

# Information Session on Monitoring Guidance for the Effectiveness Evaluation

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**Minamata Convention on Mercury**



# Effectiveness evaluation

## – an overview



# Effectiveness evaluation – Article 22



1. The Conference of the Parties shall evaluate the effectiveness of this Convention, beginning no later than six years after the date of entry into force of the Convention and periodically thereafter at intervals to be decided by it.

2. To facilitate the evaluation, the Conference of the Parties shall, at its first meeting, initiate the establishment of arrangements for providing itself with comparable monitoring data on the presence and movement of mercury and mercury compounds in the environment as well as trends in levels of mercury and mercury compounds observed in biotic media and vulnerable populations.

3. The evaluation shall be conducted on the basis of available scientific, environmental, technical, financial and economic information, including:

(a) Reports and other monitoring information provided to the Conference of the Parties pursuant to paragraph 2;

(b) Reports submitted pursuant to Article 21;

(c) Information and recommendations provided pursuant to Article 15; and

(d) Reports and other relevant information on the operation of the financial assistance, technology transfer and capacity-building arrangements put in place under this Convention.

# Effectiveness evaluation – COP-3 document



The ad hoc group of technical expert, established at COP-1, submitted its report UNEP/MC/COP.3/14, 14/Add.1 and INF/15. The report included the following four policy questions:

1. Have the parties taken actions to implement the Minamata Convention?
2. Have the actions taken resulted in changes in mercury supply, use, emissions and releases into the environment?
3. Have those changes resulted in changes in levels of mercury in the environment, biotic media and vulnerable populations that can be attributed to the Minamata Convention?
4. To what extent are existing measures under the Minamata Convention meeting the objective of protecting human health and the environment from mercury?

# 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.

# Effectiveness evaluation – Intersessional work



- The Secretariat has developed an [overview](#) of the provisions of the Convention and the guidance by the COP on effectiveness evaluation.
- **Proposed indicators:** In consultation with the COP-4 Bureau, the Secretariat has prepared a [plan of work](#) with the modalities and timeline for providing and receiving comments so as to assist Parties at COP-4.
- **Monitoring guidance:** The Secretariat has prepared a [roadmap](#) for developing monitoring guidance. The timeline in the roadmap has been developed taking into account comments by the COP-4 Bureau.
- **Trade, supply and demand report, which includes mercury waste flows and stocks, and an Article 21 synthesis report:** While some initial work on a trade report could be possible in the second half of 2020, most of the work is foreseen for 2021 (funding from the General Trust Fund is for 2021). The planning for an Article 21 synthesis report will be launched at a later stage.

# Plan of work on proposed indicators



# 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

# Annex I to decision MC-3/10

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

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### *A: Article 1 (objective)*

(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)

*Source of information on the indicator*

*Baseline for the indicator*

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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.
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# Plan of Work on the proposed indicators



Mid-September 2020	<p>The Secretariat will avail itself to Parties and stakeholders for an online <b>information session</b> on the proposed indicators, as captured in annex I of Decision MC-3/10, for evaluating the effectiveness of the Minamata Convention.</p> <p>In advance of this information session, the Secretariat will prepare guiding questions, that may support Parties and stakeholders in their initial consideration and preparation of their initial views on the proposed indicators.</p>
Monday, 30 November 2020	Deadline for the submission to the Secretariat by Parties and stakeholders of <b>initial views</b> and responses.
Mid-December 2020	The Secretariat will make available a dedicated virtual work space to collate and access the initial views and responses received from Parties and stakeholders by 30 November 2020.
Mid-December 2020	<p>The Secretariat will prepare a document reviewing the available data and methods for quantified assessment of the proposed indicators as background information, and make the document available on the dedicated virtual work space.</p> <p>The Secretariat may also prepare other supplementary information, as appropriate, and as may have come forward through the initial views and responses.</p>

