

PROTECTING SUB-ANTARCTICA VIA THE WORLD HERITAGE CONVENTION: RECOMMENDATIONS FOR IMPROVED DOMESTIC AND TRANSBOUNDARY GOVERNANCE IN AUSTRALASIA

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This article critiques the role of the World Heritage Convention in the protection of sub-Antarctica, specifically the three listed sites under the Convention: Heard Island and the McDonald Islands, Macquarie Island, and the New Zealand Subantarctic Islands. Major issues of concern are outlined, legal obligations of the Convention and other international law are explained, and domestic implementation by law, policy, planning and management is analysed. Specific attention is given to questions of transboundary governance, in particular challenges presented by federalism in Australia (Macquarie), links between Macquarie Island and the New Zealand Subantarctic Islands, and the relationship between Heard Island and the McDonald Islands and the neighbouring (currently not listed) French sub-Antarctic island, Kerguelen, which call for further cooperation.

I INTRODUCTION

The 36th annual Session of the World Heritage Committee (the Committee) in St Petersburg in 2012 focused on sustainable development;¹ it marked the 40th anniversary of the adoption of the United Nations Educational, Scientific and Cultural Organisation's (UNESCO) *World Heritage Convention* (the Convention).² Three islands / island groups in the sub-Antarctic are listed under the Convention, through which the Committee oversees the listing and management of the outstanding universal value (OUV) of natural, cultural and mixed sites.³

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¹ <http://whc.unesco.org/en/sessions/36COM>

² *Convention Concerning the Protection of the World Cultural and Natural Heritage*, opened for signature 16 November 1972, 11 ILM 1358 (entered into force 17 December 1975) ('*The Convention*'). See Francesco Francioni and Federico Lenzerini (ed) *The 1972 World Heritage Convention: A Commentary* (Oxford University Press, 2008).

³ This expression is used in the treaty text without definition. See *the Convention*, preamble and arts 1 and 2. It has subsequently been explained in the guidelines noted below.

The first two of these three natural sites are Australian: Heard Island and the McDonald Islands (HIMI), and Macquarie Island (Macquarie); the third is the New Zealand Subantarctic Islands (Subantarctic Islands). The purpose of this article is to review major issues, explain applicable international law, and to assess domestic and transboundary governance arrangements in order to evaluate the potential of the Convention to provide for their protection.⁴

Australia has been a major player in relation to the Convention since it became the seventh State Party to accede in 1974, as seen most clearly in the inscription of a large number of natural and cultural sites on the World Heritage List since that time.⁵ Most recently, from 2007-2011, Australia completed a fourth term as a member of the Committee.⁶ As a prosperous island state with a number of coastal and marine properties including HIMI and Macquarie, it is well placed to introduce and ensure compliance with domestic law implementing the Convention. It was therefore with considerable concern that in mid-2012 the Great Barrier Reef (GBR) World Heritage Area (WHA), one of Australia's most significant natural and marine sites, (and unquestionably the best known globally), was the subject of a reactive monitoring mission.⁷ The purpose of the mission was to consider the state of conservation of the reef and had the potential to result in an 'in danger' listing⁸ if measures including a strategic environmental assessment (SEA) were not taken to ensure its protection.⁹

This issue threatens the traditional good cooperation between UNESCO and Australia, with Australia facing the major challenge of reconciling coastal and marine protection with terrestrial development and maritime transport impacting upon it. The Australian Government submitted a report to UNESCO in early 2013 in an effort to re-establish Australia's good faith in relation to the Convention.¹⁰ Domestic measures are currently being taken to demonstrate

⁴ See generally Steven L Chown, Ana SL Rodrigues, Niek JK Gremmen and Kevin J Gaston, 'World Heritage Status and Conservation of Southern Ocean Islands' (2002) 46 *Journal of Applied Ecology* 73. For best practice, see Barbara Lausche, *Guidelines for Protected Areas Legislation* (International Union for the Conservation of Nature, 2011).

⁵ Although New Zealand currently has just three listed sites, consideration has been given to several other potential listings, including Stewart Island, the most proximate to the Subantarctic Islands and located close to the one of them, the Snares. See Department of Conservation, *Our World Heritage: A Tentative List of New Zealand Cultural and Natural Heritage Sites*, A Report to the Department of Conservation by the Cultural and Natural Heritage Advisory Groups (Department of Conservation, 2006).

⁶ Department of Sustainability, Environment, Water, Population and Communities, Australian Government, *Australia's 2007-2011 World Heritage Committee Term* (Commonwealth of Australia, undated).

⁷ UNESCO, Convention Concerning the Protection of the World Cultural and Natural Heritage, World Heritage Committee, 36th Session, Saint Petersburg, Russian Federation 24 June-6 July 2012, *Mission Report Great Barrier Reef (Australia)* (N 154), 6-14 March 2012.

<http://whc.unesco.org/en/news/843>

⁸ World Heritage sites can be removed from the list if they are not adequately protected; an 'in danger' listing is an interim step towards this. See *The Convention*, art 11(4).

⁹ See Decisions 35COM 7B.10 (2011), and 36 COM 7B (2012). Note Simon Marsden, 'An International Overview of Strategic Environmental Assessment, with Reference to World Heritage Areas Globally and in Australian Coastal Zones' (2002) 4 *Journal of Environmental Assessment Policy and Management* 31, 54, where the call to apply SEA to Australia's coastal WHAs including the GBR was made, and ignored, over a decade ago.

¹⁰ *State Party Report on the State of Conservation of the Great Barrier Reef World Heritage Area (Australia), Property ID N154 in response to the World Heritage Committee Decision 36 COM 7B* (Commonwealth of Australia, 2013) ('State Party Report').

Available at: <http://www.environment.gov.au/heritage/publications/gbr/pubs/gbr-state-party-report-2013.pdf>

this, including the SEA and, to inform this, an independent review of the Port of Gladstone.¹¹ This experience suggests that in the absence of effective domestic implementation, as with any international treaty, any in principle protection provided by the Convention may be found wanting. It contrasts greatly with Australia's early experience with the Convention, whereby 30 years ago this year, the High Court of Australia invoked the Convention to ensure protection of a large part of SW Tasmania.¹²

The article will first set out major issues of concern in the Sub-Antarctic, including the potential for mining activity, before explaining the legal obligations under the Convention and other international law. In relation to each of the WHAs under consideration, it will then detail specific issues and the domestic governance arrangements pertaining to them. The final section examines the potential to improve transboundary governance between these WHAs and related territories, and for enhanced governance in the context of Australia's federation. Some concluding comments follow at the end.

II MAJOR ISSUES OF CONCERN IN THE SUB-ANTARCTIC

While none of the sub-Antarctic islands or island groups are affected by such immediate significant development pressures, they nonetheless are subject to many other challenges requiring an effective response by law and policy makers in Australia and New Zealand. In relation to two of the three natural sites under consideration here,¹³ Kriwoken and Holmes considered the emerging issues in relation to HIMI and Macquarie were commercial fishing, tourism, science and management, together with quarantine, disease and alien introduction.¹⁴ Governance arrangements in relation to these issues were identified as the key to successful environmental planning and management.¹⁵ This article will focus on whether this remains the case and or whether other challenges identified are of more importance.

