowledge of the marine environment is far from complete. The vast area, depth, isolation and inaccessibility of our oceans have made it difficult to fully explore our waters. Recognising this fact, Oceans Policy requires that ongoing study and research of our oceans continue to ensure that the implementation of Oceans Policy's goals is supported by the best available knowledge.

Australia already has a strong and effective marine science research community across a wide range of research institutions and agencies within government, academic and industry sectors. The challenge is to improve the coordination and integration of the research effort to maximise its effectiveness and efficiency, particularly for government-funded research.

A key priority for government is to develop a strategic approach to marine science research and data management to support Oceans Policy through investigating measures for improved coordination, efficiency, communication and strategic priority-setting.

ADAPTIVE MANAGEMENT

Oceans are naturally dynamic systems. Environmental changes, whether natural or human induced disturbances, can have far reaching effects on the resources and use of the marine environment. Our oceans are poorly understood: vast areas of the open sea remain unexplored and our knowledge of key processes is limited and usually focused on coastal and inshore areas.

Managing a little known and variable system requires an adaptive approach and this is achieved in Australia through integrated marine planning. Regional marine plans and the new bioregional planning model aim to identify useful indicators of sustainability (ecological, economic, social and cultural) and link them to clearly articulated and agreed long-term objectives.

INDIGENOUS RIGHTS

The Indigenous people of Australia were living on this land for many thousands of years before European colonial settlement in 1788. The Indigenous people are extraordinarily culturally diverse. Many Indigenous communities have strong cultural and spiritual ties to the ocean, or 'sea country'. The history of the Indigenous people in Australia extends back to long before the last ice age and has seen the natural rise and fall of sea level over the millennia. Some sacred sites that existed on land have since disappeared below the surface, but the significance of those sites to the Indigenous people remains.

Oceans Policy recognises the importance of our oceans to the Indigenous people and the role that they can play in shaping how our oceans are managed. The policy provides for the participation and representation of Indigenous people in all processes related to the implementation of Oceans Policy.

STEWARDSHIP AND TRANSPARENCY

One of the founding concepts of Oceans Policy is that responsibility for managing our oceans rests with all of the users of the marine environment. Although the policy is binding only on the Federal Government, many of the outcomes sought through Oceans Policy require the participation of all maritime sectors and jurisdictions in order to be effective. Given that there is no direct legislation to enforce the policy, it is essential that all government and non-government interest groups work cooperatively to negotiate effective outcomes.

The institutional arrangements that support Oceans Policy include several representative groups whose role is to provide leadership, representation and ultimately stewardship on behalf of their interest groups. The most senior of these groups is the National Oceans Advisory Group (NOAG) which includes representatives of industry, conservation, science, law, policy and the Indigenous people. NOAG is independent of Government agencies and reports directly to the Minister for the Environment and Heritage.

INSTITUTIONAL ARRANGEMENTS

The wide scope of Oceans Policy required that a number of administrative bodies be created in support of the policy's implementation. There are numerous technical working groups, representative groups and advisory panels that have been established to work on specific projects under Oceans Policy. The following are the key administrative bodies that have been involved in the development and implementation of the policy.

NATIONAL OCEANS MINISTERIAL BOARD

The National Oceans Ministerial Board was originally formed in 1999 as the lead decision making body for matters related to *Australia's Oceans Policy*. The Board was established to oversee the implementation of the policy and the development of regional marine plans.

The Board's focus was on high level strategic issues such as government policy setting and the overall direction of Oceans Policy.

The Board was composed of the Ministers responsible for the following portfolios:

- Environment and Heritage (Chair)
- Agriculture, Fisheries and Forestry

- Industry, Tourism and Resources
- Education, Science and Training
- Transport and Regional Services

Following the October 2004 federal election, the Prime Minister made a number of changes to the administrative arrangements for Oceans Policy. He decided to abolish the Board and directed that major ocean issues should now be given to the Sustainable Environment Committee of the Cabinet of the Australian Government for deliberation. Day-to-day decisions are made by the Minister for the Environment and Heritage who consults with his Ministerial colleagues on specific issues as required.

OCEANS BOARD OF MANAGEMENT (OBOM)

OBOM is composed principally of the heads of the Federal Government departments with significant interest in Oceans Policy and marine matters generally. The formal membership is as follows:

- Secretary, Department of the Environment and Heritage (Chair)
- Secretary, Department of Agriculture, Fisheries and Forestry
- Secretary, Department of Industry, Tourism and Resources
- Secretary, Department of Education, Science and Training
- Secretary, Department of Transport and Regional Services
- Secretary, Department of Defence
- Secretary, Department of Finance and Administration
- Secretary, Department of the Prime Minister and Cabinet
- Managing Director, Australian Fisheries Management Authority
- First Assistant Secretary, Marine Division, Department of the Environment and Heritage

OBOM is a forum for constructive discussion between senior government department officials on oceans management issues. As the senior-most group to consider oceans issues at the departmental or operational level OBOM provides advice directly to the Minister for the Environment and Heritage and to the broader Government as required.

NATIONAL OCEANS ADVISORY GROUP (NOAG)

NOAG is a high level non-government stakeholder group consisting of representatives from the following key marine sectors and interest groups:

- Tourism
- Indigenous
- Conservation
- Ports
- Commercial Shipping
- Recreational and Light Commercial Industries
- Commercial Fishing
- Recreational Fishing
- Oil and Gas
- Minerals
- Community
- Science
- Maritime Policy and Law
- Oceans Policy Science Advisory Group

NOAG is an independent body that reports directly to the Minister for the Environment and Heritage. The purpose of this group is to provide Government Ministers with advice on the overall scope and effectiveness of the implementation of Oceans Policy.

As non-government representatives, the Group is uniquely placed to provide insight on the response of the wider community to Oceans Policy issues. NOAG has also proven to be an excellent forum for the exchange of ideas between all sectors without the Government acting as an intermediary.

NOAG shares close ties with the Oceans Policy Science Advisory Group. Given that both bodies provide advice to Government on oceans matters, the Chairman of the Oceans Policy Science Advisory Group sits on the NOAG to ensure that there is no duplication of effort between the two groups. This arrangement is reciprocated so that NOAG's Chairman also has a seat on the Oceans Policy Science Advisory Group.

OCEANS POLICY SCIENCE ADVISORY GROUP (OPSAG)

The Oceans Policy Science Advisory Group (OPSAG) was established in July 2003 to promote a more coordi-

nated and integrated approach to marine science across the Commonwealth in relation to implementation of Oceans Policy. OPSAG is constituted with a range of government and non-government marine science experts and is supported by the National Oceans Office.

