

MERCURY

ACTING NOW!



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MERCURY ACTING NOW!

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The UNEP Global Mercury Partnership

THE UNEP GLOBAL MERCURY PARTNERSHIP was initiated in 2005 to take immediate action to protect human health and the environment from the release of mercury and its compounds to the environment. It is a voluntary multi-stakeholder partnership that operates based on an Overarching Framework (right top document). The eight work areas of the Partnership have business plans setting out objectives, targets and priorities for action.

The overall goal of the UNEP Global Mercury Partnership is to protect human health and the global environment from the release of mercury and its compounds by minimizing and, where feasible, ultimately eliminating global, anthropogenic mercury releases to air, water and land.

The Partnership has more than 100 partners. For details, please visit the [UNEP Global Mercury Partnership](http://www.unep.org/mercury) website.

To become a partner, interested entities or individuals should submit a letter to UNEP signifying their support for the UNEP Global Mercury Partnership and their commitment to achieving its goal, and specifying how they will contribute to meeting the goal of the UNEP Global Mercury Partnership.



Overarching Framework UNEP Global Mercury Partnership, third edition, UNEP 2012



Study on Mercury Sources and Emissions, and Analysis of Cost and Effectiveness of Control Measures (Paragraph 29 Study), UNEP 2010



Guidance for Identifying Populations at Risk from Mercury Exposure, UNEP 2008



Mercury: Time to Act, UNEP 2013

How the UNEP Global Mercury Partnership contributes to the implementation of the Minamata Convention on Mercury

		UNEP Global Mercury Partnership Areas							
		Mercury supply and storage	Mercury reduction in chlor-alkali	Mercury reduction in products	Reducing mercury in Artisanal and Small-Scale Gold Mining	Mercury Control from Coal Combustion	Mercury release from the cement industry	Mercury waste management	Mercury air transport and fate research
Articles in the Minamata Convention on Mercury									
3. Mercury supply sources and trade		✓	✓						
4 and Annex A. Mercury-added products				✓					
5 and Annex B. Manufacturing processes in which mercury or mercury compounds are used			✓						
6. Exemptions available to a Party upon request				✓					
7. Artisanal and small-scale gold mining Annex C. National action plans					✓				✓
8. Emissions and Annex D. List of point sources of emissions of mercury and mercury compounds to the atmosphere						✓	✓	✓	✓
9. Releases			✓		✓	✓	✓	✓	✓
10. Environmentally sound interim storage of mercury, other than waste mercury		✓							
11. Mercury wastes			✓			✓	✓	✓	✓
12. Contaminated sites								✓	✓
16. Health aspects				✓	✓				
20. Implementation plan					✓				✓
21. Reporting					✓				✓
22. Effectiveness evaluation									✓
14. Capacity-building, technical assistance and technology transfer		✓	✓	✓	✓	✓	✓	✓	✓
17. Information exchange		✓	✓	✓	✓	✓	✓	✓	✓
18. Public information, awareness and education		✓	✓	✓	✓	✓	✓	✓	✓
19. Research, development and monitoring		✓	✓	✓	✓	✓	✓	✓	✓

