

Broadening the duty in relation to Environmental Impact Assessment across the legal instruments applying in Antarctica

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Abstract

An intensifying and ever widening range of human activity occurs in the area south of the Antarctic Convergence. Amongst its various consequences it is reasonable to see increasing environmental pressures.

Whilst not all activity occurring here is subject to particular international legal instruments, most is. A cluster of Antarctic-specific instruments, comprising the 1959 Antarctic Treaty, 1972 Convention for the Conservation of Antarctic Seals (CCAS), 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) and 1991 Protocol on Environmental Protection to the Antarctic Treaty (Protocol), form what is termed 'the Antarctic Treaty System' (ATS) and address a large part of present activity. Whaling and harvesting of Southern blue-fin tuna are regulated under the 1946 International Convention for the Regulation of Whaling (ICRW) through its International Whaling Commission (IWC), and the 1993 Convention for the Conservation of Southern Blue-fin Tuna (CCSBT) through its Commission respectively, legal instruments that are external to the Antarctic Treaty System. Other high seas activities in the region are subject to the 1982 United Nations Convention on the Law of the Sea (UNCLOS).

Modern integrated environmental management approaches are largely confined to only two of these six instruments - CCAMLR and the Protocol. The obligation for prior Environmental Impact Assessment (EIA), one of the major tools deployed in modern environmental management globally, is confined to the latter. EIA obligations in the Protocol are coupled with the advance notice obligations of Article VII.5.a of the Antarctic Treaty. Although EIA has been applied to national Antarctic programmes and tourism activities, as a matter of state practice this has (drawing on a number of considerations) generally excluded EIA application to any whaling or fishing activities (although there are exceptions in relation to one state). States active in the region, whatever their positions on whaling and the modalities of other marine harvesting, have generally resisted calls to broaden the range of activities subject to EIA.

This paper documents the basis for EIA within the Antarctic Treaty System, examines the arguments that have been used to deny its applicability to the wider range of Antarctic activities, enquires into the exceptions, considers the place of EIA in the context of the declaratory positions of Antarctic-active states in relation to ecosystem maintenance and environmental and other use values, and suggests mechanisms whereby some broadening of EIA coverage might be achieved if the political will existed.

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I. Introduction

The Antarctic⁴ is some ten percent of the surface of the earth and perhaps the largest integrated ecosystem on earth. Components of that ecosystem have been affected by human activity since we first became capable of penetrating the region, and exploitation of what we might now call Antarctica's "marine living resources" was a key driver of that penetration. Notwithstanding these activities, the wider Antarctic environment was given some level of protection by the natural ramparts of remoteness and climatic severity, which long resisted human technical capacity. With technological advancement, Antarctica's isolation has ended.⁵ Today, if we are to maintain the environment of Antarctica, we must actively create new defensive legal, administrative and management mechanisms, at national and international level.

That the international community intends, at least at the declaratory level, to (variously) maintain, conserve, preserve or at least manage the Antarctic environment to some environmental standard is evident from the range of instruments currently applying to the region. Whether products and components of the Antarctic Treaty System (ATS) or global instruments, some sort of commitment to environmental protection is common across them – if not always explicit in their foundational texts, at least implicit in their subsequent interpretation and norms of behaviour. A general sense of duty in relation to the environment is evident across the Antarctic region, whatever the shape and standard of actual practice.

Practical environmental management takes many forms, but globally a recurrent critical tool has been Environmental Impact Assessment (EIA), and it is via this tool that we here attempt to explore not only the emergent sense of duty in relation to the environment but the difficulties in achieving consistency of approach across the region. Two maritime incidents from the 2006-07 Antarctic season just passed throw light on just how difficult consistency presently is.

Two Maritime Incidents

A Norwegian-flagged tourist ship, the M/S *Nordkapp*, grounded at Deception Island (63°00' South, 60°40' West) in the South Shetland Islands near the Antarctic Peninsula, on 30 January 2007. The incident saw significant hull damage, the release of marine diesel fuel to the sea, deployment of oil spill containment equipment, response by HMS *Endurance*, the Spanish national Antarctic programme and other tourist vessels, and the complete evacuation of the ship's tourist passengers to the fortuitously close sister ship M/S *Nordnorge*. The *Nordkapp* was thereafter patched and escorted out of the Antarctic to dry-dock in Brazil for repairs.⁶

4 Here taken to be the entire area south of the Antarctic Convergence or Polar Front, the oceanographic feature taken as the northern boundary for CCAMLR, variable 45°-60° South – see Article I CCAMLR.

5 Hemmings, AD (In Press) 'Globalisation's cold genius and the ending of Antarctic Isolation' in Kriwoken, LK; Jabour, J and Hemmings, AD (eds) *Looking South; Australia's Antarctic Agenda*. Federation Press.

6 Norway (2007) 'The M/S *Nordkapp* incident'. XXX Antarctic Treaty Consultative Meeting Working Paper 37.

Sixteen days later, on 15 February, a second maritime incident was reported on the other side of the Antarctic approximately 200 nautical miles from Cape Adare in the northern Ross Sea (73°38' South, 178°56' East). The Japanese-flagged whaling support vessel *Nisshin Maru* suffered a serious fire, resulting in the death of a crewman and the loss of engine power. Other whaling vessels came to its assistance and two secured themselves to the vessel. USCG *Polar Sea* and Greenpeace's M/V *Esperanza* offered assistance. *Nisshin Maru* reported re-established engine power on 25 February, and thereafter it left the Antarctic Treaty area for Japan accompanied by other vessels of the Japanese whaling fleet.⁷

Objectively viewed, these two incidents posed similar sorts of risks – to human safety and (the focus here) to the Antarctic environment, most obviously the release of hydrocarbons and other polluting materials. Both occurred in the Antarctic Treaty area, and all involved states (flag, operating and responding) were Antarctic Treaty Consultative Parties. However, the manner in which the two incidents were handled and reported, and the policy and operational management lessons seemingly learned⁸, are strikingly different.

In the case of the *Nordkapp*, the flag state (Norway) provided immediate notification of the incident through the Antarctic Treaty Secretariat to all Parties, Observers and Experts;⁹ and subsequently provided a nine-page report to the 2007 Antarctic Treaty Consultative Meeting.¹⁰

In the case of the *Nisshin Maru*, the flag state (Japan) appears to have dealt only with the relevant Search and Rescue Centre (New Zealand) and did not itself provide any report on the incident, although a report was provided by New Zealand.¹¹

The differences however, are not just in the post-incident treatment, but the underlying environmental obligations that the two vessels had to meet. The tourist vessel was required to provide prior notification of its activities and complete an EIA, the whaling vessel was not. When these two vessels suffered misadventure in essentially the same Antarctic marine environment the affected international community was in an appreciably better position to respond to one than it was to the other.

7 New Zealand (2007) 'Fire on Board the Japanese Whaling Vessel Nisshin Maru'. XXX Antarctic Treaty Consultative Meeting Information Paper 40.

