

**Minutes from the Thirteenth Meeting of**

**Arctic Monitoring and Assessment Programme Working Group  
(AMAPWG)**

**Toronto, Canada, November 10 – 12, 1999**

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## **MINUTES FROM THE 13<sup>TH</sup> WORKING GROUP MEETING TORONTO, CANADA, NOVEMBER 10-12, 1999**

### **1. Opening of the Meeting.**

- 1.1. The Chair of the AMAP Working Group, Hanne Petersen, opened the meeting.
- 1.2. The Head of the Canadian Delegation, David Stone, welcomed the meeting participants to Toronto on behalf of the meeting organizers. A list of participants is attached as Appendix 1. He also introduced Bill Hart as the Head of the meeting Organizing Committee.
- 1.3. Bill Hart provided information concerning practical arrangements and organizational issues, and wished success to its participants.

### **2. Adoption of the Agenda.**

- 2.1. There were no comments from the Delegations to the draft Agenda presented prior to the meeting.
- 2.2. The draft agenda (Appendix 2) was therefore adopted without any changes.
- 2.3. The list of documents distributed prior to and during the 13<sup>th</sup> AMAP WG meeting is attached as Appendix 3.
- 2.4. The list of action is attached as Appendix 4.

### **3. Progress Reports from the Chair and the Secretariat.**

- 3.1. Hanne Petersen and the AMAP Executive Secretary, Lars-Otto Reiersen, presented the Progress Report for the period after the 12<sup>th</sup> Working Group Meeting (Appendix 5).
- 3.2. AMAP Deputy Executive Secretary, Vitaly Kimstach, provided additional information on progress in implementation of phase 1 of the Multilateral Cooperative Project on Phase-out of PCB Use and Management of PCB-contaminated Wastes in the Russian Federation, and in preparation of the proposal for a GEF-funded Project "Persistent Toxic Substances (PTS), Food Security and Indigenous Peoples of the Russian North".
- 3.3. The ICC representative, Terry Fenge, pointed out that the GEF project is initiated by the Indigenous Peoples Organizations, and will be executed with active involvement of RAIPON. However, it is envisaged by IPOs that the AMAP Secretariat will provide international co-ordination of the project, and, in cooperation with RAIPON, assist in the functions of its general execution, co-ordination and administration.

- 3.4. The meeting participants noted that the scope of the GEF-RAIPON project has a degree of overlap with, but is much wider than, related AMAP phase 2 activities. It is therefore necessary to distinguish between work associated with the GEF project implementation and the ongoing AMAP activities in this area. It was, however, agreed that the GEF project is of considerable importance for the Russian indigenous peoples, and for obtaining information to support global negotiations aimed at reducing the impacts of PTS.
- 3.5. Although the GEF project is not a core AMAP activity, the importance of this work to the goals of AMAP and the Arctic Council was recognized. The Working Group therefore agreed with a proposal from the Canadian Delegation supporting the involvement of the AMAP Secretariat in the implementation of the GEF-RAIPON project. In this connection, the Delegation of Iceland reflected the view of the meeting participants that involvement of the AMAP Secretariat into the GEF-RAIPON project should not have any negative impact on financial situation of the Secretariat, or on implementation of other Secretariat duties.
- 3.6. Special attention was paid to financial support for participation of IPOs representatives at AMAP meetings and in other AMAP related activities. Lars-Otto Reiersen informed the meeting that funding from the Nordic Council of Ministers to support IPOs involvement in the work of AMAP is currently limited to support for RAIPON representatives only, and cannot be used to cover expenses of other IP representatives. He requested the AMAP Delegations of the Nordic countries to assist in raising this problem with their representatives in the Nordic Council of Ministers.
- 3.7. The Head of the Canadian Delegation, David Stone, expressed his satisfaction in wide use of the AMAP assessment results in the Global Environment Outlook-2 recently published by UNEP. In this connection, the meeting participants supported the view expressed by David Henry (UNEP representative) in emphasizing that close collaboration between AMAP and UNEP in their respective programme areas is of mutual benefit.

#### **4. Statements of the Observers.**

- 4.1. The representative of the World Wildlife Fund, Susan Sang, presented the WWF Statement to the AMAP Working Group meeting (Appendix 6). AMAP was commended for its contributions to work to monitor and assess circumpolar contaminants levels and effects. The focus during AMAP phase 2 on POPs and mercury was acknowledged as particularly important in the context of the global negotiation process. She reconfirmed the WWF interest in close collaboration with AMAP.
- 4.2. In his statement, the United Kingdom representative, Oliver W. Heal, presented a list of programmes and projects relevant to AMAP's continuing studies in the Arctic that are being performed by UK scientists, including also multi-national programmes in which they are participating (Appendix 7A).

- 4.3. The Netherlands representative, Frits Steenhuisen, presented a similar list of Dutch programmes and projects relevant to AMAP's continuing studies in the Arctic (Appendix 7B).
- 4.4. Amy Kyle of the Circumpolar Conservation Union (CCU) expressed CCU's interest in the AMAP studies on effects of contaminants on human health, and suggested that a stronger cooperation between CCU and AMAP be established in the future.

## **5. AMAP Strategic Plan 1998-2003.**

- 5.1. Hanne Petersen reminded the meeting participants of the history of the preparation of the AMAP Strategic Plan and its relationship to the AMAP Trends and Effects Monitoring Programme. She then asked Delegations and Observers to present their comments to the final draft of the document that was distributed prior to the meeting.
- 5.2. The meeting participants supported the general principles and structure of the Strategic Plan. However, it was clear from the discussion that some delegations had different positions on a number of issues related to the content of the document. An *ad hoc* editorial group consisting of representatives of Finnish and Norwegian Delegations was therefore formed to prepare a revised version of the Strategic Plan addressing issues that were raised.
- 5.3. During the second day of the meeting, the Working Group approved, with some minor changes, the updated draft proposed by the editorial group, and requested the AMAP Secretariat to finalize technical editing and publish the Strategic Plan. It was agreed that the final document would be posted on the (restricted) Working Group area of the AMAP website for a short period to allow delegations to conduct a final review of the agreed changes before it was made publicly available.

## **6. The AMAP Progress Report to the SAO Meeting, Washington, D.C., 18-19 November 1999.**

- 6.1. Hanne Petersen suggested that the Progress Report presented to the 13<sup>th</sup> AMAP Working Group Meeting should be used as a basis for the AMAP Progress Report to the SAO Meeting in Washington, D.C., 18-19 November 1999. After discussion of necessary adjustments, this proposal was supported by the meeting participants.
- 6.2. Lars-Otto Reiersen drew the attention of the Working Group to problems relating to the status of AMAP Observers that are not (presently) included in the list of Observers to the Arctic Council, but which at the same time are essential partners for effective and efficient work by AMAP. During the discussion, the meeting participants noted that the AMAP Rules of Procedure were adopted when AMAP still operated under the AEPS structure, and are therefore no longer valid. Since the Arctic Council has its own Rules of Procedure, and AMAP, as a working group of the Arctic Council, should follow these, it was agreed that AMAP no longer needed its own Rules of Procedure. However, to determine specific AMAP procedures in cases that are not covered by the Arctic Council Rules of Procedure, it was agreed to

develop AMAP Operating Guidelines. Among other issues, the status of existing and new AMAP Observers should be covered in this document.

- 6.3. It was agreed to establish a small *ad hoc* group to develop the principles governing AMAP Observers' status. As a part of this work, the US Delegation was asked to prepare a first draft of the section of the AMAP Operating Guidelines concerning AMAP Observers, and to present this for consideration by the Working Group.
- 6.4. Following this request, the US Delegation, after the end of the meeting and consultation with the SAO Chair, presented a draft text to be included in the AMAP Operating Guidelines. The text is circulated as Attachment 1.
- 6.5. The AMAP Board was requested to develop the draft AMAP Operating Guidelines, incorporating the draft text (Attachment 1) dealing with Observers, by spring 2000 for distribution to the Working Group for comments and approval.

## **7. AMAP Progress and Interim Assessment Reports to the Arctic Council Ministerial meeting in 2000.**

- 7.1. Lars-Otto Reiersen reminded the WG that, according to a decision of the 12<sup>th</sup> meeting of the AMAP WG (See Minutes, Appendix 5), interim assessment reports on human health, and climate and UV-B effects should be prepared in 2000 and presented to the Arctic Council. However, preparatory and coordination work on the assessment of climate change and UV-B effects had been more significant than expected (the development of ACIA, see agenda item 9). Consequently, it was proposed, and agreed, to prepare only a Progress Report on the assessment of climate change and UV-B effects for the Ministerial Meeting, as opposed to an Interim Report.
- 7.2. It was agreed that Lead Country Experts should prepare their input for all reports, which should be presented in 2000, during the January and February of 2000. It is envisaged that the Working Group will adopt draft reports in June by correspondence. However, an extraordinary Working Group meeting may be convened if necessary.

## **8. AMAP Trends and Effects Monitoring Programme.**

- 8.1. As an introduction to this agenda item, Hanne Petersen provided a brief overview of the work done on development of the AMAP Trends and Effects Programme for the period 1998-2003. She reminded the meeting participants that the AMAP Trend Monitoring Programme had already been endorsed, subject to noted comments and changes, at the 12<sup>th</sup> Working Group Meeting.
- 8.2. The Acting Chair of the AMAP Assessment Steering Group (ASG), Cynthia de Wit, informed the WG of the conclusions from relevant discussions that took place during the second ASG-II meeting that was held immediately prior to the WG Meeting. According to the adopted structure, the draft AMAP Trends and Effects Programme document consists of the following sections:

Section A: Background Information;  
Section B: AMAP Trend Monitoring Programme;  
Section C: AMAP Effects Monitoring Programme;  
Section D: Supporting Studies;  
Section E: Quality Assurance and Quality Control;  
Section F: Data Reporting and the AMAP Data Policy.