Overexploitation of a fishery remains a major concern for example, and it may impact upon other species and states if it is of a straddling nature in these areas.¹⁶ Similarly, introduction of invasive species on land and at sea, which can easily move from one area to another, pose significant challenges.¹⁷ The article considers these matters together with mining and climate change with reference to domestic measures that are implementing the Convention. It extends them to the New Zealand Subantarctic islands which have similar experience, and in relation to which New Zealand is currently, as with Australia, also revising its environmental planning and management frameworks. These frameworks are analysed in relation to each of the listed sites.

¹¹ Tony Burke, 'Terms of Reference Finalised for Independent Review of the Port of Gladstone', media release 19 February 2013. Available at: <http://www.environment.gov.au/minister/burke/2013/mr20130219a.html>

¹² *Commonwealth v Tasmania* (1983) 46 ALR 625. For commentary see T Atherton and TC Atherton, 'The Power and the Glory: National Sovereignty and the World Heritage Convention' (1995) 69 *Australian Law Journal* 631.

¹³ See *The Convention* art 2, for the definition of 'natural heritage'.

¹⁴ Lorne Kriwoken and Nick Holmes, 'Emerging Issues of Australia's Sub-Antarctic Islands: Macquarie Island and Heard Island and McDonald Islands' in Lorne Kriwoken, Julia Jabour, and Alan Hemmings (eds) *Looking South: Australia's Antarctic Agenda* (Federation Press, 2007) 149, 162-163.

¹⁵ *Ibid.*

¹⁶ See Gail L Lugten, 'Net Gain or Net Loss? Australia and Southern Ocean Fishing' in Lorne Kriwoken, Julia Jabour, and Alan Hemmings (eds) *Looking South: Australia's Antarctic Agenda* (Federation Press, 2007) 100.

¹⁷ See Sandra Potter, 'The Quarantine Protection of Sub-Antarctic Australia: Two Islands, Two Regimes' (2007) 2 *Island Studies Journal* 177, 180.

Mining within or adjacent to WHAs is not prohibited generally under the Convention, and is dependent upon a specific national response.¹⁸ Affolder discusses the steps taken to limit the impact of mining activities upon WHAs despite this lack of prohibition, which does not appear to have been mooted at the time of negotiation.¹⁹ In Australia, the WHA of the Great Barrier Reef WHA is not the one to have drawn a 'in danger' listing. Past uranium mining in the Alligator Rivers Region of the Northern Territory has brought the Kakadu WHA to the attention of the World Heritage Committee.²⁰ In an oceans context, the potential for petroleum and gas abstraction may well be one of the greatest challenges to maintaining the integrity of marine protected areas (MPAs) in the 21st Century, including in the Southern Ocean, regardless of current bans in management plans.²¹ On the Antarctic continent itself, it is of course well known that the ban on mining in the *Protocol on Environmental Protection to the Antarctic Treaty* (Environmental Protocol) may end in the future, with some states in favour of exploiting the resources there.²² It is also clear that technological advances are leading increasingly to resource exploitation in isolated and challenging environments, including the Arctic and Southern Oceans.²³ This has led to calls for new planning and management approaches including SEA.²⁴ Subject to a detailed survey, it has furthermore been noted by Geoscience Australia and the Australian Bureau of Agricultural and Resource Economics (ABARE) that all of the areas offshore Australia with resource potential are located in the Exclusive Economic Zone (EEZ) or outer continental shelf.²⁵ Stephens raises alarm specifically in relation to hydrocarbon extraction as follows:

¹⁸ Note the discussion concerning the 'democratic deficit' of the Convention, raised in relation to mining projects adjacent to WHAs in Australia, Canada and the USA. See Natasha Affolder, 'Democratising or Demonising the World Heritage Convention' 38 (2007) *Victoria University of Wellington Law Review* 341.

¹⁹ Affolder, above n 18, 356-358.

²⁰ For details, see documentation in respect of boundary changes that included areas subject to mining, from the State of Conservation Report 1986, available at: <http://whc.unesco.org/en/list/147/documents/>

²¹ See generally, Lorne Kriwoken, Julie Davidson and Michael Lockwood, 'Marine Protected Areas and Transboundary Governance' in Robin Warner and Simon Marsden (eds) *Transboundary Environmental Governance: Inland, Coastal and Marine Perspectives* (Ashgate, 2012) 87. For the sub-Antarctic specifically see the work by Hemmings and others.

²² *Protocol on Environmental Protection to the Antarctic Treaty*, opened for signature 4 October 1991, 30 ILM 1455 (entered into force 14 January 1998) ('*Environmental Protocol*'). This instrument avoided the mining that was to be enabled by the proposed Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA). For consideration of the role of SEA in relation to the *Environmental Protocol*, see Simon Marsden, 'Introducing Strategic Environmental Assessment to the Madrid Protocol: Lessons from International Experience' (2011) 1 *The Polar Journal* 36.

²³ For examples, see: Kathrin Keil, 'U.S. to Open More of the Arctic Ocean to Exploration as Part of 5-Year Drilling Plan', *The Arctic Institute, Centre for Circumpolar Security Studies*, June 28 2012, available at: <http://www.thearcticinstitute.org/2012/06/us-to-open-more-of-arctic-ocean-to.html>;

Andreas Østhagen, 'Dimensions of Oil and Gas Development in Greenland', *The Arctic Institute, Centre for Circumpolar Security Studies*, December 19 2012, available at:

<http://www.thearcticinstitute.org/2012/12/dimensions-of-oil-and-gas-development.html>

Business Desk, 'Southern Ocean Oil Drilling Delay Sought', *The New Zealand Herald*, July 5 2011, available at: http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10736467; and

Reuters, 'Falkland Islands Liquid Gas Find Commercially Viable Say Explorers', *The Guardian*, 28 January 2013, available at: <http://www.guardian.co.uk/uk/2013/jan/28/falkland-islands-british-oil-exploration>

²⁴ Nigel Banks, Meinhard Doelle and Louie Porta, 'Using Strategic Environmental Assessments to Guide Oil and Gas Exploration Decisions in the Beaufort Sea: Lessons Learned from Atlantic Canada' (2012) 39 *Canadian Institute of Resources Law Occasional Paper* 1.

See: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2142001

²⁵ See generally, Geoscience and ABARE, *Australian Energy Resource Assessment* (Commonwealth of Australia, 2010).

The development of Australia's offshore gas resources is occurring at a significant pace, however recent high profile incidents involving deepwater oil and gas rigs offshore Australia (the West Atlas oil spill in the Montara oil field in the Timor Sea in late 2009) and the United States (the Deepwater Horizon oil spill in the Gulf of Mexico in early 2010) have raised questions concerning the capacity of hydrocarbon extraction to take place safely at significant depths and at considerable distance from shore.²⁶

While the management plans for HIMI and Macquarie prohibits mining activity in areas offshore to these islands, there is a legislative framework in place that potentially permits mining to take place should government policy change. The *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) is therefore designed in part to provide an effective regulatory framework for petroleum exploration and recovery,²⁷ and includes provisions for the restoration of the environment in relation to this.²⁸ It does not however, impose any prohibition on mining in areas offshore to HIMI and Macquarie. In New Zealand a call for a ban on minerals activities in WHAs has also recently been made, illustrating the strength of concern and mirroring an international call by the World Conservation Union.²⁹ This has identified that not all high-conservation value land is protected from minerals activity, including in WHAs and other specially protected areas.³⁰ Therefore, under Schedule 4 to the *Crown Minerals Act 1991* (NZ) whilst many protected areas are included, including Ramsar wetlands,³¹ WHAs are not. In March 2010, the government released a discussion document that proposed allowing mining in certain listed areas, and adding new areas off limits to mining.³² The government subsequently decided on seven changes to Schedule 4, none of which include protection for WHAs.³³

