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Australia and the Indian Ocean

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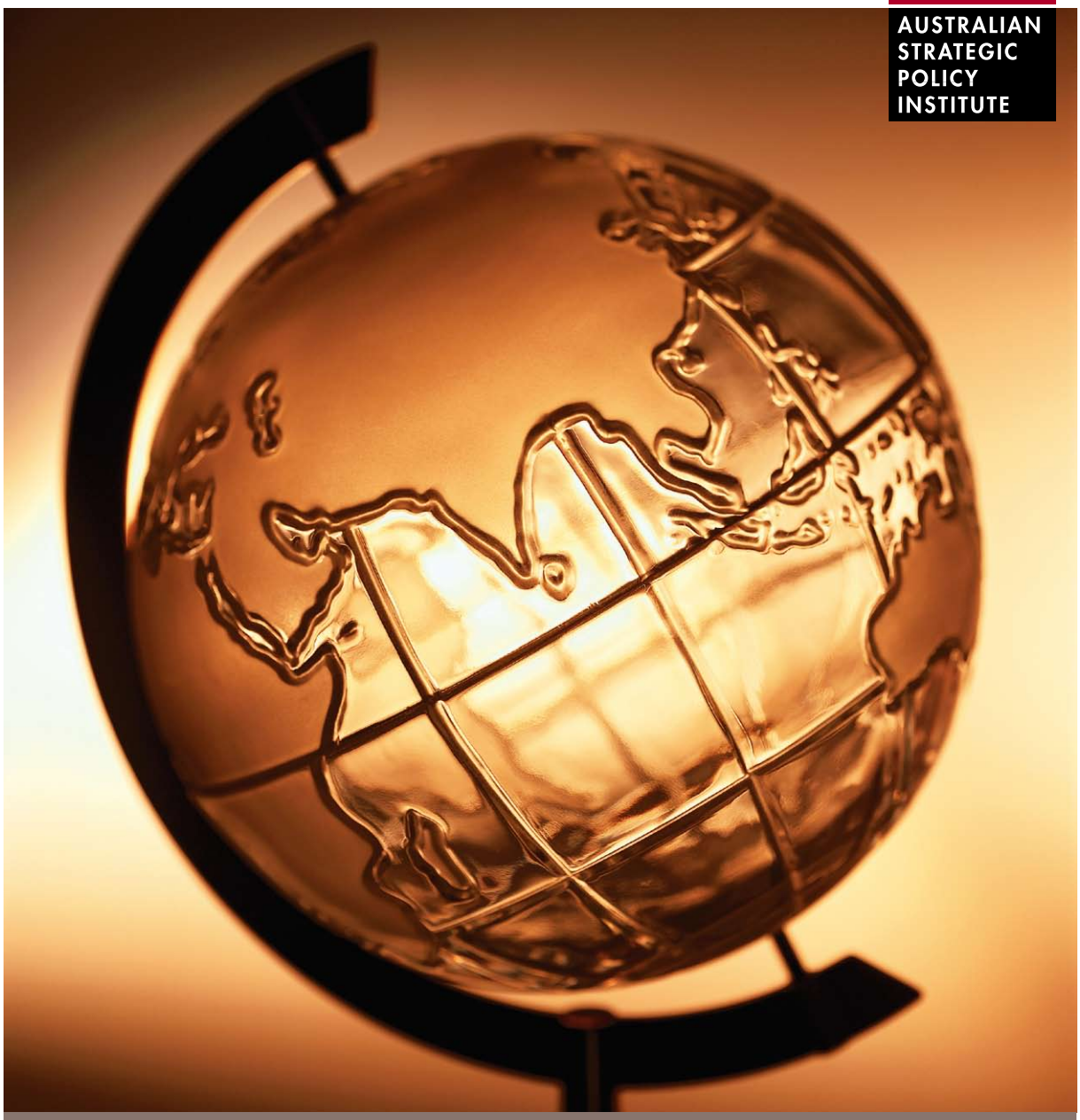

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Executive Director's introduction

A seminal article by Robert Kaplan in *Foreign Affairs* last year drew attention to the growing strategic and political importance of the Indian Ocean. It claimed that this ocean would be centre stage for the challenges of the 21st century, and that a maritime dimension would be essential to understanding those challenges.

The Indian Ocean is the world's third largest body of water. It's the major energy and international trade maritime highway, particularly for the booming economies of Asia. It's where key geopolitical differences might play out this century.

Australia has neglected the Indian Ocean, but we're the largest Indian Ocean state as measured by the extent of offshore maritime claims.

This report is a timely review of the extent of our interests, primarily our maritime interests, in the Indian Ocean region. It argues that we've been treading water when it comes to advancing our interests in this region. It suggests that we need to promote future regional cooperation in a range of activities. The Indian Ocean is part of our ocean neighbourhood, and there are significant economic, security and environmental benefits in finding common ground with our neighbours.

The report stresses that Western Australia is our gateway to the Indian Ocean. Oil and gas developments off the west coast are booming, and about one-third of Australia's exports now come from Western Australia. We need to appreciate the full strategic, political and economic implications of these trends.

I thank Sam Bateman and Anthony Bergin for completing this important study, which urges Australia's strategic community to look more to our west. It builds on their contribution to promoting greater awareness of Australia's oceans policy in the *Strategy* report they produced last year for ASPI, *Sea change: Advancing Australia's ocean interests*. I'm very grateful to all those individuals and organisations, particularly those in Western Australia, that shared their knowledge and expertise with the authors.

Peter Abigail
Executive Director

Photo opposite: The Common User Facility (CUF) at the Australian Marine Complex (AMC), Cockburn Sound, with HMAS *Sirius* (foreground) and two Anzac-class frigates refitting. The CUF is a major asset on the West coast supporting the marine, defence and resources sectors. Photo courtesy AMCCUF.

Executive summary

The Indian Ocean has become the focus of increasing strategic and political attention. Australia should be a pre-eminent country in the Indian Ocean region (IOR), but we've neglected it in favour of the Pacific. We lack a holistic Indian Ocean policy, despite the fact that we have the largest area of maritime jurisdiction in the IOR.

In developing a policy framework for the Indian Ocean, Australia is faced with basic choices. Should we foster cooperation and dialogue on a region-wide basis? If so, how should we start the process? Or would it be better to focus on the sub-region nearest to us—the East Indian Ocean? Do some regional countries warrant special attention? What common interests potentially provide a basis for multilateral cooperation and dialogue? Or should the main focus of initiatives in the IOR be on bilateral relations? These are some of the questions addressed in this report.

There are forty-eight independent littoral and island countries in the IOR, as well as several major extra-regional stakeholders—China, France, Japan, Russia, the European Union (EU) and the US. IOR countries aren't a cohesive group. They include some of the world's poorest countries and display a great diversity of races, religions, cultures, political systems, economic conditions and interests.

Despite great diversity, there are also similarities. All IOR countries enjoy a tropical or temperate climate and tend to have similar fauna and flora, ecology and types of natural disasters, especially tropical storms and drought. They have similar endowments of natural resources, including hydrocarbons. Some have large exclusive economic zones that are rich in fish.

Much of the world's trade in energy crosses the Indian Ocean. This partly explains extra-regional countries' renewed interest in the IOR. Regional wars and crises, particularly in the Gulf region, have led to a new era of external involvement. This is now reinforced by energy politics, the outbreak of piracy around the Horn of Africa, and the emergence of China as a new and powerful regional player.

A new maritime 'great game' is emerging in the IOR, as strategic competition between India and China becomes evident. Each has fears of being contained by the other—in China's case, because India is supported by Japan and the US. Meanwhile, the US continues to dominate the IOR strategically and militarily. India promotes itself as the dominant power of the region. It's obsessed by China's entry into the IOR and is making great use of its navy to spread power and influence.

There's currently much strategic uncertainty and tension in the IOR. The region is the scene of many conflicts and disputes, some involving extra-regional powers, as well as increased nuclearisation and militarisation. The IOR, its power politics and the maritime great game, will command more attention from Australia.

Threats and risks in the IOR are extensive and varied. They include traditional maritime security concerns (risks of interstate or intrastate conflict; threats to good order at sea, such as maritime terrorism, piracy, people smuggling and illegal fishing) and non-traditional security concerns (climate change, transnational crime, marine natural hazards and energy, food, environmental and human security). Most threats faced by littoral and island countries have a significant maritime dimension. And trends in those threats are mainly in the wrong direction.

The unique oceanographic and tectonic features of the Indian Ocean help to explain the IOR's relatively high incidence of natural disasters and hazards. Despite the benefits of better oceanographic knowledge of the IOR, it remains under-researched compared with other oceans.

Australia has extensive strategic, economic and environmental interests in the IOR; it's not in our interests for the region to become an area of major power competition. The greatest challenges to the protection of our offshore sovereignty and sovereign rights lie in the Indian Ocean. About one-third of our exports emanate from Western Australia, and major offshore developments underway off the west and northwest of the continent will be a key to our future prosperity. We need to work harder to plan for critical infrastructure protection, and the Australian Defence Force should increase its presence in this area.

The policy framework for Australian initiatives in the IOR should be based on three cornerstones:

- a selective approach to the region as a whole, with increased official development assistance to Africa and South Asia; an emphasis on oceans issues, including marine scientific research and fisheries; some attempt to rejuvenate and widen the scope of the Indian Ocean Rim Association for Regional Cooperation (IOR–ARC); and a web of bilateral relationships
- a focus on the East Indian Ocean to build active and functional cooperation between the countries of that sub-region, which share a range of clear and pressing common interests
- domestically, policy coordination on IOR issues between Canberra and the Western Australian and Northern Territory governments, as well as greater recognition of the increasing importance of critical infrastructure and sovereignty protection in the west.

In the past, regional diversity and political differences made it difficult to establish cooperation and some concept of an Indian Ocean 'region'. However, a lot has changed politically, economically and strategically since the last serious attempts at building regional

cooperation in the mid-1990s. It's now time to review regional cooperation and the role that Australia might play.

To start the ball rolling, the Australian Government could sponsor an Indian Ocean Conference in Perth, similar to the International Forum on the Indian Ocean Region meeting nearly fifteen years ago. This would be an important building block for Australian initiatives and for actions by the region as a whole. It should be a Track 1.5 meeting, with private sector, non-government organisation and academic participation. Because of the size of energy and mining developments in the region, the private sector has an important contribution to make.

The agenda for the conference should include rejuvenating the IOR–ARC, regional progress towards achieving the Millennium Development Goals, energy issues, ocean management, fisheries management, natural hazard mitigation and marine scientific research. Extra-regional stakeholders, particularly China, the EU, France, Japan and the US, should be invited to participate, as well as all IOR–ARC members, dialogue partners and observers, and Pakistan and Saudi Arabia.

Because of the potential sensitivities involved, traditional security issues shouldn't be considered at this conference. However in the longer-term, and if current strategic trends continue, the region may have to consider a forum where these issues, including confidence-building measures and preventive diplomacy, might be addressed.

Several priorities stand out for the shorter-term, and are listed in the recommendations in this report:

- Fisheries management and marine scientific research should receive greater attention as part of our region-wide efforts.
- Based on our sound relationship with Indonesia, we should begin an early dialogue with Jakarta on IOR matters.
- In the East Indian Ocean, natural hazard mitigation, people smuggling, humanitarian assistance and disaster relief should be the focus of our efforts to promote cooperation.
- At a national level, we need to improve our policy coordination arrangements for the IOR, and begin planning for increased Australian Defence Force activity in the west.

Recommendations

Strategic policy

Influence and presence

1. As a broad strategic objective, Australia should increase its strategic presence in the Indian Ocean region (IOR) through more proactive regional relations and a wide spectrum of increased activity in the region.

Regional cooperation and dialogue

2 Australia should foster regional cooperation and dialogue in the IOR, based on a framework of:

- region-wide cooperation on an issue-by-issue basis
- increased support for the Indian Ocean Rim Association for Regional Cooperation (IOR–ARC), with some restructuring and reorientation of the forum so that it addresses a broader range of issues
- the development of practical cooperation and dialogue within the East Indian Ocean.

3. As a step towards achieving increased support for the IOR–ARC and promoting dialogue on key regional issues, Australia might host an Indian Ocean conference similar to the International Forum for the Indian Ocean Region event held in Perth in 1995.

4. Dialogue might be commenced with India and Indonesia on the establishment of a forum for the East Indian Ocean.

Bilateral relations

5. Australia should maintain and extend strong bilateral relations with other leading players in the IOR, especially India, Indonesia, South Africa and France.

6. Australia might draw on its experience with Pacific island countries in showing more interest in the challenges, such as climate change and fisheries management, faced by small island countries in the IOR, especially Mauritius and the Maldives.

7. Dialogue should be pursued with Indonesia on IOR issues.
8. A memorandum of understanding (MoU) on search and rescue should be negotiated with Sri Lanka, and we should offer to assist with search and rescue capacity building.

Energy cooperation

9. Regional energy issues should be included on the agenda of a rejuvenated IOR–ARC.

Maritime security cooperation

10. Australia could host a future Indian Ocean Naval Symposium, provided the symposium is an inclusive gathering of IOR states and has a clear sense of purpose.
11. Australia should continue to promote and secure arrangements for maritime information exchange within the IOR on both bilateral and multilateral bases.

Sovereignty and border protection

12. An independent study should be conducted of Australia's requirements for bluewater capabilities for maritime policing, patrol and scientific research. Naval war-fighting capabilities should not be included, but the study should take into account the Australian Defence Force's contribution to civil maritime tasks.
13. More regular air and surface patrols should be undertaken around the Cocos Islands.

Oceans management and research

Oceans management

14. Australia should take the lead and work closely with India and South Africa to develop an Indian Ocean Declaration setting out broad principles of oceans management for the Indian Ocean. A draft form of this declaration might be put forward to the IOR–ARC and relevant sub-regional forums.

Fisheries management

15. Australia should make a greater effort to ensure that cooperative fisheries management arrangements in the Indian Ocean are effective. In particular, we should work to improve the operations of the Indian Ocean Tuna Commission—the only player in the Indian Ocean that can manage a vital marine resource for the IOR states.
16. Assistance in building local capacity for fisheries management, and exclusive economic zones management more generally, should be an important component of Australia's regional aid programs.

Marine scientific research

17. An audit should be undertaken of current marine scientific research in the Indian Ocean.
18. A study should be commissioned to demonstrate the economic, environmental and social benefits of better marine scientific research in the Indian Ocean.
19. An East Indian Ocean Marine Science Association, similar to the Western Indian Ocean Marine Science Association, should be established, based in Perth or Darwin. It would collaborate with other associations and initiatives, such as the Coral Triangle Initiative in the eastern archipelago.

Capacity building

20. As a guide to the assistance that might be provided by Australia and other donor countries, a study should be undertaken of the maritime capacity needs of less well-off littoral and island countries of the IOR.

21. Countries with search and rescue regions in the Indian Ocean adjacent to Australia's, but that are not already parties to the Convention on Maritime Search and Rescue, should be encouraged to ratify the convention.

Mitigation of marine natural hazards

22. An interagency forum should be established to manage Australian assistance in the mitigation of natural hazards.

23. Australia's assistance in mitigating marine natural hazards in the IOR should now include the provision of additional staff in the Perth regional office of the International Oceanographic Commission to focus on the capacity-building requirements of IOR countries and Australia's offshore territories, which are also vulnerable to such hazards.

National arrangements

Policy coordination and development

24. A subcommittee of the Council of Australian Governments should be established to work towards a possible intergovernmental agreement on Australia's engagement in the IOR.

25. The Western Australian Government should consider establishing a portfolio for IOR affairs.

Australian Defence Force presence on the west coast

26. The Australian Defence Force should plan to markedly increase its presence along the west coast of Australia between Perth and Darwin. This should involve:
    - establishing a naval operating base in the northwest (in the longer term, this base should have facilities at least equal to those of existing bases in Darwin and Cairns)
    - increasing the frequency of military exercises in the region
    - making greater use of RAAF bare bases at Curtin and Learmonth.

A new centre for Indian Ocean studies

27. An academic centre of excellence for Indian Ocean studies should be re-established at a Western Australian university.

Chapter 1

THE INDIAN OCEAN—CENTRE STAGE FOR THE 21ST CENTURY

The Indian Ocean is becoming the focus of increasing strategic and political attention. In a notable article, Robert Kaplan, senior fellow at the Center for a New American Security, argues that the Indian Ocean already forms centre stage for the challenges of the 21st century (Kaplan 2009a, 2010). The authors of Australia's 2009 Defence White Paper also believe that the Indian Ocean will become more strategically significant in the period to 2030 (Australian Government 2009a:37).

Australia should be a pre-eminent country of the Indian Ocean region (IOR), but our attention to the region has waxed and waned over the years. Canberra has clear policy positions on the Pacific and Southern oceans, including Southeast Asia and Antarctica, but its Indian Ocean policies have been relatively opaque and spasmodic: the Indian Ocean is our neglected ocean.

Geopolitics

With a water area of around 73.5 million square kilometres, the Indian Ocean is the world's third largest ocean. It has some distinctive geostrategic features. Unlike the Pacific and the Atlantic, it's enclosed on three sides by landmasses and a great number of nations. For the purposes of this report, the IOR comprises all littoral and island states of the ocean, including those bordering the Persian Gulf and Red Sea. Hinterland and landlocked states of East Africa and South Asia that depend on access to the Indian Ocean for trade and resources are also included. On this basis, there are forty-eight independent countries in the IOR: eighteen in Africa, eleven in the Middle East, seven in South Asia, six in Southeast Asia, five island states, and Australia (see Table 1).

In addition to independent states, there are many small island territories of littoral and other states. Nations with offshore territory in the IOR and adjacent areas of the Southern Ocean are France (Reunion,

St Paul, Amsterdam, Kerguelen and Crozet islands), the United Kingdom (the British Indian Ocean Territory, or Chagos Archipelago), Australia (Cocos, Christmas, Ashmore and Cartier islands and Heard and MacDonald islands), India (Andaman, Nicobar, and Lakshadeep islands), South Africa (Marion and Prince Edward islands) and Yemen (Socotra).

These territories generate extensive exclusive economic zones (EEZs) (see Figure 1).

Figure 1: Indian Ocean exclusive economic zones

France and the United Kingdom have island territories in the Indian Ocean, but other non-littoral countries or international entities also have stakes in IOR affairs. They include the US as a global power, China as a rising great power, and the European Union (EU) and Japan because of their extensive trade and shipping interests. This large number of stakeholders makes it difficult to find the common ground needed for building cooperation.

The countries of the IOR are also home to 2.6 billion people, or 39% of the world's population.

Table 1: Independent countries of the Indian Ocean region

Africa	Middle East	South Asia	Southeast Asia	Island states and Australia
South Africa	Israel	Afghanistan	Myanmar	Madagascar
Mozambique	Jordan	Pakistan	Thailand	Comoros
Lesotho	Yemen	India	Malaysia	Seychelles
Swaziland	Oman	Sri Lanka	Singapore	Maldives
Zimbabwe	United Arab Emirates	Nepal	Indonesia	Mauritius
Zambia	Saudi Arabia	Bhutan	East Timor	Australia
Malawi	Qatar	Bangladesh		
Tanzania	Bahrain			
Uganda	Kuwait			
Kenya	Iraq			
Somalia	Iran			
Eritrea				
Ethiopia				
Djibouti				
Sudan				
Egypt				
Rwanda				
Burundi				

Diversity

IOR countries aren't a cohesive group. They have greatly diverse races, religions, cultures, political systems, economic conditions and interests. They include some of the world's poorest nations. According to the Human Development Index compiled by the United Nations Development Programme (UNDP 2009:167–170), the median level of IOR countries is 138 out of the total of 182 countries. Twelve IOR countries are among the 83 with high or very high human development; 26 are among the 75 with medium human development; and 7 are among the 24 with low human development. The others (Afghanistan, Zimbabwe and Iraq) don't score on the index, but sit towards the bottom end of the scale.

IOR countries range from two of the most developed (Australia and Singapore) to some of the least developed (such as Malawi, Zambia, Burundi, Ethiopia and Mozambique). Five IOR countries are members of the G20 (Australia, India, Indonesia, Saudi Arabia and South Africa), giving the IOR a potentially louder voice in global governance. Annual per capita income in 2008 ranged from US$47,940 in Singapore to US$380 in Burundi. Generally, the African countries have the lowest incomes.[1]

The Failed State Index compiled by the *Foreign Policy* journal in 2009 lists eleven IOR countries in the world's 'top twenty' failed states, as assessed by factors such as virulent economic crises, population pressures and chronically weak government.[2] Robert Kaplan (2010:180) has referred to Pakistan and Myanmar, both key regional countries, as two of the least stable countries in the world.

