

# AMAP Strategic Plan: 1998-2003

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# THE AMAP STRATEGIC PLAN: 1998-2003

## 1. INTRODUCTION

### 1.1 The Arctic Monitoring and Assessment Programme (AMAP)

The Arctic Monitoring and Assessment Programme (AMAP) is an intergovernmental programme under the Arctic Council. AMAP was established to implement components of the Arctic Environmental Protection Strategy (AEPS). In June 1997, the AEPS and its groups were subsumed under the responsibilities of the Arctic Council.

The current AMAP mandate is a result decisions taken during Ministerial meetings, initially AEPS Ministerial meetings and, since 1998, Arctic Council Ministerial meetings. It is a development of a mandate established under the Rovaniemi Declaration (1991) and subsequently developed in the Nuuk (1993), Inuvik (1996), Alta (1997) and Iqaluit (1998) Ministerial Declarations.

The AMAP Strategic Plan 1998-2003 is developed according to this mandate and aims to provide a framework for a programme of activities that will enable AMAP to fulfill its obligations with respect to requests made by Ministers.

### 1.2 Scope of the Strategic Plan

The AMAP Strategic Plan presents an overall strategy of collaborative actions involving the AMAP member countries and permanent participants, observing countries and observing organizations to meet the Ministerial requests. The aim of the Strategic Plan is to set a framework for implementing practical activities within AMAP.

## 2. AMAP MANDATE, OBJECTIVES AND PRIORITIES FOR THE PERIOD 1998 – 2003

### 2.1 Mandate and objectives

At the Fourth AEPS Ministerial meeting in Alta, June 1997, the AMAP mandate, developed between 1991 and 1996, was further extended.

Ministers “*endorsed continuation of [AMAP] activities for monitoring, data collection, exchange of data on impacts and assessment of the effects of contaminants and their pathways, increased UV-B radiation due to stratospheric ozone depletion, and climate change on Arctic ecosystems.*” They further emphasized that “*special attention is required on human health impacts and the effects of multiple stressors.*”

At the First Meeting of the Arctic Council, in Iqaluit, 1998, Ministers requested CAFF (the Arctic Council group on Conservation of Arctic Flora and Fauna) to monitor and assess “in collaboration with AMAP, the effects of climate change and UV-B radiation on Arctic ecosystems”.

Also in accordance with the Iqaluit Ministerial Declaration, the AMAP human health monitoring programme will be closely linked with the Arctic Council project on Arctic Children and Youth, led by Canada.

The overall objective for the future work of AMAP is “to provide reliable and sufficient information on the status of, and threats to, the Arctic environment, and to provide scientific advice on actions to be taken” in order to support Arctic governments in their efforts to take remedial and preventive actions related to contaminants.

Background information on AMAP activities between 1991 and 1997 is given in Annex 1.

## 2.2 Priorities

In extending activities requested under the Rovaniemi (1991), Nuuk (1993) and Inuvik (1996) Declarations (Annex 1), Ministers have focused AMAP activities for the period 1998-2003 on the following priorities:

### ***P*** *Contaminant levels, trends and effects in human populations and in the environment*

- to address the uncertainty as to whether or not the levels of prioritised contaminants (POPs, heavy metals, radioactivity, acidification, petroleum hydrocarbons and PAHs) are changing;
- to determine more fully the geographic distribution and magnitude of contaminant levels on a circumpolar basis;
- to clarify the adverse effects of POPs, methyl mercury, and heavy metals on human populations, especially on child development;
- to monitor and identify chemical and biological effects on Arctic flora and fauna;

### ***P*** *Effects due to changes in climate and UV radiation*

- to monitor and assess climate change and UV-B and their effects on Arctic ecosystems and human health.

### ***P*** *Source-receptor relationships*

- to quantify and assess the significance of the different contaminant sources and contaminant pathways to and within the Arctic (e.g., EMEP under the LRTAP Convention).

### ***P*** *Human health*

- to protect and promote the health of Northern peoples with respect to their exposure to environmental contaminants.

