

**ARCTIC SEAS AND COASTAL AREAS** 

# ARCTIC COUNCIL ARCTIC MARINE STRATEGIC PLAN

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#### 1.0 INTRODUCTION

#### 1.1 Background

Abundant natural resources, increasing economic activity and significant changes due to climatic processes are resulting in increased use of and opportunities and threats to the Arctic marine and coastal environments. Increased activities will lead to increased human presence in the high Arctic. Some measures intended to manage these pressures and opportunities have been introduced, but they have largely been reactive and have been developed on a sector-by-sector basis. More integrated approaches are required to address both existing and emerging challenges in a more efficient and cost-effective way

This Strategic Plan was conceived at a meeting of the Arctic Council in Inari, Finland, in 2002. Arctic Council Ministers signed a declaration recognizing that "...existing and emerging activities in the Arctic warrant a more coordinated and integrated strategic approach to address the challenges of the Arctic coastal and marine environment..."

The Council thus agreed "...to develop a strategic plan for protection of the Arctic marine environment under leadership by PAME". In fulfillment of this agreement, this document was developed in cooperation with Arctic Council member states, permanent participants, working groups and observers.

#### 1.2 Coverage

This Strategic Plan covers all Arctic marine areas and relates to all key activities affecting Arctic marine ecosystems; therefore it also considers coastal zones, river basins and other areas that are connected to the marine ecosystem. Arctic Council member states will define their relevant Arctic areas.

#### 1.3 Context

At the Earth Summit in 1992, the need to manage human activities within the context of entire ecosystems and to address environmental, social and economic objectives was widely endorsed. This approach was also accepted at the formation of the Arctic Council in 1996 and reconfirmed at the World Summit on

Sustainable Development (WSSD) in 2002. WSSD also reconfirmed that the United Nations Convention on the Law of the Sea (UNCLOS) provides a legal framework for all ocean activities and, further, that such key concepts and approaches as precaution and ecosystem-based management are now widely accepted. The aim of this Arctic Marine Strategic Plan is to build on these internationally recognized approaches, applying them to achieve the sustainable development of the Arctic marine environment.

This Strategic Plan also represents an important opportunity to link Arctic Ocean health to the full implementation of existing international instruments and governmental commitments aimed at improving the management of oceanic and coastal resources. One of the objectives of this Strategic Plan is to promote the implementation of applicable international instruments to which Arctic Council member States are party, such as UNCLOS, the UN Framework Convention on Climate Change, the International Maritime Organization Conventions and Protocols, the London Convention, the Stockholm Convention on Persistent Organic Pollutants, the Convention on Biological Diversity (CBD), the Convention for the International Trade in Endangered Species (CITES) and the Convention on Wetlands of International Importance, as well as relevant regional instruments such as the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). This Strategic Plan may also help states to demonstrate action under other relevant instruments such as the United Nations Environment Programme (UNEP) Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-Based Activities and the United Nations Food and Agriculture Organization (FAO) Action Plans. This Strategic Plan may also be of assistance in future development of new or proposed initiatives of relevance to the protection of the Arctic marine environment, such as the proposed European Union Marine Strategy.

In addition, this Strategic Plan identifies actions that can help meet some of the sustainable development targets developed at WSSD, in particular the call to promote and develop an ecosystem approach, to improve

**Table 1: Summary of WSSD Marine-Related Targets** 

ACTION	TARGET DATE
Establish a regular process for global reporting and assessment of the state of the marine environment (36 b)	2004
Implement the International Plans of Action for Illegal, Unreported and Unregulated (IUU) Fishing and the management of Fishing Capacity (31 d)	2004, 2005
Make substantial progress re: land-based pollution by the next GPA review (33 d)	2006
Encourage application of the ecosystem approach (30 d)	2010
Establish marine protected areas, including representative networks (32 c)	2012
Maintain or restore depleted fish stocks to levels that can produce the maximum sustainable yield, where possible (31 a)	2015

reporting and assessment, to ensure sustainable fish stocks, to reduce marine pollution and to establish marine protected areas (MPAs), including representative networks (see Table 1).

