

CAFF Habitat Conservation Report No. 8

A SUMMARY OF LEGAL INSTRUMENTS AND NATIONAL FRAMEWORKS FOR

ARCTIC MARINE CONSERVATION



About CAFF

The program for the Conservation of Arctic Flora and Fauna (CAFF) of the Arctic Council was established to address the special needs of Arctic ecosystems, species and their habitats in the rapidly developing Arctic region. It was initiated as one of four programs of the Arctic Environmental Protection Strategy (AEPS) which was adopted by Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States through a Ministerial Declaration at Rovaniemi, Finland in 1991. Other programs initiated under the AEPS and overtaken by the Arctic Council are the Arctic Monitoring and Assessment Programme (AMAP), the program for Emergency Prevention, Preparedness and Response (EPPR) and the program for Protection of the Arctic Marine Environment (PAME).

Since its inaugural meeting in Ottawa, Canada in 1992, the CAFF program has provided scientists, conservation managers and groups, and indigenous people of the north with a distinct forum in which to tackle a wide range of Arctic conservation issues at the circumpolar level.

CAFF's main goals, which are achieved in keeping with the concepts of sustainable development and utilisation, are:

- to conserve Arctic flora and fauna, their diversity and their habitats;
- to protect the Arctic ecosystems from threats;
- to improve conservation management laws, regulations and practices for the Arctic;
- to integrate Arctic interests into global conservation fora.

CAFF operates through a system of Designated Agencies and National Representatives responsible for CAFF in their respective countries. CAFF also has an International Working Group which meets regularly to assess progress. CAFF is headed up by a chair and vice-chair which rotate among the Arctic countries and is supported by an International Secretariat.

The majority of CAFF's activities are directed at conserving Arctic biodiversitythe abundance and diversity of Arctic flora, fauna, and habitats-and at integrating indigenous people and their knowledge into CAFF. In recognition of this, the Arctic Ministers in 1998 endorsed CAFF's Strategic Plan for Conservation of Arctic Biological Diversity as a framework for future program activities. The Strategic Plan is built around five objectives addressing biodiversity monitoring, conservation of genetic resources, species and habitats, establishment of protected areas, conservation outside protected areas, and integration of biodiversity conservation objectives into economic plans and policies. Examples of major projects CAFF is currently working on are: a status report on Arctic biodiversity; development of a program to monitor Arctic biodiversity; assessment of climate change impacts on Arctic ecosystems in collaboration with AMAP and other Arctic organisations; assistance with implementation of circumpolar conservation strategies for murres (guillemots) and eiders and for a Circumpolar Protected Areas Network (CPAN); preparing a Circumpolar Arctic Vegetation Map and listing and mapping rare Arctic vascular plants. Whenever possible, CAFF works in co-operation with other international organisations and associations to achieve common conservation goals in the Arctic.

Conservation of Arctic Flora and Fauna

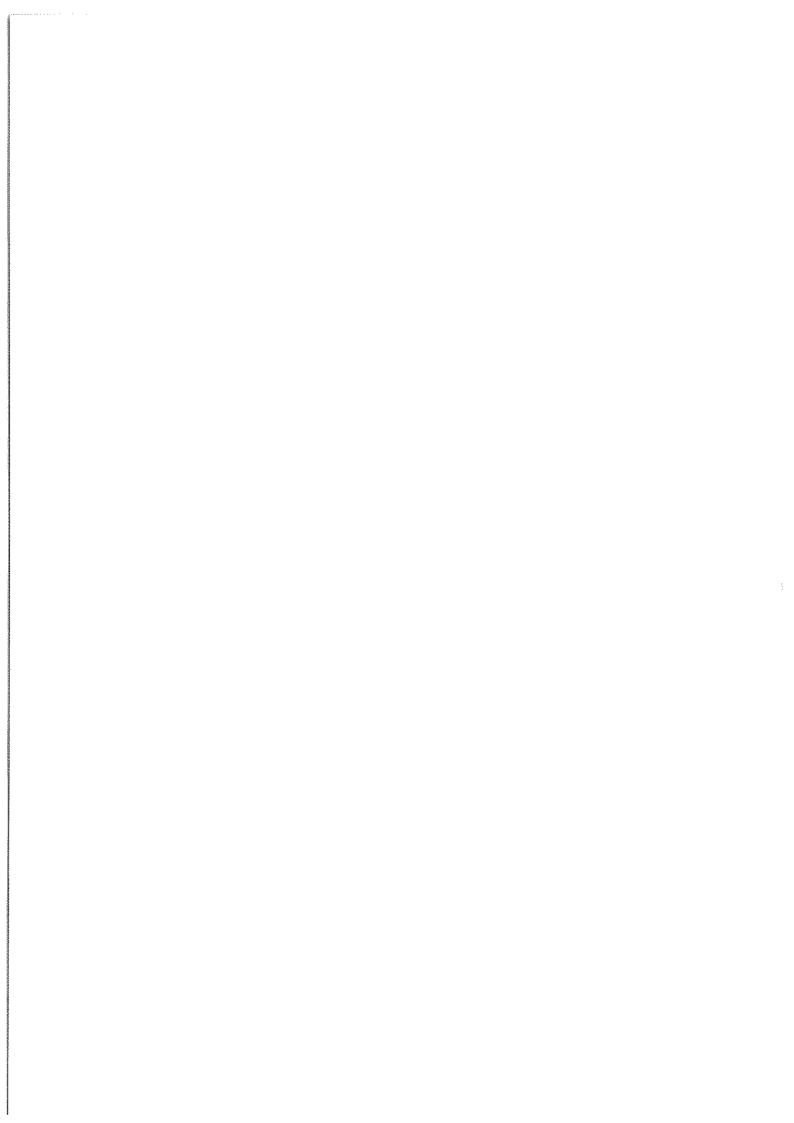
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CAFF International Secretariat

July 2000



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EXECUTIVE SUMMARY

This paper summarises international marine conservation instruments and national legislation of the six Arctic coastal states (Canada, Greenland, Iceland, Norway, Russia and the United States of America) that border on the Arctic Ocean or its contiguous waters. For the purposes of this paper, the contiguous waters will include the Bering, Chukchi, East Siberian, Laptev, Kara, White, Barents, Greenland, Beaufort, northern Okhotsk and northern Norwegian Seas, the Baffin, Hudson, and James Bays and the Davis Strait.

To date, the most effective way to conserve the marine environment and its resources has been to regulate human activity and to set aside areas in which human activity is prohibited or highly restricted. These efforts have intensified over the past 25 years and there is now an impressive array of legal and regulatory instruments at both the international and national levels as well as an increased effort to set aside marine areas for conservation purposes. This latter activity, however, lags well behind efforts with respect to the terrestrial environment.

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) is the most important international legal instrument on the marine environment to date. It establishes uses of the ocean and its resources and sets out a definitive legal classification system for ocean space off coastal States that includes internal waters, the territorial sea (12 nautical (n) miles), the contiguous zone (24 nmiles) and the exclusive economic zone (EEZ - 200 nmiles). It also deals with rights and obligations of coastal States and other States over the continental shelf and on the high seas, and establishes rules governing the areas of the ocean beyond the limits of national jurisdiction. UNCLOS sets out the extent of the coastal State's rights, jurisdiction and obligations within each maritime zone, including the right to take conservation measures within each zone. UNCLOS also establishes the International Sea-Bed Authority and the International Tribunal of the Law of the Sea (the latter to settle disputes), and provides for the establishment of the Commission on the Limits of the Continental Shelf. Building on UNCLOS is the Global Program of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) which contains provisions for habitat conservation.

Other important international Conventions for marine conservation are: The conventions on Biological Diversity (to protect the totality of the planet's biological resources), Trade in Endangered Species (to control trade in endangered flora and fauna), Whaling, (to conserve whale stocks and regulate the whale fishery), Wetlands of International Importance (to conserve important wetlands, including coastal), World Heritage (to protect natural areas and cultural sites of universal value), Migratory Species (to protect migratory species and their habitats) and the United Nations Fisheries Agreement (to conserve and sustain the use of migratory fish and those that straddle economic zones). Two anti-pollution Conventions also contain important marine conservation provisions. They are: the Convention for the Prevention of Pollution from Ships (MARPOL) which restricts vessel discharges and can be used to identify Special Areas, Areas to be Avoided (ATBAs) and Particularly Sensitive Sea Areas (PSSAs) for ships and the Convention on the Protection of the Marine Environment of the North-east Atlantic (OSPAR) which contains provisions for conserving marine habitats and species.

In addition to the international regime, each Arctic coastal State has its own legislation for marine conservation. Canada has legislation at the federal, territorial and provincial levels - over twenty pieces in all. Historically, Canada's marine focus has been on fisheries and sovereignty but there is now more emphasis on broad-based conservation including setting aside marine protected or conservation areas. Canada's new Oceans Act will serve as an overarching framework for marine conservation. Greenland shares jurisdiction for the marine environment with Denmark. Greenland has been strengthening its marine legislation and since 1994 has passed three important Acts on marine pollution and shipping, on fisheries and on hunting and is also reviewing its entire nature conservation regime. Iceland is a marine-dependent country with a major focus on fisheries. It has comprehensive legislation and regulations for the marine environment, especially for fisheries and pollution and has recently enacted legislation to establish its first major marine conservation area. Iceland relies on eight pieces of legislation for marine conservation. Norway has traditionally been dependent on its marine resources and has been steadily increasing its regulation of marine and coastal activity and is now focusing more on multi-species management plans. It has five main pieces of legislation relating to marine conservation. Russia shares responsibility for the marine environment between its territorial states and the federal government. It has been slowly establishing a legislative base to enhance Arctic marine conservation and to date has passed eight pieces of legislation the main one being the Law on the Exclusive Economic Zone of the Russian Federation (1998). The USA shares jurisdiction for Arctic marine conservation between the State of Alaska and the federal government. Together, they have a very comprehensive suite of highly detailed legislation to cover all aspects of the marine environment.