To prepare for a December 2010 meeting of World Heritage marine site managers, the World Heritage Marine Programme prepared a survey to discover perceived threats to the OUV and management challenges affecting individual marine sites. As will be seen in examining the specific major issues pertaining to each of the WHAs in the sub-Antarctic, the survey results echo a number of these in addition to the threats identified by Kriwoken and Holmes above:

Results of the survey show that habitat loss was the highest rated threat, closely followed by climate change, marine pollution, and overfishing... Climate change and invasive species were identified as the biggest future threats. Overfishing was felt to

²⁶ Tim Stephens, 'The Continental Shelf', in Rachel Baird and Donald R Rothwell (eds) *Australia's Coastal and Marine Law* (Federation Press, 2011) 158. See also Simon Marsden, 'Regulatory Reform of Australia's Offshore Oil and Gas Sector after the Montara Commission of Inquiry: What about Transboundary Environmental Impact Assessment?' in press *Flinders Law Journal*.

²⁷ Section 3.

²⁸ Part 6.4, division 1.

²⁹ International Union for the Conservation of Nature, Paris 2011. See, http://www.iucn.org/knowledge/news/focus/world_heritage/press_world_heritage_2011???7742/Mining-threats-on-the-rise-in-world-heritage-sites

³⁰ See Environment and Conservation Organisations of NZ Inc, 'Call for Ban on Minerals Activities in World Heritage Area, Press release, Wellington, 26 June 2011.

³¹ *Convention on Wetlands of International Importance, especially as Waterfowl Habitat*, opened for signature 2 February 1971, 11 ILM 963 (entered into force 21 December 1975) ('Ramsar').

³² Ministry of Economic Development, Department of Conservation, *Maximising Our Mineral Potential: Stocktake of Schedule 4 of the Crown Minerals Act and Beyond*, Wellington, March 2010.

³³ Ministry of Economic Development, *Review of the Crown Minerals Act 1991 – Discussion Paper*, Wellington, March 2012, 24-25.

be less of a problem in the future – sadly but likely because there will be less fish to catch.³⁴

III LEGAL OBLIGATIONS UNDER THE CONVENTION AND OTHER INTERNATIONAL LAW

State Parties are responsible for both putting forward potential sites for incorporation onto the World Heritage List (the List),³⁵ and when approved by the Committee, managing sites in compliance with the Convention's provisions.³⁶ Among other things, these legal obligations require state Parties to: 'integrate the protection of that heritage into comprehensive planning programmes',³⁷ and 'take the appropriate legal ... measures necessary for the ... protection, conservation, preservation and rehabilitation of this heritage'.³⁸

The requirements of the Convention are supplemented by Operational Guidelines (the Guidelines), the latest version of which was approved in 2012.³⁹ Resource manuals to assist in further operationalising the provisions of the Convention have again supplemented the Guidelines.⁴⁰ The Guidelines include the following provisions in relation to protection and management: 'regular review of the general state of conservation',⁴¹ 'adequate long-term legislative, regulatory, institutional ... protection and management',⁴² 'measures ... should assure ... its protection against development and change',⁴³ 'an adequate buffer zone should be provided',⁴⁴ and that 'each nominated property should have an appropriate management plan'.⁴⁵

The Convention therefore requires state Parties to introduce national legislation to implement legal obligations, while recognising the position of federal states like Australia. With respect to coastal or marine sites, the Convention does not apply to international areas such as the high seas, or to the EEZ of a state. It has however been accepted as extending to the territorial sea where criteria for listing apply to the coastal or marine environments of a site. As Rothwell comments: '(T)his effectively provides higher levels of recognition to that property and also, arguably, obligations on the state party'⁴⁶ as the boundaries within the control of the state Party are extended. This relates to the requirement for an adequate buffer zone for these

³⁴ See Charles Ehler and Fanny Douvere, *Navigating the Future of Marine World Heritage: Results from the first World Heritage Marine Site Managers Meeting Honolulu, Hawaii, 1-3 December 2010* (UNESCO, 2011), *World Heritage Series No 28*, 39. See further 40-44, where tourism impacts are identified as the most important reason for habitat loss.

³⁵ *The Convention*, art 11(1).

³⁶ For specific guidance, see UNESCO / ICCROM / ICOMOS / IUCN, *Managing Natural World Heritage, Resource Manual* (UNESCO / ICCROM / ICOMOS / IUCN, 2012).

³⁷ *The Convention*, art 5(a).

³⁸ *The Convention*, art 5(d).

³⁹ UNESCO Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, *Operational Guidelines for the Implementation of the World Heritage Convention* (UNESCO World Heritage Centre, 2012) ('the Guidelines').

⁴⁰ Ehler and Douvere, above n 34.

⁴¹ *The Guidelines*, para 96.

⁴² *The Guidelines*, para 97.

⁴³ *The Guidelines*, para 98.

⁴⁴ *The Guidelines*, para 103.

⁴⁵ *The Guidelines*, para 108.

⁴⁶ Donald R Rothwell, 'The International Legal Framework', in Rachel Baird and Donald R Rothwell (eds) *Australia's Coastal and Marine Law* (Federation Press, 2011) 21, 41.

sites, which are acknowledged as one of the available measures for the protection of a WHA that should be integrated with effective legal and regulatory measures.⁴⁷

HIMI is regulated as an Australian external territory, Macquarie as part of the Australian state of Tasmania, and the Subantarctic Islands as part of New Zealand national law. As will be seen, these regimes provide varying degrees of protection, which state Parties must comment on as part of the reporting obligations under the Convention regime.⁴⁸ Additionally, the Committee exercises a supervisory role and makes visits to these sites to ensure obligations are being met. As noted, recommendations made may result in sites being listed as ‘in danger’.⁴⁹

The sub-Antarctic is also subject to various other regimes, including the UN *Convention on the Law of the Sea* (UNCLOS),⁵⁰ the *Convention on the Conservation of Antarctic Marine Living Resources* (CCAMLR),⁵¹ (which is part of the *Antarctic Treaty System* (ATS)⁵²), the *Agreement on the Conservation of Albatrosses and Petrels*,⁵³ the *Convention on Biological Diversity* (CBD),⁵⁴ the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention),⁵⁵ the *International Convention for the Regulation of Whaling* (Whaling Convention),⁵⁶ the *Convention on Wetlands of International Importance* (Ramsar Convention),⁵⁷ and the UNESCO *Man and the Biosphere Program*.⁵⁸

The overlap between international resource management regimes has also been noted in respect of the sub-Antarctic.⁵⁹ The area covered by CCAMLR therefore includes HIMI, and impacts upon Macquarie and the Subantarctic Islands. Each is however beyond the

⁴⁷ See UNESCO, *World Heritage Papers No 5 - World Heritage and Buffer Zones*, April 2009.