8 The Nordkapp incident was a significant stimulant to discussion of appropriate management of Antarctic tourism at XXX ATCM in May 2007 – see paragraphs 110-114 of Final Report (Part 1) at <http://30atcm.ats.aq/30atcm/Documents/docFinalReport.aspx> (last accessed 18.6.07). A UK official was reported as describing it as “a big wake-up call” – Tricia Holy Davis, 'Tourism threatens Antarctica', Times Online 5 June 2007 http://travel.timesonline.co.uk/tol/life_and_style/travel/holiday_type/cruises/article1886800.ece (last accessed 18.6.07)

9 Norway 'Notification regarding a cruise ship incident at Deception Island'. Antarctic Treaty Secretariat Circular ATS/2007/C2e, 2 February 2007; Norway 'Follow-up notice regarding the cruise ship incident at Deception Island' Antarctic Treaty Secretariat Circular ATS/2007/C4e, 7 February 2007.

10 Norway (2007) 'The M/S Nordkapp incident'. XXX Antarctic Treaty Consultative Meeting Working Paper 37.

11 New Zealand (2007) 'Fire on Board the Japanese Whaling Vessel Nisshin Maru'. XXX Antarctic Treaty Consultative Meeting Information Paper 40.

The primary reason for the different handling of these two incidents is clear. One involved a vessel subject to the obligations under the 1959 Antarctic Treaty¹² and the 1991 Protocol on Environmental Protection to the Antarctic Treaty¹³ (Protocol) - components of the ATS; the other involved a vessel not believed to be subject to the ATS, but to obligations under the 1946 International Convention for the Regulation of Whaling¹⁴ and its International Whaling Commission (IWC).

Whilst a pairing of ATS and IWC obligations throws light on generic differences in obligation between ATS and non-ATS instruments applying here,¹⁵ differences are also evident within the ATS between the Protocol and other components dealing with harvesting activities, most immediately in relation to marine harvesting under the 1980 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR).¹⁶ Were we ever to have to deal with a resumption of commercial sealing, similar issues might also arise in relation to the 1972 Convention for the Conservation of Antarctic Seals (CCAS).¹⁷

II. Environmental Values of Application to the Antarctic

The Antarctic is subject to a (in global terms) relatively sophisticated level of environmental protection through a network of regional and global obligations. Central to this are the Antarctic Treaty and Protocol, which together seek to minimise the environmental consequences of many of the activities taking place south of 60° South latitude.

More generally, the principles and concepts developed in global fisheries instruments such as the 1982 United Nations Convention on the Law of the Sea (UNCLOS)¹⁸, the 1995 Straddling Fish Stocks Agreement,¹⁹ the 1993 FAO Compliance Agreement²⁰ and the FAO Code of Conduct for Responsible Fisheries are of undoubted application to fisheries activities taking place within the Antarctic.

Activities other than fishing taking place on, in or under the Southern Ocean must comply with Part XII of UNCLOS which establishes a general framework within which standards for the protection of the environment are articulated. Scientific

12 402 UNTS 71.

13 30 ILM 1455.

14 161 UNTS 74.

15 e.g. The Convention for the Conservation of Southern Blue-Fin Tuna (CCSBT) 1819 UNTS 359. See: Hemmings, AD (2006) 'Regime Overlap in the Southern Ocean: The Case of Southern Bluefin Tuna and CCSBT in the CCAMLR Area'. New Zealand Yearbook of International Law 3: 207-217.

16 19 ILM 841.

17 11 ILM 251.

18 21 ILM 1261. In particular see Articles 116-120.

19 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. 34 ILM 1542.

20 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas. 33 ILM 968.

research activities are not excluded from regulation for the purposes of environmental protection under either the ATS²¹ or UNCLOS.²²

Currently, six core environmental concerns appear to underlay Antarctic environmental protection:

1. sustainable development / sustainable management of resources;
2. prevention of environmental harm;
3. conservation of biodiversity;
4. precaution;
5. management of the ecosystem as a whole; and
6. protection of interests of future generations.

These values are implemented in the Antarctic by means of a variety of environmental tools. One of the most significant of these tools is the process established under the auspices of the Protocol for the assessment of the environmental impacts of activities on the Antarctic environment.

Sustainable Development / Sustainable Management of Resources

The sustainable management of fish stocks is the core value which underpins not only global fisheries agreements, but also CCAMLR. Article 2 of the Straddling Fish Stocks Agreement stipulates that the objective of the Agreement “is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks.” Although the CCSBT does not explicitly use the term “sustainable development” or “sustainable management” the essence of this value is arguably encompassed in the CCSBT dual aim of conservation and optimum utilisation of southern bluefin tuna.²³ Similarly, while the adoption of CCAMLR pre-dates the coining of the term “sustainable development”, the concept is undoubtedly embedded in its objectives described in Article II as the conservation and rational use of Antarctic marine living resources. Likewise CCAS seeks to promote and achieve the objectives of protection, scientific study and rational use of Antarctic seals.²⁴ The ICRW also eschews an express use of the term but emphasises in its preamble the need to establish a system of regulation to ensure the proper and effective conservation and development of whale stocks.

Sustainable development is not a consideration restricted only to fisheries activities in the Antarctic. During the 2006-07 season an estimated 37,506 tourists visited the Antarctic, a 14 percent increase on the previous season.²⁵ To date, beyond some obligations in relation to insurance and reporting and some hortatory injunctions in

21 e.g. Article 3(4) Protocol

22 Part XIII of UNCLOS.

23 Article 3.

24 Preamble

25 Paragraph 143 in Draft Final Report of the Thirtieth Antarctic Treaty Consultative Meeting (2007) Secretariat of the Antarctic Treaty, Buenos Aires.

relation to landings from ships carrying more than 500 passengers,²⁶ tourism has been subject to only the generic legal obligations of the Protocol, essentially EIA alone.²⁷ However, the ever increasing numbers of tourists, expeditions and vessels,²⁸ the use of very large cruise ships²⁹ which are not ice-strengthened and registered in non-Party states (or dependent territories of Parties), and fears of shore-based tourism development, has prompted the Antarctic Treaty Consultative Meeting to examine the case for developing further rules.³⁰ The emphasis is on the sustainable development of the Antarctic tourist industry taking into consideration the fragile and pristine nature of the environment.

Prevention of Environmental Harm

The prevention of environmental harm or damage to the Antarctic environment clearly has its roots in Article V of the Antarctic Treaty which prohibits nuclear explosions and the disposal of nuclear waste within the Antarctic Treaty area. It is notable that this prohibition has been regarded as absolute and interpreted as precluding the disposal of nuclear material within the Southern Ocean south of 60° South, notwithstanding the contingent nature of that prohibition in Article V(2),³¹ and that dumping of low level nuclear waste at sea more generally was permitted under the 1972 London Convention until at least 1983.³² More generally, the Protocol establishes wide-ranging principles designed to prevent adverse impacts on all aspects of the Antarctic environment, including its climate, terrestrial, freshwater and marine environments, and native species of fauna and flora.

The principle of prevention is also embedded in Part XII of UNCLOS and this is exemplified by Article 194(1) which stipulates that “States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practical means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.” The general obligation to prevent harm to areas beyond national

26 Resolution 4 (2007) Ship-based Tourism in the Antarctic Treaty Area in Draft Final Report of the Thirtieth Antarctic Treaty Consultative Meeting (2007) Secretariat of the Antarctic Treaty, Buenos Aires.

27 Hemmings, AD and Roura, R (2003) ‘A square peg in a round hole: fitting impact assessment under the Antarctic environmental protocol to Antarctic tourism’ *Impact Assessment and Project Appraisal* 21: 13-24.

28 Bastmeijer, K and Roura, R (2004) ‘Regulating Antarctic tourism and the precautionary principle’ *American Journal of International Law* 98: 763-781.