Several Delegations noted the difficulty involved in examining updated documentation that had arisen from the ASG meeting for formal adoption. In this connection, it was recommended to the ASG Chair and the AMAP Secretariat that, in future, ASG and WG meetings should not be held back-to-back in cases where similar problems were likely to arise. It was further emphasized that the AMAP Trends and Effects Programme is considered a reference document only. In this context, although its recommendations are not obligatory for direct implementation by all the participating countries, they should be reflected to a high degree in the National Implementation Plans. It was agreed that the (ASG) revised sections should be circulated for final comments after the WG-meeting.

- 8.3. Based on this the WG endorsed the ASG recommendations that Sections A, B and F can be finalized by the Secretariat for publication subject to changes that were noted and potential final comments to the revised draft sections.

Norway expressed concern that section C was not well focused and needed to be further developed. Based on this The Head of the Norwegian Delegation, Gunnar Futsæter, raised the possible need to convene a special workshop to further develop the Effects Programme. However, this proposal was not supported by the WG. Hanne Petersen expressed her opinion that, before taking such a step, it would be necessary to evaluate components of the draft monitoring programme, which are not yet fully developed. Lars-Otto Reiersen reminded the meeting participants that two recent workshops on combined effects related issues have already been held, with AMAP participation. The recommendations from these workshops, together with relevant OSPAR, ICES, etc., recommendations are being taken into account in development of the AMAP effects programme. He also mentioned that a meeting on combined effects is planned to be held in August 2000 in Helsinki. The WG agreed that, on the basis of revision and restructuring carried out by an *ad hoc* group during the ASG to address comments received to the earlier circulated draft, and final comments when circulating a revised draft, Section C could also be finalised following necessary editorial work.

- 8.4. As agreed for the AMAP Strategic Plan document, the final versions of Sections A, B, C and F of the AMAP Trends and Effects Programme will be posted on the (restricted) Working Group area of the AMAP website for a short period to allow delegations to conduct a final review before they are made publicly available. Drafts of the remaining Sections will also be circulated to the Working Group for their comment and approval during spring 2000.
- 8.5. Cynthia de Wit particularly emphasized that it is not expected that all countries will perform all effects monitoring activities recommended in Section C of the AMAP Trends and Effects Programme. Taking into account that this section deals with activities which, for many participants of the AMAP monitoring process, are new



areas of work, it was agreed they should be implemented in a step-wise fashion and the document adjusted according to experiences gained during initial implementation of the activities in different parts of the Arctic.

- 8.6. It was pointed out that the draft AMAP Trends and Effects Programme does not yet contain the parts relating to monitoring of climate change and UV-B effects. In this connection, Hanne Petersen informed the meeting that this issue has been discussed at the ASG meeting. The ASG members had agreed on the general principles for this part of monitoring programme. However, since a number of questions and issues on this part of the programme still remain open and can be solved only together in cooperation with the Assessment Steering Committee (ASC), it was not yet appropriate for the WG to make any concrete decision on these matters.
- 8.7. Cynthia de Wit reported on the ASG's review of two climate change papers that have been prepared for the assessment of climate change and UV-B effects:
- Detecting the Effects of Climate Change: A Discussion Paper; and
  - UV and the Arctic.

She concluded that the first paper needs some re-writing by the LCEs, but can be re-worked for incorporation into the Section C. The second paper has only been recently circulated. Countries were therefore requested to distribute it to their relevant experts for review and to present comments to the AMAP Secretariat within one month.

- 8.8. In order to keep the ASG informed on progress in the ASC, two ASC members, namely John Calder and Betsy Weatherhead, have been appointed as lead authors to the ASG.

## **9. Arctic Climate Impact Assessment (ACIA).**

- 9.1. The Head of the USA Delegation, John Calder, presented ACIA to the Working Group. It has three parts:
- 1) Summary of scientific findings (approx. 20 pages, and in a layman's language);
  - 2) Assessment of current literature and analysis of emerging data; and
  - 3) Policy document (to present to SAOs and Ministers).
- 9.2. The meeting participants were informed that ASC intends to appoint an ASC Chair and to get a secretariat operational by April 2000, in time for the next SAO meeting.
- 9.3. The Working Group was informed about the ASG recommendation that AMAP and CAFF continue their work with the ACIA. In particular, the question of how to handle the socio-economic parts of ACIA that do not fall within the mandated of AMAP or CAFF was noted. IASC is prepared to provide expertise to ASC on these issues, however, IASC is not an Arctic Council body. The Working Group agreed to report to SAOs on the lack of relevant expertise in AMAP and CAFF on the socio-economic aspects, and to support the proposal that IASC address these parts of ACIA.
- 9.4. Terry Fenge indicated that ICC is encouraged by the inclusion of Traditional Ecological Knowledge (TEK) in ACIA. He pointed out that there is a lot of

published works that cover Indigenous People's knowledge with respect to climate change, for example, the report entitled *Voices from the Bay*, which describes observations on climate change by Inuit and Cree communities around Hudson Bay. It is important that information such as this gets into global climate change negotiations.

## **10. National Implementation Plans.**

- 10.1. Cynthia de Wit outlined a paper prepared by the ASG, which evaluates the presented National Implementation Plans (NIPs). The ASG matched the NIPs against the Trends and Effects Monitoring Programme and against gaps identified in the first AMAP assessment. In general, it was found that there is good coverage in most cases, however, it was difficult to determine from some NIPs, which lacked enough details, exactly what is going to be measured. It was noted that the ASG lacked the time to do a careful comparison, thus the AMAP Secretariat offered to produce a more careful evaluation and to send this to countries for them to check against their actual activities. National Delegations were requested to determine if the evaluation is consistent with their NIPs and to expand their NIPs, as they deem necessary.
- 10.2. The meeting participants expressed their opinion that the lack of consistency in reporting on NIPs is the result of a lack of guidance on what is expected, Cynthia de Wit was requested to draft guidelines on what should be included in NIPs, which countries can use in the next round of NIPs submission to AMAP.
- 10.3. Simon Wilson informed that a new electronic reporting format is being developed to update of the AMAP Project Directory (PD). Once completed, countries will be requested to assist the Secretariat with contacting experts to report on their data.
- 10.4. The AMAP Secretariat was requested to prepare a report, based on the NIPs and PD, which indicates what is being done in the AMAP participating countries. This report is intended for public use and thus should be in a simple format.
- 10.5. It was agreed that the Working Group would report to the SAOs that the NIPs have been evaluated by experts responsible for preparing the AMAP assessments and that the experts have indicated that they will be able to prepare new assessment in 2002 according to the proposed workplan. However, AMAP will not be able to meet all expectations of Ministers, particularly with respect to an assessment of effects, due to fundamental limitations concerning scientific knowledge on effects.

## **11. Sources and Modelling.**

- 11.1 Simon Wilson reported on the Workshop on "Techniques and Associated Uncertainties in Quantifying the Origin and Long-Range Transport of Contaminants to the Arctic" held in Bergen, Norway in June 1999. Of particular note are the recommendations from the workshop relating to source information. AMAP is not in a position to build its own inventory of sources. However, the participating countries were requested to inform AMAP of what source information they have reported to

other fora (e.g. UN ECE, OSPAR) and, if possible, to provide this information to AMAP as well.

## **12. Assessment strategies for reports to be prepared.**

- 12.1. It was emphasized once more (see agenda item 7) that only progress reports on the various AMAP sub-programmes will be presented to the Arctic Council Ministerial Conference in 2000.
- 12.2. For the Ministerial Conference in 2002, assessment reports for the following sub-programmes will be produced: Human Health, Mercury and other Heavy Metals, Radioactivity, Climate Change and UV-B Effects. The draft tables of contents, lists of key national experts, and timetable for the assessment process were reviewed by the ASG. The timetable is attached, see Appendix 8. The *current* timetable assumes that there will be no Rio+10 Conference in June 2002, however, if AMAP is informed that there will be such an event, then the timetable may have to be adjusted. The Working Group requested David Henry of UNEP to find out if there are plans to hold a Rio+10 Conference.
- 12.3. The Secretariat was requested to provide information on the budget for production of the assessment to the Working Group by June 2000.
- 12.4. Cynthia de Wit, the Lead Country expert for POPs, sought agreement from the Working Group on the following suggestions for the POPs assessment:
  - splitting the PAHs, such that pyrogenic PAHs will be covered by the POPs sub-programme and petrogenic PAHs by the Oil sub-programme;
  - incorporation of TBT into the POPs assessment report; and
  - a new title of the POPs assessment report: *POPs and Other Pollutants*.The Working Group supported these recommendations.
- 12.5. Lars-Otto Reiersen informed the meeting participants that the Guidelines for the AMAP Assessment used for the first assessment will be updated for use in the next assessment process. That will include timetables, lists of experts, lists of content for different reports, information on the thematic data centres etc. These guidelines will be placed on the AMAP website.
- 12.6. The list of Key National Experts, updated by the ASG, was circulated to the National Delegations. They were requested to check the list and to inform the Secretariat of any additions or changes within one month.

## **13. Status of the Thematic Data Centres, flow of data and AMAP data policy.**

- 13.1 Simon Wilson reported on the status of the thematic data centres (TDCs) as outlined in AMAP WG Document 13/14/1. Items of particular note:
  - There may be a need to transfer the Freshwater TDC from its current location at the Freshwater Institute in Canada to another location. The Secretariat will investigate this and report back to the Working group. Canada is aware of the

problems associated with the Freshwater TDC and will support the Secretariat in its decisions.

- Establishment of a terrestrial TDC at the University of Alaska has been proposed and is currently under consideration with respect to funding aspects, etc. This centre may also be able to support reporting of US (Alaskan) data to other TDCs and assessment experts.
- There may be a requirement for increasing funding of the TDCs to accommodate assessment needs.

- 13.2. Simon Wilson informed the meeting participants, with reference to the website statistics, on large increase in access to the AMAP homepage between 1996 and 1999. The website has been prepared in an *ad hoc* basis to date. To use the website more effectively in the future, a more structured mechanism to support future development, including funding may be required.

