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Ad Hoc Open-ended Working Group on Mercury

Second meeting

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6–10 October 2008

Item 3 of the provisional agenda*

**Review and assessment of options for enhanced voluntary
measures and new or existing international legal instruments**

**Report of a consultation meeting on mercury for countries from
the Asia-Pacific region**

Note by the secretariat

The secretariat has the honour to provide, in the annex to the present note, the chair's summary of an informal consultation meeting on mercury for countries from the Asia-Pacific region, held from 8 to 10 September 2008 in Tokyo. The meeting aimed to help those in charge of mercury issues in the Asia-Pacific region to prepare for the second meeting of the Working Group. The report is provided for the information of the Working Group as submitted, without formal editing.

* UNEP(DTIE)/Hg/OEWG.2/1.

Consultation Meeting of Asia-Pacific on Mercury Chair's Summary dated 10 September, 2008

1. The Consultation Meeting of Asia-Pacific on Mercury was held in Tokyo on 8-10 September 2008 in order to promote understanding of the issues to be discussed at OEWG2 and their background, to facilitate understanding of positions of participating countries concerning topics to be discussed at OEWG2, and to identify issues of concern that should be pursued by the Asia-Pacific region at OEWG2. Twenty-seven participants attended the meeting from 17 countries, along with a representative of UNEP Chemicals and 14 observers from the public and private sectors in Japan (see attached participants list). The meeting was chaired by Ms. Keiko Segawa, Deputy Director of Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment, Japan (hereinafter referred to as the MOEJ).
2. At the Opening Session, Dr. Norihisa Hara, Director General of Environmental Health Department, MOEJ warmly welcomed the participants and delivered the opening address in which he stressed the importance to establish a global mercury framework to reduce risks on human health and the environment. Mr. Takaaki Ito, Chief Official of Environmental Health and Safety Division, MOEJ briefed on the outline of the meeting and clarified the expected outcomes of the meeting as 1) the promotion of understanding of the participants on other countries' positions on mercury issues and 2) the identification of issues of common concerns by the Asia-Pacific region at the OEWG2. Agenda was adopted as proposed.
3. Session 1 (Actions to Reduce Risks of Mercury on Human Health and the Environment) started with the presentation by Mr. John Whitelaw, Deputy of UNEP Chemicals. He briefed on the OEWG2 to be held in Nairobi, Kenya on 6-10 October 2008. He clarified that the aim of OEWG2 is to prepare recommendations to the 25th UNEP Governing Council, which will be held in February 2009. The OEWG2 should reduce the range of options for addressing mercury issues in order to enable the GC to make a decision on global mercury framework in the long-term. He outlined the proposed approach to OEWG2, namely, the following five specific issues:
 - Elements that could make up a policy framework for mercury
 - Identification of any elements that can only be delivered by legal instrument
 - How to package those with voluntary elements
 - Type of the instrument
 - Financial and technical supportOEWG2 will prepare a report reflecting all views expressed, presenting options, any recommendations to GC
During the Q&A session, China expressed the view that most of mercury issues can be solved within the domestic context, as mercury issues are different from other global environmental issues such as climate change, and because it was difficult to cover all the concerns by legally binding instruments. India commented that it was too early to discuss the form of global mercury framework (i.e. LBI or voluntary approach), referring to the huge investment cost of installation of flue gas treatment system for coal-fired power plants as one reason.
4. Delegates from China, India, Iran, Thailand, Bangladesh, and Pakistan gave presentations on trends of mercury demand and supply and actions for the reduction of mercury risks on human health and the environment in their countries. All the countries are taking a wide range of actions to reduce mercury demand. Implemented actions have a wide range of variety from country to county; some took actions for encouraging process conversion at chlor-alkali plants and setting standards on mercury contents in products. India pointed out that it is difficult to

reduce mercury emissions from coal-fired power plants and that flue gas treatment generates mercury-containing waste, which is also difficult to treat and dispose in an environmentally sound manner. India has introduced a program to reduce mercury demand based on the discussions between the government and the chlor-alkali sector. Although there was no fiscal incentive available to the chlor-alkali sector, it has been making a good progress toward the conversion to ion-exchange membrane cell process. Iran explained its plan to establish air emission standard in addition to waste and wastewater standards for mercury. Thailand introduced the amendment of Hazardous Substances Act 1992 that provides the notification to track the life cycle of hazardous substances including mercury. Bangladesh reported that the existing chlor-alkali plant conducts recovery of mercury and will convert to the membrane cell process by phases. Pakistan introduced the progress of project for identification and quantification of mercury with the support of UNEP.