OPSAG has an important high-level advisory role to the Australian Government providing advice directly to OBOM and the Minister for the Environment and Heritage on scientific and technical matters related to Oceans Policy.

As stated above, the Chairman of the National Oceans Advisory Group attends OPSAG meetings to ensure that there is no unnecessary duplication of effort between the two groups.

THE NATIONAL OCEANS OFFICE (NOO) AND THE MARINE DIVISION

Formed as an Executive Agency of the Commonwealth in 1999, the National Oceans Office was created to support the National Oceans Ministerial Board in the implementation of Oceans Policy. Primarily, NOO has been responsible for the development of regional marine plans, intended as the primary implementation tool for Oceans Policy, and for providing support and advice on a number of technical issues.

The Office coordinated the day-to-day delivery of *Australia's Oceans Policy* and provided advice and technical support to the National Oceans Ministerial Board, Oceans Board of Management, National Oceans Advisory Group, Oceans Policy Science Advisory Group and the other administrative bodies that support the policy.

Following the October 2004 federal election the National Oceans Office was integrated into the wider organisation of the Department of the Environment and Heritage as part of a broader restructure of the public service.

The National Oceans Office now exists as one branch of the newly created Marine Division of the Department of the Environment and Heritage. The National Oceans Office branch is primarily responsible for delivering marine planning in Australian waters. The Marine Conservation branch of the Division is responsible for the day-to-day development of the Oceans Policy itself. The Marine Conservation branch is also responsible for the development of a national representative system of marine protected areas and other marine programmes and policies. The third branch of Division, the Marine Environment branch, is responsible for policies and programmes on migratory and marine species, sustainable fisheries and international marine issues.

The Marine Division provides technical advice to other government agencies on a variety of marine related matters and produces and distributes information to the community.

PLANNING ADVISORY COMMITTEES

The primary tool for implementing Oceans Policy was originally intended to be regional marine planning. At the time this paper was written the South-east Regional Marine Plan had been completed and the Northern Regional Marine Plan was approaching the final stages of development. In an effort to focus the outcomes of the planning exercise, regional marine plans have evolved into bioregional plans under the *Environment Protection and Biodiversity Conservation Act 1999*.

Both regional marine planning and bioregional plans focus on specific areas of Australia's marine jurisdiction defined by large marine ecosystems. Planning advisory committees are interest or expertise based. Their role is to provide stakeholder input or expert advice throughout the planning process. The structure of planning advisory committees and the processes through which they provide input into planning, vary across marine regions, reflecting different needs and local contexts. How planning advisory committees are used in the new bioregional planning model is still being discussed.

THE NATURE AND IMPLEMENTATION OF AUSTRALIA'S OCEANS POLICY

THE NATURE OF AUSTRALIA'S OCEANS POLICY

The existing management arrangements for Australia's oceans are extraordinarily complex. There are scores of

existing instruments that regulate or control how affairs are conducted in the marine environment. *Australia's Oceans Policy* is a high level "umbrella" policy in the sense that it does not replace existing policies and legislation rather it is designed to integrate and coordinate

existing mechanisms without adding to existing oceans management arrangements.

By the virtue of its function, Oceans Policy is high level and general in nature. It provides a broad direction on how our oceans need to be managed rather than specific details on operational matters. The policy provides the scope within which marine plans can be produced, and it is these plans that provide the specifics on oceans management. Oceans Policy can not replace or remove existing instruments.

Oceans Policy is an administrative policy only with no supporting legislation. At this stage there have been no plans to institute an Oceans Act although as previously mentioned the *Environment Protection and Biodiversity Conservation Act 1999* plays a significant role in implementing the principles of Oceans Policy. Given that the new bioregional plan model uses the Act as a framework, the role of this piece of legislation in the implementation of Oceans Policy will increase with time.

IMPLEMENTATION OF PRINCIPLES: DETAILED ASSESSMENT

The primary tool for implementing Oceans Policy was originally intended to be regional marine planning. Regional marine planning is integrated, in that it brings together all relevant interests, fields of discipline and jurisdictions. It is participatory, in that key stages of the process require the direct involvement and participation of ocean users and other stakeholders. Regional marine planning is also strategic, in that it focuses on delivering priorities over a period of time that is relevant to the long-term sustainability of human uses and activities in the ocean.

Regional marine planning also enables the application of the ecosystem approach to management, a concept that is central to Oceans Policy. The entire Australian Exclusive Economic Zone has been divided into large marine domains – or large marine ecosystems – which are based on broad biophysical patterns and represent the units for strategic integrated planning. The Large Marine Domains were originally defined by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) using bathymetry, bathymetry variance, water column properties and seafloor plate age. The exact boundaries of the domains have been subject to some variation as new information comes to light about their characteristics. More information on this process can be found on page 45 of

Australia's Marine Science and Technology Plan (Jensen et al 1999).

Regional marine planning has considerably increased our knowledge of the ocean and its resources and our ability to manage for sustainability and biodiversity protection. The consolidation of existing and new biophysical data has resulted in a new deepwater marine bioregionalisation discussed at Section 3 part G *Research and Education*. This considerable achievement will enable Australia to embark on the establishment of a network of representative marine protected areas.

The first regional marine plan for South-east Australia was finalised in 2004. It is the first of what was to be six Regional Marine Plans, encompassing thirteen Large Marine Domains, to be developed around Australia. Regional marine planning is currently under way in the Northern Planning Area and about to commence in the South-west Marine Region. All regional marine plans were due for completion by 2009.

However, at the time this paper was written the Australian Government has approved the development of a new model for marine planning under Oceans Policy. As a reflection of Oceans Policy, regional marine planning is an extremely broad level planning construct and it has become apparent that it will be extremely difficult to achieve effective on-the-ground outcomes from such a widely scoped mechanism. Bioregional plans are an evolution of regional marine planning designed to provide an increased focus on key sustainability objectives. As already discussed, bioregional plans will be implemented under the existing framework of section 176 of the *Environment Protection and Biodiversity Conservation Act 1999*. With the support of a legislated framework bioregional plans represent the next logical step in strengthening the effective implementation of Oceans Policy in Australia.

Under a section 176 bioregional plan, regional marine planning will be narrowed to focus on the delivery of biodiversity conservation outcomes under the framework of ecologically sustainable development. It will deliver two primary things; firstly, an overarching, environmental outcomes-based framework; and secondly, the consolidation, through an integrated strategy, of conservation priorities and tools.