The rapid pace of technological and economic development in Arctic regions also affects the culture and well-being of their human residents, including indigenous peoples whose traditional way of life has been, until now, at least partially protected by the very nature of the remote and extreme environment in

which they live. These changes represent both a challenge and an opportunity for governments and local communities. Arctic inhabitants must be informed and involved in shaping a regional approach to their changing environment; their engagement will be necessary. A strategic approach to managing the Arctic marine and coastal environment will need to take into account applicable national, indigenous, territorial and other government laws and agreements, as well as other governance arrangements as they evolve.



#### 2.0 VISION

The Arctic Council's vision for the Arctic marine environment is as follows:

A healthy and productive Arctic Ocean and coasts that support environmental, economic and socio-cultural values for current and future generations.

#### **3.0 GOALS**

The goals of this Strategic Plan are as follows:

**Arctic Marine Strategic Plan Goals** 

Reduce and prevent pollution in the Arctic marine environment

Conserve Arctic marine biodiversity and ecosystem functions

Promote the health and prosperity of all Arctic inhabitants

Advance sustainable Arctic marine resource use

#### 4.0 DRIVERS OF CHANGE

The environmental, economic and socio-cultural changes occurring in the Arctic today are primarily driven by two key factors: climate change and increasing economic activity.

#### 4.1 Climate Change

Historically, the harsh environment, difficulty of access to resources and scattered nature of the population patterns has restricted rapid development and communication in the circumpolar region. In the past half-century, however, technological advances have increased the rate of development, and climate change appears to be a significant force in shaping the future of the North.

The Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), issued in 2001, estimated that warming in the Arctic could be more than twice the global average, which is estimated to be in the range of 1.4 to 5.8°C depending on assumptions about population growth and economic and technological development. The Arctic Climate Impact Assessment (ACIA) confirmed the earlier findings of the IPCC and concluded that the average temperature in the Arctic has already increased by more than twice the global average over the past 50 years, with some variations across the region. The temperature is projected to rise by about 5 to 7°C over the next 100 years.

The ACIA also concluded that the reduction in sea ice will continue to lengthen the navigation season and very likely increase access to Arctic resources. Further, many coastal communities and facilities face increasing exposure to storms as rising sea levels and a reduction in sea ice allow higher waves and storm surges to reach shore. The resulting severe coastal erosion will be a growing problem.



The ACIA key findings are summarized below.

#### **Arctic Climate Impact Assessment - Key Findings**

Arctic climate is now warming rapidly and much larger changes are projected

Arctic warming and its consequences have worldwide implications

Arctic vegetation zones are very likely to shift, causing wide-ranging impacts

Animal species' diversity, ranges and distribution will change

Many coastal communities and facilities face increasing exposure to storms

Reduced sea ice is very likely to increase marine transport and access to resources

Thawing ground will disrupt transportation, buildings, and other infrastructure

Indigenous communities are facing major economic and cultural impacts

Elevated ultraviolet radiation levels will affect people, plants and animals

Multiple influences interact to cause impacts to people and ecosystems

#### 4.2 Increased Economic Activity

On the economic front, most large-scale activity has focused on offshore fisheries and hydrocarbon development, while inshore fisheries have supported local commercial and subsistence activities. Economically, there is increased potential for new markets, activities and endeavours. Important fisheries and rich mineral and hydrocarbon reserves are becoming increasingly accessible due to technological advances and the observed trend toward longer periods of open ice. This trend also has significant implications for the use of the Arctic as an efficient shipping route.

While an increase in accessibility and marine transportation will require greater support and pose increased environmental risks, it will also lead to opportunities for social and economic development through increased investment and infrastructure, and to improved access to goods, services and supplies.



#### 5.0 CHALLENGES AND OPPORTUNITIES

Each of the four goals of this Strategic Plan presents both significant challenges and opportunities for states and other circumpolar stakeholders.