### ⇒ *Communication of information*

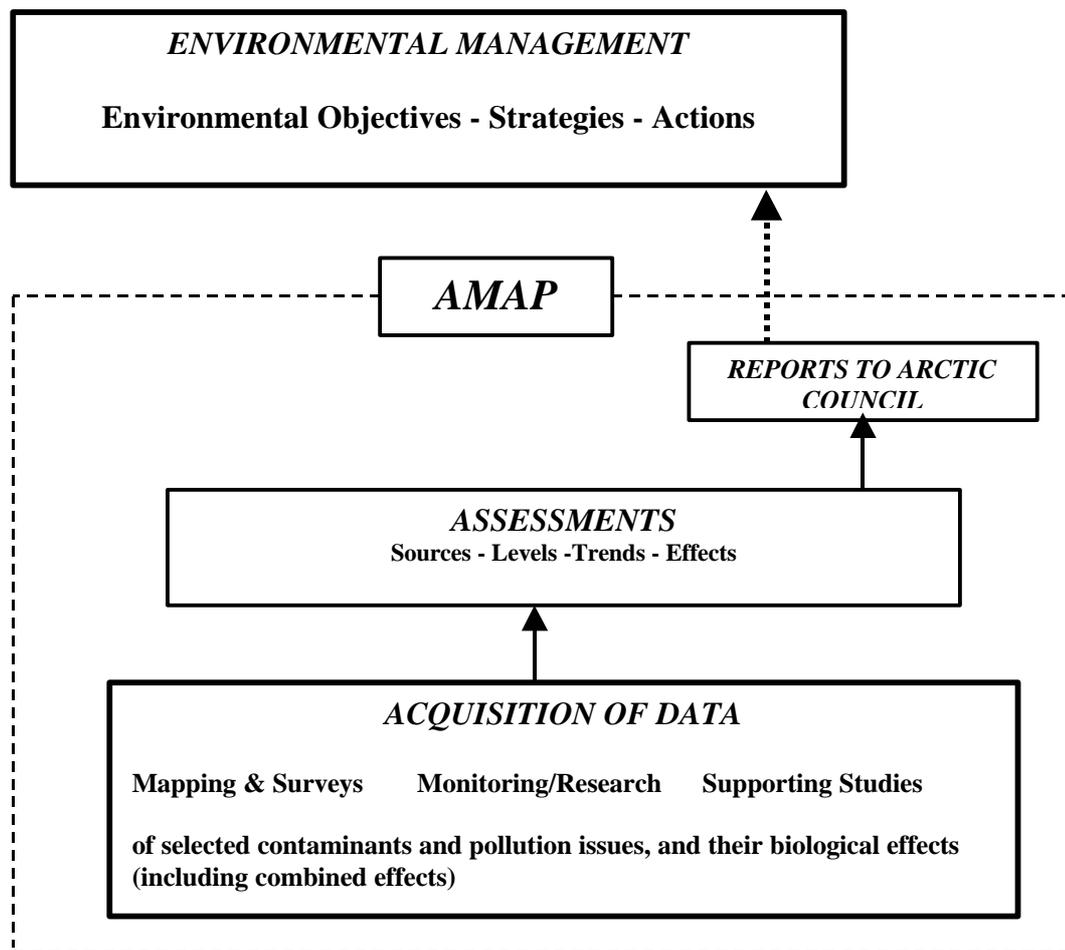
- to communicate results in an appropriate and responsible manner to relevant international bodies and to the populations of the Arctic.

## 3. THE STRATEGIC APPROACH TO MEET THE OBJECTIVES AND PRIORITIES

### 3.1 AMAP framework for 1998 – 2003

In order to assist the Arctic States in meeting the goals highlighted in the Iqaluit Ministerial Declaration on the Establishment of the Arctic Council, AMAP must consider not only the objectives identified in the AMAP mandate, but also other Arctic Council activities that require information on pollution issues, particularly remedial actions based on the conclusions and recommendations of the AMAP Assessment Report.

In this context, an appropriate framework for AMAP future work is provided in the schematic diagram presented below.



### 3.2 Guiding Principles

AMAP monitoring activities are based, to the greatest extent possible, on ongoing national and international monitoring and research; aiming to harmonize this work and where necessary promote new activities to fill identified gaps in order to meet the AMAP objectives. Certain projects of circumpolar importance, which are beyond NIPs, may require international steering and financing mechanisms.

The involvement of indigenous populations of the Arctic in the work of AMAP, through representatives of Arctic Indigenous Peoples Organizations, is an underlying principle of the AMAP Strategic Plan. This involvement was a key to the success of work during Phase I of AMAP and is recognized as equally important for the work during the period 1998-2003.