29 The largest vessel ever to operate in the Antarctic, the 109,000 ton Bermuda-registered Golden Princess took 2700 passengers and crew to the Antarctic Peninsula in the 2006-07 season. Hemmings, AD (2006) ‘Antarctica’s tourism peril’ 21 October. *The Advertiser Review*: 3.

30 See, e.g. paragraphs 142-186 and meeting papers referred therein, in Draft Final Report of the Thirtieth Antarctic Treaty Consultative Meeting (2007). Secretariat of the Antarctic Treaty, Buenos Aires.

31 Article V(2) notes that “in the event of conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material .. the rules established under such agreements shall apply in Antarctica”.

32 In 1983 a moratorium on the dumping of low level radioactive waste was agreed under the auspices of the 1972 London Convention. In 1993 the London Convention was amended so as to prohibit the dumping of low level radioactive waste and this prohibition entered into force in 1994.

jurisdiction, which would encompass Antarctica and most of the Southern Ocean, as articulated in Principle 2 of the 1992 Rio Declaration, is also a principle of customary international law.³³

Conservation of Biodiversity

The third core value which can be regarded as fundamental to the protection of the Antarctic environment is that of conservation. The various instruments seeking to promote the sustainable management of fish and marine mammal stocks all emphasise the importance of conserving stocks in order to facilitate their rational exploitation. Annex II of the Protocol imposes a much stricter level of protection in respect of fauna and flora native to the Antarctic Treaty area. The taking or harmful interference with native fauna and flora is generally prohibited subject to limited exceptions. Species designated “Specially Protected” are listed in Appendix A of Annex II. With the removal of fur seals from the list in 2006³⁴ the only taxa currently on the list are Ross seal, although the case for listing of populations of southern giant petrel and macaroni penguin is under consideration.

Precaution

The precautionary principle / approach³⁵ is a standard feature in many global and regional environmental agreements and provides a valuable tool for environmental decision makers when they are operating in a context of scientific uncertainty.³⁶ In contrast to most other regions, the precautionary principle / approach is conspicuously absent from the body texts of most of the instruments noted above.³⁷ The exception is the 1995 Straddling Fish Stocks Agreement, which calls on states at Article 6 to “apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.” Article 6 and Annex II of the Agreement set out the mechanisms by means of which states must

33 “The existence of the general obligation of states to ensure that activities within their own jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment.” Separate opinion of Judge Weeramantry in *Gabcikovo-Nagymaros Case (Hungary-Slovakia)* ICJ Judgement of 25 September 1997.

34 Measure 4 (2006) Specially Protected Species: Fur Seals.

35 The term “approach” is increasingly adopted by states as opposed to the term “principle” as a result of the perception that it provides greater flexibility in the implementation of policies and programmes. See generally: Hey, E (1992) ‘The Precautionary Concept in Environmental Policy and Law: Institutionalising Caution’. *Georgetown International Environmental Law Review* 4: 303 - 318.

36 See generally: Freestone, D and Hey, E (eds) (1996) *The Precautionary Principle and International Law: The Challenge of Implementation*. Kluwer Law International; Trouborst, A (2002) *Evolution and Status of the Precautionary Principle in International Law*. Kluwer Law International.

37 There is no definitive articulation of the precautionary principle / approach and the content of this principle varies according to context. The most common formulation may be exemplified by Principle 15 of the Rio Declaration:

“In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation.”

implement the precautionary approach. In particular, parties must take special measures in relation to new or exploratory fisheries as well as stocks for which information on their status is uncertain, unreliable or inadequate.

Nevertheless, the omission of an express reference to the precautionary principle / approach in the body text of instruments of application to the Antarctic does not preclude its application to the region. Both ICRW and CCAMLR are in the process of developing management and conservation strategies which are undoubtedly precautionary in approach. The Revised Management Procedure (RMP) which has been developed by the Scientific Committee of IWC, and adopted by the IWC in 1994, has been expressly designed to operate in light of considerable uncertainty over whale numbers. The moratorium on commercial whaling adopted by the Commission in 1982 and effective from 1985 – 1986 can itself be categorised as a precautionary measure. Article 2(3)(c) of CCAMLR, which seeks to establish a principle whereby changes in the marine ecosystem that are not potentially reversible over two or three decades should be prevented, might be categorised as a crude approximation of the precautionary principle. More convincingly, the more recent approach of the CCAMLR Commission towards the management of new and exploratory fisheries is undoubtedly precautionary.³⁸ Both CCAMLR and CCAS were in fact adopted for the purpose of regulating industries which had yet to commence and thus, in this sense, can be regarded as archetypal precautionary instruments.

Whereas the historical management of Southern Ocean fish stocks has not been traditionally precautionary, other activities taking place within the region have, in general, proceeded with caution.

The omission of a direct textual reference to the precautionary principle in the Protocol does not preclude an interpretation of its provisions so as to implement a precautionary approach to the management of activities taking place south of 60° South. The clearest example³⁹ of the precautionary principle in action under the Protocol is provided for by Article 7, which prohibits all activity relating to mineral resources with the exception of scientific research.⁴⁰ Whilst some commentators have seen the Protocol as adopting only a “weak application of the principle” in general⁴¹ (and specifically contrasted this perceived general weakness with the strong application to mining) there is surely evidence of the precautionary approach in its critical “Environmental Principles”.⁴² Further, Parties must expressly consider scientific uncertainty and knowledge gaps as part of the high level EIA termed a

38 CM 21 – 01 (2006), Notification that Members are Considering Initiating a New Fishery; 21 – 02 (2006), Exploratory Fisheries; CM 41 – 01 (2006) General Measures for Exploratory Fisheries for *Dissostichus* spp. in the Convention Area in the 2006/7 Season. Conservation Measures 41 – 04 – 41 – 11 (all 2006) impose limits on exploratory fisheries for *Dissostichus* spp. within a number of CCAMLR statistical areas. Conservation Measures 51 – 01 to 51 – 03 set precautionary catch limitations on *Euphausia superba* within a number of CCAMLR statistical areas.

39 “one of the most extreme illustrations of the precautionary approach” – Rothwell, DR (2000) ‘Polar environmental protection and international law: the 1991 Antarctic Protocol’. *European Journal of International Law* 11: 591-614 at 608.

40 This ban may be subject to review after 50 years from the date of entry into force of the Protocol (1998) - Article 25(2).

41 Scott, SV (2001) ‘How cautious is precautionary?: Antarctic tourism and the precautionary principle’. *International and Comparative Law Quarterly* 50: 963-971 at 970.

42 Article 3 – particularly paragraphs 2 and 3.

Comprehensive Environmental Evaluation (CEE).⁴³ Activities are subject to EIA procedures in the event that they are *likely* to have a minor or more than transitory impact on the environment.⁴⁴ Moreover, activities which *threaten* to result in the negative environmental impacts outlined in Article 3 of the 1991 Environmental Protocol must be modified, suspended or cancelled.⁴⁵ In neither case is the relevant obligation dependent upon scientific proof that the activity in question will have more than a minor or transitory impact on the environment or will damage the environment contrary to Article 3 of the Protocol.