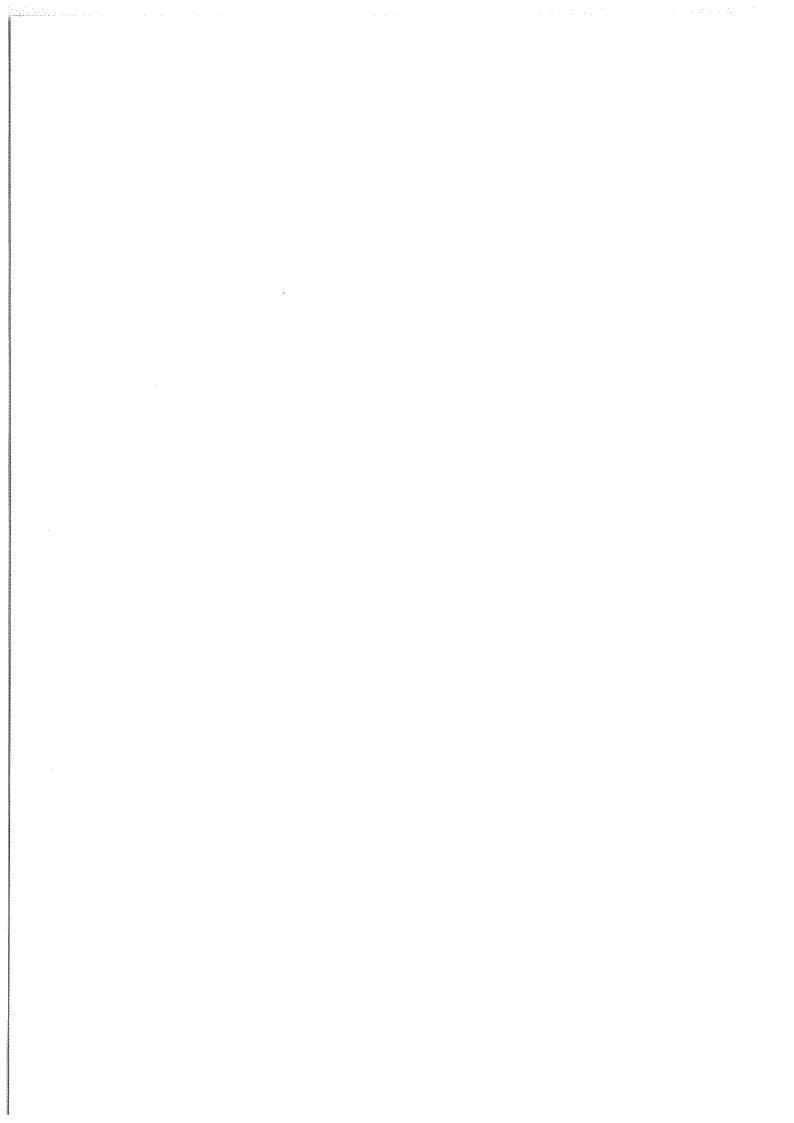
All Arctic countries use or plan to use protected areas as a mechanism for marine conservation. Their rationales for setting aside areas - habitat, species and ecosystem conservation – are generally similar. However, there has been a steady shift in the application of this mechanism and countries are increasingly using recreation and cultural heritage values as equally important criteria to designate protected areas. This is consistent with the global trend which the IUCN's World Commission on Protected Areas terms "mainstreaming" protected areas, meaning the gradual shift from treating them as conservation islands or preserves to treating them as integral parts of a broader land/marine sustainable development and use strategy.

In the course of preparing this paper, representatives provided several suggestions to improve marine conservation including: increase the circumpolar knowledge base of the marine environment; carry out impact assessments of human activities; hold marine workshops to develop collaborative strategies; map marine resources, sensitive sites and maritime zones throughout the Arctic; develop a common circumpolar marine terminology and classification system, develop guidelines for sensitive sites and initiate a comprehensive circumpolar marine conservation strategy that incorporates the Circumpolar Protected Area Network (CPAN).

In general, representatives of the Arctic countries have observed that there is sufficient legislation available to them to protect the marine environment and conserve its biodiversity and habitats. However, this legislation is not always implemented or its provisions adequately enforced. There may be merit in examining how the circumpolar countries as a group could enhance implementation. Another observation is that some countries might want to consider developing an overall management framework for marine protection and conservation (i.e. along the lines of the arrangement being put in place under Canada's Oceans Act).

TABLE OF CONTENTS

1.0 INTRODUCTION	1
Scope of the Work	1
2.0 INTERNATIONAL INSTRUMENTS	1
UNITED NATIONS CONVENTION ON THE LAW OF THE SEA	1
Internal Waters	
Territorial Sea	
Contiguous Zone	2
Exclusive Economic Zone (EEZ)	2
The Continental Shelf	<i>3</i>
The High Seas	3
The Area	3
International Tribunal for the Law of the Sea	4
GLOBAL PROGRAM OF ACTION	4
The Geneva Conventions	5
3.0 INTERNATIONAL POLLUTION-PREVENTION INSTRUMENTS	5
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS	5
CONVENTION ON THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC	
4.0 INTERNATIONAL CONSERVATION INSTRUMENTS	6
CONVENTION ON BIOLOGICAL DIVERSITY	6
CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FLORA AND FAUNA (CI	
INTERNATIONAL CONVENTION ON THE REGULATION OF WHALING	-
Ramsar Convention	
WORLD HERITAGE CONVENTION	7
United Nations Fisheries Agreement	8
INTERNATIONAL AGREEMENT FOR THE CONSERVATION OF POLAR BEARS	8
5.0 NATIONAL CONSERVATION INSTRUMENTS	9
Canada	9
Federal Legislation	
Territorial and Provincial Marine Initiatives	
Greenland	13
ICELAND	14
Norway	15
Russia	17
United States of America	19
Federal	20
State of Alaska	24
6.0 THE USE OF PROTECTED AND OTHER SPECIAL AREAS	25
7.0 SUGGESTIONS TO IMPROVE MARINE CONSERVATION	26
8 & ORSERVATIONS AND CONCLUSIONS	26



1.0 INTRODUCTION

This paper has been prepared in response to the 1997-98 CAFF Work Plan which charged Canada, in co-operation with the other CAFF parties, to "prepare a paper summarising the jurisdictional responsibilities for Arctic marine ecosystems and national frameworks for conservation of the Arctic marine environment." To date, the most effective way to conserve the marine environment has been to regulate human activity by setting aside areas and restricting activity within them. These efforts have intensified over the past 25 years and there is now an impressive framework to regulate marine activity and to establish protected areas. This report will summarise the international and national legal instruments that can be used to conserve the Arctic marine environment and its biological resources.

SCOPE OF THE WORK

For the purposes of this paper, the Arctic marine environment will include the Arctic Ocean; the Bering, Chukchi, East Siberian, Laptev, Kara, White, Barents, Greenland, Labrador, Beaufort, northern Okhotsk and northern Norwegian seas; the Baffin, Hudson, and James bays and Davis Strait.

2.0 INTERNATIONAL INSTRUMENTS

The most important international instrument is the *United Nations Convention on the Law of the Sea* (UNCLOS), and its associated agreements. There are also instruments for biodiversity conservation and for prevention of pollution from various sources such as vessels and offshore or onshore activities. This summary will focus on the first two groups. However, some anti-pollution instruments, which have conservation provisions, will also be covered.

UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

Considered to be the broadest and most important instrument dealing with the marine environment, the *United Nations Convention on the Law of the Sea* (UNCLOS) entered into force in 1994. Five of the Arctic countries are parties to the Convention. Canada, the USA and Denmark (for Greenland) have yet to ratify it, although they have signed it and generally abide by its provisions.

UNCLOS is an umbrella convention arising from the Third United Nations Conference on the Law of the Sea and the *United Nations Fisheries Agreement* (UNFA). (Note: the Geneva Conventions, discussed below, are the outcome of the First United Nations Conference on the Law of the Sea). UNCLOS establishes rules governing all uses of the oceans and their resources. In so doing, it embodies in one instrument customary rules of international law governing the uses of the oceans (some of which have already been codified in the 1958 Geneva Conventions), and at the same time introduces new legal concepts and regimes. UNCLOS is without prejudice to specific obligations under existing marine environmental protection conventions, which are to be implemented in a manner consistent with the principles and objectives of UNCLOS. UNCLOS itself incorporates

many of these obligations.

UNCLOS establishes a definitive legal classification system for ocean space that includes: Internal Waters; a 12 nautical mile (nmile) Territorial Sea, a 24 nmile Contiguous Zone; and a 200 nmile Exclusive Economic Zone (EEZ). It also provides for rights and obligations over the continental shelf and on the high seas extending beyond the 200 nmile limit. The Convention grants coastal States varying degrees of rights, jurisdiction and obligations over each of these zones, including conservation measures for the protection of fishery resources and the preservation and protection of the marine environment. The Convention sets up a regulatory body, the International Seabed Authority, which organises and controls activities in the "Area". The Area includes the sea-bed, ocean floor and subsoil thereof, beyond the limits of national jurisdiction which are defined as "the common heritage of mankind".

Internal Waters

Internal waters are located on the landward side of a baseline¹ from which the breadth of the coastal State's territorial sea and EEZ is measured. Within its internal waters, a coastal State enjoys absolute sovereignty. The coastal State may be bound by treaty obligations to admit foreign vessels into its ports.

Territorial Sea

This maritime zone extends no further than 12 nmiles from the baseline and within this zone, a coastal state has complete sovereignty but must allow innocent right of passage to foreign ships. Wilful and serious marine pollution and unauthorised fishing are acts which are inconsistent with innocent passage. In addition, the coastal State may adopt laws relating to innocent passage through the territorial sea in respect of matters such as the conservation of the living resources of the sea, the prevention of infringement of its fisheries laws and regulations and the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof.

