MONITORING GUIDANCE

Tuesday 15 September 2020

14h00-16h00 CEST

(Identified experts only)

- You can open the participant list and chat box by clicking the buttons at the lower-middle of your screen.
- You will find a “raise hand” button on the lower-right hand side of the participants list.
- You will be muted during the session. If you would like to provide any observation, please “raise hand” or type it in the chat box.
- Please note that the session is recorded.

SPEAKERS

Monika Stankiewicz
Executive Secretary, Minamata Convention on Mercury

Garth Martin
Brewill Supplies and Consulting, South Africa

Dave Evers
Biodiversity Research Institute

Nil Basu
McGill University

Claudia ten Have
Senior Policy Coordination Officer, Minamata Convention on Mercury

Eisaku Toda
Senior Programme Officer, Minamata Convention on Mercury
1st Webinar of experts contributing to the monitoring guidance for effectiveness evaluation
1. Opening
   • Secretariat will open the meeting, and explain the roadmap for developing monitoring guidance, and expectations for the experts contributing to the drafting.

2. Introduction to the draft annotated outline
   • The Secretariat and the consultants (Mr. Garth Martin, Mr. Dave Evers and Mr. Nil Basu) will present the draft annotated outline of the guidance.

3. Background information and elements of guidance
   • Comments on the draft annotated outline received from Parties and stakeholders, as well as background information on the existing monitoring programmes and networks, have been posted on the online workspace.
   • Experts are invited to provide further scientific background information and advice on the elements of monitoring guidance.

4. Next steps
   • Based on the information exchanged, the Secretariat will explain the next steps for drafting the guidance.
Agenda item 1: Opening

Roadmap for developing monitoring guidance
Effectiveness evaluation – Decision MC-3/10

The Conference of the Parties,

1. Invites parties to submit views on the indicators set out in annex I to the present decision and requests the secretariat to compile those views in advance of the fourth meeting of the Conference of the Parties;

2. Requests the secretariat to advance the work by securing services for drafting:

   (a) **Guidance on monitoring** to maintain harmonized, comparable information on mercury levels in the environment, taking into consideration the draft structure set out in the note on background information on mercury monitoring;

   (b) **Reports** set out in the framework in annex II to the present decision with the exception of the emissions and releases report, the monitoring report, and the modelling report.
COP-3 adopted MC-3/10 on arrangements for the first effectiveness evaluation of the Minamata Convention, and in the decision requests the Secretariat to compile the views of parties on the proposed indicators in advance of COP-4. As laid out in the plan of work this session introduces the three-step process of intersessional work to be done in this regard, and particularly to give additional information to support Parties in their consideration and preparation of their initial views. The submission of initial views are due by 30 November 2020.

More information about the intersessional work on arrangements for the first effectiveness evaluation of the Minamata Convention here.
Annex I to decision MC-3/10

Proposed indicators for evaluating the effectiveness of the Minamata Convention, by article

<table>
<thead>
<tr>
<th>$A$: Article I (objective)</th>
<th>Source of information on the indicator</th>
<th>Baseline for the indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>(The indicator for article 1 is to be read with the relevant monitoring indicator set out in table 4 in document UNEP/MC/COP.3/14)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| A1. Cross-cutting monitoring indicator | Levels of mercury in the environment and in humans due to anthropogenic emissions and releases | Attributive modelling | Amount in the first evaluation (if models are available) |

Notes
- Attribution is to be estimated using models yet to be developed; thus, information for this indicator may or may not be available for the first effectiveness evaluation cycle.
- Estimates from modelling are to be accompanied by relevant notes on modelling uncertainties.
- In case of non-availability of information from models, levels of mercury and trends in mercury levels (changes over time) could be used for attribution purposes.
### Roadmap for developing monitoring guidance