#### 5.1 Pollution Prevention

Reduce and prevent pollution in the Arctic marine environment

An important goal of this Strategic Plan is to prevent and reduce marine pollution. This will require, among other efforts, action of the national level and working through intergovernmental agreements.

Contaminants can originate from within or outside the region. The main pathways for input of contaminants



to the Arctic marine environment include inflowing ocean currents, atmospheric transport, river input, land run-off and direct discharge or disposal from land and sea-based activities. Major pollutant sources within the Arctic include abandoned and existing industrial and military sites, mines and exploration sites, community and industrial disposal facilities and commercial harbours. The potential for accidents related to the transportation and storage of oil, and to sites with stored radioactive material, could represent significant threats to the Arctic marine environment.

Sources of long range transport of contamination (atmospheric, oceanic or water pathways) to the Arctic region that are of major concern include fossil fuel combustion, waste incineration, some industrial

processes and recycling operations and the use of persistent organic substances such as pesticides (which end up in the Arctic food chain). Also of concern is the possible remobilization of polluting substances (e.g. persistent pollutants, heavy metals) from existing environmental reservoirs, such as contaminated soils and sediments.

### 5.2 Biodiversity and Ecosystem Integrity

Conserve Arctic marine biodiversity and ecosystem functions

Another goal of the Strategic Plan is to conserve Arctic marine biological diversity and ecosystem functions. Achieving this goal will require an ecosystem approach. This in turn will require attention to all key activities affecting not only the marine ecosystem but also related coastal zones.

The Arctic environment is characterized by low temperatures, a short growing season with long winter darkness, and the presence of sea ice. Many species that are uniquely adapted to life in the Arctic are already under stress from increasing water temperatures, melting sea ice and the associated changes in current patterns, as well as from "biomagnified" contaminants (i.e., their concentrations increase as they rise through the Arctic food chain).

Arctic ecosystems are delicately balanced, having adapted to extreme living conditions. Some southerly species found in these systems are at or near their limits of distribution. The complex marine food chains



depend on the highly productive Arctic phytoplankton and ice algae, which are especially adapted to cold water, darkness and the unique freshwater/brine conditions of the sea ice/ocean interface. Terrestrial Arctic ecosystems are generally considered to be less complex and lower in biological diversity, i.e. to have fewer food chain linkages than temperate and tropical ecosystems. However, they are closely linked to the marine ecosystems: polar bears den on land, but hunt out on the sea ice; seals, eaten by humans, make their dens on or in the sea ice and feed on fish; seabirds, which are eaten by humans, nest on land and feed on fish and invertebrates; salmon, arctic char, and other anadromous species move to freshwater environments



to breed. Stresses, including those associated with climate change and bio-magnified contaminants, cross species and ecosystems, affecting reproductive success, mortality rates and ecosystem integrity. Indigenous and other local communities in the Arctic are mostly in coastal areas, where the diverse and productive marine and coastal ecosystems sustain their economies and culture. Arctic biological diversity is characterized by endemic resident species, species with unique genetic variation, and migrating species that also depend on ecosystem integrity along their migratory routes. Arctic biological diversity is important locally, nationally, regionally and globally.

Climate change and increased economic activity (e.g., resource development, shipping, tourism and aquaculture) in the Arctic will produce many alterations to the delicate balance of the Arctic environment and to the region's ecological processes, including the introduction of alien species and increases in marine

pollution (e.g., oil spills). Applying an ecosystem approach, identifying ecologically important areas and assessing the cumulative effect of development activities on them will be critical in conserving biodiversity.

#### 5.3 Promoting Human Health

Promote the health and prosperity of all Arctic inhabitants

Promoting human health and preventing pollution of the enviornment are closely connected goals in the Arctic. Mitigating and preventing the impacts of contaminants on the state of the Arctic environment and on the health of Northern populations remains a high priority for the Arctic Council.