By contrast, there are few examples of obligations which might be categorised as expressly precautionary under the auspices of UNCLOS. Nevertheless, the reference to “substances or energy... which results or is *likely to result* in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities” in the definition of pollution under Article 1(4) of the Convention⁴⁶ provides at least some scope for the interpretation of its environmental obligations so as to implement a precautionary approach. Moreover, UNCLOS should be interpreted in light of Chapter 17 of Agenda 21 which expressly advocates precautionary and anticipatory approaches to marine environmental management.⁴⁷ It is notable that all reports thus far produced by the United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea have noted the importance of the precautionary principle in relation to various aspects of marine environmental protection, and precaution as a principle has been endorsed by the UN General Assembly with special reference to areas beyond national jurisdiction.⁴⁸

A thorough examination of whether the precautionary principle is now a principle of customary international law is beyond the scope of this paper. The precautionary principle is routinely incorporated into modern environmental instruments. Its origins as a substantive principle of environmental protection can be traced to the North Sea Declarations in the mid – 1980s,⁴⁹ but it is now an entrenched feature of most regional seas instruments.⁵⁰ Beyond the marine environment, the precautionary

43 Article 3(2)(j) of Annex 1 to the 1991 Environmental Protocol. A CEE is required in respect of activities likely to have more than a minor or transitory impact on the Antarctic environment. For a more detailed discussion of the environmental impact procedures under Annex 1 of the Protocol see Part II of this article.

44 Annex 1 of the 1991 Environmental Protocol

45 Article 3(4)(b) of the 1991 Environmental Protocol

46 Emphasis added.

47 See paragraphs 17.21 and 17.22(a) of Chapter 17 of Agenda 21.

48 GAR 58/240, 5 March 2004. The General Assembly invited “global and regional bodies, in accordance with their mandates, to investigate urgently how to better address, on a scientific basis, including the application of precaution, the threats and risks to vulnerable and threatened marine ecosystems and biodiversity in areas beyond national jurisdiction.” (At paragraph. 52). For an extensive survey of the relationship between the precautionary principle and UNCLOS see S. Marr (2003) *The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law*.

49 See Article VII of the 1987 Declaration of the Second International North Sea Conference (London).

50 See for example the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic, Article 2(2)(a), 32 ILM (1993) 1072; 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area, Article 3(2), BNA 35:0401; 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean,

principle has been incorporated within instruments for the protection all aspects of the environment including the atmosphere,⁵¹ biodiversity conservation,⁵² the control of genetically modified organisms,⁵³ and the regulation of pollutants.⁵⁴ However, as noted eloquently by Fisher, “precaution spotting” does not necessarily “aid the development of a common understanding of the principle”⁵⁵ nor it is suggested, does it in of itself establish its status as a principle of customary international law. Despite its regular inclusion within global and regional instruments (and increasingly, national law), there is no common formulation of the principle which has been accused of displaying an elusive kaleidoscopic character.⁵⁶ The texts of most of the instruments cited above vary in relation to both the level of harm and the degree of scientific uncertainty necessary to trigger an application of the principle. Nevertheless, the notion of precaution has been referred to by a number of international judicial bodies including the International Tribunal for the Law of the Sea (ITLOS) in the *Bluefin Tuna Case* and the International Court of Justice. Support for its status as an emerging principle of international law can be found in the dissenting opinions of Judges Palmer and Weeramantry in the *Nuclear Tests Case*.⁵⁷ In the *Gabčíkovo-Nagymaros Dam Case*, Judge Weeramantry noted that the precautionary principle amongst others provided a setting for the development of the concept of sustainable development.⁵⁸

Although it is too simplistic to categorise the precautionary principle as either customary international law or not yet customary international law,⁵⁹ it can, as illustrated by a number of the instruments and judicial decisions cited above, “be applied in a meaningful way without being codified and without deciding that the principle constitutes customary law.”⁶⁰ Nevertheless, consensus amongst scholars is emerging that, at a minimum, the obligation not to use scientific uncertainty as a basis for action or inaction where threats to the environment are serious or irreversible can

Article 4(3)(a) amending the 1976 Barcelona Convention for the Protection of the Mediterranean Against Pollution. Amended text available online at <<http://www.unep.ch/seas/hconlist.html>>

51 1987 Protocol on Substances that Deplete the Ozone Layer, 26 ILM (1987) 1550. In force 1989. The principle was incorporated by means of amendments adopted in 1990. Current amended text, UNEP, Handbook of the Montreal Protocol; 1992 UNFCCC, Article 3(3).

52 1992 Convention on Biological Diversity, 31 ILM (1992) 818, preamble; 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, 12 ILM 1084 (1973). The principle was endorsed by Resolution Conf. 9.24, Annex 4, (1994).

53 2000 Protocol on Biosafety to the 1992 Convention on Biological Diversity, 39 ILM 1027 (2000), Articles 1, 10(6) and 11(8).

54 2001 Convention on Persistent Organic Pollutants, 40 ILM 532 (2001), Articles 1, 8(7) and 8(9).

55 Fisher, E (2002) ‘Precaution, Precaution Everywhere: Developing a Common Understanding of the Precautionary Principle in the European Community’. *Maastricht Journal of European and Comparative Law* 9: 7 – 28 at p. 8.

56 Van Dyke, JM (2004), ‘The Evolution and International Acceptance of the Precautionary Principle’ in Caron, DD and Scheiber, HN (eds), *Bringing New Law to Ocean Waters*, Koninklijke Briss N. V.: 357 – 379 at p. 358

57 Request for an Examination of the Situation in Accordance with the Court’s Judgement in the Nuclear Tests Case, ICJ Rep. (1995) 288 at pp. 412 and 342 respectively.

58 *Gabčíkovo-Nagymaros Dam Case (Hungary v. Slovakia)* ICJ Rep. (1997) 7 at p. 89

59 Birnie, P and Boyle, A (2002) *International Law and the Environment* (2nd ed). Oxford University Press at p. 120

60 Wolfrum, R ‘Precautionary Principle’ in Beurier, J-P et al (2000) *New Technologies and the Law of the Marine Environment*. Kluwer Law: 203 – 213 at p. 211.

be regarded as a norm of customary international law.⁶¹ This obligation is arguably of application in connection with activities taking place within the Antarctic and Southern Ocean independently of any treaty obligation.

Holistic Management of the Antarctic Ecosystem

The objective of the Protocol is the protection of the Antarctic environment and (undefined) *dependent and associated ecosystems*.⁶² Nevertheless, as an instrument intimately connected to the Antarctic Treaty, its scope would appear to be essentially limited to the area south of 60° South, notwithstanding the fact that the Antarctic environment is more sensibly bounded by the Antarctic Convergence (which in places is as far north as 45° South). Moreover, although the Protocol establishes a framework for the detailed assessment of individual activities taking place within the Antarctic Treaty area to which it applies, and a duty in relation to considering cumulative impact the practice is rather limited. There is as yet neither full compliance nor, to be fair, clarity about the methodology for so doing, even across the field of activities clearly understood to fall under the Protocol, let alone “in combination with other activities in the Antarctic Treaty area”⁶³ (such as fishing or whaling) which are regulated under other instruments.

