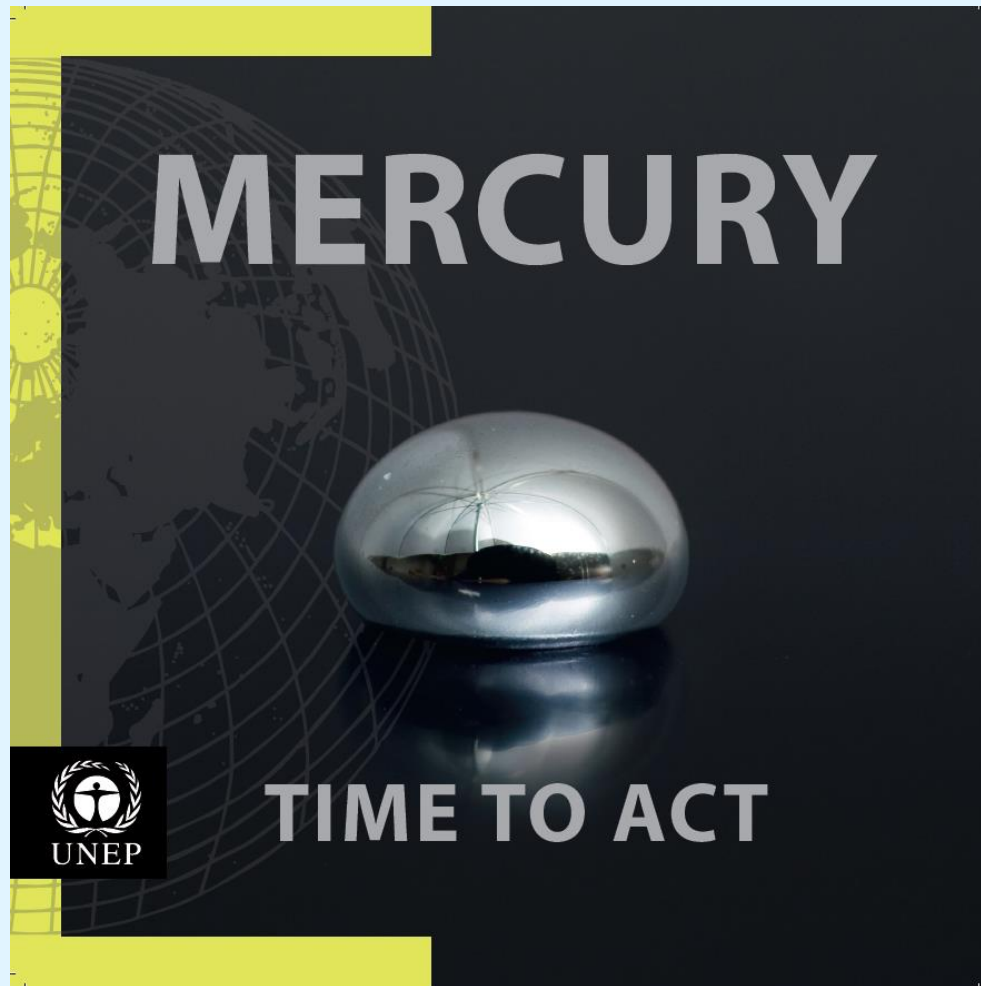


# MINAMATA CONVENTION ON MERCURY



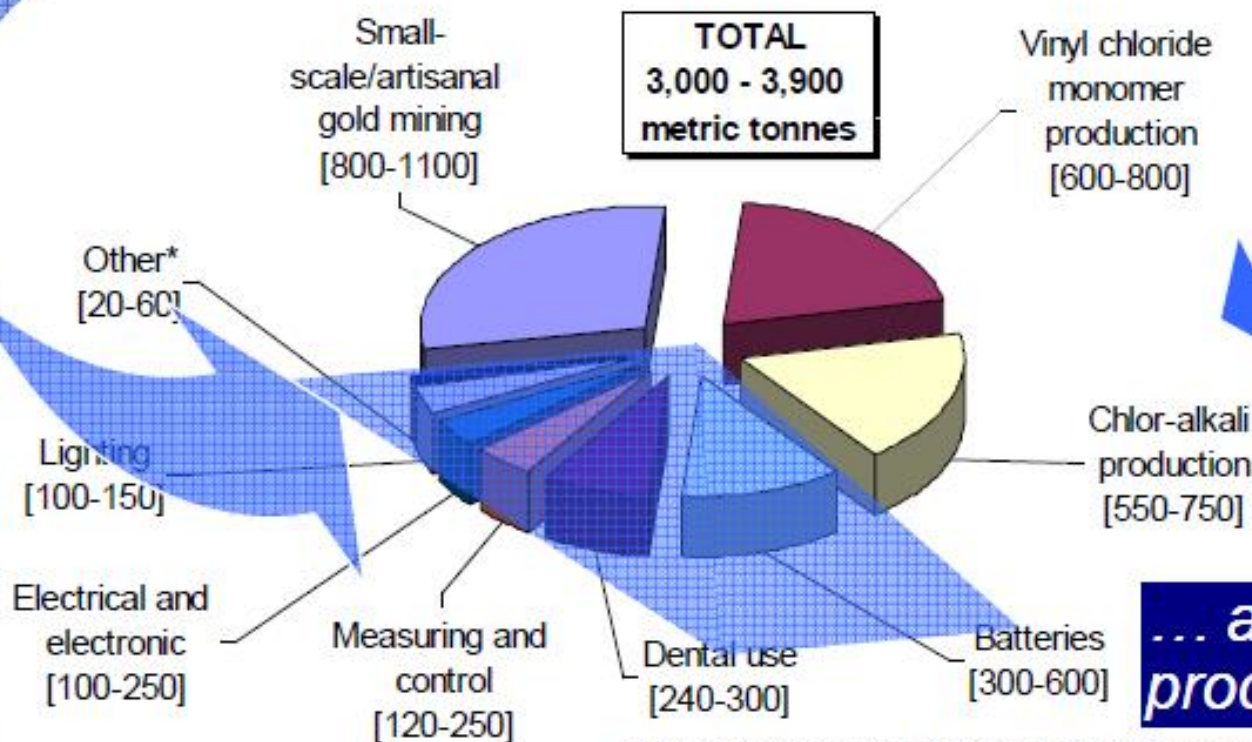
Matti Verta  
SMaReF Seminar  
May 2014

# “Intentional use”

Driving moves towards mercury-free alternatives for key products ...



**Global mercury demand by use, 2005 (metric tonnes)**



\* Laboratory, pharmaceutical, cosmetic, cultural/traditional uses, etc.

P. Maxson, "Mercury flows and safe storage of surplus mercury," for the Environment Directorate, European Commission, August 2008 (with data ranges). See [http://ec.europa.eu/environment/chemicals/mercury/pdf/hg\\_flows\\_safe\\_storage.pdf](http://ec.europa.eu/environment/chemicals/mercury/pdf/hg_flows_safe_storage.pdf)