Contiguous Zone

Contiguous to the Territorial Sea, the Contiguous Zone may extend to 24 nmiles from the baselines from which the breadth of the territorial sea is measured. Within this zone, the coastal state can exercise the control necessary to prevent and punish the infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea. For other matters such as protection of the environment and conservation of natural resources, the rules applicable to the EEZ would govern (the EEZ is defined as including the contiguous zone).

Exclusive Economic Zone (EEZ)

Within the EEZ, a coastal State has sovereign rights for the purpose of exploring, exploiting, conserving and managing both living and non-living natural resources of the

Normally the low-water mark but the coastal state may determine the tidal criteria or select to draw straight baselines that follow the coast's general direction where the coastline is deeply indented or fringed with islands.

sea-bed, its subsoil and the waters above it and with regard to other activities for the economic exploitation and exploration of the zone. The coastal State has jurisdiction over artificial islands, marine scientific research and the protection and preservation of the marine environment. All other States enjoy the freedom of navigation and overflight of this zone, as well as a qualified freedom to lay submarine cables and pipelines (subject, among other things, to the coastal States's right to take reasonable measures for the exploration of the shelf and exploitation of its natural resources, and the prevention of pollution from pipelines). Coastal States determine the allowable catch of the living resources in their EEZ and their capacity to harvest these living resources, and where the coastal State does not have the capacity to harvest the entire allowable catch it gives other States access to the surplus, through agreements. Any State allowed to fish in the EEZ must comply with the laws and regulations, including conservation measures, adopted by the coastal State. The coastal State also ensures, through conservation and management measures, that the living resources are not endangered by over-exploitation. Specific provisions deal with straddling fish stocks, highly migratory species, marine mammals, anadromous and catadromous stocks. Part XII of UNCLOS (see below) provides that the coastal State can adopt laws and regulations in their EEZ for the prevention, reduction and control of pollution from vessels.

The Continental Shelf

Under UNCLOS, the continental shelf of a coastal State comprises the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of the land territory to the outer edge of the continental margin and under specified circumstances, to a maximum distance of 350 nmiles from the baselines or 100 nmiles from the 2,500 isobath. In this submarine zone, coastal States have sovereign rights for the purpose of exploring and exploiting the sedentary species and the non-living natural resources of the sea-bed and the subsoil but these rights do not extend to the superajacent waters or the air space above those waters. UNCLOS provides for the establishment of a Commission on the Limits of the Continental Shelf, which shall make recommendations to States on the shelf's outer boundaries when it extends beyond the 200 mile EEZ.

The freedom of laying pipelines (see the section on the High Seas) is subject to the right of the coastal State to take reasonable measures for the prevention, reduction and control of pollution.

The High Seas

The areas seaward to the EEZ are defined by the Convention as the "high seas". UNCLOS contains provisions regarding the exercise of certain freedoms of the high seas (such as the freedom of navigation, the freedom to lay submarine cables and pipelines, the freedom of fishing and the freedom of scientific research), which are applicable, with some restrictions, in the EEZ and on the continental shelf. There are also provisions dealing with international co-operation for the conservation and management of the living resources of the high seas.

The Area

One of the principal innovations of UNCLOS is the establishment of an International Sea

Bed Authority (ISBA) which organises and controls activities in the Area (the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction, i.e. beyond the continental shelf). The ISBA regulates and monitors seabed mining and provides for equitable sharing of financial benefits derived from activities in the Area, taking into consideration the interests and needs of developing States. The ISBA has the powers and functions expressly conferred upon it by the Convention, including the authority to adopt measures dealing with protection of the environment and conservation of the natural resources of the Area.

Until 1998, Canada and the USA both had the status of provisional members at the ISBA. As they still have not ratified UNCLOS, they now only have the status of observers at the ISBA.

International Tribunal for the Law of the Sea

UNCLOS has also established an *International Tribunal for the Law of the Sea* (ITLOS) for the settlement of disputes. This Tribunal is available along with other traditional international dispute resolution fora (International Court of Justice, arbitration, etc.) for matters falling under purview of UNCLOS, including matters pertaining to the protection and preservation of the marine environment. A Sea-Bed Disputes Chamber of ITLOS is to be established to deal with the settlement of disputes related to deep-sea mining.

Part XII of UNCLOS specifically addresses the protection and preservation of the marine environment. It provides for a complementary set of coastal State, flag State and port State regulatory and enforcement powers and obligations, and for international co-operation in elaborating international rules and standards for the protection and preservation of the marine environment. It calls on States to take measures necessary to prevent pollution from any source in all maritime areas. It also calls on States to take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with the Convention. There are provisions dealing with pollution from land-based sources, from activities in the Area, from dumping and from vessels. For example, coastal States must adopt laws to prevent pollution of marine environment arising from sea-bed activities subject to their jurisdiction. Dumping within the territorial sea and the EEZ or onto the continental shelf may not be carried out without the express prior approval of the coastal State. Coastal States may also adopt laws and regulations for the prevention, reduction and control of pollution from vessels in their territorial sea and their EEZ. These provisions are complemented by obligations imposed on all States, or on flag States or port States to regulate and enforce in respect of particular types of pollution of the marine environment.

GLOBAL PROGRAM OF ACTION

In response to UNCLOS and the 1992 Rio Conference, 110 nations have agreed to a non-legally binding agreement, the *Global Program of Action for the Protection of the Marine Environment from Land-Based Activities*, known as the Global Program of Action (GPA).

Most of its provisions deal with pollution abatement. However, there are also habitat conservation provisions and as a framework to prevent and abate the degradation of the marine environment, the GPA is another important international initiative that can support the protection of specific critical coastal and marine habitats, and the general protection of the marine ecosystem.

THE GENEVA CONVENTIONS

The four Geneva Conventions on the Law of the Sea (1958) were an attempt to codify international law at that time. They are the *Convention on the High Seas*, the *Convention on the Territorial Sea and Contiguous Zone*, the *Convention on the Continental Shelf* and the *Convention on Fishing and Conservation of the Living Resources of the High Seas*. UNCLOS incorporates several of the provisions of these conventions and expands on them. UNCLOS prevails, as between State Parties to it, over those conventions. Non-Parties to UNCLOS can apply the 1958 Conventions as between themselves. However, since 1958, international law has developed and new rules of customary international law have evolved and are reflected in UNCLOS and later state practice. As preoccupations for the environment were not as high in 1958 as they were in 1982, the Geneva Conventions' provisions on the protection of the marine environment are far less extensive than the provisions of UNCLOS.

3.0 INTERNATIONAL POLLUTION-PREVENTION INSTRUMENTS

Most of these instruments, of which there are a great many, deal with the control of noxious substances. The two most important ones for Arctic marine conservation are probably "MARPOL" and "OSPAR" treated below.

INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS

Better known as "MARPOL", this Convention entered into force in 1973 and its 1978 Protocol Relating Thereto entered into force in 1983. MARPOL contains general provisions in five annexes that restrict vessel discharges of oil, noxious liquid, substances in bulk, harmful substances in containers, sewage and garbage. The Marine Environment Protection Committee (MEPC) of the International Maritime Organization has worked since 1978 to define areas in need of special protection from maritime activities and under MARPOL. There are now Special Areas (SAs), Areas to be Avoided (ATBAs) and Particularly Sensitive Sea Areas (PSSAs). In these areas; which can be declared significant for ecological, socio-economic, scientific, non-renewable natural, cultural or historical reasons; stringent measures are in place to govern the conduct of shipping.

CONVENTION ON THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC

Known as "OSPAR", this regional Convention, which can into force in 1998, is an amalgamation of the Oslo Convention (Prevention of Marine Pollution by Dumping from Ships and Aircraft) and the Paris Convention (Prevention of Marine Pollution from Land

Based Activities). OSPAR binds parties to "take all possible steps to prevent and eliminate pollution" and "take the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected". Under OSPAR, the parties are examining mechanisms to protect the ecosystems and biological diversity in their maritime area, including the establishment of a network of marine protected areas.

4.0 INTERNATIONAL CONSERVATION INSTRUMENTS

CONVENTION ON BIOLOGICAL DIVERSITY

The Convention on Biological Diversity (CBD) is a legally binding agreement, which entered into force in 1994. The CBD is the first international agreement committing governments to protect the totality of the planet's biological resources and is probably the most comprehensive environmental agreement yet negotiated. This Convention applies within the maritime jurisdictional zones established under UNCLOS and the two Conventions' obligations are, in general, consistent and complementary. The CBD adds to UNCLOS the need for States to take account of biodiversity values as well as the traditional problems of pollution and the conservation of marine living resources.

The Convention's objectives are: the conservation of biological diversity; the sustainable use of biodiversity's components; and the equitable sharing of benefits derived from genetic resources. Biodiversity is defined in the Convention as "the variability among living organisms from all sources, including *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems".

The Convention establishes a framework of general obligations with an expansive coverage of activities and processes, which each Party is to elaborate and implement at their national level. As such the CBD provides a supporting framework for national initiatives. Parties are required to develop and implement a comprehensive national biodiversity strategy and action plan for conserving biological diversity, and to establish systems of protected areas aimed at conserving biological diversity and promoting sustainable development in adjacent areas. Parties have an obligation to apply the Convention to all areas within its national jurisdiction as far as possible and appropriate. The work under the Convention itself and of its Subsidiary Body on Scientific, Technological and Technical Advice (SBSTTA) has now taken a major marine focus and a marine working group has been established.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FLORA AND FAUNA (CITES)

CITES is designed to conserve endangered wildlife species by controlling trade of flora and fauna endangered by trade, or of their parts and derivatives used for a variety of commercial purposes. It contains three Appendices listing endangered flora and fauna by degree of endangerment. The system functions by means of import and export permits, which are progressively stricter as the species in question is more threatened. Permits are considered on an case-by-case basis by both the country of origin and the country of destination and are issued when it is determined that the particular transaction will not be detrimental to the survival of the species in question.

