ELEMENTS OF THE GLOBAL MONITORING PLAN – DRAFT OUTLINE

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1.0 Background to the environmental monitoring and elements of effectiveness evaluation

Article 16 of the Stockholm Convention on Persistent Organic Pollutants (POPs) states that:

> 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 (COP), the Conference shall evaluate the effectiveness of this Convention.
>
> 2. In order to facilitate such evaluation, the COP 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 COP on the results of the monitoring activities on a regional and global basis at intervals to be specified by the COP.
>
> 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 Article 16, 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 COP.

At its second meeting, the COP (Decision SC-2/13[1]) 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 (GMP) 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 COP will decide at its third meeting whether or not the TWG will continue.

A series of documents have been created to provide information on environmental information gathering and reporting methodologies to support effectiveness evaluation, In terms of increasing complexity, this continuum includes the following:

a) Article 16 of the Convention;

b) Decisions of the COP, including decision SC-2/13;

c) The “Global Monitoring Plan”, which provides a short, concise and non-technical description of the GMP and its main operational elements.

[1] See Addendum 2

d) The Implementation Plan for the First Evaluation" that is appended to the GMP and that itemizes work to be completed for the first evaluation It sets out actions, modalities, responsibilities, and time lines for the completion of the work;

e) The Guidance Document for the Global Monitoring Plan with focus on the core media for the first evaluation. This provides detailed technical guidance on for example, how information is to be collected, analyzed, statistically treated, and reported, in order to obtain comparable information in all regions. It also describes a harmonized regime for the preparation of monitoring reports to support the periodic evaluations of effectiveness to be undertaken by the COP.

f) Media specific protocols on methodology. These are highly detailed media specific technical documents (e.g. human milk) that describe exactly how such activities as sampling and chemical analysis are to be carried out in order to obtain comparable data.

2.0 Objective of the Global Monitoring Plan

Article 1 of the Stockholm Convention states that the objective of the Convention is to *protect human health and the environment from persistent organic pollutants*.

The use of the words "reduce" or "eliminate POPs' in the chapeau titles to Articles 3, 5, and 6 of the Convention (the articles that detail the measures to be undertaken to control identified POPs) clarifies that the information on environmental levels (requested in Article 16) of the chemicals listed in the annexes is intended to enable the detection of trends over time for the purposes of effectiveness evaluation. As a result the focus is upon background levels of POPs at locations not influenced by local sources.

A working objective for the POPs global monitoring programme (GMP) can therefore be described as:

> *To provide a harmonized organizational framework for the collection of comparable monitoring data and / or information on the presence of the POPs listed in Annexes A, B and C of the Convention in order to identify trends in levels over time as well as to provide information on their regional and global environmental transport*

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 COP.

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 decisions of the COP.

3.0 Strategic attributes of the Global Monitoring Plan

The decision of Conference of the Parties has defined the main attributes of the plan. Collectively, they provide the fundamental framework to ensure that cost effective comparable monitoring information on the environmental levels of POPs is available from all UN regions, and that it is presented in a form suitable to support the effectiveness evaluation of the Convention. The attributes are as follows:

- *Strategic and cost effective*
- *Practical, feasible and sustainable*
- *Inclusive with global coverage*

- *Long-term purpose*
- *Providing for data supplementation*
- *Allowing capacity enhancement*

An over-all decision taken by the Conference of the Parties that embraces all of the attributes is the concept of *core media* that will focus information gathering on environmental levels of POPs. For the first monitoring reports (to support the first effectiveness evaluation) the core media are atmospheric levels and levels in human milk and / or maternal blood. Concentrating initial efforts on these two media will especially facilitate the first three attributes and allow activities associated with the attribute addressing capacity enhancement to be most effectively focussed. Air was selected in particular because it is available everywhere, and because Article 16 of the Convention specifically asks for information on the regional and global transport of POPs. Very few biological species have a global distribution, which therefore presents a challenge for finding a single suitable subject for the provision of comparable biological monitoring information. Humans do have a near global distribution, and are at the top of their food web. Therefore human milk and / or maternal blood were chosen as an indicator of human exposure that has relevance to a sensitive stage in the human life span. For future evaluations, it is envisaged that the additional media will be added to the programme.