#### **14. Cooperation with other Arctic Council Working Groups.**

- 14.1. Lars-Otto Reiersen informed the meeting participants on major fields of cooperation between AMAP and the other Arctic Council programme areas. Special attention was paid to the following:

AMAP and CAFF, together with IASC, have initiated and formed a core group of the Assessment Steering Committee for Arctic Climate Impact Assessment. It is expected that in the nearest future joint work over ACIA will be a main area of cooperation between these two working groups.

EPPR is currently working on producing a circumpolar map of oil-sensitive areas of the Arctic. Since environmental sensitivity is an important issue for assessment process. AMAP has provided data and information collected during its first phase assessment work to support this work, and can expect to get access from EPPR to additional information that they are currently collecting for use in its phase 2 assessment work.

The relationship with PAME is currently developing through AMAP's collaboration with ACOPS in relation with ACOPS PDF-B Project Proposal "Support to the National plan of Action for the Protection of the Arctic Marine Environment from Anthropogenic Pollution in the Russian Federation".

- 14.2. Hanne Petersen emphasized that AMAP collaboration with the Sustainable Development Programme is of particular importance, taking into account its role of the overall activities of the Arctic Council. She informed the meeting participants on AMAP participation in the Children and Youth Initiative. She also pointed out that the Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP) has been established in response to the AMAP recommendations and the Ministers commitment to take them into consideration in their policies and programmes. AMAP participates in this activity as well, although does not play a key role in it.
- 14.3. Lars-Otto Reiersen proposed discussion of issues that should be raised at the meeting the Working Group Chairs that is planned to be convened prior to the forthcoming

SAOs meeting. Hanne Petersen supported this proposal and, expressed her opinion that ACAP development and implementation should be one of main topics for discussion during this meeting. She stated that there is a role for all Arctic Council Working Groups in ACAP, including AMAP, and requested the meeting participants to present their view on this matter.

- 14.4. David Stone reminded the meeting participants on the history of the ACAP development. He pointed out that, in spite of the position of all the participation countries that it is not feasible to establish a new working group for conducting the ACAP implementation, there is a need for a steering mechanism. At present, no one proposal on this matter has received prevalence, however, *ad hoc* meeting of Chairs of the Working Groups might be the most effective tool for this purpose.
- 14.5. The Working Group supported the proposal to discuss the mechanism of ACAP implementation at the meeting of the Chairs of the Working Groups, and proposed to invite Gunnar Futsæter, as the person involved in ACAP preparation on behalf of Norway, to take part in this meeting.
- 14.6. Gunnar Futsæter informed the Working Group that coordination of actions between the Working Groups has been recently discussed at the PAME Working Group. At this discussion special concern was expressed in relation with uncoordinated applications prepared under different Working Groups to Global Environmental Facilities (GEF) for financial support of projects in the Russian Arctic. In this relation, Lars-Otto Reiersen pointed out that the application to GEF, in which AMAP is involved, has been initiated by the IPOs, and SAOs and all Working Groups have been informed about this initiative from the very beginning. AMAP, however, has not received timely information about other GEF project proposals. Terry Fenge supported this intervention, and suggested to include this issue into the agenda of the meeting of Working Groups Chairs.

## **15. AMAP Workshops and International Symposia.**

- 15.1. Lars-Otto Reiersen reported on the workshops and symposia organized after the previous Working group meeting with AMAP Involvement:
  - Joint IASC, AMAP and CAFF Workshop with the objective to discuss the content of the research and monitoring programmes that need to be initiated to detect the effects of changes in climate and UV-B on Arctic ecosystems and peoples (25-26 April 1999, Tromsø, Norway);
  - Workshop on "Techniques and associated uncertainties in quantifying the origin and long-range transport of contaminants to the Arctic" (14-16 June 1999, Bergen, Norway);
  - AMAP/US-EPA Workshop to specify the content of the AMAP Heavy Metal Programme (7-10 September 1999, Anchorage, Alaska);
  - 4<sup>th</sup> International Conference on Radioactivity in the Arctic (20-23 September 1999, Edinburgh, Scotland).
- 15.2. Lars-Otto Reiersen further informed the meeting participants on the forthcoming AMAP Workshops and International Symposia:

- UNEP/UN-ECE/UNIDO/CIP/AMAP Subregional Expert meeting on reduction of POPs, in particular dioxins and furans (14-17 December 1999, St. Petersburg, Russia);
  - International Workshop on Persistent Organic Pollutants (POPs) in the Arctic: Human Health and Environmental Concerns (18-20 January 2000, Rovaniemi, Finland);
  - CAFF/AMAP Workshop on a circumpolar biodiversity monitoring programme (6-8 February 2000, Reykjavik, Iceland);
  - Biomarkers Conference arranged jointly by US institutes and AMAP (1-5 May 2000, Anchorage, Alaska).
- 15.3. Lars-Otto Reiersen also informed that AMAP has been requested by the Programme committee of the 2<sup>nd</sup> World Water Forum and the Ministerial Conference (17-22 March 2000, The Hague, the Netherlands) to be a co-convenor of its Polar Regions Session. It was agreed that Vitaly Kimstach would be the coordinator of the session.
- 15.4. Gunnar Futsæter informed about a conference on effects (Tentative title: AMAP conference on impacts of POPs and mercury on Arctic animals and humans) which is planned for January 2002 in Tromsø, Norway and requested the WG Delegations and Observers to present names of possible candidates to participate in the scientific committee, and major contributors to attend the conference to its Organizing Committee(contact: ivan.c.burkow@nilu.no). The WG supported the proposal that this conference could be a joint AMAP arrangement.
- 15.5. The representative of the Netherlands, Frits Steenhuisen, informed the meeting participants that the next IASC Summit will take place in April 2001 in the Netherlands, and proposed to arrange the ASG meeting in conjunction with this event. The Working Group agreed to take note of this kind invitation and to consider it nearer the time.

## **16. Cooperation with International Organizations.**

- 16.1. Vitaly Kimstach informed the meeting participants that the proposal to sign the Memorandum of Understanding (MoU) between ACOPS and AMAP was made by ACOPS during the consultation meeting between ACOPS and the AMAP Secretariat in London, 24.06.99 (a draft MoU was circulated prior to the meeting). The objective of this meeting was to discuss possible ways for improvement of cooperation between AMAP and ACOPS in environmental protection activities in the Russian Arctic. Special attention was paid to some formal overlaps between GEF Project Proposals from ACOPS and IPOs in collaboration with the AMAP Secretariat. It was stated during the discussion that the ACOPS relevant activities will be based on assessment of the existing information, and the AMAP activities, including the proposed RAIPON-GEF project, can provide a valuable contribution to the ACOPS GEF project.
- 16.2. The meeting participants were also informed that the AMAP Secretariat has suggested, as one of the most important fields of collaboration, to extend the scope of the Partnership Conference on implementation of the Russian NPA, to cover all the Arctic Council environmental programme areas, to increase the Russian capacity in

fulfilment of the Arctic Council commitments by this country. This item was again raised by the AMAP representative during the Steering Group Meeting for the ACOPS GEF project, where AMAP has been invited with the Observer status. However, the SG members rejected the proposal.

- 16.3. At the discussion on the Memorandum of Understanding, the meeting participants stressed that AMAP operates as the programme area of the Arctic Council, and follows the Rules of Procedure of this international forum. In this context, it was agreed that any memorandums of this kind, as a formal document used in an international practice, should be signed by the Arctic Council, with delegation of certain responsibilities by the Arctic Council to its working groups. However, a lack of formal Memorandum of Understanding should not negatively influence on practical cooperation between AMAP and its partners in the field of mutual interests.
- 16.4. The Delegation of Iceland suggested to request that SAOs develop a general policy relating to signing of any memorandums between the Arctic Council bodies and other organizations, and to include it to the Rules of Procedure of the Arctic Council.
- 16.5. The Danish Delegation asked the AMAP Board, why the draft Memorandum of Understanding between AMAP and ACOPS had been discussed by the PAME Working Group before its consideration by the AMAP Working Group. The AMAP Vice-Chair, Helgi Jensson, informed that he had requested the PAME Chair prior to the PAME WG Meeting for an explanation of this matter, at the same time expressing his opinion that the issue should not be put into the agenda of the PAME WG Meeting, however, he had not received any response.
- 16.6. It was also stressed that the Memorandum of Understanding between AMAP and ACOPS is closely linked to assistance to ACOPS in implementation of the ACOPS-GEF project. The meeting participants agreed that AMAP would provide, based on ACOPS request, any available AMAP information relevant to the project activities. All additional work, which requires involvement of the AMAP experts, from the participating countries with corresponding financial implications, must be at the discretion of the countries concerned; AMAP could, however, provide a list of possible national experts.
- 16.7. Lars-Otto Reiersen informed the working group about the UNEP/WHO initiative to establish, with participation of the Arctic Council and IPOs, a Circumpolar Cooperative Programme “Arctic Indigenous Peoples Health and Environment” (document circulated prior to the meeting). The draft document is presented to the Arctic Council by UNEP/GRID-Arendal, and will be introduced at the SAO meeting by the IPOs representative. He emphasised that it is strongly linked to the AMAP human health activities and expressed his opinion that, for better coordination of indigenous health-related efforts, this initiative should be supported by AMAP.
- 16.8. The Chair of the AMAP Human Health expert group, Jens Hansen, stated that this proposal had been discussed at their group meeting, and supported it. However, AMAP should not go beyond the human health objectives of the AMAP programme. The meeting participants agreed with the position of the human health group.

16.9. Lars-Otto Reiersen informed the Working Group that the Secretariat had received an invitation to AMAP from the UNEP-led, GEF-funded Global International Water Assessment (GIWA) to consider the possibilities to take on the role as Megaregional Host Institution for the GIWA Arctic Megaregion Task Team and to also act as Subregional Focal Point for the GIWA work to be carried out in the associated regions (document circulated at the meeting). The meeting participants agreed that AMAP should react positively to this proposal. However, the following limitations were noted:

- it is necessary to follow general principles of the AMAP data policy;
- AMAP experts are qualified to undertake some of the tasks listed in the GIWA letter;
- the AMAP Secretariat can, in principle, take a coordination role for the GIWA Arctic Megaregion Task Team, however, funds allocated by the participating countries for implementation of the AMAP work under the Arctic Council and manpower required to carry out the normal Secretariat duties, should not be diverted to this additional work.