Close co-operation with other relevant regional and global programmes and observation networks, including data sharing and implementation of joint projects is essential to avoid duplication of activities, to ensure optimal use of available resources, and to fill gaps in fundamental scientific knowledge needed for realizing AMAP's objectives.

### 3.3 Data and information needs

Practical implementation of a circumpolar programme of measurements is based on coordinated national activities under the AMAP National Implementation Plans (NIPs) of

the participating countries, supplemented by additional contributions from, e.g. non-Arctic countries and regional and international organizations. Work under national programmes of the Arctic States, etc., that cover regions outside of the Arctic but which are relevant to the Arctic is also included. Harmonization of these various monitoring activities provides the potential for acquisition of comparable data on a circumpolar scale.

Statistical evaluation of the programme components is desirable to ensure optimal and adequate temporal and spatial resolution. This includes evaluation of the designed measurement and observation networks and their work programmes (sampling frequency, location of stations, etc.) in terms of their power to detect trends.

#### 4. DATA ACQUISITION: *THE AMAP TRENDS AND EFFECTS PROGRAMME*

The *AMAP Trends and Effects Programme* is the follow up of the Strategic Plan; it addresses the issue of data acquisition from two points of view.

- From the perspective of assessment concerning different pollutant/contaminant issues: determination of data and information needs for assessments of pollution issues and their effects on ecosystems and human health, including effects due to climate change and UV radiation.
- From the perspective of monitoring different environmental and ecosystem compartments: designing distinct sub-programmes for monitoring activities/stations, special field studies and other projects to cover data and information needs for future assessments according to the various environmental compartments concerned (atmospheric, marine, terrestrial, and freshwater compartments, and humans with respect to human health).

##### 4.1 Determining data needs for assessment of pollution issues

The *AMAP Trends and Effects Programme* is a detailed specification of the data and information needs for the main AMAP assessment work envisaged during the period 1998-2003, including specification of how these data and information should be acquired (which media, which areas, which methods, etc.). The Programme comprises three main components:

- the *AMAP Trend Monitoring Programme*, which covers observations on levels and trends of contaminants;
- the *AMAP Effects Monitoring Programme*, which focuses on effects of contaminants and other stressors on Arctic flora, fauna and humans, including combined effects; and
- additional *Supporting Studies*, to provide essential information necessary for development of assessment and valid interpretation of the results of the monitoring data.

The following types of (circumpolar and sub-regional) field observations are planned:

- monitoring (long- and short-term, standardized measurements and observations of the environment and its abiotic and biotic components in order to define status and trends);
- surveys (intensive short-term measurements and observations for a specific purpose); and
- special field studies (food webs in particular areas, effects studies, etc.).

Logistical constraints imply a need to prioritize and optimize monitoring activities. The *AMAP Trends and Effects Programme* therefore distinguishes data needs in terms of essential, essential on a subregional basis, and recommended.

The *AMAP Trends and Effects Programme* is presented in a separate document, which includes supplementary sections on the provision of supporting data/information, QA/QC procedures, etc. Annex 2 presents the content of the *AMAP Trends and Effects Programme* document. For further details, please refer to this document.

## 4.2 Components of the trend and effects monitoring programmes

For long-term and combined effects monitoring activities special attention will be paid to *key areas* where most of the work will be performed, see Annex 3. *Key areas* are not single sampling sites, but rather are extended areas where a number of coordinated monitoring and other observational activities should be performed.

Two types of *key areas* are defined:

- *background key areas*, which will deliver data on background levels of pollutants, combined effects and ecosystem health, and provide relevant observations to study climate change and UV-B effects;
- *impacted key areas*, which will deliver similar types of data and information, but in areas identified in the initial AMAP Assessments as being affected by one or more types of contamination.

Some key areas overlap the territories of several countries; in such cases, possibilities are exploited for cooperation between countries to ensure an optimal cost-effectiveness in work to meet AMAP needs.

Other stations will be established in areas that are particularly impacted by one or more types of contamination, climate change, or UV radiation; and/or that are of importance for inclusion in the AMAP programme due to the presence of wildlife, to provide data on transport fluxes (e.g. in rivers and estuaries), or human settlements or activities (e.g. mining activities, previous use of nuclear bombs for engineering projects, etc.). Stations in estuaries constitute an important sub-category of marine stations.

