



# **Mercury Waste Management Project: Implementation and Context**

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## **Outcome GC25**

- Achim Steiner “Historic Treaty to Tackle Toxic Heavy Metal Mercury Gets Green Light”;
- All governments united on the need for a legally binding instrument and immediate action towards a transition to a low-mercury world:
  1. Decision to launch negotiations on an international mercury treaty to deal with world-wide emissions and discharges of mercury;
  2. In parallel, because of significant risk to human health and the environment, accelerated action under a voluntary Global Mercury Partnership is needed;
- INC mandate may be supplemented by further decisions of the Governing Council.

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## **The eight-point partnership plan includes:**

- Boosting the world-wide capability for nations to safely store stockpiled mercury;
- Reducing the supply of mercury from for example primary mining of the heavy metal;
- Carrying out awareness raising of the risks alongside projects to cut the use of mercury in artisanal mining where an estimated 10 million miners and their families are exposed;
- Reducing mercury in products such as thermometers and high-intensity discharge lamps to processes such as some kinds of paper-making and plastics production.

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## **Develop a comprehensive and suitable approach to mercury, including the provisions:**

- a) To specify the objectives of the instrument;
- b) To reduce the supply of mercury and enhance the capacity for its environmentally sound storage;
- c) To reduce the demand for mercury in products and processes;
- d) To reduce international trade in mercury;
- e) To reduce atmospheric emissions of mercury;
- f) To address mercury-containing waste and remediation of contaminated sites;
- g) To increase knowledge through awareness-raising and scientific information.

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## **GC-25 Decision**

- *Requests* the Executive Director to convene an intergovernmental negotiating committee with the mandate to prepare a global legally binding instrument on mercury, commencing its work in 2010 with the goal of completing it prior to the twenty seventh regular session of the Governing Council/Global Ministerial Environment Forum in 2013;
- A meeting of Open-ended Working Group (OEWG) to be held in the second half of 2009.

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# UNEP Global Mercury Partnership

The partnership areas currently identified include:

- Mercury Management in Artisanal and Small-Scale Gold Mining
- Mercury Control from Coal Combustion
- Mercury Reduction in the Chlor-alkali Sector
- Mercury Reduction in Products
- Mercury Air Transport and Fate Research
- Mercury Waste Management ←

Proposed business plans are available for the following areas:

- Mercury Supply and Storage
- Non-Ferrous Metals Production

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## Mercury Waste Management Partnership

- UNEP Global Mercury Partnership established the Waste management partnership area;
- Partnership provides the framework for this “Global project on mercury waste management”;
- Draft Business Plan dated 7 August 2008 (includes this project);
- Lead country: Japan – Ms. Keiko Segawa, JME (2 years);
- Contribution from JME: USD 200,000;
- Objectives:  
Minimize and, where feasible, eliminate unintentional mercury releases to air, water, and land from waste containing mercury and mercury compounds by following a lifecycle management approach.

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## Priority Action Identified

- a) **Identify environmentally sound collection, disposal and treatment techniques for mercury waste following a lifecycle management approach**  
(Training Manual for Draft Basel Guidelines on ESM of Hg Waste, review available BAT/BEP for Hg waste management, develop pilot projects);
- b) **Assess environmental impacts of current waste management practices and processes, including providing support to countries to assess their national situation and needs**  
(improving national release inventories and the Mercury Toolkit, promote safe handling of Hg waste) ;
- c) **Promote awareness and education regarding mercury waste**  
(develop and disseminate educational materials).

