

Annex I

Draft workplan for the provisional ad hoc Technical Working Group

The Conference of the Parties has specified tasks that should be addressed by the provisional ad hoc technical working group (TWG)¹. These tasks are provided below with annotation to indicate arrangements for the completion of the work.

- (a) To develop criteria for evaluating programmes;

Modalities and timeframes: The Secretariat will provide draft criteria to support discussion and decisions at the first meeting of the TWG (TWG-1). A final report will be prepared immediately after TWG-1 in early November

- (b) To identify monitoring programmes that fulfil the criteria for contributing to the baseline data production, taking into account the updating of the information contained in the note by the Secretariat on existing human health and environmental monitoring programmes (UNEP/POPS/COP.2/INF/10);

Modalities and timeframes: The Secretariat's country survey of existing and potential monitoring capacities will be available for review and discussion at TWG-1. On the basis of this review, the TWG will apply the criteria to the survey results. The Secretariat will also apply the criteria on any further submissions that may be received as required and distribute a preliminary report for consideration and review by the TWG (see item c below). Subsequently this report will be circulated for comments by regional organizational groups. The Secretariat will also use this information to develop and maintain a comprehensive inventory of capacities that will be available for consideration at TWG-2.

- (c) To prepare a report on such programmes and others that may make useful contributions, subject to enhancement of their capacities;

Modalities and timeframes: The Secretariat will prepare a draft report based upon TWG discussion and regional application of the criteria for discussion and approval at TWG-2. This work must be completed by early February 2007 if it is to be submitted to the third meeting of the Conference of the Parties. It is acknowledged that further submissions may come in. The secretariat will apply the criteria to evaluate these programmes.

- (d) To outline the global monitoring plan (GMP) along the lines of the principles and requirements contained in the annex to Conference of the Parties decision SC-2/13;

Modalities and timeframes: The Secretariat will prepare a draft outline for the GMP to support discussion and decision at TWG-1. Based upon revision and elaboration undertaken at that time by the TWG, the GMP will be made available to the TWG by early December 2006. The plan will be designed to evolve to reflect needs and changing conditions and will be intended to facilitate the regional organization of elements of a monitoring programme from design to implementation and report production. If necessary, based on the results achieved at TWG 1 some members of TWG (Bureau and chairs and rapporteurs of the sub-groups), with support of the Secretariat, may continue the drafting to have the final draft available for consideration at TWG-2.

- (e) To develop guidance for data comparability (and handling), taking into account the available guidance document produced by UNEP Chemicals.

Modalities and timeframes: TWG-1 will include identification of the main elements of revision required to make the guidance document produced by UNEP in 2004 applicable to the present GMP. The Secretariat will propose entrusting the revision to a small group of experts specialized in the various document sections. The experts would also be asked to advise on what is appropriate and sufficient comparable data for the regional evaluation of effectiveness of the Convention. The revised document will be available by the end of January 2007. This document should contain sufficient guidance for implementation of the first assessment.

¹ COP decision SC-2/13

(f) To develop and maintain an implementation plan to fulfil the minimum requirements for the first evaluation, including the following elements:

- (i) The use of data including data integration from regional monitoring programmes and data provided by Parties;
- (ii) Ensuring that data are comparable, namely, by applying quality assurance and quality control (QA/QC) standards;
- (iii) Summarizing and presenting the data on a regional basis, to be used as a baseline.

Modalities and timeframes: The Secretariat has prepared a draft outline for an implementation plan to support discussion and decision at TWG-1. As elaborated and finalized at TWG-1, the implementation plan will be made available to the TWG by early December 2006. The plan will be designed to evolve to reflect needs and changing conditions and will include, inter alia:

- 1) identification of a process to supplement existing core data and programmes to address regional gaps in coverage;
- 2) facilitating establishment of strategic arrangements and partnerships, including with the health sector;
- 3) a process to develop regional monitoring networks that will allow for the collection of core data:
 - i) directly from those Parties that wish to contribute nationally; and,
 - ii) through international collaborative programmes.

This process will require the establishment of regional organizational and coordination mechanisms.

(g) To coordinate and oversee implementation of the GMP for the first evaluation monitoring report and in accordance with the elements described.

Modalities and timeframes: The work will be conducted in accordance with the decisions of the Conference of the Parties and as agreed upon by the TWG. A timetable indicating tasks and timeframes will be prepared at the conclusion of TWG-1

(h) To report on progress to the Conference of the Parties at its third meeting.

Modalities and timeframes: A draft report will be made available by the Secretariat for review and finalization at TWG-2 and for subsequent transmittal to the third meeting of the Conference of the Parties. It will consist of a concise report on progress of implementation of the GMP (including field testing). It may include such issues as: assessment of practicality, feasibility, transparency, and sustainability of the GMP; whether and how the GMP achieves inclusiveness; and the extent of global coverage obtained for core representative data from all regions. The GMP and Implementation Plan to be developed by the Secretariat will also be available to the third meeting of the Conference of the Parties

(i) In addition to the tasks specified by the Conference of the Parties for attention by the TWG, the Secretariat may wish to ask the TWG for advice and assistance in the conduct of other work, including work that has been assigned by the Conference of the Parties directly to the Secretariat.

Modalities and timeframes: In this regard, the Secretariat would like to request advice from the TWG on how the Secretariat will undertake the following tasks:

- 1) Develop and maintain a comprehensive regional inventory of capacities and a corresponding needs assessment with contributions from national Stockholm Convention Focal Points;
- 2) Develop a plan for step-by-step capacity enhancement for Parties on a regional basis for the purpose of implementing Article 16 of the Convention. Such work would be in accordance with the provisions of Article 12 (technical assistance) and Article 13 (financial mechanism) and would be forwarded to the Technical Assistance Working Group;
- 3) Develop possible arrangements with relevant regional centres to assist coordination; and,
- 4) Develop and maintain a network of databases containing monitoring information;
- 5) Compilation of the elements for the first effectiveness evaluation as it relates to the first global monitoring report. This work would be based upon regionally produced summarization and presentation of the monitoring data and information.

The report will be available for TWG consideration at its second meeting.

Provisional Timetable for the Work of the Provisional Ad Hoc Technical Working Group

July 2006 plan (Secretariat)	Draft annotated outline of the strategy framework document and implementation
July 2006	Call for financial assistance (Secretariat)
July 2006	Send out survey questionnaire (Secretariat)
Aug 1 2006	Invitation to attend TWG-1 meeting (Secretariat)
30 Aug 2006	Survey questionnaires deadline (send to Secretariat)
7 Sept 2006	Secretariat to report on questionnaire responses for TWG-1
09-13 Oct	TWG-1 meeting, Brno, Czech Republic
Nov 2006	Evaluation of financial resources, available for field testing and drafting of work plan (Secretariat)
1 Nov 2006	Circulation of TWG-1 report to participants and posting on the WEB
Nov 2006	Call for nominations of regional experts (Secretariat and the TWG))
Nov 2006	Initiate identification of the regional coordination arrangements by the regional groups
Nov 2006	Initiation of work on a revised guidance document (Secretariat)
Early Dec. 2006	Meeting of the guidance expert group
Mid Dec 2006	Draft outline of the regional monitoring reports structure distributed for TWG review (Secretariat). Call for comments
Mid Jan 2007	Deadline for TWG comments to be sent to the Secretariat on the draft outline for the regional monitoring reports
Jan 2007	Revised Guidance document distributed (Secretariat) <ul style="list-style-type: none">• Guidance for monitoring programme selection• Guidance for data quality and comparability• Guidance for data reporting (format and process)• Guidance on data handling• Guidance for data assessment
Jan 2007	Implementation begins of arrangements for the first assessment (including field testing of data supplementation activities). Existing data compilation starts in regions
29 Jan-2 Feb 2007	TWG- meeting in Geneva
End Feb 2007	Finalization of COP-3 documents for the third meeting of the Conference of the Parties including the Progress Report, and the GMP outline (Secretariat)
May 1 2007	Third Meeting of the Conference of the Parties
Oct 2007	Regional organization groups (or TWG members) decide upon the composition of Regional Drafting Teams to prepare the regional reports. The teams may include technical representatives of international organizations that have participated in the region.