Increasing public awareness about the health benefits of marine foods and the occurrence and concentrations of contaminants can lead to better understanding and selection of food choices, and to improved health. The Arctic marine and terrestrial animals used for food by Arctic inhabitants accumulate persistent organic pollutants and several heavy metals. These substances and metals concentrate in Arctic plants and animals, and some can become "biomagnified". As a result, species at the top of the food chain, including humans, can carry very high levels of these pollutants, posing serious risks to both individual and population health.

This situation could be made more serious if the present warming trends in the Arctic continue and result in the accelerated release and distribution of harmful substances into the environment, the entry of new





disease vectors, the salinization of drinking water, alterations in the habitat for terrestrial and marine species that can affect population levels and range, and changes in traditional food availability and its safety for Arctic inhabitants.

A further health-related concern is that many existing towns and settlements, industrial developments and facilities within catchment areas that drain into the Arctic Ocean have inadequate waste management facilities; this situation, unless ameliorated, could be aggravated by population increases and regional development.

#### 5.4 Marine Resource Use

#### Advance sustainable Arctic marine resource use

The final goal for the Strategic Plan is to advance sustainable Arctic marine resource use. This approach offers greater economic opportunities for Arctic inhabitants while protecting both the environment upon which they depend and the very nature of their social and cultural fabric.

The development and use of living and non-living resources of the Arctic marine environment has increased overall and will likely continue to do so at an accelerated pace. Hunting and fishing are the cultural basis for indigenous peoples and continue to sustain many small, dispersed communities of the Arctic. More recently, commercial fisheries, mining and the development of hydrocarbon resources have contributed to the economies of several Arctic communities.

The estimated warming of the Arctic with a longer icefree season and the opening of a northern shipping

route corridor linking Europe and Asia is attractive to shippers in terms of reduced time and costs. Improved access will reduce the time and cost of transporting goods to the North, facilitate the development of Arctic coastal towns and infrastructure, and potentially increase employment opportunities and disposable income for Arctic inhabitants by reducing the costs of goods, services and supplies. Conversely, however, increased shipping traffic will generate an increased requirement for icebreaking support over a period of several decades. Navigation aid placement, vessel traffic management, ship compliance inspections, security considerations and the greater potential for accidents will represent increasing demands on national maritime resources. Further, increased vessel traffic will also increase stress on marine mammals and on traditional subsistence practices.

Several economic sectors, including mineral resource development, tourism and commercial fishing, will also be advanced with improved access. However, the increase in temperature of Arctic marine environments could have a negative impact on the distribution and abundance of marine fishery resources, potentially putting elements of the commercial fishing industry at risk. The projected lessening of sea ice in the Arctic Ocean will reduce an important constraint on oil and gas development, reducing operating costs and so making northern hydrocarbons more competitive.



These changes can represent important opportunities, but it is critical that marine resources be developed in a sustainable manner in order to support long-term economic security.

#### 6.0 PRINCIPLES AND APPROACHES

This Strategic Plan is consistent with the rights and obligations covered under applicable regional and international agreements. It is acknowledged that the UN Convention on the Law of the Sea is the recognized legal framework for implementing this Strategic Plan. This Strategic Plan is based on widely recognized principles and approaches found in international documents such as the Rio Declaration and Agenda 21 from the 1992 Earth Summit, the Convention on Biological Diversity, the WSSD Plan of Implementation and the Arctic Council's founding documents. These principles and approaches include sustainable development, precaution, polluter pays, integrated management and an ecosystem-based approach.

With this Strategic Plan, the Arctic Council has an opportunity to provide international leadership for the global sustainable development agenda through the adoption and application of an integrated, ecosystembased approach to managing the Arctic marine environment.

#### 6.1 An Ecosystem Approach

The modern ocean management concept known as ecosystem-based management is the best approach to managing the Arctic marine environment in such a way as to achieve the four goals of this Strategic Plan (outlined in Section 3).