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## List of Current Activities

- **Further development of Technical Guidelines on ESM of Hg Waste - in cooperation with SBC;**
- **WHO developing a Health Care Waste Management Manual;**
- **UNDP-GEF project “Demonstrating and promoting BAT/BEP for reducing health-care waste to avoid environmental releases of dioxins and mercury” in eight countries (ARG, IND, LBN, LVA, PHL, SEN, VNM);**
- **Multilateral activities: Training on hazardous waste management in Asia (JICA); Development of BAT/BEP guidelines on Hg waste management (JPN);**
- **National projects.**

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# Waste management

Waste management

Business plan

UNEP Global Mercury Partnership

Partners

- [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal:](#)

[Draft Technical Guidelines on Environmentally Sound Management of Mercury Waste \(3rd Version 23 October 2007\)](#)

- In support of the [Waste Management Partnership](#) under the [UNEP Global Mercury Partnership](#), Chemicals Branch is executing following activities:

[Mercury waste management project \(2008-2009\)](#)

[Addendum on technical and economic assessment of mercury-containing tailings \(2009\)](#)

[http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste\\_management\\_project.htm](http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste_management_project.htm)

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Waste management

Business plan

UNEP Global Mercury Partnership

Partners

## Waste management project (2008-2009)

This project, dealing with the management of mercury and mercury-containing waste, will contribute to the UNEP priority area on harmful substances and hazardous waste under its Medium Term Strategy with the ultimate goal of minimizing the impact of harmful substances and hazardous waste to the environment and human beings. Specifically, the project supports the UNEP medium term strategy objective by reducing releases of mercury into the environment and reducing the exposure of workers and communities to mercury and mercury-containing waste. The objectives of the project, which is executed by Chemicals Branch and funded by the Government of Norway, are:

- (1) to increase the technical capacity of selected countries and other stakeholders in assessing, managing and reducing the risks to human health and the environment posed by mercury and mercury-containing waste, and in doing so,
- (2) to test the applicability of the [Draft Technical Guidelines on the Environmentally Sound Management \(ESM\) of Mercury Waste](#).

This project builds on the results of the national mercury inventories that have been developed using the "[UNEP Toolkit for Identification and Quantification of Mercury Releases](#)." Participating countries are Burkina Faso, Cambodia, Chile, Pakistan, and Philippines.

This project will be complemented by a "sister" project presently developed by the Secretariat of the Basel Convention involving four countries from the Latin American region (GRULAC).

- Activities. Inception workshop ([Draft agenda](#), [participant information](#))
- Project document: [Project approved](#), [Annex](#) (country information)



UNITED NATIONS ENVIRONMENT PROGRAMME  
PROJECT DOCUMENT

**Section 1: Project identification**

- 1.1 Title of subprogramme: **Harmful Substances and Hazardous Waste**
- 1.2 Title of project: **Management of Mercury and Mercury-Containing Waste**
- 1.3 Project number\*: (to be allocated by BFMS)
- 1.4 Geographical scope: **Asia - Cambodia, Pakistan, Philippines; Africa - Burkina Faso**
- 1.5 Implementation (internal, or cooperating agency or supporting organization)
- 1.6 Duration of the project : (Total number of months) **17 months**  
**Commencing:** 1 August 2008  
**Completion:** 31 December 2009
- 1.7 Cost of project: (Expressed in US \$)

	US\$	%
Cost to the Environment Fund		
Cost to Trust Fund		
Cost to Earmarked Contribution	462,963	92%
Cost to the Cooperating Agency/Supporting Organization		
Programme Support Cost (8%)	37,037	8%
In-kind Contribution (including UNEP contribution) 20% staff time (30,000 USD); communication services		
<b>Total Cost of the Project</b>	<b>500,000</b>	<b>100%</b>

1.8 Potential donor: Norway

For UNEP

  
 Sylvie Lemmer, Director  
 Division of Technology, Industry, Economics  
 (DTIE)

Date:

# Hg Waste Projects

## Norwegian package (NF10):

Management of Mercury and Mercury-containing Waste

Period: 8/2008-12/2009

Budget: USD 500,000



# Objectives – Partners

## Objectives:

- To increase the technical capacity to manage mercury waste in an environmentally sound manner;
- Contribution to the further development of the Draft Basel Technical Guidelines (OEWG, May 2010)

## Participating developing countries:

- Burkina Faso, Cambodia, Pakistan, Philippines (NF), and Chile (Hg-TF)
- Sister project in Latin America by SBC (next slides).