INTERNATIONAL CONVENTION ON THE REGULATION OF WHALING

The Whaling Convention was established for the international regulation of the whale fishery and to ensure proper conservation and development of whale stocks. The International Whaling Commission meets yearly to make regulations and to assess the state of whale stocks. The taking of many species of whales is now prohibited, except that the International Whaling Commission can issue permits for the taking of whales for scientific reasons and for aboriginal subsistence.

RAMSAR CONVENTION

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention) has been in force since 1975. The Convention requires Parties to take responsibility not only for protecting the habitat of migratory stocks of waterfowl, but also for their conservation, management and wise use. The Ramsar Convention seeks to control and remediate the progressive encroachment on and loss of wetlands. Wetlands are broadly defined to include freshwater, brackish and saltwater marshes as well as "areas of marine water the depth of which at low tide does not exceed six metres". Listed wetlands can include marine waters of even greater depth, as well as adjacent islands and coastal areas. All wetlands are to be managed wisely and certain sites are designated as a "Wetland of International Importance" (Ramsar Site). Sites may, but need not, be afforded legal protective status through national legislation.

WORLD HERITAGE CONVENTION

The Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention) aims to designate and protect natural areas and cultural sites of outstanding universal value. Proposals are made by countries and those that will be granted world heritage status are selected by the World Heritage Committee. Designations of World Heritage Sites under this Convention are restricted to the territory, including the territorial sea, of one of the 146 Contracting Parties.

World Heritage Sites must have ecosystem integrity (i.e. they should be of a sufficient size to represent all aspects of the system) and also represent the earth's evolutionary history; or, be an outstanding representative of geological processes, biological evolution, and human interaction with the natural environment (ecological processes); or, contain superlative natural phenomena or exceptional natural beauty; or be the most important and significant natural habitats of threatened or endangered species of plants and animals. This last criterion was revised in 1994 to provide for identification of sites for *in situ* conservation of biological diversity.

This Convention is consistent and complementary to the CBD since it can be used to

protect ecosystems of important cultural or natural significance. Some arctic countries are currently considering prospective World Heritage Sites for nomination. Under the Convention, there is also a monitoring function and a listing of World Heritage at Risk.

Convention on the Conservation of Migratory Species of Wild Animals

The Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention) entered into force in 1983. The Convention is intended to protect both migratory species and their habitats. Its objectives are to prohibit takings, conserve or restore habitats, remove obstacles to migration, and control factors threatening endangered migratory species listed in Appendix I. Agreements between range states also provide for a network of suitable habitat on migration routes for Appendix II species whose conservation status can benefit from international co-operation, or whose unfavourable conservation status requires such agreements. The Convention aims to cover the entire range of listed migratory species. To accommodate this it negotiates agreements and allows non-party range states to join agreements. The Bonn Convention is currently developing a Small Cetacean Agreement.

UNITED NATIONS FISHERIES AGREEMENT

The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea (1982) Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks is often referred to as the United Nations Fisheries Agreement (UNFA). UNFA has 59 signatories and, at the time of writing, 25 States have ratified it. UNFA will enter into force 30 days following the 30th ratification of the Agreement.

UNFA was negotiated to flesh out provisions of the United Nations Convention on the Law of the Sea (UNCLOS), which deal with highly migratory and straddling fish stocks. UNFA provides principles and practices to be followed by regional fisheries organizations. Notable among the dozen principles enunciated by UNFA are: the broad application of the precautionary approach in the conservation, management and exploitation of fish stocks; the adoption of conservation and management measures for species that belong to the same ecosystem; the protection of biodiversity in the marine environment; the elimination of over-fishing and excess fishing capacity; and accounting for the interests of subsistence fishers. Among UNFA's most significant contributions to international fisheries law are an obligation upon States that are not members of regional fisheries organizations to not undermine conservation and management measures taken by those organizations and stipulated enforcement measures that can be taken against vessels that contravene such conservation and management measures.

INTERNATIONAL AGREEMENT FOR THE CONSERVATION OF POLAR BEARS

The 1973 International Agreement on the Conservation of Polar Bears between Canada, Denmark, Norway, the USSR (now Russia) and the United States requires its members to protect polar bear denning sites² and to limit takings only for scientific purposes, conservation purposes, to prevent serious disturbance of the management of other species,

² Protection is not afforded to near shore marine and ice-edge areas.

or for traditional subsistence use by local people. Parties are also required to exchange research results. The United States is leading in an all-party review of the Agreement.

5.0 NATIONAL CONSERVATION INSTRUMENTS

CANADA

In the wake of developments in the international law of the sea in the last 25 years, Canada has adopted legislation to assert its rights and jurisdiction and implement its obligations in the various maritime areas and over their natural resources. The recent focus of Canada's efforts has been the passage of legislation to protect Canada's marine environment, including provision for the establishment of marine protected areas.

Four of Canada's ten provinces (Manitoba, Ontario, Quebec and Newfoundland/Labrador) and its three Territories (Yukon, Northwest Territories and Nunavut) are adjacent to marine waters. Marine resources are primarily a federal jurisdiction but bilateral agreements do provide for shared jurisdiction in some instances. Land claim agreements with the individual Aboriginal groups have resulted in the creation of co-management institutions which have responsibilities for certain marine matters.

Federally, the main ministries and agencies with jurisdiction over the marine environment are: Environment (contaminants, wildlife areas, migratory birds), Fisheries and Oceans, including Canada's Coast Guard, (fish, marine mammals, navigation, marine safety), Parks Canada Agency (national parks, marine conservation areas), Transport (shipping) and Indian Affairs and Northern Development (oil and gas leasing, and pollution control in Arctic marine waters). Together, they have the primary responsibility for administering various acts and regulations on behalf of the government of Canada.

Below is a listing of the more important/relevant legislation pertaining to Canada's Arctic marine environment.

Marine Conservation Areas Act (forthcoming)

Oceans Act

Fisheries Act

Coastal Fisheries Protection Act

Fisheries Development Act

Arctic Waters Pollution Prevention Act

Canadian Environmental Protection Act

Canadian Environmental Assessment Act

National Parks Act

Canada Wildlife Act

Migratory Birds Convention Act

Wild Animal and Plant Protection and Regulation of International and Interprovincial

Trade Act

Nunavut Land Claims Agreement Act

Western Arctic (Inuvialuit) Settlement Act

James Bay and Northern Quebec Agreement Canada Oil and Gas Operations Act

An overview of each of these Acts follows.

Federal Legislation

Marine Conservation Areas Act (forthcoming) (Canadian Heritage, Parks Canada)

This Act will provide authority to establish and administer a system of marine conservation areas to ensure that their ecosystems remain intact. Coastal lands required to facilitate access and protect heritage resources will be included. The federal government is to have ownership and clear title to all coastal and submerged lands comprising a conservation area. Sea-bed mining, oil and gas exploration and exploitation and waste dumping will be prohibited. Fisheries and other resource harvest regulations are to be made by appropriate Ministers, including those of Canadian Heritage (Parks). Conservation areas are to be established in the Great Lakes, the coastal zone and the Exclusive Economic Zone according to a system plan intended to represent all marine regions in Canada. Marine conservation areas are to be established for 1) the protection and conservation of representative marine areas of Canadian significance and 2) for the benefit, education and enjoyment of the people of Canada and the world.

Oceans Act (Fisheries and Oceans)

This Act holds that conservation, based on an ecosystem approach, is of fundamental importance to maintaining biological diversity and productivity in the marine environment. It declares and delineates Canada's maritime zones in accord with UNCLOS, provides for a national oceans management strategy and consolidates and clarifies the wide federal responsibilities for ocean management. The Act calls for an Oceans Strategy based on sustainable development, integrated management and the precautionary approach. It gives powers for the creation of Marine Protected Areas for the conservation and protection of marine species, habitats, and resources. The Act also calls for the Minister of Fisheries and Oceans to lead and co-ordinate the development of a national system of marine protected areas on behalf of the government of Canada. This will ensure that all federal programs are co-ordinated as the policies, programs and prospective sites are developed and established. It contains substantial commitments to undertake ocean science and research activities, and to consider traditional ecological knowledge.

Fisheries Act (Fisheries and Oceans)

This Act is Canada's basic fisheries law and provides for the conservation and management of fisheries, marine plants and habitats and governs licensing and enforcement in all national fisheries and international fisheries agreements. It also addresses control of some marine pollution from land-based sources, toxic substances and offshore oil and mineral resource development as it relates to fisheries. It confers detailed regulatory powers and procedures on the Minister and the Department. Fishing seasons and locations are governed by regulations under this act and the Oceans Act.

Coastal Fisheries Protection Act (Fisheries and Oceans)

This Act pertains to foreign fishing vessels in Canadian waters within the North Atlantic Fisheries Organisation (NAFO) Regulatory Area, requiring them to be licensed by Canada to fish here. It enables Canada to take urgent action necessary to prevent further destruction of straddling stocks and to permit their rebuilding, by imposing strict requirements on foreign vessels fishing in Canadian waters. It gives wide information gathering and enforcement powers to fisheries enforcement officers and carries heavy fines for conviction.

Fisheries Development Act (Fisheries and Oceans)

This Act provides for fisheries enhancement and development, aquaculture and marine resource development research

Arctic Waters Pollution Prevention Act (Indian Affairs and Northern Development; Natural Resources)

This Act is to ensure that "the natural resources of the Canadian arctic are developed and exploited and the arctic waters adjacent to the mainland and islands of the Canadian arctic are navigated only in a manner that takes cognisance of Canada's responsibility for the welfare of the Inuit and other inhabitants of the Canadian arctic and the preservation of the peculiar ecological balance that now exists in the water, ice and land areas of the Canadian Arctic". The Act regulates the deposit of any shipborne or land based waste in waters north of 60 degrees latitude including the Canadian archipelago and makes provisions for natural resources in the Arctic which the federal government has responsibility for.