# Plan of Work on the proposed indicators



By 31 January 2021	<p>The Secretariat will facilitate an <b>exchange session</b> on the initial views and initial responses submitted by Parties and stakeholders by 30 November 2020.</p> <p>This exchange session is to enable clarifications on the views and responses submitted, additional questions that may have arisen, and other relevant information sharing and exchange on the proposed indicators for evaluating the effectiveness of the Minamata Convention.</p> <p>This opportunity to exchange is also to assist Parties in their formal preparation of their <b>views</b>, as requested by Decision MC-3/10, in advance of COP-4.</p>
Wednesday, 31 March 2021	Deadline for the submission to the Secretariat of <b>views</b> of Parties in advance of COP-4.
July 2021	The Secretariat completes the document of views on the proposed indicators for COP-4.

MC-3/10 Fig.2: Framework institutional arrangements for the first effectiveness evaluation

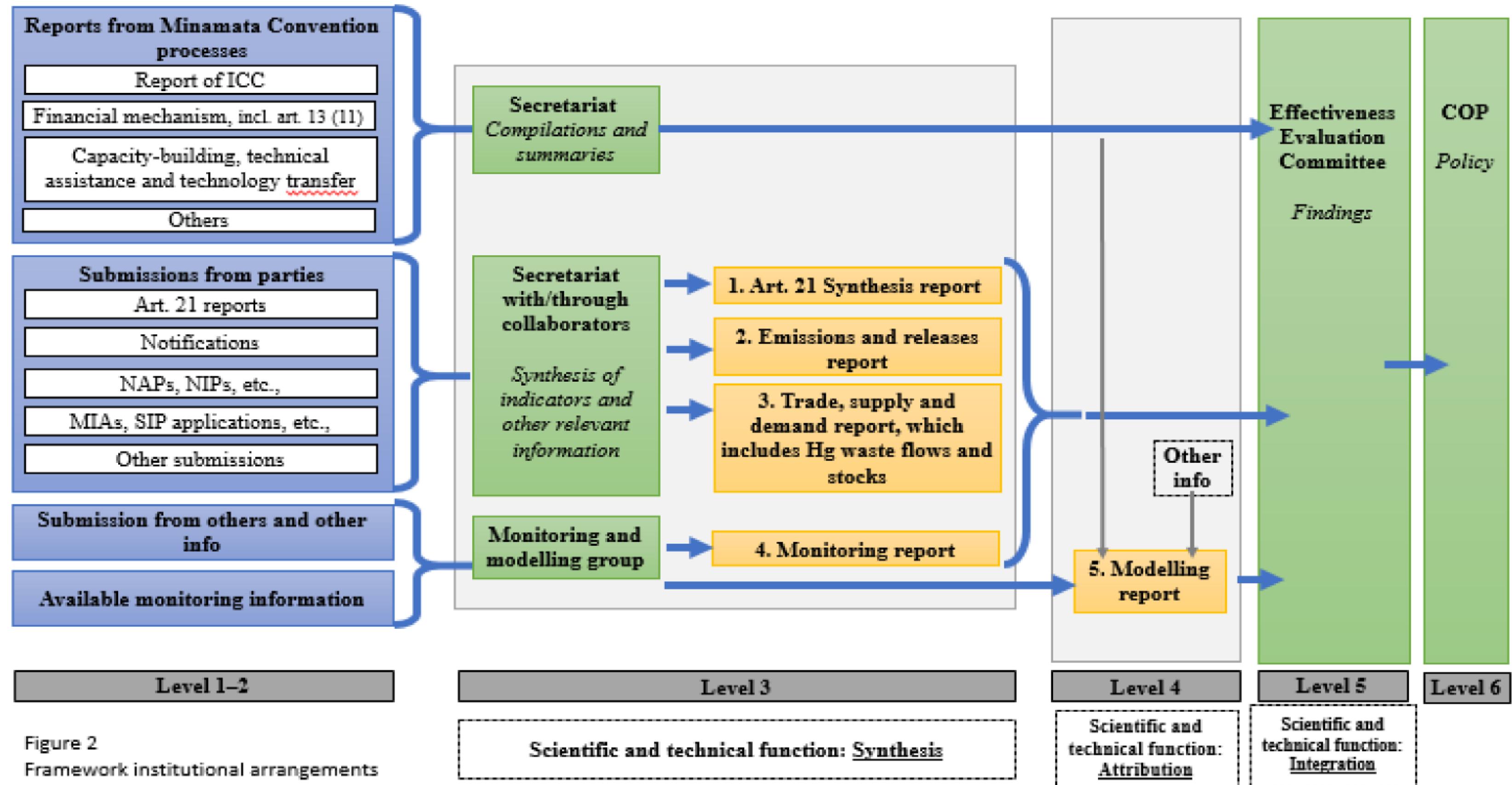


Figure 2  
Framework institutional arrangements

# Roadmap for developing monitoring guidance



# Roadmap for developing monitoring guidance



Starting in May 2020	<p>As a first step, the Secretariat collects information on the following:</p> <ul style="list-style-type: none"> <li>- Information and lessons learnt about the existing monitoring guidance and their use for effectiveness evaluation under other MEAs.</li> <li>- Information on existing global, regional and national monitoring networks, including sampling, sample analysis, data handling, statistical analysis and reporting.</li> </ul> <p>The collected information will be stored in an online web-based workspace.</p>
Late May 2020	The Secretariat will advertise a call for consultants to develop elements of the draft guidance.
By 30 May 2020	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.
Early June 2020	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.
Early June 2020	The Secretariat makes itself available to present the draft annotated outline to interested parties and stakeholders.
By 31 July 2020	Parties and stakeholders submit their input on the annotated outline. The input received will be posted on the web-based workspace.
Early August 2020	The Secretariat will further develop the draft annotated outline taking into account the comments, and convening informal consultation as needed.
By 15 August 2020	The Secretariat will post the annotated outline on the website.