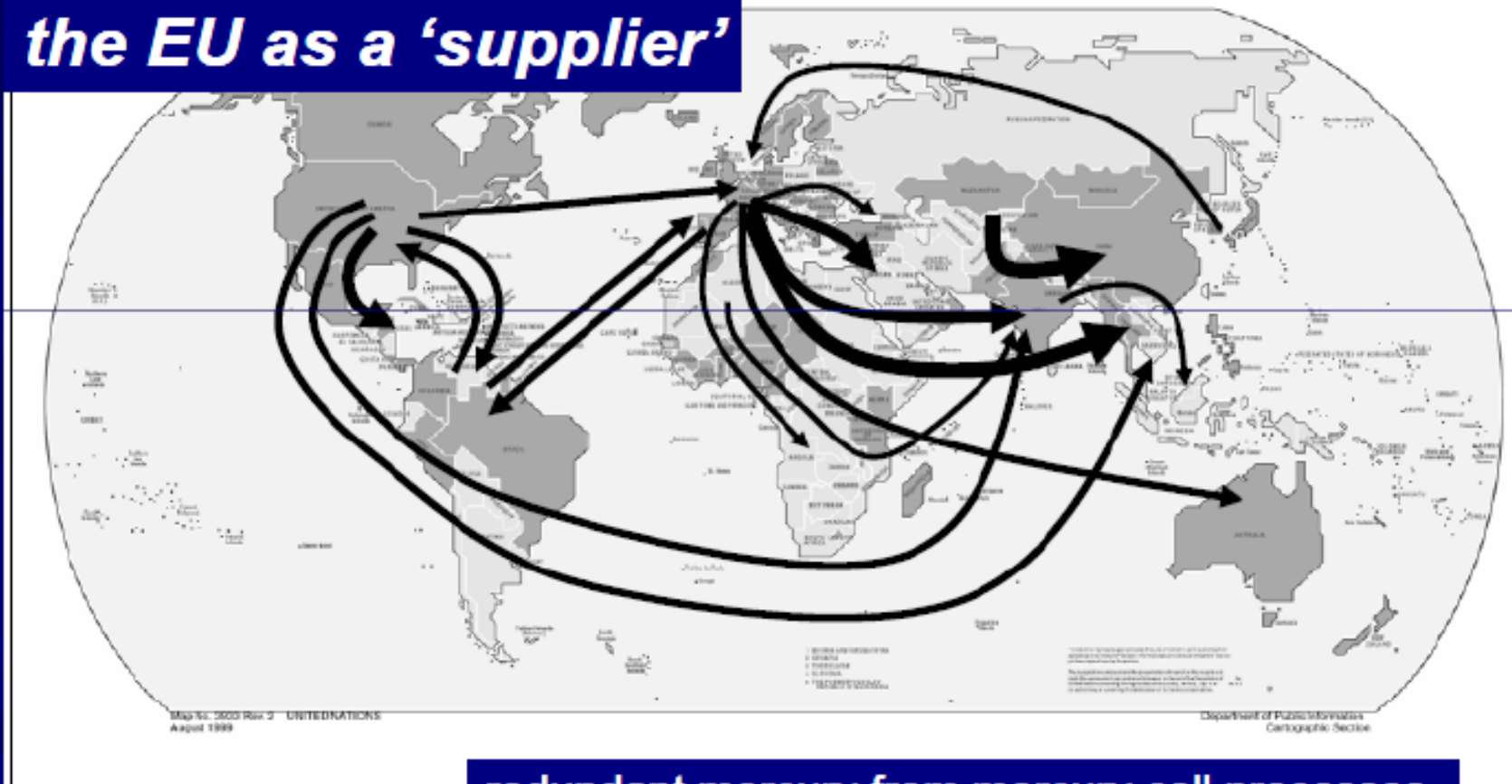
**... and processes**

# Mercury trade flows

Figure 4 Commodity mercury shipments among world regions, 2004



**the EU as a 'supplier'**



redundant mercury from mercury cell processes  
– internal reuse + export to ?  
**Export ban**