Bioregional plans will present a comprehensive ecological profile of the region, identifying key conservation values/features and threatening processes. The plans will set objectives, strategies and actions for biodiversity conservation in the region that will be delivered over the

life of the plans. The plans will also include a comprehensive overview of the environment portfolio's current suite of biodiversity conservation powers and initiatives, such as threatened species recovery planning, threat abatement plans, strategic assessments, marine protected area development and fisheries assessments. By doing so, the plans will operate as a key reference document to guide industry engagement with the Government in its administration of the EPBC Act.

In addition to marine planning there are a number of other processes that the Department of the Environment and Heritage participates in to further the goals of Oceans Policy. Integration of activities across the State and Federal Governments is being pursued through the Integrated Oceans Management Working Group, a body that ultimately reports to the Natural Resource Management Ministerial Council. The Ministerial Council includes representatives of all State and Federal Governments in Australia and is empowered to make decisions that cross jurisdictional boundaries.

An example of a cross jurisdictional process that is overseen by the Natural Resource Management Ministerial Council is development of the *Framework for a National Cooperative Approach to Integrated Coastal Zone Management*. The framework recognises that the coastal environment of Australia is subject to a number of environmental pressures resulting from the high concentration of population in the coastal zone. The purpose of the framework is to promote a cooperative approach to managing coastal zone issues that are relevant to all Australian governments. The framework has the strategic goal of providing a basis for a cooperatively developed implementation plan to address coastal issues in Australia (Natural Resource Management Ministerial Council 2003).

AUTHORITY AT NATIONAL LEVEL

Ultimate responsibility for the implementation of Oceans Policy rests with the Sustainable Environment Committee of Cabinet (SEC). The SEC makes all of the high level strategic decisions and provides final approval for the release of key documents and processes. Further high level consideration by Government is provided by the full Federal Cabinet. The decisions made by these Ministers are binding on the Australian Government.

The Oceans Board of Management (OBOM) reports firstly to the Minister for the Environment and Heritage and then to other Ministers as required. OBOM's membership is made up of the departmental and agency heads

of portfolios and government organisations with interests in the marine environment and as a result OBOM has a significant influence on the management of marine issues. OBOM's role is to provide direction and leadership on the management of operational and departmental issues within the Commonwealth. OBOM also provides advice to government on high level policy matters.

Under the direction of the Minister for the Environment and Heritage and OBOM, the Marine Division of the Department of the Environment and Heritage is responsible for coordinating the implementation of Oceans Policy. The Marine Division acts as a coordinator and facilitates the exchange of information between Governments and stakeholders. The Marine Division maintains the administrative functions of Oceans Policy and provides OBOM and the Minister with technical advice on oceans issues. The Marine Division is also responsible for developing bioregional plans for Australia's oceans and represents the Australian Government in many technical fora both domestically and internationally.

The National Oceans Advisory Group (NOAG) provides independent advice to government on policy matters relating to oceans issues and on the work of the Marine Division. As an independent non-government advisory body the Group also ensure transparency of process for the community.

The Oceans Policy Science Advisory Group (OPSAG) provides scientific and technical advice to the Oceans Board of Management. OPSAG advises on the direction that marine research should take in Australia.

NATIONAL/SUB-NATIONAL DIVISION OF AUTHORITY AND INTERACTION

In the early 1970s the State Governments of Australia challenged the Commonwealth's assertion of sovereignty over the then three nautical mile territorial sea. The Commonwealth and the States subsequently came to a series of arrangements collectively known as the Offshore Constitutional Settlement (OCS). The purpose of the OCS was to give the States a greater legal and administrative role in offshore areas. The principle legislation implementing the OCS (*Coastal Water States, Power and Title Act 1982*) entered into force in February 1983.

The legislation implementing the OCS made it clear that should the territorial sea subsequently be extended from three nautical miles to 12 nautical miles the OCS

arrangements would continue to apply only to the three nautical miles limit. In 1990 the territorial sea was extended to the 12 nautical miles limit, but the relevant limit for the purposes of the OCS remained at three nautical miles.

In effect, through the OCS, the Commonwealth agreed to give the States primary responsibility over coastal waters from the territorial baseline out to 3 nautical miles (except in the case of external territories which are directly administered by the Commonwealth government). Beyond that boundary the Commonwealth retains primary responsibility. The OCS also included a number of cooperative arrangements for the management of resources offshore, such as fisheries and petroleum. These cooperative arrangements are reflected in the relevant Commonwealth, State and Northern Territory legislation (Commonwealth of Australia 1998).

The territorial division of responsibility for Australia's oceans means that management options for issues that cross the three nautical mile jurisdictional boundary need to be negotiated between the State and Australian Governments. There are a number of forums through which this can be achieved although the primary institution for such negotiations is the Council of Australian Governments (COAG).

COAG is the peak intergovernmental forum in Australia, comprising the Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association. Under the leadership of COAG, a number of Ministerial Councils with representatives from each jurisdiction meet to discuss specific policy matters. The Council most commonly associated with Oceans Policy is the Natural Resource Management Ministerial Council.

DOMESTIC IMPLEMENTATION OF INTERNATIONAL AGREEMENTS

1. U.N. CONVENTION ON THE LAW OF THE SEA

Australia has established zones of offshore jurisdiction in accord with the Convention.

On 1 November 1979, Australia proclaimed an exclusive fishing zone (the Australian Fishing Zone) extending 200 nautical miles from the territorial sea baseline (Commonwealth of Australia 1979).

Australia then extended its territorial sea from 3 nautical miles to 12 nautical miles with effect from 20 November 1990 (Commonwealth of Australia 1990) and proclaimed a 200 nautical mile exclusive economic zone with effect from 1 August 1994 (Commonwealth of Australia 1994) and a 24-mile contiguous zone with effect from 7 April 1999 (Commonwealth of Australia 1999).

As for the extended continental shelf beyond 200 nautical miles from the territorial sea baseline, Australia's submission to the Commission on the Limits of the Continental Shelf of 15 November 2004 states in the executive summary that the Australian Government intends to proclaim the outer limits of Australia's continental shelf under the amended provision following the making of recommendations by the Commission pursuant to paragraph 8 of article 76.

The proclamation will be based on those recommendations. The Australian submission and a number of supporting documents are available on the website of the United Nations Secretariat's Division for Ocean Affairs and the Law of the Sea (DOALOS) at www.un.org/Depts/los/clcs_new/submissions_files/submission_austr.htm.

