

## No easy bounty

In April 2008, the [United Nations Commission on the Limits of the Continental Shelf](#) adopted recommendations by the Australian Government for the outer limits of nine of the ten areas of Australia's extended continental shelf. This confirmed Australia's entitlement to exploit some 2.56 million square kilometres of extended continental shelf, which equals around a third of the land mass of continental Australia.

Many commentators have since noted the enormous resource potential of these seabed areas, which contain a cornucopia of non living resources, most notably seabed oil and gas. There are also many valuable living resources, often attractive for exploitation because of the relatively shallow depths of many parts of the extended continental shelf. In addition, significant marine genetic resources have been discovered with proven medical, pharmaceutical and industrial benefits, some of which already support a thriving international bio-prospecting industry. Further additions to the catalogue of resources can be expected as scientists are still in the process of researching outer continental shelf areas.

However, international acknowledgment of Australia's claim is only the first step in realising this bounty as Australia and its exploitation contractors will have to grapple with multi-objective management in a complex legal, investment and operating environment.

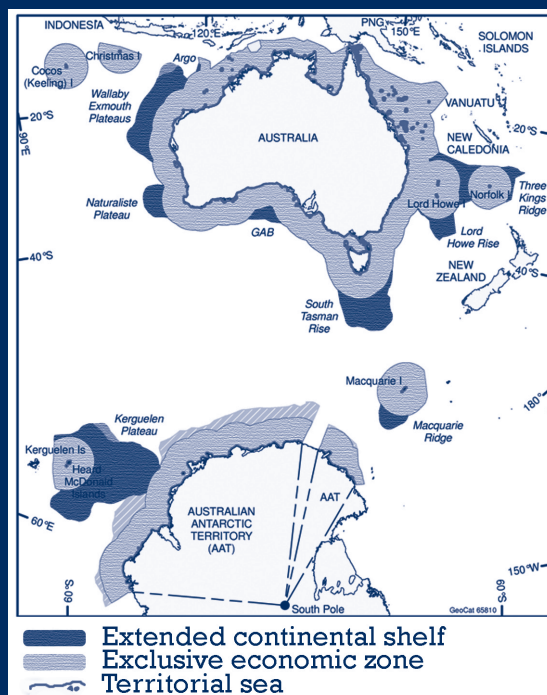
Stretching beyond 200 nautical miles from the coast of Australia and its offshore territories, Australia's extended continental shelf lies far beyond its territorial sea limit of 12 nautical miles and beneath vast tracts of high seas water column. Under international law all States can exercise in the high seas a wide array of freedoms, such as navigating, conducting marine scientific research, laying submarine cables and pipelines and, subject to conservation and management measures imposed by some regional fisheries management organisations, also fishing.

Under the relevant provisions of the [1982 United Nations Convention on the Law of the Sea \(LOSC\)](#), Australia's exploitation of the extended continental shelf must not infringe or interfere with the rights enjoyed by the global community in these areas.

The siting of installations to drill for hydrocarbons or mine seabed minerals on the extended continental shelf will therefore need to observe the established shipping routes in the area, the location of submarine cables and pipelines and the existence of equipment related to marine scientific research on the seabed. The potential for protracted disputes arising between Australia and other States with multiple interests in the water column above Australian exploitation sites will have to be factored into investment decisions. In addition, investors in such activities face the prospect of some of their profits being surrendered because, after the first five years, Australia is obliged to make annual payments or contributions in kind for all production at an extended continental shelf.

Under the LOSC, these payments, which are to be made to the International Seabed Authority (ISA), will be distributed to countries which have ratified LOSC, taking into account the interests and needs of developing States. The proportion of profits to be remitted to the ISA is not inconsiderable, commencing at 1% of the value or volume of production at the site in the sixth year of production and increasing by 1% for each subsequent year until the twelfth year of production and remaining at 7% in subsequent years.

There are significant logistical and security challenges involved in establishing and protecting exploitation activities on the extended continental shelf. Offshore installations located in remote outer



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continental shelf areas could be vulnerable to terrorist attack as well as the severe weather events that are predicted in connection with climate change. Illegal exploitation of the outer continental shelf by foreigners is a real threat. It will be necessary to conduct more surveillance and enforcement patrols. Australia has limited resources to conduct comprehensive surveillance and monitoring of its exclusive economic zone out to 200 nautical miles let alone scanning activities occurring beyond it.

Experience garnered from enforcing Australia's fisheries legislation in waters surrounding remote offshore territories such as Heard and McDonald Islands, where two foreign vessels suspected of illegal fishing were only apprehended after lengthy hot pursuits across thousands of miles of ocean, foreshadows some of the jurisdictional dilemmas and practical difficulties which may be encountered by maritime enforcement units. In addition, the extended continental shelf areas around Heard and McDonald Islands fall within the Antarctic Treaty area and contractors in these areas will be subject to the stringent environmental protection provisions of the Antarctic Treaty regime. Distinguishing between legitimate marine scientific research activities conducted from foreign vessels on Australia's extended continental shelf and illegal foreign bio-prospecting for marine genetic resources will be an ongoing enforcement challenge because the two activities are closely intertwined.

Other global governance imperatives related to the protection of the high seas marine environment are relevant to outer continental shelf areas. The international community has been discussing the conservation of high seas biodiversity in the United Nations and considering a range of options for more effective biodiversity conservation. These include developing environmental impact assessment guidelines for all activities occurring in high seas areas and establishing high seas marine protected areas. The introduction of high seas biodiversity conservation measures in outer continental shelf areas may constrain resource exploitation. Policy makers, scientists and industry players eager to explore and take advantage of potential resource bounties offered by Australia's extended continental shelf will have to come terms with operating in this complex, dynamic and multi-faceted environment influenced by many national and international factors.