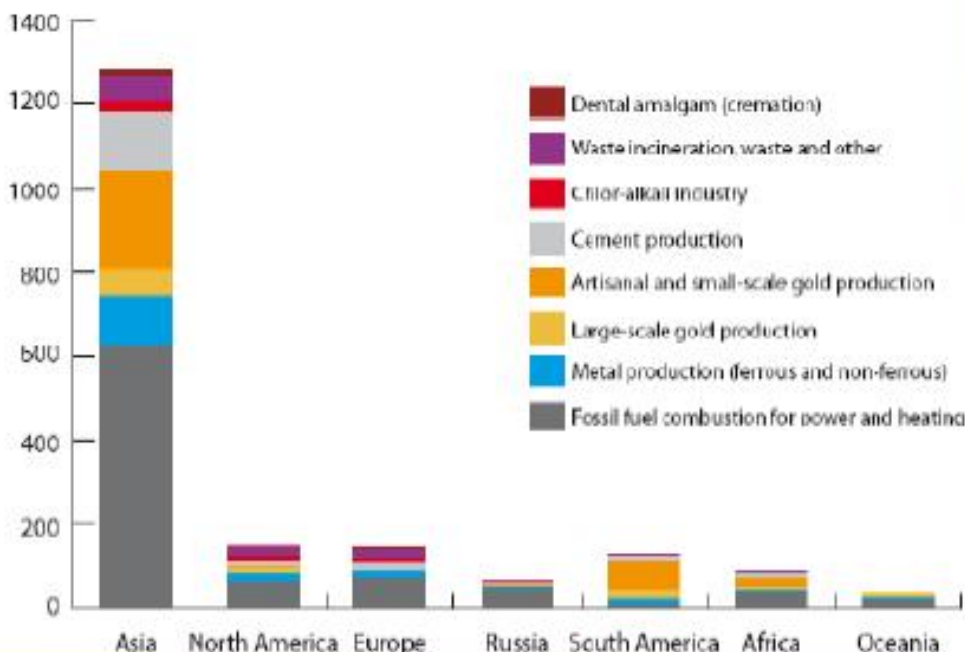


# “Unintentional releases”

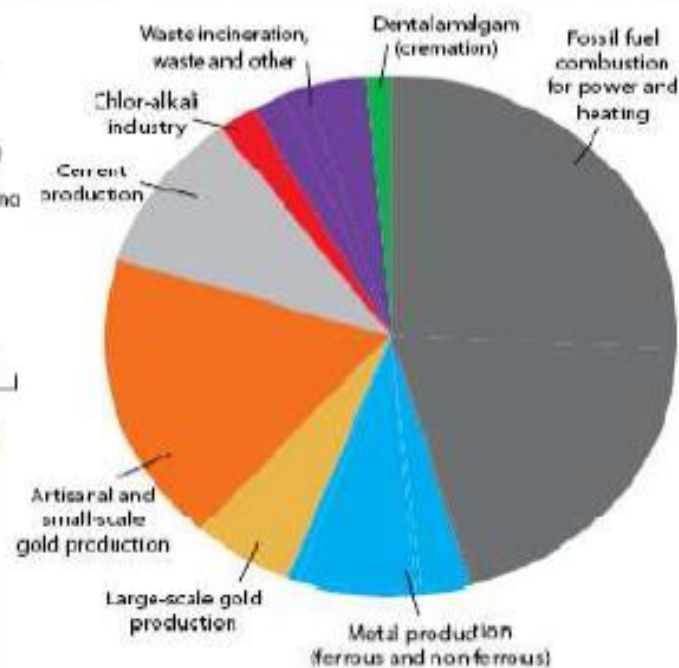


Emissions of mercury to air in 2005 from various anthropogenic sectors in different regions

