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AUSTRALIA'S MANAGEMENT OF
SHIP-SOURCED MARINE POLLUTION

Intergovernmental Dimensions

Marcus Haward

No. 29

August 1995

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the Tamar River in Tasmania in July 1995. In this accident approximately 500 tonnes of fuel oil was released when the *Iron Baron* hit a reef while attempting to enter the river, fouling an extensive shoreline and offshore island breeding grounds for penguins and other marine animals. The *Iron Baron* disaster emphasises the significance of intergovernmental arrangements to combat and mitigate the effects of ship-sourced marine pollution, and the integrated nature of such clean-up operations involving Commonwealth, state and local governments, port authorities, shipping and salvage companies and the community. Increasing use of large bulk carriers to transport raw materials such as crude oil in the second half of this century has increased concern over the management of such shipping, the mitigating of potential disasters and the development of agreed measures in case of discharges. While most public attention is directed at the effects of oil spills through groundings, collisions or structural failure of ships, an equally important issue concerns the effects of discharges of ballast water from ships as part of routine operations.

Bulk carriers generally arrive at port of loading 'in ballast'. Simply speaking this means that water is carried in tanks or holds which ensures the empty ships's stability and, therefore, safety. It is the transfer of pollutants (foreign animal and plant material) through uptake and discharge of ballast water which is recognised as a serious problem. The scale of ballast water transfer is staggering; in 1991 it is estimated that Australia received 121 million tonnes of ballast water from 53 countries involving 4,775 ship visits (ANZECC 1995). Most of the ballast water in Australia comes from bulk carriers and over 85 per cent originates in Asia. Japan accounts for more than 54 per cent of ballast water discharged in Australian waters, sourced from 42 Japanese ports. A further 34 million tonnes of ballast water is transferred between Australian ports by domestic/coastal shipping (Paterson 1994).

Internationally the scale of the ballast water problem is significant. Introduced marine pests pose clear problems illustrated by the introduction of the zebra mussel into the Great Lakes bordering the USA and Canada. The cost of controlling this pest (which has invaded the intake pipes for power stations) has been estimated at US\$4 billion by the turn of the century (Rigby 1995, p. 385). Recognition of the direct and indirect effects of such introduced species has contributed to heightened concern and raised the salience of the ballast water issue. This concern is clearly seen at both international and domestic levels. Internationally, the International Maritime Organisation (IMO) provides a coordinating role in the implementation of a wide range of measures to reduce ship-sourced marine pollution. At the domestic level, a number of

nations have recognised the extent of the problem of ballast water with Australia taking a lead in establishing practices and introducing policies and management strategies. These Australian arrangements reflect an intergovernmental character: the Commonwealth is responsible for domestic legislation giving force to relevant international conventions and any obligations arising from these conventions, while state (and local) governments have major management responsibilities. Arguably it is the state and local governments which bear the brunt of the effects of introduced marine pests and so are involved in managing the effects of ballast water pollution as much as being integrally involved in implementing government guidelines.

Australia's response to issues of ship-sourced marine pollution provides an interesting case study in intergovernmental interaction. As a nation which is an exporter of raw materials shipped by bulk carriers, it is probably not surprising that we have taken a high profile on this issue. Nor is it surprising that Australia has introduced the issue at the highest levels within relevant international fora. What is less publicised is that measures established within Australia to encourage management of the problem are being introduced by the IMO as a voluntary code or practice. This code is the first stage in the development of a more rigorous set of provisions annexed to the major international conventions governing prevention of pollution from ships. Australia's role in the IMO in relation to the ballast water issue provides, therefore, an interesting case study on the nexus between domestic interests and international agreements and conventions. Indeed, this example is rather different from other areas affected by the increasing reach of international conventions where it is assumed that the international convention limits the operation of domestic law and/or intergovernmental interaction within Australia. In this case it is the domestic arrangements established within Australia which have underpinned the development of international arrangements. Before examining the intergovernmental dimensions of this issue area in detail, it is important to provide a brief account of developments within these international fora.

International Responses to Marine Pollution

Ship-sourced pollution has attracted considerable international attention, first in response to the accidental discharge of pollutants, and second the dumping of wastes (including ballast water and plastics and other material) from vessels. Ship-sourced pollution is regulated under two international conventions — MARPOL 1973/78 (the International

Convention for the Prevention of Pollution from Ships) and the London Dumping Convention (International Convention on Offshore Dumping 1975). In terms of effects of terrestrial-sourced industrial wastes which may affect marine ecosystems, amendments to the London Dumping Convention mean that signatories to the convention agree to curtail dumping of terrestrial-sourced wastes at sea from 1995.