## SBC Sister Project (1)

**Title of project:** Minimization and environmentally sound management of mercury containing waste affecting most exposed populations in various economic sectors, including the health sector in several countries in Latin America and the Caribbean in the context of the implementation of the Basel Convention.

**Geographical scope:** Argentina, Costa Rica, and Uruguay.

**Implementation:** Basel Convention Coordinating Centre for Latin America and the Caribbean Region, Montevideo, Uruguay

**Duration:** 18 months (March 2009-August 2010)

**Total cost:** USD 323,676

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## SBC Sister Project (2)

**Scope:**

- To help three countries in the Latin American and Caribbean region to enhance capacity to minimize and manage in a sound manner mercury waste in the health sector as well as in other sectors;

**Activities include:**

- Assistance to countries to develop national inventories of mercury-containing waste;
- Further guidance to national authorities to prepare national management plans for the ESM of mercury waste;
- To facilitate the realization of *in-situ* mercury waste storage facilities (at least one pilot) as a low cost solution;
- Agree on a concerted approach on the storage of Hg waste in the region;
- Hold awareness raising workshops involving national public and private sector actors in the development of national plans for the ESM of mercury waste.

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## Activities under the UNEP Waste Project

1. Review of the national mercury inventories;
2. Prioritization of mercury sources and the corresponding sectors;
3. Development of a national mercury waste management plan;
4. ESM application in selected sources and sectors;
5. Sampling and mercury analysis of environmental and human samples;
6. Final national reports and final project report; lessons learned; evaluation of project.

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## Supplementary Environment Fund

- Technical/chemical and economic assessment of mercury-containing and Hg-contaminated tailings from the mining sector in developing countries;
- Period: 1/12/2008-31/12/2009; Grant: USD 200,000;
- Participating countries: Chile (CONAMA) and Ghana (NEPA);

### Objectives

- In the mining sector – at large scale or small scale - mercury has two roles:
  1. Mercury is extracted from cinnabar as a sellable product, and
  2. Mercury is used in extraction of precious metals, *e.g.*, gold, silver, copper;
- Both processes leave tailings containing quite high concentrations of heavy metals around the excavation and production sites; thus, making them “contaminated sites”;
- The tailings may pose a risk to the environment - through leachates, evaporation and erosion - and the general population;
- Undertake a feasibility study on cost-benefit analysis and assess the options that the mercury or the precious metal content – as a sellable product – will pay for the environmentally sound remediation of such sites.

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## Project Activities Underway

- WebPage developed [http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste\\_management\(1\).htm](http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste_management(1).htm);
- International consultant contracted for Hg Waste Management Project;
- SSFAs with participating countries agreed and signed (4 out of 5);
- Mercury expert laboratory identified =University of Aberdeen (SSFA under development);
- Inception workshop for Mercury Waste Management Project, 4-6 March 2009, Siem Reap, Cambodia;
- 1<sup>st</sup> partnership meeting, 12-13 March 2009, Tokyo (organized by JME).

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## Objectives of Global Inception WS

- Bring all project partners together: Participating governments, international consultant, mercury laboratory;
- Learn to know each other ⇒ networking between countries and partners;
- Information exchange on existing data and national realities;
- Agree on common understanding of major components of the project;
- Agree on workplan and timetable;
- Agree on samples and analysis;
- Agree on outputs and deliverables.

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## References

- **Mercury waste partnership:**  
[http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste\\_management.htm](http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste_management.htm)
- **Mercury waste management project:**  
[http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste\\_management\\_project.htm](http://www.chem.unep.ch/mercury/Sector-Specific-Information/Waste_management_project.htm)
- **Draft Basel Guidelines on ESM of Mercury Waste:**  
<http://www.basel.int/techmatters/mercury/guidelines/301007.doc>