It was agreed that, before making a final decision, the AMAP Secretariat should meet with the GIWA Coordination Office to specify the detailed content and conditions of appointment, including financial aspects. The Working Group recommended that Hanne Petersen inform the meeting of the Working Group Chairs about further developments concerning this proposal.

## **17. The financial situation for the AMAP Secretariat, common costs, bilateral and multilateral projects.**

17.1. Lars-Otto Reiersen outlined the budget for the AMAP Secretariat as follows:  
Contribution from Norway to the Secretariat: 2.2 million NOK.

Operational budget of the Secretariat (salaries, travel, administrative costs, etc.): 3 million NOK. The budget deficit has, in the past, been covered by additional support from the Nordic Council of Ministers, by voluntary contributions from AMAP countries, and by overhead on projects administered by the AMAP Secretariat that are related to general AMAP objectives.

17.2. It was pointed out that additional funds are required for operation of the TDCs. The Freshwater, Radioactivity and Human Health data centres will continue to be funded by Canada, Norway and Denmark respectively. The Nordic Council of Ministers have previously supported the marine and atmospheric data centres, however, they will no longer continue this practice as it is now considered to be a core activity.

17.3. The Finnish Delegation informed the Working Group that Finland will continue to provide 100 000 NOK to support the AMAP Secretariat and participation of Saami indigenous people in AMAP activities.

17.4. The participating countries were requested to consider their possibilities to support the AMAP Secretariat and common costs of core activities in 2000.



**18. The AMAP Workplan for 2000.**

18.1 The AMAP Workplan for 2000 is attached as Appendix 9.

**19. Next AMAP Working Group Meeting.**

19.1. The meeting participants agreed that the next AMAP Working Group meeting should be convened in autumn 2000. However, in the event of problems associated with preparation of the Report to the Arctic Council Ministerial Meeting, the possible need to convene a WG meeting in the second half of June should be kept in mind.

19.2. The AMAP Secretariat was requested to determine the preliminary dates and location for the next Working Group meeting as early as possible to present it to the Delegations for their consideration.

19.3. The Danish Delegation suggested to anticipate a Working Group meeting in autumn 2001 to develop and adopt the AMAP Workplan for the period after 2002.

**20. Any other business.**

The representative of Denmark/Faroe Islands, Jacob Pauli Joensen, presented an information report on AMAP relevant Faroe Islands activities. The report was met with appreciation.

**21. End of the Meeting.**

The AMAP Chair, Hanne Petersen, closed the 13<sup>th</sup> AMAP Working Group meeting.

## Appendix 1: List of Participants

12 November, 1999

### The 13<sup>th</sup> Working Group Meeting of the Arctic Monitoring and Assessment Programme, 10 – 12 November, 1999, Toronto, Canada

Country	Last name	First name	Institute name	Mailing address	Direct phone	Direct fax	e-mail	Institute phone	Institute fax
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**Appendix 2: Revised Annotated Agenda for the 13<sup>th</sup> Working Group Meeting of the Arctic Monitoring and Assessment Programme (AMAP). Toronto, Canada, November 10-12, 1999.**

1. Opening of the meeting.
2. Adoption of the agenda.
3. Progress report from the Chair and the Secretariat, including progress on the PCB and GEF projects and workshops and international conferences arranged. Review of actions.
4. Statement by Observers.
5. Approval of the AMAP Strategic Plan 1998 - 2003, to be presented to the SAO meeting in Washington.
6. The progress report to the SAO meeting in Washington. To be prepared after the WG meeting.
7. The preparation of the Progress and Interim reports to be presented to the Ministerial meeting in 2000, see appendix 5 in the Minutes from the 12th AMAP WG.
8. Approval of the AMAP Trends and Effects Monitoring Programme. Part of the programme was approved in Helsinki, at this meeting the reminding parts should be approved. The different sections have been circulated to the members of the ASG and AMAP HoDs prior to the Toronto meetings. ASG will present a report on their consideration of the programme.
9. The ACIA (Climate and UV programme). The WG is asked to consider the overall assessment strategy, organization, programme and coordination of the work with the other assessments to be done. Version 2.1 of ACIA was prepared by the ASC meeting in September and has been circulated to the members of ASG and AMAP HoDs prior to the Toronto meetings.
10. The National Implementation Plans (NIPs). Countries have been requested to present their NIPs to the AMAP Secretariat prior to the Toronto meetings. Based on received information ASG and the Secretariat will present a report on the proposed NIPs to fulfil the AMAP programme 1999 - 2003. A scheme for reporting programmes/projects under NIPs to the AMAP PD will be presented.
11. Sources and modelling. The work to improve the modelling work and source related activities, locally and internationally is important for AMAP. Report from the AMAP workshop in June has been circulated, and will be presented to UN-ECE in November. During the first phase of AMAP yearly national data on emission and discharges were not made available from all Arctic countries to AMAP. The WG is requested to discuss how to improve the availability of source information and possibilities to establish harmonized reporting.

12. Assessment Strategies for the reports to be prepared, incl. timetable, crossfertilization, Drafting groups, National Key Experts etc. have to be established. A report from ASG will be presented for discussion by the WG. Based on the discussion a strategy should be decided upon and an updated version of AMAP Assessment Guidelines should be prepared. The WG should also consider financial implications for the assessment work and possible solutions.
13. Status of the Thematic Data Centres, flow of data and AMAP data policy.
14. Cooperation with other AC Working Groups.
15. AMAP Workshops and International Symposia. Past and future events.
16. Cooperation with international organizations. The MoU between AMAP and ACOPS. The WG is asked to discuss both in general the use of MoU and specifically the circulated draft. The circulated draft proposal for cooperation between WHO, UNEP, Indigenous Peoples and Arctic Council regarding health policy should be discussed.
17. The financial situation for AMAP Secretariat, common costs, bilateral and multilateral projects.
18. The AMAP Workplan for 2000. To be prepared at the end of the meeting
19. Next AMAP WG meeting.
20. Any other business.
21. End of the meeting.



**Appendix 3: List Of Documents Distributed Prior to and During the Meeting. 13<sup>th</sup> AMAP Working Group Meeting, Toronto, Canada, 10 – 12 November, 1999**

<b>Document No.</b>	<b>Document Title</b>
AMAP WG 13/1/1	Draft Participant List
AMAP WG 13/1/2	Draft Document List
AMAP WG 13/2/1	Revised Draft Annotated Agenda
AMAP WG 13/3/1	Progress Report from the AMAP Secretariat
AMAP WG 13/5/1	AMAP Strategic Plan: 1998 – 2003. Draft
AMAP WG 13/8/1	AMAP Trends and Effects Programme: 1998 – 2003. Draft 8/99. Preface and Section A – Background Information
AMAP WG 13/8/2	AMAP Trends and Effects Programme: 1998 – 2003. Draft 8/99. Section B – Trend Monitoring Programme
AMAP WG 13/8/3	AMAP Trends and Effects Programme: 1998 – 2003. Draft 8/99. Section C – Effects Monitoring Programme
AMAP WG 13/8/4	Human Effects Program: 1998 – 2003
AMAP WG 13/8/5	AMAP Trends and Effects Programme: 1998 – 2003. Draft 8/99. Section D – Supporting Studies
AMAP WG 13/8/6	AMAP Trends and Effects Programme: 1998 – 2003. Draft 8/99. Section F – Data Reporting/Data Policy
AMAP WG 13/8/7	Detecting the Effects of Climate Change: A Discussion Paper. Draft 1 (6/9/99)
AMAP WG 13/8/8	UV and the Arctic
AMAP WG 13/9/1	Arctic Climate Impact Assessment (ACIA). An Assessment of Consequences of Climate Variability and Change and the Effects of Increased UV in the Arctic Region. A Draft Implementation Plan. Version 2.1.  Letter: To Senior Arctic Officials of 25 October, 1999
AMAP WG 13/9/2	Summary
AMAP WG 13/10/1	On the Progress of Implementation of the Russian National AMAP Plan Projects (II stage) by Roshydromet in 1999 and draft projects for 2000-2002

AMAP WG 13/11/1	Modelling and Sources: A Workshop on Techniques and Associated Uncertainties in Quantifying the Origin and Long-Range Transport of Contaminants to the Arctic, Bergen, Norway (AMAP Report 99:4)
AMAP WG 13/14/1	AMAP Data Handling Report 1999
AMAP WG 13/16/1	ACOPS – AMAP Draft MoU
AMAP WG 13/16/2	The Global International Waters Assessment
AMAP WG 13/16/3	UNEP: Arctic Indigenous Peoples Health and Environment

## Appendix 4: List of Action

Action:	Responsibility:	Deadline:	Minutes item no:
1. To contact national representatives in the NCM concerning NCMs funding of IPOs representatives in AMAP should not be limited to RAIPON, but also other IP representatives.	AMAP Delegations of the Nordic countries	A.s.a.p	3.6
2. Finalization of the AMAP Strategic Plan.	AMAP Secretariat	February, 2000	5.3
3. Development of the draft AMAP Operating Guidelines.	AMAP Board	Spring 2000	6.5
4. Input to the AMAP Progress and Interim Assessment Reports to the Arctic Council Meeting in 2000.	Lead countries	January – February, 2000	7.2
5. Circulation of 2 <sup>nd</sup> draft of the AMAP Progress and Interim Assessment Reports to the Arctic Council Meeting in 2000.	AMAP Board	Mid February, 2000	
6. Finalization of the AMAP Trends and Effects Programme.	AMAP Secretariat	Spring 2000	8.4.
7. Comments to the draft papers on climate change and UV.	All countries and observers	January – February, 2000	8.7.
8. Report to SAO on the lack of relevant expertise in AMAP and CAFF on the socio-economic aspects of the ACIA.	AMAP Board	November, 1999	9.3
9a). Production of an evaluation of NIPs.	AMAP Secretariat	March, 2000	10.1.
9b). To determine if the evaluation is consistent with each countries' NIP.	All countries	April, 2000	
10. Draft NIPs Guidelines.	C. de Wit	February, 2000	10.2
11a). Production of an electronic reporting format to update the AMAP Project Directory (PD).	AMAP Secretariat	February, 2000	10.3
11b). National reporting of projects to the AMAP PD.	All countries	June, 2000	
12. Preparation of a NIPs and PD report.	AMAP Secretariat	April, 2000	10.4
13. Report to SAO that AMAP will present its assessment in 2002, but will not be able to meet all expectations of the Ministers due to lack of scientific knowledge on effects.	All countries	November, 1999	10.5
14. Present information to the AMAP Secretariat of source information provided to other fora.	All countries and observers	Spring 2000	11.1
15. Information concerning the plans to hold a Rio+10 Conference.	UNEP, D. Henry	A.s.a.p.	12.2
16. Information on the budget for production of the assessment.	AMAP Secretariat	June 2000	12.1