MARPOL was developed following an International Conference on Marine Pollution held in 1973. In light of the focus of this paper on ballast water issues it is interesting to note that one of the resolutions at this conference called for the World Health Organisation, in collaboration with IMO, to conduct research into the role of ballast water as a medium for the spreading of epidemic disease bacteria. The 1978 protocol to MARPOL superseded an earlier convention, the International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL) concluded in 1954. OILPOL came into force in 1958. Annexes to MARPOL deal with different ship-sourced pollutants. These annexes are very detailed, reflecting increasing international concern with pollution of the world's seas and oceans. Annex V of MARPOL, for example, governs the dumping of garbage at sea. This annex provides guidelines on the dumping of ship-sourced garbage and totally prohibits the disposal of plastics, including fishing gear, into the sea.

The IMO is responsible for the administration of MARPOL and has worked strenuously to reduce accidental discharges from ships (Gold 1994). IMO, a specialist United Nations agency, is the major international body concerned with shipping and offshore safety matters. In terms of its major objectives to improve marine safety and to prevent marine pollution from shipping operations, IMO has developed a Global Program for the Protection of the Marine Environment, addressing basic principles of 'safer ships and cleaner seas'. One aftermath of highly publicised disasters relating to the large-scale pollution of the sea has been to raise international standards and performance criteria in tanker and bulk carrier operations (Gold 1994). Australia is an active member of the IMO and, in particular, its Marine Environment Protection Committee (MEPC). It is the MEPC, formed in 1973, which has been responsible for the current work on ballast water by the IMO. MEPC is responsible for coordinating IMO activities in relation to the protection of the marine environment from pollution from ships. Australia has just relinquished the chair of the MEPC, a position Australia used to maintain impetus for international action on ballast water.

Ship-sourced marine pollution is also the subject of references in other international conventions or agreements relating to the management

of the world's seas and oceans. The Law of the Sea Convention (LOSC) came into force in November 1994 and provides a comprehensive regime governing all aspects of the law of the sea. Section 5 of Part XII of the LOSC convention is devoted specifically to 'international rules and national legislation to prevent, reduce and control pollution of the marine environment'. Articles 210 and 211 deal with ship-sourced pollution, although ballast water is not specifically mentioned. Agenda 21, the global action plan adopted at the United Nations Conference on Environment and Development (UNCED) in June 1992, also deals with the management of the world's seas and oceans. Chapter 17 of Agenda 21 is concerned, *inter alia*, with the 'protection of the oceans, all kinds of seas including enclosed and semi-enclosed seas and coastal areas'.

In pursuing the protection and sustainable development of marine and coastal environment and resources, Agenda 21 advocates 'new approaches' which are 'integrated in content', 'precautionary and anticipatory in ambit' in a number of program areas. One of these program areas is marine environmental protection. In relation to pollution from ballast water, Chapter 17.30 of Agenda 21 recommends specific action. This provision focuses on the need for states 'within the framework of the IMO and other relevant organisations' to address degradation of the marine environment from shipping, including 'considering the adoption of appropriate rules on ballast water discharges to prevent the spread of non-indigenous organisms'.

As indicated above, the IMO, in response to Australian concern, has established voluntary international guidelines governing ballast water. These guidelines are detailed below. At sea, transfer of ballast water is at the discretion of the ship's master and the provisions of the Safety of Life at Sea Convention (SOLAS). Given concerns over ship stability and safety (and costs incurred in transferring ballast), most ballast water is transferred within the territorial sea. The guidelines also govern the release of ballast water, ballast water exchange and sediment removal, and use of shore-based treatment facilities. The IMO guidelines aim to provide 'guidance on procedures that will minimise the risks from the introduction of unwanted aquatic organisms and pathogens from ships' ballast water and sediment' (MEPC 1991). MEPC recognised that 'in the short term operational measures such as ballast water exchange at sea may be appropriate where they have been shown to be effective'. MEPC also notes that 'for the longer term, more effective strategies, possibly involving structural or equipment modifications to ships, may need to be considered' (MEPC 1991).

Following the release of these guidelines, MEPC is moving towards codifying this code of practice as a further annex to MARPOL dealing with ballast water (IMO 1993; IMO 1994; IMO 1994a). The annex is expected to be completed within three years, given increased international awareness of the scale of the problem, particularly since the 1970s (Jones 1994). Ship-sourced marine pollution within Australian waters is regulated under the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*. This legislation implements the MARPOL convention in Australia, although ongoing intergovernmental interaction is necessary to clarify roles and responsibilities of each sphere of government in relation to the ballast water issue (AQIS 1994). These negotiations will increase compliance with relevant Australian and international regulations, enhance the provision of port based disposal facilities and reduce the scale of the problem (Jones 1994, p. 34).

The IMO Ballast Water Guidelines

- **Non-release of ballast water**

This is seen as the most effective means of preventing the introduction of unwanted aquatic organisms and pathogens.