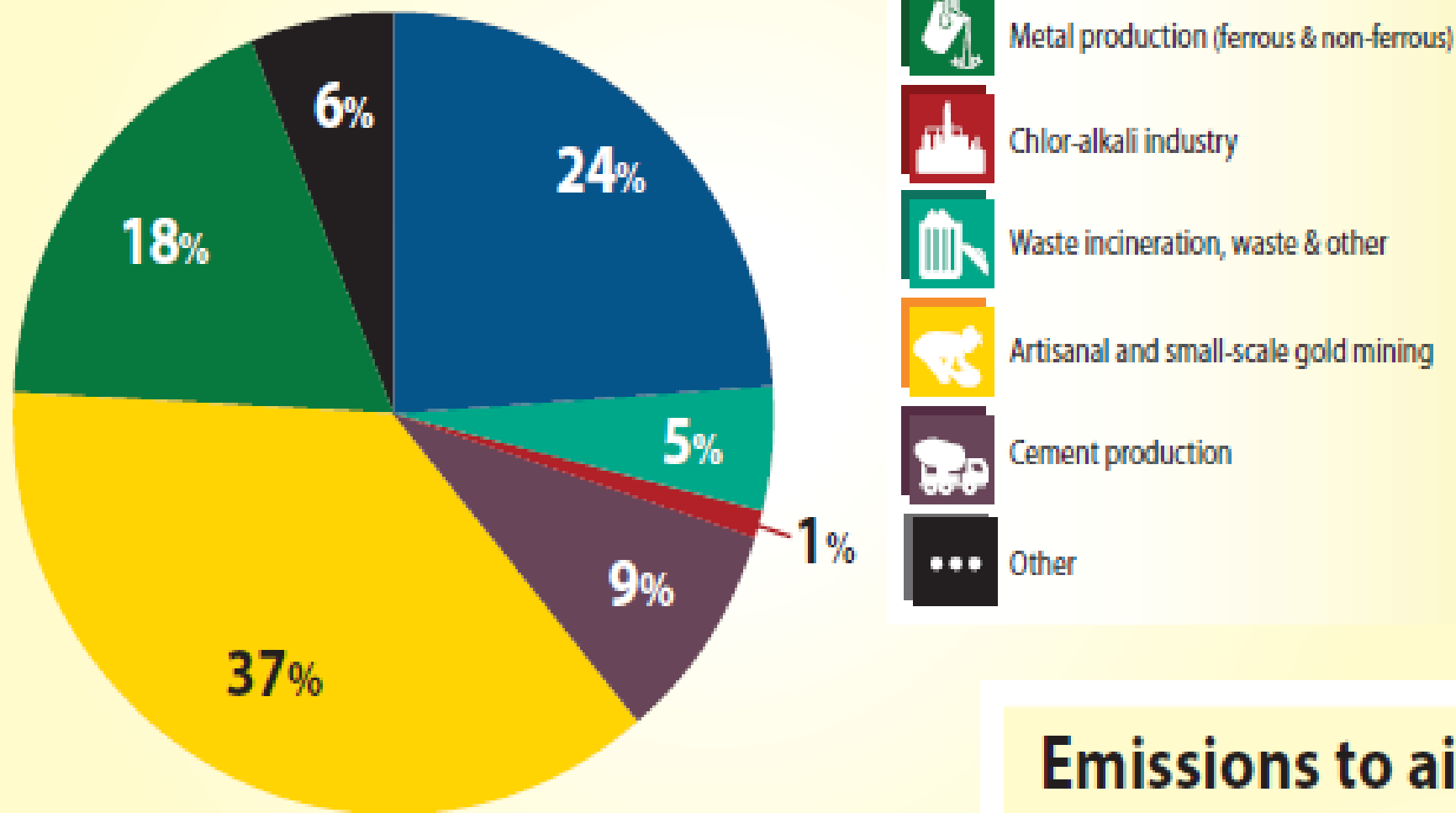
Mercury emissions, tonnes



*tackling emissions to air from key sectors and managing resulting residues and wastes*