⁴⁸ See UNESCO, Convention Concerning the Protection of the World Cultural and Natural Heritage. World Heritage Committee, Thirty-sixth session, Saint Petersburg, Russian Federation 24 June-6 July 2012, *Item 10 of the Provisional Agenda: Periodic Reports, 10A Final Report on the results of the second cycle of the Periodic Reporting exercise for Asia and the Pacific*, WHC-12/36.COM/10A, Paris, 1 June 2012. Note in particular para 2.4 Protection, Management and Monitoring of the Properties. See *World Heritage Papers 35 – Understanding World Heritage in Asia and the Pacific: The Second Cycle of Periodic Reporting 2010-2012*, February 2013.

⁴⁹ Note again the current situation with respect to the GBR referred to at the start of this article. Earlier development (dredging) to provide for a marina has been challenged in domestic courts: see *Friends of Hinchinbrook Society v Minister for the Environment (No 3)* (1997) 77 FCR 153. Note also *Connolly and Great Barrier Reef Marine Park Authority and Far North Queensland Airwork Pty Ltd (partly joined)* [2007] AATA 2098. Perhaps most significantly, it has been held that the proposed construction and operation of a dam several hundred kilometres upstream from the GBRWHA could have a significant impact on the World Heritage values of the reef. See *Minister for the Environment and Heritage v Queensland Conservation Council Inc* (2004) 134 LGERA 272.

⁵⁰ *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, 1833 UNTS 397 (entered into force 16 November 1994) (‘UNCLOS’).

⁵¹ *Convention on the Conservation of Antarctic Marine Living Resources*, opened for signature 1 August 1980, 19 ILM 837 (entered into force 7 April 1982) (‘CCAMLR’).

⁵² The primary instrument is *The Antarctic Treaty*, opened for signature 1 December 1959, 402 UNTS 71 (entered into force 23 June 1961).

⁵³ *Agreement on the Conservation of Albatrosses and Petrels*, opened for signature 19 June 2001, <<http://www.acap.aq/Instruments>> (entered into force 1 February 2004).

⁵⁴ *Convention on Biological Diversity*, opened for signature 5 June 1992, 1760 UNTS 79 (entered into force 29 December 1993) (‘CBD’).

⁵⁵ *Convention on the Conservation of Migratory Species of Wild Animals*, opened for signature 23 June 1979, 19 ILM 15 (entered into force 1 November 1983) (‘CMS’).

⁵⁶ *International Convention for the Regulation of Whaling*, opened for signature 2 December 1946, 161 UNTS 72 (entered into force 10 November 1948).

⁵⁷ HIMI has been considered for listing under Ramsar.

⁵⁸ Macquarie Island was declared a Biosphere Reserve in 1977.

⁵⁹ See Donald Rothwell, ‘Conservation and Management Frameworks for Sub-Antarctic International Waters’ (2007) 141 *Papers and Proceedings of the Royal Society of Tasmania* 1, 4.

jurisdiction of the ATS generally, which does not extend this far north. However some areas of extended continental shelf from the sub-Antarctic islands do protrude into the ATS.⁶⁰ The Parties to CCAMLR, which does extend this far, work in close connection with the Parties to the Environmental Protocol; many of them are in fact the same.⁶¹ It is furthermore notable that in November 2011, Members of CCAMLR adopted a conservation measure setting out a general framework for the establishment of CCAMLR marine protected areas. In the same year these parties established the world's first entirely high seas marine protected area, south of the South Orkney Islands near the Antarctic Peninsula.⁶²

IV SPECIFIC ISSUES AND APPLICABLE DOMESTIC GOVERNANCE

A *Heard Island and McDonald Islands (HIMI)*

HIMI is an external territory of Australia approximately 4000kms south west of Perth. It is located in the Antarctic Convergence, a zone approximately 32 to 48 km wide, varying in latitude seasonally and in different [longitudes](#), and extending across the [Atlantic](#), [Pacific](#), and [Indian Oceans](#) between the [48th](#) and [61st](#) parallels of south latitude. HIMI is the only unmodified example of a sub-Antarctic island ecosystem, and the Marine Reserve is one of the world's largest marine protected areas.⁶³

Both the Islands and the territorial sea are closed to fishing as the Australian Antarctic Division (AAD) manages them as a Wilderness Reserve. The Australian Fisheries Management Authority (AFMA) as part of the Australian Fishing Zone manages the EEZ waters from the 12 nautical mile limit to the 200 nautical mile limit. The Islands and the 12 nautical mile territorial sea around them are on the World Heritage List and form part of the HIMI Wilderness Reserve. This is subject to the *HIMI Marine Reserve Management Plan*.⁶⁴ In recognition of the Islands' importance, fishing is prohibited from 13 nautical miles offshore, providing an additional buffer zone for the islands of 1 nautical mile. The fishery extends from 13 nautical miles offshore to the edge of the 200 nautical mile Australian EEZ

⁶⁰ Alan Hemmings and Tim Stephens, 'The Extended Continental Shelves of Sub-Antarctic Islands: Implications for Antarctic Governance' (2010) 46 *Polar Record* 312.

⁶¹ For examples of the relationship between these international instruments, see Decision 9 (2005) – ATCM XXVIII – CEP VIII, Stockholm – *Marine Protected Areas* (adopted 17 June 2005), and Resolution 2 (2011) – ATCM XXXIV – CEP XIV, Buenos Aires – *Revised Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas* (adopted 1 July 2011). The first requires that prior approval from the Commission of CCAMLR be obtained for proposals for Antarctic Specially Protected Areas or Antarctic Specially Managed Areas (under the *Environmental Protocol*) that contain marine areas. The second updates a previous guide to reflect best practice.

⁶² Note the creation of Australia's Coral Sea Commonwealth Marine Reserve, which covers 989,842 square kilometres and abuts the entire eastern edge of the GBR WHA. Combined the Coral Sea Marine Reserve and the GBR WHA form one of the largest marine protected areas in the world, covering 1.3 million square kilometres. The Australian Government states that the 'declaration of a Coral Sea marine reserve offers substantial additional protection for the integrity of the GBRWHA'. See *State Party Report*, above n 10, 5.

⁶³ See Jane Harris, Marcus Haward, Julia Jabour and Eric J Woehler, 'A New Approach to Selecting Marine Protected Areas (MPAs) in the Southern Ocean' (2007) 19 *Antarctic Science* 189.

⁶⁴ Australian Antarctic Division on behalf of Director of National Parks, *Heard Island and McDonald Islands Marine Reserve Management Plan* (Commonwealth of Australia, 2005-2012) ('*Reserve Management Plan*'). The Plan is currently under review and will likely include the boundary changes to incorporate additional areas of conservation significance.

around the Islands, which does not have protected area status. This is subject to the *HIMI Fishery Management Plan*.⁶⁵

The HIMI Marine Reserve that forms part of these waters was established for the purpose of ‘protecting the conservation values of HIMI and the adjacent unique and vulnerable marine ecosystems’.⁶⁶ It is of outstanding national and international conservation significance; the islands themselves provide important breeding locations for seabird and seal populations and the surrounding waters provide valuable foraging grounds for land-based marine predators. The marine areas also provide important habitats for many species. HIMI was inscribed on the World Heritage List in 1997 in recognition of these values. Of particular significance is that the extreme isolation and severe climate of the islands has ensured that human visitation and associated disturbances have been minimal, resulting in the existence of one of the most biologically pristine areas in the world.