Canadian Environmental Protection Act (Environment)

This Act prohibits dumping of radioactive waste and industrial waste at sea and addresses regulation of land based sources of marine pollution and provides for integrated coastal zone management. The Act provides for the establishment of Marine Environmental Quality Guidelines, regulations on ocean disposal, control of land based sources of marine pollution, offshore oil and gas development and the regulation of toxic substances.

Canadian Environmental Assessment Act (Environment)

This Act requires the integration of environmental factors into federal planning and decision-making. It requires federal authorities to conduct an environmental assessment before they undertake a variety of development projects or finance, sell, lease or otherwise transfer lands, issue licenses or permits for various types of projects covered under the Act. Most notably these have included the offshore oil and gas projects on the east coast. The act allows for four types of assessments: screenings, comprehensive studies, mediations and reviews by public panels.

National Parks Act (Canadian Heritage, Parks Canada Agency)

This Act governs the creation and operation of Canada's National Parks and mandates that National Parks are to be managed to maintain their ecological integrity, for present and future generations. The Act contains prohibitions against poaching of threatened and protected wildlife species and provides for regulation of human uses and any allowed

human habitation. It provides for the promulgation of regulations for the overall management of Canada's National Parks and delineates the boundaries for each Park.

Canada Wildlife Act (Environment)

This Act allows for the acquisition of lands and waters by the government for the purposes of establishing National Wildlife Areas for wildlife conservation and research including for the establishment of marine protected areas for wildlife within the 200 nautical mile EEZ. These protected areas are termed National Wildlife Areas to the 12 nmile limit and Marine Wildlife Areas from 12 - 200 nmiles. Migratory birds and species in danger of extinction receive particular attention.

Migratory Birds Convention Act (Environment)

This Act implements the Migratory Bird Convention between Canada and the USA, stipulating species of migratory birds to be regulated and controls hunting, possession of nests and eggs and transportation of such. It authorises the establishment and regulation of hunting seasons and provides for the protection of migratory bird habitat. The Migratory Bird Sanctuary Regulations provide for the establishment and management of migratory bird sanctuaries.

Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (Environment)

This Act implements the Convention on the International Trade in Endangered Species (CITES) in Canada and regulates both international trade originating in or destined for Canada and interprovincial trade in species listed in the CITES appendices by means of federal and/or provincial permits.

Nunavut Land Claim Agreement Act (Indian Affairs and Northern Development)

This legislation amongst other provisions, establishes a regime of co-management institutions for the management of natural resources in the Nunavut Territory. This includes land-use planning of marine areas, and provisions for extensive Inuit involvement in the management of Parks and Conservation Areas.

Inuvialuit Final Agreement (Indian Affairs and Northern Development)

This agreement establishes co-management regimes for the management of the wildlife in the Inuvialuit Settlement area. The Inuvialuit have entered into bi-lateral agreements with their counterparts, the Inupiat, in Alaska on the management of polar bears and beluga whales.

Canada Oil and Gas Operations Act (Indian Affairs and Northern Development)

This Act provides the basic regulations for exploration and exploitation of oil and gas resources on federally owned lands and waters.

Territorial and Provincial Marine Initiatives

Yukon, Northwest Territories and Nunavut are involved in polar bear management and in the regional environmental emergency teams for offshore oil spills and cleanup. A Northern Oil and Gas Accord has been negotiated which provides the Yukon government with a role in the joint management of any offshore oil and gas development. The province of Newfoundland has a Provincial Parks Act and a Wilderness and Ecological Reserves Act (the latter protects all seabird reserves by both a land and seaward boundary).

GREENLAND

Greenland is historically a marine-based society. Traditionally, Greenland's marine protection efforts has been on regulating fisheries quotas and marine mammal hunting. In recent years, Greenland has been focusing more on broader marine protection issues and ecosystem management and has enacted regulations, for example, to regulate certain fisheries practices to limit the "environmental side-effects". Greenland is currently undertaking a major review of its entire nature conservation regime, including protected area designation.

Jurisdiction for Greenland's marine environment is shared between its own Homerule Government and Denmark, of which it is legally a constituent part under international law. Since Denmark/Greenland have signed, but not ratified, the 1982 Law of the Sea Convention, they have used the 1958 Geneva Conventions to establish Greenland's marine zones. Greenland has jurisdiction for the 3-nmile Inland Waters (coastal) zone whereas Denmark has jurisdiction for the remainder of the 200-nmile zone except for fisheries and for the exploitation of mineral and petroleum resources. The latter which has been granted to Greenland under the Danish Law for Mineral Resources. Enforcement is also a shared responsibility of the Danish and Greenland Homerule authorities.

Greenland has an active marine program, which includes surveys of its marine resources, identification and mapping of high-risk marine sites (in connection with EPPR) and the establishment of protected areas or other special (i.e. Ramsar) sites that have a marine component. The Greenland Homerule Government and the Danish Department for the Arctic Environment have been carrying out studies on cumulative impacts of, for example, oil pollution and have prepared various monitoring studies.

Greenland relies on four main Acts related to conservation of its marine environment. They are:

Nature Protection Act (1980, under revision) (Environment and Nature).

This act allows for the establishment of protected areas, via Executive Order, including marine areas, although at present no distinction is made between marine and terrestrial areas. It is also used to regulate human disturbance at seabird colonies from noise, encroachment or aircraft.

Act on Hunting (1997) (Hunting and Fisheries)

This Act regulates all aspects of hunting, including of marine mammals. It allows setting-aside no-take areas. Regulations are in place for all marine mammals (i.e. narwhal, beluga, minke, humpback, right whale, walrus, polar bear). It is administered by the Department of Hunting and Fisheries.

Act on Fisheries (1997) (Hunting and Fisheries)

This Act regulates all aspects of the fisheries including allowable take, timing, fishing methods (e.g. it is possible to prohibit trawling in important areas for spawning), net size, and allows "no-take" areas to be set aside. It is administered by the Department of Hunting and Fisheries.

Act on Protection of the Marine Environment (1994) (Environment and Nature)

This Act regulates all marine activities to do with shipping and pollution. It is also enabling legislation for other regional and international Conventions and agreements signed by Denmark on behalf of Greenland, including OSPAR, MARPOL, conventions on responsibilities and compensatory funds for oil pollution, and the Geneva Conventions. It is administered by the Department of Environment and Nature.

ICELAND

Like Greenland, Iceland is a marine-dependent country with its major focus on fisheries, which accounts for over 70% of its export income. Consistent with its focus, Iceland was a pioneer among nations in extending the national fishing rights out to a 200 mile limit. Even tiny islets have been important in determining the extent of the zone, and Kolbeinsey [farthest most islet] has been reinforced with concrete to prevent it being broken down by the waves.

Iceland has had a solid terrestrial nature conservation regime in place for many years, including a quite extensive system of protected areas. It has comprehensive legislation and regulations for the marine environment, especially for fisheries and pollution and has recently enacted legislation to establish its first major marine conservation area. Iceland has eight main pieces of legislation related to conservation of its marine environment. They are:

Law on Nature Conservation (1971, rev. 1996)

This Act is used to establish most protected areas; to protect certain stretches of sea and now incorporates terms such as "sustainable" and "good practice".

Law on the Establishment of the Breidafjordur Conservation Area (1995)

This Act established Iceland's first Marine Conservation Area, overseen by a Conservation Committee. The area is a multiple-use area for which a Management Plan is in development.

Law on the Prevention of Pollution at Sea (1986)

This law regulates activities which could cause pollution at sea and is enabling legislation for the OSPAR, MARPOL, London Dumping, and Law of the Sea Conventions.

Law on the Regulation of Fishery Activities (1990)

This comprehensive law can be used to close areas to fisheries by establishing a "0" fish quota; it can also place quotas on Icelandic fisheries using non-Icelandic waters. Under this law, fisheries practices, including allowable equipment and fisheries seasons are regulated.

Law Allowing Iceland to Participate in Fisheries Agreements (1981)

This law enables Iceland to enter into fisheries agreements with other countries including the EU, the Nordic countries, Russia, the USA etc.

Law on the Rights to Fish within the Iceland Economic Zone (1992) This law regulates the use of the Iceland EEZ by other fishing nations

Law on Hunting (1849)

This old law establishes regulations for the take of wildlife (including marine) and methods of kill.

Law on Research for Economic Sectors (1965)

This law regulates the type of research allowable for industrial sectors such as fisheries and oil and gas development.

NORWAY

Norway is a fishing nation and like Greenland and Iceland, has traditionally been dependent on its marine resources. Norway has been steadily increasing its regulation of marine and coastal activity and focusing more on multi-species management plans.

Jurisdiction of Norway's marine environment is shared among national authorities (*inter alia* Ministry of Environment, Ministry of Fisheries, Ministry of Transport), County officials and Svalbard authorities. Protection of the marine environment includes increased regulation of fisheries activities and the use of protected areas and about 2% of the Norwegian mainland coastal zone is under some form of legal protection either as wetlands or for landscape values (the latter excludes sub-surface area). In 1995, Norway mapped 41 potential protected areas distributed along the coast of the mainland but the plan has yet to be fully realised. This mapping was partly based on knowledge of the distribution of marine benthic macro-organisms along the coast, and these data were published as a tabulated catalogue in 1997. A similar catalogue for the northern part of the Barents Sea is in preparation and these data will be included in an inventory of marine values in this region that is also being developed. This inventory will be incorporated in a later plan for further marine conservation (marine protected areas or other marine management regimes). A White Paper on Coastal Conservation, including marine protected areas, is also planned for the spring of 1999.

Norway has five main pieces of legislation that it uses to protect its marine environment. They are:

Nature Conservation Act (1970),

This act, administered by the Ministry of Environment, is a framework act, which declares nature as a national asset to be administered for its long-term preservation and utilised in accordance with a long-term comprehensive administration of resources. The act provides a legal basis for establishing protected areas, including protection of the marine environment, on the main land and in marine areas within four nautical miles from the baseline, and includes criteria for different categories of protection. Individual regulation

for each site is required. The Norwegian Cost Guard enforces regulations for areas under national jurisdiction. The local police enforces regulations for areas under County jurisdiction.