CONVENTION ON BIOLOGICAL DIVERSITY

The Convention on Biological Diversity (CBD) is one of the more significant multilateral environment agreements (MEAs), both in terms of the broad issues covered and the high number of countries that have either ratified or acceded to the Convention (189, including Australia). Australia maintains close relations in CBD negotiations with a number of like-minded agricultural exporter countries. Australia is working closely and collaboratively with New Zealand on a broad range of CBD issues.

The ever-expanding breadth and reach of the Convention's agenda has necessitated taking a strategic whole-of-government approach to Australia's participation. This will assist in better focusing our available resources and effort. It will also guide our input into the program of work, which often encroaches upon, and sometimes conflicts with, the substantial business of other international instruments. This approach should enable the Government to identify the most appropriate forum at which these key interests should be addressed.

The obligations of parties to the Convention are, perhaps, best summarized by Article 6 (General Measures for Conservation and Sustainable Use), which states that

“Each contracting Party, shall, in accordance with its particular conditions and capabilities:

(a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity, or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and

(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies”.

National Representative System of Marine Protected Areas

The *Convention on Biological Diversity (CBD)* and the *United Nations Convention on the Law of the Sea (UNCLOS)* commit member States to protection of the marine environment. In Australia, this international commitment has translated into one of the major initiatives under *Australia Oceans Policy*, which provides for the accelerated development of a *National Representative System of Marine Protected Areas (NRSMPA)*. The establishment of the NRSMPA also supports the programme of the World Conservation Union (IUCN) World Commission on Protected Areas (WCPA) to promote the establishment of a global representative system of MPAs. The implementation of the NRSMPA is guided by the *Guidelines for Establishing the NRSMPA* (ANZECC 1998).

Excluding the Great Barrier Reef Marine Park, 13 MPAs have been declared in Commonwealth waters to date, protecting a total of 272,219 km². However, despite these achievements, a number of gaps remain in Australia’s distribution of MPAs. For this reason, the Government has made it a priority to establish MPAs in large-scale bioregions that are not already represented within the NRSMPA.

The development of the NRSMPA has been linked to the Regional Marine Planning initiative, providing opportunities to consider other conservation measures when designing representative MPAs, and to ensure that MPAs are not identified in isolation from the management of sustainable resource use.

The work being done in the South-east Marine Region is the first time representative MPAs are being identified and established across a large-scale deep offshore marine region. The Australian Government has committed to

establishing the NRSMPA in such a manner that will minimise unnecessary socio-economic impacts. This has necessarily involved close cooperation, not only between Australian Government agencies, but with State Governments and a range of other stakeholder groups.

In January 2004 the Australian Government released a policy statement committing to provide adjustment assistance to commercial fishers and fishing related businesses displaced or impacted by the declaration or zoning of MPAs (Australian Government 2004).

The South-east Regional Marine Plan (SERMP), published in May 2004, included eleven broad areas of interest (BAOIs) for developing MPAs in the region. Candidate MPAs have been developed for two of the eleven BAOIs – Murray and Zeehan – and articulated the process for identifying MPAs in the remaining BAOIs. The SERMP also articulated a staged and adaptive approach to zoning MPAs. Where adequate information exists to make an informed decision, areas of high conservation value will be highly protected. Where information gaps exist, a staged approach to zoning will be adopted, allowing levels of protection to be reviewed as more information about specific economic, cultural and ecological values is gathered.

Protection of Marine Species

Although Australia supports the marine biodiversity conservation objectives of the *Convention on Biological Diversity*, Australia is also party to a number of other Multilateral Environment Agreements (MEAs) and non-legally binding Memoranda of Understanding (MoUs) which aim to protect, conserve and manage marine species at the national, regional and global levels. The principal national environment legislation through which Australia implements its obligations and actions from MEAs and MoUs is the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Examples of MEAs and MoUs to which Australia is a Party and which aim to protect, conserve and manage marine species are:

- Convention on the Conservation of Migratory Species of Wild Animals (CMS);
- Convention on International Trade in Endangered Species of Fauna and Flora (CITES);
- Indian Ocean and South-east Asia Turtle MoU (IOSEA Turtle MoU).

Species listed in the CMS Appendices for which Australia is a Range State are automatically listed as migratory species under the EPBC Act. Under the EPBC Act it

is an offence to kill, injure, take, trade, keep or move a member of a listed-migratory species in Commonwealth water without a permit. Breaches of these laws may result in a conviction of a fine.

Listed-migratory species are considered matters of National Environmental Significance (NES) under the EPBC Act. Any action which has, will have, or is likely to have a significant impact on a matter of NES, including listed-migratory species needs to undergo an environmental impact assessment prior to approval. Conditions may be attached to approval to minimise impacts.

Species listed in the CITES Appendices are automatically covered by the export and import regulations under the EPBC Act. It is an offence to export or import a CITES-listed species from or into Australia without the appropriate CITES permits.

As some of the listed-migratory species are also listed as threatened, the Australian Government is required, under the EPBC Act, to develop and implement recovery plans for those species. For example, Australia implements the IOSEA Turtle MoU through the *Recovery Plan for Marine Turtles in Australia*. Actions under the IOSEA Turtle MoU and the Recovery Plan are implemented through Australian Government project funding and is undertaken by State agencies, research institutions, industry and non-government organizations.

The Australian Government ensures that its obligations and actions under MEAs and MoUs complement national legislation and that national legislation is consistent with its international obligations. Australian Government agencies, State Governments and stakeholders are consulted on species listing and the Australian Parliament assesses treaty actions to ensure that they are in the national interest prior to accepting legally-binding obligations.

INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL 73/78)

Regulations to prevent pollution from ships in Australian waters are implemented by both Commonwealth and State Governments. They are based on the International Convention for the Prevention of Pollution from Ships, known as MARPOL 73/78. This Convention is in force in 127 countries and is the main international convention covering prevention of ship-sourced pollution in the marine environment.

The MARPOL 73/78 Convention deals with pollution that might result from accidents such as collisions or

groundings, as well as all types of waste generated during the normal operation of ships, known as “operational waste”. Ships are permitted to discharge small quantities of this operational waste, subject to very strict controls. A discharge is any release from a ship, whatever the cause.

The Convention has separate technical annexes dealing preventing pollution by:

- oil;
- chemicals;
- harmful substances in packaged forms;
- sewage;
- garbage; and
- air emissions.

The Annex relating to air emissions is not yet in force internationally.

There are special protection measures for Australia’s Great Barrier Reef.