### 4.2.1 Atmospheric Monitoring

The primary network of long-range atmospheric transport monitoring stations, particularly for POPs, and associated methodologies have been developed during earlier AMAP activities. Additional monitoring stations need to be established, taking into account gaps in geographical coverage (e.g., eastern part of the Eurasian Arctic), and additional variables included in the circumpolar Arctic monitoring programme (e.g., mercury).

Since the LRTAP EMEP monitoring network for acidifying compounds covers only part of the Arctic region, additional monitoring and research activities are required to provide relevant information on other areas of the region.

### 4.2.2 Terrestrial/freshwater monitoring

Although terrestrial and freshwater environments will be monitored separately, using methodologies and programmes of observation (sampling, analytical protocols, etc.) appropriate to the compartments concerned, they are often considered as a 'joint environment'.

Assessment of the transport of contaminants (and other aspects of inter-compartment interaction) requires that freshwater and terrestrial observations be integrated, and implemented within the borders of the same monitoring (key) areas, using common monitoring stations, etc. Terrestrial/freshwater monitoring stations will be linked to atmospheric monitoring if necessary (e.g., in areas where significant local sources of atmospheric emissions exist).

A network of stations within a limited number of key areas will form the basis of future AMAP terrestrial/freshwater monitoring activities, where most of the long- and short-term monitoring programmes will be implemented. These key areas will cover rather extended territories in which different elements of the trend and effects programmes can be implemented.

#### **4.2.3 Marine monitoring**

The marine circumpolar monitoring network is designed to cover the most important marine areas regarding productivity (fish and marine mammals) and global scale processes, and to address, to the extent possible, one of the drawbacks of previous marine monitoring activities, namely the uneven spatial distribution of sampling sites.

#### **4.2.4 Human health programme**

The human health programme will focus on exposure and the effects on human health of different pollution issues, both the effects of specific contaminants and combined effects. The human health programme will be supported by information from other components of the AMAP Trends and Effects Programme. To ensure effective integration between the human health studies and other components, human health monitoring activities will be conducted within key areas. Additional human health monitoring activities will be carried out in settlement areas of indigenous and local populations that are of special interest, but not covered by key areas.

### **4.3 Supporting studies**

Supporting studies are essential additional components of the *AMAP Trends and Effects Programme*, to provide detailed information necessary for future assessments and to allow valid interpretation of the results of the Monitoring Programme. Supporting studies comprise the following:

- Surveys (intensive short-term observations);
- Supporting studies linked to monitoring of contaminant trends and effects;
- Data and information acquisition relating to sources of pollution; and
- Modelling studies to support the AMAP Assessments.

The content of the supporting studies will vary depending on the specific needs of AMAP.

#### **4.3.1 Surveys**

Surveys will be organized where:

- the previous AMAP Assessments have shown a gap in knowledge on a certain pollution issue, either in a circumpolar context or in areas where existing information suggests that this issue may be significant; or

- results of the previous AMAP Assessments have demonstrated that, for some pollution issue(s), a certain geographical areas differs from other Arctic areas in a manner that cannot be explained using the available information.

If new issue of concern arise, a survey (preferably on a circumpolar scale) may be arranged to enable well-founded recommendations to be made concerning possible further work or actions that need to be taken.

### **4.3.2 Supporting studies linked to monitoring of contaminant trends and effects**

Supporting studies linked to monitoring of contaminant trends and effects cover a broad range of activities. These include both monitoring and research studies that provide data and information which, while not being collected under the main coordinated activities of AMAP, are, nonetheless, essential for producing a complete and valid assessment of pollution issues.

Examples of such supporting studies include:

(1) National and international programmes producing basic hydrological and meteorological data that are, in particular, required for assessment of contaminant pathways and fluxes.

(2) Retrospective trend studies. Retrospective trend studies may involve:

- sampling and analysis of environmental media that provide information on concentrations of contaminants in previous years (e.g., cores of ice, soil, and sediments); or
- analysis of specimen bank samples, including non-destructive analysis of museum samples.

It is essential to include such activities in the monitoring programmes for key areas in order to obtain longer time trend series.

(3) Detailed food-web studies in selected ecosystems.

(4) Process studies that, for example, contribute to the understanding of how contaminants move through the environment; e.g., processes influencing atmospheric-surface exchange, contaminant speciation and uptake, etc.