Wildlife Act (1981)

This act provides for protection of all wild terrestrial mammals, birds, amphibians and reptiles outside protected areas on the Norwegian main land, in the Norwegian internal waters, in the Norwegian territorial sea and in Norway's Economic Zone (200 nautical miles). The act regulates hunting on specific species and is also used to set regulations for human disturbance of wildlife, for example at seabird colonies outside protected areas. In areas of major value to wildlife (including sea areas), the government may prohibit activities or use of the area when this is necessary in order to preserve the natural environment of wildlife.

Act relating to Salmonids and Fresh-Water Fish etc. (1992)

This act provides for protection of anadromous salmonids on the Norwegian main land, in the Norwegian internal waters, in the Norwegian territorial sea and in the Norwegian Economic Zone. In accordance with the objective of the Act, the government may permit fishing for anadromous salmonids. Such permission may be given for a specified period of time and apply to particular areas, types of fishing gear, fishing methods, species or catch volumes. In areas of major value to fish resources the government may prohibit activities or use of the area, when this is necessary to preserve or improve habitats.

Act relating to the Norwegian Exclusive Economic Zone (1976)

Norway has established a 200- nautical mile exclusive economic zone with respect to natural resources and certain economic activities. This act holds the legal basis for exercising jurisdiction over marine science and environmental protection outside the territorial sea, within the limits of international law.

Act relating to scientific exploration and exploitation of submarine natural resources other than petroleum resources (1963)

This act applies to scientific exploration and exploitation of submarine natural resources other than petroleum, (petroleum resources are regulated in a special act adopted in 1996), within the border of the Norwegian continental shelf. The act establishes a sovereign right for the Norwegian State to all submarine exploration and exploitation of natural resources. Such activities can not take place without permission from the government.

Salt Water Fisheries Act (1983)

This act regulates fisheries (with the exception of anadromous salmonids) and exploitation of marine mammals, including take and allowable equipment, in sea territories, mainly within Norwegian jurisdiction and for Norwegian citizens also in other sea territories when they are conducting fisheries from Norwegian vessels. For the sake of providing protection and enforcement to fishery interests, this act also authorises a possibility to regulate other activities such as oil and gas exploration or extraction within Norway's territorial sea (four nautical miles).

The Svalbard Act (1925)

This Act governs activities on Svalbard, including all islands and marine areas within four nautical miles from the baseline. The Act authorises fisheries regulations and protection of the marine environment through, for example, establishment of marine protected areas and regulation of shipping within its zone. The Act is also used to set regulations for human disturbance at Svalbard's seabird colonies.

The Planning and Building Act (1985)

This Act has provisions for land-use planning which can apply to coastal areas under County authority. Some Counties have begun a system of coastal zone planning. This Act can be used to regulate different types of use which may sometimes be in competition, for example, fisheries and fish-farming.

RUSSIA

Responsibility for Russia's marine environment is shared between the territorial states and the federal government. The territorial state governments have jurisdiction over the coastal zone (to the 12 nmile limit) and the federal government has jurisdiction over the EEZ. The philosophy behind all of Russia's recent federal environmental legislation is "to frame and implement a single countrywide environmental policy that would ensure the stable development of the country, as well as to improve environmental legislation and the regulatory base for endeavour in this field, strengthen state environmental control and the mechanism of economic regulation of the use of resources and the purpose-oriented, program-based solution of environment rehabilitation problems, develop a system of environmental monitoring, carry out state environmental examinations by experts, and promote international co-operation". ³

Russia's legislation on environmental protection has been aimed at and pre-occupied with "defining and making more specific the environmental policy of the state and its environmental functions, of dividing the related jurisdiction between federal bodies of state power and those of the subjects of the Russian Federation, defining the rights and obligations of citizens and ensuring their environmental safety". ⁴

Some of Russia's main threats to its marine environment (traditional over-fishing and shipping) have been reduced with nearly 50% of Russia's total fleet now in dry-dock. However, contamination from land-based sources continues to be a very serious threat.

Russia is establishing a legislative base which will be used to enhance the conservation of the Arctic marine environment. Main pieces of legislation are:

Law on the Exclusive Economic Zone of the Russian Federation, 1998

This law is one of the most important to protect the marine ecosystems and protection and use of any resource in the EEZ of the Russian Federation. It lays out the state jurisdiction over the EEZ including the protection of marine ecosystems and the protection and

³Governmental Report "About the State of environment of the Russian Federation in 1995", p. 322, Moskva, 1996 with English summary of highlights, 1997.

⁴lbid.

sustainable use of living and non-living resources. It also contains clauses for co-operation with local authorities whose territory is adjacent to the shorelines, for the protection and conservation of rare and endangered animal species listed in the Red Data Book, for preventing deterioration of their habitats, conditions of reproduction and migration; organising zapovedniks, natural reserves, and other protected areas.

Law on the Conservation of Nature in the Russian Federation

This law is used to regulate all aspects of nature conservation, excluding those affecting protected areas. Under this law, Russia develops its Red Data Book of endangered species, including marine species. Once entered in the Red Book, all endangered species, including marine mammals in territorial/state waters, come under federal jurisdiction. Migratory species moving between territorial/state waters are also under federal jurisdiction.

Law on Special Protected Areas (1995)

This law, administered in part by the State Committee on the Environment and Nature Protection (for Zapovedniks), the Department of Forestry (for National Parks) or the Department of Agriculture (for Refuges), is used to establish and regulate national protected areas. A consultation process with other government departments and local communities is required and support is needed from the Department of Fisheries, Departments of Northern Peoples and territorial governments for any marine conservation area. The Act regulates relations in the domain of organisation, protection and use of specially protected natural areas in order to preserve the unique and characteristic natural complexes and objects of the animal and plant kingdoms and their genetic stock, to study the natural processes in the biosphere and to monitor changes in their condition as well as to educate the public in matters of ecology.

Constitution of the Russian Federation

The Constitution allows government officials to enact regulations, pursuant to the Laws. It also requires Russia to preserve its ecological resources, including its marine environment and to strive for sustainable development.

Law on the Continental Shelf (1995)

This Act defines the status, sovereign rights and jurisdiction of the Russian Federation on its continental shelf, likewise the competence of federal agencies of state authority on that shelf. In particular, this competence includes the protection and conservation of the marine environment, mineral and living ("sessile species") resources and the development of measures aimed at preventing the destruction of living organisms in the presence of economic or other activity or navigation.

Law on the Animal Kingdom (1995)

This Act regulates relations in the domain of protection and use of creatures of the animal kingdom living in conditions of natural freedom. The animal kingdom within the borders of the Russian Federation is state (federal or regional) property. Federal property can include in particular rare and disappearing species of animals as well as species recorded in the Red Book of the Russian Federation, species dwelling within a federal specially protected area or inhabiting a territorial sea, the continental shelf or an exclusive economic

zone. The prerogative of federal agencies of state authority in the area of protection and use of the animal kingdom extends in particular to the organisation and implementation of protection, state control and regulation of the use of creatures of the animal kingdom designated as federal property and their habitat, as well as to the management of the Red book of the Russian Federation.

UNITED STATES OF AMERICA

Jurisdiction for the Arctic marine environment is shared between the State of Alaska and the federal government

Of all the Arctic countries the USA has by far the most comprehensive compendium of legislation that it can draw on to protect its marine and coastal environment both at the federal and the state level. Furthermore, it has an abundance of legislation covering all aspects of the marine environment including species in general, endangered species, habitat, fisheries, pollution, transportation, site protection, and a host of human activities. As a general rule, USA law tends to lay out very detailed responsibilities and action required in all its legislation

The following listing, and summary review, although lengthy, is only a portion of the very extensive legislative holding that can be drawn upon to protect the USA's marine environment.

Federal⁵

Anadromous Fish Conservation Act

Clean Water Act

Coastal Wetlands Planning, Protection and Restoration Act

Coastal Zone⁶ Management Act

Comprehensive Environmental Response, Compensation, and Liability Act

Deepwater Port Act of 1974

Emergency Wetlands Resources Act

Endangered Species Act

Estuary Protection Act

Federal Land Policy and Management Act

Fish and Wildlife Conservation Act

Fish and Wildlife Co-ordination Act

Hazardous Materials Transportation Act

Magnuson Fishery Conservation and Management Act

Marine Mammal Protection Act

Marine Protection, Research and Sanctuaries Act (also known as Ocean Dumping Act)

Migratory Bird Conservation Act

National Environmental Policy Act

⁵ This list and the descriptions of federal legislation are subject to final US federal authority review

⁶Coastal Zone Areas are described as the coastal waters, and lands therein and thereunder, and the adjacent shorelines strongly influenced by each other and in proximity to shorelines of the several coastal states. They include islands, transitional and intertidal areas, salt marshes, wetlands, beaches, estuaries, bays, ponds, lagoons, bayous, dunes, barrier islands, reefs, or fish and wildlife habitat

Noise Control Act
North American Wetlands Conservation Act
Oil Pollution Act (1990)
Outer Continental Shelf Lands Act
Rivers and Harbours Act
Water Resources Development Acts
Wilderness Act
Alaska National Interest Lands Conservation Act (1980)

State of Alaska⁷

Alaska fish and Game Code

Alaska Statute title 16 - Critical habitat Areas and Sanctuaries

State of Alaska Oil and Hazardous Substances Pollution Control Regulations (Department of environmental Conservation)

Coastal Zone Management Act - Alaska Implementation

Federal

Anadromous Fish Conservation Act

This act authorises the Secretary of the Interior to enter into co-operative agreements with the States and other non-federal interests for the conservation, development, and enhancement of the nation's anadromous fishery resources subject to depletion from various causes. The Act establishes a grant program for habitat or fish enhancement work not to be used for enforcement, public relations or for commercial fisheries facilities.