Religious diversity is a particular feature of the region: Buddhism, Hinduism, Islam and Christianity are all strongly represented. With the 'arc of Islam' stretching from Somalia and Yemen through Iran, Pakistan and Bangladesh to Malaysia and Indonesia, that faith dominates in area and number of countries. However, secular divisions exist within the arc, and neighbouring Islamic countries can have as many differences with each other as they have with their non-Islamic neighbours.

Similarities

Despite the IOR's great diversity, there are also similarities between its constituent states. Because all inhabited territory in the region is within 40 degrees of the equator, all IOR countries have tropical or temperate climates. Therefore, they have similarly adapted fauna and flora, ecology, and types of natural disasters, especially tropical storms and droughts. And they have similar problems of environmental management and the pattern and spread of disease.

There is also some common ground in their endowment of natural resources. Littoral and hinterland countries of the IOR produce a large proportion of the world's oil, iron ore, tin, bauxite, gold, diamonds, manganese, uranium and chromium. The waters of many Indian Ocean littoral and island countries are rich in fish, particularly tuna, which are exploited mainly by distant-water fishing fleets from Europe, Japan, South Korea, China and Taiwan. Fisheries management is potentially a strong common interest in the IOR.

Hydrocarbons are the region's main non-living marine resource. Large reserves are being explored and exploited off Saudi Arabia, Sudan, Iran, India, Myanmar and Western Australia. An estimated 40% of the world's oil production comes from the IOR. Over 60% of global oil reserves and nearly 50% of gas reserves are in the Persian Gulf sub-region of the IOR (see Table 2).[3] Although the Indian Ocean has an average depth of some 4,000 metres, large areas of relatively shallow shelf off northwestern Australia and in the northwest quadrant of the ocean offer potential for further oil and gas discoveries.

Table 2: Indian Ocean region: proven oil and gas reserves at the end of 2008

	Share of world total	
	Oil	**Natural gas**
Australia	0.3%	1.4%
Bangladesh	◆	0.2%
Egypt	0.3%	1.2%
India	0.5%	0.6%
Indonesia	0.3%	1.7%
Iran	10.9%	16.0%
Iraq	9.1%	1.7%
Kuwait	8.1%	1.0%
Malaysia	0.4%	1.3%
Myanmar	◆	0.3%
Oman	0.4%	0.5%
Pakistan	◆	0.5%
Qatar	2.2%	13.8%
Saudi Arabia	21.0%	4.1%
Sudan	0.5%	◆
Thailand	◆	0.2%
United Arab Emirates	7.8%	3.5%
Yemen	0.2%	0.3%
Total	**62.0%**	**48.30%**

◆ = Less than 0.05%

Note: Proven reserves of oil are those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions.

Source: BP statistical review of world energy 2009, *www.bp.com*.

The deeper waters of the Indian Ocean offer favourable prospects for finding manganese nodules, which were the focus of the seabed mining regime in Part XI of the 1982 United Nations Convention on the Law of the Sea (UNCLOS). India has been particularly active in exploring deep seabed areas of the Indian Ocean, and was designated a pioneer investor under UNCLOS Resolution II for an area in the Central Indian Basin. It was the only non-developed country to achieve that status.

Maritime jurisdiction

Some littoral and island states of the IOR have very large areas of maritime jurisdiction.[4] Offshore biological and geological resources are potentially major national resources for most littoral and island IOR countries, but few are able to explore and exploit their offshore resources and protect their sovereignty.

Several countries in the IOR may be entitled to an extended continental shelf, beyond their EEZ, under UNCLOS Article 76. Such claims are lodged at the Commission on the Limits of the Continental Shelf (CLCS). IOR countries that have already made submissions are Indonesia, Myanmar, Mauritius and Seychelles (a joint submission), Yemen, and Australia. Other areas of seabed may also be subject to CLCS submissions.

Australia has the largest area of maritime jurisdiction in the IOR. Our total EEZ in the region, including that around our offshore territories, is 3.88 million square kilometres. By comparison, India's EEZ is estimated to be 2.31 million square kilometres. Australia also has 2.02 million square kilometres of extended continental shelf in the Indian Ocean. Those areas have been confirmed by the CLCS, giving Australia a total area of maritime jurisdiction in the IOR of about 5.9 million square kilometres.[5]

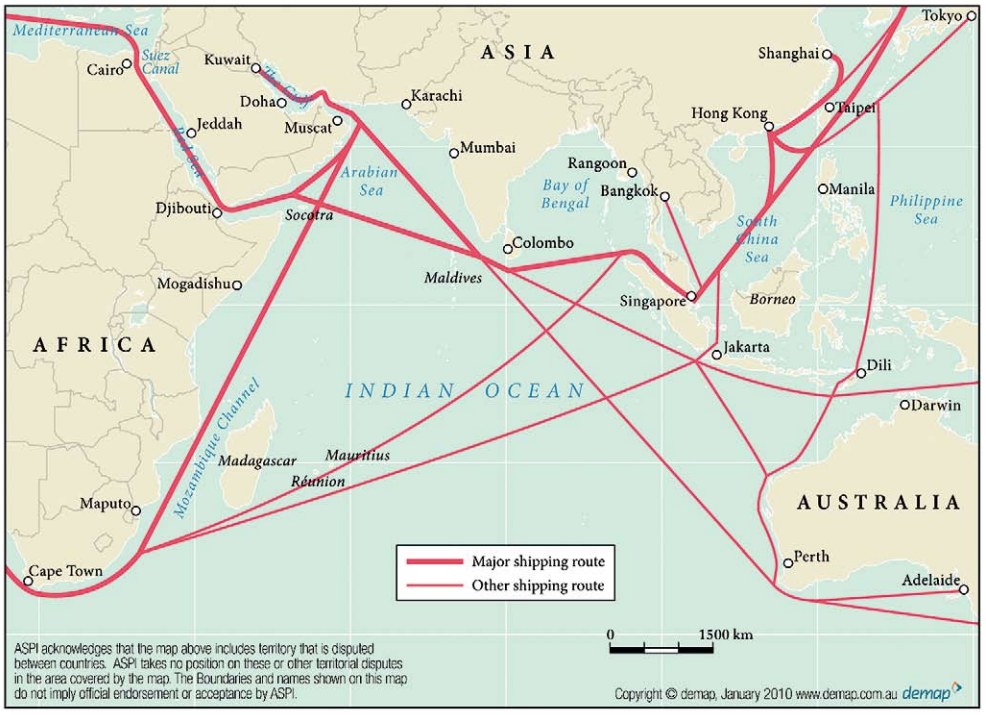
Shipping traffic

Major sea routes connecting Europe, the Middle East, East Africa, East Asia and Australia cross the Indian Ocean, making it an increasingly important global trading thoroughfare, particularly for energy supplies. With the economic growth of Asian countries, much of the world's trade in energy now transits those routes.

There are three critically important entry and exit points to the northern part of the ocean: the Bab el Mandeb Strait between Djibouti and Yemen, leading to the Red Sea and the Suez Canal; the Strait of Hormuz between Iran and Oman, leading into the Persian Gulf; and the Malacca Strait between Indonesia and Malaysia, leading through the Singapore Strait into the South China Sea. Some very large crude oil carriers also transit the Indonesian archipelago further east through the Lombok and Makassar straits en route to northeast Asia. Figure 2 shows the density of shipping traffic in the IOR.

About 40% of all crude oil and petroleum products moved by sea passes through the Strait of Hormuz (Richardson 2008:117). About two-thirds of Gulf oil exports go to Asia across the Indian Ocean, and much of the remainder goes to Europe or the US either around the Cape of Good Hope or in smaller tankers through Bab el Mandeb. Energy exports to Asia are expected to increase as economies develop, demand rises and the self-sufficiency of East Asian countries decreases.

Figure 2: Shipping traffic in the Indian Ocean



Building cooperative frameworks

There have been several attempts during the past twenty years or so to manage the diversity of the IOR, exploit common interests and build cooperative frameworks. None have worked out, although some sub-regional and specialist organisations have succeeded (see Appendix A for details). For example, the relative paucity of comprehensive oceanographic research in the Indian Ocean is partly a consequence of the political sensitivities and difficulties that have inhibited more general cooperation in the region.

The 'Indian Ocean Zone of Peace', an early attempt at cooperation in the IOR, was initiated by Sri Lanka in 1971. It was an expression of the ideal held by newly decolonised states of the region that they could create an area of peace and harmony through cooperation. The move was 'a continuation of the anti-imperialist struggle to rid the Indian Ocean of the ruinous great power intervention and rivalry that had gone on for centuries' (Mohan 1996). The concept was opposed by the major powers; the entry of the Soviet Union into Afghanistan in 1979, the response of the US, and the Gulf War finally killed the idea.

Sri Lanka initiated a further attempt at regional cooperation in the 1980s by establishing the Organisation for Indian Ocean Marine Affairs Cooperation, which sought to promote peaceful uses of the ocean in such areas as economic, scientific and technical cooperation. Non-littoral developed countries, particularly the US, played a significant role in its activities, though India and Australia didn't become members. Disputes about membership reduced the usefulness of the organisation, and it's now moribund.

In the mid-1990s, Australia and India led renewed efforts to build cooperation in the IOR, such as the International Forum on the Indian Ocean Region hosted by Australia in Perth in June 1995. Its aim was to explore possibilities for regional cooperation across the IOR. The forum was a Track 2 meeting, with broad participation and a wide-ranging agenda of

economic, environmental and social issues, including non-traditional security concerns. Traditional security issues were excluded. These initiatives became bogged down mainly because of differences between Australian and Indian views. Australia wanted an inclusive approach to cooperation, while India wanted an exclusive framework based on cooperation between selected IOR countries (Dobell 2000:159–160).

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The Indian Ocean Rim Association for Regional Cooperation (IOR–ARC) is the only surviving product of the mid-1990s activity.[6] It was established with high hopes that it might become a forum for economic and trade cooperation, similar to the Asia–Pacific Economic Cooperation (APEC) grouping. Those hopes haven't been realised: most participating states have lost interest, and IOR–ARC meetings have become smaller and lost sight of their purpose.

Many factors explain the problems that have prevented effective maritime cooperation in the IOR and in regional cooperation more generally. First, the countries in the IOR are very diverse in their political systems, stability, economic development, and maritime interests and capabilities. They lack common interests, other than the ocean and its resources.

Second, they're separated by large distances and it's very expensive to move around the region as a whole. While travel between Australia, Southeast Asia, South Asia and the Middle East is relatively straightforward, travel to and between East Africa and the island countries is more difficult.

Third, significant political sensitivities have limited the scope of cooperation. This was evident in the mid-1990s, when there were different views about how far cooperation should extend. In the past, India has condemned the great powers for their intervention in the Indian Ocean and hasn't supported attempts to build cooperative frameworks that include external powers, Pakistan, or both.

Fourth, most of the IOR countries lack the political, legal and administrative capacity to participate in cooperative forums. If they're to participate, they'll be highly dependent on support and assistance from the larger countries in the region, which could lead to concerns about domination by the larger powers and some loss of independence.

Much of the geopolitics of the IOR has changed in the past twenty-five years: the rise of China and India; the war in Iraq and continuing conflict in Afghanistan; the greater salience of energy issues; the boom in Australia's trade and resource interests in Western Australia; and deeper concern about environmental threats in the Indian Ocean, such as climate change, sea-level rise and marine natural disasters.

The politics of oil and energy are likely to have a powerful impact on the strategic dynamics of the Indian Ocean, and won't necessarily be conducive to cooperation.

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The politics of oil and energy are likely to have a powerful impact on the strategic dynamics of the Indian Ocean, and won't necessarily be conducive to cooperation. Growing military capabilities across the region may also inhibit cooperation by reinforcing perceptions of longstanding military threats and creating a security dilemma for regional countries.

All these considerations suggest that it would now be timely to reconsider regional cooperation and the role Australia might play.

An ocean neighbourhood?

Despite changes in the region, barriers to effective cooperation remain. A fundamental question is whether there really is an 'Indian Ocean region'. Historians find evidence of an Indian Ocean 'world' largely delineated by long-distance maritime trade between the Horn of Africa and South and East Asia (McPherson 1993), but current geopolitical circumstances highlight differences in the region rather than similarities. Most contemporary views of regionalism have the Indian Ocean falling between the accepted regions and sub-regions of the Asia Pacific, Europe, the Middle East, Africa, South Asia and Southeast Asia. References to an *Indo-Pacific* region help little: normally, that term is intended to bring India into consideration, rather than the IOR as a whole.

Because of the diversity of the region and the difficulties of building region-wide cooperation, it may be necessary to look for other frameworks (Rumley 2008:25–26). The option of focusing more on cooperation at a sub-regional level is explored later in this report.

Chapter 2

THE NEW MARITIME GREAT GAME

During the Cold War, in a wave of anti-imperialist sentiment, many IOR countries sought to limit external influence in the region. They had little success, and the Indian Ocean remains a playground for extra-regional players; indeed, the presence of external powers is even more evident now than it was in the 1970s and 1980s. Regional wars and crises, particularly in the Gulf region, have led to a new era of external interference. This is now reinforced by energy politics, the outbreak of piracy around the Horn of Africa, and the emergence of China as a new and powerful regional player.

There is a new maritime 'great game', or what Anthony Paul, senior writer for Singapore's *Straits Times*, has described as the Asian giants' game of chess in the Indian Ocean (Paul 2007).

China and India are the rising powers of Asia. Both seek some strategic independence in their regional relations.

China and India are the rising powers of Asia. Both seek some strategic independence in their regional relations. Competition is evident in their strategic intentions, and much of it will be played out in the maritime domain, including in the IOR. Until now, China and India have operated in their own spheres of interest—India in the Indian Ocean and China in East Asian waters. But that will change as India actively pursues its 'Look East' policies, including naval deployments east of Singapore, and China increases its presence in the IOR. In August 2009, India's navy chief observed that India must shift the focus of its strategic planning to address China's growing power (Raman 2009).

Perceptions of strategic containment figure prominently in this maritime great game. Because of its territorial disputes with China in northern areas, and the so-called Chinese 'string of pearls' strategy in the Indian Ocean, India feels that it's being locked in by China.[7] Conversely, China believes it's being strategically contained, particularly in the maritime domain, by growing links between India, Japan and the US.

Piracy off the Horn of Africa has brought a new surge of external actors to the IOR through increased deployments of extra-regional warships. Ostensibly, the role of the warships is to counter piracy, but they also serve a wider strategic purpose. They demonstrate the strategic interest of their governments in the IOR and when, as is likely, piracy is reduced, not all will return to their home bases. France, already a significant power in the IOR, has expressed the intention to develop its facilities in Djibouti to maintain a more permanent presence.

The interests of extra-regional powers in the IOR are strategic, economic and political. The Middle East is projected to remain the world's major source of oil and gas, and extra-regional countries will need continued access to strategically and economically vital energy imports.

Fish is one of the world's most traded commodities, and fishing is an important economic factor in the region. Fisheries are a major issue both within the region and between regional countries and extra-regional players, especially the distant-water fishing nations. The depletion of fish stocks in the Atlantic and Pacific oceans has led to more fishing in the Indian Ocean and the increasing presence of European and Asian fishing vessels. Ironically, some of the countries that have sent warships to fight piracy off the Horn of Africa also have fishing boats fishing illegally in the EEZs of Somalia and other IOR countries. They get away with it because most littoral and island countries lack the resources to patrol their EEZs effectively. Only about half of all Indian Ocean states have laws designed to serve as legal frameworks for fishery management plans (see Rumley et al 2009).

Key players

Most of the key players in the new maritime great game are states outside the region: the US, China, France, Japan, Russia, and to some extent the EU as an entity.

Within the region, the more significant players are India, Australia, South Africa and, perhaps increasingly, some Gulf states and Indonesia. Among these littoral powers, India is the only one that appears to want a stake well beyond its main area of influence in the northern part of the Indian Ocean, the Bay of Bengal and the Arabian Sea.

This section reviews the strategic interests of key players, except for Australia, which is considered separately in Chapter 4.

Extra-regional powers

The **United States** continues to dominate the IOR strategically and militarily. Its principal concerns in the region are countering terrorism and Islamic extremism. The possibility of Iran closing off the Strait of Hormuz is a growing concern for the Americans as Iran continues to develop its anti-access capabilities (Auslin 2009).

The ANZUS Treaty with Australia is Washington's strongest bilateral arrangement with any Indian Ocean littoral country. However, the US has deepened its relationship with India while also having bilateral security arrangements with Pakistan and several Gulf and Southeast Asian states. It has a strong military presence in Iraq and Afghanistan and maintains naval

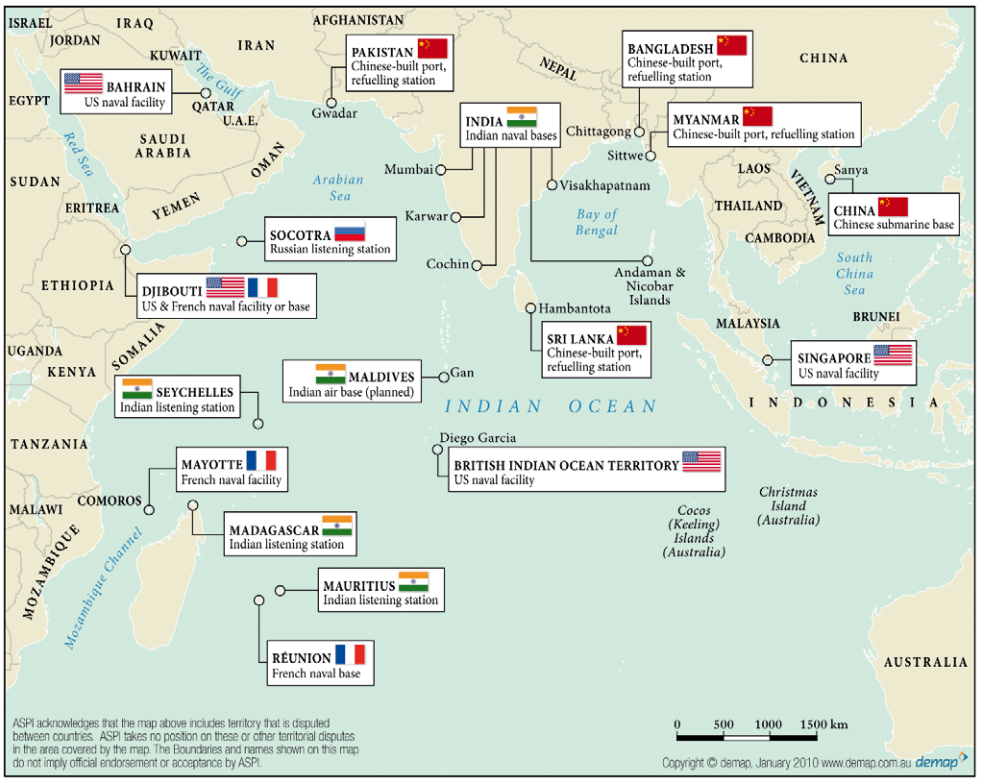
facilities in Bahrain, Diego Garcia and Singapore (see Figure 3). Diego Garcia is a secure base within the region from which the US can project land-based air power.

Some analysts have speculated that, even if the comparative size of the US Navy falls, the US will remain the one great power from outside the IOR with a major presence there. This unique position will give it leverage to act as a broker between India and China, should their bilateral relationship deteriorate. To understand this dynamic, Kaplan says that it's necessary to look at the region from a maritime perspective (Kaplan 2009a).[8]

China is the emerging major player in the maritime great game in the IOR. Chinese strategic interests in energy security and the security of its supply lines from the Middle East across the Indian Ocean are to some extent understandable. Beijing has been forging closer energy and economic relations with many IOR countries, including Saudi Arabia, Iran and Iraq in the Middle East. Whether or not China actually has a 'string of pearls' strategy in the Indian Ocean is open to debate, but it's certainly expanded its strategic presence in the IOR—in East Africa, some island states, Myanmar, Pakistan and the Middle East. It has invested heavily in maritime infrastructure in Pakistan, Bangladesh, Myanmar, and Sri Lanka.[9]

With the exception of its warships on counter-piracy patrols off the Horn of Africa, China hasn't made much use of its navy in extending its power and influence in the IOR. It still prefers 'soft' power for that purpose. Any use of hard power, however, would be constrained by the realities of geography and distance from its home bases. Even if China wanted to, it would be many years before it could operate significant naval forces independently in the IOR. That would require much greater naval capabilities, including afloat support, and assured access to bases, both of which are unlikely in the foreseeable future.