(5) Work conducted under bi- and multi-lateral studies, both between Arctic states and those involving non-Arctic states.

### **4.3.3 Data and information acquisition relating to sources of pollution**

In the list of Actions for AMAP from the 1991 Rovaniemi Ministerial meeting, the need for *"estimates and regular reporting by the Arctic countries of contaminant emissions and discharges, including accidental discharges, as well as transport and deposition"* is identified as a requirement to allow AMAP to distinguish human-induced changes from changes caused by natural phenomena. Arctic countries were requested to *"consider the feasibility of developing national inventories on the production, use, and emissions of persistent organic contaminants (e.g. pesticides) to be collected and made available and summarized in the state of the Arctic environment reports"*.

For sources located within the Arctic, a unified approach should be employed involving scientific experts, experts from the industries or activities responsible for the emissions/discharges, and representatives of local populations. This type of approach has been employed during work on, e.g., the AMAP/NEFCO Project in the Russian part of the

Barents region, and in phase 1 of the 'Multilateral Cooperative Project on Phase-out of PCB Use, and Management of PCB-contaminated Wastes in the Russian Federation'.

For sources located in the territories of the Arctic States, both within and outside the Arctic region, the following approaches may be recommended:

- for atmospheric emissions: to apply the methodologies used in EMEP;
- for discharges to marine waters: to focus on discharges to coastal areas from which the discharged contaminants can be transported into the Arctic by ocean currents, and where appropriate to employ methodologies used by, e.g., OSPARCOM;
- for discharges to freshwater bodies: to establish monitoring at river stations on the border of the Arctic region and, in the case of increased concentrations of priority pollutants, to perform source inventories in the upstream parts of river basins, according to the methodology recommended for the Arctic region.

Information is also required on global emissions of certain contaminants (e.g., POPs and mercury), including emissions from source regions far remote from the Arctic, in countries with no direct relationship to the Arctic Council or its groups. In such cases, AMAP plans to co-operate with established initiatives compiling relevant information, such as GEIA, UNEP-Chemicals and ESCAP, etc..

It is vital that all reported emissions and discharges data and statistics are verified with scientific observations and/or modelling results, etc.

Special attention needs to be paid to harmonization of source data reporting, both among the participating countries and in international programmes/organizations that can provide source characterization information to AMAP.

#### **4.3.4 Modelling studies in support of the AMAP Assessments**

During the first phase of AMAP, models were used to describe the transport and deposition of some contaminants to the Arctic environment. However, many existing models have been developed for purposes that are not entirely compatible with AMAP needs. A process is ongoing to bring together modellers and to encourage their active involvement in work that will contribute to future AMAP assessments, including assessment of the effects of climate change and UV radiation. Requirements and recommendations concerning model development and application have been specified; these will be addressed by AMAP and also raised within other relevant international fora to facilitate further development and implementation of modelling work that will meet AMAP needs.

## **5. DATA HANDLING AND QUALITY ASSURANCE**

### **5.1 Thematic data centres and data reporting**

As a part of the *AMAP Trends and Effects Programme*, and to ensure that the results of recent monitoring and research are made available for the AMAP assessments, an AMAP Data Policy has been developed (see the *AMAP Trends and Effects Programme* documentation).

Further improvements in the operation of AMAP Thematic Data Centres (TDCs) is a key component in ensuring that reliable data are made available to the AMAP assessments. TDCs for atmospheric, marine, and freshwater data, and for data on radioactivity are currently operating. A new TDC for human health data is being established and an

additional data centre for terrestrial data is being planned. It is expected that all of these TDCs will be fully operational to support AMAP activities during the period 2000-2003. AMAP TDC activities are coordinated with other international programmes to achieve cost/efficient data handling and to avoid duplication of work in data reporting, etc.

## 5.2 Specimen banking

Development of specimen banking activities has been identified as a priority activity for attention during the second phase of AMAP, to document AMAP data through archived abiotic and biotic materials and to provide possibilities for sample sharing and future analysis (retrospective trends, etc.). It is hoped that Arctic samples will be archived on a national or regional bases, with AMAP participating actively in international work to establish and operate the specimen banks.