The key features of this approach includes a consideration of multiple scales, a long-term perspective, the recognition that humans are an integral part of ecosystems, an adaptive management perspective and a concern for sustaining production and consumption potential for goods and services.

An integrated ecosystem-based management approach requires that development activities be coordinated in a way that minimizes their impact on the environment and integrates thinking across environmental, socioeconomic, political and sectoral realms. The management of resource activities needs to be focused on realistic, practical steps that are directed toward reducing environmental damage, protecting biodiversity and

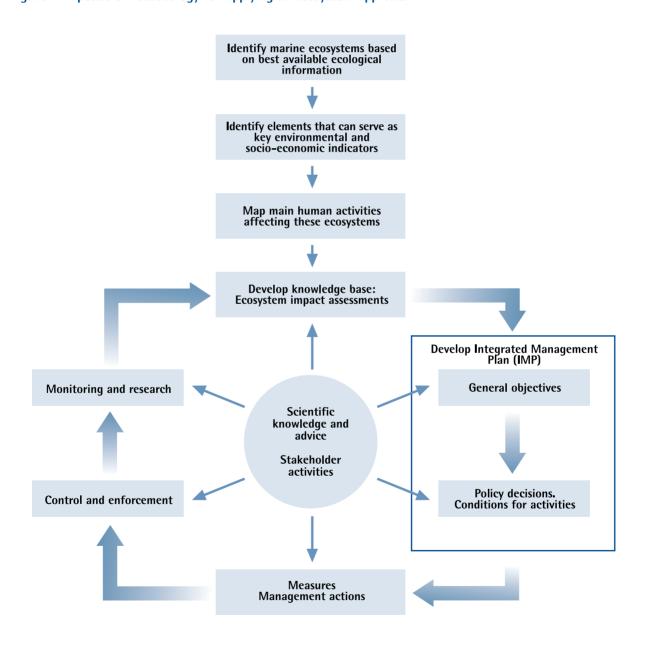


promoting the health and prosperity of local communities. For such an approach to be successful, the relevant ecosystems need to be better understood, monitored and reported on. Actions must be based on clear objectives and a sound management structure, employing best available knowledge and practices,

integrated decision-making and, where appropriate, a coordinated, regional approach.

Although the concept is evolving, one possible way for applying an ecosystem approach is illustrated in Figure 1.

Figure 1: A possible Methodology for Applying an Ecosystem Approach



#### 7.0 STRATEGIC ACTIONS

This Strategic Plan sets out a range of actions that can be undertaken by the Arctic Council through its member states and subsidiary bodies, in collaboration with other regional and global organizations.

The following strategic actions were selected according to the goals, principles and approaches outlined above, taking into consideration the current and emerging situation affecting the Arctic marine environment, its ecological integrity and the social, cultural, economic and physical well-being of its peoples. In addition, the strategic actions were selected taking into consideration the criteria outlined below.

#### Criteria Used in Developing Strategic Actions

Relates to matters that are within the scope of the Arctic Council, and to problems that are shared or common in nature

Relates to the Arctic marine environment, or to one of the drivers of change of direct or potential importance to that environment

Is strategic in nature and provides policy direction

Has measurable results

Meets with Arctic Council consensus.

It is anticipated that additional actions will be required as new information becomes available through, for example, ongoing or new studies by the Arctic Council working groups and others.

## 7.1 Improve Knowledge and Understanding of the Marine Environment

7.1.1 Integrate and enhance research and monitoring activities for the observation and conservation of the Arctic marine and coastal ecosystem, including application of monitoring systems with adequate circumpolar coverage, representing all seasons of the year, in situ and satellite methodology, coordination of activities between working groups, and

development of new databases where necessary.