- **Ballast water exchange and sediment removal**

Exchange of ballast water in deep ocean areas or open seas limits the probability of transferring species in ballast water. Responsibility for such transfer remains with the master of the vessel.

- **Ballast water management practices**

Port state authorities may establish practices governing the uptake and discharge of ballast water, aimed at minimising the uptake or discharge of contaminated water or sediment for ballasting or re-ballasting operations.

- **Shore reception facilities**

Where available discharge of ship ballast water into such shore based facilities may provide an acceptable means of control.

- **Training, education and ship management plans**

Ships' crews are to be made aware of ballast water management and the problems of indiscriminate loading and unloading of ballast water.

- **Future considerations**

The need for on-going research and development, including chemical treatment, heat treatment, oxygen deprivation controls, tank coatings, filters and use of UV light disinfection.

(See AQIS 1994)

Intergovernmental Aspects of Management of Marine Pollution in Australian Waters

Australia's response to the problem of marine pollution emphasises the utility of applying an intergovernmental relations framework to this policy area. Australia's high profile internationally in the area of the management of ballast water is primarily the concern of the Commonwealth government. Commonwealth responsibility derives from section 51 (ix) (quarantine) and section 51 (xxix) (external affairs) and is managed by the Australian Quarantine Inspection Service (AQIS). Despite the Commonwealth's responsibilities, ballast water management inevitably involves all three spheres of government in Australia. State governments have to cope with the effects of ballast water discharge, particularly the introduction of marine flora and fauna. Local government, particularly port authorities, have the front-line management tasks and will bear increasing responsibility for providing facilities to mitigate the effects of such discharges.

In Australia management of marine resources and the legislative bases for such management had, until challenged by an increasingly assertive Commonwealth government in the late 1940s and early 1950s, rested with the States. Prior to federation the colonies had established their own legislation over fisheries and related activities. A vaguely worded Commonwealth power relating to fisheries was included in the constitution, although in the half-century following federation the Commonwealth had limited direct involvement in offshore matters. The Commonwealth became more active in the 1950s and 1960s with the establishment of a Commonwealth fisheries agency and the enactment of the *Australian Fisheries Act 1952* (Cwth). These developments provided the basis for increasing conflict with the States over fisheries management as the Commonwealth gradually expanded its involvement in the licensing and regulation of fisheries. Exploration for oil and gas offshore, beginning in the early 1960s, encouraged the Commonwealth to assert a direct role in offshore resources management (Haward 1992).

The question of jurisdiction for these activities emerged more forcefully in the 1960s and 1970s following increased oil and gas exploration offshore. The Commonwealth and States made a deliberate attempt to set aside conflicts over jurisdiction which may have constrained these developments. An innovative intergovernmental agreement and legislative scheme, known as the 1967 Petroleum Agreement, established an administrative regime for offshore petroleum. This agreement accommodated State interests and created a revenue

sharing arrangement between the Commonwealth and the States for royalties derived from offshore oil and gas production. This accommodation did not, however, last long, being challenged within three years of its implementation. It is important to note, however, that although the period 1970–1975 was characterised by conflict over jurisdiction offshore, the administrative regime established in 1967 remained in place and was in effect merely updated under the OCS (Haward 1989).

In 1970 Prime Minister Gorton initiated an abortive attempt to assert Commonwealth jurisdiction over offshore resources. Although this legislation was not to complete its passage through parliament, it acted as a spur for legislation introduced in 1973 by the Whitlam-led Australian Labor Party (ALP) government. A declaration of Commonwealth paramourcy in relation to offshore resources made through the *Seas and Submerged Lands Act 1973* (Cwth) was opposed by all State governments but upheld by the High Court. In resolving the legal question of jurisdiction, the court decision posed political problems for the Commonwealth in its dealings with the States and Territories, given their strident opposition to the original legislation. The Northern Territory was specifically included in the OCS, although formally Northern Territory self government is based on Commonwealth legislation and lacks the constitutional independence of the other States. Granting of self-government to the ACT in May 1989 has meant amendments to Commonwealth legislation governing the Jervis Bay Territory so that ACT law applies in Jervis Bay. Other Australian territories, such as the Coral Sea Islands, Norfolk, Christmas and Cocos Islands and the sub-Antarctic Heard and MacDonalld Islands, are subject to Commonwealth law.

The political fallout from the *Seas and Submerged Lands* case was more sharply defined as the High Court's decision was released after the Whitlam government had been defeated in the December 1975 federal election. While the High Court had resolved the issue of jurisdiction, this solution was politically unpalatable for the States, and problematic for the newly elected coalition, led by Malcolm Fraser who had campaigned on a platform of a more 'co-operative' New Federalism (Saunders & Wiltshire 1981, pp. 355–71). The offshore 'problem' would be resolved by including what were termed the 'seas and submerged lands matters' within the ambit of the New Federalism.