## 5.3 Quality assurance/quality control procedures

Since AMAP is based mainly on existing national programmes, each of which employs its own methodologies and QA/QC procedures, work aimed at harmonizing these activities and promoting the use of intercomparable methods is essential. The initial AMAP Assessments have shown that there are still substantial deficiencies in data quality that need to be addressed. These issues are dealt with in the *AMAP Trends and Effects Programme* (see the *AMAP Trends and Effects Programme* documentation).

The AMAP programme does not aim to create its own QA/QC programme or intercomparison systems, but rather to promote (or require) participation of AMAP associated laboratories in existing relevant national and international QA/QC programmes.

# 6. ASSESSMENT PROCESS

## 6.1 Tentative assessment plan

The future work of AMAP will focus on the production of a number of individual Assessment Reports dealing with specific pollution issues, as opposed to a single, comprehensive Assessment report such as that produced during the first phase of AMAP.

The tentative schedule for production of AMAP assessments in the period to 2006 is presented in Annex 4.

These Assessment Reports will recommend actions to be taken to improve the environmental situation in the Arctic and the health and life of its residents. Where relevant, the reports will also assess the efficiency of remedial actions that have been implemented, including international agreements and Protocols, and national programmes for environmental improvement in the Arctic. The ultimate objective of the AMAP monitoring and assessment activities is to permit risk management, including risks to both humans and the environment/ecosystems.

## 6.2 Organizational issues of the assessment process

During its first phase (1991-1997), AMAP gained significant experience in organization of the assessment process, and developed approaches to methodological and communication issues that ensured a successful delivery of the AMAP Assessment Reports. During the period 1998-2003, these organizational and methodological principles will be reinstated and further refined. The following strategy has been adopted:

- 1) The whole AMAP assessment process will be overseen and coordinated by the Assessment Steering Group (ASG) consisting of scientific representatives from the Arctic States with Lead Country responsibilities (all Arctic States are represented), a representative from the Indigenous Peoples Organizations of the Arctic, and the AMAP Board.
- 2) The AMAP Working Group will nominate the Lead Country(ies) for drafting each of the assessment reports. This country will be responsible for organizational issues of the drafting process.
- 3) Each of the assessment reports will be drafted by a small drafting group consisting of Lead Country Experts (LCEs) and Key National Experts (KNEs), who will be able to consult with and call upon other designated experts from the AMAP member countries and observers as necessary. LCEs, who have primary responsibility, with the assistance of KNEs, for completion of a given assessment report, are appointed by Lead Countries.
- 4) To co-ordinate and oversee the climate change and UV effects assessment process, an Assessment Steering Committee (ASC) has been established with representatives from AMAP, CAFF, IASC, and other relevant international organizations (e.g., IPCC, WCRP, ICES/PICES). Close collaboration with these organisations are essential. Programmes/organizations participating in the ASC are referred to as ASC members. The ASC has proposed that an Arctic Climate Impact Assessment (ACIA) be undertaken. The strategy and implementation details for the ACIA are described in a separate document available from the AMAP Secretariat.

The *Guidelines for the Preparation of the AMAP Assessments* are presented in a separate document.

## ANNEX 1: Background information on the Arctic Monitoring and Assessment Programme (1991-1997)

### **General principles of the programme**

At the First Ministerial Conference on the Arctic Environmental Protection Strategy (AEPS), held in Rovaniemi, Finland in June 1991, Ministers of the Arctic States established the Arctic Monitoring and Assessment Programme (AMAP) to "*examine the levels of anthropogenic pollutants and assess their effects on the Arctic environment*".

AMAP was given "*responsibilities to monitor the levels of, and assess the effects of, anthropogenic pollutants in all compartments of the Arctic environment, including humans*".

Ministers further identified the key pollutants that should be priority during the first phase of AMAP. At the Ministerial Conference in Rovaniemi, Finland (1991), persistent organic contaminants, heavy metals and radioactivity were recognized as the environmental pollution issues of first circumpolar priority. The Ministerial Conferences in Nuuk, Greenland (1993) and Inuvik, Canada (1996), extended this list to include: acidification and Arctic haze, and oil pollution, in a subregional context; and environmental consequences of, and biological effects due to global climate change and stratospheric ozone layer depletion, relevant to the Arctic.