Despite such claims, the impact of human induced climate change arguably challenges the listing under the Convention. Kiernan and McConnell commented a decade ago in relation to Heard Island in particular:

If the climate changes responsible for glacier recession are of anthropogenic origin ... then the wilderness values and natural process values upon which listing of this World Heritage property was partly based have in one sense been compromised. Heard Island remains about as wild and untouched as any place can be. But the changes that are occurring raise the philosophical question of whether any place on an artificially warming planet can be regarded with any validity as an untouched wilderness.⁶⁷

Lewis, Riddle and Hewitt also raise concerns in relation to Heard Island’s ability to be protected against invasive species under existing regulatory frameworks that ban antifouling coatings on ships. They comment:

The presence of these species at the beginning and end of the voyage shows that viable individuals were present on the hull when the vessel was in the waters adjacent to Heard Island. This is of particular concern because Heard Island is one of the few invasion-free environments remaining in the world – one of the values for which it was inscribed to the World Heritage list in 1997.⁶⁸

Illegal, unreported and unregulated fishing (IUU fishing) has furthermore been a major problem in the marine environment of the Southern Ocean, as noted by many researchers.⁶⁹

⁶⁵ Australian Fisheries Management Authority, *Heard Island and McDonald Islands Fishery Management Plan* (Australian Fisheries Management Authority, 2002) (*Fishery Management Plan*). As with all of these plans under the EPBC Act, this has been subject to an SEA; see Simon Marsden, ‘Strategic Environmental Assessments of Marine and Terrestrial Plans’ in Robin Warner and Simon Marsden (eds) *Transboundary Environmental Governance in Inland, Coastal and Marine Areas* (Ashgate, 2012) 203, 212-215.

⁶⁶ *Reserve Management Plan*, above n 65, 3.

⁶⁷ Kevin Kiernan and Anne McConnell, ‘Glacier Retreat and Melt-Lake Expansion at Stephenson Glacier, Heard Island World Heritage Area’ (2002) 38 *Polar Record* 297, 307. On this basis, one would have to question the listing of the Danish property, Ilulissat Icefjord in Greenland, which has been shrinking since its inscription in 2004. UNESCO has increasingly recognised the effects of climate change. See: <http://whc.unesco.org/en/news/319>; and <http://whc.unesco.org/en/climatechange/>

⁶⁸ Patrick N Lewis, Martin J Riddle, and Chad L Hewitt, ‘Management of Exogenous Threats to Antarctica and the sub-Antarctic Islands: Balancing Risks from TBT and Non-Indigenous Marine Organisms’ (2004) 49 *Marine Pollution Bulletin* 999, 1002.

⁶⁹ See for example Lugten, above n 16.

This is significantly impacting upon the Australian harvest of fish stocks both within and beyond the Australian Fishing Zone, and impacts upon the survival of fishing industries and communities. For example, the fishing of the Patagonian toothfish in this way illustrates the damaging effects on the sustainability of stocks and the viability of the Australian industry. Since 1997, six vessels have been apprehended by Australian authorities for illegal fishing around HIMI.⁷⁰

The domestic regulatory arrangements applicable to the HIMI Marine Reserve include the implementation of *Australia's Oceans Policy* 1998 (Oceans Policy)⁷¹ by the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act),⁷² and the *Territory Environment Protection and Management Ordinance* (EPMO). The *Oceans Policy* established 13 large marine domains that included the *Sub-Antarctic*, *Kerguelen* and *Macquarie*. These areas included HIMI and Macquarie Island, but only the latter is being implemented. Initially this was via the *SE Regional Marine Plan* (completed in 2004 but with no legislative underpinning) and subsequently via the bioregional planning process of the *SE Regional Plan*⁷³ (currently being finalised following consultation, which has the legislative backing of the EPBC Act).⁷⁴ A failure to involve the states in the initial planning process is further reason why the current planning process has taken so long,⁷⁵ the substantive effectiveness of which can only be evaluated when it has been completed and been in place for some time. While the *SE Regional Plan* includes Macquarie, it does not however include HIMI, and there are no other large scale regional plans relevant to it given the implementation failure to plan for the other large marine domains of the *Sub-Antarctic and Kerguelen*. This failing is considered further in relation to transboundary governance matters later in this article.

B Macquarie Island

Macquarie Island Nature Reserve is one of the most valuable reserves in Australia and the world, well recognised for its conservation, geological, ecological and scientific values. In December 1997 the reserve and its surrounding waters to 12 nm were inscribed on the List as the Macquarie Island WHA. Australia's WHAs are required to be managed in accordance with Australian World Heritage Management Principles as set out in Schedule 5 of the EPBC Act,⁷⁶ which therefore applies to both HIMI and Macquarie. The reserve is adjacent to the Australian Government Macquarie Island Marine Park and is part of the State of Tasmania, managed by the Tasmanian Parks and Wildlife Service (PWS) of the Department of Primary Industries, Parks, Water and Environment.

⁷⁰ See http://www.daff.gov.au/fisheries/iuu/overview_illegal_unreported_and_unregulated_iuu_fishing

⁷¹ Department of the Environment and Heritage, Australian Government, *Australia's Oceans Policy* (1998).

⁷² Matthew Osborne, 'Commonwealth and State Marine Environmental Management', in Rachel Baird and Donald R Rothwell (eds) *Australia's Coastal and Marine Law* (Federation Press, 2011) 67, 87-90.

⁷³ *Draft South-east Commonwealth Marine Reserves Network Management Plan 2012-22* (Director of National Parks, 2012) ('*SE Regional Plan*').

⁷⁴ Donald R Rothwell and Rachel Baird, 'Australia's Coastal and Marine Environment' in Rachel Baird and Donald R Rothwell (eds) *Australia's Coastal and Marine Law* (Federation Press, 2011) 1, 12-13.

⁷⁵ Osborne above n 72, 90.

⁷⁶ See Section 3.4.

The Nature Reserve and Marine Park have separate management plans which apply to them: the *Macquarie Island Plan*,⁷⁷ and the *Macquarie Marine Plan*,⁷⁸ the latter is currently being revised as part of the *SE Regional Plan*.⁷⁹ This former plan only applies to the Macquarie Island Nature Reserve and that part of the WHA that is within it i.e. to 3 nautical miles. It does not apply to that part of the WHA between 3 and 12 nautical miles. It also does not apply to the Macquarie Island Marine Park on the eastern side of the reserve between 3 and 200 nautical miles. The WHA is therefore managed by these two plans although since the expiry of the *Macquarie Marine Plan*, interim measures are in place.⁸⁰

The geological values, which are the focus of the listing of the reserve, require protection due to their global significance. Scientific research interest in the reserve is high because it is the only place in the world where rocks from up to 6 kilometres below the ocean floor are exposed above sea level. Current knowledge of the Earth's oceanic crust has been limited to the depths to which drilling can occur which is considerably less than 6 kilometres. In 2002 Macquarie Island Nature Reserve was listed as habitat critical to the survival of two albatross species on the Register of Critical Habitat under the EPBC Act.⁸¹ All four species of albatross that breed in the reserve are vulnerable to extinction as are the southern elephant seal and subantarctic fur seal. Research on these species will continue to be focused on monitoring the Macquarie Island populations and their foraging requirements.