<table>
<thead>
<tr>
<th>Starting in May 2020</th>
<th>As a first step, the Secretariat collects information on the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Information and lessons learnt about the existing monitoring guidance and their use for effectiveness evaluation under other MEAs.</td>
</tr>
<tr>
<td></td>
<td>- Information on existing global, regional and national monitoring networks, including sampling, sample analysis, data handling, statistical analysis and reporting.</td>
</tr>
<tr>
<td></td>
<td>The collected information will be stored in an online web-based workspace.</td>
</tr>
<tr>
<td>Late May 2020</td>
<td>The Secretariat will advertise a call for consultants to develop elements of the draft guidance.</td>
</tr>
<tr>
<td>By 30 May 2020</td>
<td>The Secretariat develops a draft annotated outline of the guidance, taking into consideration the draft structure set out in UNEP/MC/COP-3/INF/15 and using the collected information. The draft annotated outline will be posted on the website for comments. Submission of technical information on sampling, chemical analysis, data handling, statistical analysis etc will also be invited.</td>
</tr>
<tr>
<td>Early June 2020</td>
<td>The Secretariat issues a call for interest in contributing to the drafting of the guidance on the Convention website. Parties and stakeholders are invited to identify experts and scientists to contribute to the drafting.</td>
</tr>
<tr>
<td>Early June 2020</td>
<td>The Secretariat makes itself available to present the draft annotated outline to interested parties and stakeholders.</td>
</tr>
<tr>
<td>By 31 July 2020</td>
<td>Parties and stakeholders submit their input on the annotated outline. The input received will be posted on the web-based workspace.</td>
</tr>
<tr>
<td>Early August 2020</td>
<td>The Secretariat will further develop the draft annotated outline taking into account the comments, and convening informal consultation as needed.</td>
</tr>
<tr>
<td>By 15 August 2020</td>
<td>The Secretariat will post the annotated outline on the website.</td>
</tr>
</tbody>
</table>
### Roadmap for developing monitoring guidance

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 15 August 2020</td>
<td>Parties and stakeholders identify experts and scientists interested in contributing to the drafting of the guidance.</td>
</tr>
<tr>
<td>August 2020</td>
<td>The Secretariat will collect further technical information on sampling, chemical analysis, data handling, statistical analysis etc., in addition to the information already collected by the Secretariat and stored in the web-based workspace.</td>
</tr>
<tr>
<td>Early September 2020</td>
<td>The first webinar of the identified experts and scientists is convened.</td>
</tr>
<tr>
<td>September – December 2020</td>
<td>The Secretariat and the consultants develop elements of guidance through thematic online meetings of identified experts and scientists. Thematic face-to-face meetings of relevant identified experts and scientists may be convened as needed.</td>
</tr>
<tr>
<td>By 15 January 2021</td>
<td>The Secretariat posts draft guidance on the website for comments.</td>
</tr>
<tr>
<td>By 31 March 2021</td>
<td>Parties and stakeholders submit comments on the draft guidance.</td>
</tr>
<tr>
<td>April – May 2021</td>
<td>The Secretariat further develop the draft guidance taking into account the comments received, in cooperation with the consultants as appropriate.</td>
</tr>
<tr>
<td>May - June 2021</td>
<td>The Secretariat convenes a final consultation meeting (preferably face-to-face meeting), inviting representatives of the parties and stakeholders that have submitted comments and other participants as appropriate.</td>
</tr>
<tr>
<td>July 2021</td>
<td>Guidance document finalized for processing as COP-4 document.</td>
</tr>
</tbody>
</table>
Monitoring guidance – how it will be drafted

• **Consultants** representing specific expertise will develop elements of the draft guidance.
  - Air monitoring – **Mr. Garth Martin**, Brewill Supplies and Consulting, South Africa
  - Biota monitoring – **Mr. Dave Evers**, Biodiversity Research Institute
  - Human biomonitoring – **Mr. Nil Basu**, McGill University

• The Secretariat will draft introductory and other general parts of the document, and co-ordinate these elements into a draft guidance document.