From its inception, AMAP was conceived as a process integrating both monitoring and assessment activities in relation to pollution issues, to provide information for:

- producing integrated assessment reports on the status and trends of the conditions of Arctic ecosystems;
- identifying possible causes for changing conditions;
- detecting emerging problems, their possible causes, and the potential risk to Arctic ecosystems including indigenous peoples and other Arctic residents; and
- recommending actions required to reduce risks to Arctic ecosystems.

To meet the requests of the Ministers, the Arctic States, with active participation of the observing countries and organizations, developed and implemented the Monitoring Programme for AMAP; a coordinated programme to monitor the levels of pollutants and assess the effects of pollution in all compartments of the Arctic environment (the atmospheric, terrestrial, freshwater and marine environments, and human populations).

AMAP monitoring activities are based, to the greatest extent possible, on ongoing national and international monitoring and research; aiming to harmonize this work and where necessary promote new activities to fill identified gaps in order to meet the AMAP objectives.

Active participation of International Indigenous Peoples Organizations in all stages of the process played an important role in realizing the AMAP objectives during Phase 1.

### **Objectives of AMAP**

The primary objectives of AMAP are:

- *to measure the levels, and assess the effects of anthropogenic pollutants in all compartments of the Arctic environment, including humans;*
- *to document trends of pollution; to document sources and pathways of pollutants;*

- *to examine the impact of pollution on Arctic flora and fauna, especially those used by indigenous people; to report on the state of the Arctic environment; and*
- *to give advice to Ministers on priority actions needed to improve the Arctic condition.*

### **Assessment process**

To prepare its assessment, for the first period (1991-1996), AMAP instituted an assessment process to produce the assessment reports requested by Ministers. The assessment was performed according to agreed guidelines, and was based on data and information already published in scientific literature, data and information obtained from AMAP's monitoring programme, and traditional knowledge.

The assessment process for Phase I of AMAP produced a report entitled *Arctic Pollution Issues: A State of the Arctic Environment Report* (SOAER), which was presented to the Fourth AEPS Ministerial Conference (Alta, Norway, June 12-13, 1997). The comprehensive SOAER was based on information contained in the more detailed scientific and fully referenced *AMAP Assessment Report: Arctic Pollution Issues* (AAR), which was presented to the First Ministerial Meeting of the Arctic Council (Iqaluit, Canada, September 17-18, 1998).

The conclusions and recommendations of the AMAP assessment identified gaps in data and information needed for a more complete assessment of Arctic pollution issues. The Ninth Meeting of the AMAP Working Group (Stockholm, Sweden, 21-23 April, 1997) considered an evaluation of Phase I of AMAP conducted by AMAP experts in the context of further development of the Programme. The findings of this review have been taken into account in the development of the AMAP Strategic Plan for 1998-2003.

## ANNEX 2: AMAP Trends and Effects Programme - Table of Contents

### [DRAFT - TO BE REPLACED BY FINAL VERSION]

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- Overall objectives of AMAP and priorities for the period 1998-2003
- National implementation plans (NIPs)
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#### Section B - AMAP Trend Monitoring Programme

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#### Section C - AMAP Effects Monitoring Programme

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#### Section D - Supporting Studies

- Supporting studies linked to monitoring of contaminant trends and effects
- Source related data and information acquisition
- Modelling