The Great Barrier Reef Marine Park Authority (GBRMPA) introduced new offences and increased penalties under the *Great Barrier Reef Marine Park Act 1975*, which apply to ships when within the boundary of the marine park. These included the introduction of new provisions to make it an offence if:

- A person uses or enters a zone for a purpose other than a purpose permitted under the relevant Zoning Plan. This provision imposes strict liability;
- A ship operates in a zone where a ship is not permitted to be operated under the relevant Zoning Plan. This is a two-tiered offence where the first tier provides for a maximum penalty of \$1.1 million and the second tier imposes strict liability;
- A ship operates in a zone without permission of GBRMPA where such permission is required under the relevant Zoning Plan. This is a two-tiered offence where the first tier provides for a maximum penalty of \$1.1 million and the second tier imposes strict liability;
- A person operates a ship contrary to the conditions of a permission, with the maximum penalty being \$1.1 million.
- A person negligently operates a vessel in the Great Barrier Reef Marine Park in circumstances where that operation results in, or is likely to result in, dam-

age to the Marine Park. This is a two-tiered offence where the first tier provides for a maximum penalty of \$1.1 million and the second tier imposes strict liability.

(AMSA 2001)

MARPOL 73/78 places an obligation on Governments to ensure ports provide adequate facilities for the disposal of the various waste products generated on board ship. The authority responsible for managing the port is required to ensure that the waste reception facilities are adequate for the type of shipping traffic that passes through the port. The *Best Practice Guidelines for Waste Reception Facilities at Ports, Marina and Boat Harbours in Australia and New Zealand* can be downloaded from <http://www.deh.gov.au/coasts/pollution/dumping/waste-reception/> (ANZECC 1997).

These facilities can be fixed, such as those normally found at oil terminals to receive tank washing from oil tankers, or mobile, such as road tankers operated by private waste removal contractors.

The Australian Maritime Safety Authority (AMSA) conducts an extensive program of inspecting ships visiting Australian ports to ensure compliance with the relevant IMO Conventions, a program known as port State control.

AMSA is responsible for the application and enforcement of MARPOL 73/78 in areas of Commonwealth jurisdiction, which is to the limit of the 200 nautical mile exclusive economic zone. State Governments are responsible for coastal waters up to three nautical miles (5.5 kms) offshore and the Great Barrier Reef Marine Park Authority (GBRMPA) is responsible for enforcement activity in respect of illegal discharges in the Great Barrier Reef Marine Park.

Penalties under MARPOL 73/78 legislation administered by AMSA are up to \$1.1 million for the ship owner and \$220 000 for the master of a ship discharging in contravention of the MARPOL 73/78 regulations. The legislation provides wide powers for AMSA marine surveyors to board ships and obtain evidence such as oil samples, and enables ships to be detained while investigations are carried out.

While the focus of AMSA, GBRMPA and the various State Government agencies involved in enforcing MARPOL 73/78 will always be on preventing pollution incidents, enforcement action is becoming increasingly

effective. From 1991 to 2003, there were 94 successful prosecutions in Australian courts. Further successful prosecutions were also conducted in foreign courts following pollution incidents in Australian waters.

CONVENTION ON THE PREVENTION OF MARINE POLLUTION BY DUMPING WASTES AND OTHER MATTER (LONDON CONVENTION OF 1972)

The *Environment Protection (Sea Dumping) Act 1981* (the Sea Dumping Act) was enacted to fulfill Australia's international responsibilities under the *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972*. Australia ratified the 1996 Protocol to the London Convention in 2001 and, although the Protocol is not yet in force internationally, Australia already implements it domestically.

The Sea Dumping Act is administered by the Department of the Environment and Heritage (DEH), or the Great Barrier Reef Marine Park Authority (GBRMPA) if dumping is to take place within the Great Barrier Reef Marine Park. The Sea Dumping Act applies in respect of all Australian waters (other than waters within the limits of a State or the Northern Territory), from the low water mark out to the limits of the Exclusive Economic Zone.

The Sea Dumping Act regulates the deliberate loading and dumping of wastes and other matter at sea. It applies to all vessels, aircraft or platforms in Australian waters and to all Australian vessels or aircraft in any part of the sea.

The Act does not cover operational discharges from ships, such as sewage and galley scraps. Those are regulated by the Protection of the Sea legislation administered by the Australian Maritime Safety Authority.

Permits from DEH (or GBRMPA) are required for all sea dumping operations, and permits will only be considered for those categories of wastes that are specified in Annex 1 of the 1996 Protocol. In deciding whether to grant a permit, consideration is given to the type of material proposed to be dumped, the dump site and the potential impacts on the marine environment. Dredge spoil is assessed in accordance with Australia's National Ocean Disposal Guidelines for Dredged Material (Commonwealth of Australia 2002). Currently, about thirty permits are issued in Australia per year, mainly for the dumping of uncontaminated dredge spoil, disposal of vessels and for burials at sea.

DEH also administers the Sea Installations Act 1987 and the Sea Installations Levy Act 1987. The Sea Installations Act provides the legislative basis for the Australian Government to:

- ensure that sea installations are operated with regard to the safety of the people using them, and the people, vessels and aircraft near them;
- apply appropriate laws in relation to such sea installations; and
- ensure that such sea installations are operated in a manner that is consistent with the protection of the environment.

A sea installation refers to any man made structure that when in, or brought into physical contact with, the seabed, or when floating, can be used for an environment-related activity. An environment related activity is defined as: any activity relating to tourism or recreation; the carrying on of a business; exploring, exploiting or using the living resources of the sea, sea bed or subsoil of the sea bed; marine archaeology; or any other prescribed activity. Examples of the sorts of structures that are defined as sea installations include floating hotels, tourism pontoons, artificial islands and submarine power cables. There are also a number of exclusions which are set out under the Act. Basically, the Act applies from the three nautical mile State limit out from the coast to the outermost limits of Australian waters. It applies from the coast outwards in the case of external Territories.

GLOBAL PROGRAMME OF ACTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES (GPA)

Although Australia has not formally adopted a National Action Plan under the GPA, priorities for action in controlling pollution from land based activities have been identified through the Framework for a National Cooperative Approach to Integrated Coastal Zone Management.

Endorsed by the Natural Resource Management Ministerial Council in October 2003, the Framework sets the scene for national cooperation in managing coastal issues and achieving ecologically sustainable development outcomes in the coastal zone over the next decade. The framework will address cross border and sectoral issues, harmonise joint actions towards management of common issues and build on existing and encourage new investments from all jurisdictions.

The framework identifies land based source of pollution as a key issue that should be addressed cooperatively.

