Biodiversity Research Institute
innovative wildlife science

EXPERIENCES IN MERCURY TRADE CONTROL

LESSONS LEARNT UNDER THE PROJECT FOR PROMOTING THE MINAMATA CONVENTION ON MERCURY BY MAKING THE MOST OF JAPAN'S KNOWLEDGE AND EXPERIENCES

AUGUST 2025

Experiences in Mercury Trade Control: Lessons Learnt under the Project for promoting the Minamata Convention on Mercury by making the most of Japan's knowledge and experiences

Biodiversity Research Institute (BRI)

August 2025

Report developed by:

Tahlia Ali Shah, BRI

Ashley Bastiansz, BRI

Report developed as part of: Project for promoting the Minamata Convention on Mercury by making the most of Japan's knowledge and experiences.

Contents

List of Figures

1.0: Introduction and Background to the Need for Mercury Trade Control Measures

1.1 Minamata Convention and Obligations Related to Mercury Trade

Mercury is a global pollutant of concern due to its long-range atmospheric transport, environmental persistence, and bioaccumulation and biomagnification in ecosystems that can severely impact environmental and human health. The Minamata Convention on Mercury is a global multilateral environmental agreement that was developed to protect human health and the environment from the anthropogenic emissions and releases of mercury and mercury compounds. As of August 2025, there are 152 Parties to the Convention.

In relation to mercury trade, Article 3 of the Minamata Convention focuses on mercury supply sources and trade and sets out obligations that require Parties to take control measures to reduce and monitor trade of mercury with other countries (both Parties and non-Parties). Parties must not allow the import, export or transit of mercury without prior written consent and only for allowed use under the Convention. Other demand reduction control measures are also outlined in the Convention, including Article 4 on Mercury-Added Products, Article 5 on Manufacturing processes in which mercury or mercury compounds are used, Article 7 on Artisanal and Small-Scale Gold Mining (ASGM), as well as several other relevant provisions.

Since the European Union (EU) banned mercury exports in 2011, followed by the United States of America in 2013, and alongside reductions in primary mercury mining and other activities, illegal mercury trade has increased in some cases. This rise is largely due to the continued demand of mercury in the Artisanal and Small-Scale Gold Mining (ASGM) sector and as a result mercury trading hubs have shifted more toward the Asian region (UNEP, 2024).

ASGM is the largest source of mercury releases globally and is responsible for a significant portion of the continued global mercury demand. As of 2015, it was estimated that 3,840 – 4,400 tonnes of mercury were supplied each year and mercury releases from ASGM per year were estimated to be 1,400 – 2,800 tonnes (UNEP, 2024). While the amount of mercury traded has reduced in recent years, illegal mercury trade, particularly for the ASGM sector, has not been effectively monitored and thus still poses a significant concern. Enhancing mercury trade measures related to this sector will be further explored in a case study detailed in Section 2.0.

Through the implementation of Article 4 of the Minamata Convention, the manufacture,

import and export of many mercury-added products such as lamps, batteries and measuring devices, have been phased out or phased down in recent years as mercury-free alternatives have become more readily available on global markets. However, the phase out of mercury-added cosmetics, specifically, mercury-added skin lightening products, has posed a challenge generally due to the lack of data and informality of this market. The challenges and experiences in managing trade of mercury-added skin lightening products will be further described in a case study under Section 3.0.

As Parties work to implement the obligations of the Minamata Convention, several challenges have emerged in relation to the supply, demand and trade of mercury that must be addressed through continued information exchange and capacity building.

1.2 Responses to Mercury Trade – The Bali Declaration

In recognizing that international cooperation is pivotal to addressing both legal and illegal mercury trade, the Government of Indonesia, at the Fourth Conference of the Parties of the Minamata Convention on Mercury (COP-4) in 2022, introduced the Bali Declaration on Combatting the Illegal Trade of Mercury which was adopted as a non-binding political declaration and received support from regional groups and delegations.

The Bali Declaration calls for regional cooperation to control mercury trade, and focuses on transparency, enforcement, intelligence sharing and technical support. This declaration recognizes the need for tailored national action plans that include technical training and implementation of national policies and regulatory measures to address illegal mercury trade.

A decision at COP-5 was made, which invited Parties to submit information to the Secretariat on experiences and challenges faced in the implementation of Article 3 of the Minamata Convention as well as on activities undertaken in relation to the Bali Declaration. It is expected that the received information will be reviewed and shared for consideration by COP-6 to be held in November 2025.