The solution to this problem was given the title of the Australian Offshore Constitutional Settlement (OCS). The OCS was established after lengthy intergovernmental interaction in 1979, and gradually implemented between 1983 and 1990. The OCS returned jurisdiction

over the area from low water mark to three miles within the territorial sea to the States after the High Court had upheld Commonwealth jurisdiction from low water mark in the Seas and Submerged Lands case of December 1975. International law and domestic politics in federations such as Australia distinguish between high seas, territorial and internal (incorporating inland) waters. Territorial waters are those which lie offshore from a baseline, usually (but not always) the low water mark, to a boundary which under the LOSC can be twelve miles offshore. Australia declared a twelve mile territorial sea in November 1990. Internal waters are those waters which fall on the 'onshore' side of the baseline measuring the territorial sea, for example large bays and inlets. Inland waters are defined not in terms of their relation to the territorial sea, but to the land. This nexus can be in terms of history as well as geography, as 'historic bays' such as Spencer Gulf and the Gulf of St. Vincent in South Australia have been defined by the High Court as inland waters.

Emerging after extensive intergovernmental interaction between 1976 and 1979, the OCS was seen as a 'milestone in co-operative federalism'. As part of the Fraser government's New Federalism initiative and its most longstanding legacy (Haward & Smith 1992), the OCS was based on co-operative arrangements between the Commonwealth and State governments over the administration and management of offshore resources. The announcement of the OCS agreement in 1979 was indeed a milestone but much further negotiation was needed to complete the agreement. Almost three years were to elapse between the introduction of the Commonwealth's complementary legislation into parliament and the proclamation of the second and crucial element of this package, the *Coastal Waters (State Titles) Act 1980*, which entrenched the OCS.

The Offshore Constitutional Settlement

The OCS was established by two legislative anchors, the *Coastal Waters (State Powers) Act 1980*, extending State jurisdiction offshore to the three mile boundary, and the *Coastal Waters (State Titles) Act 1980* which returned legal ownership to the seabed from low water mark (LWM) to three miles to the States. The latter statute effectively entrenched the settlement, as returning title to the States ensured that revocation of the OCS would involve constitutional provisions which require adequate compensation from the Commonwealth for its acquisition of State territory. The OCS is effectively entrenched as such

acquisition must occur with the agreement from the State(s) concerned. The *State Titles* legislation was therefore a critical element of the offshore 'settlement'. This act was proclaimed in somewhat controversial circumstances during the federal election campaign of March 1983 (Haward 1992). At the time the ALP in opposition had criticised the intergovernmental arrangement over the offshore and had committed a future ALP government to overturning the OCS. State control over the seabed to three miles offshore provided under the OCS makes it difficult to unravel these arrangements. The legislative design of the OCS overcomes some of the problems of fragmentation by enabling the establishment of co-operative intergovernmental arrangements. It must be recognised, however, that the OCS arrangements reinforce a sectoral, rather than an integrated, basis to marine resource management in Australia.

The OCS included a range of 'agreed arrangements' governing Commonwealth-State relations relating to the management of marine resources. Agreed arrangements covered the following areas, all related to management of Australia's offshore estate:

- Oil and gas
- Other seabed minerals
- Fisheries
- Great Barrier Reef Marine Park
- Other marine parks
- Historic shipwrecks
- Shipping and navigation
- Crimes at sea
- Ship-sourced marine pollution.

The OCS involved amendment of 14 Commonwealth acts governing a range of activities within each area covered by the agreed arrangements. This action was necessary to ensure that the agreed arrangements were not invalidated (Haward 1989). The resilience of the OCS was emphasised in 1987 with the passage of the *Sea Installations Act 1987*, which governs tourist accommodation at sea. This legislation was enacted within the OCS framework, enabling State agencies to administer Commonwealth legislation outside the three-mile boundary, while being responsible for managing activities within three miles of LWM. In terms of ship-sourced

marine pollution, the OCS maintained Australia's commitment to MARPOL, although it was being negotiated while an additional protocol was being added to this convention. The intergovernmental arrangements which have emerged are interesting and are described in greater detail below.

While the OCS deals specifically with ocean management, it is not the only intergovernmental framework which impacts on Australia's maritime domain. The Intergovernmental Agreement on the Environment (IGAE) is a more recent and potentially important intergovernmental agreement. The IGAE came into effect in May 1992, after intense negotiations between the Commonwealth and the States in the preceding two years. It has been seen as a major watershed in Commonwealth-State relations over the environment, and has particular relevance in terms of institutional arrangements concerning aspects of ocean management. The IGAE 'was to improve intergovernmental coordination of environmental management' and 'provide better environmental protection' (ESDSC 1992, p. 2).

The Intergovernmental Agreement on the Environment

The IGAE establishes the formal interest of each level of government in the management of Australia's environment and the means by which these (potentially differing) interests can be accommodated in environmental management.