CCAMLR is of express application to the Antarctic ecosystem and applies to all marine living resources found south of the Antarctic convergence.⁶⁴ Moreover, the ecological relationships between targeted and dependent species located within the CCAMLR area must be maintained as part of the management of Southern Ocean fish stocks.⁶⁵ Responding to this mandate, the CCAMLR Commission has recently adopted a number of resolutions seeking to minimise the incidental mortality of seabirds, marine mammals and sharks in the course of both longline and trawl fishing.⁶⁶

Minimising by-catch and other negative environmental impacts of fishing provides an important principle of fisheries management under UNCLOS,⁶⁷ and more particularly, the 1995 Straddling Fish Stocks Agreement.⁶⁸ A Working Group on Ecologically

61 See Marr, S, op. cit n. 32 at pp. 215 – 219; Trouwborst, A, op. cit n. 21 at p. 286; Van Dyle, JM, op. cit n. 41 at p. 357; See also Birnie and Boyle, op. cit n. 45 at p. 120 where they suggest that it has reached the status of a principle of law upon which decision makers may rely without actually describing the principle as customary in nature.

62 Article 2 (emphasis added).

63 Article 3(2)(c)ii

64 Article I(1) and (2) of CCAMLR. It should be noted that Article VI stipulates that “[n]othing in this Convention shall derogate from the rights and obligations of Contracting Parties under the International Convention for the Regulation of Whaling and the Convention for the Conservation of Antarctic Seals.”

65 Article II(3)(b) CCAMLR

66 CM 24 – 02 (2005), Longline Weighting for Seabird Conservation; CM 25 – 02 (2005), Minimisation of the Incidental Mortality of Seabirds in the Course of Longline Fishing or Longline Fishing Research in the Convention Area; CM 25 – 03 (2003) Minimisation of the Incidental Mortality of Seabirds and Marine Mammals in the Course of Trawl Fishing in the Convention Area; CM 32 – 18 (2006), Conservation of Sharks; CM 33 – 03 (2006), Limitation of By-catch in New and Exploratory Fisheries in the 2006/7 Season;

67 Article 119(1)(b) of UNCLOS

68 Article 5(d) – (g) of the Agreement.

Related Species (ERS) has been established by the parties to the CCSBT for the purpose of providing information and advice on species affected by SBT fisheries operations and predator and prey species which may affect the condition of the SBT stock.

Interests of Future Generations

The final value which is identified as being of particular significance to the environmental protection of the Antarctic is the protection of the interests of future generations. The interest of all mankind, and arguably future generations, is expressly recognised in the Preambles to the Antarctic Treaty,⁶⁹ CCAMLR⁷⁰ and the Protocol.⁷¹ The interest of future generations in the fish stocks located in the Southern Ocean⁷² is not expressly articulated in any of the fisheries instruments discussed above, but is explicitly included in the preamble to the ICRW.⁷³ Nevertheless, the interest of future generations is implicitly recognised within the principles of precaution and conservation which, as noted above, are provided for within these instruments.

The six values identified in this part provide the conceptual underpinnings of environmental protection in the Antarctic. These values are operationalised and implemented by means of a variety of environmental tools described in Part II of this paper. The most important of these tools, EIA, plays a fundamental role in implementing, to a greater or lesser extent, all six environmental values described above.

III. Environmental Tools used to Implement the Commitment to these Values

Commitment to these core environmental values is evidenced by the inclusion of a variety of environmental tools within ATS components. These tools include prescriptive operating standards, the ability to designate specially protected and specially managed areas, monitoring and EIA. The focus here is on EIA as the most important of these tools.

Environmental Impact Assessment (EIA)

Morgan⁷⁴ notes “The concept of EIA is deceptively simple: it is to consider the likely environmental consequences of a proposed action and in light of that knowledge to identify possible responses.” Presently, within the ATS, the only obligation for EIA is

69 Second recital.

70 Ninth recital.

71 Eighth recital.

72 “Southern Ocean” here includes waters south of the Antarctic Convergence, rather than the International Hydrographic Organisation delimitation to waters south of 60° South in IHO Special Publication S-23 (2000).

73 First recital.

74 Morgan, RK (1998) *Environmental Impact Assessment: A Methodological Perspective*. 3.

found within the Protocol.⁷⁵ The Protocol prohibits mining⁷⁶ but builds on CRAMRA environmental standards and applies those standards to human activity in the Antarctic Treaty region. It also incorporates many of the mechanisms found in the Agreed Measures and in the number of Recommendations adopted through the years prior to the Protocol that related to environmental management and protection.

Article 8 of the Protocol states that “...any activities undertaken in the Antarctic Treaty area pursuant to scientific research programs, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required under Article VII(5) of the AT...” are to be subject to assessment procedures set out in Annex I of the Protocol. This requires further consideration on two points. First, which activities require advance notice; and second, what level of EIA is required?

Article 8 of the Environmental Protocol also prescribes a three-tiered approach, corresponding to a Preliminary stage⁷⁷ (sometimes termed Preliminary Assessment or Preliminary Environmental Evaluation PA/PEE), an Initial Environmental Evaluation (IEE)⁷⁸ or a Comprehensive Environmental Evaluation (CEE)⁷⁹. Annex 1 identifies the requirements for the three levels, separating activities that have a less than a minor or transitory impact from those that have a minor or transitory impact and those that have a more than minor or transitory impact.

Annex 1 prescribes that PEE is a national procedure whereby if an activity is deemed to involve a less than minor or a transitory impact then that activity may proceed. If however the preliminary assessment determines that the impacts from the activity will be minor or transitory than an IEE is required. The IEE requires a level a detail that would allow for determination as to whether the proposed activity would have more than a minor or transitory impact. If it does then a CEE is required. If the proposed activity does not, then the activity may proceed. IEE are also carried out under national procedures and guidelines. It is only if a proposed activity might result in a more than minor or transitory impact, so that a CEE is required, that the process becomes substantial and specific. It is only in the case of a CEE that the evaluation is circulated to Antarctic Treaty Parties, that the document is made publicly available and that the Committee for Environmental Protection (CEP) be presented with a copy within certain timeframes in order to consider the document for an upcoming ATCM.⁸⁰

The CEP after review of a CEE advises the ATCM based on the information provided. The Party that submitted the CEE may be asked to revise the CEE, may be asked to modify its activities so as to reduce likely impacts or may be asked not to proceed with the proposed activity in the case where the evaluation of the significance of the likely impacts outweigh the advantages of the proposed activity. A recent

⁷⁵ Rothwell notes that this is the first time that such an environmental standard has been created for a whole continent in international law.

⁷⁶ Article 7.

⁷⁷ Annex 1, Article 1.

⁷⁸ Annex 1, Article 2.

⁷⁹ Annex 1, Article 3.

⁸⁰ Annex 1, Article 3.

Information Paper notes, however, that of the 26 CEEs submitted for evaluation, not one of them “appears to have led to substantial modification of the activity as first elaborated by the proponent, nor to a single decision not to proceed with the activity.”⁸¹

Other Environmental Tools

The Protocol and CCAMLR in particular also include other environmental tools of significance. For the Protocol, in addition to Annex 1 which focuses on EIA, there are five additional technical annexes. These annexes include a variety of operational standards related to waste disposal and management from stations in the Antarctic⁸², pollution from vessels⁸³, and liability for environmental emergencies⁸⁴. Annex 2 essentially reflects the provisions of the Agreed Measures 1964⁸⁵, the annex prohibits the taking of or harmful interference with native fauna and flora except in accordance with a permit,⁸⁶ and prohibits the deliberate introduction of non-native species in to the region except, once again, in accordance with a permit.⁸⁷

Importantly, Annex 5 provides for the designation of Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMA). Any area including any marine area may be designated as an ASPA or ASMA to protect outstanding values.⁸⁸ Entry into any designated ASPA is by permit only⁸⁹ while entry into an ASMA does not require a permit.⁹⁰ Designation of ASPA and ASMA require submission and approval of a proposed Management Plan to an ATCM.⁹¹

IV. The Application of EIA to Fishing, Sealing and Whaling Activities in the Southern Ocean

In contrast to other activities taking place within the Southern Ocean, fishing, whaling and sealing activities are not normally subject to EIA obligations. Two instruments of application to the Antarctic marine environment require a wide range of activities to be subject to a prior EIA. These instruments comprise the Protocol and UNCLOS.