• In order to seek input from a wide range of **experts and scientists**, the Secretariat issued a call for interest to contribute to the drafting of the guidance. Parties and stakeholders have been invited to identify experts and scientists.
  - 34 experts identified by 16 Parties, 3 experts from 2 non-party governments, 15 experts from stakeholders – List available on the [Convention website](http://www.cop17.org).
Agenda item 2: Introduction to the draft annotated outline
Monitoring guidance – draft annotated outline

- COP decision MC-3/10 requests the Secretariat to advance the work by securing services for drafting guidance on monitoring to maintain harmonized, comparable information on mercury levels in the environment, taking into consideration the draft structure set out in UNEP/MC/COP.3/INF/15.

Draft table of contents in UNEP/MC/COP.3/INF/15

1. Acknowledgements
2. List of abbreviations and glossary of terms
3. Introduction and objectives
4. Mercury monitoring in the environment
5. Sampling and sampling preparation (organized per media)
   - core matrices - air, human, biota
   - other matrices - water
6. Analytical methodology
7. Data Handling
8. Statistical Considerations
9. Outline of the global monitoring reports
10. References
11. Annex 1: Standard operation procedures and protocols
    - air/human matrices/biota/…
Monitoring guidance – draft annotated outline

1. Acknowledgements

To be drafted by the Secretariat. Briefly describe how the guidance was developed.

2. List of abbreviations and glossary of terms

To be developed by the Secretariat after the completion of the text.

3. Introduction and objectives

To be drafted by the Secretariat. Explain the provision of the Convention (Articles 1 and 22) and guidance from COP on monitoring in the effectiveness evaluation. Explain the objectives of the document, which is to support the arrangements for providing COP with comparable monitoring data for the effectiveness evaluation. Explain the structure of the document.

4. Use of comparable monitoring data for the effectiveness evaluation

To be drafted by the Secretariat, based on the input from the consultants. Discuss the use of monitoring data in informing indicators on the level of mercury in the environment, biotic media and vulnerable populations for the purpose of the effectiveness evaluation. Explain the selected media for monitoring – air, biota and humans. Discuss how the data can be aggregated to understand the overall level of mercury, geographical patterns, temporal trends and environmental and health risk.
5. Air monitoring

(1) Mercury monitoring in air – rationale (Describe the recommendation for total gaseous mercury in air and wet deposition of mercury. Also mention the possible use of speciated monitoring data)

(2) Consideration of monitoring sites (representativeness, influence of local emissions, description of sites etc. Existing monitoring networks or programmes may have their own site selection policies.)

(3) Sampling and measurement: methods (continuous measurement, active sampling, passive sampling), timing (frequency and duration), sampling equipment, sampling procedure, sample preparation, in-situ or laboratory measurements, etc

(4) Quality assurance (requirement for sampling and analytical operations, control samples, inter-laboratory comparison, intercomparison of measurements, etc)

(5) Data collection (data elements that need to be available, ancillary data can be collected to make the data more useful for interpretation, data quality, data extraction, etc)

(6) Data management (data storage and dissemination)

(7) Statistical consideration (how the monitoring data can be aggregated to understand the overall level of mercury, geographical patterns, temporal trends and environmental and health risk, and to identify gaps)
Draft annotated outline of the guidance on monitoring for the effectiveness evaluation of the Minamata Convention

Air monitoring
CRITERIA FOR A MONITORING SITE—Where and Why?

Global Mercury Assessment 2018 - UNEP
6. Biota monitoring

(1) **Mercury monitoring in biotic media – rationale** (What organisms and tissue types are selected for monitoring for different assessment frameworks: (A) Ocean Framework: e.g., total mercury in muscle tissue of fish and marine mammals at trophic level 4. (B) Continental Framework: e.g., total mercury in muscle tissue of fish and relevant tissues of birds)

(2) **Consideration of monitoring sites** (representativeness, identification of ecosystem sensitivity spots, etc)

(3) **Sampling and measurement**: sampling methods, timing, sample size, transport, laboratory analysis, etc.