# Roadmap for developing monitoring guidance



By 15 August 2020	Parties and stakeholders identify experts and scientists interested in contributing to the drafting of the guidance.
August 2020	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.
Early September 2020	The first webinar of the identified experts and scientists is convened.
September – December 2020	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.
By 15 January 2021	The Secretariat posts draft guidance on the website for comments.
By 31 March 2021	Parties and stakeholders submit comments on the draft guidance.
April – May 2021	The Secretariat further develop the draft guidance taking into account the comments received, in cooperation with the consultants as appropriate.
May - June 2021	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.
July 2021	Guidance document finalized for processing as COP-4 document.

# 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/...
12. Annex 2: Review/list of monitoring networks

# 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**.*

# Monitoring guidance – draft annotated outline



## 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)*

# Monitoring guidance – draft annotated outline



## 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)*

# Monitoring guidance – draft annotated outline



## 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.*

# Monitoring guidance – Deadlines



- Parties and stakeholders are invited to submit **comments on the draft annotated outline** to the Secretariat **by 31 July 2020**, indicating “Comment on monitoring guidance” in the email title. They may also submit technical information for drafting the guidance, including monitoring methods and standard operating procedures used in existing and emerging monitoring networks and programmes. The comments and information submitted will be stored in the online workspace.
- The Secretariat hereby issues a call for interest in contributing to the drafting of the guidance. **Parties and stakeholders are invited to identify experts and scientists to contribute to the drafting**, and submit to the Secretariat their names, affiliations, contact details and information on their expertise such as curriculum vitae, **by 15 August 2020**. Submissions from Parties should be submitted through official channels, such as national focal points or permanent delegations.
- The Secretariat has issued **job openings for three consultants** to develop elements of the draft guidance for mercury monitoring in air, biota and human body, through the United Nations’ human resources gateway “**Inspira**”. They are open until **21 June 2020**.