<b>Action:</b>	<b>Responsibility:</b>	<b>Deadline:</b>	<b>Minutes item no:</b>
17. Update Guidelines for the AMAP Assessment used for the first assessment and place it on the website.	AMAP Secretariat	Summer 2000	12.5
18. The review of the list of Key National Experts and provide the Secretariat of any additions or changes.	All countries and observers	January 2000	12.6
19a). Follow-up on the invitation to AMAP from the International Water Assessment (GIWA).	AMAP WG Chair	A.s.a.p.	16.9
19b). Contact GIWA Coordination Office for detailed information of the content and conditions of appointment, including financial aspects.	AMAP Secretariat	A.s.a.p.	
20. The determination of preliminary dates and location for the next AMAP Working Group meeting.	AMAP Secretariat	A.s.a.p.	19.2

## **Appendix 5: Progress Report from AMAP Secretariat to the 13<sup>th</sup> AMAP Working Group meeting, Toronto, Canada, November 10-12, 1999.**

### **1: Organization**

Since the last meeting of the AMAP Working Group (WG), Helgi Jensson (Iceland) has been elected the new Vice Chair of the AMAP WG. There have been no changes in the AMAP Secretariat. The AMAP Board met on 14/1/99, 3/6/99, 17/8/99 and 28/10/99 to plan and follow up on various AMAP work items.

### **2: Follow up after the 12<sup>th</sup> AMAP WG meeting**

#### **2.1. AMAP Monitoring Programme and National Implementation Plans (NIPs) for 1998 - 2003**

At the 12<sup>th</sup> AMAP WG meeting in Helsinki, the WG agreed that the draft AMAP Trends and Effects programme documents available at that time formed a sufficient basis for preparatory work on the development on National Implementation Plans (NIPs) concerning contaminants and effects monitoring components (excluding climate change and UV-B effect issues). The WG approved and endorsed, subject to amendments and comments discussed and noted, the sections of the programme document as drafted. It was agreed that finalised versions and additional sections would be circulated for final approval when available. Based on workshops and meetings arranged during 1999, several sections of the AMAP Trends and Effects Programme have been updated and circulated. Final approval of the remaining substantive sections of the programme is expected to take place at the meeting in Toronto.

#### **2.2. The Assessment Steering Group (ASG)**

The first meeting of the re-established AMAP ASG (ASG-II) was held in Washington D.C., March 8-10, 1999. Lead Country experts from the Arctic countries participated. For the future assessment work, countries have undertaken to lead the work related to the various component assessments as follows: Persistent Organic Pollutants - Canada and Sweden, Heavy metals - USA, Radioactivity - Norway and Russia, Oil - Norway and Russia, Acidification - Finland, TBT - Iceland, Human health - Denmark and Canada. The AMAP Secretariat is presently responsible for coordinating the work on Combined effects. The meeting discussed the products to be prepared, the needs for new data on sources, levels and trends, and effects, the development of the monitoring programme for trends and effects, methodologies, QA/QC, flow of data, etc., and issues relating to crossfertilization between the groups and arrangement of workshops, etc. Minutes of the ASG-II/1 meeting have been circulated.

The AMAP expert groups on radioactivity, human health and heavy metals have met during the year to further develop and specify the content of the AMAP programme related to their areas of concern.

The second meeting of ASG-II will be held in Toronto, November 8-10. The group will review the circulated proposal concerning the AMAP Trends and Effects Programmes and will make final adjustments prior to its presentation to the WG meeting. A detailed timetable for the assessment work will also be discussed.

### **2.3. The Arctic Climate Impact Assessment (ACIA), and assessment of effects due to changes in climate and UV/ozone.**

As a follow up to decisions made in Helsinki (AMAP 12<sup>th</sup> WG) an Assessment Steering Committee (ASC) has been established between AMAP, CAFF and IASC: two meetings of the ASC have been held.

The first meeting of the ASC took place in Washington D.C., March 11, 1999, with participants from AMAP, CAFF and IASC. The meeting discussed the assessment work to be performed, assessment strategies and content, organization of the climate and UV work, data needs in relation to ongoing and new research and monitoring programmes, cooperation with other international organizations, etc. The United States has taken on the task as Lead Country for the work under AMAP related to climate and UV. At the meeting, Robert Corell (USA and IASC) presented a draft proposal for work that should be incorporated in the assessment of effects in the Arctic due to changes in climate and UV. The proposal was strongly supported by the AMAP and CAFF representatives, however, since the scope of the proposed work also included direct and indirect effects on socio-economic aspects, the meeting agreed that IASC should first present a concept paper to the SAO meeting in Anchorage for their consideration.

At a special drafting meeting in Oslo, April 5-6 1999, representatives from AMAP, CAFF, IASC and WCRP (World Climate Research Programme) met and produced a concept paper on the proposed **Arctic Climate and Impact Assessment (ACIA)** programme. This was presented to the SAO meeting in May 1999. At the SAO meeting, ASC was asked to prepare a more detailed document regarding content, implementation and costs, to be presented to the next SAO meeting in November.

Two telephone meetings among the ASC members took place in June and the second meeting of the ASC was held September 16-17 in Copenhagen. At this meeting ICES was also represented. An updated version of ACIA was prepared and has been circulated to the working groups of AMAP and CAFF, the IASC executive Board, and the SAOs. If the content and strategy is accepted by the groups mentioned above a final detailing of the programme content and implementation will be initiated soon after the SAO meeting in November.

### **2.4. Sources**

In addition to the workshop on modelling and sources held in Bergen, 14-16 June, which resulted in 13 recommendations concerning needs for emission inventories and other source related issues, the AMAP Secretariat has attended meetings on work going on under OSPAR regarding source quantification (HARP-HAZ).

Within AMAP, work has also focussed on development and implementation of the PCB project in Russia, and development of the proposed project on 'Pollution, Food Security and Indigenous Peoples in Russia', both of which aim to detect and quantify sources of major significance for the Arctic, see special progress reports regarding these projects, below.

## **2.5. AMAP Assessment Report (AAR) on CD**

The (3.7 kg) AAR has now been produced on a CD-ROM. This production has been possible due to support from US-NOAA and the Norwegian Ministry of Environment. The CD will be circulated to those countries that have ordered copies, with the remaining stock kept at the Secretariat for further distribution.

## **2.6. Distribution of the SOAER**

The English version of the SOAER available on the AMAP website (homepage <http://www.amap.no/>) now includes graphical elements, a development supported by UNEP.

The Russian translation of the SOAER (the sixth different language version of the SOAER) was presented in Moscow in February at a press conference at the Norwegian Embassy in Moscow. The translation and printing of the Russian SOAER was financed by US-EPA, US-NOAA, US-DoE, Norwegian Ministry of Environment, Danish Ministry of Environment, Russian Association of the Indigenous Peoples of the North (RAIPON), and the Indigenous Peoples Secretariat (IPS).

## **2.8. Thematic Data Centres (TDCs)**

All the existing TDCs had secured funding for 1999. In addition, a human health database has been established on the basis of a Danish contribution. Interest has been expressed by the University of Alaska Fairbanks (UAF), in using a database established at that institute (SYNCON database) to operate the AMAP terrestrial TDC; preliminary work to further investigate and develop this offer has been conducted during the summer, and representatives from UAF will attend the ASG meeting to inform about their project.

## **2.9. Workshops arranged**

On April 26-27, 1999, a joint workshop between AMAP, CAFF and IASC was arranged in Tromsø, Norway. The objective was to discuss the content of the research and monitoring programmes that need to be initiated to detect the effects of changes in climate and UV on Arctic ecosystems and Arctic peoples. A report from the meeting has been prepared by IASC.

On June 14-16, 1999, a workshop on modelling and sources (Workshop on Techniques and Associated Uncertainties in Quantifying the Origin and Long-Range Transport of Contaminants to the Arctic) was arranged by AMAP in Bergen, Norway. The objectives were to specify the AMAP needs for modelling work in support of assessments to be produced in the coming years and how to achieve progress in this area, and also how to obtain more reliable source data that can be used in the models. AMAP has developed a close cooperation with several international organizations regarding modelling and source issues, including OSPARCOM, UN-ECE and EEA. The report of the workshop (AMAP Report 99:4) is available both in printed form and on the AMAP website.

On September 7-10, 1999, the US-EPA arranged an AMAP workshop to specify the content of the AMAP Heavy Metal Programme; part of their work in representing the US as lead country for the AMAP heavy metal assessment. A report from the workshop is under preparation, and will be delivered to the ASG meeting; the recommendations have been circulated for discussion on their inclusion in the AMAP Trends and Effects programme.

On September 20-23, 1999, the 4<sup>th</sup> International Conference on Radioactivity in the Arctic was arranged in Edinburgh, Scotland. This was a joint arrangement between the Norwegian

Radiation Protection Authority (NRPA), Scottish Environment Protection Agency (SEPA), International Union of Radioecologist (IUR), and AMAP. The conference was attended by 180 participants from 20 countries. The Conference Proceedings are produced and available.

