

Update on global mercury production and trade trends, and need for improved reporting



Michael Bender and Desiree Narvaez
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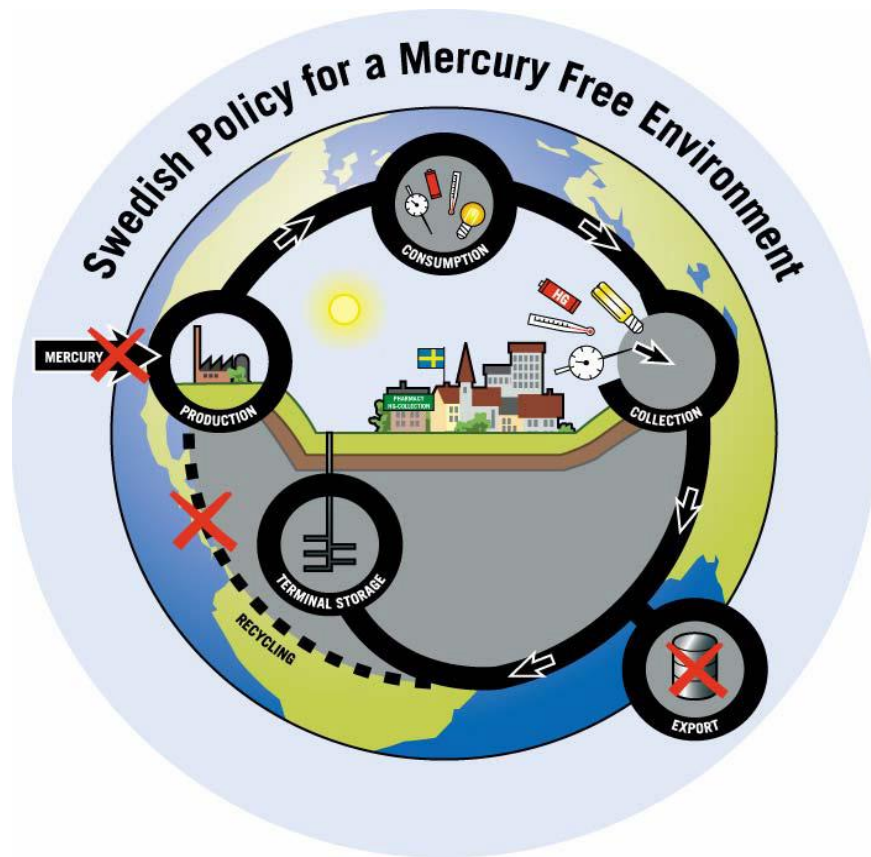
Observations on Hg trade flows/end uses

- General direction of Hg use and trade has been from wealthier countries to less wealthy
 - shifts in global manufacturing
 - expansion of artisanal & small scale gold mining
 - excess Hg from chlor-alkali
- Traders have little or no control over Hg end-uses
- End-uses may be highly dispersive (ASGM)



Projected 2005 global mercury trade flows before Hg export bans enacted

Update on mercury export bans



- Sweden enacted one of the first export bans for Hg, followed by the EU and US
- Japan enacted a partial export ban, prohibiting the future export of mercury for use in ASGM.
- Recently the USA expanded its export ban, via new law, to include mercury compounds by 2020
- Export ban in Switzerland under discussion
- Export ban in Canada also under consideration
- Updated EU export ban currently under consideration by Parliament, Council

Monitoring primary mercury mining

- The Khaidarkan mercury mine produces less than 50t per year, but does not submit export data to COMTRADE
- India and Hong Kong reported imports from Kyrgyzstan 2013-2014
- Mexico formally exported 814t of mercury from January 2013 through 2015, mostly from primary mining, to South America and Asia; there is evidence of significant informal Mexican Hg exports as well
- Mercury mines have reportedly begun operating in Indonesia; one estimate is 13t/yr output, but others think it could be much higher.
- China also produces est. 700-900t mercury, but officially only for domestic uses