Figure 3: Major power competition in the Indian Ocean region



Myanmar is one Southeast Asian country that's particularly affected by competition between China and India. India has attached great strategic importance to building a close relationship with Myanmar—the only Southeast Asian country that shares land and maritime boundaries with it. Hence, New Delhi has concerns about the political regime in Myanmar and China's strategic moves into the country. The hydrocarbon potential of the waters off Myanmar has attracted the increasingly competitive interest of China and India (Wade 2008).

Japan has extensive oil and other resource interests in the IOR, including a great concern for the security of its sea lines of communication. It's also a large aid donor in the region. Japan is an IOR–ARC dialogue partner and is forging close maritime security links with India.

Europe isn't a major player in the IOR except for the small British and French territories, fishing fleets and the EU warships on patrol off Somalia and in the Gulf of Aden. The EU is also involved in programs to build security in Horn of Africa countries and is assisting the Seychelles to build the capacity of local maritime security forces, and improve fisheries management.

Following the British withdrawal from East of Suez in the late 1960s, the **United Kingdom** has ceased to be an important player in the IOR. However, it retains defence links into the region through the Five Power Defence Arrangements with Australia, Malaysia, New Zealand and Singapore.

France is the one European country with a permanent presence in the IOR. It has an air force and naval base on Reunion, a smaller naval facility on Mayotte and, at Djibouti, its largest overseas base. It also has fishing interests in the region because of its large distant-water fishing fleets and the sizeable EEZs around its island territories. It's keen to remain a significant power in the IOR and has struck out on its own in the Middle East. However, it mightn't be all smooth sailing for France. Some aspects of its presence remain problematic, including its sovereignty disputes in the southwest Indian Ocean, the activities of its fishing vessels, and the anti-colonial resentment of some regional countries.

Russia has been a long-term player in the maritime great game in the IOR, and in northwestern parts of the ocean in particular: it has consistently sought access to warm water ports in the Indian Ocean. It enjoys influence with many regional countries, such as India, Iran, Saudi Arabia, Yemen, Indonesia, Malaysia, Ethiopia and Eritrea, including through defence sales to those countries (Copley and Pickford 2009:101–102). It has resumed its naval presence in the region and sent warships to participate in the counter-piracy operations off Somalia.

Littoral countries

India seeks the role of dominant power in the IOR. However, it also displays considerable insecurity about the presence of other major powers in the region. It sees itself as a 'threat attractor', at risk from terrorism, domestic insurgencies, arms trafficking and border disputes with its neighbours.

India is making great use of its navy to promote its status as the regional power. It has sought a role in maritime security in Southeast Asia and sent warships to fight piracy off the Horn of Africa. It's assumed a role for itself, along with Japan, as a potential balancer of China in Asia. In December 2009, Japan and India agreed to an 'Action Plan to Advance Security Cooperation', based on the Joint Declaration on Security Cooperation between Japan and India. The plan includes a strong focus on maritime cooperation and disaster management.

India has expanded its presence in the southwestern Indian Ocean and given support to island countries in building the capacity of their coast guards, including the provision of patrol boats to the Seychelles and the Maldives. India is also increasing its presence in the Southern Ocean and Antarctica. It's established a communications and surveillance monitoring station in Madagascar, and may be using its Antarctic bases for similar purposes. In a recent development, India is preparing to reopen the former British airbase on Gan Island in the Maldives to station surveillance aircraft there and to install surveillance radars across the Maldives, linked to its coastal command (Page 2009).

In July 2009, India announced a 34% increase in its defence budget, and the Indian Navy is rapidly expanding and modernising. It's recently launched its first indigenously designed nuclear attack submarine and, as an interim measure, is leasing an Akula-class nuclear attack submarine from Russia. It plans to build a surface fleet around three aircraft carriers—one from Russia and two locally designed and built vessels. Following the terrorist attacks in Mumbai in November 2008, the Indian Navy revised its maritime doctrine to place greater emphasis on maritime terrorism, piracy and coastal security. However, its development plans remain focused on major surface combatants, aircraft carriers and submarines, which are all capabilities for sea control and extending India's naval power.

India and the US don't necessarily share a common strategic vision of the world, or of the region.

While India no longer sees the US as threatening, it doesn't necessarily see Washington as a long-term ally, and it remains uncomfortable with the relationship between Pakistan and the US. Short-term opportunism is apparent on both sides. India and the US don't necessarily share a common strategic vision of the world, or of the region. The common and immediate threat of radical Islam provides a basis for cooperative endeavours. And India also sees the US as providing support in balancing the expansion of Chinese influence in the IOR. Likewise, there's a US desire to see India as a counterweight to China. The 2010 Quadrennial Defense Review sees India, with its growing military capabilities, as 'a net provider of security in the Indian Ocean and beyond' (US DoD 2010:60). However, there are risks for the US in going too far down this path—particularly the risk of damaging its own bilateral relationship with China.

India's concern about the presence of China in the Indian Ocean is palpable (Tharoor 2009). The development plans of the Indian Navy are heavily focused on the need to counter China's push into the IOR, including its growing military ties with Pakistan (Majumdar 2009).

India tends to regard the Indian Ocean as its own. Just as it resented the superpower presence of the US in the 1980s, it's now resistant to increased Chinese presence. However, that concern may be excessive. It ignores the legitimacy of Chinese interests and the reality of the geostrategic advantage that India enjoys as a resident power in the IOR. For example, India could use the islands of the Andaman and Nicobar archipelago to dominate the western entrance to the Strait of Malacca.

South Africa has a modern navy and is strategically located in a position to control shipping passing around the Cape of Good Hope—the southwestern entry point to the Indian Ocean.

It played an active role in efforts in the mid-1990s to build regional cooperation, and has often been seen as part of the powerful trio of regional leaders, along with Australia and India. However, this is rather less the case now. Internal politics and a fixation on the affairs of the African continent appear to have weakened South African interest in the broader IOR.

Similarly, other **East African countries** give most attention to African forums for cooperation, including the African Union and the Southern African Development Community, which has a standing maritime committee with the vision of promoting peace and prosperity in the South African region through maritime military cooperation. The francophone countries of the southwestern IOR come together under the Indian Ocean Commission (IOC), which promotes sustainable development of its members, who share similar geographical position, history and culture. **Mauritius** is an enthusiastic supporter of regional cooperation and hosts the IOR–ARC Secretariat.

Pakistan seeks to be a powerful player in the IOR. It certainly has the naval capabilities and nuclear weaponry to justify that status, but it's been hamstrung by internal security problems, social and economic turmoil, and the need to divert resources from development to maintain powerful forces against the threat posed by India. The port of Gwadar, being developed in cooperation with China, has the potential to become a major part of the region's maritime infrastructure and an energy hub, provided the risks of Baluchi nationalism can be overcome (Kaplan 2009b).

The **Gulf countries** have an active forum for maritime and military cooperation in the Gulf Cooperation Council. However, they've shown little interest in participating in multilateral maritime security cooperation arrangements outside their immediate area of interest.

Iran seeks to expand its influence in the IOR and become the dominant power in the Persian Gulf. A large part of its strategic strength comes from its potential to control the Strait of Hormuz. This geographical reality is of great concern to the US and other western countries, and also partly explains China's developing relationship with Tehran. India has also pursued a closer relationship with Iran to undermine the tenuous Iran–Pakistan relationship and to secure its oil and gas supplies from Iran (Copley and Pickford 2009:128).

Israel is the one Middle Eastern or Gulf state with strategic presence, if not influence, extending into the wider IOR. However, the scope and character of Israel's strategic military involvement in the Indian Ocean has received little international attention (Berlin 2004:66). Israel has had a military relationship with both South Africa and Singapore over the years, although the strength of those relationships may have declined recently. Based largely on a common concern about Pakistan's nuclear capabilities, Israel and India have also forged close relations (Hedrick 2009:25–26).

The strategic presence of Israel in the IOR is partly explained by Israeli concerns about advances in long-range missile capabilities by Iran and other Middle Eastern countries. The ability to launch a nuclear cruise missile from a submarine in the Arabian Sea would significantly broaden Israel's response options in the event of a surprise attack from Iran or elsewhere. Trials of Israel's ability to fire submarine-launched cruise missiles have been carried out in the past in conjunction with India. There's a significant maritime dimension to tensions between Israel and Iran, as Israel fears arms smuggling and a blockade of its access to the Indian Ocean.

At this stage, no Southeast Asian country has sought a larger role in the IOR, although it's possible that **Indonesia** may want to do so in the future. This would accord with Indonesia's status as a G20 member, and its growing tendency to act independently of any ASEAN (Association of Southeast Asian Nations) consensus. From a maritime point of view, this is particularly evident in recent moves by Indonesia to assume a position of leadership in international ocean affairs.[10] With the exception of Indonesia, Southeast Asian countries played little part in the efforts in the 1990s to build IOR cooperation.

Indonesian fishing vessels are also increasingly fishing further into the central Indian Ocean and further south outside Australia's fishing zone. As distant-water fishers such as Taiwan and Japan encounter access problems, they're likely to reflag through Indonesia, which straddles the world's two largest tuna fisheries (the Indian and Pacific oceans). As a major oil producer, Indonesia is also more likely to have lower fuel costs (the largest cost in offshore fishing).

Energy politics

Energy concerns are an important driving factor in the changing global balance of power (Pickford and Jones 2009). The politics of energy figure prominently in the maritime great game as energy security emerges as a major national security concern for many developed and developing countries. This is particularly the case for China and India, whose competition for energy will be a major factor in the future geopolitics of the IOR (Rumley and Chaturvedi 2005).

The Indian Ocean is a major focus of energy security concerns because the energy self-sufficiency of several key IOR stakeholder nations is declining and the Middle East remains the source of much of the world's reserves of oil and gas. Saudi Arabia holds more than 20% of the world's oil reserves. Together, the Chinese and Indian economies accounted for 18% of world energy demand in the 1980s, and projections indicate that their share will increase to 25% by 2030 (Hurley 2009:20). Other developing states of Asia will also experience higher energy demand.

Energy security concerns are accentuated because much of the world's oil and gas is sourced from regions characterised by volatile political circumstances. Supplies can be disrupted due to local political unrest, armed conflict or even the targeting of oil and gas facilities. Political instability in the Middle East is a particular worry and largely explains the attention given to the region by extra-regional stakeholders in their competition for influence.

The Indian Ocean itself is an important consideration in energy security. The world's most important energy sea lines of communication (SLOCs) cross the ocean from the Middle East to India and East Asia and from the Middle East around the Cape of Good Hope to Europe and North America (Rumley et al 2007). The safety and security of these SLOCs figure prominently in the energy security deliberations of stakeholder countries.

In addition, for littoral countries the ocean is a potential source of renewable energy from winds, waves, tides and currents.

Strategic uncertainty

There is currently much strategic uncertainty in the IOR. This is due to the strategic volatility of the Middle East, energy insecurities, conflicting perceptions of containment, and the

tension that's evident between China and India. Some of this uncertainty has a long history, especially the tension between India and Pakistan, but some has more recent origins. The growing presence of nuclear weapons in the IOR, involving both littoral countries (India, Pakistan, Israel and perhaps, soon, Iran) and extra-regional powers (Russia, China and the US), is particularly worrying (Copley and Pickford 2009:173).

This situation isn't helped by the lack of transparency in the strategic intentions of China and India. Competition and rivalry between them will likely be a source of instability and insecurity in the region, and the ability of the US to play a moderating role in the IOR may be tested more strenuously.

There are many challenges for Australia in seeking a role in the maritime great game. The 2009 Australian Defence White Paper observed that it would be premature to judge that war among states, including the major powers, has been eliminated as a feature of the international system, and that shows of force by rising powers could become more common as their military capabilities expand (Australian Government 2009a:22). India and China will become powerful players in the IOR, and shows of force by them must be deemed possible. The IOR, its power politics, and the maritime great game, will command greater attention from Australia in the future.

Chapter 3

A SEA OF TROUBLES

According to *The Economist*, the Indian Ocean is made up of the world's most dangerous seas.[11] Piracy was the journal's major concern, but there are many other maritime threats and risks in the IOR. And they aren't being tackled in the region. There's no regional or sub-regional forum prepared to address them comprehensively.

Troubles at sea in the IOR are extensive and varied. They comprise traditional maritime security concerns, including the risks of interstate or intrastate conflict; threats to good order at sea, such as maritime terrorism, piracy, and illegal, unreported and unregulated (IUU) fishing; and non-traditional security concerns, including climate change, marine natural hazards, energy security, food security, environmental security and human security (the risks of crime, poverty and disease). Most threats faced by IOR countries, such as population growth, terrorism, food shortages, droughts, floods and other natural disasters, have a significant maritime dimension.

Strategic threats and risks

Interstate and intrastate conflict

The IOR is an area of tension with many conflicts and disputes, some involving extra-regional powers. According to the Heidelberg Institute for International Conflict Research's *Conflict barometer 2008*, 146 of the world total of 345 conflicts, or 42.3%, are in the IOR.[12] They include six of nine wars and a considerable proportion of the world's high-intensity conflicts. The risks of interstate conflict, perhaps in the Middle East or between the US and Iran, India and China, or India and Pakistan, are significant. The troubles in Iraq and Afghanistan are well known, but other problems are less so: for example, Somalia is also a proxy battleground for the continuing conflict between Eritrea and Ethiopia.

Nuclearisation

The IOR has become the most nuclearised region in the world. India, Israel and Pakistan are recognised nuclear powers, and there are unresolved fears about Iran becoming one. France, Russia, China and the US, all active extra-regional players, are nuclear powers. Nuclear arms pose a significant threat in the region. India has shifted away from an apparent policy of 'nuclear minimalism' (Berlin 2004:55–70) and is now more actively acquiring nuclear weapons, including a sea-based nuclear deterrent, a submarine-launched nuclear-tipped missile, and nuclear-powered submarines. These developments may well prompt a reaction from Pakistan, including the deployment of a submarine-based nuclear weapons delivery system of its own.

Militarisation

The IOR is also becoming more militarised, particularly in naval terms (Australian Government 2009a:37). Most of the main regional navies are embarking on significant capability expansions, and the increased presence of extra-regional navies appears likely. Strategic rivalries converge in this theatre, and there are risks of China and India competing more overtly for strategic advantage. Both are increasing their military budgets, with an emphasis on naval capabilities. This might create a security dilemma for other regional players, who in turn may also expand their navies.

Appendix B of this report includes tables showing the order of battle of IOR navies and other maritime security forces. Table B3 gives details of the major regional navies (those that possess at least one major surface combatant), while Table B4 shows the countries with lesser maritime forces. India has by far the largest navy in the region, followed by Indonesia. Australia, Thailand, Egypt, Saudi Arabia, Malaysia, Singapore, Iran and South Africa also maintain significant naval forces. However, it's well recognised that ship numbers alone aren't a good guide to the effectiveness of a navy. The lesser forces are mainly in the Middle East, except for Sri Lanka and Kenya. The Kenyan Navy is the most significant East African force.

Maritime sovereignty disputes

There are several maritime sovereignty disputes in the IOR (Kaye 2009). In the southwest Indian Ocean, they include several islands in the Mozambique Channel, which are in dispute between France and Madagascar, and Tromelin Island off northeast Madagascar, which is occupied by France but claimed by Madagascar, Seychelles and Mauritius. Maritime boundaries are uncertain around Somalia, and there are small islands in the eastern Persian Gulf that are claimed by Iran and the United Arab Emirates. In the central Indian Ocean, Mauritius claims the Chagos Archipelago and other islands organised as the British Indian Ocean Territory, including Diego Garcia, which is under lease by the United Kingdom to the US. The lease extends to 2036, but has an opt-out clause that can be activated in 2016.

Other potential difficulties arise from claims by several countries to territorial sea straight baselines that are generally regarded as being beyond the criteria for such baselines under international law. Particularly contentious claims include baselines declared by Pakistan, Myanmar, Iran, Kenya and Bangladesh. These claims, usually disputed by neighbouring countries and others, complicate the management of offshore areas.

The most serious maritime sovereignty disputes in the IOR at present are in the Bay of Bengal, where there are few maritime boundaries.

The most serious maritime sovereignty disputes in the IOR at present are in the Bay of Bengal, where there are few maritime boundaries. There's an active dispute, including occasional naval stand-offs, between Bangladesh and Myanmar over hydrocarbon resources in an area claimed by both countries. Myanmar lodged a submission to the Commission on the Limits of the Continental Shelf relating to an extended continental shelf in the area, but the submission was protested by India and Bangladesh, which also have their own bilateral maritime boundary dispute. Bangladesh and Myanmar recently agreed to take their maritime boundary dispute to the International Tribunal on the Law of the Sea.

Threats to good order at sea

All regional countries have an interest in maintaining good order at sea, which means the absence of illegal activity and the presence of effective arrangements for marine environmental management. It ensures the safety and security of shipping and enables countries to develop their marine resources and protect their maritime interests in accordance with established principles of international law. Good order at sea is a particular problem in the northeastern and northwestern quadrants of the Indian Ocean, where there is a high level of maritime activity, both legal and illegal.

Piracy and armed robbery at sea

Piracy and armed robbery at sea remain a significant problem in the IOR. While recent attention has focused on the area around the Horn of Africa, attacks on ships also occur elsewhere down the East African coast and in ports in the Indian subcontinent. Recently, there's been some resurgence of incidents in and around the Malacca and Singapore straits. While piracy is certainly a problem for international shipping, its seriousness can sometimes be overstated. It can provide a convenient excuse for extra-regional powers to establish a strategic presence.

Table 3 shows actual and attempted acts of piracy and armed robbery at sea in the IOR for the years from 2004 to 2009. All the ships attacked off the Indian subcontinent were either at anchor or in the vicinity of an anchorage, highlighting the importance of port security and harbour patrolling. Most attacks in Southeast Asian waters were also on vessels at anchor. It's really only off the Horn of Africa that large numbers of ships are attacked while underway.

A range of measures to deal with the situation off the Horn of Africa are now in place, including increased warship presence, patrolled transit lanes, littoral country capacity-building, and enhanced security arrangements onboard the merchant ships passing through high-risk areas. As the measures begin to take effect, pirates are becoming more desperate and are making more indiscriminate use of weapons and 'mother ships' further afield. Once a ship is hijacked, rules of engagement generally prevent it being recovered by force before it's taken to a secure anchorage off Somalia and ransom negotiations begin.

Table 3: Piracy in the Indian Ocean region—actual and attempted attacks, 2004 to 2009

Location	2004	2005	2006	2007	2008	2009
Malacca Strait	38	12	11	7	2	2
Singapore Strait	8	7	5	3	6	9
Myanmar	1	–	–	2	–	1
Bangladesh	17	21	47	15	12	17
India	15	15	5	11	10	12
Sri Lanka	–	–	1	4	1	–
Gulf of Aden / Red Sea	8	10	10	13	12	131
Somalia	2	35	10	31	19	80
Tanzania	2	7	9	11	14	5
Other East Africa[a]	1	1	–	8	4	1
Arabian Sea / Oman	2	2	2	4	–	5
Seychelles	–	–	–	–	1	–

a 'Other East Africa' shows attacks off Kenya, Madagascar and Mozambique.

Note: All of the attacks in the Gulf of Aden, Red Sea, Arabian Sea and Indian Ocean, and off Somalia, the Seychelles and Oman, are attributed to Somali pirates. Figures for Indonesia and Malaysia are not included, as most attacks occurred in eastern Malaysia, the South China Sea and parts of the Indonesian archipelago that are not part of the IOR.

Source: International Maritime Bureau reports.

While most merchant ships are observing proper precautions against attack and joining escorted convoys where necessary, some ships, perhaps substandard ones, persist in ignoring the threat and proceed independently outside the recommended transit lanes patrolled by coalition warships.[13]

The situation off Somalia and around the Gulf of Aden remains serious, with an increased number of attacks in 2009. The reasons for the increase include the breakdown in governance onshore in Somalia, the development of an effective 'business plan' by the pirates, and some delays in the international community in getting its act together to deal with the situation. The international community is now more mobilised to deal with the threat, but more action is still needed to tackle the root causes of the current situation and bring stability to Somalia.

There's been some speculation that sea robbers in Southeast Asia might adopt the Somali model of piracy. However, this is most unlikely for several reasons. First, Somali pirates get away with their actions because they operate out of a lawless land. Good order at sea begins with good order on land. Second, the regional geographies are different. Southeast Asian waters are relatively confined, while Somali pirates operate in the open ocean, using mother ships to support small-craft operations. Third, the *modi operandi* of pirates and sea robbers in the two areas differ. Attacks off the Horn of Africa are brazen: they're usually conducted in daylight with an overt display of weaponry to intimidate the target vessel and its crew. In contrast, attacks in Southeast Asian waters are mostly made secretly, under cover of darkness, with the robbers boarding to steal whatever valuables they can. Sea robbers in Southeast Asia are less well armed and less organised.