Mercury Supply and Storage

■ Articles 3, 10, 14, 17, 18 and 19

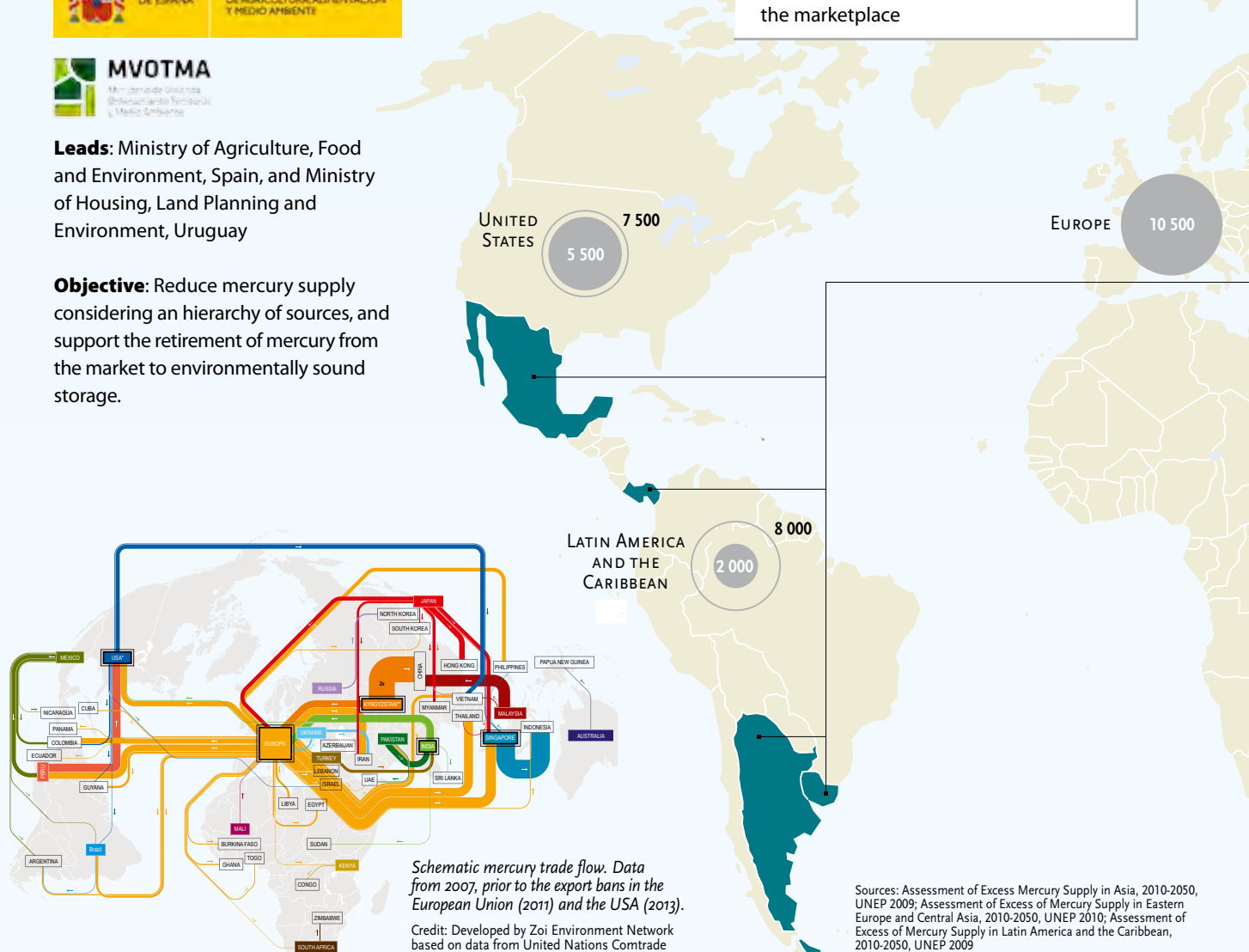


Leads: Ministry of Agriculture, Food and Environment, Spain, and Ministry of Housing, Land Planning and Environment, Uruguay

Objective: Reduce mercury supply considering an hierarchy of sources, and support the retirement of mercury from the market to environmentally sound storage.

! Key messages

- Mercury is an element that cannot be created nor destroyed
- Excess mercury supply should be stored in an environmentally sound manner and should be prevented from going back to the marketplace



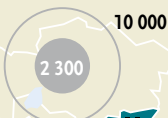


Helping the Kyrgyz Republic to transition away from primary mercury mining to a more sustainable economic activity.



Sources of mercury supply.

EASTERN EUROPE
AND CENTRAL ASIA



Interim storage facility.



Seeking solutions for safe and environmentally sound storage of mercury and mercury waste. Assisting countries to:

- Inventory different waste streams
- Review legislation and regulation
- Strengthen interagency collaboration
- Assess storage and management options including the use of existing hazardous waste facilities

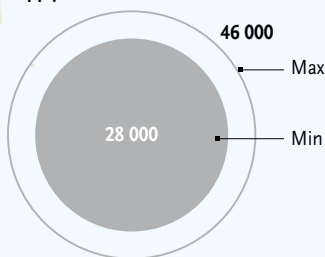
Underground waste disposal.



ASIA AND
PACIFIC



Studies show that supply of mercury will exceed demand in all regions of the world by 2020. By 2050 total excess supply is estimated as:



All units are in tonnes of mercury

Countries supported by the UNEP Global Mercury Partnership area of Supply and Storage



Vacuum mixer to form solid mercury sulphide



Sulphur polymeric matrix.



Black mercury sulphide and paraffin matrix.

Several stabilization and encapsulation techniques are now available to reduce or eliminate mercury releases by converting elemental mercury into a solid that is less hazardous, potentially resulting in lower waste management costs. Stabilization typically involves mixing mercury with sulphur to form solid mercury sulphide. Encapsulation involves the incorporation of stabilized mercury sulphide into an inert matrix. Stabilization and encapsulation techniques are applicable to elemental mercury and to various mercury wastes and result in materials that are technically inert.

Mercury Reduction in Chlor-alkali

■ Articles 3, 5, 9, 11, 14, 17, 18, 19 and Annex B



Lead: United States
Environmental Protection
Agency

Objective: Reduce global mercury releases to air, water, and land that may occur from chlor-alkali production facilities.



The report 'Conversion from Mercury to Alternative Technology in the Chlor-Alkali Industry' illustrated that facilities using membrane technology have:

- Greater energy efficiency
- Lower operating costs
- Lower environmental impact
- High quality product

Mercury use in the chlor-alkali industry

Capacity of mercury electrolysis units in USA / Canada / Mexico, EU, Russia, India and Brazil / Argentina / Uruguay

Capacity of plants (1000 t/y)



Centre for Science and Environment, DC



The World Chlorine Council has made available good practice guidance to non members of the Council. This includes advice on:

- Conversion to mercury-free technologies
- Environmentally sound management of excess mercury from closed or converted facilities

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_15699

