

Mercury Trade, Supply and Storage

A critical element of reducing mercury use and pollution is reducing the global mercury supply. Reducing global supply will help to reduce mercury demand, by raising the price of mercury and making it more difficult to acquire. This result is especially important for lowering mercury uses that are difficult to address directly or through legal restrictions, such as small-scale gold mining. Because mercury cannot be destroyed or converted into other substances, reducing global supply requires reducing and ultimately eliminating international trade of mercury and creating safe long-term storage for existing mercury stocks.

Sources of Mercury Supply

Main Mercury Sources

Metric Tons Per Year

Primary mercury mining

1300-1600

By-product mercury from mining other metals, and natural gas production

400-600

Decommissioning Chlor-alkali facilities

700-900

Recovery of mercury from spent used products, and other wastes

600-800

Government or private mercury stocks

As needed

TOTAL

3100-3900+

Primary mercury mining is the least preferred source of mercury because it adds new mercury to the global mercury reservoir, and mining activities are significant sources of mercury air pollution. Kyrgyzstan and China are the only countries that still operate large-scale primary mercury mines, and only Kyrgyzstan mines for export.

Mining other ores such as gold, zinc, lead, and copper can generate significant quantities of by-product mercury during smelting and refining activities. Pollution control devices at metal mines add to the quantity of byproduct mercury by trapping mercury air pollution. Producers of natural gas also capture elemental mercury in order to prevent corrosion of their production lines.

Significant quantities of mercury are generated from collection, recycling and reprocessing of mercury-containing products, and industrial wastes, particularly in the developed world. Reprocessed mercury is a growing source of mercury supply as environmental regulations divert mercury during waste management for safety and environmental reasons.

Particularly large quantities of mercury become available when mercury cell chlor-alkali plants close or convert to non-mercury processes. Capturing and storing mercury from these decommissioning chlor-alkali facilities is an efficient and cost effective way to reduce the global mercury supply because large quantities are already aggregated at one location.

Trade Restrictions & Storage Plans

Export bans in the EU and USA, effective in 2011 and 2013 respectively, are projected to reduce the annual global supply by about 40%. Both the EU and USA are currently preparing safe storage requirements and developing storage capacity for this material. Elsewhere in the world, regional assessments of current and projected excess supply have been completed for Asia, and the Latin America/ Caribbean regions. Options for storage are being discussed in each of these regions. Substantial work has been carried out on storage under the [UNEP Mercury Storage and Supply partnership](#).

Relevant legislation and NGO policy work

In the EU

In 2008, the European Governments agreed on a Regulation to ban mercury export and to safely store the surplus mercury. the full work of the NGOs, as well as all relevant papers can be found in this section: [EU mercury export ban and safe storage](#)

Globally

In the US, the [Mercury Export Ban Act \(PDF\)](#) (8 pp, 166K, [About PDF](#)) was signed into law on October 14, 2008. The Act includes provisions on both mercury exports and long-term mercury management and storage. Because the United States is ranked as one of the world's top exporters of mercury, implementation of the act will remove a significant amount of mercury from the global market. Currently, mercury is exported from the United States to foreign countries where it has various uses, including for use in small-scale gold (artisanal) mining. This use of mercury raises worker safety and environmental emissions issues. To aid in addressing these concerns, EPA has provided expertise to the United Nations Industrial Development Organization (UNIDO)'s Global Mercury Project's artisanal mining project, which focuses on best management practices to reduce occupational exposure, emissions and mercury use.

US NGOs [Natural Resources Defense Council](#) and [Mercury Policy Project](#) have worked hard towards have this law adopted.

In Japan, the NGO CACP in cooperation with Ban Toxics! of Philippines and the Zero Mercury Working Group have been working towards a Japanese mercury export ban. Several meetings and a symposium were organised in 2010, under a ZMWG/EEB supported project. More details about this project can be found [here](#).

On storage, the ZMWG, under the UNEP Mercury Supply and Storage Partnership, has been giving substantial input on the relevant studies on the Asias and Latin America situation, since it also was the interim lead of the partnership area. The provided input can be found [here](#).