Piratical attacks off the Horn of Africa remain serious, but the situation needs to be kept in perspective. Only a very small proportion of the ships passing through the area are successfully attacked. The direct economic losses to the shipping industry are relatively

low, although insurance premiums for ships passing through the area have been increased. Higher value ships, such as the larger container vessels and tankers, are largely immune from successful hijacking, provided they take all proper precautions.

Maritime terrorism

Maritime terrorism is perceived as a threat in the IOR, mainly due to the presence of extremist groups and the incidence of piracy in the region. The two most notorious terrorist attacks on ships, those on the French tanker *Limburg* and the destroyer USS *Cole*, occurred in the region. The terrorist attack in Mumbai in November 2008 showed that terrorists can attack from the sea if coastal waters are not secure.

Key access routes to the Indian Ocean, including the Malacca and Singapore straits, the Strait of Hormuz and Bab el Mandab, have a high level of shipping traffic. Attractive targets are available to terrorists, and attacks similar to those on the *Limburg* and *Cole* may be feasible, particularly if coastal areas adjacent to the waterway aren't secure. Egypt puts considerable effort into the security of the Suez Canal for fear of a terrorist attack on a ship in transit, which could lead to the canal being blocked.

Submarine cables and oil and gas pipelines may also be vulnerabilities. Most offshore oil and gas production involves pipelines to shore. Major submarine telecommunications cables in the IOR are between the Red Sea, India and Southeast Asia; along the East African coast and within the Arabian Sea and Persian Gulf; and between Western Australia, the Sunda Strait and Southeast Asia.

Trafficking and smuggling

The sea is the main medium for the illegal movement of people and goods because larger shipments can be carried, covert transhipment can be possible at sea, and maritime borders can be more porous than land and air borders. Illegal trafficking in arms, drugs and people are all evident to some extent in the IOR, as well as trafficking in other contraband, such as liquor, cigarettes and wildlife. These are all transnational crimes, and dealing with them requires cooperation between regional countries.

People smuggling

During 2009, there was a marked increase in the numbers of asylum seekers trying to enter Australia by sea. By mid-October, 1704 people, mainly from South Asia, had attempted the voyage in a total of thirty-two vessels (Maley and Guest 2009). By comparison, 161 people arrived illegally by sea in 2008 in seven boats.

'Push factors' in South Asia, including the defeat of the Tamil Tigers in Sri Lanka and disenchantment among the Tamil population, have led to an increase in refugees travelling from South Asia, Afghanistan and Pakistan through Southeast Asia towards Australia. Many enter Malaysia and Singapore legally and then move illegally to Indonesia to find passage to Australia. Problems arise because most IOR countries, including those on the transit route between South Asia and Australia, don't share Australia's concerns. Illegal immigration is a problem elsewhere in the IOR, and the topic needs more active consideration at a regional level.

Drug trafficking

The world's two main illicit opium-producing areas—the Golden Triangle, mainly in Myanmar and northern Thailand, and the Golden Crescent in Afghanistan and Pakistan—are in the

IOR. Much of the trafficking of drugs in the region is carried out by sea. Myanmar is a major source country for opiates (mainly heroin), but there's an increasing problem with the manufacture and trafficking in methamphetamines ('ice') and other amphetamine-type stimulants from Myanmar and a number of other Asia–Pacific countries, including China and India. The dual uses of precursor materials make it difficult to suppress the manufacture of 'ice'. India, for example, is a major exporter of precursor chemicals and wouldn't support export controls over those materials.

Illegal, unreported and unregulated fishing

IUU fishing is a serious global problem, including in the IOR. Fisheries matters are a major issue within the region and between regional countries and extra-regional players, especially the distant-water fishing nations. The depletion of fish stocks in the Atlantic and North Pacific has led to more fishing in the Indian Ocean and the increasing presence of European and Asian fishing vessels.

Large numbers of vessels are involved in IUU fishing in the IOR mainly because there's no effective regime for regional fisheries management. A recent performance review of the Indian Ocean Tuna Commission (IOTC), the main regional fisheries management organisation (RFMO) for the IOR, identified serious gaps and weaknesses in the organisation (IOTC 2009). It found that the commission's principles for fisheries management were outdated and lacked such concepts as the precautionary principle and an ecosystem-based approach. There was considerable uncertainty in the data submitted to the commission and about the quality of stock assessments. Under-reporting of catches is a significant element of IUU fishing. The IOTC operates under the United Nations framework, which is preventing Taiwan from joining, even though it accounts for a significant tonnage of tuna caught in the Indian Ocean.

The lack of effective arrangements for the monitoring, control and surveillance of fishing activities is a major challenge for the region.

The lack of effective arrangements for the monitoring, control and surveillance of fishing activities is a major challenge for the region. Regional countries aren't realising the full potential of the living resources of their EEZs to contribute to economic development and the health and wellbeing of their peoples. Australia has considerable expertise in monitoring, control and surveillance and in fisheries management, and could contribute more actively to such arrangements in the IOR.

Somalia provides a prime example of the consequences of IUU fishing. There's an extremely valuable fishery resource off the coast of Somalia that could be used to provide food security if it were brought under Somali control and policed effectively. The Food and Agriculture Organization of the United Nations (FAO) estimates that around 700 foreign fishing vessels are engaged in unlicensed fishing in Somali waters. Those vessels come from within the region (Kenya, Pakistan, Saudi Arabia, Sri Lanka and Yemen) and beyond (Belize, France, Honduras, Japan, South Korea, Spain and Taiwan). The 'other pirates' off Somalia have been foreign fishing vessels illegally fishing in Somali waters (Schofield 2008). Ironically, the IUU fishing situation means that the international community is taking more protein out of Somali waters than it's delivering to Somalia in food aid.

Non-traditional security concerns

Food security

Food security is a major problem in the IOR, particularly in East Africa and South Asia. Many pressures are creating this situation, particularly unconstrained population growth, worsening periods of drought and low agricultural production. Food shortages, in turn, become a major catalyst for population outflows from deprived areas. These shortages are exacerbated by other non-traditional security concerns, such as marine pollution, environmental degradation and climate change.

Marine pollution

Pollution of the marine environment leads to the destruction of marine habitats, loss of fish stocks, the bleaching of coral reefs, and a very serious impact on economic activity and social welfare. About 80% of pollution arises from land-based activities. A 2002 United Nations Environment Programme report showed that the coasts of southern Asia face a greater threat from the discharge of untreated sewage than any other area in the world.[14] In southern Asia, 825 million people lack sanitation, putting them at higher risk of sewage-related diseases and even death.

Natural hazards and disasters

Marine natural hazards are those arising through climate change, tropical storms, tsunamis and other severe oceanic conditions. According to the Asian Disaster Reduction Centre, Asia is the most disaster affected area in the world (ADRC 2006). The IOR is also vulnerable. This was demonstrated by the disastrous tsunami in the northeast Indian Ocean on Boxing Day 2004 and the impact of cyclone Nargis in Myanmar in May 2008. Other areas of the region are vulnerable to cyclones and the associated impacts of storm surges and flooding, including northwestern Australia and the southwestern Indian Ocean. Many IOR countries are relatively poor and ill-equipped to deal with the problems posed by natural hazards.

In 2007, Geoscience Australia undertook a hazard risk assessment of the Asia–Pacific region for AusAID (Simpson et al 2008), covering earthquakes, volcanic eruptions, tsunamis, cyclones, floods and wildfire hazards. It concluded that the unexpected eruption of a dormant volcano was the most dangerous threat. As well as catastrophic damage from fallouts of ash, such an event could also cause tsunamis. The assessment noted that the northern part of the Bay of Bengal was the most dangerous area for large tsunamis and that, of individual countries, Indonesia has the highest population threatened by tsunamis, followed by Bangladesh and India.

Australia and Indonesia agreed in November 2008 to establish the Australia–Indonesia Disaster Reduction Facility (Rudd 2008a). This was a result of an examination of existing mechanisms for disaster management in the region, which found that there were shortcomings in coordination and coherence and, critically, insufficient focus on preventing and mitigating disasters. There were also shortcomings in the building of national capacity for nations to self-manage disasters. The facility will work with ASEAN, the ASEAN Regional Forum, APEC, the South Asian Association for Regional Cooperation, the United Nations, the Red Cross/Red Crescent movements, and regional disaster management mechanisms and programs.

Onshore impacts

Although marine natural hazards originate at sea, the most serious impacts are on the coastal zones of littoral and island countries. The consequences can be severe, particularly as large numbers of people live in coastal regions of the IOR and are exposed to storm surges, flooding and higher sea levels. The risks of marine natural hazards are also increasing as a result of increased earthquake activity, changing weather patterns and the stresses of economic development. Tropical cyclones are also becoming more severe.

After the 2004 Boxing Day tsunami, there was much activity to develop an effective tsunami warning system for the Indian Ocean. However, six years later, there's still no definitive, consistent system across participating countries. Parallel tsunami warning systems exist due to competition between donors, and the lack of infrastructure and trained personnel remains a major problem.

Offshore impacts

Marine natural hazards also affect shipping and offshore oil and gas installations. Large wave heights can occur in the IOR due to strong winds generated by tropical cyclones and low-pressure cells in southern areas of the Indian Ocean. The region along the southeast coast of Africa is notorious for high, steep waves caused by the interaction of different currents.

Climate change

As a result of climate change, ocean temperatures will rise markedly, ocean circulation patterns may change and sea levels will rise. Those changes could have compounding effects on the rate of climate change. Ocean circulation plays a major role in determining the regional impact of climate change, which will affect many people through the loss of marine habitats and fish stocks, and the increased prevalence of natural disasters. The higher frequency of extreme weather events will have a great impact on low-lying coastal areas, such as Bangladesh. Some estimates suggest that 17% of Bangladesh will be flooded and around 30% of its arable land will be lost by 2050. Twenty million Bangladeshis have already migrated to India and that number will increase.

Increased acidification of the oceans is another threat associated with climate change. Apart from contributing to global warming, carbon dioxide emissions cause acidification of the oceans. This process is occurring at a much faster rate than was previously believed. The impacts on the sustainability and management of many marine and coastal ecosystems and fisheries are potentially very serious, and include the impending loss of marine habitats and marine life.

The importance of oceanographic research

Many of the marine environmental threats in the IOR and the relatively high incidence of natural disasters in the region are explained by the unique oceanographic features of the Indian Ocean. Because the Indian Ocean is cut off to the north by the Indian subcontinent, oceanographic conditions differ greatly from those in the Pacific and Atlantic oceans.

The oceans are an integral part of the global climate system. The Global Ocean Observing System (GOOS) is an international system that monitors the oceans to provide data to support the sustainable development of ocean resources, protection from ocean hazards, weather prediction, and many other societal benefits. The Indian Ocean GOOS is managed out of the Perth office of the International Oceanographic Commission.

Despite the great benefits of better knowledge of oceanographic conditions in the Indian Ocean, it remains under-researched compared with the other major oceans. Understanding weather patterns and climate change in the IOR also depends on scientific research in Antarctica. For example, recent studies have shown that higher snowfall in parts of the Australian Antarctic Territory coincides with drought in the southwest of Australia (Press 2010).

One benefit of recent oceanographic research has been the establishment of a potential link between temperatures in the Indian Ocean and drought and extreme bushfires in Australia. The link is through the impact of the Indian Ocean Dipole, which is a system of temperature fluctuations in the eastern and western parts of the Indian Ocean. In its negative phase, the dipole system brings cool water to the ocean west of Australia and warm water to the north, leading to rain-bearing winds over the continent. In its positive phase, water temperatures are reversed and less rain falls in Australia.

Climate change predictions suggest that the frequency of positive Indian Ocean Dipole events will increase in the future. Having the ability to predict those events would make it easier to predict extended droughts and forecast seasonal rainfall, with benefits for Australian water and agricultural management. It would also improve our ability to predict severe weather events not just in Australia, but also in South Asia and East Africa.[15]

Looking to the future

There are few grounds for optimism that the threats and risks in the IOR will abate in the future. Most trends are in the wrong direction. As the 2009 Australian Defence White Paper observed, 'a number of major naval powers are likely to increasingly compete for strategic advantage in this crucial maritime region' (Australian Government 2009a:37). IUU fishing will become more serious in the region unless standards of fisheries management and enforcement are significantly improved. The illegal movement of people will also grow as more economic refugees leave their homelands because of climate change, food shortages and lack of economic opportunities. New dimensions to non-traditional security concerns will result from increased awareness of sea-level rise, ocean acidification and environmental degradation.

Australia has a clear interest in ensuring that the threats and risks in the Indian Ocean are addressed. Either they affect Australia and our national interests directly, or any failure to address them could lead to regional instability with significant flow-on consequences for us. Australia has a major stake in the security and stability of the IOR, particularly in those areas closest to Australia, and should play a leading role in managing this sea of troubles. We have the expertise to help deal with many of the threats, particularly those of a non-traditional nature.

While there's scope in the shorter-term for cooperation to address the non-traditional security concerns in the region, multilateral dialogue on the strategic threats and risks is unlikely in the foreseeable future. The ASEAN Regional Forum is one existing institution where this dialogue might be possible, but so far it's not turned its attention to the Indian Ocean and has been hesitant about addressing hard security issues.

Chapter 4

AUSTRALIA'S OCEAN OF NEGLECT

Australia often forgets that it's a three-ocean country. We rediscover the Indian Ocean at roughly fifteen-year intervals: in the late 1970s and early 1980s when the Soviet Union moved into Afghanistan, and again in the mid-1990s when we took a leading role in attempting to build cooperation across the IOR. Australia is now rediscovering the Indian Ocean with a strong political commitment to engagement in Africa and India (Smith 2009a, 2009b). We also subscribe to the Millennium Development Goals (MDGs) and are committed to increasing our humanitarian assistance to Africa and South Asia.

Australia has a unified policy approach for the Pacific Ocean, including Southeast Asia, and for the Antarctic and Southern Ocean, but lacks one for the Indian Ocean as a whole. We're preoccupied with the Pacific and Southeast Asia, and have only a few bilateral relationships in the IOR. We participate in relatively few multilateral arrangements for either the region as a whole, or in sub-regional arrangements. The multilateral arrangements that do exist are weak. There's nothing in the IOR even remotely comparable with forums such as APEC, the Pacific Economic Cooperation Council, or the Pacific Islands Forum with its strong associated bodies, such as the Forum Fisheries Agency.

We have extensive strategic, economic and environmental interests in the IOR. The 2009 Defence White Paper acknowledged that 'Australia has an enduring strategic interest in the stability of the wider Asia–Pacific region, which stretches from North Asia to the Eastern Indian Ocean' (Australian Government 2009a:12). The East Indian Ocean is part of the primary operating environment for the Australian Defence Force (ADF) (Australian Government 2009a:51).

Australia has rapidly growing economic and commercial interests in the IOR, including growing trade and investment links with South Asia and Africa and extensive offshore oil and gas developments. There's a need for more effective fisheries management in the IOR, and a better

understanding of ocean processes and their impact on severe weather events. Like other parts of the region, Australia's northwest is vulnerable to tsunamis and cyclones.

Strategic perspectives

Australia faces great strategic challenges in the IOR. It's not in our interests for the region to become an area of major power competition. However, that competition is evident between India, supported by Japan and the US, on the one hand and China on the other. India is central in determining how these possible contests might play out in the future.

Most strategic competition will take place in the maritime domain. Over the past year, Australia has drawn back from participation in combined naval exercises with India, Japan and the US for fear of feeding the notion that there is a China containment strategy.

India clearly plans to be the dominant power in the Indian Ocean. This presents challenges and opportunities for Australia. We're yet to see how responsible India will be in playing a dominant role. India's expansion, or even hegemony, in the Indian Ocean mightn't always be in Australia's interests, but we're in no position to compete. The attitude and expectations of other regional countries are important. Other countries might feel intimidated by India and some Indian policies. As Sandy Gordon of the Australian National University has noted, neighbouring South Asian countries still tend to interact negatively with India (Gordon 2007:3). Other IOR countries might have expectations of Australia providing an alternative to Indian influence.

Australia's primary alliance relationship with the US extends into the IOR. However, there's a possibility that our interests and policies mightn't always coincide with those of the US, especially with some aspects of the US transfer of technology to India, and the exchange of military doctrine and intelligence. Differing perspectives on the presence of China in the IOR may be at the heart of these policy disconnects, with Australia being less confident than the US that a powerful India will be a more benign presence in the region than a powerful China (Gordon 2010).

Bilateral relations

Indonesia

Australia's relationship with Indonesia has long been regarded as among the most important of our bilateral relations. We share one of the longest maritime boundaries in the world with Indonesia, all of which lies within the IOR. The two countries have many common interests in the maritime domain, including maintaining good order at sea; preventing piracy, people smuggling and illegal fishing; and protecting the marine environment. There's great potential for Australia and Indonesia to work together on IOR issues.

India

After Indonesia, Australia's relationship with India is the most important of our bilateral relations in the IOR. Australia–India relations have been neglected over the years. It's a relationship that's always about to 'take off', but never does (Sheridan 2009). The government acknowledges the need to rebuild the relationship, but that won't be easy. India's policies can be distorted by domestic social developments and politics and by threat perceptions, as well as by its land border disputes with China. Inevitably, there'll be policy differences—and some of them, such as on nuclear issues, will be substantial. Current

bilateral difficulties include Australia's failure to sell uranium to India, the treatment of Indian students in Australia, and differing attitudes towards China.

The relationship with India must be one of equal partners. This might be hard: India seems reluctant to treat Australia on an equal basis. This will create problems should India extend its reach and influence into areas of common strategic interest. Multilateral frameworks such as the East Asia Summit and the ASEAN Regional Forum offer positive opportunities for Australian engagement with India. Australia supports India joining APEC, and India is central to Australia's proposal for an Asia–Pacific Community by 2020.

Pakistan

Pakistan is important to Australia because of its key role in international efforts to defeat terrorism and the complications of its tense relationship with India. Australia's bilateral relations with Pakistan will always be influenced by how bilateral initiatives might be seen by India. For example, Australia is helping with military capacity-building in Pakistan, but this is focused on counter-insurgency capabilities rather than on capabilities for conventional warfare. However, such requests could be forthcoming in the future because Pakistan is acquiring capabilities, such as FFG-7 class guided missile frigates, that are in the Australian inventory.

Africa

As a major source of energy and strategically important minerals, Africa is of increasing global importance. However, it's also a continent beset by poverty, food shortages and disease. As reflected in the MDGs, humanitarian assistance to African countries is high on the global agenda.

The growth of Australian investment in Africa's minerals and petroleum resources sector has been impressive (Smith 2009b). Current and prospective investment by Australian companies in Africa is estimated at about US$20 billion. Those companies are well represented in mining, oil and gas, and have exploration or mining ventures in nearly thirty countries across the African continent.

To some extent, this is a case of the flag following trade. Australian firms have extensive trade and commercial links in Africa, but our government presence has been relatively underdone in comparison with the Asia–Pacific region. Currently, we lack an Africa strategy that brings together foreign policy, defence, economic and commercial interests (rather than just human development and assistance).

South Africa has been perceived in the past as a potentially important strategic partner for Australia in the IOR. However, other than some Australian advice and assistance with peacekeeping, the bilateral relationship has faltered in recent years. South Africa has become more absorbed in African affairs, while also being unhappy about the exodus of capital and skilled people to Australia. Many of those people are vocal critics of the post-apartheid regime in South Africa.

Middle East

Australia has important national interests in the Middle East. The region is a key market for Australian exports, and we're increasingly dependent on imports of heavy crude oil from Middle Eastern countries. However, our relations in the Middle East are complicated by the propensity of the region for conflict. Iran's strategic intentions and nuclear aspirations are likely to be a continuing source of instability (Australian Government 2009a:36).

There are obvious limitations on the role Australia can play in helping to build stability in the Middle East. However, there are some possibilities in the field of maritime cooperation. For example, Oman and Yemen both have relatively large EEZs and extensive fishing and offshore resource interests. Other Middle Eastern countries have significant navies and maritime security forces, and the main sub-regional forum, the Gulf Cooperation Council, has been giving attention to maritime cooperation (Alani 2009).

Island countries

The small island countries of the Indian Ocean, especially Mauritius and the Maldives, would welcome a special relationship with Australia. Their support for Australia would also be politically and strategically beneficial for us. Many of their people live and study in Australia. There are expectations in these countries that assistance from Australia would be an alternative to being tied too closely to India.