Further details on the attributes are as follows:

a) To achieve *"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"* the GMP is constructed to include:

- Global and regional inventories of programmes and capacities;

- Distinct criteria developed to categorize existing programmes and activities according to their ability to provide comparable data, using for example, established QA/QC procedures;

- Cooperative arrangements with existing programmes and activities to enable them to contribute to the GMP, providing that they can provide useful data on the core matrices. This data must satisfy the criteria for evaluating the ability of programmes to provide comparable data and / or information;

-Activities to supplement existing information in order to achieve monitoring data from all regions. Specific measures are summarized in sections 3(e) and 4 below.

b) Elements to achieve a *"practical, feasible and sustainable"* plan are:

- Participation of existing research institutions providing that they can provide (or can be expected to be able to provide) comparable monitoring information;

-Mechanisms for linking GMP activities with national implementation plans as an option that for some countries may help securing funding assistance;

-Capacity building through strategic partnerships;

-Collaborative networks between governments and institutions;

-Taking care to ensure consistency with baseline data (e.g.,. site location, sampling strategy and time; and ensuring representativeness relative to the GMP objectives);

-Using a tiered approach by identifying programmes and projects that monitor core matrices for tier 1 (air and human milk/blood), to provide minimal trend information, and build on these for future evaluations (tier 2);

-Allowing integration of existing information from other projects and programmes.

c) In order to *"be inclusive, achieve global coverage and contain at least core representative data from all regions"* the GMP should include the following elements*:*

- Aiming to establish global coverage by obtaining comparable data and or information for all core media in all of the GMP regions. In other words, the focus of implementation (data gathering and reporting) is regional, (as is stated in Article 16), and not national. Globally uniform criteria[2] have been developed as a management tool that can be regionally applied to assess the ability of existing programmes, activities and laboratories to provide comparable monitoring data for the monitoring reports. Employment of the criteria will allow Parties to the Convention within regions to categorize existing activities into for example, those activities that can immediately provide data for the first reports, those that with identified capacity support may contribute, and those that may with further support provide information for future reports;

- Maintaining as the priority for the first monitoring reports (in support of the first evaluation) activities associated with the core media, but not restricting the use of other media for the first reports if comparable data for those media are already available;

- Allowing for the use in GMP reports of any data and or information that may be available, providing that there is confidence that their potential for comparability can be assured (i.e. they possess valid QA/QC protocols, histories of successful intercalibration exercises). This may include the use of comprehensive surveys that have been reported in the peer reviewed scientific literature;

- Strengthening and / or creating partnerships within each GMP region to address identified needs;

- Identifying in each GMP region for which strategic and /or implementation needs have been noted, at least one strategic or implementation partner from another region that already possesses capacity for that activity. There may be a potential role for Stockholm Convention focal points to help link national institutions). This concept could be applied to a variety of GMP activities such as data collection, chemical analysis, procedures to obtain data comparability, and various GMP management functions, such as regional data management, regional reporting for the first effectiveness evaluations, and reporting on the regional and global transport of POPs;

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

d) In order to "*Be designed to go beyond the first monitoring report and address long-term needs for attaining appropriate representative in all regions*" the GMP should include the following elements:

It is intended that the core media identified for the initial monitoring reports will continue to be monitored for all future reports. However subject to the availability of resources it is anticipated that they will be supplemented with information on other

[2] See Addendum 3

media such as biota, water, soil and sediments. To support the elaboration of information collection (core media and future supplementation with other media), additional organizational measures will be necessary to achieve comparable datasets from all five UN regions;

- Securing long-term commitments concerning financial and institutional support for GMP monitoring and its infrastructure requirements (e.g. data storage) particularly in terms of ensuring that each GMP regional monitoring report contains information on each of the core media.
This may include for some countries linking GMP efforts with national implementation plans as an option to help secure funding;

- Endeavouring to maintain sustainability of intra and inter-regional strategic and implementation partnerships in GMP, for as long as they may be required;

- Maintaining an updated inventory of programmes that may contribute to the Global Monitoring Plan, hence enabling identification of new programmes to adjust to possible expansion of the core media, chemicals listed in Annexes A, B or C and the needs for establishing new (regional) baselines.