Information sources:

1. Comtrade and H. Masters (Lambert Metals)
2. Comtrade, SIAVI and Jose Castro-Diaz
3. Indonesian Ministry for Environment and Forestry, Sumali Agrawal (Yayasan Tambuhak Sinta), H. Masters
4. Presentation before INC 2 by Mr. Sani, Assistant Deputy Minister, Indonesia Ministry of the Environment
5. Bambang P.S. Brodjonegoro (Minister of Finance), Heru Pambudi (Director General of Customs and Excise, Finance Ministry), Indonesia
6. Hong Kong authorities



Implications for the Minamata Convention

- Significant gaps in information on Hg production and trade flows prevent a clear understanding of the global supply situation
- Article 3.4 of the Convention prohibits primary mined Hg from use in ASGM. Virtually all Hg used in ASGM is released into the environment, making it the largest source of global emissions
- Article 21 reporting should yield timely quantitative data on Hg production and trade to ensure compliance with Article 3.4
- The above will assist in understanding the global supply situation, and will help monitor the effectiveness of the Convention

East Asia emerges as a major mercury trading hub*

Mercury exports (kg) from East Asian Countries for 2013-2014

	Brazil	Canada	Colombia	Guyana	Kenya	India	Indonesia	Malaysia	Myanmar	Pakistan	Peru	Singapore	South Africa	Sudan	Togo	United Arab Emirates	Uzbekistan	Total (kg)
Main E. Asian exporters																		
Japan	19,490		8,624			72,448				6,638		24,684						131,884
Singapore	8,453	6,038	11,213		16,906	32,430	126,623	56,925	10,350		10,350		30,092		6,900	53,475	34,500	404,255
Hong Kong	25,123				12,356	35,186		24,150					18,495		21,812		39,181	246,637
Total (kg)	53,066	6,038	19,837		29,262	145,426	126,623	81,075	10,350	6,638	10,350	54,470	48,587		21,812		46,081	782,776

Countries with significant ASGM activities are marked in **yellow**

Countries that re-exported mercury to ASGM countries are marked in **green**

Countries exporting Hg marked in **red**

Countries receiving <4MT not listed

*Information sources: COMTRADE, Hong Kong

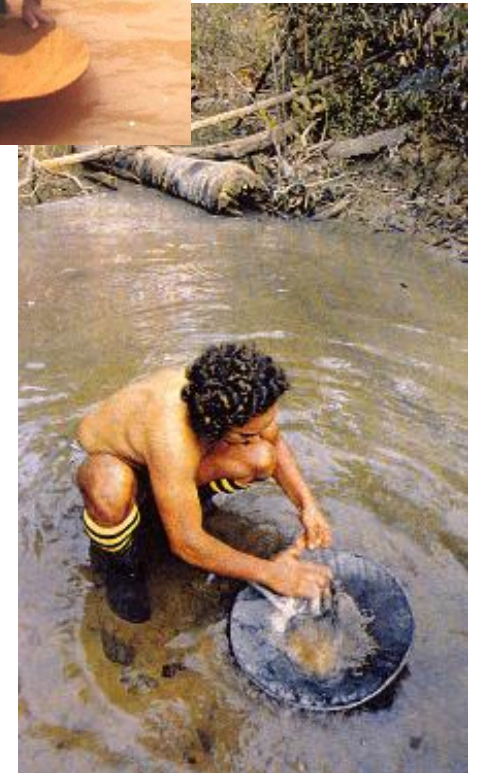


Implications for the Minamata Convention

- Much of the Hg global trade is for use in ASGM. Obtaining timely trade data through Article 21 reporting will be necessary to monitor Convention effectiveness to reduce Hg use in ASGM.
- Timely reporting of trade data will also facilitate compliance with restrictions on end-use of Hg from primary mining & chlor-alkali plants
- It may be possible to get Hg trade under the Convention but it is not a requirement

Illegal Hg exports from the EU circumvent ban

- During 2011-2014 DELA GmbH (Germany) received around 1000t of excess Hg from the chlor-alkali sector for stabilization, disposal
- DELA disguised Hg as "waste," exported ~500t to Switzerland during 2011-2013, and more elsewhere.
- Lack of effective Hg tracking enabled DELA to circumvent the EU export ban.
- Same Hg "waste" was "cleaned" in Switzerland and re-exported.
- Much of this Hg was sent to intermediaries that sell to countries where significant ASGM operations are taking place.