ANNEX II to the Report of the First Meeting of the Provisional Ad-hoc Technical Working Group

- Nov 2007 All information for the regional reports is made available to the Regional Drafting Teams. This information is also sent to all Parties and signatories to the Convention for their information. (Possible global technical coordination meeting).
- Jan 2008 Regional Drafting Teams with assistance from the Secretariat prepare the regional reports in an intensive one-week “drafting workshop”, taking account of the template for reports prepared by the TWG.
- Ma 2008 Each regional report is sent through the Secretariat to the POPs Focal Points of Convention Parties, and to international organizations that participated in the work and comments are invited.
- April 2008 (Possible global technical coordination meeting.) Comments from POPs Focal Points and international organizations are forwarded from Secretariat to Regional Drafting Teams. Redrafting as necessary assisted by the Secretariat.
- May 2008 All regional reports complete and “signed off” by Regional Drafting Teams. Reports forwarded to Secretariat.
- June 2008 Secretariat begins preparation of draft global summary compilation based upon regional reports.
- Aug 2008 Secretariat distributes global compilation for technical review regionally and globally. The regional reports are included for information.
- Nov 2008 Deadline for review comments. (Possible final global technical coordination meeting). Secretariat finalizes global summary and compilation of regional reports.
- Jan 2009 Forward Regional Monitoring reports and Secretariat global compilation to the fourth meeting of the Conference of the Parties

Annex II

Criteria for evaluation of monitoring activities

1. There was agreement concerning the nature and use of the proposed criteria (UNEP/POPS/GMP-TWG.1/4) for evaluating programmes, bearing in mind in particular the following:

- (i) Repetitiveness of data collection;
- (ii) Whether data or information is immediately available or will be available in the future;
- (iii) The need to attain comparability through, for example, maintaining QA/QC regimes;
- (iv) Transparency of data and information;
- (v) The list of the 12 POPs presently included under the Convention;
- (vi) The basic matrices: (air, human milk/blood) for the first evaluation monitoring reports.

2. It was realised that it would not be possible to perform a complete evaluation of the programmes on the base of the available information at the meeting. However, there was enough information to place them into 3 groups:

- Group 1: Programmes which immediately provide information for the first evaluation;
- Group 2: Programmes that, with identified capacity enhancement, can provide information coverage in areas that would otherwise be inadequately represented in the first evaluation;
- Group 3: Programmes which may be enhanced with capacity building for future evaluation.

3. It was agreed that objective qualitative and quantitative review of the programmes should be undertaken through dialogue with the evaluated group 1 programmes for validation of available information in the context of UNEP Monitoring Guidance.

4. This dialogue would investigate such issues as media used, substances analysed QA/QC and sampling protocols, data handling, and storage and accessibility.

5. It was proposed that volunteers from the TWG prepare, with assistance from the Secretariat, simple questions to focus the dialogue.

6. The crucial importance of participation in inter-comparison studies was stressed and therefore the ordering of the questions in step 2 of the criteria was changed.

7. The sub-group amended the criteria as shown below.

Revised Criteria for Evaluation of Monitoring Activities that Can Potentially Contribute to the Stockholm Convention GMP.

Definitions: Phase I Activities to support the Article 16 effectiveness evaluation that will be conducted by the Conference of the Parties at its fourth meeting in 2009.

Phase II Activities to support effectiveness evaluations after 2009.

Activity 'Package' of related monitoring and/or research activities that constitute a self-contained 'programme' implemented at the national or sub-regional/regional and global levels.

The following step by step procedure will be used:

Step 1 -

Question(s)/issues to be addressed	Notes
<p>Is the activity concerned with repetitive monitoring measurements of POPs in air, human milk or human blood?</p> <p>If the activities are not repetitive (e.g. for research, survey or screening), the activity may be referred to step 5 to assess the potential for that activity to be used to increase geographic coverage given an identified level of capacity building.</p>	<p><i>The purpose of this `step` is to categorise `activities` in the countries/regions according to their relevance to the core elements of the GMP in:</i></p> <p><i>a) the initial or subsequent evaluations; or</i></p> <p><i>b) in subsequent evaluations subject to possible identified levels of capacity building.</i></p> <p><i>(Answers to these questions are obtained from questionnaire 1)</i></p>

Step 2 -

Question(s)/issues to be addressed	Notes
<p>Evaluation of information derived from questionnaire responses and other relevant sources concerning:</p> <p>a) Capabilities of laboratories involved in the activity (laboratory capability, capacity, accreditation, etc.)</p> <p>b) QA/QC regimes (are reference materials available and if so are they routinely analysed; is there participation of labs in international inter-comparisons or laboratory testing schemes; and, participation of labs in nationally coordinated inter-comparisons, etc.)</p> <p>c) Sampling and analytical methodologies (use of internationally standardised methods / nationally standardised methods, appropriateness of methods).</p>	<p><i>The purpose of this `step` is to evaluate `activities` with respect to their ability to deliver data of `adequate` quality for effectiveness evaluation</i></p> <p><i>(Answers to these questions are obtained from questionnaire 2a, 2b and 2e)</i></p> <p><i>This part of the `evaluation` may require an expert panel to review the descriptive information provided on the questionnaire together with other relevant sources of information (UNEP GEF LABCAP, information in NIPs, etc.)</i></p> <p><i>The evaluation will need to consider `adequacy` with respect to different POPs and media combinations concerned</i></p> <p><i>Adequacy could be rated according to three categories:</i></p> <ol style="list-style-type: none"> <i>1. Adequate to allow comparison with data from other regions;</i> <i>2. Internally consistent (e.g. potentially useful for establishing time trends); or</i> <i>3. Not adequate for use in Article 16 evaluations.</i>

Step 3 -

Question(s)/issues to be addressed	Notes
<p>Is the activity part of an international programme possessing international reporting of results?</p> <p>If yes: Are data accessible from international programmes and data centres?</p> <p>If no: Are data archived and accessible at the, international, national and/or programme level?</p>	<p><i>The purpose of this `step` is to identify possible sources of data and information to use in the Article 16 evaluations, and to ascertain the degree of information transparency.</i></p> <p><i>Answers to these questions are obtained from questionnaire 1, 2c and 2d, and supplementary information in Section 2 of the questionnaire, e.g. reference to NIPs.</i></p> <p><i>There will be a need to address considerations relating to the level of data required for Article 16 evaluations - `raw data; and aggregated / summarised data` (may be difficult to `combine themselves; and with `interpreted data products` (e.g. regional assessment report from other programmes). All data products used should allow raw data to be accessed.</i></p>

Step 4 -

Question(s) /issues to be addressed	Notes
<p>Is the activity part of a `continuing` programme?</p> <p>If yes: The information is of potential relevance to Phase I and Phase II.</p> <p>If no: The information is not immediately relevant to Phase I. However, the activity may be referred to step 5 to assess the potential for that activity to be used to increase geographic coverage given an identified level of capacity building.</p>	<p><i>The purpose of this `step` is to identify possible sources of data and information to use in the Article 16 evaluations.</i></p> <p><i>Answers to these questions are obtained from questionnaire. Is there a question on the `basis` for the activity, perhaps related to provision of funding for the activities?</i></p> <p><i>`Continuing` in this respect refers to a programme with a long-term implementation perspective, or possibly multi-annual repeated sampling (allows for retrospective analysis including activities based on environmental archives?</i></p>

Step 5 -

Question(s)/issues to be addressed	Notes
<p>What are the perspectives for the activity contributing to the GMP if additional capacity is added?</p> <p>Does the response indicate that the perspectives to contribute to the GMP can be improved if related capacity building is implemented/</p> <p>If no: no further action.</p> <p>If yes: Are there options that would allow the proposed capacity building to be effected in time for the activity to contribute more effectively to Phase I?</p> <p>If yes: Consider practical implementation of capacity building.</p> <p>If no: Either eliminate activity from further consideration or consider capacity building to develop the activity so that it can contribute to Phase II</p>	<p><i>The purpose of this `step` is to:</i></p> <p><i>a) Identify perspectives for the activities to contribute to the GMP if capacity were to be added or extended; and</i></p> <p><i>b) Assist in prioritisation of capacity building.</i></p> <p><i>Answers to these questions are obtained from questionnaire 3.</i></p> <p><i>Given the time frame for Phase I, “feasible” capacity building as a contribution to Phase I could include for example bilateral cooperation or offers by a given country to analyse samples from other countries/regions</i></p> <p><i>Capacity building aiming at Phase II might include activities such as setting up new monitoring programmes, ensuring that operational laboratories are available, etc.</i></p>

Geographical coverage

When the issue of geographical coverage is addressed, potential sources of information will include the national implementation plans and answers to non-mandatory parts of the questionnaire. Questionnaire question 1 will allow coverage to be evaluated in terms of ‘countries’ (e.g. preparing maps for air monitoring or human tissue monitoring that show which countries have an activity that includes these media) but not in terms of individual locations or populations that are monitored.

Participation in the GMP - The Application of the Criteria on Existing International Programmes

The criteria for the first assessment were applied by the TWG sub-group to those existing international monitoring programmes for which information had been provided. The results are summarised in Tables 1 and 2 below.