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"*.

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. Managerial elements to achieve this are explored in section 4 below.

Operational elements will build upon the identification of existing comparable data and data gaps, and the identification of programmes having the potential to provide such data with certain capacity enhancement. Such elements will include:

- Defined capacity enhancement (through training, support etc) to fill regional data gaps identified from the global and regional inventories of programmes and capacities;

- Targeted new projects and programmes (based upon the gaps analysis);

- 'Strategic partnerships', which may also help to fill data gaps and encourage capacity building (training etc) and improve comparability of data. The elements of a strategic partnership may include:

  - Identifying the strengths of existing programmes/project possessing the capacity to produce comparable monitoring data and matching with the needs of potential programmes in regions highlighted for attention through the gaps analysis;

  - Encouraging mechanisms to assist countries and regions with data gaps to collaborate with programmes identified through the above noted activities to achieve for cost effective generation of comparable data and information;

  Elements of the agreed cooperative projects may include:

  - Transfer of knowledge and technology such as:

    - Training and capacity building;

    - Organization of inter-calibration programmes;

  - Data production such as:

- Sampling (in countries or partners lab);

- Sample analysis and data analysis;

- Data integration and review such as:

- Data handling;

- Data review, summary and reporting.

- Establishment of partnership programmes to provide for knowledge transfer and support for data production through the enhancement of regional capacity may include activities to support:

- Information gathering;

- Data generation through sampling and analysis in collaboration with existing programmes and laboratories;

- Data analysis and interpretation by regional experts;

- Data management and transfer protocols between scientists, countries (in regions) and the Stockholm Convention Secretariat.

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

Decision SC-2/13 has specified for the Secretariat to identify needs and opportunities to increase participation, specifically through the development of a comprehensive regional inventory of capacities and of a corresponding needs assessment with contributions from national Stockholm Convention focal points. The implementation of Article 16 does not however intend and can not provide for full-fledge establishment of analytical capacity in countries but for an inclusive GMP, designed to achieve global coverage and to provide for supplementation of existing monitoring data some amount of capacity strengthening activities is required. An inventory of capacities and capacity building needs have been undertaken to extend the knowledge of existing human health and environment monitoring programmes around the world and to help identify the needs of programmes that can contribute to global monitoring plan on POPs for effectiveness evaluation of Stockholm Convention.

Programmes included in the Inventory of Monitoring Programmes and other programmes that may contribute to the Global Montoring Plan are grouped in 4 categories following the application of the criteria developed by the provisional ad hoc Technical Working Group (See Addendum 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;
- **Group 4:** Programmes for which additional information was needed.

These groupings will form the basis of the phased enhancement of the abilities of Parties to participate in regional arrangements for producing comparable data. Elements to achieve this are explored in sections 3(e) above and section 4 below.

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

Decision SC-2/13 also requires 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;

-Relevant regional centres could play a role in coordination efforts;

-A network of databases containing monitoring information should be developed and maintained.

The capacity-building to increase the participation in the Global Monitoring Plan will be based upon the capacity inventory and initial analysis described above and would be in accordance with the provisions of Article 12 (on technical assistance) and Article 13 (on the financial mechanism). The identified needs and opportunities are to be taken into account during the implementation of Decision SC-2/9 on technical assistance.

Specific capacity building needs that are 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 activities foreseen may cover the availability of materials regarding study design, sampling, storage, extraction, analysis and data treatment and training regarding study design with particular emphasis on sampling, sample storage and preparation, analysis and data treatment. Implementation of limited[3] capacity enhancement for the production of supplemental data on the core media (including QA/QC) may also be considered. Questionnaire to assess capacities and needs of existing monitoring programmes that can contribute to the GMP is attached as Addendum 4.

5.0 GMP implementation plan for the first evaluation reports

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.

[3] *'Limited' means that institutionally-organised personnel, and basic infrastructure are already in place and available for capacity enhancement for the first assessment.*