5. During Session 2 (Targets for Global Mercury Management), the Meeting Secretariat presented the necessity and theoretical way of setting targets and suggested possible practical targets. UNEP Chemicals pointed out that it is desirable to focus on up stream measures which will later reduce the problem of wastes, and mentioned a draft of the UNEP report on atmospheric emissions of mercury will be available for the OEWG2. Japan pointed out that there is a need to establish a periodic assessment framework for global mercury management in LBI, if we proceed to LBI. Tuvalu pointed out that there is a significant use of mercury in kew pattern barometers, and that these posed disposal problems because they are being phased out. India proposed that application of different targets for different sources is needed because mercury management efforts are different from country to country. China said that it is important to set targets for specific actions, but setting an overall policy target is more important, because the necessity of the measures to address the mercury issues is not doubted.
6. During Session 3 (Health Damages by Mercury and Actions for Risk Reduction in Japan), Mr. Ito from MOEJ gave an overview of Japan's experiences including lessons learned from Minamata Disease, policy and measures on mercury reduction, and research and monitoring. He explained that damage compensations for mercury pollution in Minamata were about 100 times higher than costs for pollution control and prevention measures.
7. Dr. Akira Yasutake, Chief, Biochemistry Section, National Institute for Minamata Disease, introduced hair mercury levels and fish mercury levels in Japan. He pointed out that larger carnivorous fish have higher mercury concentrations compared to small ones, and recommended to consume smaller fish. Kiribati expressed their concern about mercury in fish because his country relies on marine resources.
8. Dr. Hajime Nishimura, Emeritus Professor of the University of Tokyo, gave a presentation on bird's eye view for practitioners for handling mercury problems. He suggested that the practitioner should start with identifying industrial process for mercury release.
9. Dr. Tetsuya Kameyama, President of the Japanese Society for the History of Chemistry, talked about conversion of mercury cell process to ion-exchange membrane process. He pointed out that the tragedy of Minamata Disease was a driving force in introducing a government policy to change the caustic soda production process, and that the government policy facilitated technology innovation. He also advised that some Asian countries such as India and China have been adopting the ion-exchange membrane process.

10. Mr. Hiroshi Miura, Director Charge of Planning Department, Nomurakohsan Co., Ltd., gave a presentation on recycling and collection system for mercury-containing waste. For the municipal mercury-containing waste, such as fluorescent lamps, local governments collect the wastes separately and send them to the recycling plant (Nomurakohsan) for processing. In response to a question, he explained that the municipal governments pay the treatment fee. He confirmed that it takes some time to increase awareness of consumers to cooperate for separate collection of mercury-containing wastes.
11. Mr. Masashi Taguchi, Executive Managing Director of Nippon Instruments Corporation, gave a presentation on inexpensive double-amalgamation mercury analyzer suitable for field research of air samples. An analyzer was displayed outside of the meeting room.
12. Dr. Yasutake made an announcement on the International Conference on Mercury as a Global Pollution to be held in China June 2009 and informed the participants of a possible financial support by the National Institute for Minamata Disease to Asian researchers to attend the meeting. Detailed information including the application form for the support will be uploaded on the website.
13. During Session 4 (Measures to Address Priority Issues), the meeting secretariat explained the structure of the OEWG2/11 document which organized response measures by cluster and included annotation of national and international measures. UNEP Chemicals clarified that measures classified as international in the document do not necessarily require legal basis. India suggested that pre-treatment of coal before combustion should be listed as an international measure because it requires high technology. UNEP Chemicals clarified that the measure referred only to coal washing. Thailand raised a point about the measures on financial consideration and capacity building which were not available in the table 4.2 of the UNEP (DTIE)/Hg/OEWG.2/11. This issue will be one of the important aspects to be discussed in the OEWG2 and in the future meetings.
14. During Session 5 (Options for Mercury Management Framework), the participants made general points and identified priority of the elements suggested in OEWG 2/4 and 2/8. Participants also expressed their view on the three options for mercury management framework. The points are summarized in the attached paper as Appendix 1.
15. In Session 6 (Cooperation Mechanisms for Global Mercury Management), the meeting secretariat gave a presentation on possible subject of cooperation, possibly available cooperation mechanisms including GEF, QSP Trust Fund, Kyoto mechanisms, projects/programs by bilateral/multilateral aid agencies, and new financial mechanism. The meeting secretariat added that more detailed information about JICA projects is available at the website (<http://lvzopac.jica.go.jp/library/indexeng.html>) and that JICA projects are based on requests from developing countries. In responding to question, UNEP Chemicals clarified that QSP Trust Fund has a budget of 6-10 million USD per year but will last in 2011 and that QSP Trust Fund might extend its lifetime if there are funds remaining. Sri Lanka expressed its priority as “increase knowledge” including national mercury inventory and monitoring and “waste management”, and mentioned that most of the countries need support for such areas. Mongolia said that technology transfer of mercury-free alternatives for artisanal gold mining is important for developing countries. Kiribati stated that small countries like Kiribati need support for strengthening administrative capacity and increasing knowledge because financial resources are often used up for larger countries. Bangladesh also expressed that strengthening administrative capacity including preparation of national inventory, raising public awareness, replacement of products containing mercury, and monitoring of mercury levels. Vietnam listed