The framework states:

Land based sources of pollution, especially diffuse source pollution, whether derived from agricultural or urban sources, has been identified as one of the greatest threats to the health, productivity and biodiversity of Australia's coasts and oceans. The effects of land-based sources of pollution tend to be reasonably well understood where those effects are obvious and extreme. However, these effects tend to be very poorly understood where they are small, non-linear and/or spatially exclusive. A national cooperative approach to improve estuarine, coastal and marine water quality will enhance ecologically sustainable outcomes.

The Natural Resource Management Ministerial Council is considering an implementation plan which will contain nationally agreed actions to address land based sources of pollution.

Additionally, there are numerous smaller mitigation projects which are being carried out by the Australian Government, in cooperation with one or more State or Territory Governments, which are relevant to the reduction of land based sources of marine pollution.

ENFORCEMENT

Australia's Oceans Policy has no supporting legislation and therefore there are no direct enforcement activities related to the policy.

However, there are a number of existing pieces of legislation that relate to activities described under Oceans Policy. Each of these instruments has its own enforcement and compliance program which will vary depending on the requirements of legislation. Enforcement operations under natural resource management legislation at the federal level are usually carried out by law enforcement agencies and the military, such as the Australian Federal Police (www.afp.gov.au), the Royal Australian Navy (www.navy.gov.au), Coastwatch and the Australian Customs Service (both at www.customs.gov.au).

It is worth noting that the newly proposed bioregional plan model for marine planning exists within the framework of the Environment Protection and Biodiversity Conservation Act 1999. Section 176 of the Act states that "(5) Subject to this Act, the Minister [for the Environment and Heritage] must have regard to a bioregional plan in making any decision under this Act to which the plan

is relevant.(Commonwealth of Australia 2004)” The exact enforcement and compliance implications of the new bioregional plans are yet to be fully explored.

RESEARCH AND EDUCATION

To meet national science priorities developed by the Oceans Policy Science Advisory Group, a number of research projects have been commissioned to further the implementation of Oceans Policy.

The National Science Work Program provides strategic science support for the development and implementation of Oceans Policy.

Projects under the National Science Work Program aim to:

- build on existing knowledge and make data and information about oceans widely available;
- survey and map the biological, geological and oceanographic characteristics of Australia’s oceans, including the uses occurring within them; and
- incorporate the best available knowledge into the development of marine planning.

Work under the National Science Work Program focuses on three main areas:

- development of a national marine bioregionalisation describing broad patterns of biodiversity to support the planning and management framework;
- providing the socio-economic information for marine planning to assist the planning process and advance national assessments of marine issues and uses in Australia’s oceans; and
- advancing the understanding and use of ecosystem-based and adaptive management within marine planning.

The Government contributes to collaborative research voyages that enhance our understanding of the biophysical environment of Australia’s marine jurisdiction. Given the expense of conducting marine research, several institutions contribute to voyage expenses to defray costs. Each voyage carries scientists from contributing organisations and will run several projects simultaneously to capitalise on the limited availability of ship time. Partnerships typically include museums, universities and government agencies often from other nations.

For example, in early 2003, the National Oceans Office coordinated two marine science voyages with the governments of France and New Zealand – one across the Great Australian Bight, the other around Lord Howe Island and Norfolk Ridge.

During these research cruises, several hundred undescribed species were discovered and previously unknown underwater features were mapped, stimulating worldwide media interest. The data collected will be a crucial input to future marine planning efforts. The importance of this type of research has been underlined by the United States National Research Council of the National Academies, which cited the success of the Pacific voyage in its argument for a major, coordinated, international program of ocean exploration and discovery.

Further marine science voyages are planned, with the research effort to be delivered through the Australian Government’s research vessel, the RV *Southern Surveyor*, which has recently been upgraded with modern ocean floor imaging equipment, funded by a multi-agency partnership. The investment has significantly enhanced Australia’s marine science research capabilities.

The results of a major project coordinated by the Marine Division to define Australia’s deep water marine bioregions have recently been finalised. This bioregionalisation is unprecedented in scale, covering an area of approximately 10 million square kilometers on the continental shelf and slope of Australia. It is expected to be launched to the public in late October 2005. This information is expected to make future marine planning exercises more cost-effective and consistent.

The Marine Division produces numerous communication products related to Oceans Policy and maintains a website containing detailed information on many oceans related subjects including reports, media releases, animated seafloor flythroughs and research voyage diaries. A list of products and publications can be found at www.oceans.gov.au.

Most government agencies and research organisations with marine expertise maintain websites that contain information relevant to their mandate. Many organisations also run an education programme as part of their communications policy.

Under *Australia’s Oceans Policy*, the Australian Government is committed to:

- develop a long-term marine education policy and programme for all school ages (kindergarten to year

12) to be incorporated in all Australian States and Territories;

- continue to develop relevant resource materials for use in schools and Technical and Further Education colleges in cooperation with professional bodies; and
- continue to support provision of quality practical educational material for teachers and students.

The National Oceans Office schools education website (www.oceans.gov.au/education) also provides a number of marine educational activities.

The Australian Government is also committed under the policy to a variety of training measures including:

- continuing to develop training courses, open learning courses and summer school programs that focus on integrated marine management and enhancement of practical skills;
- establishing training and development programs to meet the specific needs and requirements of indigenous land holders and managers; and
- establishing workplace training to ensure continued development and dissemination of best practice marine and coastal management skills.

Another important communication tool is national State of the Environment (SoE) reporting. The national-level SoE Reports provide information about environmental and heritage conditions, trends and pressures for the Australian continent, surrounding seas and Australia's external territories. National SoE reports are released every five years with the next due for release in 2006. There is a SoE Report volume specifically on coasts and oceans. More detail on SoE reporting can be found at <http://www.deh.gov.au/soe/index.html>.

Funding for the implementation of *Australia's Oceans Policy* is drawn through the consolidated revenue appropriated by the Department of the Environment and Heritage through the standard government agency budget review process.

In 2000 the National Oceans Office was established in Hobart, Tasmania, to coordinate the delivery of Oceans Policy. AU\$4.1 Million was spent on establishing the Office.

Work on the South-east Regional Marine Plan was begun in late 2000 and was finalised in May 2004 for a total cost of AU\$15.36 Million.

The Northern Regional Marine Plan was begun in 2002 and is expected to be adapted to the new bioregional planning model in late 2005. Total expenditure to date has been AU\$6.19 Million.

The South-west Regional Marine Plan began in early 2005 and is still in its infancy. Total expenditure to date has been AU\$0.30 Million.