# Global anthropogenic mercury emissions in 2010



## Emissions to air

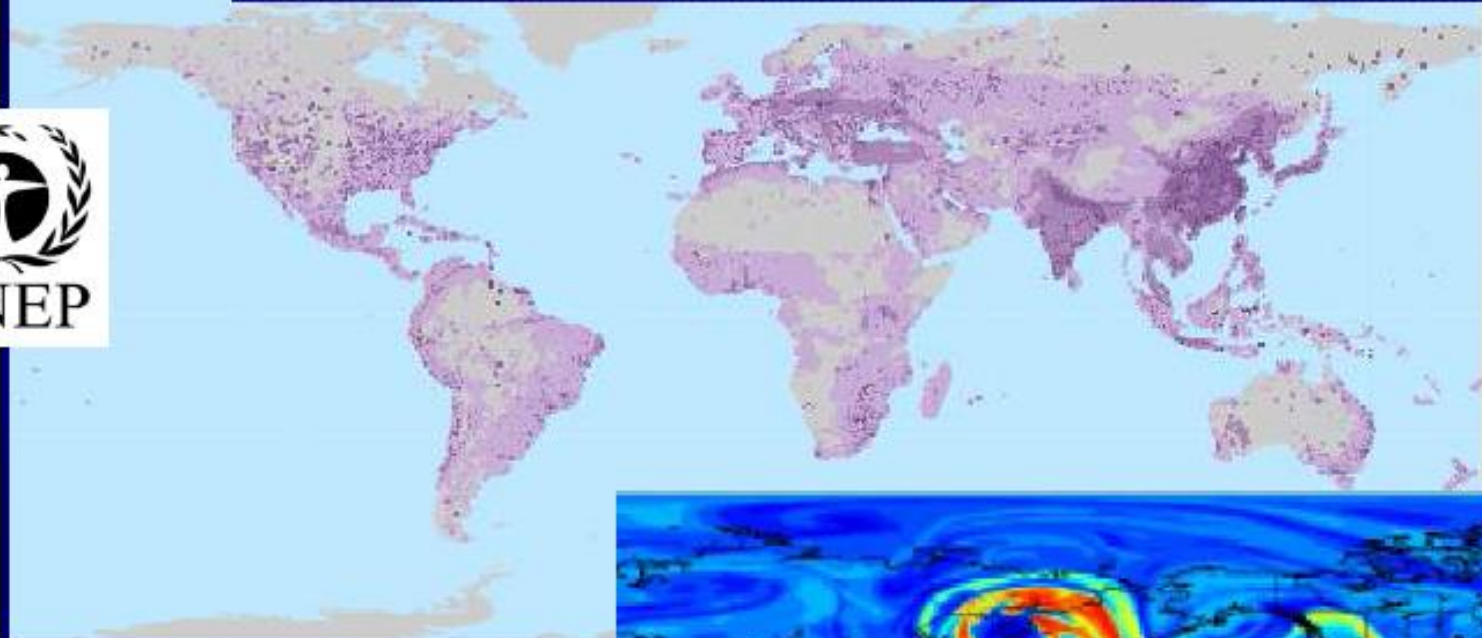
tonnes

2,500

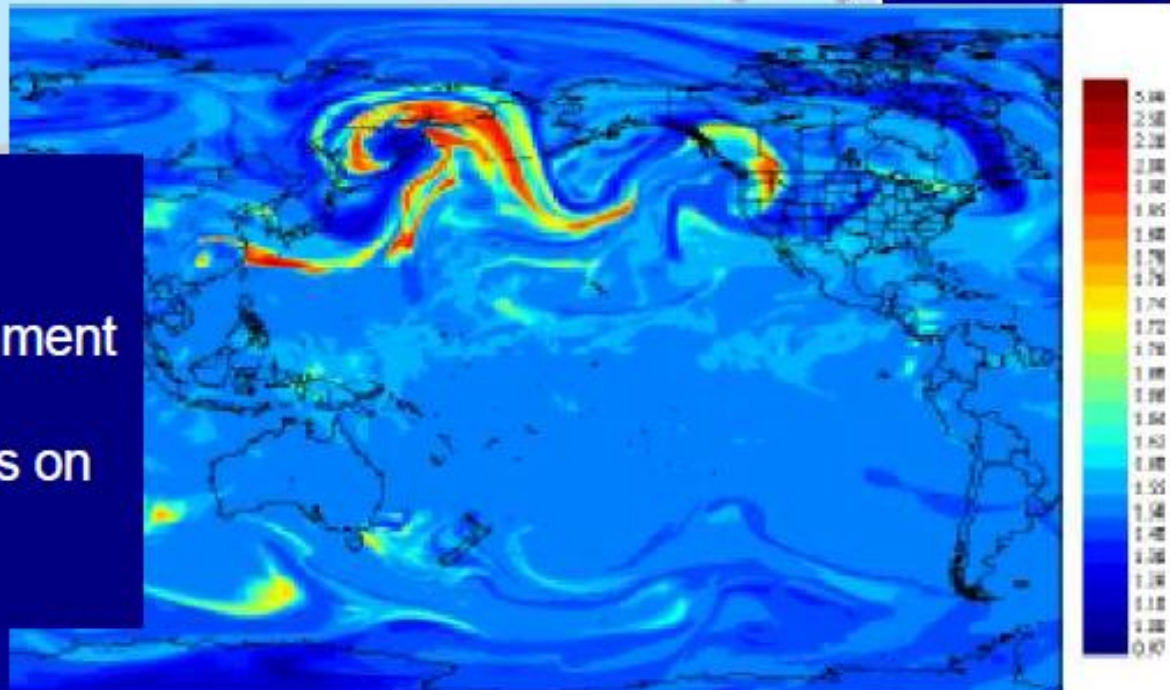
Source: Adapted from UNEP, Global Mercury Assessment 2013: Sources, Emissions, Releases and Environmental Transport, 2013.

Designed by ZoI Environment Network / GRID-Arendal, December 2012.

