



# UNEP Chemicals

July 2005

## Mercury Programme

### GLOBAL MERCURY ASSESSMENT REPORT

Completed in 2002 by a UNEP Working Group upon the request of the UNEP Governing Council, the report contains extensive information on numerous topics relevant to mercury pollution and options for reducing the impacts.

The full report is now available in both English, French and Spanish.

Hardcopies can be obtained by contacting UNEP Chemicals or downloading them from our mercury webpage at [www.chem.unep.ch/mercury/](http://www.chem.unep.ch/mercury/)

### Environment leaders continue to call for action on mercury

The UNEP Governing Council (GC) met for its 23<sup>rd</sup> session in Nairobi, Kenya from 21-25 February 2005. During the discussions relating to mercury, which have been in progress since 2001, the mercury programme, established in 2003, was further strengthened by GC Decision 23/9 IV. The decision requests UNEP to develop, for consideration at its 24<sup>th</sup> session, a report on supply, trade and demand for mercury on the global market and also to facilitate the establishment of partnerships between Governments and other stakeholders, as one approach to reducing risks to human health and the environment from mercury. The decision also encourages Governments, intergovernmental organizations (IGOs), non-governmental organizations (NGOs) and the private sector to take immediate actions to reduce the risks to human health and the environment posed on a global scale by mercury in products and production processes.



UNEP Headquarter, Nairobi, Kenya

The GC will again consider progress and assess, at its 24<sup>th</sup> session, the need for further action on mercury, considering a full range of options, including the possibility of a legally binding instrument, partnerships and other actions.



A drop of mercury

### Global Mercury Assessment shows humans and wildlife at risk from mercury pollution

The Global Mercury Assessment finds that environmental mercury levels have increased considerably since the on-set of the industrial age. Mercury is now present in various media and food (especially fish) all over the globe at levels that adversely affect humans and wildlife. Widespread exposures are occurring due to human-generated sources. Even regions with no significant mercury releases, such as the Arctic, are adversely affected due to long-range transport of mercury.

Mercury is highly toxic, especially to the developing nervous system. Some populations are especially susceptible, most notably the fetus and young children. Yet mercury continues to be used in many products and processes all over the world, including in small-scale gold mining; manometers and thermometers; electrical switches; fluorescent lamps; dental amalgams, and some pharmaceuticals. The most significant mercury releases to the environment are emissions to air, but mercury is also released from sources directly to water and land. Important emissions sources include: coal-fired power generation, waste incineration, cement, steel and chloralkali production, mining, cremation and landfills.

Once released, mercury persists in the environment where it circulates between air, water, soils and biota in various forms. Once deposited, the form can change (by microbes) to methylmercury, a particularly hazardous form that concentrates up food chains, especially the aquatic food chain. Most people are primarily exposed to methylmercury through the diet (especially fish) and to elemental mercury due to dental amalgams and occupations (such as small-scale mining). Other sources of exposure include skin-lightening creams, mercury used for ritualistic purposes and in traditional medicines and mercury spills in the home.

Fish are a valuable, nutritious component of the human diet. Mercury is a major threat to this important food supply. Elevated mercury levels have been measured in numerous fish species throughout the world, with the highest levels found in large predatory fish. Humans who consume significant amounts of contaminated fish are at risk. Also, wildlife that rely on fish as a large part of their diet, such as otters, eagles, seals and some whales, often have considerably elevated mercury levels.

Many nations have implemented actions to limit mercury uses, releases and exposures. However, further actions are needed to protect humans and wildlife from mercury pollution.



Tuna



Bald eagle

FAO

US Fish and Wildlife Service

**WEBPAGES:  
MERCURY PROGRAMME,  
AND LEAD AND  
CADMIUM ACTIVITIES**

By accessing these webpages, stakeholders can stay updated on progress within the various activities under the mercury and other metals programme towards the next UNEP GC meeting in February 2007.

[www.chem.unep.ch/mercury](http://www.chem.unep.ch/mercury)  
[www.chem.unep.ch/Pb\\_and\\_Cd/](http://www.chem.unep.ch/Pb_and_Cd/)

For more information, you can also contact UNEP Chemicals directly at the address given below.