Section 2 of the Agreement delineates for the first time the responsibilities and interests of each of the three spheres of government. In doing so, it recognises that the States and Territories have responsibility for the majority of environmental issues within their borders. Nevertheless, it makes provision for the Commonwealth government to become involved in the issues where it has demonstrated responsibilities and interests. (ESDSC 1992, p. 116)

While dealing with broad issues, and dominated by a terrestrial focus, the IGAE could be amended to incorporate marine-related policy areas, such as coastal management, as additional schedules.

The most contentious aspect of the IGAE is likely to be the provisions relating to the accommodation of differing Commonwealth and State interests, in particular aspects of environmental management. It is likely that, given the history of intergovernmental conflict in environmental management, such negotiations will see State governments asserting their interests and objecting to Commonwealth intervention or unilateral decision making.

The IGAE also includes an important clause dealing with the financial implications of decisions regarding the management of the environment, although it also states that 'the Commonwealth and States will be responsible for the attainment and maintenance of agreed national standards or goals and compliance with national guidelines within their respective jurisdictions'. The IGAE recognises that 'decisions on environmental issues taken at one level of government may have significant financial implications for other levels of government' and states 'that consideration will be given to these implications where they are major or outside the normal discharge of legislative responsibilities of the level of government concerned' (IGAE 1992). Given the current budgetary constraints facing State governments, the costs of implementing agreed national standards for marine and coastal management may increase intergovernmental negotiations and heighten rather than reduce conflict. This conflict will increase if the States believe that they are committing additional expenditure to implementing 'Commonwealth', rather than negotiated 'national' standards.

Intergovernmental Arrangements and Ship-Sourced Marine Pollution

Australia established arrangements governing the accidental discharge of ship-sourced marine pollution in 1960 following the enactment of Commonwealth and State legislation implementing the 1954 International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL). Revamping of the MARPOL Convention in 1973 and again in 1978 (in response to increasing international concern with oil pollution from ships) led a reappraisal of Australian legislation. One outcome of the 1978 protocol to MARPOL was the enactment of Commonwealth legislation giving force to the convention. This legislation was enacted in the early 1980s. Although given the opportunity, no State enacted complementary legislation following the proclamation of the Commonwealth's *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*.

At face value, this situation seems to undercut the co-operative base to the OCS and, as has been noted by one commentator, could be seen to have led (at least in part) to a modification of the OCS arrangement (Crommelin 1987, p. 110). This situation is interesting given the States' concern at the issue of sovereignty, or more correctly jurisdiction, in the then territorial sea, and that they would retain control over waters from LWM to three miles offshore. Since the OCS was predicted on

complementary legislation establishing this boundary, the arrangements for ship-sourced marine pollution are at odds with the broader design. The passage of the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* resulted in necessary amendments to the Commonwealth's legislation 'to allow its operation in the territorial sea to the extent that there is no adequate State or Northern Territory legislation on the subject' (Crommelin 1987, p. 110).

Several reasons can be postulated for the failure of any of the States to enact such complementary legislation. The first may be a perception that there was no immediate need for State legislation as the Commonwealth legislation was in place. This in itself may reflect an increasing level of State 'comfort' with the Labor government in Canberra over offshore issues. State concern over the federal ALP's formal opposition to the OCS, even if the settlement had received bipartisan support at the State level, became muted as the Commonwealth gave clear signals that it would not overturn the OCS. Indeed the Commonwealth took the view that the OCS arrangements were a matter of commonsense. A second factor may be the reluctance of the States to become involved in complex issues raised by compliance with, or enforcement of, international treaties. A third explanation may be that the States did not wish to take responsibility for regulating complex anti-pollution practices, necessary if State legislation was introduced. If such State/Territory legislation was enacted the Commonwealth Act would cease to apply to the area under State jurisdiction, but the roll-back clause would ensure that the MARPOL convention still applied. It is important to note that the lack of complementary legislation does not mean that there is no relevant state legislation governing ship-sourced pollution within state waters. The issue is rather one of a diversity of state acts, some of which implement MARPOL standards, operating in each state's offshore zone (see Bates 1995).

Oil Pollution

Australia has been relatively fortunate to have avoided a major oil-pollution disaster although it has faced several serious cases of oil pollution arising from accidental discharges from ships. The *Iron Baron* grounding in July 1995 is the most recent case, releasing 500 tonnes of fuel oil into the waters of the Tamar River and Bass Strait, with significant effects on marine fauna and the environment. The *Kirki* accidentally discharged 17,000 tonnes of oil following the loss of its bow in 1991 off the Western Australian coast. The effects of the *Kirki* spill were limited by its distance offshore (over 80 kilometres) and the

dissipation of the oil through natural ocean action. Australian responses to the threats of such pollution have been developed over many years, with the grounding of the *Oceanic Grandeur* in the Great Barrier Reef region in 1970 recognised as providing the impetus for action by Australian governments.