### **3. Special projects**

#### **3.1 Implementation of the Multilateral Cooperative Project on Phase-out of PCB Use, and Management of PCB-contaminated Wastes in the Russian Federation**

This project was initiated in 1998 as a follow-up to the conclusions and recommendations of the AMAP Assessment Report and was supported by the First Ministerial Meeting of the Arctic Council (Iqaluit, Canada, September 17-18, 1998). The project consists of three phases:

- Phase 1: Evaluation of the current status of the problem with respect to environmental impact, and development of proposals for priority remedial actions;
- Phase 2: Feasibility study;
- Phase 3: Implementation of demonstration projects.

The 1<sup>st</sup> phase of the project, which has been endorsed by the Arctic Council, is currently under implementation with financial and technical support of all Arctic States and the Netherlands. The Nordic Environment Finance Corporation (NEFCO) has recently made a decision to start the PCB Fast Track Project with the objective of financing the implementation of a (given number of) project(s) within a limited geographical area in Northwest Russia, which would cover all three phases in Multilateral project and can be considered as a NEFCO contribution to this project.

General management of the project organization and implementation is conducted by the steering group, which consists of one representative from each of the countries and NEFCO. According to the decision of the participating countries, supported by the Arctic Council, the 1<sup>st</sup> phase of the project is being organized by the State Committee of the Russian Federation for Environmental Protection in cooperation with the AMAP Secretariat.

The 1<sup>st</sup> phase started May 1, 1999. In August, the Steering Group adopted the Interim Report for Tasks 1 (PCB production term characterization) and 2 (PCB use term characterization), and noted the high quality and uniqueness of the report. At present, the draft Interim Report for Task 3 (PCB-containing equipment use characterization) has been distributed among designated experts from the participating countries for comments, and it is planned that the Steering Group meeting will consider it in December. In addition, the Steering Group meeting in December will consider detailed proposals and preliminary cost estimates for phase 2 (Feasibility Study) of the project, which, besides implementation/cost benefit analysis, should cover following issues:

- Selection of alternatives for replacement of PCB by substances with acceptable environmental characteristics and feasible production;
- Construction/retrofit of a prototype facility for production of alternative fluids;
- Construction/retrofit of a prototype facility for use of non-PCB alternative compounds in a major PCB use sector;
- Selection/development of environmentally sound technology for destruction of PCB-containing liquids;



- Selection/development of environmentally sound technology for destruction of PCB-contaminated containers, equipment and their elements;
- Selection/development of standard/innovated technology for rehabilitation of PCB-contaminated areas.

### **3.2. Pollution, Food Security and Indigenous Peoples of the Arctic Russia**

The objective of this proposed project is to assess pollution impacts on the human health of indigenous peoples of Arctic Russia, and to ascertain the level of country food contamination as a result of pollution from global (long-range transported) and local sources. The main focus of the project will be on POPs and Hg, however other pollution factors will also be covered. The project also includes a strong human health component, consistent with the AMAP human health programme, also including important aspects such as nutrition and social-economic factors. This three-year project is expected to provide essential information to the assessments that AMAP has been requested to perform during the next years.

The project was initiated by ICC, supported by a grant of 25.000 US dollar from the Global Environmental Facilities (GEF) for preparation of the Project Proposal. Three planning meetings have been held (London, August 1998; Moscow, April 1999; Oslo, May 1999). It has been agreed that RAIPON, the Governmental Executive bodies of the Russian Federation (State Committee for Environmental Protection, State Committee for Northern Affairs, Ministry of Health, and Federal Service for Hydrometeorology and Environmental Monitoring), ICC and the AMAP Secretariat will participate in the project implementation. Besides Russian governmental agencies involved in the project implementation, the project has received support from the Russian Parliament (State Duma) and the 3<sup>rd</sup> Arctic Leaders Summit. The proposal will be presented to UNEP/GEF from RAIPON, ICC and Saami Council. The AMAP Secretariat hopes to involve AMAP lead experts in fields relevant to the subject of the project as the resulting information from the project will be a vital contribution to the needs for the respective AMAP assessments.

GEF financing for the actual project implementation requires at least 50/50 co-financing from other sources. In-kind contributions from Russia will be one of the matching sources. The AMAP Secretariat has received financial support for activities in the European part of the Russian North, relevant to the project objectives, from the Nordic Council of Ministers, and has applied for co-financing of this project from the Barents Human Health programme and Norway. The UN-ECE EMEP Steering Body has made a decision to provide information on atmospheric transport of pollutants in the European part of Russia as their voluntary contribution to the project. The project organizers hope that the other Arctic countries will provide financial support to this project. In addition, the AMAP Secretariat and ICC are currently seeking financial support from the UN Foundation and several other private foundations. Negotiation on involvement of WHO as a co-financier are also going on.

This project has strong links, not only to AMAP objectives, but also to the "Children and Youth" Project, the Danish/Greenlandic "Survey of Living Conditions in the Arctic", and the Russian-Norwegian bilateral projects on health of Saami and Nenets Peoples. The AMAP Secretariat aims to coordinate these projects, if possible, to allow their funding to be looked upon as matching support for the GEF project. However, extra funding from the Arctic countries is still important if this project is to be approved by GEF.

After final approval by the Russian GEF Focal Point, it is planned to present the Project Proposal to GEF as soon as possible. If this proceeds according to plan, the first sub-projects could be initiated early in 2000.

### **3.3. Arctic Children and Youth**

The AMAP Chair and the leaders of the AMAP human health group took part in the Arctic Children and Youth project meeting held in Toronto in March. The AMAP human health group will take care of the AMAP contribution to this programme. The work is integrated into the AMAP workplan for 1999/2000, and will also be integrated with the GEF funded project in Russia.

### **3.4. Anderma Station**

The Russian Anderma atmospheric monitoring station has now been in operation for the first year of its proposed two-year period of operation, an activity supported by Canada and AMAP, and initial results are becoming available. The Anderma station will provide important information on POPs, both for the overall assessment to be prepared by AMAP, but also to the project linked to GEF financing. Possibilities for funding to continue operation of this site, and also to initiate Hg monitoring need to be considered.

## **4. International cooperation**

### **4.1. IASC**

A close cooperation has been established with IASC in relation to the preparation of ACIA. A joint workshop was held in Tromsø in April 1999, and a new joint AMAP/IASC workshop in January 2000 regarding human health is under preparation.

### **4.2. UNEP**

At the meeting of the Governing Council of UNEP, in February 1999, in Nairobi, AMAP participated in a special panel on Chemicals, and presented results from the AMAP phase 1 work.

UNEP-Chemicals have arranged several meetings linked to POPs issues, and the AMAP Secretariat has participated and presented results from the Arctic and experiences from the PCB project in Russia at conferences in Hanoi, and Moscow. It was agreed that cooperation between AMAP and UNEP-Chemicals should be further expanded, particularly in relation to preparation of an inventory of obsolete pesticides in CIS countries, including Russia. At the GRID-Arendal 10 years anniversary meeting, the AMAP Secretariat participated in a seminar on Environment - related Health Issues, focusing on the Arctic.

### **4.3. European Union (EU) and European Environment Agency (EEA)**

In Europe, there are several regional programmes and organizations with the mandate to assess the quality of the marine and coastal environment. These include the Black Sea Environment Programme (BSEP), the Mediterranean Action Plan (MAP), the Oslo and Paris Commissions (OSPARCOM), the International Council for the Exploration of the Sea (ICES), the EEA and AMAP. In 1996 an initiative was taken to try to coordinate and harmonize work carried out by these groups regarding monitoring and assessment. As an activity coordinated by the EEA, an Inter-Regional Forum (IRF) was established in 1996 to further this work. At the third meeting of IRF, held October 27-28 in Venice, Italy, the

AMAP Secretariat presented the reports of two relevant AMAP workshops: the 1998 workshop on Combined Effects and the 1999 workshop on Modelling and Sources. The conclusions from these two workshops are of interest for the other organizations and hopefully will be reflected in priorities associated with research funding under the EU's 5<sup>th</sup> Framework. Future work under the IRF was agreed, but AMAP did not take on any special activities for the next year.

#### **ARTERI**

The AMAP Secretariat has participated in the European Union funded Task Force ARTERI (Arctic-Alpine Terrestrial Ecosystem Research Initiative) since 1996. A final ARTERI meeting was held in Copenhagen, Denmark in January 1999, and a final report has been prepared and is available on request. The work performed will be of great importance in relation to the climate effects work to be done by AMAP.

#### **The Northern Dimension**

At a special seminar, in Brussels, October 10, arranged by Iceland to discuss the Environmental Aspect of the Northern Dimension, the AMAP Secretariat was invited to present the environmental problems observed in the Arctic. The presentation invited an active participation of the EU, both regarding financing of research and monitoring programmes, and in establishing and implementing projects within the Arctic region that could reduce pollution from local sources, especially sources within Russia.

#### **4.4. WHO**

WHO has given a clear indication that it wishes to be more involved in work related to the human health of Arctic Indigenous Peoples. Recently, WHO, together with UNEP, have been actively involved in planning and drafting a proposal concerning a joint human health project for the Arctic, an initiative taken-up following the Arctic Indigenous Peoples leaders Summit meeting. The AMAP Board and Secretariat, with assistance of the leader of the AMAP human health group, has been involved in the preparatory work on this proposal, to ensure a cost/efficient use of available resources and avoid duplication of work. The resulting project proposal has been presented to the SAOs by UNEP, WHO, and the Indigenous Summit, focuses on a study of existing policy among the eight Arctic countries regarding health of Arctic Indigenous Peoples.

#### **4.5. The Barents Euro-Arctic Council**

The AMAP Secretariat participated as observer at the Barents Environmental Task Force. Follow-up of the NEFCO/AMAP projects, presented in December 1995, was one of the main items on the agenda. Some of the projects proposed are now at the stage of implementation.