Measuring devices containing mercury

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*UNEP promotes the environmentally  
sound management of chemicals and so  
helps protect public health and the environ-  
ment. It advances sustainable development  
by catalysing vital global actions and build-  
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ment of chemicals through information  
exchange, training, and capacity building.*

## UNEP Mercury Programme

The long-term objective is to substantially reduce or eliminate uses and anthropogenic releases of mercury through the implementation of national, regional and global actions, thereby significantly reducing global adverse impacts on health and the environment. The immediate objective, as requested in GC decisions 22/4 V and 23/9 IV, is to initiate technical assistance and capacity-building activities to support the efforts of countries to take action regarding mercury pollution, as appropriate, with the objective of identifying exposed populations and ecosystems and reducing anthropogenic mercury releases which impact human health and the environment.

In order to achieve these objectives, the programme is focusing on the following activities:

- Facilitate and conduct technical assistance and capacity-building activities by (i) developing risk communication materials, guidance materials, toolkits and training materials, (ii) organizing substantive workshops and training sessions, as appropriate, and (iii) developing a clearinghouse for mercury-related information, with relevant information distributed through the Internet and also using other media;
- Develop a report summarizing supply, trade and demand information for mercury, including in artisanal and small-scale gold mining. The information for such a report will be collected and a first draft of a report will be circulated to Governments and other stakeholders for comments during the first half of 2006. The report will be published in October 2006, well in ad-

Organizing awareness-raising workshops on mercury pollution in different regions of the world were among the priority activities of the programme in 2004/5, with a participation in total of more than 110 countries.

## Establishment of partnerships

Governments, intergovernmental and non-governmental organizations and the private sector have, through Governing Council decision 23/9 IV, been urged to develop and implement partnerships, in a clear, transparent and accountable manner, as one approach to reducing the risks to human health and the environment from the release of mercury to the environment. To initiate that process, UNEP has already invited Governments, particularly of developing countries and countries with economies in transition, to identify, in consultation with stakeholders, priority partnership areas as soon as



Concentration of gold ore with sluice boxes in Tanzania

UNIDO

vance of the 24<sup>th</sup> session of the GC, to which it will be submitted for consideration;

- Facilitate the development of partnerships between Governments, IGOs, NGOs and the private sector (see below for details);
- Consult and cooperate with international organizations that address issues related to mercury, and seek partnerships with NGOs and the private sector;
- Promote mobilization of technical and financial resources from Governments, relevant international organizations within their respective mandates and other partners in order to support national, regional and global efforts and capacity-building;
- Prepare a meeting document for the GC's consideration at its 24<sup>th</sup> session, in February 2007, to facilitate discussion of further measures for addressing the significant global adverse impacts of mercury and other heavy metals.

possible, with the goal of identifying a set of pilot partnerships by 1 September 2005. UNEP is working with Governments and relevant stakeholders to compile and report needs identified to execute the partnerships and assist in the mobilization of resources in support of those partnerships. Currently UNEP is sharing and disseminating information on progress gained by Governments and other stakeholders in implementing such partnerships through its mercury programme web page, prior to the 24<sup>th</sup> session of the GC in 2007.

## Review of scientific information on lead and cadmium

Action on other heavy metals were among key decisions at the UNEP Governing Council meeting in 2005. Emphasizing the need to better understand how heavy metals move through the atmosphere, seas and rivers, UNEP Chemicals was requested to initiate a process to undertake a review of scientific information on lead and cadmium, focusing especially on long-range environmental transport, to inform future discussions on the need for global action in relation to these two metals.

The process has already been initiated by inviting Governments, IGOs, NGOs, the private sector and the academia to submit information on lead and cadmium, especially relating to long-range environmental transport. In addition, they were invited to nominate members for the establishment of an open-ended working group on lead and cadmium which will be participating in the technical review and finalization of the reviews, possibly including through a meeting of the working group in mid-2006.