Management of such disasters is undertaken through the National Plan to Combat Pollution of the Sea by Oil, administered by the Australian Maritime Safety Agency (AMSA) in collaboration with state governments, port authorities and shipping companies. The national plan was reviewed in 1993 and AMSA is currently implementing the recommendations of this review (ANZECC 1995). The plan provides a coordinated response to any oil spill and provides a means of bringing equipment and expertise to the site of the spill. The plan emphasises that 'environmental interests and priorities must be taken into account when managing oil spills in the sea from any source' (ANZECC 1995, p. 24). The National Plan encompasses training, contingency planning and 'oil spill trajectory modelling', providing appropriate expertise and resources to tackle such pollution.

Australia has also acted to minimise damage to sensitive areas such as the Great Barrier Reef from the effects of serious oil spills through the establishment of a compulsory pilotage scheme through the reef as part of its declaration as an IMO special area. It has also acted on the issue of tanker and bulk carrier safety (highlighted by the *Kirki* disaster) with a House of Representatives committee releasing a report *Ships of Shame* in 1992 (Australia 1992). A number of actions are flowing from this report including the enhancement of Australian port state control, 'the system of vetting the safety standards of foreign ships' in Australian waters (ANZECC 1995, p. 25). These measures are designed to reduce the chance of ship-sourced oil pollution within the Australian territorial sea. As shown by the recent *Iron Baron* grounding, it is not possible to totally remove all chances of such pollution, although international evidence is clear that the amount of such pollution has diminished as stricter controls and forms of compliance are brought to bear on ship operators and owners.

Ballast water

The regulation of the dumping of ballast water emerged as a major concern following discoveries of introduced toxic marine organisms and seaweeds. The discovery of foreign sea weeds and dinoflagellate spores within sediments in the Tasmanian port of Triabunna were traced to contaminants contained within ballast tanks of bulk woodchip carriers

using the port. These spores are considered to have the potential to lead to toxic plankton blooms which could damage the developing mariculture industry in the State (Mercury 18 May 1988). In response to scientific evidence which indicated the potential harm from such organisms, the Commonwealth introduced guidelines on the 'uptake and discharge' of ballast water in February 1990. These voluntary guidelines were 'extended indefinitely' in August 1990 (*Mercury* 6 August 1990).

The ballast water issue has been the focus of considerable attention within all spheres of Australian government and has been the subject of particular attention by ANZECC (the Australian and New Zealand Environment and Conservation Council). ANZECC is the peak Ministerial Council responsible for intergovernmental coordination and collaboration over environment policy in Australia. With New Zealand's membership, discussion of maritime environmental issues such as ballast water can begin to incorporate a regional approach, given the important role both countries play in capacity building in the South Pacific (Bergin 1994). ANZECC has been active in promoting the protection of the marine environment in relation to retention of biodiversity and the development of marine protected areas. The Commonwealth Department of Transport and the Australian Quarantine Inspection Service (AQIS) have also taken a major role in combating ship-sourced marine pollution — AQIS having carriage of the ballast water issue and being responsible for the development and implementation of Australian guidelines. Within the State sphere ANZECC notes that 'most States have also established or plan to establish State working groups to address the ballast water issue' (ANZECC 1995, p. 23). In terms of intergovernmental coordination, a National Ballast Water Symposium was held in May 1994, attended by Commonwealth, State, industry and environmental organisations. The key outcome from this symposium was the Australian Ballast Water Management Strategy (see below).

The current Australian guidelines, 'Controls on the Discharge of Ballast Water and Sediment from Ships Entering Australia from Overseas', remain voluntary. The emphasis is on 'ships Masters and owners to comply with voluntary arrangements to minimise the entry of exotic and harmful forms of marine life through the discharge of ballast water and sediment' (AQIS 1994). Australian practice has incorporated recommendations from IMO's decisions in 1991 establishing international guidelines and the experience gained in operating such domestic guidelines since 1990.

The Australian Ballast Water Guidelines

- **Ship Operational Procedures**

Every effort should be made to ensure only clean water is being taken on and sediment uptake minimised. Records of dates, location, salinity and amount of ballast water uptake to be entered in ships log.

- **Non-release of ballast water**

An undertaking may be given that ballast water discharges will not take place in Australian territory.

- **Ballast water exchange and sediment removal**

The vessel may produce evidence that re-ballasting at sea en route to Australia has taken place. 'Flow through' exchange of ballast water may be acceptable, but needs AQIS approval.

- **Compliance arrangements with AQIS**

A compliance arrangement may be entered into between the vessels owners and AQIS and would be monitored at least twice a year.

- **Alternative treatments**

AQIS is willing to consider proposals for water treatment to render organisms non-viable.