In addition to satisfying the geological criterion for its natural listing under the Convention, it also satisfied the criterion in relation to its natural beauty and aesthetic importance. This would appear to explain the ongoing concerns of the Committee in relation to the impact upon native vegetation by introduced species. Accordingly, one of the highest conservation priorities in the reserve has been the eradication of rabbits, rats and mice from the island.⁸² While surprisingly not listed for its biological values therefore, these alien species are identified as causing extensive impacts on the biodiversity and landscape of the reserve.⁸³ Research programs into the biology, ecology and management of alien species in the reserve continue, and where feasible, practical and desirable, control programs continue to be undertaken. Stringent precautions are being implemented to prevent further accidental introductions of alien species.⁸⁴

⁷⁷ Parks and Wildlife Service 2006, *Macquarie Island Nature Reserve and World Heritage Area Management Plan* (Parks and Wildlife Service, Department of Tourism, Arts and the Environment, 2006) ('*Macquarie Island Plan*').

⁷⁸ *Macquarie Island Marine Park Management Plan*, 2001 (Environment Australia, 2001) ('*Macquarie Marine Plan*').

⁷⁹ *SE Regional Plan*, above n 73, 85-87.

⁸⁰ Interim Management Arrangements will apply until the new management plan has been put in place. The interim management arrangements are a series of approvals issued by the Director of National Parks under section 359B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Under the EPBC Act, when a management plan is not in operation for a Commonwealth Reserve, approval from the Director of National Parks is required to allow commercial and recreational activities, that are consistent with the IUCN categories of the zones of the reserves, to legally continue. Approval can be given to both individuals and to classes of persons, and can be issued with or without conditions on the approved activity.

⁸¹ See <http://www.environment.gov.au/cgi-bin/sprat/public/publicregisterofcriticalhabitat.pl>

⁸² Decision 34COM 7B.10 Macquarie Island (Australia) (N 629 rev). An updated Report on the State of Conservation of Macquarie Island was due to be submitted to the Committee by February 2013.

⁸³ See Dana M Bergstrom, Arko Lucieer, Kate Kiefer, Jane Wasley, Lee Belbin, Tore K Pedersen, and Steven L Chown, 'Indirect Effects of Invasive Species Removal Devastate World Heritage Island' (2009) 46 *Journal of Applied Ecology* 73.

⁸⁴ Bergstrom et al, *ibid*, 84, suggest the removal of cats introduced to control rats allowed rabbits to breed to the level at which the vegetation has been depleted at such a scale. See also Potter, above n 17, 180, and in relation to the stringent measures to prevent introductions, 181-183, which compares measures at Macquarie and HIMI.

The *Macquarie Island Plan* has been prepared in accordance with the *National Parks and Reserves Management Act 2002* (Tas) and the EPBC Act and its Regulations. Under the EPBC Act, there is a particular focus on Schedule 5 that outlines Australian World Heritage Management Principles. These principles promote national standards of management, planning, environmental impact assessment, community involvement and monitoring for all of Australia's World Heritage properties in a way that is consistent with Australia's obligations under the Convention.

As noted above, the *SE Regional Plan* was released by the Australian Government in mid-2012 and links 14 marine reserves in SE Australia, one of which is the Macquarie Island Commonwealth Marine Reserve that applies from the 3nm limit of the territorial sea out to the 200nm extent of the EEZ.⁸⁵ The primary purpose of the network is to protect and maintain biological diversity, specifically to implement the obligations of the CBD for a representative system of marine protected areas, although in preparing the draft management plan the Director of National Parks considered all of Australia's international obligations including the Convention.⁸⁶ As also noted, this has yet to come into effect and it is therefore not possible to comment on practical improvements until it does and on site implementation and compliance take effect. What can however be said, is that including Macquarie Island in a plan with the backing of a Commonwealth legislative framework may assist with coordinating planning and management of this WHA that is politically and legally part of the State of Tasmania. Further discussion on this follows in the section on transboundary governance below.

C Subantarctic Islands

New Zealand's Subantarctic Islands are made up of five groups of islands: Snares Islands/Tini Heke, Bounty Islands, Antipodes Islands, Auckland Islands, and Campbell Island/ Motu Ihupuku and the islands surrounding it. The Subantarctic Islands are located on the Pacific Plate, on two plateaus on the continental shelf that is to the south and east of the bottom of the South Island of mainland New Zealand. Three of the island groups are on the Campbell Plateau to the south-southeast: the Snares Islands/Tini Heke, the Auckland Islands and Campbell Island/Motu Ihupuku. The other two groups, the Bounty Islands and the Antipodes Islands, are on the Bounty Plateau to the east-southeast. The two plateaus are sometimes referred to collectively as the Southern Plateau.

The Subantarctic Islands are significant refuges for a range of plants and animals found nowhere else in the world. They are important breeding grounds for countless seabirds, penguins and marine mammals, and the habitat of some special plants. The Southern Ocean is equally important as habitat and a vast feeding ground for wildlife. Every year, scientific and conservation management expeditions visit the Subantarctic Islands either to work with the flora and fauna or to maintain facilities and historic sites. As with HIMI and Macquarie, a priority for management is the eradication of animal and plant pests, and the reintroduction of

See also JJ Scott and JB Kirkpatrick, 'Rabbits, Landslips and Vegetation Change on the Coastal Slopes of Subantarctic Macquarie Island, 1980-2007: Implications for Management' (2007) 31 *Polar Biology* 409.

⁸⁵ Another concern of the World Heritage Committee as noted in Decision 34COM 7B.10 Macquarie Island (Australia) (N 629 rev), above n 83, was the outcome of the *SEA for the Macquarie Island Toothfish Fishery*, given the IUU fishing prevalent in the Southern Ocean. This has now concluded and is incorporated into the management frameworks. See: <http://www.environment.gov.au/coasts/fisheries/commonwealth/macquarie-toothfish/index.html>

⁸⁶ *SE Regional Plan*, above n 73, 85-87.

species lost in the past. The Campbell Island snipe and teal are both successful recovery stories following rat eradication.

The islands were listed as a WHA in 1998,⁸⁷ and a Retrospective Statement of Outstanding Universal Values⁸⁸ was submitted to the World Heritage Committee in January 2011 as an update (see the '*10 Year Report*').⁸⁹ The extent of the WHA status extends out to 12 nautical miles, in recognition of the dependence of the islands' biota on the sea. Each of the inter-connected land-sea ecosystems is crucial to the survival of a large number of endemic, threatened or endangered species. The Bounty and Snares Island have remained free of land based pests, and following the eradication of rats from Campbell Island in 2001, Brown Teal were successfully reintroduced as noted.⁹⁰

The Subantarctic Islands have the highest level of protection possible under New Zealand legislation, classified as Nature Reserves under the *Reserves Act 1977* (NZ).⁹¹ Other applicable legislation includes the *Wildlife Act 1953* (NZ), providing absolute protection for indigenous wildlife and applying to territorial waters as well as land; the *Wild Animal Control Act 1977* (NZ), to manage harmful introduced species; the *Resource Management Act 1991* (NZ), which promotes sustainable management of New Zealand's natural and physical resources and under which the *Coastal Plan* is being prepared; and the *Marine Mammals Protection Act 1978* (NZ), which has established a protection zone from the shore of the Auckland Islands out to the 12 nm limit and in which all commercial fishing is prohibited. Marine reserves are also planned for the Antipodes, Bounty and Campbell Islands.⁹² One matter of particular concern identified by the *10 Year Report* was the lack of a buffer zone for the WHA at the time of inscription, which would appear to have now been addressed by the creation of these protection zones / marine reserves.⁹³

The Department of Conservation manages the islands themselves, on behalf of the Government and the people of New Zealand, via two plans: the *Conservation Management Strategy* (CMS),⁹⁴ and the *Coastal Plan*.⁹⁵ The CMS is currently being reviewed as part of the

⁸⁷ Consideration was initially given to a joint listing with Macquarie Island, but different criteria apparently explain the separate listing at the time. See New Zealand Department of Conservation, *10 Year Report to World Heritage Committee on the New Zealand Subantarctic Islands* (Department of Conservation, 2011) ('*10 Year Report*'), para 4.8.5.