Table 1: Summary analysis of existing regional/sub-regional programmes as possible platforms for a global monitoring plan

Region and countries ²	Programme	Convention POPs / media	Existing reports	Needs for performing as a platform	Group ³	Criteria
Asia - Pacific - 4	Trial Air Monitoring in East Asia	9 - Air	None	More countries; and Convention synchronized reporting	1	
Asia Pacific - 8	UNU POPs Programme	Water and sediment	Annual as of 2001	More countries; more media; and Convention synchronized reporting.	3	
Africa and W. Europe / North America - Multiple	MEDPOL (Mediterranean hinterland)	Irregular	Irregular	The establishment of a POPs data gathering and assessment activity consistent with POPs Convention needs	NA	
W. Europe / North America -8	AMAP (Circumpolar Arctic)	12 - Multiple	Regular	Convention synchronized reporting.	1	
W. Europe and North America - Multiple	EMEP (planned Europe west of Urals)	12 planned - Multiple planned	Regular (planned)	Plans to be realized; and Convention synchronized reporting	1	
W. Europe and N. America - 2	IADN (Great Lakes area)	12 - Air	Regular	Convention synchronized reporting	1	
W. Europe and North America - Multiple	HELCOM / OSPARCOM (Baltic and NW Atlantic hinterland)	12 - Air, water, fish	Irregular	Convention synchronized reporting	1	

² Number of countries in the region included into the monitoring programme

³ Group 1: Programmes which immediately provide information for the first evaluation; Group 2: Programmes that, with identified capacity enhancement, can provide information coverage in areas that would otherwise be inadequately represented in the first evaluation; Group 3: Programmes which may be enhanced with capacity building for future evaluation.

Table 2: Summary analysis of existing and emerging global programmes suggested as partial platforms for a global plan

Countries	Programme	Convention POPs / media	Existing reports	Needs to perform as a platform	Group	Criteria
Africa (5); Asia (5); Asia (SE) and Australia (6); Antarctica (1) Central and S. America (11) Europe (9) and N. America (1)	GAPS. Led by Canada , uses inexpensive passive samplers for global atmospheric monitoring	10 - Air	Scientific Journals	Convention synchronized reporting		
CR, Slovakia, Serbia, Romania, Lithuania, Latvia, Estonia, Fiji (Macedonia, Armenia, Slovenia, Montenegro, Bulgaria, Poland, Georgia)	RECETOX CEECs					
Austria, Germany, Swiss, Slovenia, Italy	MONARPOP	12 - A				
Multiple	Global Atmospheric Watch (GAW). Infrastructure and atmospheric information needed to assess transport.	None - Air	Not applicable	Convention synchronized reporting consistent with POPs Convention needs.		
Multiple	IMW	Irregular - Marine bi- valves (mussels)	Irregular	Re- establishment of the IMW in a form consistent with POPs Convention needs		
Multiple	WHO Global Survey of Human Milk for POPs	12 - human milk	Irregular	Completion of its development to a global activity and Convention synchronized reporting.		

Participation in the GMP - Application of criteria to existing national programmes

1. The criteria for the first assessment were applied to national monitoring programmes as detailed in the compilation; document TWG-1/3.
2. It was noted that better knowledge concerning media, compounds, QA/QC, and data handling is needed.
3. The criteria were applied in order to categorize the programmes into one of the following four groups:

- Group 1:** Programmes, which immediately provide information for the first evaluation;
Group 2: Programmes, that with identified capacity enhancement can provide information coverage in areas that would otherwise be inadequately represented in the first evaluation;
Group 3: Programmes, which may be enhanced with capacity building for future evaluation
Group 4: Need further information

4. It was concluded that:
 - (i) 19 countries could deliver data for the first evaluation. (Group 1)
 - (ii) 45 countries have infrastructure that with an identified level of capacity enhancement may be able to deliver data and /or information for the first evaluation (Group 2)
 - (iii) 64 countries have infrastructure that with an identified level of capacity enhancement have potential to provide data and or information for future evaluations.(Group 3)
 - (iv) More information would be needed to fully categorize the capacities of 75 countries. (Group 4)
5. Country needs will be assessed according to what is necessary for the GMP.

The following tables illustrate the geographical distribution of the capacity groupings

Region/Group	1	2	3	4
Africa	0	10	13	29
Asia/Pacific	3	12	22	27
C/E Europe	2	10	10	1
Latin America/Caribbean	0	5	16	13
W Europe / North America /Australia & New Zealand	14	8	3	5
Australia	Iceland	Slovakia		
Austria	Japan	Sweden		
Canada	Korea (Republic of)	Switzerland		
Czech Republic	Netherlands	United Kingdom of Great Britain and Northern Ireland		
Finland	New Zealand	United States of America		
France	Norway			
Germany	Singapore			
Argentina	Iran (Islamic Republic of)	Slovenia		
Belarus	Ireland	South Africa		
Belgium	Italy	Spain		
Brazil	Kazakhstan	Sri Lanka		

Bulgaria	Kenya	Sudan
Chile	Kyrgyz Republic	Tanzania (United Republic of)
China	Lithuania	Thailand
Croatia	Malaysia	Turkey
Cyprus	Mauritius	Uganda
Denmark	Mexico	Ukraine
Egypt	Nigeria	Venezuela
Ghana	Philippines	Vietnam
Greece	Poland	Zimbabwe
Hungary	Portugal	
India	Romania	
Indonesia	Russian Federation	

Albania	Ethiopia	Malta	Peru
Algeria	Fiji	Marshall Islands	Saint Lucia
American Samoa	French Polynesia	Moldova (Republic of)	Samoa
Armenia	Georgia	Monaco	Saudi Arabia
Azerbaijan	Guam	Mongolia	Senegal
Bahamas	Guyana	Montenegro	Serbia
Bahrain	Honduras	Morocco	Syrian Arab Republic
Barbados	Israel	Mozambique	Tajikistan
Bolivia	Jamaica	Namibia	Tonga
Botswana	Jordan	Nepal	Trinidad and Tobago
Colombia	Kuwait	New Caledonia	Tunisia
Costa Rica	Latvia	Niger	Turkmenistan
Cuba	Lebanon	Pakistan	United Arab Emirates
Congo (DR of)	Macedonia (the FYR of)	Palestine	Uruguay
Ecuador	Madagascar	Panama	Uzbekistan
Estonia	Mali	Paraguay	Zambia

Group 4

Afghanistan	Chad	Guinea	Myanmar	Sierra Leone
Andorra	Comoros	Guinea-Bissau	N. Mariana Islands	Solomon Islands
Angola	Congo (Brazzaville)	Haiti	Nauru	Somalia
Antigua and Barbuda	Cook Islands	Iraq	Nicaragua	Suriname
Bangladesh	Cote d'Ivoire	Kiribati	Niue	Swaziland
Belize	Djibouti	Korea (DPRK)	Oman	Togo
Benin	Dominica	Lao People's Republic	Palau (Republic of)	Tokelau
Bermuda	Dominican Republic	Lesotho	Papua New Guinea	Tuvalu
Bhutan	El Salvador	Liberia	Pitcairn Islands	Vanuatu
Bosnia-Herzegovina	Equatorial Guinea	Libyan Arab Jamahiriya	Qatar	Wallis & Futuna
Brunei Darussalam	Eritrea	Liechtenstein	Rwanda	Yemen
Burkina Faso	Gabon	Luxembourg	Saint Kitts & Nevis	
Burundi	Gambia	Malawi	Saint Vincent and the Grenadines	
Cambodia	Greenland	Maldives	San Marino	
Cameroon	Grenada	Mauritania	Sao Tome and Principe	

Central African Republic	Guatemala	Micronesia (Fed. States of)	Seychelles	
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Statistical aspects

1. In order to facilitate the effectiveness evaluation of the Stockholm Convention the Conference of the Parties has to initiate the establishment of arrangements to provide itself with comparable monitoring data on the presence of the chemicals listed in Annexes A, B and C as well as the regional and global environmental transport.
2. The potential of any data set to show statistically significant changes over time (or differences between regions) depends on its inherent random (unexplained) variation; a low variation implies that smaller changes can be detected, that the time period required to detect a certain change will be shorter or that the statistical power (i.e. the chance to detect a certain true trend) will be higher.
3. Low random variation can be achieved by collecting and analysing samples that are *comparable* between years (or regions) and that mean values or pooled samples are based on a sufficient number of samples.
4. The variation in a data set is composed of contributions from various sources. The precision in the chemical analysis generally contributes much less to the total variation compared to the sample variation *n.b., provided that the analyses are carried out at the same laboratory*. From a statistical point of view it is thus more cost efficient to reduce the sample variance than to further improve the precision of the chemical analysis.
5. Accreditation and well-documented QA/QC procedures are a prerequisite, but not sufficient, to assure comparability between laboratories. Good performance in inter-calibration exercises or parallel analyses for an adequate time period is necessary.
6. Time series with large random variation between years are less capable of detecting true trends. In fact they could be useless, misleading and a serious waste of money. A quantitative quality criterion for temporal trend studies could thus be based on a measure of the between-year variation (e.g. Coefficient of Variation).
7. Provided that measures of variation are available, it is possible to estimate whether a certain data set is appropriate to use for temporal trend assessments (e.g. the required n of years to detect a certain trend at a specified statistical power could be checked versus the n of available years in the data-set). In order not to lose time and money on series incapable of detecting changes it is important that estimates of the variation be carried out as soon as possible.
8. If data-sets with acceptable statistical power are mixed with low power sets in a common assessment, true signals may be weakened or disguised.
9. For spatial comparisons, an appropriate measure of variation is more complicated to estimate. To be representative, the random between-year variation has to be considered for spatial studies too. The appearance of geographical patterns or trends within the study area together with the sampling design will also be essential.