# A chemical of global concern



- Long-range atmospheric transport
- Persistence in the environment
- Bio-accumulation
- Significant negative effects on human health and the environment



# MINAMATA CONVENTION ON MERCURY

- **”The Minamata Convention will protect people and improve standards of living for millions around the world, especially the most vulnerable. Let us strive to achieve universal adherence to this valuable new instrument, and advance together towards a safer, more sustainable and healthier planet for all.”**

**Secretary- General of the United Nations  
Ban Ki Moon, 10.10. 2013**



# A legally-binding instrument



*...including provisions to:*

- Reduce supply and enhance capacity for sound storage;
- Reduce demand;
- Reduce international trade;
- Reduce atmospheric emissions;
- Address waste and remediation of contaminated sites
- Increase knowledge;
- Build capacity and technical and financial assistance;
- Specify the objectives;
- Address compliance

*...considering the following:*

- Flexibility
- Tailored approaches to specific sectors,
- Availability of Hg free alternatives
- Cooperation and coordination,
- Prioritization of sources
- Co-benefits of conventional controls and other environmental benefits,
- Efficient organization
- Addressing risks to human health and the environment



# Mercury supply sources and trade

- Parties shall not allow new primary mercury mining
- Transition time 15 years for existing mining during which Hg shall only be used in allowable use
- Identification of Hg stocks
- The excess Hg from decommissioned chlor-alkali facilities is waste
- Export of Hg denied but only for allowed purposes or sound storage.

# Mercury added products

- **Manufacture, import or export of Hg containing batteries, switches and relays, lamps, cosmetics, pesticides, biosides and non-electronic measuring devices is not allowed from 2020**
  - **Limit values for Hg content that is accepted**
- **The use of dental amalgam shall be minimized**
- **Secretariat maintains information on allowable uses and their alternatives**
- **The list can be enlarged by the decision of parties (COP)**

# Manufacturing processes

- Hg use in chlor-alkali production is not allowed from 2025 and in ecetaldehyde production from 2018
- Hg use in vinyl chlorine monomer, sodium or potassium methylate or ethylate, and polyuretane production shall be minimized
- Secretariat maintains information on allowable processes and their alternatives
- The list of processes can be enlarged by COP
- Exemptions to products and processes

# Artisanal and small scale gold mining

- Parties shall reduce and where feasible eliminate the use of Hg
- Parties shall notify the secretariat of the activity in its territory
- Develop and implement a national action plan



# Atmospheric emissions

- **Emissions should be controlled and where feasible reduced from:**
  - **Coal-fired power plants**
  - **Coal-fired industrial boilers**
  - **Smelting and roasting processes in the production of non-ferrous metals**
  - **Waste incineration facilities**
  - **Cement clinker production**

# Continue

- **New sources:**
  - **Best available technology (BAT), Best environmental practices (BEF)**
- **Old sources:**
  - **One or more of the listed 5 options (quantified goal, emission limit values, BAT, multi-pollutant control strategy, alternative measures)**
- **National action plan**
- **Emission inventory**
- **Guidelines accepted by parties (COP)**
  - **BAT, emission goals, emission limit values, inventories**

# Releases to water and land, Sound storage, Mercury wastes

## ■ Releases

- Identify significant sources within territory
- Make action plan and implement it to reduce releases
- Make an inventory of source amounts

## ■ Sound storage

- Interim storage for Hg used allowed

## ■ Mercury wastes

- Appropriate measures (Hazardous waste, Basel convention)
- Recycling for only allowable use

# **Financial resources, Capacity building, Implementation and Compliance**

- **Global Environment Facility Trust Fund (GEF)**
- **Each Party undertakes national resources and activities**
- **International Programme for Capacity Building and technical assistance**
- **Compliance Committee**
- **Other aspects dealt**
  - **Health aspects**
  - **Information exchange**
  - **Public information, awareness and education**
  - **Research, development and monitoring**
  - **Establishment of secretariat**



# Research, development and monitoring

- **Parties shall endeavour to cooperate, develop and improve:**
  - **Inventories of use, consumption and emissions**
  - **Modelling and representative monitoring of levels**
  - **Assessments of impact**
  - **Harmonized methodologies**
  - **Information on cycle, transport, transformation and fate**
  - **Information on commerce and trade**
  - **Information on Hg-free products and processes**
- **Build on existing monitoring networks and research programmes**

Thank You!