Clean Water Act

This Act is the principle law governing pollution control and water quality for the USA and establishes a national goal of eliminating all pollutant discharges into US waters and making the waters safe for fish, shellfish, wildlife and people. The section on Ocean Discharges addresses criteria and permits for discharges into the territorial seas, the contiguous zone and the oceans. It provides standards and enforcement, a number of regulatory programs and grants and revolving funds for research and related programs.

Coastal Wetlands Planning, Protection and Restoration Act

This Act authorises the US Fish and Wildlife Service to make matching grants to any coastal State to carry out cost-shared coastal wetlands conservation projects.

Coastal Zone Management Act

This Act establishes a policy 1) to preserve, protect, develop and where possible, restore and enhance the resources of the nation's coastal zone for current and future generations and 2) to encourage and assist states in their responsibilities in the coastal zone through development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and aesthetic values, as well as the needs for compatible economic development. It delegates responsibility to coastal states to develop and implement management

⁷ This list and the descriptions of Alaska State legislation are subject to Alaska State authorities' final review

programs. It authorises the Secretary of Commerce to award Federal grants to assist states in developing and administering coastal zone management programs and to develop special area management plans (SAMPs) for areas considered to be of particular importance. It also authorises NOAA to undertake a Coastal Nonpoint Pollution Control Program and through state and local authorities to develop and implement management measures for nonpoint source pollution to restore and protect coastal waters. State management programs are to protect the natural resources, manage coastal development to improve, restore and safeguard coastal waters and protect natural resources and existing uses of the waters and to provide for the preservation and restoration of historic, cultural and aesthetic coastal features.

Comprehensive Environmental Response, Compensation, and Liability Act

This Act provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment (except oil spills) and cleanup of inactive hazardous substances disposal sites.

Deepwater Port Act of 1974

This Act provides for construction licenses to be issued if applicants meet required criteria and comply with the Clear Water Act, the Federal Water Pollution Control Act, the Coastal Zone Management Act and the Marine Protection, Research and Sanctuaries Act.

Emergency Wetlands Resources Act

This Act promotes the conservation of wetlands to maintain the public benefits they provide and to fulfil international obligations contained in various migratory bird treaties and conventions. It allows acquisitions and easements and under it, the US FWS has developed a National Wetlands Priority Conservation Plan.

Endangered Species Act

This Act requires all Federal departments and agencies to seek to conserve endangered and threatened species and to ensure that any actions authorised, funded or carried out by them do not jeopardise the continued existence of any endangered or threatened terrestrial or marine species or result in the destruction or adverse modification of habitat of such species determined by the Secretary of the Interior/Commerce. It identifies prohibited acts related to endangered species and prohibits all taking of listed species and requires the FWS or National Marine Fisheries Service to provide information on whether endangered species or habitat are in the area of a proposed project.

Estuary Protection Act

This Act authorise the Secretary of Interior in co-operation with States and other Federal agencies, to inventory and study the nation's estuaries, to facilitate estuary protection, conservation and restoration and maintain the balance between needs of natural resources and beauty and development. Values to be considered include wildlife and recreational potential, ecology, and their value to the marine, anadromous and shell fisheries.

Federal Land Policy and Management Act

This Act establishes the public land policy and guidelines for administration of public lands and allows agencies to withdraw public an area from sale, settlement or entry. This Act restricts military activities on public lands in Alaska, and includes environmental requirements for avoiding impacts.

Fish and Wildlife Conservation Act

The Act encourages Federal departments to conserve and promote conservation of non-game fish and wildlife⁸ and their habitats (excluding marine mammals) and to provide financial and technical assistance to States to conduct inventories and conservation plans.

Fish and Wildlife Co-ordination Act

This Act provides that wildlife and wildlife resources⁹ conservation receives equal consideration and is co-ordinated with other features in water-resources programs. It authorises the Secretary of the Interior (through the FWS) and the National Marine Fisheries Service (NMFS) to assist other groups with conservation or rehabilitation activities. It also contains provisions for funding.

Hazardous Materials Transportation Act

This Act is the federal legislation governing the transportation of hazardous materials in the nation.

Magnuson Fishery Conservation and Management Act

This Act, administered by NOAA, is to conserve and manage the fishery resources found off the coasts of the US, the anadromous species and the Continental shelf fishery resources of the US. It establishes standards for fishery conservation and management and establishes eight Regional Fishery Management Councils (including North Pacific) which prepare, monitor and revise fishery management plans to achieve and maintain the optimum yield from each fishery. Councils include officials from federal and State agencies.

Marine Mammal Protection Act

This Act establishes a moratorium on the taking and importation of marine mammals and their products, with certain exceptions including some incidental take and for subsistence activities by Alaskan natives. Includes animals that are morphologically adapted to the marine environment (i.e. sea otters) and primarily inhabit the marine environment (e.g. polar bears). Unavoidable take requires a permit. The Act also establishes the Marine Mammal Commission

⁸Fish and Wildlife: defined as "wild vertebrate animals in an unconfined state including, but not limited to, nongame fish and wildlife" and "nongame fish and wildlife" as wild vertebrate animals in an unconfined state, that are not ordinarily taken for sport, fur or food, not listed as endangered or threatened species, and non marine mammals within the meaning of US legislation (USC 1362(5), 2902 (6)

⁹Includes birds, fishes, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

Marine Protection, Research and Sanctuaries Act (also known as Ocean Dumping Act)
This Act regulates ocean dumping and establishes the marine sanctuaries program within the Department of Commerce to designate certain areas of the ocean waters as sanctuaries to preserve or restore these areas for their conservation, recreational, ecological or aesthetic values. Activities in sanctuaries are prohibited without a permit.

Migratory Bird Conservation Act

This Act establishes a Migratory Bird Conservation Commission (including State representatives), establishes a Migratory Bird Conservation Fund and allows the purchase or rental of land, water or transitional area as sanctuaries, preservations or refuges for the conservation of migratory birds. Regulations pursuant to the Act control human disturbance at colonies and hunting.

National Environmental Policy Act

This Act is the basic national charter for protection of the environment and requires government agencies to carry out environmental impact assessments on proposed federal legislation and actions that could significantly alter the environment. It also establishes the Office of Environmental Quality. States, local agencies, Indian tribes, proposal applicants and the public are also involved in the process.

Noise Control Act

This Act limits environmental noise - its intensity, duration and character of sounds. It provides for citizen suits.

North American Wetlands Conservation Act

This Act encourages partnerships among public agencies and other interests to protect, enhance, restore and manage and appropriate distribution and diversity of wetland ecosystems and other habitats for migratory birds and fish and wildlife.

Oil Pollution Act (1990)

This Act, spurred by the Exxon Valdez oil spill and other large spills, has six major provisions covering: an expanded federal role in oil-spill response; contingency planning requirements; the establishment of the Oil Spill Liability Trust Fund; increased liability for spills from vessels and facilities; the requirements for double hulls on new tankers; and the requirements for increased research and development into spill response technologies. Regulations identify which facilities could be reasonably expected to cause substantial harm.

Outer Continental Shelf Lands Act

This Act establishes policy for the management and exploitation of oil and natural gas in the Outer Continental Shelf, and for protecting the marine and coastal environment, in part, by creating an oil spill liability fund. It allows for environmental studies and impact assessments on marine biota from pollution or large spills.

Rivers and Harbours Act

This Act prohibits the construction of any dam or dike across any shoreline or navigable water in the absence of prior approval.

Water Resources Development Acts

These Acts authorises the study and/or implementation of various projects and programs for the improvements to rivers and harbours of the USA and for other purposes. It provides for feasibility reports containing specific plans to mitigate fish and wildlife losses and to evaluate the costs and benefits of water resources projects to the environment and fish and wildlife enhancement. It establishes a Mitigation Fund to support authorised preconstruction of fish and wildlife mitigation activities and requires environmental protection measures to be built into project specifications.

Wilderness Act

This Act establishes a National Wilderness Preservation System that leaves the areas unimpaired for future use and enjoyment as wilderness and provides for the protection of these areas and their ecological functions.

Alaska National Interest Lands Conservation Act (1980)

Under this Act, public lands are designated as units of the National Park, National Wildlife Refuges, Wild and Scenic Rivers, National Wilderness Preservation and National Forest systems. The Act provides comprehensive management guidelines for all public lands in Alaska, including provisions regarding wilderness, subsistence, transportation and utility corridors, oil and gas leasing, mining, public access, hunting, trapping and fishing, and implementation of the Alaska Native Claims Settlement Act. It also transfers authority to manage subsistence harvest and management to federal authorities.

State of Alaska

Alaska Fish and Game Code

This Code establishes a Commissioner of Fish and Game within the Department of Fish and Game. The focus is on the commercial fishery and sport hunting. Functions include managing, protecting, maintaining, improving and extending the fish, game and aquatic plant resources of the state in the interests of the economy and general well being of the state; to assist the US FWS in enforcing federal laws and regulations; to acquire property; to construct fish and game enhancement facilities. The Code also establishes a Fund.

Alaska Statute Title 16 - Critical Habitat Areas and Sanctuaries

Under this legislation, certain areas are classified as being essential to the protection of fish and wildlife habitat and designated as a refuge, critical habitat area or sanctuary to be managed by the Alaska Department of Fish and Game.

State of Alaska Oil and Hazardous Substances Pollution Control Regulations (Department of Environmental Conservation)

These regulations cover oil pollution prevention requirements, financial responsibility for oil discharges, contingency plans, reporting, civil penalties and surface oiling.

Coastal Zone Management Act - Alaska Implementation

Alaska has a Coastal Management Program, approved by the National Oceanic and Atmospheric Administration (NOAA). It covers the entire coastal zone to ensure that fish and wildlife habitat is protected and the human use of fish and wildlife are maintained in the development of state and district coastal management programs. Under the CZMA, Alaska can nominate an estuarine ecosystem for Research Reserve Status and has proposed Kachamak Bay. It has also provided the required environmental impact statement and management plan.