priority areas for cooperation as capacity building to manage mercury, awareness raising, development of technical measures to reduce mercury emissions from power and other sectors. Japan commented necessary steps to manage mercury such as 1) capacity building of relevant national administration, 2) preparation of an emission inventory, 3) formulation of a national action plan, and 4) implementing investment projects.

16. During Session 7 (Issues for the Asia-Pacific Region at the OEWG2), the meeting secretariat presented a draft paper on the issues and the participants worked out finalizing the draft. The outcome of the discussion is summarized in a tentative draft paper titled “Issues to be addressed by Asia-Pacific countries on Global Mercury Management” as Appendix 2. The draft will be finalized based on the comments made in the session and distributed to the participants of this meeting, participants registered for the OEWG2, and the participants of OEWG1. The Chair will finalize the tentative draft based on the comments received from those mentioned above and ask the possibility of formulate it as an INF paper of the OEWG2. The Asia-Pacific regional meeting on 6 October, prior to the OEWG2, will discuss the draft.
17. In the closing session, Chair thanked all the participants for their contributions and efforts that led the success of this meeting. Since the participants agreed on disclosure of the Chair’s summary, she announced that she would distribute it to those who are in charge of UNEP mercury process. Participants agreed to circulate it to the Asia-Pacific region countries to ask the possibility to disseminate it as an INF paper in OEWG2.
18. Participants expressed their high appreciation to the Government of Japan for holding this meeting, Ms. Segawa for chairing the meeting, and the meeting secretariat for their efforts.

Appendix 1: Summary of Session 5

1. General Points

There was a diversity of views regarding the need for international framework and the potential of countries to address mercury issues at the national level. Regardless of need for any international framework, international cooperation is necessary for dealing with the mercury issues. The option that can have a wider participation would be the best.

2. Priority of Elements

- Increase of knowledge (inventories, monitoring, assessments of the impact of mercury on human health and the environment etc)
- Environmentally sound management of mercury-containing waste
- Reduction of amount of mercury containing products
- BAT/BEP (disposal, storage, process conversion, end-of-pipe technologies etc.)
- International cooperation and technology transfer

3. Comments on the Three Options

Each of the country representatives was asked to comment on the elements outlined in OEWG 2/8 and the options paper 2/4. Regarding any Legally Binding Instrument, several countries emphasized that there was a need to be specific about the scope (i.e. elements to be addressed in the LBI). Some countries are not in favor of LBIs and rather preferred voluntary framework. A general discussion followed, in which the following points were made, but they are not consensus.

Legally Binding Instruments (New Protocol under the Stockholm Convention, Free-standing Convention) would have advantages such as strongly appealing to domestic stakeholders about the importance of mercury issues, facilitating actions to address mercury issues, covering other heavy metals if mandated by GC in the future and be easier for donors to provide financial resources. However it has disadvantages such as needing consultations with national stakeholders and ratification which requires parliament approval, taking time for negotiation, depending on ability of countries to implement, and putting more burden on developing countries in terms of dealing with more number of conventions

Voluntary framework (e.g. SAICM) has advantages such as taking less time to agree, a possibility of utilization of QSP Trust Fund (if its timeframe is extended), and a potential to mobilize additional funds to implement measures related to mercury issues. It would encourage developing countries to join an international framework. Disadvantage may include a difficulty to secure long-term, stable financial resources.

4. Other Comments

- Implementation feasibility should be examined from technical and financial points of view.
- We need to take this opportunity to increase knowledge and capacity to deal with mercury.
- Phasing-out of mercury trade could be difficult because there are uses considered to be essential.
- Option that can have a wider participation would be the best option.
- Having scientific information such as emission inventories would be necessary to create LBIs.

- International action is necessary because of the character of mercury atmospheric (transported for a long-range, bioaccumulative, mobilized movement between environmental media).