Annex III

Elements of the Global Monitoring Plan – Draft outline

Section A: Background

The context from Article 16

Article 16 of the Stockholm Convention states:

1. Commencing four years after the date of entry into force of this Convention, and periodically thereafter at intervals to be decided by the Conference of the Parties, the Conference shall evaluate the effectiveness of this Convention.
2. In order to facilitate such evaluation, the Conference of the Parties shall, at its first meeting, initiate the establishment of arrangements to provide itself with comparable monitoring data on the presence of the chemicals listed in Annexes A, B and C as well as their regional and global environmental transport. These arrangements:
 - (a) Should be implemented by the Parties on a regional basis when appropriate, in accordance with their technical and financial capabilities, using existing monitoring programmes and mechanisms to the extent possible and promoting harmonization of approaches;
 - (b) May be supplemented where necessary, taking into account the differences between regions and their capabilities to implement monitoring activities; and
 - (c) Shall include reports to the Conference of the Parties on the results of the monitoring activities on a regional and global basis at intervals to be specified by the Conference of the Parties.
3. The evaluation described in paragraph 1 shall be conducted on the basis of available scientific, environmental, technical and economic information, including:
 - (a) Reports and other monitoring information provided pursuant to paragraph 2;
 - (b) National reports submitted pursuant to Article 15; and
 - (c) Non-compliance information provided pursuant to the procedures established under Article 17.

Implementation decisions made by the Conference of the Parties

At its second meeting, the Conference of the Parties (Decision SC-2/13⁴) decided to complete the first effectiveness evaluation at its fourth meeting in 2009, and agreed upon the essential modalities for the first and second evaluations. The decision included agreement to implement the elements of a global monitoring plan as proposed in an annex to that decision. It was also agreed to establish a provisional ad hoc technical working group (TWG) consisting of 15 Parties of the five United Nations regions to coordinate and oversee implementation of the plan. The Conference of the Parties will decide at its third meeting whether or not the TWG will continue.

⁴ See Addendum 2

Section B: Outline of the Global Monitoring Plan

1.0 Introduction

The present document, prepared by the TWG, is the outline of the Global Monitoring Plan (GMP) requested by the Conference of the Parties.

The Global Monitoring Plan consists of the following elements:

- A statement of objectives (Section 2);
- A compilation of attributes (Section 3);
- Generic activities to address needs and opportunities for capacity-building (Section 4); and
- An Implementation Plan to meet the minimum requirements for the first and subsequent evaluations (Addendum 1);

2.0 Objective of the Global Monitoring Plan

The objective is to provide a framework for activities aimed to inform the Conference of the Parties on environmental levels and global environmental transport of POPs as is specified in Article 16 of the Convention. Temporal variations should also be explored when possible. Reports on these activities will provide one of the components of information to be compiled by the Secretariat to enable periodic effectiveness evaluations of the Convention by the Conference of the Parties. The framework described by the GMP closely follows the direction given in Decision SC-2/13 (Addendum 2) and will be updated as and when necessary to reflect Conference of the Parties decisions.

Strategy:

- identify existing projects and programmes (for data integration)
- identify gaps in data
- decide on gaps-filling mechanisms; this may involve prioritizing and identification of opportunities.
- the GMP should have a tiered approach. Identify programmes and projects that monitor core matrices for tier 1 (air and human milk/blood), provide trend information, and build on these for future evaluations (i.e. identify additional suitable matrices).
- GMP should be designed in a way to also allow integration of existing information from other projects and programmes.

3.0 Attributes of the Global Monitoring Plan

The Conference of the Parties has requested that the plan should:

- a) Outline a strategic and cost-effective approach and build on, but not be limited to, existing and scientifically sound human health and environmental monitoring programmes to the extent possible, with the aim of providing appropriate and sufficient comparable data for the effectiveness evaluation of the Convention;

Steps to achieve this include:

- Use existing activities if they provide useful data on the core matrices. This data should satisfy the criteria for evaluating programmes.
- identify existing projects and programmes
- qualify them according to established QA/QC procedures
- improve accepted, qualified projects and programmes (through training, support etc)
- create new projects and programmes where they are missing (i.e. gaps)

- efforts should be made to develop 'strategic partnerships' (see below). This may also help to fill data gaps and encourage capacity building (training etc) and improve comparability of data

- the elements of a strategic partnership include:

- identification of programmes/project with capacity in producing monitoring data

- encourage countries and regions with data gaps to collaborate with programmes identified above for cost effective data and information generation

Elements of the agreed project may be:

- Transfer of knowledge and technology
 - Training and capacity building;
 - Organization of intercalibration;
- Data production
 - Sampling (in countries or partners lab);
 - Sample analysis and data analysis;
- Data integration and review;
 - Data handling;
 - Data review, summary and reporting.

b) Be practical, feasible and sustainable;

Elements may include:

- a mechanism for linking GMP efforts with national implementation plans should be an option for some countries, for instance, to help secure funding;

- capacity building through strategic partnerships;

- networking e.g. promoting collaboration of governments;

- include existing research institutions;

- role (involvement of the public?) Awareness and outreach / communication programmes e.g. for human sampling efforts; for soliciting assistance for passive sampling work. (note: this may be separate from the formal GMP and referred to elsewhere e.g. Article 10]. *(any promotion activities/efforts should be the role of the Conference of the Parties to decide and be the role of the parties)*

- care should be taken to ensure consistency (i.e. site location, sampling strategy and time; ensuring representativeness) with baseline data.

c) Be inclusive, achieve global coverage and contain at least core representative data from all regions;

Elements may include:

- global coverage for 5 regions of core representative data as a minimum. i.e. on a regional level (versus country level)

- the first assessment is not restricted to the minimum requirements (the core data).

- all data should be considered as long they have valid QA/QC protocols, intercalibration etc

- identification for each region of at least one strategic partner for each core matrix (role of focal points to link with national institutions)

- strengthening / creating partnerships within each region.

- establish outreach efforts and incentives (e.g. active participation in different stages of monitoring - through strategic partnerships and capacity building)

d) Be designed to go beyond the first monitoring report and address long-term needs for attaining appropriate representative data (as outlined in the Guidance Document – sect 3.2) in all regions;

Elements may include:

- to secure a long-term commitment from the partners (stakeholders, governments etc) for monitoring, assessment and data storage and address funding for facilitating this.
- mechanisms for linking GMP efforts with national implementation plans should be an option for some countries, for instance, to help secure funding
- need to ensure sustainability of partnerships in GMP

e) Provide for supplementing data, where necessary taking into account the differences between regions and their capabilities to implement monitoring activities. Such progressive enhancement should be planned at the outset

f) Enable phased enhancement of the ability of parties to participate in regional arrangements for producing comparable data.

- enhancements should be based on networking and strategic partnerships.

4.0 Generic needs and opportunities for capacity-building to increase participation in the global monitoring plan through financial and technical assistance

Substantial geographic differences presently exist in the capacity of regions to contribute comparable data and information for the purpose of an effectiveness evaluation of the Stockholm Convention. Therefore Decision SC-2/13 has specified a number of tasks to identify needs and opportunities to increase participation. These generic tasks are fundamental to the GMP and include the following:

- a) That a comprehensive regional inventory of capacities should be developed and maintained and a corresponding needs assessment conducted by the Secretariat with contributions from national Stockholm Convention focal points;
- b) That capacity-building for the purpose of implementing Article 16 should be guided by a plan for step-by-step capacity enhancement for Parties on a regional basis;
- c) That relevant regional centres could play a role in coordination efforts;
- d) That a network of databases containing monitoring information should be developed and maintained.

Non-generic capacity building needs that are specifically related to putting into operation individual elements of the implementation plan (such as for example the development and operation of an air monitoring sampling and analytical capacity in a region) will be addressed through the regional modalities within the Implementation Plan.

The needs and opportunities for capacity-building to increase participation in the global monitoring plan are to be taken into account during the implementation of Decision SC-2/9 on technical assistance.