In support of marine planning generally, the National Science Work Program has provided an extensive information base since 2000. To date AU\$13 Million has been spent on a variety of science based research efforts to support marine planning.

The Australian Government has approved an additional AU\$9.4 Million to be spent on the implementation of Oceans Policy and marine planning in the 2005-06 financial year.

IMPLEMENTATION, EVALUATION, AND LONG-TERM OUTLOOK

REVIEW OF PROBLEMS, ISSUES, OR OBSTACLES ADDRESSED BY THE POLICY/PROGRAM

The issues faced in delivering Oceans Policy are complicated and vary from region to region. None of these issues are insurmountable, but the complex administrative arrangements for Australia's oceans require good integra-

tion of management across sectors and jurisdictions in order to produce effective outcomes.

One fundamental issue that must be addressed before Oceans Policy can be considered to be fully effective is the question of integration. The division of responsibility across the Federal, State and Territory Governments, and across all maritime sectors and interest groups creates a situation where the simplest of issues can require a response from many authorities and organisations. This ten-

gency for issues to become increasingly complex can only be addressed through strong communication and integration across sectors and jurisdictions.

This complexity coupled with the inherently broad nature of Oceans Policy has proven to be a major obstacle in achieving substantial on-the-ground outcomes in the delivery of the policy. Regional marine planning was intended to be the vehicle to deliver the policy, however the goals of the policy are so diverse and the scale of the plans so large that there was a tendency for the plans to try to achieve too much, to effectively be every solution to every problem.

It should be acknowledged that regional marine planning has moved government agencies and industry to the point where they are able to conceptualise the management of ocean use in an integrated way. Significant advances have been made under Oceans Policy in improving our understanding of the marine environment and regional marine planning has been a valuable tool for informing the management of Australia's marine resources. However it is clearly apparent that regional marine planning lacks the focus to produce real outcomes in all policy areas.

Given that Australia's Oceans Policy was one of the first national marine policies, it is not surprising that there is a substantive element of "learn by doing" associated with the regional marine planning process. The early lessons of the South-east and Northern Australian planning processes led to a major adjustment of the planning model in 2004 to focus on three major outputs: a description of the marine region, ten-year ecological sustainability indicators and an outline of strategies and actions. This framework is essentially correct, however, some adjustment was needed to bring the focus more directly to biodiversity conservation priorities at the regional level and to create the long term security of access and certainty of process for existing and future marine-based industries that was one of the key objectives of Oceans Policy.

The first regional marine plan for South-east Australia was completed and approved by Government in April 2004. Given that the plan took over four years to complete and is primarily a process document which has not tackled the issue of multiple use decision making in a practical manner, it received some negative reaction. The plan did not include a mechanism for marine use zoning or resource access, but provides the basis for improved *coordination* of government processes (as opposed to the *integration* as envisaged by the Oceans Policy). This is not surprising and reflects the relatively mature and ef-

fective sectoral arrangements already in place in Australia for dealing with industry impacts on the marine environment.

It should be noted that the EPBC Act was only a Bill before Parliament at the time Oceans Policy was released, and it appears that the objectives of integrated oceans management have been pursued without sufficient reference to or consideration of the opportunities presented by the EPBC Act. Oceans Policy included a commitment to examine whether there was a need to establish a statutory basis for the development and implementation of regional marine planning. Consideration of this issue represented a substantial piece of work and questioned whether existing sectoral legislation was capable of delivering on Oceans Policy objectives. It was found that the existing management system had the capacity to implement management on an ecosystem basis, whether through permits or management plans, although there was a degree of uncertainty as to the extent that this was within legislative mandates.

The new bioregional planning model sits within the existing legislated framework of the *Environment Protection and Biodiversity Conservation Act 1999*. The advent of the EPBC Act and the strong emerging capacity for whole of government working on key cross-sectoral issues in the marine environment indicate that those aspects of the regional marine planning model focused on the allocation of resource access and use across and within sectors are essentially superfluous. This will remain the case while ever the Government manages sectoral activity according to the principles of ecologically sustainable development.

MONITORING, EVALUATION, AND ADJUSTMENT

Australia's Oceans Policy states that a comprehensive review of the policy will be conducted at least every five years (Commonwealth of Australia 1998). The last review of Oceans Policy took place in 2002 which resulted in a number of recommendations on how to improve the delivery of the policy's goals. The recommended changes have been implemented and appear to have improved the efficiency of the delivery of Oceans Policy. The next full review of Oceans Policy is expected to occur in 2007.

Regional marine plans have been subjected to a number of reviews as they developed. As our experience with these large scale marine plans has increased we have been able to assess our progress and make adjustments where

necessary. The latest evolution of regional marine plans into bioregional plans marks the most significant shift to date in how Oceans Policy is implemented. This new planning regime will be subject to regular scrutiny to ensure that it is delivering good outcomes.

The plan will include the development of baseline measures for ecological sustainability, which would be reported in the State of the Environment Report every five years (the 2006 report will include a theme on oceans and coasts). The sustainability indicators would be agreed with Commonwealth agencies and could then be used in sector based planning and regulatory processes.

OUTLOOK

Australia's Oceans Policy has cross-party political support in Australia and the Australian Government has committed itself to key elements of Oceans Policy. There is no reason to think that the basic principles underpinning Oceans Policy won't be maintained in the long-term. It would be no surprise, however, if there was some review of the detail of Oceans Policy in the light of experience gained since the launch of the Policy in 1998 with a view to updating the policy to better reflect the current state of affairs.

Continued investment in building our scientific knowledge of Australia's marine environment will be a key input to ensuring the sustainable management of our natural resources. A greater focus on sustainability outcomes will create an implementation driven planning process and ensure that Oceans Policy has real outcomes for the community. A planning framework enshrined in legislation will guide government decision making and provide greater certainty for industry groups, guiding their interactions with the Australian Government.

The new approach described by bioregional planning will bring a sharper focus to marine conservation outcomes, while providing the outcome-based framework for sectoral management to continue pursuing integrated oceans management in a strategic and consistent fashion. The plans will be developed within an adaptive management framework that allows for regular monitoring and periodic review.

RECOMMENDATIONS FOR IMPROVING AUSTRALIA'S OCEANS POLICY

It would not be proper for us as public officials to suggest improvements to Oceans Policy in the absence of explicit government consideration and endorsement. However, it has been very apparent that for Oceans Policy to be fully effective there needs to be a greater level of engagement with the State Governments of Australia.