Implications for the Minamata Convention

- As Hg cell chlor-alkali plants are closed in response to the Article 5 phase-out date of 2025, substantial quantities of Hg will become available.
- Under Article 3.5(b), the re-use of excess chlor-alkali Hg is severely restricted.
- The EU experience demonstrates that Article 21 reporting on Hg fate is critical to ensure compliance with Convention
- May also justify requiring notification from chlor-alkali companies regarding disposal plans for excess Hg
- Improved tracking and control systems will help ensure compliance with domestic law and the Convention

CEC study addresses mercury trade discrepancies

- Mercury Policy Project under contract by the Commission for Environmental Cooperation to conduct North American Hg trade study
- Main purpose of study is to:
 - enhance understanding of the available statistics on North American Hg trade
 - identify significant gaps and discrepancies in Hg trade statistics
 - provide recommendations to address discrepancies and improve reporting
- Study also intended to assist the three North American countries to improve their reporting under the Minamata Convention
- Study expected to be completed by end of 2016; findings may benefit other regions as well

UNEP Mercury Supply, Trade, Demand Study

Purpose:

- to provide a 2015 view of global mercury supply, trade and demand;
- identify key changes since 2006;
- contribute to the needs of the Minamata Convention, especially with regard to reporting requirements;
- determine to what extent supply/trade/demand “snapshots” may be more readily developed in future

Mercury Supply

Key issues:

- export bans have closed down key mercury supply sources;
- meanwhile, no evident decrease in ASGM activity, which has fueled increased mercury mining and illegal mercury exports;
- since the use of primary mercury for ASGM is not permitted under Minamata, need to deal urgently with this issue;
- need to improve monitoring and enforcement to deal with supply resulting from illegal (e.g. DELA) and informal (smuggling) sources;
- major stocks of mercury (e.g., Russia) are still available periodically

Mercury Trade

Key issues:

- mercury trade routes have changed significantly since the US and EU export bans: key mercury warehousing has shifted from the U.S., Rotterdam and Almadén to Singapore, Turkey and Hong Kong;
- the free market price of mercury tripled after export bans were implemented and has now fallen back and regained some stability;
- at the same time, the mercury price has evolved into a free market price and a much lower closed market price;
- significant formal and informal trade is going from Mexico mercury mining to Latin America, primarily due to ongoing demand by ASGM;
- mercury imports by Indonesia are much reduced due to significant local mining;
- India continues to import mercury from Indonesia and others, sometimes in substandard flasks.

Mercury Demand

Key issues:

- mercury demand for most applications is declining;
- reducing ASGM mercury use remains a major challenge especially as it is relatively insensitive to the mercury price.

Summary

- More national export bans will further curtail legal trade, tighten supply, and may create financial incentive for more illegal trade
- Need to improve data gathering/recording information, including:
 - reinforcing controls of mercury imports at the entry point and subsequent distribution via custom officers, trade ministry, security agents, lawyers, etc.;
 - implementing mercury tracking systems enforcement of regulations specific to ASGM via, for instance, registration of traders, distributors and users; and
 - developing harmonized regulations on mercury trade, use, imports and storage worldwide
- Improved production, trade data crucial to tracking mercury flows, trade trends and global progress
- Improved data collection/better accounting of legal materials flow will help to detect illegal Hg trade
- Above steps may help level playing field for importers and traders, promote responsible management of Hg

Acknowledgements

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- Zero Mercury Working Group
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Visit to the Almaden Mine in April 2005 by Zero Mercury Working Group Representatives and Peter Maxson