5.0 Implementation Plan for the GMP

The initial implementation plan was developed at the first meeting of the TWG. It is expected to be a living document that will evolve over time to meet the needs of the GMP. The Implementation Plan is attached as Addendum 1.

Addendum 1

DRAFT IMPLEMENTATION PLAN FOR THE GLOBAL MONITORING PLAN FOR THE FIRST EVALUATION

1.0 Introduction

The implementation plan is expected to be a living document that will evolve to meet the needs of the GMP.

2.0 Implementation for the first evaluation.

The present implementation plan is focused upon fulfilling the minimum requirements of the first effectiveness evaluation, as has been requested by the Conference of the Parties in decision SC-2/13. Therefore the implementation plan is structured in the following sequence to reflect the details of the decision concerning:

- a) the fundamental parameters and tasks for the first evaluation identified by the Conference of the Parties as minimum requirements. This includes identification of the core data that should be obtained from all regions;
- b) the approach to be taken to acquire core data for the first evaluation. This is a stepwise process that begins with a review of programmes and activities at a global, regional, and national level and their potential capacities to contribute core comparable information and data. Potential programmes and data are examined according to agreed criteria to ensure that data used is of a quality to ensure the comparability required according to Article 16 of the Convention. The outcome is the identification of programmes that can immediately contribute; programmes that can contribute with an identified level of capacity enhancement; and, a geographic perspective on priority regions for capacity enhancement in order to obtain core data from all regions;
- c) the development of methodological guidance to ensure that only comparable data is obtained for the evaluations;
- d) the development and implementation of regional strategic arrangements and partnerships to obtain core media data for the first monitoring report, taking into account the work described in a-b above;
- e) how data is to be summarized and presented on a regional basis for the first effectiveness evaluation; and,
- f) planning for the data gathering needs of the second and subsequent evaluations.

2.1 The minimum requirements for the first evaluation.

The Conference of the Parties has determined that the minimum requirements for the first evaluation are that:

- a) The first monitoring report will provide baselines for further evaluations;
- b) Air monitoring and human exposure through breast milk or blood serum would be used as core data;

- c) Such comparable and representative core data should be obtained from all five regions;
- d) Guidance should be provided on standardization;
- e) Strategic arrangements and partnerships shall be established, including with the health sector; and;
- f) Reports are prepared for the Conference of the Parties summarizing and presenting the data on a regional basis.

2.2 The identification and evaluation of potential sources of core media data for the first monitoring report, providing baselines for further evaluations.

Air monitoring and human exposure through breast milk or blood serum will be used as core media data, and comparable and representative core data should be obtained from all five regions. Data will be derived from:

- a) existing international programmes and activities;
- b) existing national programmes and activities; and,
- c) national or regional programmes and activities initiated as a function of capacity building.

The following sections describe how arrangements are being established to obtain information from these three potential sources.

2.2.1 Review of existing programmes, information (or data), and capacities related to the core media data in all regions

The Conference of the Parties has requested this review to update information contained in the note by the Secretariat on existing human health and environment monitoring programmes (UNEP/POPS/COP.2/INF/10).

Modalities and timeframes: The work will be based upon a questionnaire distributed by the Secretariat to Convention focal points and relevant intergovernmental organizations in July 2006 and will enable:

- a) Preparation by the Secretariat of a draft report of questionnaire responses (Update of (UNEP/POPS/COP.2/INF/10).
- b) Establishment by the Secretariat of an inventory database of regional capacity, to be available in early 2007.
- c) The identification of contributing programmes and activities for the first evaluation, using the processes described below.

2.2.2 The use of criteria to evaluate programmes and capacities in all regions related to the core media data

Modalities and timeframes: Criteria developed at TWG-1 are used to evaluate programmes and activities and to assess capabilities. The criteria are presently organized into a five-step process where successive steps sequentially categorize activities and capacities to:

- a) Establish whether the programmes or activities are collecting core data potentially of relevance to the first evaluation (air, human milk / human serum)
- b) Assess the ability of programmes or activities to provide information that will be sufficiently comparable for it to be used in the first and successive evaluations;
- c) Assess the accessibility and data archiving characteristics of programmes and activities with respect to data being readily available for the first and successive evaluations;
- d) Assess the longevity of the programme and activities to provide information for use in the first or subsequent evaluations; and,
- e) Identify and assess programmes and activities with a potential to contribute to the GMP through the provision of identified levels of capacity enhancement.

The criteria are appended to the implementation plan.

2.2.3 The preliminary identification of potential monitoring programmes and capacities for contributing to baseline data production (first monitoring report)

Modalities and time schedule: At TWG-1, a preliminary sequential application of the criteria upon the information made available by the Secretariat through the updated version of UNEP/POPS/COP.2/INF/10 was undertaken, in order to categorize existing and other human health and environmental monitoring programmes as indicated in section 3.2.2 above. This work gives the first insight into how existing programmes and activities may be grouped according to the three categories given in section 2.2. It therefore supports identifying where arrangements can be made with existing programmes to provide information, and where identified levels of capacity enhancement can improve geographical coverage of information. The preliminary report on this work undertaken at TWG-1, will be further elaborated through their regional application (see section 3.4 below) and finalized at TWG-2. It will form the basis of decisions on the data gathering activities to support the first evaluation. It will also contribute to the step-by-step plan for capacity enhancement to be prepared by the Secretariat and to the report on progress by the TWG for COP-3.

2.3 Guidance on standardization.

The Conference of the Parties has requested the TWG to develop guidance for data comparability, taking into account the available guidance document produced and made available by UNEP Chemicals in 2004. The 2004 document was produced for a different model for a GMP than the model now favored by the Conference of the Parties and revision is required to ensure compatibility with the emerging GMP and implementation plan. The intent of this document is to provide technical guidance on all aspects of implementation of the GMP, including issues related to statistics, sampling, sample preparation, analytical methodology, and data management.

Modalities and timeframes: The TWG has identified the main elements of revision required to make the guidance document produced by UNEP in 2004 applicable to the present GMP. The revision is being undertaken by a small group of experts specialized in the various document sections (based upon the experts who prepared the original document). As part of the statistical considerations, the experts will advise on what is appropriate and sufficient comparable data for the regional evaluation of effectiveness of the Convention. The revised document will be available for TWG review by the end of January 2007.

2.4 The development of strategic arrangements and partnerships for the acquisition of core media data for the first monitoring report.

The outputs resulting from the activities described in sections 2.2; 2.2.1; 2.2.2; and 2.2.3 have enabled potential contributing sources of information for the first evaluation to be grouped according to:

- a) existing international programmes and activities;
- b) existing national programmes and activities; and,
- c) national or regional programmes and activities that could contribute with an identified level of capacity building in order to provide information in regions under-represented by presently available data.

Strategic arrangements are being developed to utilize all three of the groupings a-c above as appropriate. The Conference of the Parties has requested that implementation should be strategic and cost effective, and build on, but not be limited, to existing programmes to the extent possible. It has also requested that the plan should address long-term needs to obtain data from all regions with progressive enhancement being planned from the outset. Finally, the Conference of the Parties has also specified that the data be presented on a regional basis. Therefore this activity is organized regionally with the secretariat and TWG taking care to ensure compatibility between regions. Work will be facilitated using a regional network for implementation of the monitoring plan. In setting up the regions, care should be taken that they provide an adequate basis for generating, collecting, reporting and presenting the data. It would seem that the best way to achieve this is to form the regions as geographical entities. This would also facilitate evaluation of regional and global environmental transport of POPs. One model which could be used is that of the Regionally Based Assessment of Persistent Toxic Substances which used 12 regions based on waterbasins, or some modification of this model. To keep the number of regions to a manageable figure, while maintaining the geographical basis, several experts suggested the following regional distribution: North and Central America including the Caribbean, Eurasia west of Urals, Central and East Asia (Asia east of Urals), Latin America, Africa; and Oceania. However, this proposal was not discussed by the group. Any proposal on revising regional distribution would need to be included into the report from the TWG to be submitted to COP-3 for their consideration and possible decision.

Each network will be established by an organizing group that agrees upon and oversees modalities for providing the comparable environmental monitoring information required by the Conference of the Parties for effectiveness evaluation. The outputs are to be:

Output 1: Establishment of the regional organization groups and networks.

Modalities and timeframes: The Secretariat and the three TWG members for each region will set up appropriate arrangements with due consideration of the existing capacities in each region for the establishment of the organization groups and networks. As much work as possible is achieved electronically. The aim is to have the organizational groups active as soon as possible to ensure that they can make significant progress with their work between the meetings of TWG-1 and TWG-2.

Output 2: Regional identification of existing and national, and international programmes or activities that can, or may with specified capacity enhancement, contribute to the first and subsequent evaluations.