81 ASOC (2007) 'Strengthening the CEE Process' XXX Antarctic Treaty Consultative Meeting Information Paper 84.

82 Annex 3.

83 Annex 4.

84 Annex 6.

85 Recommendation III-VIII Agreed Measures for the Conservation of Antarctic Fauna and Flora.

86 Agreed Measures Article 3(1).

87 Agreed Measures Article 4 (1).

88 Annex 5 Article 3 (1).

89 Annex 5 Article 3 (4).

90 Annex 5 Article 4 (3).

91 Annex 5 Article 5 (1).

Article 8 of the Protocol stipulates that “...any activities undertaken in the Antarctic Treaty area pursuant to scientific research programs, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required under Article VII(5) of the AT...” are to be subject to assessment procedures set out in Annex I of the Protocol. Article 8 of the Protocol also prescribes a three-tiered approach, corresponding to a Preliminary stage (sometimes termed Preliminary Assessment or Preliminary Environmental Evaluation PA/PEE), an Initial Environmental Evaluation (IEE) or a Comprehensive Environmental Evaluation (CEE). Annex 1 identifies the requirements for the three levels, separating activities that have a less than a minor or transitory impact from those that have a minor or transitory impact and those that have a more than minor or transitory impact.

Article 206 of UNCLOS by contrast requires parties to carry out an environmental assessment where practicable, in circumstances where they have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial harm to the marine environment.

Neither EIA obligation has been interpreted by ATS states (or indeed any state) as being of application to fishing, sealing or whaling activities even where those activities take place in the Antarctic Treaty Area. In this part of the paper we explore some of the reasons behind this before going on to look at the justifications for subjecting fisheries and whaling activities to EIA obligations.

Support for the non-application of EIA obligations to marine harvesting activities can be found in a number of treaty provisions within both the Antarctic Treaty and the Protocol as well as (with one notable exception) in state practice.

Reservation of High Seas Rights under the Antarctic Treaty

Article VI of the Antarctic Treaty notes that the scope of the Treaty applies to the area south of 60° South Latitude, including all ice shelves “but that nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.” Although in the early days of the Antarctic Treaty some states maintained that Article VI supported the position that the Treaty was not of application to the marine environment, this argument was always weak and today is untenable. If the Antarctic Treaty was of no application to the marine environment then there would be no need to preserve high seas freedoms. Moreover, the practice of parties to the Antarctic Treaty appeared to confirm its application to the marine environment. The ban on the disposal of nuclear waste, for example, was treated as being of application to the marine environment. The conclusion of the Protocol further confirmed the application of both the Treaty and the Protocol to the marine environment. Annex IV specifically applies to vessel-source pollution, Annex V permits the designation of marine protected areas and Annex VI sets down rules relating to liability and compensation in connection with particular categories of maritime based accidents.

Nevertheless, whilst of application to the marine environment, the second part of Article VI of the Antarctic Treaty appears to exclude its application (and

subsequently, the application of the Protocol) to high seas rights or freedoms. Article VI does not stipulate what these high seas freedoms comprise, but at the very least, they must comprise the four freedoms as codified by the 1958 Geneva Convention on the High Seas⁹². An interesting side question is the extent to which the freedom of scientific research, a high seas freedom added by UNCLOS, can be included in this category and the impact that this might have for the application of the Treaty and Protocol for marine-based research. However, this is an issue for another day. For our purposes fishing was clearly a high seas freedom in 1959 and indeed still is (subject to the provisions of UNCLOS and other relevant instruments) today.

Therefore, although under Article 8 of the Protocol, EIA obligations apply to all activities for which advance notice is required under Article VII(5) of the Antarctic Treaty (and Article VII(5) refers to “all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory”⁹³) the reservation in Article VI of the Treaty has the effect of excluding its application to fisheries. With one limited exception, the practice of the Antarctic Treaty parties has supported this interpretation.

Of course it should be noted that there is nothing to prevent the parties to the Antarctic Treaty *voluntarily* restricting among themselves the operation of the high seas freedoms and they have in fact done so with the conclusion of CCAMLR and other relevant fisheries instruments.

Non-Derogation Clauses under the Protocol

The above interpretation of Article VI of the Antarctic Treaty is supported by evidence that the intention of the parties to the Protocol was that Protocol obligations should not override the obligations of parties under relevant fishery and harvesting instruments including CCAMLR, CCAS and ICRW. This is most clearly established in Article 4 of the Protocol, which notes that the Protocol supplements “the Antarctic Treaty and shall neither modify nor amend that Treaty” nor “derogate from the rights and obligations of the Parties to this Protocol under the other international instruments in force within the Antarctic Treaty system”. A related reference can be found in Article 7 of Annex II of the Protocol. Perhaps more clearly, the Final Act of the Eleventh Antarctic Treaty Special Consultative Meeting, which adopted the Protocol, declared that:

“The Meeting noted that nothing in the Protocol shall derogate from the rights and obligations of Parties under the Convention on the Conservation of Antarctic Marine Living Resources, the Convention for the Conservation of Antarctic Seals and the International Convention for the Regulation of Whaling”.⁹⁴ Most pertinently, the Meeting went on to say that “[w]ith respect to the activities referred to in Article 8 [EIA], the Meeting noted that it was not intended that those activities should include activities undertaken in the Antarctic Treaty area pursuant to the Convention on the

92 450 UNTS 82.

93 Article VII(5)(a).

94 Seventh Recital.

Conservation of Antarctic Marine Living Resources or the Convention for the Conservation of Antarctic Seals”.⁹⁵

State Practice in relation to Advance Notification

To our knowledge, with the exception of New Zealand for a few years (discussed below), no Contracting Party to the Antarctic Treaty has included whaling, sealing or fishing expeditions in its Antarctic Treaty Article VII(5) advance notification - what has become the annual Exchange of Information.

The Antarctic Treaty entered into force in 1961, and accordingly we now have 46 years of state practice to draw upon. It suggests that Parties to the Antarctic Treaty do not believe that marine resource harvesting activities (whether whaling, sealing or fishing) require advance notification. This situation seems unlikely to change anytime soon.

The XXX ATCM in New Delhi saw the tabling of a paper on the activities covered by Article VII(5) of the Antarctic Treaty.⁹⁶ The paper proposed a two-step process: a collection of actual state practice in relation to the identification of activities covered by Article VII(5); and the adoption at XXXI ATCM of an indicative list of the activities covered. The rationale for these efforts was to clarify the activities to be covered by EIA, which was seen as particularly important in relation to liabilities under Annex VI.⁹⁷ There was only limited interest in the proposals, and although in the language of the ATCM “some delegations” thought this might be useful, there was no consensus on anything and only an open-ended suggestion that those interested pursue it through “informal consultations on liability”.⁹⁸ It was quite clear that for a number of delegations, delving into the activities that were subject to Article VII(5) was not going to be acceptable.⁹⁹

The Nisshin Maru at XXX ATCM

Japan, and some other states with active whaling and/or fishing interests, were determined that beyond some very limited statements, the question of environmental risks associated with activities not, in their judgement, covered by the Protocol (i.e. fishing and whaling), let alone the differential treatment of these activities in relation to EIA and response action, would not be discussed in the ATCM. Furthermore, even amongst the states most vocal in opposition to Japanese Antarctic whaling, who were

95 Eighth Recital.

96 The Netherlands (2007) ‘Identification of Activities Covered by Article VII.5 of the Antarctic Treaty’. XXX Antarctic Treaty Consultative Meeting Working Paper 34.