In the early days of Oceans Policy it proved to be difficult for the Federal and State Governments to develop meaningful partnerships in relation to the application of Oceans Policy. Over time engagement has improved but there is further scope for enhanced working relationships.

The integration of oceans management is a daunting and difficult task. Ongoing investment in scientific knowledge and regular self-analysis and review are vital for ensuring continued and meaningful growth in the development and implementation of Oceans Policy. Oceans

Policy faces many challenges and its success can only be achieved by a persistent drive to achieve sound policy objectives.

To ensure ongoing support for Oceans Policy, tangible outcomes need to be delivered and recognised by the Australian community. Oceans Policy and its associated planning framework must be seen as a sound investment in securing the wealth of our marine natural resources.

REFERENCES

Allen Consulting Group (2004) *The Economic Contribution of Australia's Marine Industries 1995-96 to 2002-03*, National Oceans Office, Hobart

AMSA (2001) *Review of ship safety and pollution prevention measures in the Great Barrier Reef*. Australian Maritime Safety Authority, Canberra.

- ANZECC (1997) *Best Practice Guidelines for Waste Reception Facilities at Ports, Marina and Boat Harbours in Australia and New Zealand*. Located at: <http://www.deh.gov.au/coasts/pollution/dumping/waste-reception/> Last accessed: 14/09/05
- ANZECC (1998) *Guidelines for the Establishing the National System Of Representative Marine Protected Areas*, Environment Australia, 1998
- Australian Academy of Science (1994) *The Australian Coastal Zone and Global Change: Research Needs*. Australian Academy of Science, Canberra.
- Australian Antarctic Division (2003) *Areas, lengths, heights and distances*. Located at: <http://www.aad.gov.au/default.asp?casid=1845>. Last accessed: 14/01/05
- Australian Bureau of Statistics (2005) *Population Clock*. Located at: <http://www.abs.gov.au/ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/1647509ef7e25faaca2568a900154b63?OpenDocument>. Last accessed 20/09/05
- Australian Government (2004) *Marine Protected Areas and Displaced Fishing: A Policy Statement*. Located at: <http://www.deh.gov.au/coasts/mpa/displaced-fishing.html> Last accessed: 14/09/05
- Australian State of the Environment Committee (2001) *Coasts and Oceans, Australian State of the Environment Report 2001 (Theme Report)*, Department of the Environment and Heritage, Canberra
- Commonwealth of Australia (1979) *Commonwealth of Australia Gazette*, No. S189, 26 September 1979, AGPS, Canberra.
- Commonwealth of Australia (1990) *Commonwealth of Australia Gazette*, No. S297, 13 November 1990, AGPS, Canberra
- Commonwealth of Australia (1992) *National Strategy of Ecological Sustainable Development*, AGPS, Canberra
- Commonwealth of Australia (1994) *Commonwealth of Australia Gazette*, No. S290, 29 July 1994, AGPS, Canberra
- Commonwealth of Australia (1994) *Commonwealth of Australia Gazette*, No. S290, 29 July 2004, AGPS, Canberra.
- Commonwealth of Australia (1998) *Australia's Oceans Policy*, Environment Australia, Canberra.
- Commonwealth of Australia (1999) *Commonwealth of Australia Gazette*, No. S148, 7 April 1999, AGPS, Canberra
- Commonwealth of Australia (2002) *National Ocean Disposal Guidelines for Dredged Material*, Environment Australia, Canberra
- Commonwealth of Australia (2004) *Environment Protection and Biodiversity Conservation Act 1999 Reprint 2*, Commonwealth Government Printer, Canberra
- Department of Foreign Affairs and Trading (2004) *Australian Now – Australia's System of Government*. Located at: http://www.dfat.gov.au/facts/sys_gov.html. Last accessed: 14/01/05
- Department of the Environment and Heritage (2004a) *The Imperatives for National Coastal Policy: Transcript of opening address by the Hon Dr David Kemp MP at Coast to Coast '04, 19 April 2004*. Commonwealth of Australia, Canberra
- Department of the Environment and Heritage (2004b) *Intergovernmental Agreement on the Environment*. Located at: <http://www.deh.gov.au/esd/national/igae/>. Last accessed: 14/01/05.
- Department of the Environment, Sports and Territories (1998) *Australia's Oceans Policy: Report of the Forum Held in Canberra on 2-3 December 1997*, Commonwealth of Australia, Canberra.
- GBRMPA (1995) *Towards a Marine Regionalisation for Australia: Proceedings of a workshop held in Sydney, New South Wales, 4-6 March 1994*. Great Barrier Reef Marine Park Authority, Townsville
- Geoscience Australia (2003) *Coastline Lengths*. Located at: <http://www.ga.gov.au/education/facts/dimensions/coastlin.htm>. Last accessed: 14/01/05
- Geoscience Australia (2004) *Pers Comm*
- Geoscience Australia (2005) *Continental Extremities*. Located at: <http://www.ga.gov.au/education/facts/dimensions/contxtre.htm> Last accessed: 14/01/05
- IMCRA (1998) *Interim Marine and Coastal Regionalisation for Australia: An ecosystem based classification for marine and coastal environments, version 3.3*. Environment Australia, Canberra.
- McKinnon, K.R., Hammond, L.S., Hickman, B, Lamberton, D, Male, R, Taylor, A.R., Thomson J.M., Williams, M and Weir, A.D. (1989) *Oceans of Wealth*, Australian Government Printing Service, Canberra
- National Oceans Office (2001) *Snapshot of the South-east: A Description of the South-east Marine Region*. Commonwealth of Australia, Hobart.
- National Oceans Office (2002) *Ecosystems: Natures Diversity*. Commonwealth of Australia, Hobart.
- National Oceans Office (2004) *South-east Regional Marine Plan: Implementing Australia's Oceans Policy in the South-east Marine Region*, Commonwealth of Australia, Hobart.
- Natural Resource Management Ministerial Council (2003) *Framework for a National Cooperative Approach to Integrated Coastal Zone Management*, Department of the Environment and Heritage, Canberra. Located at <http://www.deh.gov.au/coasts/publications/framework/> Last accessed: 20/09/05

Poore, G (1995) Biogeography and Diversity of Australia's Marine Biota in Zann, L and Kailola, P (eds) *State of the Marine Environment Report for Australia Technical Annex 1: The Marine Environment*, Great Barrier Reef Marine Park Authority, Townsville.

Sainsbury, K, Haward, M, Kriwoken, L, Tsamenyi, M and Ward, T (1997) *Multiple Use Management in the Australian Marine Environment: Principles, Definitions and Elements*, Environment Australia, Canberra.