- **Guidelines for control of ballast sediment**

Under no circumstances should sediment resulting from tank or hold clearing or stripping be disposed of in Australian waters.

- **Procedures in the absence of control action**

Where appropriate control action has not been taken AQIS should be advised so that an appropriate course of action can be determined.

(See AQIS 1994).

The Australian ballast water guidelines have been complemented by a number of initiatives in 1994-95, including the release of an Australian Ballast Water Management Strategy. This strategy recognises that management of ballast water requires a coordinated national approach. As far as the ballast water issue is concerned, the introduction of marine pests through discharges of ballast water has potentially serious impacts on the Australian fishing industry. Introduced sea weeds, dinoflagellate spores and the infestation of the North Pacific Sea Star within Tasmanian coastal waters, for example, have been traced to contaminants contained within ballast water. Research is supported by

the establishment of the CSIRO Centre for Research on Introduced Marine Pests (CRIMP) in August 1994. CRIMP will research and develop early warning tools and better predictive approaches, and examine assessment of risks and costs. CRIMP will also research improved methods for controlling introduced pests. CRIMP is contained within the CSIRO's Marine Laboratories in Hobart and its work is to be guided by an advisory committee.

Dumping

Australia signed the international Convention on Offshore Dumping in 1973. This convention, popularly known as the London Dumping Convention, came into force in 1975 although 'it was applied in Australia on a voluntary basis in co-operation with the states and industry until the *Environmental Protection (Sea Dumping) Act 1981* was passed to give legislative effect to the Convention' (Burmester 1984, p. 443). This legislation was enacted within the framework of the OCS. Roll-back provisions enabled the appropriate Commonwealth Minister to make a declaration that the State law was the basis for regulating activity within three miles of the low water mark 'if satisfied that the law of the state or Northern Territory makes provision for giving effect to the convention in relation to coastal waters ... of that state or territory' (Burmester 1984, p. 444).

Amendments to the *Environmental Protection (Sea Dumping) Act 1981* passed in 1986 removed the need for a Commonwealth permit for loading waste if a State had approved legislation in place (Brown 1988, p. 60). Prior to this amendment the arrangements controlling dumping caused some confusion, chiefly arising from the need for both Commonwealth and State permits which, in effect, replicated each other (Burmester 1984, p. 443). This arrangement reflected the general orientation of the OCS where the States were able to assume greater responsibility for activities as long as Australia's obligations in terms of international treaties were maintained. Amendments to the London Dumping Convention mean that signatories to the convention will curtail dumping at sea from 1995, and so further Commonwealth-State interaction is likely as the administrative regime is further modified.

The dumping of radioactive wastes, for example, which are excluded from the more general coverage in the London Dumping Convention, now has to conform to Australian responsibilities under recently signed South Pacific regional treaties, chiefly the South Pacific Regional Environmental Protection Convention (SPREP) and the South Pacific

Nuclear Free Zone Treaty (SPNFZ, or more correctly, the Treaty of Raratonga). Ratification of these treaties has meant that the Australian States are no longer able to legislate for the loading, dumping or incinerating at sea of radioactive waste (Brown 1988, p. 60). This underscores the point that intergovernmental interaction over domestic policy is influenced by Australia's international personality, which gives primacy to the agreements which are entered into by the state of Australia, as opposed to arrangements practised by the States of Australia. The development of a strategy to manage ballast water does, however, emphasise the importance of domestic policy on Australia's position in international fora.

The National Ballast Water Strategy

Australia's strong position on the issue of ballast water, influenced by the domestic salience of this issue, has been instrumental in gaining recognition of the problem by the IMO. Australia's commitment to the problem of ballast water maintained its impetus with the release by the Commonwealth government of the Draft Australian Strategy on Ballast Water Management (the 'Australian Strategy') on 2 December 1994. This is the first such national strategy of its kind anywhere in the world and will be instrumental in work towards including ballast water management as an annex to MARPOL.

The Australian Strategy seeks to identify options and support research on ballast water management and agencies and organisations responsible for overall management and individual components of the strategy. Given that there are no known total solutions to the problems of introduced organisms in ballast water, it is recognised that any measures introduced 'must meet the criteria of being safe, practicable, cost effective and environmentally acceptable' (AQIS 1994, p. 4). The Australian Strategy incorporates a number of key principles 'which need to be applied if the Strategy is to be successful'.

These principles include:

- A single national strategy consistent with IMO resolutions and guidelines;
- Taking account of the national interest, including the legitimate requirements of all stakeholders;
- Seek to minimise risk of movement and establishment of unwanted organisms;
- Recognise the need for continuing research;

- Recognise the legal responsibilities of the Commonwealth, the States/Territories and all other involved parties;
- Recognise importance of disseminating and sharing research results; and
- Recognise the value of existing databases.