#### **4.6. Nordic Council of Ministers (NCM)**

The AMAP Board participated at several meetings arranged by the NCM, to present the results from the AMAP study and to discuss future cooperation. The NCM has, over the years, funded several core projects and activities of the AMAP work, and AMAP has received NCM funding for several projects in 2000.

#### **4.7. ACOPS.**

To enhance cooperation between AMAP and ACOPS, particularly in relation to work on the preparation of proposals for GEF-funded projects by both bodies, which have a certain overlap in their objectives, a consultation meeting between the AMAP Secretariat and

ACOPS took place in June 1999. It was emphasized during the meeting that the objectives under the ACOPS GEF project proposal (Identification of priority hot-spots and conduct of pre-investment studies for remedial actions in support of the National Plan of Actions for the Protection of Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation), which are dedicated to transport of contaminants by air and water routes, and assessment of pollution sources, will be reached by compilation of the existing information. In this connection, it was agreed that the results of relevant AMAP activities, and the work planned to be implemented under the RAIPON/ICC/AMAP GEF project proposal (Pollution, Food Security and Indigenous Peoples of the Arctic Russia ) could provide a valuable contribution to the implementation of the ACOPS GEF Grant.

In October 1999, an AMAP representative took part in the Steering Group meeting for the preparation of the ACOPS GEF Project Proposal. During this meeting, the SG made the request to AMAP for corresponding contributions, which should be considered by the AMAP Working Group in Toronto.

Issues relating to the development of a memorandum of understanding between AMAP and ACOPS will be discussed by the AMAP Working Group.

#### **4.8 OSPARCOM**

As part of an agreed strategy of cooperation between AMAP and OSPARCOM concerning assessment of their respective Arctic areas, the OSPAR Region 1 (Arctic) Assessment 2000 has made extensive use of material from the AMAP Assessment Reports. AMAP representatives attended some of the OSPAR meetings where their assessments have been discussed.

#### **4.9 QUASIMEME**

AMAP was invited to attend the 1999 meeting of the QUASIMEME (Quality Assurance in Marine Monitoring) Steering Committee held in the Netherlands in October 1999. QUASIMEME is a major European laboratory performance and QA/QC scheme established specifically to support regional marine monitoring programmes, and now operating on a laboratory subscription cost recovery basis. Through input to this group, AMAP can potentially influence the provision of Arctic relevant QA/QC activities and reference materials, etc.

### **5. Future conferences and workshops under preparation:**

The following activities are planned for 2000.

**5.1 Subregional Expert meeting on Reduction of POPs, in particular dioxins and furans,** December 14-17, 1999, in St. Petersburg, Russia. This is a joint arrangement between UNEP, UN-ECE, UNIDO, CIP and AMAP.

**5.2 International Workshop on Human Health and Persistent Organic Pollutants (POPs) in the Arctic,** January 18-20, 2000, Rovaniemi, Finland. This is a joint workshop between AMAP, University of the Arctic and IASC.

**5.3 CAFF/AMAP Workshop on a Circumpolar Biodiversity Monitoring Programme.** This is planned for February 6-8, 2000, in Reykjavik, Iceland.

**5.4 Biomarker Conference** to be held May 1-5, 2000, in Anchorage, USA. This is a joint conference between US institutes and AMAP.

## **6. Finances**

The AMAP Secretariat has, over the years, received its basic funding from Norway; some of the other Arctic countries and the Nordic Council of Ministers (NCM) have also provided substantial contributions to finance common activities. For 1999, special support for Secretariat activities has been received from Canada, Finland and USA. Denmark, Norway and USA have sponsored workshops and conferences.

For 2000, the estimated budget for the AMAP Secretariat is approximately 3.0 million Norwegian Kroner (400.000 US dollars, exchange rate 7.5). The Norwegian Ministry of Environment has allocated 2.2 million NOK (290.000 US dollars), leading to a deficit of approximately 800.000 NOK (110.000 US dollars). Part, but not all, of this deficit can be covered by overheads on projects administered by the AMAP Secretariat. The Arctic Countries are, therefore, kindly requested to consider voluntary contributions to the AMAP Secretariat so that it can provide necessary support to the working group, including key activities such as communications and the operation of the Thematic Data Centres, etc.

## **Appendix 6: Statement of World Wildlife Fund (WWF)**

**Statement of World Wildlife Fund (WWF)  
13<sup>th</sup> Meeting of the Arctic Monitoring and Assessment Programme (AMAP) Working Group  
Toronto, Canada  
November 10-12, 1999**

On behalf of WWF, I would like to commend AMAP for its continuing efforts to map circumpolar contaminant levels and their effects on Arctic residents and wildlife. The information that the Arctic countries continue to gather and present through AMAP is invaluable, because it clearly illustrates the need for local, and especially global, action on contaminants.

WWF has been intimately involved in the ongoing negotiations to achieve a comprehensive global agreement on POPs. The AMAP *State of the Arctic Environment Report* showed very high levels of POPs in some Arctic residents and wildlife. This is despite the fact that Arctic peoples derive few "benefits" from these chemicals. There is no better illustration of the global reach of these contaminants or of the need for speedy global action.

In that context, WWF would like to congratulate Sweden for its efforts to strengthen the proposed POPs agreement through provisions providing financial support for developing countries. A workshop co-chaired by Sweden and a developing country partner that has yet to be confirmed, will be held in February 2000. WWF will be acting as the secretariat for the workshop. We urge the other Arctic countries to join Sweden in this effort.

Another substance of increasing concern in the Arctic is mercury. While some work on sources, levels and biological effects remains to be done, the trend is clear - organic mercury is increasing in the Arctic as a result of human activity and is present in disturbingly high levels in some Arctic residents and wildlife. WWF urges AMAP and the Arctic countries to intensify their efforts to identify sources, chart pathways and find ways to measure biological effects. We also urge the Arctic countries to follow Canada's example and ratify the LRTAP Heavy Metals Protocol, and to consider ways to find a global solution.

We hope that Canada, our host for this meeting, will continue to play a leading role in Arctic contaminant research. We would like to applaud Canada's past efforts, and to urge a continuation of Canada's high level of involvement in AMAP.

Finally, WWF Canada's Wildlife Toxicology Program is currently working in partnership with Inuit organizations, responding to their concerns, to investigate wildlife health effects and the possible link that contaminants may play in causing abnormalities in Arctic wildlife. We hope this work can set an example for the types of constructive roles that conservation organizations like WWF can play in partnership with Arctic peoples.

## Appendix 7A: United Kingdom activities relevant to AMAP

Whilst there is no specific National Implementation Plan for UK involvement in the Arctic, the continued connections with AMAP and related programmes provide important and welcome mechanisms for interaction.

Environmental research provides much of the basis for UK Arctic effort. Some of the aspects of continuing study and of relevance to AMAP are:

- 1) Studies on the environmental dynamics of **POPs, heavy metals and trace gases** are contributing to the development of international protocols. New research on land-atmosphere interactions related to trace gas flux from northern peatlands and the effects of nitrogen deposition in the Arctic are planned as part of the new GANE Programme (Global Aspects of Nitrogen Emissions).
- 2) The UK Government seeks to ensure that **radioactive wastes** are not unnecessarily created; that such wastes as are created are safely and appropriately managed and treated, and that they are then safely disposed of at appropriate times and in appropriate ways. Any such disposals, including discharges into the sea, are closely regulated under the Radioactive Substances Act 1993. Government departments and the environment agencies carry out monitoring of marine environmental media and foodstuffs around nuclear licensed sites that discharge radioactive waste into the sea. This ensures that any doses to the public are well below internationally agreed limits and that such discharges pose no risk to the environment.
- 3) There is increasing emphasis on Risk Assessment focusing on current and potential doses from **radionuclides**. Continued participation in the AMAP Expert Group currently involves development of vulnerability analysis. In relation to current concerns over Technetium from Sellafield, monitoring of discharges is being maintained and doses remain within standard international guidelines. Recently proposed multinational research is designed to explore bioaccumulation processes for improved model predictions and understanding the potential consequence of the utilisation of contaminated seaweed for fertilisation and other applications.
- 4) **Climate change** research includes
  - refinement of GCMs and regional modelling at the Hadley Centre, including feeding climate predictions through impact models;
  - analysis and modelling of the thermohaline circulation in the North Atlantic by MAFF, NERC and Universities;
  - measurement of changes in land and sea ice through ARCICE, a current NERC Thematic Programme;
  - experimental manipulation of temperature to determine plant response in the High Arctic, plus observations of greenhouse gas flux (CO<sub>2</sub> and methane) and land-atmosphere interaction (water and energy) in the north;
  - establishment of a new Climate Change Centre by the Research Councils.

Such activities provide actual and potential input to the AMAP/CAFF assessment of climate change effects on ecosystems.

**5) Monitoring** the effects of changes in climate, land use and pollution is focused by predictions of expected change. Development of scenarios of change represent 'best estimates' or 'hypotheses'. UK studies on Svalbard and elsewhere have contributed to terrestrial impact scenarios through the EU ARTERI programme which have supported planning of AMAP/CAFF monitoring and proposals to establish an extensive network of field sites in northern Europe.

The Radionuclide Conference in Edinburgh (September), the Circumpolar Universities Association Conference in Aberdeen (June) and the forthcoming IASC Summit Week in Cambridge (April 2000), illustrate the strengthening of international links. Such activities, combined with participation in multi-national programmes ranging from terrestrial ecology in the International Tundra Experiment (ITEX) to Variability of Exchanges in Northern Oceans (VEINS), represent the continuing mechanisms of UK support for improved understanding of the dynamics of Arctic systems as a basis for AMAP.

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## **Appendix 7B: Netherlands activities relevant to AMAP**

### **Inventory of Dutch Arctic Research Projects**

In order to compile an overview of Dutch research in the Arctic, the Arctic Centre of the University of Groningen has made an inventory of research projects. This inventory first started in 1998 and will be updated on a yearly basis.

The projects are divided into five categories:

1. physical geography and climate research
2. biology and ecology
3. human and social sciences
4. human health
5. technology.