Modalities and timeframes: The regional organization groups with the aid of the Secretariat are elaborating and finalizing the work of the TWG and

Secretariat to identify possible contributing programmes from each region. The work is to be completed as soon as possible between TWG-1 and -2

The regional networks will use the output of subgroup A with the aid of the Secretariat to identify possible contributing programmes for each region.

Output 3: Selection of those programmes and activities that should be adopted for contributing data and information for each region for the first monitoring report and effectiveness evaluation.

Modalities and timeframes: The work is being achieved through the regional organization groups (with assistance from the Secretariat) examining and if necessary adjusting the work of the TWG in applying the criteria previously established (appendix 1) to known programmes in each region. The collective output of the regional groups is identifying a mix of existing programmes and activities that can deliver the required data and or information without enhancement, and those that could contribute following a specified degree of capacity enhancement. The organizational groups will review this output in terms of the degree of regional coverage and decide upon whether and what regional capacity enhancement should be achieved for the first monitoring report. This information will then provide a key input for Task 6 below. Exact modalities are being determined by the regional organizational groups to reflect regional conditions, but the work should be undertaken as soon as possible following TWG-1.

Output 4: Verify the conformity of possible regional programmes with the methodological guidance for achieving the necessary levels of comparability of data.

Arrangements to make the guidance document produced by UNEP in 2004 applicable to the present GMP were agreed upon at TWG-1 and the revised document will be available for review by the end of January 2007. However, the key elements concerning the media for human exposure and for air will remain relevant, as will the sections on statistics and quality assurance and control (QA/QC). The latter aspects are essential in the consideration of comparability because the GMP must be able to distinguish between variability representing true changes in the levels of POPs over time and differences that reflect variance derived from sampling and analytical procedures. For some POPs, this represents a significant challenge.

Modalities and timeframes: The regional organizational groups assisted by the Secretariat are examining Output 3 in the context of the results from the UNEP / GEF work on laboratory capacities and performance and are preparing plans to ensure that only data and information that satisfies measures to ensure information comparability are used for the monitoring reports. This plan will be an essential input to Output 6 and will be available before TWG-2

Output 5: Identifying how data and information may be stored and accessed including the possibility of developing a regional data warehouse.

The section on this topic in the original "Guidance Document" that was produced by UNEP in 2004 should now be revised to reflect the emerging model for the GMP.

Modalities and timeframes: Following discussions and decisions at TWG-1, an expert group has been established to revise the "Data handling" section of the Guidance document. The new section will be available for review by the end of January 2007.

- the possibility of using existing thematic data centers should be explored as well as the possibility of using them to serve more than one region.

- It was also suggested that the tables produced at TWG-3 to illustrate the regional distribution of capacity could also identify possible thematic data centers and strategic partners e.g. for data handling and regional coordination; this information may assist regional experts; consider putting additional questions to the next questionnaire to better identify these groups

Output 6: Consolidation of Outputs 3, 4, and 5, to provide data and information for the first monitoring report and putting into place those arrangements.

Modalities and timeframes: To consolidate and reconcile Outputs 3, 4, and 5, the regional organization groups and the Secretariat have established regional monitoring network arrangements for the collection of core data both:

- i) through international collaborative programmes for those Parties that wish to follow this approach.
- ii) directly from those Parties that wish to contribute nationally taking account of the work of the TWG to identify capacities and regional data gaps.

The regional organization groups are (when appropriate) each setting up a regional process to supplement existing core data to address regional gaps in coverage. Opportunities are being taken up (when possible and feasible) to establish strategic arrangements and partnerships, including with the international health sector and by developing collaborative twinning arrangements with other countries or with international monitoring organizations. Specific modalities include:

- a) The organization of arrangements with Parties and signatories with existing capacity and capability to provide comparable monitoring data on the core media;
- b) The organization of arrangements with existing international programmes (regional and global) that can provide comparable monitoring data on the core media relevant to effectiveness evaluation. This work would not be subject to capacity building support except when it is related to assisting Parties and or regions without capacity to participate in those programmes; and,
- c) The organization of arrangements in regions without the necessary capacity to contribute to a GMP as envisaged by the Conference of the Parties. This work would be expected to require capacity building support.

The arrangements should be documented and a draft should be available before TWG-2. This paper will also describe specific measures that are to be undertaken to secure data for the first assessment in order that a report on "Field testing of arrangements" can be provided to COP-3.

Output 7: Planning and implementing regional capacity building that may be necessary to implement the agreed arrangements. This output may be relocated within this section.

Modalities and timeframes:

- a) The Secretariat is developing and maintaining a comprehensive regional inventory and analysis of capacities and a corresponding needs assessment with contributions from national Stockholm Convention focal points. The assessment will match regional capacities with the arrangements described in the reports on "Regional monitoring network arrangements for Region "X" for the GMP 2008 monitoring report". The capacity inventory and initial analysis will be available at the end of January 2007
- b) The Secretariat will develop a plan for step-by-step capacity enhancement for Parties on a regional basis for the purpose of implementing Article 16 of the

Convention. It will be based upon the capacity inventory and initial analysis described in b) above and would be in accordance with the provisions of Article 12 (on technical assistance) and Article 13 (on the financial mechanism). The first draft will be available in early February 2007 for discussion at TWG-2 and for finalization after the latter meeting. The final document would be forwarded to the Technical Assistance Working Group. The needs and opportunities for capacity-building to increase participation in the global monitoring plan are to be taken into account during the implementation of Conference of the Parties decision SC-2/9 on technical assistance.

In completing the work described above, the Secretariat is consulting with both the TWG and with the regional organizational groups.

Output 7: Mechanisms for information collection for the purposes of the regional reports and for preparation of regional reports.

In each region, data and information for production of the regional monitoring report will be derived from a variety of different sources (including global and regional monitoring programmes; and individual Parties and Signatories to the Convention). Each region will need to agree on how information from these sources can be accessed for the purpose of reporting to the Conference of the Parties.

Modalities and timeframes: The Secretariat will produce a proposed procedure based upon discussions on the topic at TWG-1. The proposed procedure will be available for TWG review in December 2006. After review, it will be forwarded to the TWG and the regional organizational groups in early 2007.

2.5 Summarizing and presenting data on a regional basis, to be used as a baseline in the first evaluation.

Considerations include:

- The proposed baseline window could be 2004 +/- 5 years. This could be the starting point to assess changes with time.
- There could be options for providing additional information that is not obligated by the agreement e.g. trend data prior to the Convention coming into force.
- There is a question of how to present a global picture (from regional information) and if this should include global transport. How will this be presented to the Conference of the Parties?
- Also there are questions regarding baseline data (for what? For future assessments?)
- Consideration of the example from AMAP where a drafting group consisting of 4-5 has used for the assessment with input from contributing regions...
- The group acknowledged that there are ownership issues for the data (governments vs institutions vs scientists). AMAP has signed agreements relating to data sharing...this has incentives for scientists because they can publish their work and also contribute to an international programme. Data policy agreements should be considered..

Process for going from: data generation – to evaluation – to reporting on a regional basis:

The following elements were identified for consideration during the course of implementation:

Are there data centers in each region? For air and human tissue data.

- Use existing structures/expertise when possible
- Options for data centers to serve more than 1 region

- On pooling human tissues samples – sometimes several samples are pooled for human milk (WHO) although AMAP prefers not to pool blood samples for statistical/data treatment reasons.

The Conference of the Parties has requested the TWG to coordinate and oversee the summarization and presentation of the monitoring information on a regional basis, while the Secretariat is responsible for compiling the elements for the first effectiveness evaluation as it relates to the first global monitoring report..

Modalities and timeframes: Based upon meeting discussion at TWG-1, the Secretariat will produce a paper for discussion and decision at TWG-2. The Secretariat will suggest that one approach would be for the regional organizational groups (in consultation with the Secretariat) take responsibility for preparation of the regional reports, either by undertaking the work themselves, in cooperation with other groups such as international programmes, or through contract. The reports would follow a uniform structure to be agreed upon at TWG-2. To assist, the Secretariat could produce a proposed structure for consideration at that meeting. The Secretariat could be responsible for producing the global summary.

Paragraph 2 of Article 16 states that the Conference of the Parties shall make arrangements to provide itself with comparable monitoring data on the substances listed in the annexes to the Convention, as well as on their regional and global environmental transport. There are therefore two objectives for the arrangements, or two sets of arrangements could be envisaged.

Concerning information on levels, Article 16 does not suggest that the reports are to contain any interpretation or assessment on the significance of the levels in environmental media. Conference of the Parties Decision SC-2/13 similarly describes “summarizing and presenting the data on a regional basis”. Therefore the interest of the Conference of the Parties is on the levels themselves and there would appear to be no role for the use of such assessment tools as modeling. Successive data reports provided over a number of years will also enable the Conference of the Parties to view changes over time, providing the data is of sufficient quality and precision.