5. Clarifications

- Synergies of the three Conventions (Basel, Rotterdam and Stockholm) are in the areas of administrative arrangements, technical issues and mobilization of resources.
- No need for amendment of the Stockholm Convention if we proceed to the Protocol under the Convention.

Appendix 2: Issues to be addressed by Asia-Pacific countries on Global Mercury Management (draft)

Recognition of current conditions and issues of mercury management in Asia-Pacific countries

1. According to the UNEP draft Report on Atmospheric Emissions of Mercury, global mercury emissions in 2020 would increase by about 25% compared to those in 2005 if the countries on the earth do not take appropriate actions.
2. Mercury emissions in Asia and Pacific are more than in any other regions in the world and may continue to increase. Asia-Pacific countries recognize that reduction of mercury emissions in this region would help to reduce global mercury emissions. Asia-Pacific countries recognize also that it is a tough and complex task involving economic, social, technical, and financial factors which need further studies regarding response measures for this region.
3. Major sources of mercury emissions are different from country to country, which include coal combustion facilities, production facilities of cement, non-ferrous metal, chlor-alkali, VCM and CFL/FTL, artisanal gold mining, and waste disposal and incineration facilities.
4. Asia-Pacific countries have taken/are taking actions to reduce mercury emissions such as conversion of industrial production processes, reduction in products containing mercury, and environmentally sound management of wastes. However, due to increase in economic activities in the region, mercury emissions are not indicating decreasing trend due to lack of financial resources and access to clean technology.
5. Asia-Pacific countries recognize the importance of taking appropriate actions in accordance with national circumstances and priorities to strengthen mercury management in order to reduce risks on human health and the environment from anthropogenic mercury emissions.

Priority actions in Asia-Pacific countries

1. Priority actions in Asia-Pacific countries are as follows:
 - Increase knowledge
 - Environmentally sound management of mercury-containing waste
 - Reduction of amount of mercury containing products
 - BAT/BEP (disposal, storage, process conversion, end-of-pipe technologies etc.)
 - International cooperation and technology transfer
2. Coal combustion is one of the major sources of mercury emissions in Asia-Pacific and may require efficiency improvement in coal combustion and energy conversion for mercury emission reduction. Asia-Pacific countries recognize these measures have environmental co-benefits such as reduction in SO_x and particulate matters, and CO₂ in terms of energy efficiency improvement depending upon the technologies used.
3. It is likely that Asia-Pacific contributes to a large mercury demand for batteries and chlor-alkali industry and has significant artisanal gold/silver mining. Asia-Pacific countries recognize the importance of reducing mercury demands in these areas.
4. Medical sector may explore a possibility of using non-mercury alternatives.

Elements and options for mercury management framework

About the elements and options for mercury management framework, Asia-Pacific countries would like to bring up the following points:

1. There was a diversity of views regarding the need for international framework and the potential of countries to address mercury issues at the national level. Regardless of need for any international framework, international cooperation is necessary for dealing with the mercury issues.
2. The option that can have a wider participation would be the best.
3. Regarding any Legally Binding Instrument, several countries emphasized that there was a need to be specific about the scope (i.e. elements to be addressed in the LBI) before reaching to logical conclusion on LBIs.

Asia-Pacific countries identified the elements with priority and their common issues as follows:

Elements with priority

- Increase knowledge
- Environmentally sound management of mercury-containing waste
- Reduction of amount of mercury containing products
- BAT/BEP (disposal, storage, process conversion, end-of-pipe technologies etc.)
- International cooperation and technology transfer

Common issues

- Implementation feasibility should be examined from technical and financial points of view.
- Research and development including periodic mercury assessment would be required.

Necessity of mechanisms to support actions by developing countries

- Most of the countries in the Asia-Pacific are in developing stage, which have limited budget, manpower, and applicable technologies for mercury management. Securing financial resources, human resource development, technical assistance is indispensable for them to tackle mercury emission reduction. A global mercury management framework should include mechanisms to secure these resources for developing countries.
- Asia-Pacific countries identify filling knowledge gap as high priority, including strengthening of administrative capacity, for example, preparing a national mercury emission inventory, monitoring mercury levels in food, and conducting effective awareness-raising.
- Asia-Pacific countries also identify the introduction of technologies is necessary in the field of improvement of coal combustion and environmentally sound management of mercury-containing waste.
- Utilization of QSP Trust Fund would be effective for securing financial resources to realize human resource development and technical assistance for mercury management. However, Asia-Pacific countries recognizes that QSP Trust Fund has its sunset in 2011, would need to be extended, and can provide financial resources to initiate projects for chemical management, which means it only provides financial resources up to USD 250,000.