Sovereignty protection

The greatest challenges to the protection of Australia's offshore sovereignty and sovereign rights lie in the Indian Ocean. About one-third of our maritime jurisdiction is there, including large EEZs around the remote island territories and large areas of extended continental shelf with high potential for further discoveries of hydrocarbons. These interests mean that it's becoming more important than ever to ensure that our arrangements for offshore sovereignty protection are correct. This report talks more about *offshore sovereignty protection* than about *border protection*. The former is a wider and more demanding task, particularly in the Indian Ocean, where both increased threats and greater vulnerabilities are evident.

As a consequence of the recent influx of asylum seekers from Sri Lanka, most of Australia's offshore efforts are concentrated on border protection in the northwest. However, as shown by the tragic sinking of an asylum seeker vessel off the Cocos (Keeling) Islands in November 2009, greater effort will be required further offshore. Pressures include problems with IUU fishing on the high seas and the possibility that refugees may use favourable weather conditions to travel directly to Australia from South Asia, or even from Africa. A harder line by Indonesia on asylum seekers may increase that possibility.

Australia's arrangements for offshore sovereignty protection remain less than optimal.

Australia's arrangements for offshore sovereignty protection remain less than optimal. The establishment of the Border Protection Command improved matters, but current arrangements are still prone to systemic failure. Further improvement might be expected as a result of recent government agreement to the Civil Maritime Security Capability Plan to provide whole-of-government planning guidance, including for capability development.

Many agencies are involved; there is a division of responsibility between the Border Protection Command as a joint agency of Defence and the Australian Customs and Border Protection Service responsible for activities in the EEZ, and Defence, which is responsible for activities further offshore. Suspected illegal entry vessels continue to reach Australian waters

undetected, and the system appears to react on a case-by-case basis rather than proactively taking a holistic view of threats and priorities. The system, as well as being professional, must also be *seen* to be professional. The *Oceanic Viking*, operated by the Australian Customs and Border Protection Service, has a key role in offshore sovereignty protection in the IOR, but the former cable layer, manned by a mixed crew of civilians and Customs personnel, presents an equivocal image of our commitment and professionalism.

Australia currently has bilateral agreements on cooperative maritime surveillance and enforcement in the IOR with France for the waters around Kerguelen, Heard and MacDonald islands, and with Indonesia for the Timor and Arafura seas. There seems little scope at present for moving beyond those arrangements. Multilateral arrangements for maritime surveillance and enforcement tend not to work because of third-party sensitivities that can arise.

Offshore island territories

Among our offshore territories in the IOR, Cocos and Christmas islands have great strategic value to Australia, but this is often underappreciated. Christmas Island provides a useful offshore holding facility for asylum seekers but due to its proximity to Java has rather less strategic utility than the Cocos Islands, which are more remote. As Australia seeks to increase its 'strategic footprint' in the IOR, the airfield and secure anchorages at Cocos Island offer large benefits. However, the ADF currently makes relatively little use of those facilities and surface patrol vessels rarely deploy to the area.

Sea lines of communication

The security and safety of shipping transiting the IOR to and from Australia are vital strategic concerns. The most critical SLOCs are those between Australia and the Persian Gulf, Red Sea and Suez Canal, and between resource ports in northwestern Australia and East Asia through the Indonesian archipelago. In the longer term, the route across the southern Indian Ocean from West Africa may also grow in importance if Australia begins importing oil from that area.

SLOC security in the IOR is a common interest of regional countries and East Asian countries, which depend on energy and resources from the Middle East, Africa and Australia. It's a requirement that potentially provides the basis for maritime cooperation in the region (Rumley et al 2007).

Few Australian-flag ships are engaged in IOR trade. However, cargoes bound to and from Australia across the Indian Ocean are of great value. Some Australian seafarers are engaged on ships using the Gulf of Aden and passing off Somalia, but so far no Australian cargoes or seafarers have been aboard ships successfully hijacked.[16]

Ship safety and search and rescue

Australia has an extremely large search and rescue region (SRR) in the Indian Ocean. It stretches halfway across the ocean from Australia's west coast, and from south of Sri Lanka and Indonesia to Antarctica. It includes some of the roughest sea areas in the world. The SRR is also the area where Australia, under recommendations by the International Maritime Organization, is the 'Security Forces Authority', which should initiate action in response to an international security incident.

A system of SRRs covers the IOR. Australia has MoUs with all countries that have SRRs abutting that of Australia, with the exception of Sri Lanka (that is, with South Africa, Reunion, Mauritius, Indonesia and the Maldives). Australia has no SRR boundary with India.[17] Indonesia, the Maldives and Sri Lanka, as well as Malaysia and Thailand, are not parties to the 1979 Convention on Maritime Search and Rescue (the SAR Convention). As non-parties, these countries are under no international obligation to cooperate on search and rescue (SAR) matters.

The incidence of rough seas in the IOR creates challenges for both ship safety and SAR. The Port State Control (PSC) regime is a key international measure to ensure that ships are operated safely and don't pose risks of polluting the marine environment as a consequence of accidents at sea. It involves the inspection, by the officers of a national maritime authority, of foreign vessels visiting the country's ports to ensure compliance with the international maritime safety and marine pollution conventions.

The effectiveness of the PSC regime in a given region depends on regional cooperation on ship inspections, including a regional database and agreement on target inspection rates for foreign ships visiting the ports of participating countries. An Indian Ocean Memorandum of Understanding for PSC was established in 1998; a 15% annual inspection rate per country was to be achieved within three years.[18] All indications are that the MoU is relatively ineffective: no participating country, other than Australia, has achieved its target rate of inspections, and some aren't conducting inspections at all (IOMoU 2010). Annual reports from the Indian Ocean MoU also suggest that there's been little regional or individual training or capacity building in recent years.

Maritime information exchange

Arrangements for sharing maritime data are an important contribution to maritime security, both to meet current operational needs for maritime domain awareness and as a building block for wider maritime security cooperation. Australia has current information-sharing arrangements with France, Indonesia and Singapore in the IOR, and is working on agreements with South Africa and India. This activity is being managed by the Border Protection Command.

Singapore has taken the lead with maritime information sharing in Southeast Asia and adjacent regions by establishing the Information Fusion Centre to bring together information from diverse sources (Bateman et al 2009:34). Several countries, including Australia and India, have posted liaison officers to the centre.

Maritime information exchange can have problems. Countries might be reluctant to reveal the extent and sources of their data holdings, and less developed countries may be reluctant to participate in arrangements because they think they have less to gain than more technologically advanced nations. Bilateral sensitivities also inhibit cooperation. For example, Indonesia and Malaysia have not joined the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) due to concerns about the location of its headquarters in Singapore.

Economic interests

Trade

Table 4 shows the top ten export markets for Australia in the IOR for 2003 and 2008. Our exports to the IOR in 2008 totalled US$39.688 billion, or about 21% of our total exports of US$185.693 billion.[19] About a third of the nation's exports emanate from Western Australia (DFAT 2010:3), and the vast majority of that crosses some part of the Indian Ocean by sea.

Australia's trade with India has been growing rapidly in recent years. Merchandise exports to India, mainly minerals and fuel, were worth A$15.4 billion in 2008–09, and service exports, including education, tourism, biotechnology and health, were valued at A$3.4 billion (DFAT 2009). India is by far Australia's largest export market in the IOR, having moved very clearly ahead of Singapore over the past five years. Oman is another rapidly growing market.

Table 4: Australia's top ten export markets in the Indian Ocean region, 2003 and 2008 (US$ million)

	2003	2008	Growth rate (%)[a]
Singapore	2,233	5,365	19.2
India	2,194	11,288	38.8
Indonesia	1,863	3,620	14.2
Thailand	1,462	4,493	25.2
Malaysia	1,355	3,405	20.2
United Arab Emirates	1,227	3,270	21.7
Saudi Arabia	1,183	2,092	12.1
South Africa	863	2,058	19.0
Kuwait	364	425	3.2
Pakistan	237	365	9.0
Oman	132	580	34.4

a The growth rate is the compound annual growth rate based on current year dollars.

Source: Derived from the International Monetary Fund Direction of Trade Statistics.

Energy

Energy security is a priority of the Australian Government (Rudd 2008b:26–27). The 2009 National Energy Security Assessment predicted that, over the longer term, Australia will become increasingly dependent on imports of crude oil and refined petroleum products, including liquefied petroleum gas (LPG) (DRET 2009a:10). Those trends are likely to be exacerbated over coming years by the increasing costs of refining petroleum products locally.

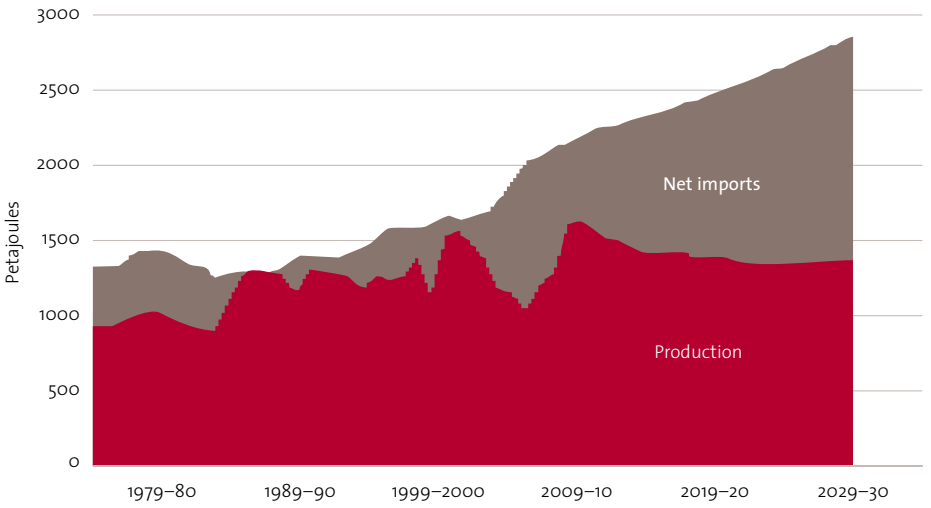
Figure 4 shows Australia's oil and LPG production and imports, most of which are sourced from countries in the IOR. The outlook for the liquefied natural gas (LNG) sector is more optimistic, with abundant reserves and increasing production in Western Australia and the Northern Territory from offshore fields in the Indian Ocean.

With extensive resources of natural gas, coal and uranium, Australia is a major energy exporter to Asia. While we're a net importer of crude oil and refined products, we're a net exporter of natural gas. Around 90% of recoverable reserves of natural gas are located off the west and northwest coasts of Australia (ABARE 2009:9). We also have considerable gas resources in ocean areas deeper than 300 metres, which is the limit of exploitation with current technology. New subsea technology is needed to develop these fields cost effectively.

With most offshore production situated in the northwest, the protection of offshore energy infrastructure (oil and gas rigs, floating storage facilities and pipelines) and onshore terminals is a vital concern for Australia.

Australia's west coast offers great potential for sources of renewable energy. There are steady wind and wave patterns in the southwest, and areas of the northwest have strong tidal flows and a high tidal range.

Figure 4: Australian oil and liquefied petroleum gas production and net imports



Source: ABARE, Energy in Australia 2008, *p. 16.*

Offshore oil and gas

Offshore developments in the west and northwest of the continent will play a key role in the future prosperity of the nation. Figure 5 shows some of the major planned and producing offshore oil and gas facilities off the west coast. The offshore rigs, floating gas platforms and pipelines now being installed in these areas are vital national assets that make a major economic contribution, but they also create significant strategic vulnerabilities. China and India are major customers for the LNG that's produced in these areas. In late 2009, Australia entered into a $90 billion LNG contract with a Japanese power company. This is believed to be Australia's biggest export sales contract.

Western Australia is currently experiencing its largest economic boom due to its thriving resource sector. The state has 66% of Australia's economic demonstrated reserves of crude oil and 57% of Australia's LPG resources (DRET 2009b). Of the Australian states, Western Australia is the largest producer of gas, accounting for nearly two-thirds of national production in 2007–08. Most of it comes from the Carnarvon Basin, with some from Darwin. Australia's two producing LNG projects are the North West Shelf Joint Venture and Conoco–Phillips' Darwin LNG project. The North West Shelf Joint Venture has a production capacity of 16.3 million tonnes a year. The Darwin LNG project began production in 2006 and has a capacity of 3.5 million tonnes a year, sourcing its natural gas supply from the Bayu–Undan gas field in the Timor Sea. Further developments include the massive Gorgon project and a common user LNG hub north of Broome to support developments in the Browse Basin.

Figure 5: West coast offshore oil and gas projects

Source: Information supplied by Geoscience Australia

Critical infrastructure protection

Protection of critical infrastructure in the west and northwest is assuming greater national importance. A large proportion of the nation's exports already comes from these regions, further immense developments in offshore gas and iron ore production are in the pipeline, and there's potential for other mining developments. However, the huge economic importance and vulnerability of this area seem underappreciated in our national strategic planning. As the Immigration Minister, Senator Chris Evans, pointed out at the 'In the Zone' conference in Perth in November 2009, the rest of Australia doesn't get it when it comes to the staggering scale of developments that will transform Western Australia into a regional and global energy hub (Hewett 2009).

The current focus on asylum seekers has diverted attention from possible threats to offshore oil and gas rigs. It's understood that active patrolling by security forces in their vicinity has become rare. A particular issue that needs to be addressed is how the sinking of a refugee vessel in the vicinity of a rig would be handled, including the provision of humanitarian assistance by the rig for the distressed people.

Fisheries

Australia's fisheries interests in the IOR include both fishing in the 200 nautical mile Australian Fishing Zone (AFZ) and participation in regional fisheries management arrangements. Currently, Australia has only two boats fishing in the Indian Ocean beyond the AFZ. The day that Australia does start to fish in the Indian Ocean high seas, however, there's a commitment from the IOTC that we'll receive 5% of the overall tuna catch in the Indian Ocean. AFZ fishing off the west coast comprises the rock lobster fisheries and several minor fisheries, such as the northwest trawl fishery (prawns) and the western tuna and billfish fishery (swordfish and yellowfin tuna). In 2007–08, rock lobster was Australia's highest valued production species, valued at $407 million, and about two-thirds of that production is from Western Australia. In 2007–08, Western Australia contributed about $448 million, or 20% of Australia's total gross value of fisheries production (ABARE 2008).

Illegal fishing in the AFZ off Heard Island and MacDonald Islands (HIMI) for Patagonian toothfish and icefish was once a problem. In the past three years, however, there have been no reported cases of IUU fishing in the HIMI fishery, due to armed patrols by the *Oceanic Viking* to stamp out toothfish poachers. But there's been IUU fishing in the high seas area to the south of the HIMI, using gillnets up to 6 nautical miles long (CCAMLR 2008).

Tuna fishing in the IOR was originally dominated by Japan, Taiwan and South Korea, but recent developments include a rapidly growing tuna longline fleet from Indonesia, the entry into the region of European vessels, and the expansion of domestic fleets from Indian Ocean coastal states. Management of these activities is undertaken by the IOTC, but it hasn't been as effective as it might have been. Australia hasn't issued permits to fish in the AFZ off Cocos and Christmas Islands for many years. To date, it hasn't been economic to fish in those waters.[20]

Australia has a keen interest in the southern bluefin tuna fishery. This important species is caught off the southern Australian coast, but it's highly migratory, spawning mainly in the northeast Indian Ocean south of Java before migrating down the west coast to southern Australian and New Zealand waters. Some stock also move across the Indian Ocean to the South Atlantic.

Southern bluefin tuna is a valuable fishery. An international quota is shared mainly by Japan, Australia, Indonesia, Taiwan, South Korea and New Zealand, with smaller allocations to the Philippines, South Africa and the EU. Management of the fishery still has many problems. In 2005–06, an independent committee set up by the governing RFMO found that Japan had been catching two to three times its allocated quota for the previous twenty years.

Southern bluefin tuna is the one fishery in which Australia is a serious international player. We export over $200 million worth per year, and have quota assets of over $800 million. In the annual quota negotiations in October 2009, Australia ended up with only 42% of a smaller global quota. This was a result of smaller cuts for Japan and Indonesia, and an increase for New Zealand.

In addition, the 2009 agreement foreshadowed further possible cuts in Australia's share of the quota in 2012 to satisfy requests from countries such as Indonesia, South Africa and Japan. Reconciling the Indian Ocean interests of Australia's fishing industry with Australia's wider relations with these states will pose significant challenges for Australian diplomacy.

Overseas students

Education services are Australia's third largest export earner, and the IOR has been a large source of growth for that sector. There were nearly 250,000 students from IOR countries enrolled in training and education programs in Australia in 2009 (Australian Government 2009b), 30% more than in 2008 and comprising 45.4% of total international student enrolments in Australia. About 42% of the IOR students were from India, but large numbers came from Indonesia (6.3%), Malaysia (8.9%), Nepal (8.7%), Thailand (8.5%) and Saudi Arabia (4.4%). It's surprising that so many students came from Nepal, while significantly fewer came from Pakistan and Bangladesh (about 2.6% each). Australia is actively seeking to increase the number of students from Africa.

Environmental and humanitarian concerns

Environmental interests

As a leading stakeholder in the Indian Ocean, Australia has a major interest in the preservation and protection of the marine environment of that ocean and the conservation of its living resources. However, those objectives can be achieved only with cooperation between littoral and island countries. Other than in some sub-regions of the ocean (see Table 6 in Chapter 5), that cooperation is currently lacking.

Effective arrangements for managing the marine environment must be based on good scientific research, but that's scarce for the Indian Ocean. Some progress is being made now with the Indian Ocean Observing System (IndOOS) to gather data for climate research and forecasting. The system consists of robotic floats, moorings and regular sampling routes spread across the Indian Ocean. Measurements of surface winds, sea level and other parameters are relayed to a satellite in real time. Nationally based observing systems, including the Integrated Marine Observing System based in Perth, are integrated into IndOOS. However, the system still falls behind the coordinated multinational mooring arrays in the Atlantic and Pacific.

The Western Indian Ocean is better organised for cooperative marine scientific research than the East Indian Ocean.

The Western Indian Ocean is better organised for cooperative marine scientific research than the East Indian Ocean. South Africa manages the South African Network for Coastal and Ocean Research, and there's also the Western Indian Ocean Marine Science Association, a regional professional and non-governmental organisation based in Zanzibar, Tanzania. The association promotes the educational, scientific and technological development of the marine sciences throughout the Western Indian Ocean, with a view to sustaining the use and conservation of its marine resources.[21] In collaboration with the United Nations Environment Programme, the association is hosting a regional group of experts on marine protected areas for the Eastern African region, focusing on capacity building and personnel exchanges.

Humanitarian interests

The Australian Government is committed to the implementation of the MDGs, which are agreed targets set by the world's nations to reduce poverty by 2015. Targets include halving extreme poverty, getting all children into school, closing the gap on gender inequality, reducing lives lost to disease and improving available health care, and protecting the environment. They are achievable commitments to improve the wellbeing of the world's poorest people.

Australia is committed to increasing its aid to 0.5% of gross national income by 2015 (AusAID 2009). More and better assistance will be provided to lagging regions, including through re-engagement in Africa. Natural hazard risk management is also becoming an increasingly more important part of official development assistance (ODA).

Overseas aid

Table 5 shows the budget estimates for Australian ODA to IOR countries and regions in the 2009–10 Budget. This is somewhat less than one-third of total Australian ODA; the other two-thirds goes to Papua New Guinea, the Pacific and non-IOR Southeast Asian countries, especially Vietnam and the Philippines. Aid to Indonesia accounts for roughly 40% of our ODA to the IOR.

While the Australian overseas aid program has traditionally focused on Southeast Asia and the Pacific, Australia is now increasing its efforts in Africa and South Asia. Aid to Africa is being increased by 50% in 2009–10 to $164 million, along with an increasing geographic coverage of the African continent. ODA to Bangladesh, Nepal and Pakistan will also increase markedly in 2009–10.

Table 5: Australian official development assistance in the Indian Ocean region

Country/region	Budget estimates ($m) 2009–2010
Indonesia	452.5
Myanmar	29.1
Thailand	4.5
Africa	163.9
Bangladesh	61.2
Sri Lanka	35.6
India	13.7
Nepal	15.8
Maldives	3.7
Bhutan	4.8
South Asia regional	20.5
Pakistan	58.8
Afghanistan	88.7
Iraq	44.7
Palestinian Territories and other Middle East	32.3
Total IOR	**1,029.8**

Source: Australia's International Development Assistance Program budget 2009–10, AusAID.

What can be done?