⁸⁸ Used throughout *the Convention*, 'Outstanding Universal Value' is not defined in the text. For definition, see *the Guidelines*, 49-53.

⁸⁹ The *10 Year Report* identified negative impacts from introduced pigs, cats and mice in some areas; the introduction of the pest marine plant *Undaria* to the Snares Islands; the effect of global warming on the marine food web and the impacts of commercial fishing on the marine and island environments. Positive impacts included the removal of redundant research buildings, the planned upgrading of sewerage systems and the removal of some pest species. See para 3.17.1.

⁹⁰ *10 Year Report*, para 3.12.2.

⁹¹ See s13, which acknowledges their 'values of national and international significance'.

⁹² *10 Year Report*, para 4.2.1

⁹³ The need to enhance the marine protection of the Subantarctic Islands alongside terrestrial and coastal protection was recognised in 2006; see Department of Conservation, *Marine Protection for the New Zealand Subantarctic Islands: A Background Resource Document* (Department of Conservation, 2006). This was part of the marine protected areas program of the New Zealand Government; see Department of Conservation and Ministry of Fisheries, *Marine Protected Areas Policy and Implementation Plan* (Department of Conservation and Ministry of Fisheries, 2006).

⁹⁴ Department of Conservation, *Conservation Management Strategy: Subantarctic Islands 1998-2008* (Department of Conservation, 1998).

⁹⁵ Department of Conservation, *Proposed Regional Coastal Plan, Kermadec and Subantarctic Islands* (New Zealand Department of Conservation, 2011).

Southland CMS, and its replacement was notified and opened to consultation in June 2013.⁹⁶ The *Coastal Plan* was publicly notified on 15 January 2011.⁹⁷ The purpose of the *Coastal Plan* is to promote the sustainable management of the natural and physical resources of the coastal marine area of the Kermadec and Subantarctic Islands.⁹⁸ The two key threats to these island groups are from biosecurity breaches and oil spills. However, the offshore islands are so remote and in such rough seas that a response to either type of event would be very challenging. Given the significant natural values, a precautionary approach focussing on prevention is therefore critical. 16 submissions were received on the *Coastal Plan* and the Commissioner's decision on all submissions was notified on 2 May 2012. It is currently awaiting finalisation.

V IMPROVING TRANSBOUNDARY GOVERNANCE

The final section of this article considers the potential for improved relationships between the states in the eastern sub-Antarctic (Australia, New Zealand and France) and for enhanced governance within the state (Australia), in an effort to coordinate environmental planning and management of sub-Antarctic ecosystems. It has been noted that transboundary environmental governance can apply in both domestic and international contexts, and in relation to the connections between inland, coastal and marine environments. Thus such governance structures can link domestic with international areas⁹⁹ and their environmental planning frameworks.¹⁰⁰ While there are a number of transboundary sites connecting more than one listed WHA under the Convention,¹⁰¹ and consideration has been given in recent years to issues pertaining to their nomination and management,¹⁰² in the sub-Antarctic the three WHAs are listed and managed separately. In the absence of a transboundary listing, it may therefore be instructive to examine how to better manage existing connections to improve environmental outcomes.

The geographical and territorial relationship between HIMI, (which is an Australian External Territory and managed by the Australian Government),¹⁰³ and the French Subantarctic island

⁹⁶ Department of Conservation, *Draft Otago-Southland Conservation Management Strategy 2012-2022* (New Zealand Department of Conservation, 2012). See: <http://www.doc.govt.nz/getting-involved/consultations/current/southland-murihiku-conservation-management-strategy-consultation/>

⁹⁷ Department of Conservation, *Proposed Regional Coastal Plan: Kermadec and Subantarctic Islands* (New Zealand Department of Conservation, 2011).

⁹⁸ The Kermadec Islands and Marine Reserve are another of the proposed World Heritage listings of the New Zealand Government. See above n 5, 30.

⁹⁹ See Robin Warner and Simon Marsden, 'Perspectives on Transboundary Environmental Governance' in Robin Warner and Simon Marsden (ed) *Transboundary Environmental Governance: Inland, Coastal and Marine Perspectives* (Ashgate, 2012) 1, 3-9.

¹⁰⁰ Marsden, above n 66, 203.

¹⁰¹ Six are in Europe, three are in North and Central America, one is in Central Asia and one is in Southern Africa.

¹⁰² Expert Workshop on the Nomination and Management of Serial and Transnational Natural World Heritage Sites, Vilnius, 7-11 November 2009.

¹⁰³ See House of Representatives Standing Committee on Legal and Constitutional Affairs, *Australian Law in Antarctica: The Report of the Second Phase of an Inquiry into the Legal Regimes of Australia's External Territories and the Jervis Bay Territory* (AGPS, 1992) 1-15.

of Kerguelen (which is, along with the Crozet Islands and other territories, part of the Territory of the French Southern and Antarctic Lands), has been established by an international agreement.¹⁰⁴ This is supported by another agreement concerning cooperation in scientific research in the adjacent maritime areas.¹⁰⁵ Following submissions made to the Commission on the Limits of the Continental Shelf (CLCS) in 2004 and 2007, it has been confirmed that the boundary ends 200nm from each state's nearest land. In 2008 it was further confirmed that Australia's entitlement goes beyond this since France has no extended continental shelf between McDonald Island and Kerguelen.¹⁰⁶

The territorial boundary between Macquarie and the New Zealand Subantarctic Islands is also set out in an international agreement,¹⁰⁷ although there is no comparable formal agreement for scientific cooperation. This agreement was also related to the Parties' submissions to the CLCS who accepted them with little amendment.¹⁰⁸

Regarding Macquarie Island, as noted above, responsibilities are shared between the State of Tasmania (terrestrial and coastal environment) and the Australian Government (marine environment), in accordance with the arrangements established under the Commonwealth Constitution.¹⁰⁹

With respect to the environmental management of the Convention listed HIMI and non-listed Kerguelen, it is recommended that reconsideration be given to a Regional Marine Plan for the marine area known as Kerguelen in the Oceans Policy, as a means of enhancing the protection of the ecosystems relevant to both islands, in particular the straddling fish stocks. While the *SE Regional Plan* may enhance provision for Macquarie in the context of a larger area, the same is also likely true of HIMI.¹¹⁰ Extending the boundaries of HIMI to provide for a 200nm buffer zone throughout is another measure which needs to be put in place, and is not contemplated by the current and prospective boundary changes.¹¹¹ It has further been suggested by this author that a SEA be carried out in order to better protect the overall integrity of the region and avoid negative cumulative impacts:

[O]f Australia's overarching Oceans Policy, any policy for the sub-Antarctic territories, relevant marine plans, and potentially also the relationship between Australian and French conservation and management policies...¹¹²

¹⁰⁴ *Agreement on Maritime Delimitation between the Government of Australia and the Government of the French Republic*, signed 4 January 1982, 1329 UNTS 107 (entered into force 10 January 1983).