# Online workspace



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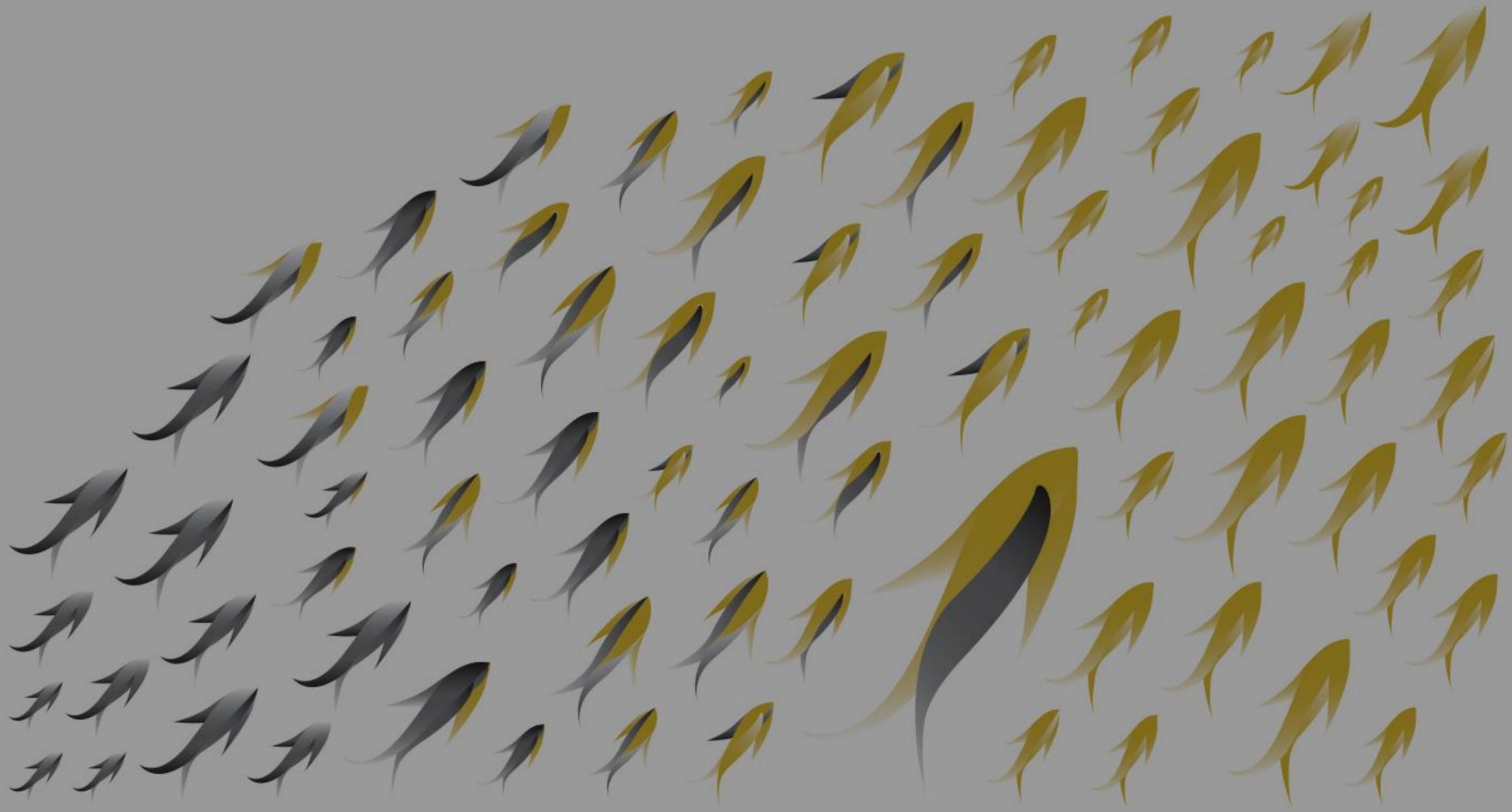
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	Biota	⋮	3.5 MB	13 days ago
	Canada	⋮	35.2 MB	7 days ago
	EMEP	⋮	< 1 KB	21 days ago
	GEMS_FOOD	⋮	427 KB	13 days ago
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# Questions and answers





MAKE MERCURY HISTORY