Australia has a lot of lost ground to catch up to establish itself as an important player in the IOR. The extent of our national interests there and our potential ability to assist regional countries that are less well off mean that we should be playing a more active role in the region. However, there are obvious limits to what can be achieved in the IOR. Apart from resources, our geographical reach is limited. And past experiences of attempts to build multilateral cooperation in the IOR aren't encouraging.

In the current fiscal environment, there'll be questions about whether it's a zero-sum game between the IOR and other key regions for Australia: Southeast Asia and the Pacific islands. The IOR has had lower priority in the past, but times have changed and we need to pay greater attention to it. The basic need is to change the prism through which we view our international role and bring the IOR into the mainstream of our foreign and security policies. We might achieve quite a lot in the IOR with a small reallocation of resources.

Chapter 5

TOWARDS AN INDIAN OCEAN POLICY

The Indian Ocean is Australia's neglected ocean. We have expanding strategic, environmental, political and economic interests in the IOR, but there's no policy framework for managing those interests. As noted in Chapter 1, Australia has the largest area of maritime jurisdiction in the IOR.

In developing a policy framework for the Indian Ocean, we're faced with basic choices. Should we foster cooperation and dialogue on a region-wide basis? If so, how should we start the process? Or would it be better to focus on the sub-region nearest to us—the East Indian Ocean (EIO)? Are there some IOR countries that warrant our special attention? What common interests potentially provide a basis for multilateral cooperation and dialogue? Or should the main focus of initiatives in the IOR be on bilateral relations?

There are no easy answers to these questions and, in some cases, the answers aren't mutually exclusive. For example, we can have region-wide dialogue, sub-regional dialogue or bilateral dialogue on particular issues on a case-by-case basis.

This chapter addresses these policy choices and, in doing so, recommends the basis of a policy framework for the Indian Ocean. The focus is the maritime environment of the IOR, and how policy on the Indian Ocean and maritime issues might promote Australia's interests in the IOR. Many of the recommendations made in ASPI's earlier strategy paper, *Sea change: Advancing Australia's ocean interests*, are also relevant to this report (Bateman and Bergin 2009).

Strategic policy

Influence and presence

Increased international focus on the IOR and the various threats and risks evident there underpin the importance of Australia increasing its influence and presence in the region. Australia brings significant expertise to the table and has a good track record of regional cooperation to help mitigate the threats and risks. Australia is not perceived as a threat in the region, and might be able to achieve a large return from a modest outlay of additional resources.

Recommendation

As a broad strategic objective, Australia should increase its strategic presence in the IOR through more proactive regional relations and a wide spectrum of increased activity in the region.

Regional cooperation and dialogue

It's tempting to recommend the establishment of a new Indian Ocean Forum to promote dialogue and cooperation on economic (including resources), security and oceans management (including fisheries and marine environmental protection) issues, but there's much against it. The IOR–ARC already exists, although it's stumbling, and previous efforts to establish a more substantial region-wide forum have failed. India is assuming the chair of the IOR–ARC in 2011 and may be expected to promote a larger role for the organisation.

Rather than a new forum, it's better to restructure and reorient the IOR–ARC. A more inclusive structure might be sought, as important IOR countries such as Pakistan and Saudi Arabia are not currently participants.[22] There are clear global gains to be had in the IOR states finding common ground around issues of cooperation.

There are common interests, largely associated with the ocean itself, beyond the economic and trade issues that now occupy the IOR–ARC. With increased impetus and political will, the IOR–ARC could address a wider range of matters, including IUU fishing, oceans management, marine scientific research, and piracy, as well as in terrestrial issues, such as capacity building, agriculture, tourism and cultural cooperation. Its current subsidiary forums (the Working Group on Trade and Investment, the Indian Ocean Rim Business Forum, and the Indian Ocean Rim Academic Group) have produced few results.

For more practical cooperation and dialogue, Australia might focus on the geographically closer EIO sub-region. The countries within the EIO are India, Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia, Singapore, Indonesia, East Timor and Australia. Common interests include the following:

- *Disaster management*. EIO countries mostly face the same maritime natural hazards, including tsunamis, cyclones, storm surges and flooding. They have similar concerns for hazard mitigation, and there's much scope for mutual support through the provision of humanitarian assistance after natural disasters, as well as for planning to deal with such disasters.
- *Scientific research*. There's a need for more comprehensive marine scientific research to explore links between ocean conditions and climate. Water flowing through the Indonesian archipelago from the Pacific to the Indian Ocean has a major influence

on oceanographic conditions in the Indian Ocean, but those conditions, as well as oceanographic conditions more generally in the IOR, are under-researched. Unlike the Western Indian Ocean, the EIO currently lacks a regional marine scientific research forum.

- *SLOC security and safety*. Shipping transiting between the Indian and Pacific oceans feeds into major chokepoints, mostly between Singapore and Darwin—the Malacca and Singapore straits, the various straits through the Indonesian archipelago, and Torres Strait. Some safety and security issues are common to all these straits.
- *Illegal trafficking*. Illegal movement of people is a major problem within the EIO. Asylum seekers move through the area from South Asia to Australia, as well as between various countries in the sub-region. The Bali Process already involves all sub-regional countries in cooperation to combat people smuggling and people trafficking. The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) hasn't considered these issues, although it has addressed terrorism and drug trafficking.
- *Fisheries management and illegal fishing*. Coordination is needed to suppress IUU fishing on the high seas, as well as illegal fishing by vessels of one sub-regional country in the waters of another. The EIO includes the spawning grounds of the southern bluefin tuna, making fisheries management a common interest.
- *Offshore infrastructure security*. Extensive offshore oil and gas exploration and exploitation in the EIO pose challenges for the safety and security of oil and gas platforms, creating the potential for cooperation. The recent accident involving the West Atlas oil rig in the Timor Sea is an example of the events that can occur.

Australia has major strategic interests in the EIO, which is part of the primary operating environment for the ADF identified in the 2009 Defence White Paper (Australian Government 2009a:51). Three significant island territories of Australia lie within the sub-region, and an EIO forum would include the most important IOR countries that Australia should have strong bilateral relations with—India and Indonesia. The forum would provide a dialogue triangle between India, Indonesia and Australia, as leading partners in cooperative mechanisms for the EIO. It would also enhance prospects of a triangular strategic relationship between India, Southeast Asia and Australia—a potentially valuable link that's currently underdeveloped (Mohan 2009:52).

As shown in Appendix A, other parts of the IOR have functional sub-regional organisations with maritime issues on their agendas (see, for example, the Gulf Cooperation Council and the Indian Ocean Commission). Regional cooperation is generally better developed in the Western Indian Ocean than it is in the east. ASEAN as a regional body looks inwards and towards its north and east, rather than to the west.

There's some overlap between a possible EIO forum and BIMSTEC, although the forum would have wider interests and geographical coverage. India may be reluctant to consider a wider forum that includes Indonesia and Australia as two other major players, but the two forums should be seen as mutually supportive. The Bay of Bengal Large Marine Ecosystem Project is also relevant. The project has been established under the auspices of the FAO to protect the health of the ecosystem and manage its living resources sustainably.[23]

However, it's not a zero-sum game between the IOR generally and the EIO. The IOR commands more attention from Australia across the board although the more proximate parts of the IOR (i.e. the EIO) may offer the potential for greater immediate gains.

Recommendations

Australia should foster regional cooperation and dialogue in the IOR, based on a framework of:

- *region-wide cooperation on an issue-by-issue basis*
- *increased support for the IOR–ARC, with some restructuring and reorientation of the forum so that it addresses a broader range of issues*
- *the development of practical cooperation and dialogue within the EIO.*

As a step towards achieving increased support for the IOR–ARC and promoting dialogue on key regional issues, Australia might host an Indian Ocean conference similar to the International Forum for the Indian Ocean Region event held in Perth in 1995.

Dialogue might be commenced with India and Indonesia on the establishment of a forum for the EIO.

Bilateral relations

Several bilateral relationships in the IOR have special significance for Australia, including our relationships with India, Indonesia, France, South Africa, Sri Lanka and several small island countries. Those relationships are important both because of their direct benefits, and because they give Australia an opportunity to work with like-minded countries to build a greater sense of community in the IOR.

Indonesia

We have extensive common maritime interests with Indonesia. While some arrangements are in place to manage those interests, including information exchange, cooperative fisheries patrols, the Lombok Treaty, and the Arafura and Timor Sea Experts Forum, more could be done. Dialogue with Indonesia on ocean-related issues in the IOR would be especially beneficial.[24]

India

Australia and India have a strong mutual interest in enhancing maritime security cooperation in the IOR, where we both have key strategic interests. India seeks to be the dominant power in the Indian Ocean. We have bilateral defence and security cooperation agreements with India, and the 2009 Defence White Paper noted that the government has specifically directed Defence to examine opportunities for increased bilateral maritime cooperation with India (Australian Government 2009a:96). We should certainly pursue those aims, but not to the extent that they might jeopardise our relations with other IOR and stakeholder countries.

South Africa

While bilateral relations between Australia and South Africa may have faltered in recent years, South Africa remains an important country in our web of bilateral relations in the IOR. Australia and South Africa share many common maritime interests, including the prevention of IUU fishing and ensuring the safety and security of shipping. South Africa is strategically located in relation to the shipping route around the Cape of Good Hope, and has a well-organised and capable national marine scientific research capability.

France

France is an important partner in providing maritime security in the South Pacific and plays a useful role in helping Pacific island countries with maritime surveillance and enforcement. There's potential for more dialogue between France and Australia on IOR issues, including oceans management. We already have the 2005 fisheries surveillance and 2006 fisheries enforcement treaties with France covering cooperative action to prevent IUU fishing in the Southern Ocean.

Sri Lanka

Bilateral relations with Sri Lanka are becoming more important, particularly as the exodus of political and economic refugees from there continues. In the past, Sri Lanka has taken a leading role in attempts to build maritime cooperation in the IOR, but domestic turmoil has sapped its enthusiasm for international cooperation. Australia has a search and rescue region boundary with Sri Lanka but no MoU on SAR. That should be pursued. Sri Lanka might also welcome capacity-building assistance with maritime SAR, as well as with managing its other maritime interests.

Small island countries

Of the small island developing countries in the IOR, Mauritius and the Maldives have forged close ties with Australia. Both are vulnerable to marine natural hazards—Mauritius to cyclones and the Maldives to storm surges, high waves and sea-level rise. Australia's experiences with the Pacific island countries might assist the island countries of the IOR, but so far we haven't singled them out for special attention.

Recommendations

Australia should maintain and extend strong bilateral relations with other leading players in the IOR, especially India, Indonesia, South Africa and France.

Australia might draw on its experience with Pacific island countries in showing more interest in the challenges, such as climate change and fisheries management, faced by small island countries in the IOR, especially Mauritius and the Maldives.

Dialogue should be pursued with Indonesia on IOR issues.

An MoU on search and rescue should be negotiated with Sri Lanka, and we should offer to assist with SAR capacity building.

Energy cooperation

Energy security is looming as a major problem in the IOR, both for regional countries and for the extra-regional players that depend on energy supplies from the region. This common interest creates an opportunity for regional countries and other stakeholders to work together, but is also a potential source of competition that could threaten the stability of the region. As a major supplier of energy to India and China, two big new energy consumers, Australia can play a significant role in ensuring that the benefits of energy cooperation are realised and that competition doesn't boil over into tensions and possible conflict (Hurley 2009:28).

To promote more effective dialogue and engagement on energy matters, a restructured IOR–ARC should include this issue on its agenda. With China already a dialogue partner of this forum, it already includes all the important players with the exception of Saudi Arabia.

Recommendation

Regional energy issues should be included on the agenda of a rejuvenated IOR–ARC.

Maritime security cooperation

Much has been written about maritime security cooperation, including in the IOR. The current US Maritime Strategy emphasises multilateral naval cooperation to maintain good order at sea, which also figures prominently in statements from the Indian Navy. Naval operations to counter piracy off the Horn of Africa are an example of the benefits of cooperation. For the longer term, measures to develop a common framework for protecting SLOCs are often cited as an example of the need for maritime security cooperation.

There's been some scepticism over the years about the prospects for multilateral security cooperation in the IOR (for example, Lehr 2005). Major barriers to effective security cooperation include political sensitivities, both between regional countries and the involvement of extra-regional players; the lack of common interests; the lack of capacity of many regional countries to participate; and the lack of resources. Robert Kaplan has recognised this problem. He has suggested that, rather than an IOR-wide effort, a better approach would be to rely on 'multiple regional and ideological alliances in different parts of the Indian Ocean' (Kaplan 2009a).

Different countries have different core values when it comes to maritime security, and there's wide disparity between the navies of the region and their capabilities. Australia, India, Pakistan, South Africa and Singapore possess highly capable fleets, including submarines, while most of the less developed regional countries have very few naval or coast guard assets. Many smaller countries might feel intimidated by the larger and more powerful players if they participate in cooperative activities. We shouldn't hold too many expectations about the prospects for maritime security cooperation.

India held the inaugural Indian Ocean Naval Symposium in February 2008 to foster cooperation between navies and coast guards in the IOR. The symposium may evolve as a useful forum and deserves support from Australia, provided it is an inclusive gathering and develops a clear purpose. However, the lack of common interests and threat perceptions, the wide disparities in the capabilities of maritime security forces, and the costs associated with holding meetings may all militate against its longer term success. A lot of drive and resources will be necessary to sustain its momentum.

Recommendation

Australia could host a future Indian Ocean Naval Symposium, provided the symposium is an inclusive gathering of IOR states and has a clear sense of purpose.

Maritime domain awareness

Information sharing and maritime domain awareness (MDA), which provides an appreciation of what's happening in a maritime area, are sometimes mooted as prospective cooperative measures. MDA depends on the ability to detect an activity and then to assess what might or might not be of interest. The Australian Maritime Identification System is a primary means of providing MDA in Australia's offshore areas. India is reported to be establishing an

MDA system that may be similar to the Australian system. Maritime information-sharing offers benefits both as an input to MDA and as a building block for wider maritime security cooperation.

Recommendation

Australia should continue to promote and secure arrangements for maritime information exchange within the IOR on both bilateral and multilateral bases.

Sovereignty and border protection

ASPI's *Sea change* report noted that maritime border protection and the management of Australia's large maritime domain are probably the most challenging and fundamentally important security tasks confronting Australia in peacetime (Bateman and Bergin 2009:65). Because of the large areas involved, resources might sometimes be inadequate for the range of necessary tasks. These problems were evident again in 2009 with increased arrivals of asylum seeker vessels, some of which weren't detected until they appeared off the Cocos and Tiwi islands.

It's likely that surveillance and enforcement in the Indian Ocean will require much greater effort in the future. The likelihood of increased IUU fishing requiring policing on the high seas, more illegal fishing incursions into the AFZ, larger fishing boats, and the possibility of economic refugees, even perhaps directly from Africa helped along by favourable weather, are all considerations.[25] Oil and gas rigs will be located further out to sea on the extended continental shelf in the Indian Ocean. New installations will also be located in areas where illegal fishing takes place. Increased shipping traffic and other maritime activity in the IOR may mean a higher number of SAR incidents in our search and rescue region.

Australia is certain to face an increased need for sovereignty and border protection further offshore in the Indian Ocean. Providing satisfactory sovereignty protection around the Cocos Islands is a worry, as none of the current generation of patrol boats in the Australian national inventory can sustain patrols around those islands.

The *Sea change* report recommended a 'national fleet' approach covering all offshore requirements, including both surveillance and patrol and marine scientific research. The 2009–10 Budget set out some improvements, such as the acquisition of a new deepwater marine scientific research vessel and plans for a common hull for the RAN's offshore patrol, minesweeping and hydrographic tasks. However, those improvements still fall short of a 'national fleet' approach and our *Sea change* recommendation is restated here (Bateman and Bergin 2009:67).

Recommendation

An independent study should be conducted of Australia's requirements for bluewater capabilities for maritime policing, patrol and scientific research. Naval war-fighting capabilities should not be included, but the study should take into account the ADF's contribution to civil maritime tasks.

Island territories

The Cocos Islands will become a more important strategic asset for Australia in the future as we increase the tempo of our naval and maritime operations in the Indian Ocean. It's important that Australia demonstrates its sovereignty and regularly patrols the EEZ around those islands.

Recommendation

More regular air and surface patrols should be undertaken around the Cocos Islands.

Oceans management and research

Oceans management

Effective oceans management in the oceans and seas around Australia is one of our key national interests. Largely due to work in the Coordinating Body on the Seas of East Asia (see Table 6), APEC and the Pacific Islands Forum and through the Antarctic Treaty System, some processes for oceans are in place in the Pacific and Southern oceans and in the seas of East Asia. However, the Indian Ocean remains a blind spot. There are some programs for regional seas, but no approach for the Indian Ocean as a whole (Haward 2008:65–66).

The *Sea change* report noted that, because Australia took a leadership role in arrangements for the management of adjacent oceans and seas, particular attention should be given to the 'Indian Ocean, which currently lacks effective forums for oceans management and the exploitation of marine resources. We should work closely with India and South Africa on this' (Bateman and Bergin 2009:58).

The objective might be a declaration for the Indian Ocean similar to the 2002 Seoul Oceans Declaration for the Pacific Ocean, agreed by Asia–Pacific ministers with maritime responsibilities.[26] The declaration covered recommendations on marine environmental protection and integrated coastal management and set the direction for future work by APEC.

Recommendation

Australia should take the lead and work closely with India and South Africa to develop an Indian Ocean Declaration setting out broad principles of oceans management for the Indian Ocean. A draft form of this declaration might be put forward to the IOR–ARC and relevant sub-regional forums.

Table 6: Regional seas programs in the Indian Ocean region

Geographical region	Coordinating body	Participating countries
Persian Gulf and Arabian Sea	Regional Organization for the Protection of the Marine Environment	Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates
Red Sea and Gulf of Aden	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA)	Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan, Yemen
South Asia	South Asia Cooperative Environment Programme (South Asian Seas Action Plan)	Bangladesh, India, Maldives, Pakistan, Sri Lanka
East Asian seas (including Andaman Sea, Malacca and Singapore straits, Arafura Sea and Timor Sea)	Coordinating Body for the Seas of East Asia — Regional Coordinating Unit for East Asian Seas	Australia, Cambodia, China, Indonesia, Malaysia, Philippines, South Korea, Singapore, Thailand, Vietnam
East Africa	Regional Coordinating Unit of the Eastern African Region	Comoros, France (Reunion), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania, South Africa

Fisheries management

The Indian Ocean is the last major tuna fishery in the world to remain largely unregulated. The IOTC, as the responsible RFMO, hasn't proved efficient, but its long-term effectiveness is vital for regional fisheries management. No other Indian Ocean fisheries forum brings together the main fishing states in the same way as the IOTC. From an Australian perspective, the Indian Ocean tuna fishery has lower priority than the southern bluefin tuna fishery, tuna fisheries in the Pacific Ocean and the Southern Ocean fishery. The Australian domestic fishing industry currently has little interest in fishing in the Indian Ocean. As a result, we've invested relatively little effort in supporting fisheries management arrangements in the Indian Ocean through the IOTC.

Australia participated in the establishment of the Southern Indian Ocean Fisheries Agreement to ensure the long-term sustainable use of fishery resources, other than tuna and tuna-like species, in the southern Indian Ocean. However, that agreement hasn't come into force. We also participated in negotiations for the establishment of the South Pacific Regional Fisheries Management Organisation to manage currently unmanaged non-highly migratory fish stocks on the high seas, including in areas of the eastern part of the southern Indian Ocean. A convention to establish this new fisheries organisation was adopted in Auckland on 14 November 2009.

Because of the importance of fisheries to the economies of many littoral and island countries and Australia's growing strategic interest in the stability of the region, we should make greater efforts to protect Indian Ocean resources upon which so many IOR states depend. This should be a priority for our regional engagement. And, in the longer term, Australian access to the fishery resources of the Indian Ocean should be a component of Australia's national objectives. There are strong environmental and conservation reasons why this should be the case.

While fisheries provide both food security and social stability, a lack of scientific research and capacity has inhibited their contribution to regional development. The importance of fisheries to poor coastal communities can't be overstated, despite the fact that fisheries in some East African countries currently contribute relatively little to national economies.

Australia now has great experience in fisheries science and management and could do much more to make RFMOs more effective and to help individual countries develop their national fisheries.

Assistance with EEZ management might also be welcomed by Oman, Sri Lanka, Yemen and the island countries with their large EEZs. Australia's experience with the Pacific island countries and our own oceans management arrangements have given us considerable expertise in such matters.

Recommendations

Australia should make a greater effort to ensure that cooperative fisheries management arrangements in the Indian Ocean are effective. In particular, we should work to improve the operations of the IOTC—the only player in the Indian Ocean that can manage a vital marine resource for the IOR states.