The Conference of the Parties has not indicated its expectations concerning reporting on regional and global environmental transport. If the intent is gain an understanding on the environmental movement of the listed chemicals, then a range of possibilities could be considered. These could include:

- i) Back trajectory analysis (relatively simple in terms of data and infrastructure support);
- ii) Modeling using GMP data (more complex and demanding in terms of input data, although a range of models are available); and,
- iii) A passive approach. This could interpret Article 16 as indicating the need for the Conference of the Parties to make two independent sets of arrangements, one for gathering information on levels in media, and the other for reporting on regional and global environmental transport. The TWG could nominate a small team of experts to prepare a report or reports, based upon published literature and / or the data derived from the air monitoring component of the GMP. With this approach interpretive techniques (such as modeling and back trajectory analysis would be a part of the reports reviewed by the experts, and not directly a component of the GMP.

Modalities and timeframes: At TWG-1, a small group of experts and the Secretariat will be entrusted with drafting a short paper for the attention of COP-3 progress report, outlining the issues, and suggesting alternative approaches. The draft paper will be available in time for consideration and finalization at TWG-2.

[3.0 Implementation elements for the second and subsequent evaluations

The plan for future evaluations:

- regions;
- (a) Should ensure regional representativeness in scope and geographic coverage;
 - (b) Should enhance the core comparable representative dataset from all five
 - (c) Should endeavour to supplement the core data with data from other media such as biota, water, soil and sediments, as appropriate, including community-based participatory research data;
 - (d) Should provide for the establishment of baselines relevant to the enhancements referred to above.

Modalities and timeframes: Consideration could be given at TWG-2 to an appropriate implementation plan and time schedule for arrangements for information gathering related to the second and subsequent monitoring reports.]

Addendum 2

SC-2/13: Effectiveness evaluation

The Conference of the Parties,

1. *Agrees* to complete the first effectiveness evaluation at its fourth meeting, in 2009;
2. *Decides* to implement the elements for a global monitoring plan as proposed in the annex to the present decision and urges implementation. The field test requested by the Conference of the Parties at its first meeting, necessary to this implementation, should be carried out according to the elements of the annex to the present decision, subject to the availability of funds;
3. *Also decides* to establish a provisional ad hoc technical working group of 15 representatives of Parties of the five United Nations regions to coordinate and oversee implementation of the global monitoring plan as provided in the annex to the present decision;
4. *Requests* the provisional ad hoc technical working group to report on progress in the implementation of the global monitoring plan to the Conference of the Parties at its third meeting;
5. *Decides* to review the progress of the provisional ad hoc technical working group at its third meeting and to decide whether or not the group should continue;
6. *Requests* the Secretariat to compile the elements for the first effectiveness evaluation, including the global monitoring report, national reports and non-compliance information from any procedure that might be put in place by the Conference of the Parties, and to submit a report to the Conference of the Parties at its fourth meeting for its consideration;
7. *Decides* to review at its fourth meeting the arrangements, including the global monitoring plan, used for providing the Conference of the Parties with the information for effectiveness evaluation as implemented for the first report and to decide on future arrangements, including the intervals of subsequent effectiveness evaluations;
8. *Invites* Parties in a position to do so to contribute necessary resources to facilitate global coverage, generation of core data and capacity-building to support the global monitoring programme for the first effectiveness evaluation, including through existing monitoring programmes when appropriate;
9. *Requests* the Secretariat to identify monitoring programmes that may update the information in the note by the Secretariat on existing human health and environment monitoring programmes,⁵ including other programmes that can contribute to the global monitoring plan, and to prepare a report for the technical working group;
10. *Agrees* that immediate actions for long-term funding arrangements, including capacity-building to implement the global monitoring plan, should be started, taking into account gaps in information between regions and their capabilities to implement monitoring activities to enable long-term evaluation of the Convention in accordance with the provisions of its Article 13 on the financial mechanism;
11. *Invites* Parties that are in a position to do so to support the setting up and the long-term implementation of the global monitoring programme.

⁵

UNEP/POPS/COP.2/INF/10.

Annex to decision SC-2/13

Elements for establishing and implementing a global monitoring plan

1. The plan:

(a) Should outline a strategic and cost-effective approach and build on, but not be limited to, existing and scientifically sound human health and environmental monitoring programmes to the extent possible, with the aim of providing appropriate and sufficient comparable data for the effectiveness evaluation of the Convention;

(b) Should be practical, feasible and sustainable;

(c) Should be inclusive, achieve global coverage and contain at least core representative data from all regions;

(d) Should be designed to go beyond the first monitoring report and address long-term needs for attaining appropriate representative data in all regions;

(e) Should provide for supplementing data, where necessary taking into account the differences between regions and their capabilities to implement monitoring activities. Such progressive enhancement should be planned at the outset;

(f) Should enable phased enhancement of the ability of parties to participate in regional arrangements for producing comparable data.

Minimum requirements for the first evaluation

2. The first monitoring report will provide baselines for further evaluations.

3. Air monitoring and human exposure through breast milk or blood serum would be used as core data.

4. Such comparable and representative core data should be obtained from all five regions.

5. Guidance should be provided on standardization.

6. Establish strategic arrangements and build partnerships, including with the health sector.

Monitoring for future evaluations

7. The plan for future evaluations:

(a) Should ensure regional representativeness in scope and geographic coverage;

(b) Should enhance the core comparable representative dataset from all five regions;

(c) Should endeavour to supplement the core data with data from other media such as biota, water, soil and sediments, as appropriate, including community-based participatory research data;

(d) Should provide for the establishment of baselines relevant to the enhancements referred to above.

Needs and opportunities for capacity-building to increase participation in the global monitoring plan through financial and technical assistance⁶

8. A comprehensive regional inventory of capacities should be developed and maintained and a corresponding needs assessment conducted by the Secretariat with contributions from national Stockholm Convention focal points.

⁶ This section should be taken into account during the implementation of decision SC-2/9 on technical assistance.

9. Capacity-building for the purpose of implementing Article 16 should be guided by a plan for step-by-step capacity enhancement for Parties on a regional basis.
10. Relevant regional centres could play a role in coordination efforts.
11. A network of databases containing monitoring information should be developed and maintained.

Organizational arrangements

12. A provisional ad hoc technical working group of representatives of Parties of the five United Nations regions will coordinate and oversee implementation of the global monitoring plan.
13. Tasks for the technical working group include:
 - (a) To develop criteria for evaluating programmes;
 - (b) To identify monitoring programmes that fulfil the criteria for contributing to the baseline data production, taking into account the updating of the information contained in the note by the Secretariat on existing human health and environment monitoring programmes (UNEP/POPS/COP.2/INF/10);
 - (c) To prepare a report on such programmes and others that may make useful contributions, subject to enhancement of their capacities;
 - (d) To outline the global monitoring plan along the lines of the principles and requirements contained in the present annex;
 - (e) To develop guidance for data comparability, taking into account the available guidance document produced by UNEP Chemicals;
 - (f) To develop an implementation plan to fulfil the minimum requirements for the first evaluation, including the following measures:
 - (i) Using data from regional monitoring programmes and data provided by Parties;
 - (ii) Ensuring that data are comparable, namely, by applying quality assurance and quality control (QA/QC) standards;
 - (iii) Summarizing and presenting the data on a regional basis, to be used as a baseline;
 - (g) To coordinate and oversee implementation of the plan in accordance with the elements described;
 - (h) To report on progress to the Conference of the Parties at its third meeting.;

Guidance, reporting to the third meeting of the Conference of the Parties, regional and global monitoring reports, and regional and global transport: Sub-group discussion notes

1 Revision of first guidance document (2004) of UNEP chemicals

1. Drafting should be conducted as much as possible by the original authors with the help of others as needed. The Secretariat should contact proposed authors as soon as possible. November or December 2006 was suggested for drafting to be undertaken at an intensive 4-5 day workshop.
2. When revision is completed, the Secretariat should check the entire document to ensure accordance with decisions of the Conference of the Parties. The modified Guidance Document should be available to third meeting of the Conference of the Parties.
3. Revision should be focused on the core matrices, i.e., air (by Dr L Barrie) and human samples (by Dr J. U. Skaare), including blood which had not been addressed in the first edition. The proposed authors were as follows:

Chapter 1 Background (D. Stone)

Notes - To be revised according to decisions of the second meeting of the Conference of the Parties.

Chapter 2 Substances to be monitored (B. Jansson)

Notes - To include a brief statement that if new substances are added to Annexes A, B, and C, of the Convention by the Conference of the Parties, these substances would then be added to the monitoring matrices at that time. The possible role of sample archives for retrospective analysis should be considered.