(4) **Quality assurance** (requirement for sampling and analytical operations, control samples, inter-laboratory comparison, intercomparison of measurements, etc)

(5) **Data collection** (data elements that need to be available, data quality, data extraction, etc)

(6) **Data management** (data storage and dissemination)

(7) **Statistical considerations** (how the monitoring data can be aggregated to understand the overall level of mercury, geographical patterns, temporal trends and environmental and health risk, and to identify gaps)
7. Human biomonitoring

(1) **Ethical considerations** in, and requirements for, human biomonitoring studies (short overview. WHO is preparing guidance on this issue that can be referred to).

(2) Human biomonitoring for mercury exposure – rationale. Short summary of the different purposes for biomonitoring of Hg (can include some references eg the WHO document on identifying populations at risk from mercury exposure). Describe the recommendations for **total mercury level in scalp hair** as a primary matrix and **total mercury in (cord) blood** as an alternative for general population exposure most vulnerable group (foetal exposure).

(3) **Development of a survey protocol** (general considerations in developing a protocol and refer to WHO protocol which contains a statement about adapting to national needs; other protocols such as AMAP, HBM4U could also be referenced as examples of protocols for larger scale programmes).

(4) **Data management, analysis and evaluation** in the context of the Minamata Convention (the WHO survey protocol includes guidance on the topic, therefore the Minamata guidance should set out considerations that will support sharing and compilation of data for effectiveness evaluation).

(5) **Communication of results** in the context of the Minamata Convention (same point as above – should not go into details covered in more detailed technical guidance).

(6) **Periodicity of survey implementation** (see UNEP/MC/COP.3/14/Add.1 for the guidance on this).
Monitoring guidance – draft annotated outline

8. Data compilation and analysis

*To be drafted by the Secretariat, based on the input from the consultants.* This chapter will discuss how the monitoring data can be **compiled, analyzed and synthesized**, and how **conclusions on the changes in mercury levels in environmental and human media** can be drawn.

9. References

*To be developed during the drafting of the text*

Annex 1: Standard operation procedures, protocols and reference materials

*To be collected from existing networks*

Annex 2: Review of monitoring networks

*To be developed by the Secretariat, building on Part I of UNEP/MC/COP.3/INF/15.*
Agenda item 3: Background information and elements of guidance
Comments on the annotated outline

• Parties and stakeholders were invited to submit comments on the draft annotated outline to the Secretariat by 31 July 2020.

• Comments were received from
  ➢ Canada
  ➢ Colombia
  ➢ India
  ➢ Japan
  ➢ Norway
  ➢ United States
  ➢ Zero Mercury Working Group.

• The submitted comments and their compilation have been posted on the online workspace.
Guidance used in existing monitoring programmes and networks

• The **online workspace** also includes information on guidance used in existing monitoring programmes and networks collected by the Secretariat or provided by Parties and stakeholders.

• These include:
  - Asia Pacific Mercury Monitoring Network
  - European Monitoring and Evaluation Programme
  - Global Mercury Observation System
  - World Health Organization (Human biomonitoring and GEMS Food)
  - GEF mercury monitoring project
  - National monitoring programmes (Canada and Japan)
Agenda item 4: Next steps
Next steps

• The roadmap indicates that the Secretariat and the consultants will develop elements of guidance through thematic online meetings of identified experts and scientists from September to December 2020. Thematic face-to-face meetings of relevant identified experts and scientists may be convened as needed.

• Thematic online meetings may be convened for:
  ➢ Chapter 3 (Introduction and objectives) and 4 (Use of comparable monitoring data for the effectiveness evaluation) - may also discuss annexes
  ➢ Chapter 5 (Air monitoring)
  ➢ Chapter 6 (Biota monitoring)
  ➢ Chapter 7 (Human biomonitoring)
  ➢ Chapter 8 (Data compilation and analysis)

• It may be difficult to convene thematic face-to-face meetings.

• Experts are also invited provide information on existing monitoring guidance.
MAKE MERCURY HISTORY