The Australian Strategy requires that all parties, each sphere of government, relevant agencies and industries 'commit themselves to taking all necessary and reasonable steps to ensure ships' ballast water is managed in a safe, practicable, cost effective and environmentally acceptable manner which is consistent with IMO and Australian Guidelines'. The Strategy establishes a non-statutory body, the Australian Ballast Water Advisory Council, to oversee administration of the strategy and provide advice to the Minister and other interested parties. This council was formally constituted in February 1995. The Council is to be supplemented by a Research Advisory Group on Ballast Water, providing it with advice on scientific research on ballast water management and treatment.

The ballast water issue also provides an insight into the important, yet understated relationship between public and private interests in key intergovernmental policy areas. The importance of scientific research and collaboration, often involving international linkages between scientists in the public and private sectors, has created an 'epistemic community' (see Haas 1989) of shared concern. As noted 'such communities often identify areas where international cooperation is needed and can help shape agreements to that end' (Joyner 1995, p. 14). The focus on intergovernmental relations, while providing a lens which emphasises the integration of policy making, tends to mask the roles of 'non-government' actors within the 'policy community'. In the case of the ballast water issue, BHP, the operator of the largest fleet of Australian-flagged tankers or bulk carriers, is a major actor in the research effort, the development of remediation measures and in the advisory bodies associated with the National Ballast Water Strategy. The shipping industry has an integral and important role in the international effort to manage the problem of ballast water. The shipping industry's interests in the development of practical guidelines 'which ensure that maximum benefit is achieved at optimum cost and inconvenience' (Rigby 1995, p. 387) means that they will be active participants in the development of policy and practice. It will be obvious that an international solution to the problem of managing ballast water will only be possible with the support of major shipping nations and of the shipping operators within them.

Conclusion

The development of Australian responses to the issues of ship-sourced marine pollution, in particular those directed at the problem of ballast water, provides some important insights into intergovernmental policy making. Responses to this problem clearly show the interaction between constitutional, political and administrative elements of Australian federalism underpinning the establishment of collaborative action between each sphere of government. Examination of intergovernmental relations affecting ship-sourced marine pollution shows that collaborative action is necessary even in areas where the Commonwealth's constitutional power has been reinforced by the passage of legislation giving effect to an international convention. Constitutional heads of power are important juridically, but may have greater impact as resources in intergovernmental interaction. As Russell argues:

constitutional power should be viewed as a political resource just as popularity or a good international economic climate are resources for democratic politicians. . . How governments use their constitutional gains or seek to overcome their losses depends on their political will and skill, and their other resources. (1985, p. 165)

As a result the State governments have a range of resources to utilise in intergovernmental interaction in policy areas such as the offshore. These resources range from technical expertise through to the deployment of people 'on the ground' in a range of activities entrenching state interests in the policy area. State (and local) government officials are a visible sign of state interests and jurisdiction. Jurisdictional responsibilities thus give the States political as well as legal resources and ensure that the politics of Commonwealth-State relations will be important in determining intergovernmental arrangements.

Since the States are political as well as legal entities they can use these resources to counter the expansion in the reach of Commonwealth power occurring through judicial review. The implementation of expanded Commonwealth powers carries considerable political costs. International treaties or conventions reinforce Commonwealth powers but do not reduce the interests of the States which are equally important in determining outcomes. The separation between domestic and international policy imperatives in a federal system is increasingly an artificial dichotomy, as domestic agendas are rarely limited to 'domestic' issues. The evolution of intergovernmental relations offshore shows, however, that international treaties can be used by the Commonwealth as a means to pursue a particular domestic agenda. The empirical material on the

development of a domestic regime to manage ship-sourced marine pollution shows on the other hand that such action by the Commonwealth does not limit or preclude the States from asserting their view of the national interest.

The impact of Commonwealth legislation giving effect to international agreements cannot be understated, although concentrating on the Commonwealth's actions tends to understate the ability of the States to work collaboratively in particular policy areas such as ballast water. The States' demands for consultation over the implementation of international treaties has remained a major issue in Australia since the 1970s, reappearing in the new federalism initiative of 1990–91 as part of the agenda of the Special Premiers' Conference and in the IGAE of February 1992. What is interesting about the ballast water issue is the States' support for stronger international action to complement intergovernmental arrangements within Australia.

While it is too soon to evaluate the impact of the ballast water strategy, or of the effectiveness or otherwise of the Australian (and IMO) guidelines in reducing the deleterious effects of ballast water dumping, the development of a national approach reflects the inherently intergovernmental (in all senses of the term) nature of the problem. Thus the Australian experience in managing ship-sourced marine pollution reinforces the argument that, even in areas where the Commonwealth has clearly defined jurisdiction, effective implementation of management strategies depends on broad-based intergovernmental collaboration.

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