- 7.1.2 Evaluate and incorporate, as appropriate, traditional ecological knowledge and community-based scientific monitoring in marine research, assessments and reports; involve indigenous and local people and consult communities in the distribution and use of the information.
- 7.1.3 Improve the knowledge and understanding of the quality and safety of marine food and its benefits for human health; communicate this information to Arctic inhabitants.
- 7.1.4 Provide a regional contribution to the UN Global Marine Assessment as recommended by the WSSD Plan of Implementation.
- 7.1.5 Conduct a comprehensive assessment of Arctic marine shipping at current and projected levels.

### 7.2 Respond to Emerging Knowledge

- 7.2.1 Develop procedures, guidelines and other actions in response to the ACIA findings and recommendations, including those related to information gaps.
- 7.2.2 Review the assessment of Arctic marine shipping (see 7.1.5) and, based on the findings, develop recommendations to the International Maritime Organization (IMO) and others, as appropriate, to guide the management of Arctic marine shipping.
- 7.2.3 Examine the adequacy of Arctic Council guidelines related to the prevention of environmental impacts of oil and gas activities in light of the Council's Assessment of Potential Impacts of Oil and Gas Activities in the Arctic and in keeping with the review cycle approved by the Council.
- 7.2.4 Develop guidelines and procedures for port reception facilities for ship-generated waste and cargo residues for consideration by member states.
- 7.2.5 Improve capabilities for responding to marine emergency situations, including those resulting from climatic variability.

7.2.6 Identify potential areas, as appropriate, where new guidelines and codes of practice for the marine environment are needed.

## 7.3 Implement and Comply with Applicable International / Regional Commitments

- 7.3.1 Promote the implementation of and compliance with relevant international/regional agreements.
- 7.3.2 Promote WSSD actions related to the marine and coastal environment, including the application of an ecosystem approach and establishment of marine protected areas, including representative networks.
- 7.3.3 Consider broadening the Arctic Council Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities to address other source categories.
- 7.3.4 Periodically review the status and adequacy of international/regional agreements and standards that have application in the Arctic marine environment, new scientific knowledge of emerging substances of concern, and analyze the applicability of a regional seas agreement to the Arctic.
- 7.3.5 Promote, where appropriate, the implementation of contaminant-related conventions/ agreements and programs, noting in particular the Stockholm Convention; and possible additional global and regional action on mercury and emerging substances of concern.

## 7.4 Apply an Ecosystem Approach to Management

- 7.4.1 Identify the large marine ecosystems of the Arctic based on the best available ecological information.
- 7.4.2 Identify elements that can serve as key environmental and socio-economic indicators of the state of Arctic marine ecosystems and thus guide effective decision-making.

7.4.3 Promote pilot projects that demonstrate the application of an ecosystem approach to management.

### 7.5 Facilitate Partnerships and Technical Co-operation

- 7.5.1 Foster partnerships among governments and indigenous peoples' organizations (IPOs), communities, industry, international bodies, non-governmental organizations (NGOs) and academia to advance the goals of this Strategic Plan, employing such mechanisms as partnership conferences and workshops.
- 7.5.2 Increase cooperation and collaboration with international/regional organizations, such as international fisheries organizations, and with the organizing bodies of marine-related conventions/agreements, by e.g., convening Arctic Marine Strategic Plan workshops.
- 7.5.3 Encourage and facilitate technical cooperation for the Russian Federation's activities aimed at protecting the Arctic marine environment.

## 7.6 Build the Capacity and Engagement of Arctic Inhabitants

- 7.6.1 Promote oceans education through appropriate institutions and organizations, such as the University of the Arctic; encourage training related to best operating practices.
- 7.6.2 Encourage the development of mechanisms to enhance local involvement in the collection of marine information and monitoring.
- 7.6.3 Encourage improved communication by ensuring that the latest scientific, human development and economic information is available in forms appropriate for communities; improve two-way communication and access to information (e.g., through websites), and develop protocols for the sharing of information.
- 7.6.4 Encourage coastal community pilot projects related to integrated ocean management.

## 7.7 Support Communication, Reporting and Outreach

7.7.1 Periodically assess and report to the Arctic Council on the implementation and effectiveness of this Strategic Plan, as appropriate.