97 Annex VI – Liability Arising from Environmental Emergencies.

98 Paragraph 51 in Draft Final Report of the Thirtieth Antarctic Treaty Consultative Meeting (2007) Secretariat of the Antarctic Treaty, Buenos Aires.

99 ADH was a participant in XXX ATCM.

the main speakers in this discussion¹⁰⁰, there was no interest in opening up the central whaling conflict at the ATCM.

So, the discussion skirted around the issue and was really only possible at all because New Zealand tabled an Information Paper on the incident in its capacity as the state responsible for the search and rescue region in which the incident occurred. To a UK proposal that Japan might provide the next ATCM with the lessons of the incident, following the Japanese maritime enquiry, “Japan stated that it would not be constructive to further discuss the Nisshin Maru incident in the next meeting because further discussion on this incident might lead to discussion on the whaling issue, on which Parties had differing views.”¹⁰¹

This session shows the very severe difficulties posed by any sort of ATS interest in whaling issues, and suggests the improbability of ever, in a system where decision-making requires consensus, being able to get agreement to extend specific Protocol (or other ATS) obligations, such as prior EIA, to whaling activities.

The New Zealand Exception

New Zealand has provided an exception to the otherwise general non-application of EIA to fishing activities. This seems likely to have in part arisen through the particular circumstances obtaining during the development of New Zealand’s main domestic Protocol-implementing legislation, the *Antarctica (Environmental Protection) Act 1994*.¹⁰²

The process of elaboration and enactment, over a two year period, occurred at a time when New Zealand, whilst a CCAMLR Commission Member, was not itself actively engaged in fishing activity in the area. New Zealand fishing activity commenced in 1996-97 in the Ross Sea with a single vessel, and has expanded and continued to date. New Zealand vessels now harvest Patagonian and Antarctic toothfish in this area. But, at the time that New Zealand was developing its Protocol implementing legislation, it was not a CCAMLR fishing state the implications of any general duty to conduct prior EIA were not seen as problematical. Indeed in the atmosphere of the time, the fact that the legislation did not provide obvious escape clauses for certain classes of activity was seen as progressive.

The Act applies to, *inter alia*, “a New Zealand ship”, “Any other ship, whether registered or not and of whatever nationality, which proceeds from New Zealand as its final point of departure for Antarctica.”¹⁰³ Although exceptions are provided in respect of members of other Parties’ official expeditions, ships and aircraft, and observers or exchanged scientists, no reference is made to activities conducted under ICRW, CCAS or CCAMLR. If a New Zealand expedition of any sort plans to go to

100 New Zealand, the United Kingdom and the United States. Interestingly, no Australian statement was recorded in the ATCM Final Report.

101 Paragraph 229 in Draft Final Report of the Thirtieth Antarctic Treaty Consultative Meeting (2007) Secretariat of the Antarctic Treaty, Buenos Aires.

102 Protocol Annex IV was given effect through the Maritime Transport Act 1994.

103 s 2(d).

Antarctica, it is captured by the legislation and that entails prior EIA. New Zealand has adopted a practice of requiring Preliminary Assessment for the majority of individual science proposals, IEE for larger scientific projects, tourist and fishing voyages, and (as these occurred) CEE for major scientific infrastructure projects.

Following the adoption of Resolution 6 (1995)¹⁰⁴, Consultative Parties provide an annual list of their CEEs and IEEs to the Secretariat, which maintains a cumulative listing. From the entry into force of the Protocol in 1998, New Zealand included IEEs prepared for Exploratory Fishing in CCAMLR sub-areas 88.1 and 88.2 in its notifications.

The Peruvian Secretariat's list at XXXIII ATCM in 1999 showed seven such IEEs, three relating to "winter 1998" and four relating to "1998/99 season".¹⁰⁵ At XXIV ATCM in 2001 the updated list circulated by the Secretariat¹⁰⁶ led the UK to "the opinion that inclusion of EIAs which addressed the activities of fishing vessels was not appropriate. Such activities are addressed by other components of the Antarctic Treaty System, or other treaties. The compliance of fishing vessels was therefore best dealt with through normal port state inspection provisions rather than EIAs under the Protocol".¹⁰⁷

Although New Zealand responded that the IEEs had only addressed issues not covered by CCAMLR¹⁰⁸ this essentially saw the end of the New Zealand practice. The UK's position had also been argued by Australia, the US and others. Whilst New Zealand continued to require IEE for fishing activities by its nationals, it ceased to include these in the annual list of EIAs it provided to the Secretariat.

If significant ATCPs, who see themselves as being at the progressive end of the spectrum on EIA and environmental considerations in relation to Antarctic fishing under CCAMLR, with strong relations with New Zealand, were not prepared to tolerate its application of EIA to its own fishing activities, the prospects for extending Protocol-based EIA into IWC are surely bleak indeed. However, there is an exception to the general non-application of EIA to whaling activities, again with a New Zealand connection.

The IWC EIA

Given the absence of any obligation to conduct EIA under ICRW, and the widely held view of states which are party to both ICRW and the Protocol that the EIA obligations of the Protocol do not extend to whaling activities, it is interesting to note that there has been at least one EIA for IWC related activities.

104 XIX ATCM Resolution 6 (1995) Environmental Impact Assessment: Circulation and Information.

105 Secretariat (1999) 'A Summary of Environmental Impact Assessments' XXIII Antarctic Treaty Consultative Meeting Information Paper 10 Rev.2.

106 Secretariat (2001) 'Annual List of Initial Environmental Evaluations and Comprehensive Evaluations 2000/2001' XXIV Antarctic Treaty Consultative Meeting Information Paper 10.

107 Paragraph 37 in Final Report of the Twenty-fourth Antarctic Treaty Consultative Meeting (2001).

108 Paragraph 38 Ibid.

In January 2001 the IWC Secretariat did in fact submit an IEE to New Zealand for the 2000-2001 International Whaling Commission-Southern Ocean Whale and Ecosystem Research (IWC-SOWER) Circumpolar-Cruise, specifically to meet New Zealand's Protocol-implementing legislation. Whilst the IEE document is not a particularly substantial document, it is clearly an EIA. Why, in the final instance, the IWC agreed to do this is not entirely clear, but the following may be factors:

- The activity was in the eastern Ross Sea (an area within what New Zealand terms the Ross Dependency);
- Presumably New Zealand had made an issue about the need for EIA;
- The research programme had strong New Zealand (as well as Japanese) involvement;
- The final port of departure was Wellington, New Zealand;
- It was non-lethal as far as whale were concerned; and
- It could be seen as scientific research, which is expressly covered by the Protocol.