Assistance in building local capacity for fisheries management, and EEZ management more generally, should be an important component of Australia's regional aid programs.

Marine scientific research

Good marine science is the basis of good oceans and coastal management. The Indian Ocean is under-researched compared with other oceans. Better research would have great benefits for understanding climate change, predicting severe weather events and managing marine living resources.

Achieving both a higher level of activity and greater cooperation in marine scientific research in the IOR is a major challenge. While there's some cooperation at a sub-regional level, particularly in the Western Indian Ocean, there exists no process to develop a holistic view of the marine environment of the Indian Ocean, and a lack of knowledge about what research is being undertaken. Much of the research conducted in the region is done by extra-regional countries. There's a need to compile up-to-date information on marine scientific research activity in the IOR. With our skills in marine data collection and management, Australia is well placed to manage that compilation.

There's considerable marine scientific and technological research activity in Western Australia through the University of Western Australia, CSIRO, the Australian Institute of Marine Science and the Centre for Marine Science and Technology at Curtin University. The Western Australian Marine Science Institution (WAMSI) is a collaboration of state, national, industry and academic institutions working together to provide independent research covering climate change, marine life, ocean geology, weather patterns, coral reefs, biodiversity, biotechnology and social issues. WAMSI is currently planning extensive scientific research to inform decisions in the Kimberley–Browse marine region.

Despite collaboration on projects funded by WAMSI and the Australian Government, most marine research in Western Australia is not integrated. To overcome this problem, the University of Western Australia is establishing the Indian Ocean Marine Research Centre, which will be a large multidisciplinary organisation with 240 researchers focused on climate change, the sustainable use of marine resources, conserving marine biodiversity, coastal zone management, security and safety. The centre will be a collaboration of the University of Western Australia, CSIRO and the Australian Institute of Marine Science. Its research will cover Australia's maritime zones in the Indian Ocean, as well as broader oceans issues.

International efforts include IndOOS and the Sustained Indian Ocean Biogeochemical and Ecosystem Research (SIBER) project. SIBER is sponsored by the Intergovernmental Oceanographic Commission's branch in Perth, IndOOS, the National Institute of Oceanography in India, and the US National Science Foundation. Its objective is to improve understanding of the Indian Ocean and to inform policymakers.

Recommendations

An audit should be undertaken of current marine scientific research in the Indian Ocean.

A study should be commissioned to demonstrate the economic, environmental and social benefits of better marine scientific research in the Indian Ocean.

An East Indian Ocean Marine Science Association, similar to the Western Indian Ocean Marine Science Association, should be established, based in Perth or Darwin. It would collaborate with other associations and initiatives, such as the Coral Triangle Initiative in the eastern archipelago.[27]

Capacity building

Protection and preservation of the marine environment and the conservation of its living resources are vital concerns. The economies of most littoral and island countries depend largely on the sea and its resources, including through fishing and marine tourism. However, there are many challenges to the sustainability of those activities, and a balance between short-term economic benefit and longer term sustainability hasn't yet been achieved (Laipson 2009:68). African countries, in particular, have sustained large losses due to the lack of maritime security.

For many IOR countries, there's a disproportionate relationship between their small land areas and their very large claimed maritime zones and SAR responsibilities. Most have little or no capacity to effectively police or manage those areas. Australia has relevant skills and could do more to assist these countries.

There's also potential for Australia to provide capacity-building assistance to IOR countries in SAR and port state control. The Indonesia Transport Safety Assistance Package already in place with Indonesia provides assistance with both. Indonesia, as well as other countries adjacent to Australia's search and rescue region, are not parties to the SAR Convention. They should be encouraged to become parties.

Recommendations

As a guide to the assistance that might be provided by Australia and other donor countries, a study should be undertaken of the maritime capacity needs of less well-off littoral and island countries of the IOR.

Countries with search and rescue regions in the Indian Ocean adjacent to Australia's, but that are not already parties to the SAR Convention, should be encouraged to ratify the convention.

Mitigation of marine natural hazards

The mitigation of marine natural hazards is a strong common interest in the IOR. There's scope for Australia to be more proactive in providing assistance and leadership in the region, particularly in the EIO and to the island countries. However, to some extent, Australian assistance is uncoordinated—the Bureau of Meteorology, AusAID, Geoscience Australia and Emergency Management Australia all pursue initiatives. There's no forum to coordinate interagency interests and activities.

The three elements of mitigation are preparedness (training, organisation, contingency plans and risk assessments); provision of warning and monitoring systems; and reaction, response and recovery with assistance after an event. Much of the recent focus has been on system development, although there have been some difficulties with the development of parallel systems and resistance by India to sharing seismic data because of what it might reveal about nuclear testing.

Australia has considerable skills and expertise in relevant areas and could provide assistance in all three elements of mitigation. Considerable effort has gone into warning and monitoring (the second element). The Australian Tsunami Warning System, jointly managed by Geoscience Australia, the Bureau of Meteorology and the Attorney-General's Department, has assisted greatly in the establishment of the Indian Ocean tsunami warning system, based in the Perth regional office of the International Oceanographic Commission. Generally speaking, we have enough science and we have the warning systems. It would now be timely to put more effort into building national capacity in skills and institutional arrangements.

Recommendations

An interagency forum should be established to manage Australian assistance in the mitigation of natural hazards.

Australia's assistance in mitigating marine natural hazards in the IOR should now include the provision of additional staff in the Perth regional office of the International Oceanographic Commission to focus on the capacity-building requirements of IOR countries and Australia's offshore territories, which are also vulnerable to such hazards.

National arrangements

Policy coordination and development

It's important that the development of a policy framework for the IOR involves the Western Australian and Northern Territory governments. While responsibility for policy ultimately rests with the Australian Government, the state and territory governments have 'hands-on' capabilities that shouldn't be overlooked. They're closely involved in offshore mining developments and have a large stake in Australia's IOR trade, as well as a common interest in hazard mitigation. A special subcommittee of the Council of Australian Governments might be established to work towards a possible intergovernmental agreement.

The Northern Territory Government has long recognised the potential of the territory's proximity to growth regions in Asia, including markets in India and Indonesia. It already has a Major Projects, Asian Relations and Trade Unit within the Department of the Chief Minister. The unit coordinates that government's involvement in major projects, including the development of gas resources in the Timor Sea, and fosters the long-term relationship

between the territory and its Asian neighbours. The Western Australian Government might create a similar portfolio for IOR affairs.

Recommendations

A subcommittee of the Council of Australian Governments should be established to work towards a possible intergovernmental agreement on Australia's engagement in the IOR.

The Western Australian Government should consider establishing a portfolio for IOR affairs.

Australian Defence Force presence on the west coast

Although the 2009 Defence White Paper identified the need for Australian defence planning to contemplate operational concepts in the IOR, defence facilities to support operations in that region are limited mainly to existing ones in Perth and Darwin. Despite the growing importance and value of infrastructure developments along the northwest coast, the ADF has limited presence on that coast to support operations in the IOR. The only Defence facilities are as shown in the box below.

Australian defence facilities on the west coast outside Perth and Darwin

- The RAAF has 'bare bases' at Learmonth (near Exmouth and about 1,200 kilometres from Perth) and Curtin (near Derby and about 1,000 kilometres from Darwin). The bases were developed over thirty years ago to provide support for maritime, air and land operations in 'Defence of Australia' scenarios.
- The Pilbara Regiment is an infantry regiment of the Australian Army Reserve employed in surveillance and reconnaissance of the northwest. It covers the coastline from Shark Bay to Broome. It has a regimental headquarters at Karratha and squadron HQs at Port Hedland and Exmouth, and smaller units at various other locations in the Pilbara.
- The Northwest Mobile Force is another regional force surveillance unit of the Army Reserve. It's based in Darwin and covers the Northern Territory and the Kimberley region of Western Australia. It comprises four reconnaissance squadrons, headquartered at Darwin, Kununurra, Nhulunbuy and Alice Springs. Each regional base provides logistical support for local patrol units.
- The Naval Communication Station North West Cape, near Exmouth, provides very low frequency radio transmissions to US Navy and RAN ships and submarines in the western Pacific Ocean and eastern Indian Ocean. The base is currently operated under contract by Boeing Australia Ltd.
- The Defence Signals Directorate's satellite communications signals intelligence station is at Kojarena, near Geraldton. It became operational in the mid-1990s.

It's over 3,000 kilometres from Perth to Darwin, and there must be questions about the reaction time of the ADF if, for example, it has to respond to an offshore contingency in the Pilbara region. It takes about two days for a patrol boat to deploy from Darwin to the Pilbara.

Current basing arrangements reduce a patrol boat's time on station off the mid-west coast by about four days.

While Operation Resolute supported border protection in northern waters, operations in waters further south on the west coast have been scaled back in recent years. The RAAF's bare bases are rarely activated, and there's been no large-scale amphibious exercise in the Lancelin Defence Training Area north of Perth for many years. The operations of the Army's regional force surveillance units in the Pilbara and Kimberley regions have been reduced due to budgetary restrictions (Dodd 2009).

Current Australian defence exercises in the IOR are shown in the box below. There's been a significantly reduced level of exercise activity compared with the period before the mid-1990s. During the 1970s and through to the 1990s, when Defence planning was based on 'Defence of Australia' scenarios, large-scale military exercises in the Kangaroo and Valiant Usher series of exercises were periodically conducted in western and northern exercise areas. They typically involved US and Australian land, sea and air forces, but sometimes also had the participation of other countries.

Australian maritime exercises in the IOR

- *Kakadu*—a maritime exercise conducted every two to three years in the Northern Australian Exercise Area to the west and northwest of Darwin. The last Kakadu exercise, in July–August 2008, involved participants from Australia, New Zealand, France, Singapore, Malaysia, Papua New Guinea, Pakistan, Japan and Thailand, with observers from India, Indonesia and the Philippines.
- *Talisman Sabre*—a two-yearly combined training exercise between Australian and US forces. While the main military exercise takes place in the Shoalwater Bay Training Area in Central Queensland, some use is made of air space in northern Australia and Northern Territory range facilities.
- *Pacific Reach*—a three-yearly submarine rescue exercise held somewhere in the Asia–Pacific region. The last exercise was held off Perth in November–December 2007, and involved submarines from Australia and South Korea; a submarine rescue ship from Japan; diving teams from Australia, Canada, Singapore and China; and observers from other countries, including IOR nations India, Indonesia, Pakistan and South Africa.

The long-term objective should be to increase the level of defence activities along and off the west coast. This would support the development plans of the Australian and Western Australian governments and contribute to social and cultural developments in the area, including developments benefiting Indigenous peoples. Planning should include more regular activation of the RAAF bare bases, a higher frequency of military exercises in the region, and the establishment of a naval operating base somewhere to 'close the gap' between Perth and Darwin. Plans to establish a patrol base at Port Hedland were abandoned some years ago, but Australia's requirements are now very different.

Because of development at Port Hedland, that location is probably no longer suitable for a naval facility. Alternative sites may exist in the vicinity of Karratha or Beagle Bay. A major LNG

gas hub is planned for the Beagle Bay area, including an extensive facility for the offshore support industry, so a naval base might be incompatible with those activities. A planning study to investigate possible locations is needed.

Arguments will be raised against these recommendations on the basis of costs and the ability of the ADF to deploy rapidly into the area if necessary. Given the vulnerability and importance of developments in this strategically and economically vital area, however, the ADF ought to have an enhanced 'on the ground' presence there.

The recommendation for a new naval operating base might also appear contrary to the current intention to reduce the size and costs of the Defence estate. However, that's primarily a consideration for military bases and facilities established many years ago in very different strategic circumstances. It doesn't recognise the burgeoning strategic and economic changes occurring along and off the west coast.

It's also relevant that the Western Australian Government is committed to the development of 'Pilbara Cities' in Karratha and Port Hedland, as well as the revitalisation of other centres in the northwest (WA Government 2009). A new deepwater port with an industrial precinct is to be established in the Pilbara region (WA Government 2010). These developments will change the logistics equation and operational imperative significantly.

Recommendation

The ADF should plan to markedly increase its presence along the west coast of Australia between Perth and Darwin. This should involve:

- *establishing a naval operating base in the northwest (in the longer term, this base should have facilities at least equal to those of existing bases in Darwin and Cairns)*
- *increasing the frequency of military exercises in the region*
- *making greater use of RAAF bare bases at Curtin and Learmonth.*

A new centre for Indian Ocean studies

In the 1990s, a Centre for Indian Ocean Studies, funded by the Australian Government, was first located at the University of Western Australia and then at Curtin University. The centre played a leading role in many of the Australian initiatives to build cooperation in the IOR during that period, including by conducting the meeting of the International Forum for the Indian Ocean Region. However, it lost its funding and was disbanded in the early 2000s, when the government lost interest in the IOR.

It's noteworthy that India has two centres for Indian Ocean studies—one at the Osmania University in Hyderabad, and a new documentation centre on Indian Ocean studies at Jawaharlal Nehru University in New Delhi, supported by Reunion.[28]

The Indian Ocean Research Group established by Australian and Indian academics has recently launched the *Journal of the Indian Ocean Region*.

Recommendation

An academic centre of excellence for Indian Ocean studies should be re-established at a Western Australian university.

Start the ball rolling

The Indian Ocean is in need of extra attention from Australia. We've neglected the IOR for too long. We must look west.

This chapter has set out a policy framework for Australian initiatives in the IOR based on three cornerstones:

- a selective approach to the region as a whole, including increased ODA to Africa and South Asia; an emphasis on oceans issues, including marine scientific research and fisheries; some attempt to rejuvenate and widen the scope of the IOR–ARC; and a web of bilateral relationships
- a focus on the East Indian Ocean sub-region to build active and functional cooperation between the countries of that sub-region, which share a range of clear and pressing common interests
- arrangements for policy coordination on IOR issues between the Australian Government and the Western Australian and Northern Territory governments, and greater recognition of the increasing importance of critical infrastructure and sovereignty protection in the west.

Several priorities stand out. Fisheries management and marine scientific research should receive greater attention as part of our region-wide efforts. With our bilateral relations, we should enter into early dialogue with Indonesia on IOR issues. The EIO offers potential for more immediate gains. Within the EIO, natural hazard mitigation, people smuggling, humanitarian assistance and disaster relief should be the focus of our efforts to promote cooperation. At a national level, we need to improve our policy coordination arrangements for the IOR, and begin planning for increased ADF activity in the West.

To start the ball rolling with regional initiatives, there are strong arguments for convening a government-sponsored Indian Ocean Conference in Perth or Fremantle, similar to the International Forum for the Indian Ocean Region meeting nearly fifteen years ago. This would be an important building block both for Australian initiatives and for actions by the region as a whole. It should be a Track 1.5 meeting, with private sector, non-government organisation and academic participation. The private sector, in particular, has an important contribution to make, in view of the extent of energy and mining developments in the region, especially offshore energy developments.

The agenda for the Indian Ocean Conference should include rejuvenating the IOR–ARC, regional progress towards achieving the MDGs, energy issues, oceans management, fisheries management, natural hazard mitigation, and marine scientific research. Extra-regional stakeholders, particularly China, the EU, France, Japan and the US, should be invited to participate, as well as all IOR–ARC members, dialogue partners and observers, Pakistan and Saudi Arabia.

Because of the potential sensitivities involved, traditional security issues shouldn't be considered at this conference. However in the longer-term, and if current strategic trends continue, the region may have to consider a forum where these hard issues can be addressed, including the need for confidence-building measures and preventive diplomacy.

Appendix A

MAJOR REGIONAL AND SUB-REGIONAL ASSOCIATIONS

The Indian Ocean Rim Association for Regional Cooperation

The IOR–ARC has four primary components: trade liberalisation; trade and investment facilitation, economic and technical cooperation, and trade and investment dialogue.

Members are Australia, Bangladesh, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Oman, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, the United Arab Emirates and Yemen. The Seychelles withdrew from the association in July 2003. China, Egypt, France, Japan and the United Kingdom are dialogue partners. Currently, only the Indian Ocean Tourism Organisation has observer status.

South Asian Association for Regional Cooperation

Major objectives of the South Asian Association for Regional Cooperation are to promote the welfare of the peoples of South Asia; to accelerate economic growth, social progress and cultural development in the region; and to contribute to mutual trust, understanding and appreciation of one another's problems.

Members are Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, Sri Lanka and Afghanistan. Observers are China, Japan, the EU, the Republic of Korea and Iran.

Southern African Development Community

The Southern African Development Community has an active standing maritime committee; its vision is to promote peace and prosperity in the South African region through maritime military cooperation.

Members are Angola, Botswana, Malawi, Mozambique, Swaziland, Tanzania, Zambia, Zimbabwe, Namibia, South Africa, Mauritius, the Democratic Republic of the Congo, and Seychelles.

Gulf Cooperation Council

GCC activities include military and maritime cooperation among the GCC states, which have signed a Joint GCC Defence Pact, ratified during the 21st session on 31 December 2000.

Members are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

Association of Southeast Asian Nations

The main objectives of ASEAN are to accelerate economic growth, social progress and cultural development in the region and to promote regional peace and stability. The ASEAN Community has three pillars: the ASEAN Political–Security Community, the ASEAN Economic Community and the ASEAN Socio-Cultural Community.

Member states are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. East Timor is a candidate state, and Papua New Guinea is an observer.

ASEAN Regional Forum

The ASEAN Regional Forum is the principal forum for security dialogue in Asia. Counter-terrorism cooperation, in particular, has expanded significantly since 11 September 2001 and the Bali bombings of October 2002.

Current participants in the forum are Australia, Bangladesh, Brunei Darussalam, Cambodia, Canada, China, the EU, India, Indonesia, Japan, the Democratic People's Republic of Korea, the Republic of Korea, Laos, Malaysia, Myanmar, Mongolia, New Zealand, Pakistan, Papua New Guinea, the Philippines, the Russian Federation, Singapore, Sri Lanka, Thailand, East Timor, the US and Vietnam.

Five Power Defence Arrangements

The Five Power Defence Arrangements are a series of defence relationships established by bilateral agreements between the United Kingdom, New Zealand, Australia, Malaysia and Singapore.

African Union

The objective of the African Union (formerly known as the Organisation of African Unity) is to accelerate the process of integration in the continent to enable it to play its rightful role in the global economy while addressing social, economic and political problems, which are compounded by certain negative aspects of globalisation.

There are 53 member states: Algeria, Burkina Faso, Burundi, Cameroon, the Central African Republic, Chad, Congo, Dahomey, Egypt, Ethiopia, Gabon, Ghana, Guinea, Ivory Coast, Liberia, Libya, Madagascar, Mali, Mauritania, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Tanganyika, Togo, Tunisia, Uganda, Zanzibar, Kenya, Malawi, Zambia, the

Gambia, Botswana, Lesotho, Mauritius, Swaziland, Equatorial Guinea, Guinea-Bissau, Angola, Cape Verde, Comoros, Mozambique, São Tomé and Príncipe, Seychelles, Djibouti, Zimbabwe, Saharan Arab Democratic Republic (Western Sahara), Namibia, Eritrea and South Africa.

Indian Ocean Commission

The Indian Ocean Commission's objectives are to promote the sustainable development of its members, which share similar geographical position, history and culture, including through diplomatic cooperation; economic and commercial cooperation; and cooperation in the fields of agriculture, maritime fishing and the conservation of resources and ecosystems.

Members are Comoros, France (for Reunion), Madagascar, Mauritius and Seychelles. The Maldives is an observer.

Indian Ocean Naval Symposium

The symposium provides a regional forum through which the naval chiefs of all the littoral states of the IOR can periodically meet to constructively engage with one another through the creation and promotion of regionally relevant mechanisms, events and activities.

Media reports indicated that the following countries attended the inaugural Indian Ocean Naval Symposium in February 2008: India, Saudi Arabia, Singapore, Eritrea, Brazil, Seychelles, Kuwait, Qatar, Mauritius, Malagasy, Myanmar, Oman, Sri Lanka, the United Arab Emirates, Kenya, Djibouti, Egypt, Mozambique, South Africa, Sudan, Tanzania, Malaysia, the Maldives, Indonesia, Australia, Thailand and France.

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation

The main focus of BIMSTEC is on economic and social developments, as well as the management of climate change and natural hazards. A BIMSTEC Weather and Climate Centre has been established in India. There's also a BIMSTEC Convention on Cooperation in Combating International Terrorism, Organized Crime and Illicit Drug Trafficking.

Members are Bangladesh, India, the Maldives, Myanmar, Nepal, Sri Lanka and Thailand.