7.7.2 Disseminate information about this Strategic Plan, including updates on related activities, through various channels such as the Arctic Council, the Global Programme of Action review (2006 and 2012), International Polar Year (2007/2008) and the Rio+20 review (2012).

7.7.3 Promote a marine and coastal component in the International Polar Year (2007/2008) programme.

#### 8.0 IMPLEMENTATION

This Strategic Plan addresses both the short-term and long-term challenges and opportunities. The implementation of specific strategic actions should be determined to a large degree by the assessment of the risks and benefits, the collective political ability to act, the financial implications and the capacity (knowledge, facilities and effort) available to address the required objectives at any given time.

Achieving the goals of this Strategic Plan cannot be accomplished in isolation. Working groups will have to coordinate and cooperate amongst themselves, and the Arctic Council will need to look to outside governments and agencies for support and participation. Therefore, the Plan promotes collaborative work and recognizes that working regionally offers an economy of scale, particularly for such joint efforts as research, monitoring, assessment and technical cooperation. It can also improve policy and program coordination, and help to promote compliance.

Many factors influence the success or failure of any plan. Two that are deemed to be particularly critical for the success of this Strategic Plan are strong institutional support and effective engagement of stakeholders.

The Arctic Council already provides strong institutional support for the management of the Arctic marine environment; this Strategic Plan relies for its implementation on the existing structures and mechanisms of the Council, i.e., Arctic Council biannual meetings, Senior Arctic Officials (SAOs) meetings and the activities of the Arctic Council working groups. Each working group, under the overall direction of the SAOs, is expected to implement those activities of the Plan that relate to its specific objectives, as follows:

Arctic Monitoring and Assessment Program (AMAP) – to measure the levels and assess the effects of anthropogenic pollutants in all compartments of the Arctic environment, including humans; to document trends in pollution; to document sources and pathways of pollutants; to examine the impact of pollution on Arctic flora and fauna, especially those used as food by indigenous people and the general population; to report on the state of the Arctic environment to Ministers and relevant fora; and, to give advice to Ministers on priority actions needed to improve the environmental conditions in the Arctic.

#### Conservation of Arctic Fauna and Flora (CAFF)

- to address conservation of Arctic biodiversity and communicate scientific findings to the indigenous peoples and other local residents, and to the governments of the Arctic, helping to promote practices which ensure sustainability of the Arctic's living resources.

Emergency, Prevention, Preparedness and Response (EPPR) – to address the prevention of, preparedness for and response to environmental emergencies in the Arctic that result from human activities.

Protection of the Arctic Marine Environment (PAME) - to address policy and non-emergency pollution prevention and control measures related to the protection of the Arctic marine environment from both land- and sea-based activities.

#### **Sustainable Development Working Group (SDWG)**

- to address the protection and enhancement of the economies, cultures and health of the inhabitants of the Arctic, in an environmentally sustainable manner.

Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP) – to prevent adverse effects from, reduce and ultimately eliminate pollution of the Arctic environment.

Working group work plans are approved on a biannual basis by the Arctic Council, on the recommendation of the SAOs, with the active participation of the permanent participants. These biannual work plans will identify, through coordination among the working groups, the lead responsibility for strategic actions and any contribution required from other working groups.

Regular progress reports to the Arctic Council on the implementation of this Strategic Plan will be provided by PAME and the other working groups. Subject to direction from SAOs and Arctic Council Ministers, PAME, in collaboration with all Arctic Council subsidiary bodies, will also lead a review of the Strategic Plan by 2010, or another date specified by the Council, to determine its adequacy in light of the results of ongoing assessments and national and regional reporting.

Under the direction of SAOs, PAME will also, in consultation with other Arctic Council working groups and permanent participants, develop a communication plan to support understanding and involvement in the implementation of this Strategic Plan. This communication plan will be developed within two years for the Arctic Council's consideration and subsequent implementation.



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