#### Section E - Quality Assurance and Quality Control aspects of the AMAP Trends and Effects Programme

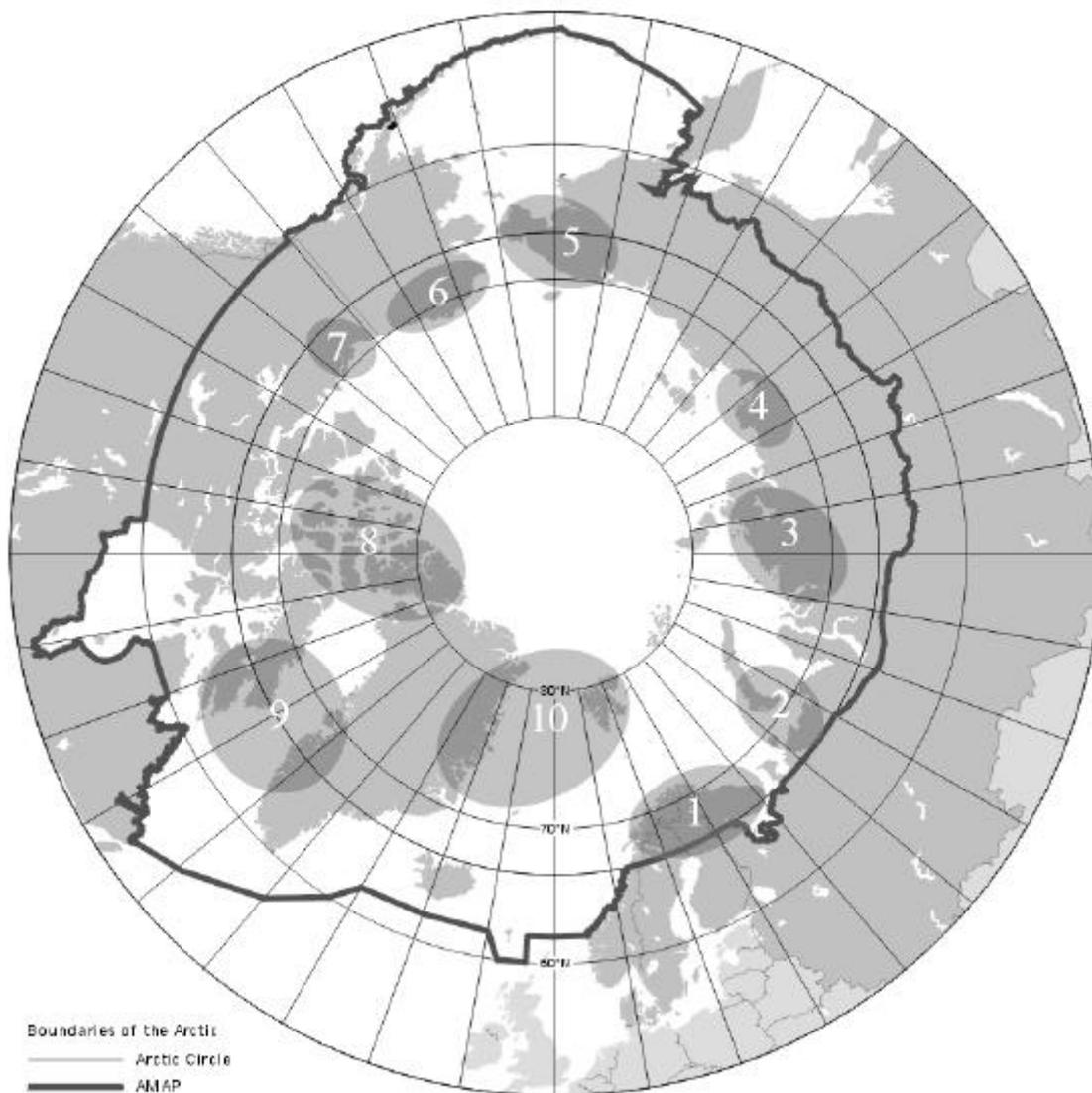
#### Section F - Data reporting and the AMAP Data Policy

- Data Policy
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- References
- Trends and Gradients - monitoring strategy considerations - introduction
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## ANNEX 3: AMAP Key Areas



- 1 - Northern Fennoscandian and Kola peninsula area**
- 2 - Mouth of Pechora river, Novaya Zemlya, Kara and Pechora Sea area**
- 3 - Norilsk, Taimyr peninsula area**
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- 9 - West Greenland, Baffin Island area**
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ANNEX 4: The tentative schedule for production of AMAP assessments  
(as decided during the Iqaluit Ministerial Meeting)

<i>Assessment item</i>	<i>Year of reporting</i>			
	<i>Firm</i>		<i>Tentative</i>	
	<b>2000</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
Human Health	P (I)	M	I	M
POPs	P	M	I	M
Hg and other HMs	P	M	I	M
Radioactivity	P	M	I	M
Acidification	P	P	P	M
Oil and PAHs	P	P	M	P
TBT	P	P	M	P
Climate effects	P	M	P	M
UV-B effects	P	M	P	M
Combined effects	P	P	M	P

P – progress report (information on progress in preparation of an assessment report included into the AMAP Progress Report to the Ministerial Meeting of the Arctic Council).

I – interim report (intermediate report on the results obtained after the last assessment, including the major results reported at the conferences/symposia organised under the AMAP auspices).

M – main report (detailed report on the results obtained by AMAP, in co-operation with other fora, according to the requests of the Ministers, including recommendations for actions).