Perhaps the last three factors meant that it was not viewed as creating any unfortunate precedents. No lethal whaling expedition would be likely to be permitted to use a New Zealand (or Australian) port as its final departure point, so no similar logistic imperatives have presented themselves, and the direct involvement of a New Zealand or Australian citizen or resident in such an activity would be illegal.

This EIA appears to have had no substantive effect on either the general rejection by governments of EIA for IWC-related activities, and it has not informed the basis for subsequent calls to conduct EIA made by critics of whaling. However, since some Parties appear to hold that *any* activity in relation to cetaceans (not just the actual killing of whales) falls only to ICRW/IWC, this IEE may have some significance.

V. Conclusion

A rather obvious conclusion is that, with the exception of New Zealand (for reasons in part at least connected to the particular circumstances obtaining at the time it enacted its Protocol implementing legislation), nobody has sought to extend the obligation to EIA under the Protocol to activities under other ATS or global instruments applying in the Antarctic. This general stance is grounded in clear political choices made by Antarctic-active states (including states such as Australia, UK and US, who with New Zealand see themselves as in a progressive vanguard on issues such as whaling), who appear to distinguish a very narrow “environmental” sphere around the Protocol from a broader assemblage of instruments which remain at core mechanisms whereby various forms of marine living resources exploitation (whaling, sealing and fishing) are effected. The latter are managed, but politically the marine environment is not seen in quite the same environmental terms as the Continent. In this respect, political attitudes in Antarctica still mirror wider international norms. We remain vastly more concerned about environmental values and protection ashore than we do at sea.

The political stance is reinforced by legal interpretation and practice. The coupling of the EIA obligation with an advance notice obligation that does not capture certain classes of Antarctic activity has created a basis for a formal defence against a broader use of EIA. Legal scholars periodically dispute the basis for this non-application, but

in the face of both extended state practice and consensus decision making in the key international fora of the ATS and IWC, this has yet to bear fruit.

Quite clearly, the prospects some of us once entertained that post-Protocol one might seek incrementally to extend those Protocol standards and tools (including EIA) beyond 60° South, up to the Antarctic Convergence, and across other ATS instruments such as CCAMLR – and perhaps at some point into even the IWC – were naive in the extreme.¹⁰⁹ Always recognised as problematical, both for legal and policy reasons, 15 years on from the adoption, and nine years on from the entry into force of the Protocol, it is evident that this is not going to happen.

Is the project of broadening the application of modern environmental management tools, such as EIA, in the Antarctic therefore a forlorn one? Are there any options still to be explored?

We believe that there is one option that has so far not been seriously explored: seeking to develop these tools *de novo* within the critical instruments. Could one begin to build an obligation to EIA, or some sort of EIA-analogue, separately in CCAMLR and the IWC?¹¹⁰ This would at least remove the cross-institutional problem. If consistency with the existing EIA system under the Protocol could be achieved, that would seem advantageous, but in the face of no existing EIA coverage for fishing and whaling, even a weaker EIA system would be a start.

Since Protocol EIA, at least nominally, addresses the acceptability of the core activity (scientific and associated logistics, tourism), ideally we might expect EIA applied to marine harvesting to address core activities there (whaling, sealing, fishing) too. Plainly, getting agreement to subjecting these activities to prior EIA is the hardest part of hard.

In the first instance therefore, extending the EIA obligation to what might be termed the ancillary parts of the activity may be easier. Thus, stage one of the project might require EIA in relation to vessel operation, transit, waste disposal, contingency planning for generic maritime misadventure, etc, rather than for the key activity of marine harvesting itself. The present EIA system under Annex I of the Protocol is itself the product of a staged development which began with a more restricted obligation twenty years ago, so further staged EIA development is unremarkable.¹¹¹

Looking at the mandates of both the CCAMLR Commission and IWC, it is clear that at least in theory both bodies *could* require parties to carry out EIA in respect of either the harvesting activity itself or the ancillary activities. The adoption of relevant conservation measures or (in the case of IWC) Schedule amendments would depend of course on the political will of the parties.

109 Hemmings, AD (1995) 'Reconciling Antarctica's International Regimes' 23- 41 in Herr, RA Antarctica Offshore: A Cacophony of Regimes? Antarctic Cooperative Research Centre, Hobart.

110 Given that CCAS is not currently regulating an active sealing industry, the case here seems less urgent.

111 Recommendation XIV-2 Human Impact on the Antarctic Environment: Environmental Impact Assessment (1987); See Hemmings, AD and Roura, R (2003) 'A square peg in a round hole: fitting impact assessment under the Antarctic environmental protocol to Antarctic tourism' Impact Assessment and Project Appraisal 21: 13-24 at 14.

Having established that the creation of EIA duties in connection with harvesting activities is possible (albeit on any calculus, unlikely to be an easy or quick process), the question arises as to whether it is desirable. Accordingly, we conclude with a consideration of the pros and cons of EIA application in relation to harvesting activities.

Reasons for EIA

1. As with existing EIA across terrestrial/marine environments – because it provides us with a key environmental management tool that transparently documents proposed activities and allows us to examine their potential consequences. EIA can be conducted at the level of individual state proposals, jointly by several states, or multilaterally at the regional level;
2. To ensure consistency of behaviour and standards across Antarctic terrestrial and marine environments. We do, after all, aspire to *comprehensive* protection of Antarctic and dependent and associated ecosystems in part of our present regime, and we have activities (such as bioprospecting) that cross not only the terrestrial and marine divide but the science to harvesting spectrum;
3. If EIA has generic merits in relation to managing marine activities, then a particular advantage attaches to first attempting to embed functioning EIA obligations in CCAMLR, since this happens to be the most progressive RFMO (it is more than an RFMO of course) and intimately connected with some other instruments under the ATS.

Reasons against EIA

1. Many fisheries organisations are beginning to consider not just the direct impact of fishing but also the indirect impact of fishing, including by-catch and other environmental effects. There is no doubt that not all organisations are yet engaged in this process and those that are can generally do better. However, whilst the indirect impacts of fishing on the marine environment and activities ancillary to fishing must be addressed, it may be better to address them at the level of the regional or global organisation rather than at the state level. This way all states can be required to implement common policies and regulations.
2. Regional and (in the case of the IWC) global fishery instruments mostly set catch limits and establish regulations and criteria relating to gear specifications and so forth on a regional or global basis. The introduction of EIA obligations, at least if these were state-based, might present problems of fit and coherence with these processes. Of course if the EIA were confined only to activities ancillary to fishing then this would perhaps be a less significant problem.
3. The fishing activities of a number of states are of course cumulative in their impacts. There are always challenges in trying to consider the cumulative as well as the direct impacts of a project as part of an EIA and this is particularly acute in

connection with fishing where not only do other activities within the same region need to be considered, but fishing in entirely different regions must also be considered - where, for example the species in question is migratory. These factors might be better considered holistically by the regional or global body as opposed to by an individual state in relation to a particular fishery.

4. The introduction of state-based EIA obligations could potentially undermine the regional or global fisheries instrument. A state (such as Japan) could carry out an EIA and determine that limited whaling can be supported, irrespective of IWC measures. Of course there are mechanisms which could be introduced to address this problem – the EIA could be regarded as merely supplementary to the Commission’s recommendations or it could be confined to addressing activities regarded as ancillary to fishing.

This discussion of the pros and cons of extending EIA obligations to fishing activities in the Antarctic indicates that there is no overwhelmingly right answer to this question. However, it is in our view, important to debate this question and what we have tried to do here is to begin and contribute to that debate.