Chapter 3 Statistical considerations (A Bignert)

Examples for explaining statistical power may be used as appropriate. Guidance will include statistical considerations for spatial and temporal analysis. A short section on potential biases will be useful, as will a discussion on outliers and non-parametric testing.

Chapter 4 Sampling and sample preparation methodology

An introduction focusing on core data (air, and human exposure) should be added by the original author, and a discussion on statistical considerations such as statistical power should be added to the end of each core medium in order to help design more efficient sampling protocols.

Air (L. Barrie with others)

Notes – It was agreed that information should be updated or included on both passive air sampling techniques and High Volume sampling experiences and capacity in East Asia and Central/East Europe. The text should avoid technical detail as much as possible by referring to appropriate references, and should also avoid passive versus active sampling selection. A table of long-range environmentally transportability of each chemical would be useful. The issue of regional and global transport may possibly be incorporated into this section (see 3.3 below).

Human samples (J. Skaare or alternate with an expert from the WHO global milk survey)

Notes – The existing section 4.4 title should be modified to “Human Samples”. A brief introduction and objectives should then be followed by a revised human breast milk section followed by a new section on human blood serum. It should be clear that Parties

and /or regions are free to select either or both human milk and human blood serum as the medium for human exposure. The references should be updated and expanded to include human blood serum.

Chapter 5 Analytical technology (Bo Janssen)

Notes - More detailed information is required on core matrices and procedures to develop comparability (including PCB congeners). A brief description of core media in each chapter should be linked to Chapter 3 (Statistical Considerations). The text should reflect the latest available WHO guidelines on analytical matters. Concerning human blood serum, it should not be assumed that laboratories are familiar with safe handling procedures and the necessity to conform to national regulations should be addressed.

Chapter 6 Data handling (A. Bignert)

Notes: The section on data flow, (including the existing Fig 6.1) should be revised by the Secretariat in consultation with the bureau as soon as it is clear how data and information will be acquired.

Chapter 7 Draft structure for the regional and global monitoring reports (see also section 3 below)

It was agreed by the sub-group that there should be a common structure for the regional and global reports but the templates for this structure were not addressed at the meeting. It was proposed that the Secretariat in consultation with the bureau would prepare proposals for consideration at the second meeting of the TWG.

2 Progress report to the third meeting of the Conference of the Parties

4. It was proposed that the Secretariat together with the chair will draft a concise progress report with a list of tasks to be submitted to third meeting of the Conference of the Parties. Outputs will include:
 - (i) The revised guidance document
 - (ii) An outline of for the GMP and criteria for evaluating monitoring programmes (including maps, figures)
 - (iii) Structure of monitoring reports (Annex A in the guidance document)
5. The Implementation Plan for the first evaluation would be annexed to the progress report.
6. Capacity building issues specifically requested by the third meeting of the Conference of the Parties will be reported by the Secretariat.

3 Monitoring REPORTS FOR THE FIRST EVALUATION.

3.1 How to develop the regional reports?

7. After discussion about several models, including those used by AMAP, OSPAR, HELCOM etc, and the sub-group proposed that a few regionally selected experts would draft a regional report that can be finalized by all the countries of the region, the representatives of which will sit together at a regional report meeting.
8. The appointment of regional expert writers could be undertaken by regional organizational groups or by the three persons in TWG for that region. Experts from global and regional international monitoring programmes (e.g. WHO, GAPS etc) may be invited to assist.
9. The following procedure was suggested:

First step (3 to 4 months before a one week intensive drafting meeting)

Regional drafting group will meet with the inclusion of key scientists. The template for the report (see chapter 7 of the Guidance Document in section 2 above) would be explained and responsibilities for sections would be agreed upon. Data and information for the first report provided to the draft authors and to all countries in that region.

It was noted that some countries may wish to nationally select which data and information is used or that other countries may object that available information has not been used (for example, because of concerns about comparability).

Second step

Drafting group meet together to draft the document.

Third step

One month after the meeting, drafters collectively review their work.

Fourth step

After revisions (and minor revision by Secretariat) the draft is open for one and half month period to all the countries in the region (and other contributors such as WHO) for review. The contact could be through the POPs Focal points for Parties.

Fifth step

Two to three months after the drafting session, all comments go to authors to further revise the documents.

Sixth step (Approximately 3.5 months after the drafting session)

The final regional reports are available.

10. It is suggested that it will be advisable to include NGO in the process and the question rose as to whether others should be involved.

How to prepare the global monitoring report?

11. It was proposed that the Secretariat would prepare a short introductory section that would be followed by a summary of each regional report. The latter would be regionally prepared. The structure of the regional report will be outlined in the guidance document (see also section 2 above).

How to deal with the requirement from Article 16 for information on the regional and global transport of POPs?

12. Little information is included in the existing guidance document. T. Harner agreed to prepare a short section for consideration at TWG-2 that may be incorporated into either or both the guidance document and the implementation plan for the first evaluation.

Annex V

Needs assessment and capacity building - Notes on Discussions on a Capacity Enhancement and Implementation Scheme for the GMP

The sub-group was invited to address the following items:

1. The development of a **Plan for step-by-step capacity enhancement** for Parties on a regional basis for the purpose of implementing Article 16 of the Convention. Such work would be in accordance with the provisions of Article 12 (on technical assistance) and Article 13 (on the financial mechanism) and would be forwarded to the Technical Assistance Working Group.

Comment:

First step for capacity enhancement: to identify gaps in programs that already have some capacity in terms of expertise, laboratories etc.

The secretariat needs advice on the modalities and timeframes for the conduct of the work as it relates to the needs assessment and capacity enhancement. The generic needs may include among others:

- Transfer of knowledge
 - Training and capacity building;
 - Organization of inter-calibration exercises between analytical laboratories;
- Data production
 - Sampling (in countries or partners lab)
 - Analysis
- Data integration and review
 - Data handling
 - Data review, summary and reporting

Table 1: List of possible needs with regard to data collection in the regions

	Needs identified for data collection in regions	Necessary steps
1	Sampling	Strategy, methods Facility, equipment Trained personnel Methods QA QC
2	Analysis	Strategy, methods Facility, equipment Trained personnel Methods QA QC
3	Data management	Strategy, methods Facility, equipment Trained personnel Methods QA QC
4	Data interpretation	Strategy, methods Facility, equipment Trained personnel Methods QA QC
5	Reporting	Strategy, methods Facility, equipment Trained personnel Methods QA QC

Table 2: Possibly required support

	Support possibly required by the regions	for needs (Tab.1)
A	Support from external international experts for advisory service	1 - 5
B	Partnership with existing programs for knowledge transfer and joint projects	1 - 5
C	Training workshops preferably in co-operation with strategic partners	1 - 5
D	Participation in inter-laboratory tests for quality assurance and quality control	1 - 2
E	Strengthening of capacity for sampling and analysis	1 - 2
F	Strengthening of capacity for data review	3 - 5
G	Establishment of thematic data centers	3 - 5

Table 3: Possible international strategic partners

Institution	Expertise in sampling and analysis of						Capacities A-G	
	Air		Human milk		Human blood			
	Sampling	Analytes	Sampling	Analytes	Sampling	Analytes		
WHO				YES		YES		
EMEP	HV, PAS							
AMAP	HV					YES		
RECETOX	HV, PAS	PCBs, OCPs, PAHs, PCNs CPs						A-G
Env. Can., GAPS	HV, PAS							
HELCOM, OSPAR								
East Asian AMP								

Regional coordination structures can be useful in delivering the regional work particularly for regions with insufficient capacity. It is suggested that existing regional institutions with demonstrated competences in the field of monitoring play this role.

These institutions will facilitate regional coordination and contacts and provide for sustainability and cost efficiency through using existing capacities for the purpose of producing regional POPs monitoring reports.

One goal is to build a network of laboratory and educational capacities in the region.

Possible functions of the regional coordination structures

A. Coordination that could include:

- Active role in the establishment and maintenance of the regional monitoring network;
- Assistance in planning and designing of future monitoring programs;
- Coordinating joint regional projects including monitoring campaigns and assessments as needed;
- Liaison with the Secretariat of the Convention and other international partners; and,
- Data processing capacities (databases, modelling, expert systems).

B. Education:

- Providing the technical support to the network of the experts in evaluation of the regional capacities and programs in progress;
- Transfer of knowledge; and
- Training courses and workshops.

The output of the sub-group discussions will be included in the GMP outline and the implementation plan (2.4 The development of strategic arrangements and partnerships for the acquisition of core media data for the first monitoring report), as well as into the step-by-step plan for capacity enhancement.

2. **Databases.** The Secretariat should keep and update a record of the international inventory of monitoring capacities. For this task a simple database can be sufficient. Regarding the network of databases containing monitoring information, a meta-database with linkages to data sources is suggested.

Annex VI

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