¹⁰⁵ *Treaty between the Government of Australia and the Government of the French Republic on Cooperation in the Maritime Areas Adjacent to the French Southern and Antarctic Territories, Heard Island and the McDonald Islands, Australia-France*, signed 24 November 2003, 2438 UNTS 253 (entered into force 1 February 2005).

¹⁰⁶ Andrew Serdy, 'The Maritime Boundaries of Australia' in Rachel Baird and Donald R Rothwell (eds), *Australia's Coastal and Marine Law* (Federation Press, 2011) 94, 105.

¹⁰⁷ *Treaty between the Government of Australia and the Government of New Zealand Establishing Certain Exclusive Economic Zone Boundaries and Continental Shelf Boundaries*, signed 25 July 2004, 2441 UNTS 235 (entered into force 25 January 2006).

¹⁰⁸ Serdy, above n 106, 107-109.

¹⁰⁹ Neither the *Australian Constitution – Commonwealth of Australia Constitution Act 1901* (Cth), nor the *Tasmanian Constitution – Constitution Act 1934* (Tas) specify the inclusion of Macquarie Island within Tasmanian jurisdiction, which has not apparently been disputed. It is open to the Tasmanian Parliament to surrender jurisdiction over Macquarie Island however, or alter the limit of its jurisdiction to achieve the same effect, see *Australian Constitution*, ss111 and 123.

¹¹⁰ Marsden, above n 65, 217.

¹¹¹ See n 65 above, and Marsden, n 66, 218.

¹¹² Marsden, above n 65, 208.

While dependent upon French cooperation, the existing agreement for scientific cooperation potentially enables this and the Convention does not prevent management between listed and non-listed properties. There is also clearly potential for consideration of a listing of Kerguelen itself as part of the French Southern Territories if the French Government were supportive of this, which further cooperation in transboundary management between Australia and France may promote. Assessment of the potential of this property for a listing has in fact already begun, with geological and biodiversity significance recorded, obvious major landscape qualities apparent, and comment made by UNESCO that ‘the integrity and condition of the area is very high as they are uninhabited islands. Consequently they have good scope for consideration as a potential World Heritage Site.’¹¹³

With respect to the relationship between Macquarie Island and the Subantarctic Islands, while an initial joint listing between the two properties was suggested by the Committee and rejected because of the different criteria for listing each, there is no reason why a revised listing should not be reconsidered, or a shared planning and management framework introduced, if benefits for the management of each WHA were clear to Australia and New Zealand. Leaving aside the shared management of Macquarie between Australia and Tasmania for the moment, certain synergies have already become clear, such as the passage of tourism vessels between the Subantarctic Islands and Macquarie, and the implications particularly to Macquarie for biosecurity.¹¹⁴

Additionally, while there are now three coastal transboundary properties listed (Wadden Sea, Netherlands and Germany; High Coast, Sweden and Finland; Kluane / Wrangell-St Elias / Glacier Bay / Tatshenshini-Alsek, Canada and the United States) there are as yet no transboundary marine properties. A joint listing between either France and Australia (Kerguelen and HIMI) or New Zealand and Australia (Subantarctic Islands and Macquarie), would be a world first and shining star for the advancement of the concept of a World Heritage Marine Programme.¹¹⁵ A precedent for cooperation between marine WHAs already exists. In September 2009 the two largest World Heritage marine sites announced a historic alliance establishing a ‘sister site’ cooperation agreement to enhance the management and protection of almost 800,000 km² of the Pacific Ocean. The partnership was designed to enhance management knowledge and practices for these tropical and subtropical marine and terrestrial island ecosystems.¹¹⁶

Finally, in relation to the protection of Macquarie Island, the coordination of management resulting from shared responsibilities under the Australian Federation has caused problems regarding arrangements for quarantine and program resourcing.¹¹⁷ This is not however a call for the Australian Government to assume the responsibilities of the Tasmanian Government for Macquarie, far from it. Criticism of the position of the AAD and concerns raised about the impact of its scientific programs are genuine enough to refute this given its regulatory role.¹¹⁸ What is being suggested however is an improved template for environmental protection,

¹¹³ UNESCO, *Assessing Potential World Heritage Marine Sites in the Western Indian Ocean: French Southern Territories (Crozet, Kerguelen, Saint Paul and Amsterdam)* (undated). See:

http://www.vliz.be/projects/marineworldheritage/sites/3.4_Kerguelen.php?item=The%20Indian%20Ocean

¹¹⁴ Potter, above n 17, 179 and 186.

¹¹⁵ See <http://whc.unesco.org/en/marine-programme/> and <http://www.marineworldheritage-unesco.org/>

¹¹⁶ Sister site management cooperation between two large World Heritage marine sites: Papaha – naumokua - kea and Phoenix Islands Protected Area, is therefore one means worth examining further. See Ehler and Douvere, above n 34, 28.

¹¹⁷ Potter, above n 17, 188.

¹¹⁸ Lorne Kriwoken, Peter Hay and Peter Keage, ‘Environmental Policy Implementation: Sea Dumping off Sub-Antarctic Heard Island, Australia’ (1989) 48 *Maritime Studies* 11.

which the *SE Regional Plan* may, if effectively implemented and complied with, go some way towards.

Finally, as each of the three WHAs are considered to be marine properties under the Convention, it has been consistently acknowledged that the success of management efforts for environmental protection will be enhanced by integrating efforts generally in broader spatial planning frameworks. Ehler and Douvere comment:

If managed in isolation, World Heritage marine sites are vulnerable to coastal and marine resource development and exploitation occurring outside their boundaries, especially overfishing, habitat loss, marine pollution, invasive species and climate change. In general, many marine protected areas fail because of the degradation of the unprotected surrounding ecosystems ... Therefore, protection of World Heritage marine sites should be integrated into spatial development processes and plans for the surrounding marine area. A strategic approach that fully uses the strengths of effective marine site management, while avoiding the pitfalls, can succeed by integrating marine site management into broader marine spatial management efforts.¹¹⁹

VI CONCLUSION

This article reviews existing domestic arrangements for the implementation of the World Heritage Convention in Australia and New Zealand's sub-Antarctic properties, and suggests a number of transboundary improvements. As anticipated at the beginning, and forecast by others previously, domestic implementation of these international obligations is indeed the key to their success, and it is arguable that to date the lack of comprehensive planning programmes may have been a breach of a substantive obligation of the Convention.¹²⁰ Current changes to management planning in relation to each of the properties, while overdue and protracted, are a very positive improvement to such non-compliance. However ignoring the potential gains from enhanced transboundary cooperation as suggested in the previous section is not something to be overlooked. The natural and man-made interactions between these properties, whether concerning transboundary resources such as straddling fish stocks, or climate change and biosecurity threats, must be managed in a way that both respects political borders and at the same time recognises geographical realities. The recommendations made in this article in regard to these matters are, it is hoped, a small contribution to the future protection of a very special part of the planet that is equally deserving of scientific study and appreciation by human visitation as they are of effective environmental protection.

¹¹⁹ Ehler and Douvere, above n 34, 33. Space constraints inhibit further examination of this. For further information, see Charles Ehler and Fanny Douvere, *Marine Spatial Planning: A Step-by-Step Approach Toward Ecosystem-Based Management* (UNESCO, 2009).

¹²⁰ *The Convention*, art 5(a).