To collect the project descriptions and updates of existing entries a web form is used. The use of a web form is far more efficient compared to traditional paper forms. (<http://www.let.rug.nl/arctic/inventarisatie.html>)

In this report only those projects that are relevant to AMAP and CAFF are listed.

The full report can be obtained from the Arctic Centre or from the Arctic Centre web site (<http://www.let.rug.nl/arctic/>) \*.

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\* The report will be available on the web from February 2000.

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## ***Example Project Registration:***

### **Ice-sheet mass balance in central West Greenland**

#### Project summary and objectives

The aim of the project is to obtain more insight in the response of the Greenland ice sheet to climatic change. For this purpose we will link our surface energy-balance model to an atmospheric model, so that the model can be forced by variables characterizing the atmosphere outside the thermal influence of the ice sheet itself. The modelling is supported by the mass-balance and meteorological data that we collect along a transect in West Greenland (the Kangerlussuaq-transect or K-transect). The albedo of the ice sheet is studied by means of satellite data and measurements obtained from a helicopter.

#### Research activities

- develop numerical models of the surface energy balance and the boundary layer above the ice sheet
- perform annual measurements of the mass balance and ice velocity along the K-transect
- maintain two automatic weather stations along the K-transect
- study the surface albedo by means of remote-sensing images
- improve methods to retrieve the surface albedo from satellite data by means of measurements obtained from a helicopter

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#### Project period

Start date 01-01-1997

End date 31-12-2000

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#### Data

Type of data collected  
- glacier mass balance  
- meteorological data  
- albedo

Data will be available to other projects and/or international programmes

Specimens/samples will be available to other projects and/or international programmes

#### Stations

s10 67°00'00", 47°00'02"  
s 4 67°05'48", 50°10'18"  
6 stations in between  
coordinate notation: DMS

## Appendix 8: Timetable of Drafting Activities for the Assessment Reports

Time	Meetings					Notes
	Ministerial	SAO	WG	ASG	WS/DG*	
<b>1999</b>						
Nov.		X	X	X		
<b>2000</b>						
Jan.					HH/POP	
Feb.						Prog. Rep. 1 <sup>st</sup> draft - circulation
Mar.						Prog. Rep. 1 <sup>st</sup> draft - comments
Apr.		X				Prog. Rep. 2 <sup>nd</sup> draft
May						Prog. Rep. 2 <sup>nd</sup> draft - comments
Jun.			X?			Prog. Rep. 2 <sup>nd</sup> draft - approval → printing
Sept.	X	X	X?	X?	X	Data collection, QA/QC, model work, etc.
<b>2001</b>						
Spring		X			X	
					X	
				X	X	
			X			Crossfertilization meeting
Autumn		X				Last entry of new data
Nov.					X	1 <sup>st</sup> draft - circulation
<b>2002</b>						
Jan.					X	Comments
				X		
Mar.		X			X	2 <sup>nd</sup> draft - circulation
				X		Comments
						Final draft
Jun.			X			Approval
Autumn	X	X				Presentation of reports

\* Workshop/drafting group

## **Appendix 9: The AMAP Workplan for 2000**

### **Preparation of the Progress Report to the Ministerial meeting, autumn 2000.**

January	18-20. A Workshop on PoPs in the Arctic is held in Rovaniemi, Finland. Task to draft part of the progress report to the Ministerial meeting.  24-26. Radioactivity group to meet in Las Vegas to draft part of the progress report to the Ministerial meeting.
February	Primo. Board to compile the draft inputs into one draft progress report. Medio. Circulation of the 1 <sup>st</sup> draft to the Heads of Delegations for their comments.
March	Medio. Comments back to the AMAP Secretariat. Experts and Board to prepare 2 <sup>nd</sup> draft. End. Circulation of 2 <sup>nd</sup> draft to Heads of Delegations, and to the SAO meeting in Fairbanks?
April	Medio. Comments back to the AMAP Secretariat. SAO meeting in Fairbanks, first discussion of the draft recommendations?
May	Primo. Experts and Board to prepare the final draft progress report. Medio. Circulation to the Heads of Delegations for final consideration.
June	Medio. Approval of the progress report by the Heads of Delegations.
July/August	Printing of the report.
August.	Progress Report is sent to the Arctic Council
September/ October	SAO and Ministerial Meeting at Point Barrow, Alaska.

### **The AMAP Trend and Effect Programme**

Spring	The draft programmes for AMAP Trend and Effect Programmes will be finalized and made public.  The ACIA will be planned in detail, and national and international programmes coordinated as much as possible.  The National programmes (NIPs) are expected to be finalized and implemented.
Summer, Autumn, Winter	Data collection, QA/QC, Data reporting to TDCs, etc.

## **AMAP Assessment Work**

Spring	Design of the AMAP assessment of contaminants, nomination of expert's etc. Design of the Climate assessment (ACIA), nomination of experts, etc
Autumn	First meeting of the some of the assessment groups. Modelling work.

## **AMAP Administrative meetings and work**

**The AMAP WG** may have a meeting in June if approval of the progress report to the Ministers is not achieved by correspondence. The WG will meet some time after the Ministerial meeting, tentatively in November, exact time and place to be determined.

**The ASG** will be called in some time in the autumn, tentatively 1-2 months ahead of the WG meeting. Exact time and place to be determined.

**The AMAP Expert groups/drafting groups** will have several meetings during the year related to the progress report, the monitoring and research work and the assessment work for 2002.

**The Board** will meet in February and March and May to prepare the progress report to the Ministerial meeting, follow up on decided work (e.g. Operating Guidelines) and planning of future work. The Board will meet in the autumn to make final planning of input to the Ministerial meeting, ASG and WG.

**Attachment 1: Draft text from USA regarding AMAP Observers, to be included in the Operating Guidelines for AMAP.**

"In addition to the provisions for Observers contained in Rules 36-38, and Annex II of the rules [of the Arctic Council], AMAP will have a special category of AMAP Observers who shall be invited to AMAP meetings. AMAP shall decide to accredit AMAP Observers on the basis of nominations and applications submitted to AMAP prior to the meetings.

Accreditation shall apply for two years, and thereafter must be renewed by a decision of AMAP. During any two-year period, AMAP Observer status may be withdrawn by a decision of AMAP. At least once a year, AMAP shall provide a list to the SAOs of all accredited AMAP Observers. Arctic Council Observers shall continue to be invited to AMAP meetings by the Rules".

### **AMAP List of Publications:**

	Minutes of the First Meeting of the Arctic Monitoring and Assessment Task Force (AMATF), Tromsø, 2-6 December 1991
	Minutes of the Second Meeting of the Arctic Monitoring Assessment Task Force (AMATF), Toronto, 30 November - 4 December 1992
AMAP Report 93:2	Minutes from the Third Meeting of the Arctic Monitoring and Assessment Task Force (AMATF), Stockholm - Helsinki, 12 - 14 May 1993
AMAP Report 93:3	The Monitoring Programme for the AMAP
AMAP Report 93:4	Report to Ministers. Update on Issues of Concern to the Arctic Environment, including Recommendations for Actions
AMAP Report 93:5	Audit Report: Arctic Monitoring and Assessment Programme
AMAP Report 93:6	Minutes from the Fourth Meeting of the Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Reykjavik, 11 - 13 October 1993
AMAP Report 94:1	Minutes from the Fifth Meeting of the Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Tromsø, 3 - 4 March 1994
AMAP Report 94:2	Minutes from the Sixth Meeting of the Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Washington 26 - 28 October 1994
AMAP Report 95:1	Guidelines for the AMAP Assessment
AMAP Report 95:2	Minutes from the Seventh Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Moscow, September 13-15 1995
NEFCO/AMAP Report 1995	Barents Region Environmental Programme: Proposals for environmentally sound Investment Projects in the Russian Part of the Barents Region: Volume one: Non-radioactive Contamination Volume two: Radioactive Contamination
AMAP Report 97:1	Minutes from the Eighth Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Groningen, January 27 - 31 1997
AMAP Report 97:2	Minutes from the Ninth Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Stockholm, 21 - 23 April, 1997
AMAP Report 1997	Arctic Pollution Issues: A State of the Arctic Environment Report
AMAP Report 98:1	Minutes from the Tenth Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Aarhus, 17 - 20 November, 1997



AMAP Report 98:2	Minutes from the Eleventh Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Girdwood, Alaska, USA April 23-24, 1998
AMAP Report 98:3	AMAP/CAFF Workshop on Climate Change, Rovaniemi, 24 – 25 March, 1998. Summary Report
AMAP Report 98:4	Brief Synopsis of the State of the Arctic Marine Environment in the Context of the Development of a Regional Plan of Action to Protect the Marine Environment from Land-Based Activities (RPA). June, 1998.
AMAP Report 1998	AMAP Assessment Report: Arctic Pollution Issues
AMAP Report 99:1	Report of the Workshop on Combined Effects in the Marine Environment, Copenhagen, 16 – 17 November, 1998
AMAP Report 99:2	Minutes from the Twelfth Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Helsinki, Finland December 7 – 9, 1998
AMAP Report 99:3	Synopsis of the State of the Arctic Environment in the Context of the Development of an Arctic Council Action Plan for the Elimination of Pollution in the Arctic (ACAP). Prepared by AMAP.
AMAP Report 99:4	Modelling and Sources: A Workshop on Techniques and Associated Uncertainties in Quantifying the Origin and Long-Range Transport of Contaminants to the Arctic, Bergen, Norway
AMAP Report 99:5	Minutes from the Thirteenth Meeting of Arctic Monitoring and Assessment Programme Working Group (AMAPWG), Toronto, Canada, November 10 – 12, 1999
AMAP Report 99:6	The AMAP Strategic Plan: 1998 – 2003
AMAP Report 99:7	The AMAP Trends and Effects Programme
AMAP Report 99:8	”Heavy Metals in the Arctic.” Anchorage, Alaska, September 7 – 10, 1999. Proceedings.
AMAP Report 2000:1	International Workshop on Persistent Organic Pollutants (POPs) in the Arctic: Human Health and Environmental Concerns, Rovaniemi, Finland, 18 – 20 January, 2000. Proceedings.