Shanghai Cooperation Organization

The Shanghai Cooperation Organization is focused on security and development. By virtue of the membership of Russia and China, and the associate membership of Iran and India, it's an important IOR forum. Energy cooperation is a primary goal of the organisation.

Full members are Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan and Uzbekistan. India, Iran, Mongolia and Pakistan are observers, but Iran is seeking full membership.

Appendix B

ECONOMIC, PHYSICAL AND NAVAL STATISTICS

Table B.1: Economic characteristics of Indian Ocean region countries

Country	GDP (current US$)	GDP growth (annual %)	Gross national income per capita[a]	Exports of goods & services (% of GDP)	Imports of goods & services (% of GDP)
Afghanistan	n/a	n/a	n/a	n/a	n/a
Australia	1,015,217,254,200	3.68	34,040	20.7	22.6
Bahrain	n/a	n/a	n/a	n/a	n/a
Bangladesh	78,991,939,950	6.21	1,440	19.4	27.6
Bhutan	1,358,921,299	13.82	4,880	67.1	78.7
Burundi	1,162,996,635	4.50	380	n/a	n/a
Comoros	530,111,657	0.97	1,170	12.8	36.9
Djibouti	874,686,604	3.86	2,330	n/a	n/a
Egypt	162,818,181,818	7.06	5,460	37.7	44.2
Eritrea	1,653,921,717	2.00	630	n/a	n/a
Ethiopia	26,487,292,143	11.32	870	11.6	28.6
India	1,217,490,199,775	7.09	2,960	24.0	30.3
Indonesia	514,388,987,530	6.06	3,830	29.8	28.6
Iran	385,142,840,790	5.60	n/a	32.6	22.6
Iraq	n/a	n/a	n/a	n/a	n/a
Israel	199,498,327,759	4.15	27,450	40.3	42.3
Jordan	20,013,440,878	5.61	5,530	57.8	102.9
Kenya	34,507,015,778	3.60	1,580	24.9	39.0
Kuwait	n/a	n/a	n/a	n/a	n/a
Lesotho	1,622,055,080	3.95	2,000	47.3	110.8
Madagascar	8,969,877,669	6.88	1,040	26.3	51.6
Malawi	4,269,001,644	9.70	830	23.4	51.2
Malaysia	194,926,581,393	4.64	13,740	n/a	n/a
Maldives	1,260,234,375	5.75	5,280	n/a	n/a
Mauritius	8,651,061,608	5.34	12,480	61.6	69.9
Mozambique	9,735,328,201	6.46	770	32.0	42.0

Table B.1: Economic characteristics of Indian Ocean region countries *continued*

Country	GDP (current US$)	GDP growth (annual %)	Gross national income per capita[a]	Exports of goods & services (% of GDP)	Imports of goods & services (% of GDP)
Myanmar	n/a	n/a	n/a	n/a	n/a
Nepal	12,614,887,136	5.35	1,120	12.1	32.7
Oman	n/a	n/a	n/a	n/a	n/a
Pakistan	168,275,905,707	5.95	2,700	12.1	22.1
Qatar	n/a	n/a	n/a	n/a	n/a
Rwanda	4,456,860,180	11.23	1,010	8.1	27.5
Saudi Arabia	467,600,800,000	4.15	n/a	69.9	34.8
Seychelles	833,016,115	2.81	19,770	130.9	152.5
Singapore	181,948,343,396	1.15	47,940	234.3	215.3
Somalia	n/a	n/a	n/a	n/a	n/a
South Africa	276,764,424,300	3	9780	36	40
Sri Lanka	40,714,178,898	5.95	4,460	24.9	38.3
Sudan	58,443,395,072	8.34	1,930	22.7	22.0
Swaziland	2,618,181,818	2.50	5,010	80.2	80.1
Tanzania	20,490,444,784	7.46	1,230	n/a	n/a
Thailand	260,692,824,977	2.58	5,990	n/a	n/a
Uganda	14,528,888,510	9.53	1,140	15.6	33.4
United Arab Emirates	n/a	n/a	n/a	n/a	n/a
Yemen	26,576,054,478	3.90	2,210	n/a	n/a
Zambia	14,313,899,286	6.00	1,230	36.8	34.3
Zimbabwe	n/a	n/a	n/a	n/a	n/a

a Current international $ at purchasing power parity.

Note: n/a = Data not available

Source: World Bank, World Development Indicators Database, 2008, http://www.worldbank.org (accessed 30 September 2009).

Table B.2: Physical and demographic characteristics of Indian Ocean region countries

Country	Land area (square kilometres)	Maritime zones EEZ (square kilometres)	Land : maritime area	Population	Population growth (annual %)
Afghanistan	652,230	n/a	n/a	n/a	n/a
Australia	7,682,300	8,505,348	90 : 100	21,374,000	1.69
Bahrain	741	10,225	7 : 100	766,926	1.86
Bangladesh	130,168	86,392	151 : 100	160,000,128	1.41
Bhutan	38,394	n/a	n/a	686,789	1.58
Burundi	27,830	n/a	n/a	8,074,254	2.97
Comoros	2,235	163,752	1 : 100	643,571	2.38
Djibouti	23,200	7,459	311 : 100	847,732	1.75
Egypt	995,450	263,451	378 : 100	81,527,172	1.82
Eritrea	101,000	77,728	129 : 100	4,996,204	3.14
Ethiopia	1,000,000	n/a	n/a	80,713,434	2.59
India	2,973,193	2,305,143	129 : 100	1,139,964,932	1.34
Indonesia	1,811,569	6,159,032	29 : 100	228,248,538	1.15
Iran	1,531,595	168,718	908 : 100	71,956,322	1.31
Iraq	437,367	771	56727 : 100	n/a	n/a
Israel	21,642	26,352	82 : 100	7,308,100	1.77
Jordan	88,802	166	53495 : 100	5,906,043	3.22
Kenya	569,140	116,942	487 : 100	38,534,087	2.64
Kuwait	17,818	11,026	162 : 100	2,728,041	2.41
Lesotho	30,355	n/a	n/a	2,016,823	0.55
Madagascar	581,540	1,225,259	47 : 100	19,110,941	2.69
Malawi	94,080	n/a	n/a	14,278,404	2.54
Malaysia	328,657	334,671	98 : 100	26,992,577	1.66
Maldives	298	923,322	3 : 10000	310,473	1.67
Mauritius	2,030	1,284,997	2 : 1000	1,268,835	0.64
Mozambique	786,380	578,986	136 : 100	21,780,614	1.89
Myanmar	653,508	532,775	123 : 100	49,189,812	0.83
Nepal	143,351	n/a	n/a	28,581,687	1.67
Oman	309,500	533,180	n/a	2,785,361	2.14
Pakistan	770,875	235,999	327 : 100	166,036,895	2.16
Qatar	11,586	31,590	37 : 100	1,280,862	11.87
Rwanda	24,668	n/a	n/a	9,720,694	2.78
Saudi Arabia	2,149,690	228,633	94 : 10	24,645,686	2.00
Seychelles	455	1,336,559	3 : 10000	86,335	1.52
Singapore	687	1,067	64 : 100	4,839,400	5.32
Somalia	627,337	825,052	76 : 100	8,953,890	2.92
South Africa	1,214,470	1,535,538	79 : 100	48,687,000	2
Sri Lanka	64,630	532,619	12 : 100	20,156,204	0.73
Sudan	2,376,000	68,148	3487 : 100	41,347,723	2.24
Swaziland	17,204	n/a	n/a	1,167,834	1.42
Tanzania	885,800	241,888	366 : 100	42,483,923	2.88
Thailand	510,890	299,397	171 : 100	67,386,383	0.61
Uganda	197,100	n/a	n/a	31,656,865	3.27
United Arab Emirates	83,600	58,218	144 : 100	4,484,199	2.70
Yemen	527,968	552,669	96 : 100	23,053,462	2.95
Zambia	743,398	n/a	n/a	12,620,219	2.46
Zimbabwe	386,847	n/a	n/a	12,462,879	0.11

Sources:
Column 2, The world factbook, *CIA, https://www.cia.gov.*
Column 3, Sea Around Us Project, *Fisheries Centre, University British Columbia, http://www.seaaroundus.org.*
Columns 5 and 6, World Development Indicators Database, World Bank, http://www.worldbank.org, (accessed 30 September 2009).

Note: n/a = Data not available (or country is land-locked without maritime zones)

Table B.3: Major Indian Ocean region navies

	Major surface combatants		Minor combatants			Other naval				Paramilitary coast guard			
			Patrol and coastal combatants										
	Aircraft carriers	Frigates, destroyers, corvettes	Bluewater[a]	Greenwater[b]		Mine warfare, countermeasures	Submarines	Amphibious ships[c]	Supply vessels[d]	Bluewater[a]	Greenwater[b]	Miscellaneous boats/craft	
India	1	46	6	14		14	16	11	9	21	45	0	
Indonesia	0	29	16	25		11	2	29	4	4	218	0	e
Thailand	1	19	9	78		19	0	7	7	3	121	0	
Australia	0	12	14	0		8	6	3	2	2	8	0	
Egypt	0	11	23	18		14	4	3	7	0	80	0	
Saudi Arabia	0	11	9	56		7	0	0	2	0	262	0	
Malaysia	0	10	8	6		4	1	1	6	2	37	0	
Singapore	0	9	11	12		4	4	4	0	0	90	0	
Iran	0	6	21	145	f	5	3	10	3	0	90	40	
Pakistan	0	6	4	4		3	8	0	5	0	5	23	g
Bangladesh	0	5	20	18		5	0	0	2	0	14	0	
South Africa	0	4	2	24		2	3	0	1	0	0	0	
United Arab Emirates	0	4	8	6		2	0	0	0	0	47	0	
Bahrain	0	3	4	4		0	0	0	0	0	22	0	
Israel	0	3	10	46		0	3	0	0	0	4	0	
Myanmar	0	3	16	33		0	0	0	1	0	11	0	h
Oman	0	2	4	7		0	0	1	0	0	52	0	

a Bluewater: offshore, guided missile, surface-to-surface missile or torpedo equipped: PSO, PSOH, PCM, PCO, PFM, PFOH, PCOH, PCT, PTG.
b Greenwater: coastal, inshore, riverine or hydrofoil designated patrol craft/boats: PC, PB, PCI, PCR, PBR, PF, PFC, PBF, PHT, PHM.
c Amphibious ships include LST, LSM, LSH, LPA, LSLH, LSD and LHD.
d Supply vessels include tankers: AO, AOE, AORH, AORL, AORLH, AOT.
e Indonesia paramilitary include: Auxiliary Service, Customs, marine police, Coast and Seaward Defence Command.
f Includes Islamic Revolutionary Guard Corps naval forces.
g Maritime Security Agency additional to paramilitary: 1 destroyer, 4 bluewater, 2 greenwater.
h Myanmar paramilitary patrol and coastal combatants are from the People's Pearl and Fishery Ministry.

Source: International Institute for Strategic Studies, The military balance 2009.

Table B.4: Minor Indian Ocean region navies

	Minor combatants		Other naval		Paramilitary coast guard			
	Bluewater[a]	Greenwater[b]	Mine warfare / countermeasures	Amphibious ships[c]	Bluewater[a]	Greenwater[b]	Miscellaneous boats/craft	
Sri Lanka	5	125	0	1	0	0	0	
Iraq	0	16	0	0	0	0	0	
Yemen	4	16	6	1	0	21	0	
Malawi	0	15	0	0	0	0	0	
Sudan	0	15	0	0	0	0	0	
Qatar	7	14	0	0	0	0	0	
Jordan	0	13	0	0	0	0	0	
Maldives	0	7	0	0	0	0	0	
Djibouti	0	7	0	0	0	0	0	
Kenya	4	7	0	0	0	5	12	
Tanzania	0	7	0	0	0	0	0	
Madagascar	0	6	0	0	0	5	0	
Mozambique	0	5	0	0	0	0	0	
Comoros	0	2	0	0	0	0	0	d
Kuwait	10	0	0	0	0	58	0	
Mauritius	0	0	0	0	1	20	0	
Seychelles	0	0	0	0	0	9	0	

Note: Excludes insignificant navies (Afghanistan, Bhutan, Burundi, Ethiopia, Lesotho, Nepal, Rwanda, Swaziland, Somalia, Uganda, Zambia, Zimbabwe).

a Bluewater: offshore, guided missile, surface-to-surface missile or torpedo equipped: PSO, PSOH, PCM, PCO, PFM, PFOH, PCOH, PCT, PTG.

b Greenwater: coastal, inshore, riverine or hydrofoil designated patrol craft/boats: PC, PB, PCI, PCR, PBR, PF, PFC, PBF, PHT, PHM.

c Amphibious ships include LST, LSM, LSH, LPA, LSLH, LSD and LHD.

d Estimate based on open source material.

Source: International Institute for Strategic Studies, The military balance 2009.

Endnotes

1 Table B.1 in Appendix B illustrates the economic and demographic diversity of IOR countries.

2 http://www.foreignpolicy.com/articles/2009/06/22/2009_failed_states_index_interactive_map_and_rankings

3 Derived from *BP statistical review of world energy 2009*, http://www.bp.com.

4 Table B.2 in Appendix B lists physical and demographic data for the IOR countries, including the size of their exclusive economic zones.

5 Information supplied by Geoscience Australia.

6 Members of the IOR–ARC are Australia, Bangladesh, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Oman, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, the United Arab Emirates and Yemen. The Seychelles withdrew from the association in July 2003. China, Egypt, France, Japan and the United Kingdom are dialogue partners of the IOR–ARC.

7 The 'string of pearls' concept originated in the US, but Chinese analysts hotly deny that such a strategy exists. The concept first appeared in public in Gertz (2005).

8 Kaplan (2010) expands on the maritime dimension.

9 Vikas Bajaj, 'India Worries as China builds Ports in South Asia', *New York Times*, 16 February 2010, http://www.nytimes.com/2010/02/16/business/global/16port.html

10 In recent years, Indonesia has hosted several major ocean-related international meetings: the World Ocean Conference in Manado in May 2009, the 2nd APEC Ocean-related Ministerial Meeting in 2005 and the UN Climate Change Conference in 2007.

11 'Pirates are terrorising the high seas off Africa's East Coast', *The Economist*, 17 June 2008.

12 http://hiik.de/en/konfliktbarometer/index.html.

13 Large container ships normally proceeding at speeds of more than 18 knots do not usually join the escorted convoys.

14 http://www.unep.org/cpi/briefs/Brief3Oct.doc and Kirby (2002).

15 See the Japan Agency for Marine–Earth Science and Technology, http://www.jamstec.go.jp/frsgc/research/d1/iod/.

16 Advice for Australian ships, seafarers and yachtsmen who may enter piracy-prone areas is provided in OITS (2009).

17 A map of global maritime search and rescue regions is available at http://www.oceansatlas.com/unatlas/issues/emergencies/gmdss_sar/SARMAP.PDF.

18 Member countries of the Indian Ocean MoU are Australia, Eritrea, India, Iran, Kenya, Maldives, Mauritius, Oman, South Africa, Sri Lanka, Sudan, Tanzania and Yemen. Adjacent area MoUs include the Gulf Cooperation Council MoU for the Persian Gulf and the Tokyo MoU for the Asia–Pacific region.

19 International Monetary Fund Direction of Trade Statistics.

20 In part, this is due to the costs of operating in these isolated waters, as well as the problems of loading fish and flying them out to major markets. Western Australian boats have other concessions in state fisheries.

21 Participating countries in the Western Indian Ocean Marine Science Association are Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Madagascar, Seychelles, Mauritius and Reunion (France).

22 The membership and aims of organisations mentioned in this chapter are shown in Appendix A.

23 Bangladesh, India, Indonesia, Malaysia, Myanmar and Sri Lanka participate in this project.

24 Australia, Indonesia and East Timor comprise the membership of the forum, which seeks to fulfil the obligations of the three countries under UNCLOS Part IX. Particular concerns are the prevention of IUU fishing, and information and data sharing.

25 Australia can't intercept vessels beyond the 24 nautical mile contiguous zone, except in cases where we have obligations under the SOLAS Convention.

26 The Seoul Oceans Declaration is available at http://www.apecsec.org.sg/virtualib/minismtg/minmtgocean2002.html

27 The Coral Triangle Center, http://www.coraltrianglecenter.org/

28 'JNU to get new centre for Indian Ocean Studies', *The Hindu*, 27 February 2009, http://www.thehindu.com/2009/02/27/stories/2009022756880400.htm

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Acronyms and abbreviations

ADF	Australian Defence Force
AFZ	Australian Fishing Zone
APEC	Asia–Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CLCS	Commission on the Limits of the Continental Shelf
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EEZ	exclusive economic zone
EIO	East Indian Ocean
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GCC	Gulf Cooperation Council
GOOS	Global Ocean Observing System
HIMI	Heard Island and MacDonald Islands
IndOOS	Indian Ocean Observing System
IOC	International Oceanographic Commission
IOR	Indian Ocean region
IOR–ARC	Indian Ocean Rim Association for Regional Cooperation
IOTC	Indian Ocean Tuna Commission
IUU	illegal, unreported and unregulated (fishing)
LNG	liquefied natural gas
LPG	liquefied petroleum gas

MDA	maritime domain awareness
MDGs	Millennium Development Goals
MoU	memorandum of understanding
ODA	official development assistance
PSC	port state control
R&D	research and development
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RFMO	regional fisheries management organisation
SAR	search and rescue
SLOC	sea lines of communication
SRR	search and rescue region
UNCLOS	1982 UN Convention on the Law of the Sea
WAMSI	Western Australian Marine Science Institution

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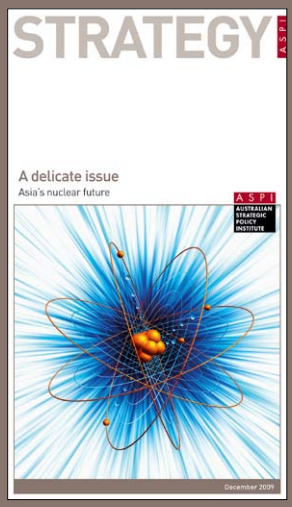

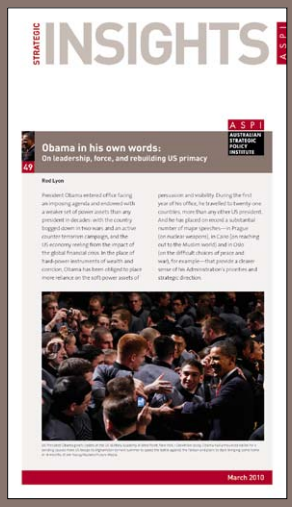

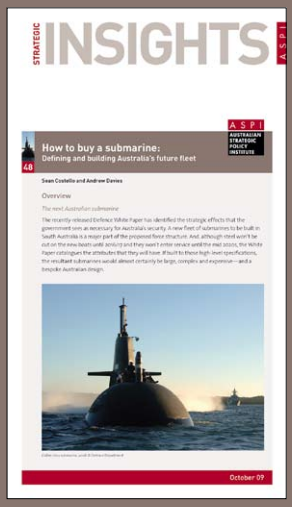

Our western front
Australia and the Indian Ocean

A new maritime 'great game' is emerging in the Indian Ocean region, as strategic competition between India and China steps up. Regional wars and crises have led to a new era of external involvement in the area. This is now reinforced by energy politics (much of the world's trade in energy crosses the Indian Ocean), the outbreak of piracy around the Horn of Africa, and the emergence of China as a new and powerful regional player.

The Indian Ocean, its power politics, and the maritime great game command greater attention from Australia. We should be a pre-eminent country of the Indian Ocean region, but we have neglected it in preference to the Pacific. Despite the fact that we have the largest area of maritime jurisdiction in the Indian Ocean, we lack a coherent and holistic approach to that ocean and its challenges.

This report suggests that the policy framework for Australian initiatives in the Indian Ocean region should be based on a selective approach to the region as a whole. It should include increased official development assistance to Africa and South Asia; an emphasis on oceans issues, including marine scientific research and fisheries; some attempt to rejuvenate and widen the scope of the Indian Ocean Rim Association for Regional Cooperation; and a web of bilateral relationships. Fisheries management and marine scientific research should receive greater attention as part of our region-wide efforts.

The report also proposes that there should be a particular focus on the East Indian Ocean to build active and functional cooperation between the countries of that sub-region. Those countries share a range of clear and pressing common interests: natural hazard mitigation, people smuggling, humanitarian assistance and disaster relief. We should enter into early dialogue with Indonesia on regional issues.

At the national level, we need to improve our policy coordination arrangements for the Indian Ocean, and begin planning for increased Australian Defence Force activity in the west.

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