6.0 THE USE OF PROTECTED AND OTHER SPECIAL AREAS

All Arctic countries have traditionally used protected areas as a mechanism to afford legal protection to the environment and continue to do so.

In all Arctic countries, the rationales for establishing protected areas have been similar: "habitat, species and ecosystem conservation serve as the primary designation criteria while a variety of other criteria are of secondary importance." (Habitat Conservation Report 3, *National Mechanisms and Principles*, p. 1).

In the Arctic, as in many other regions, the use of protected areas to safeguard elements of the terrestrial ecosystem has far outstripped their use as a marine protection device. This has been pointed out previously in, for example, Habitat Conservation Report 5, Gaps in Habitat Protection in the Circumpolar Arctic, and in the IUCN Report on a Representative System of Marine Protected Areas. To illustrate, the countries have reported a minimum total of 283,448.4 sq kms of marine waters protected whereas the total coverage by protected areas exceeds 2,000,000 sq kms. Even though this figure for protected marine waters is lower than the actual figure, it still represents less than one-fifth total protected area coverage as reported in CAFF Habitat Conservation Report No. 7, Circumpolar Protected Area Network (CPAN) Progress Report. Furthermore, the marine areas tend to be confined to countries' Internal Waters or Territorial Seas whereas countries are encouraged under the CBD to formally protect sites in each of the four marine zones.

As noted earlier in this report, all Arctic countries are making efforts to increase marine protection and are using different means to do so although protected areas remains one of the most common practices. However, there has been a gradual shift in the application of this mechanism, particularly for the marine environment. In some parts, areas that had highly restricted human activity are being opened up to additional human use as, for example, in Greenland which has changed the regulations for one of its protected areas to allow traditional hunting. Also, there has been a shift from the classical rationale for setting aside an area (primarily species and habitat conservation) to more human-related reasons. For example, more sites are being set aside for recreation and for cultural heritage. Another change being witnessed is in the use of terminology. The term "Protected area" is often being replaced with terms such as "conservation area", "sensitive site", or "special area".

According to the IUCN World Commission on Protected Areas (WCPA), these trends are consistent with the global trend to "mainstream" protected areas meaning a gradual shift from treating them as conservation islands or preserves to treating them as integral parts of a broader land or marine use strategy. ¹⁰ The new marine conservation area (Breidafjord) in Iceland is a case in point.

7.0 SUGGESTIONS TO IMPROVE MARINE CONSERVATION

In the course of preparing this paper, representatives of the Arctic countries provided several suggestions to improve marine conservation. Key ones were:

- Increase the circumpolar knowledge base of the marine environment
- Carry out risk analyses and impact assessments of human activities, to determine their effects on the marine environment
- Hold marine workshops to discuss common concerns and issues on the marine environment and develop collaborative strategies
- Develop a circumpolar map of marine resources and all sensitive and important marine sites (including those where legal protection is necessary as a conservation measure)
- Initiate a process to map the maritime zones for the Arctic countries
- Develop a common circumpolar system of marine terminology and classification
- Develop a comprehensive circumpolar marine conservation strategy that incorporates CPAN, that is integrated with other initiatives, and that addresses real issues such as fisheries practices, exploitation, species migration, tourism, aboriginal resource use.
- Develop guidelines for sensitive marine sites
- Develop and promote the use of educational tools on the value of marine conservation and marine protected areas

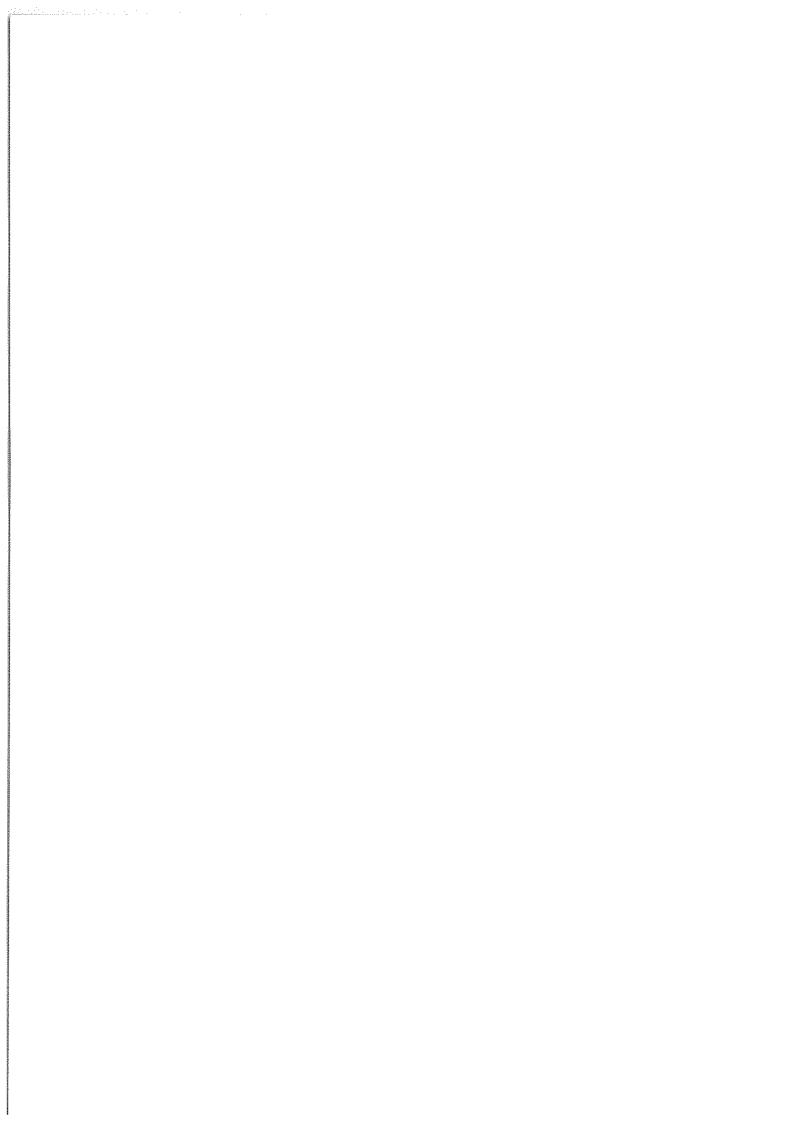
8.0 OBSERVATIONS AND CONCLUSIONS

In general, international Conventions including the older conservation instruments and those dealing with contaminants are being updated either through amendments or decisions of their Conferences of the Parties, to incorporate, or take a more holistic approach to, conservation. Important also is the greater emphasis on the economic dimension, on impacts of human activities on the environment and on the interconnectedness of action/result/and cause/effect.

¹⁰ To quote the WCPA, "Protected areas cannot be considered in isolation from surrounding patterns of land/sea use...they must be set within bioregional programs which link with ecologically sustainable development. They can no longer "survive on their own and must develop ways of working with sectors such as forestry, fisheries and tourism".

While this survey has summarised national and international legal instruments to conserve marine biodiversity and acknowledges that legislation is an extremely important – in fact vital – component of an overall strategy for marine protection, other components and measures are also important. In discussions with representatives of the Arctic countries, a common observation was that there is already sufficient legislation to protect the marine environment and conserve its biodiversity and habitats. However, they observed that the legislation is not always implemented or its provisions adequately enforced. Consequently, they see little incentive to recommend additional legislation. They saw merit in promoting more effective implementation and one suggestion is for the Arctic countries to consider reviewing implementation of the various instruments to determine how and where as a circumpolar group they could enhance implementation.

Another observation is that some countries may wish to consider establishing an overall management framework for marine protection such as is now being put in place under Canada's Oceans Act.



CAFF PUBLICATIONS:

CAFF Habitat Conservation Reports (HCR):

- No 1 The State of the Protected Areas in the Circumpolar Arctic (1994)
- No.2 Proposed Protected Areas in the Circumpolar Arctic (1996)
- No.3 National Principles and Mechanisms for Protected Areas in the Arctic Countries (1996)
- No.4 Circumpolar Protected Areas Network (CPAN) Principles and Guidelines (1996)
- No.5 Gaps in Habitat Protection in the Circumpolar Arctic (1996)
- No.6 Circumpolar Protected Areas Network (CPAN) Strategy and Action Plan (1996)
- No.7 Circumpolar Protected Areas Network (CPAN) Progress Report 1997 (1997)
- No.8 Summary of Legal Instruments and National Frameworks for Arctic Marine Conservation (2000)
- No.9 Gap analysis on the Russia Arctic (2000)

CAFF Technical Reports:

- No.1 Incidental Take of Seabirds in Commercial Fisheries in the Arctic Countries (1998)
- No.2 Human Disturbance at Arctic Seabird Colonies (1998)
- No.3 Atlas of Rare Endemic Vascular Plants of the Arctic (1999)
- No.4 Global Overview of the Conservation of Arctic Migratory Breeding Birds Outside the Arctic
- No.5 AMAP/CAFF Workshop on Climate Change, Rovaniemi. 24-25 March 1998 (1998) (1999)
- No.6 CAFF/AMAP Workshop on a Circumpolar Biodiversity Monitoring Program, Reykjavik 7-9 Feb, 2000; Summary Report

CAFF Strategies

Circumpolar Protected Areas Network (CPAN) Strategy and Action Plan (1996)

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The Co-operative Strategy for Conservation of Biological Diversity in the Arctic Region (1997)

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CAFF Report to Ministers 1996 (March 1996)

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Fifth Annual Meeting of the CAFF International Working Group (CAFF V), Rovaniemi 1996: Summary Report (1997)

Sixth Annual Meeting of the CAFF International Working Group (CAFF VI), Nuuk 1997: Summary Report (1998)

Seventh Meeting of the CAFF International Working Group (CAFF VII), Yellowknife 1999: Summary Report (1999)

Circumpolar Seabird Working Group Bulletin, Vol 1-2, (1995-1996)

CAFF Newsletter Vol 1-2 (1995-1996)

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