2.0: Case Study: Reducing Mercury Trade in ASGM in Indonesia[1]

In the ASGM sector, mercury, in its elemental form or in inorganic compounds, has historically been used to extract gold as it forms an amalgam with gold to separate it from other impurities. The process is relatively easy and inexpensive for most miners, which has led to mercury use in ASGM being the largest source of mercury pollution globally. Under the Minamata Convention, Parties are obligated to develop action plans to phase out the use of mercury in the sector through activities that include the promotion of mercury-free alternative methods of gold extraction amongst other measures.

In Indonesia, illegal mercury trade has been noted as a significant issue that the government has been working to address. In 2016, Indonesia was noted as one of the largest mercury producers and exporters in the world with 635 tonnes of mercury being exported to 13 countries on record. Mercury use in Indonesia has also been prominent due to the large ASGM sector present. Baseline data in 2018 recorded180 – 220 ASGM locations across 30 provinces and 180 cities/districts in Indonesia.

While Indonesia's Ministry of Trade has prohibited the import, trade, and use of mercury in the mining sector, the increase in demand and prices of gold on the global market have driven the illegal use of mercury in the sector. As a result, large amounts of mercury have been reported to be smuggled out of the country to other gold producing nations. Various studies have also shown an increase in the activity of ASGM and mercury-induced pollution in several provinces in Indonesia. Authorities in Indonesia have confiscated significant amounts of mercury with efforts to curb illegal trade. Between 2017 and 2023, over 44 tonnes of mercury and over 8 tonnes of cinnabar were seized, though these figures

[1] This section is taken from the following sources:

- D. Evers, Y. Ismawati, L. Bell, M. Burton, A. Guilbert, M. Hunter, E. Jenkins, D. Paramita, K. Regan, T. Ali Shah, T. Tear. 2024. Mercury in Indonesia: Reducing Supply and Availability. Biodiversity Research Institute Science Communications 2024-16. 12 pp
- R.A. Suminar. 2025. Guidelines on the Reduction and Elimination of Mercury and Handling of Confiscated Mercury [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.
- D. Paramita. 2025. Indonesia's Experience in Drafting Guidelines for Handling Seized Mercury and Cinnabar [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.
- K. Zaki. 2025. Managing Mercury Trade, Storage and Disposal in ASGM [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 5 June.

likely do not reflect the full amount of illicit mercury being traded.

Figure 1: Image of Confiscated Illegal Mercury Containers (Source: D. Evers, et. al, 2024)

From 2019 – 2025, the Government of Indonesia participated in a U.S. Department of State project, “Reducing Mercury Use in Artisanal and Small-Scale Gold Mining in Indonesia” in cooperation with Biodiversity Research Institute (BRI) and national non-governmental organizations - Nexus3 Foundation and The Center for Regulation, Policy and Governance (CRPG). The project aimed to restrict mercury supply, especially in the ASGM sector through:

1. Legal/regulatory/policy actions to restrict mercury supplies produced by mining and mercury by-products from other activities;
2. Development and implementation of a plan to reduce the trade in illegal imports/exports of mercury;
3. Development of plans to securely store elemental mercury waste, mercury-added medical devices, and cinnabar;
4. Monitoring of mercury to determine the magnitude of human and ecological health impacts and prioritize site selection of Local Action Plans (LAPs) to review and evaluate implementation of mercury reduction targets.

Through these activities as well as further government-led initiatives and coordination with NGOs such as Nexus3 Foundation and CRPG, several measures such as legislative enforcement and community outreach have enhanced monitoring and control of mercury in the ASGM sector.

Strengthened criminal sanctions against illegal mercury trade have been enforced through their Customs Law No.17/2006 and several court decisions have been made. From 2018 onwards, CRPG maintained a database on court decisions related to mercury and cinnabar seizures and have assessed the actions taken to develop guidelines for public prosecutors on handling confiscated/seized mercury in coordination with the Attorney General’s Office. Challenges identified to be

addressed include determining the most appropriate legislation to be used, standardizing the unit of measurement for the mercury seized to ensure accurate and comparable records of data, and determining the best approach for handling, storage and disposal of seized hazardous materials. Consultations have been ongoing with national and regional stakeholders to determine the best approaches for finalization of guidelines.

3.0: Case Study: Reducing Trade of Mercury-Added Skin Lightening Products in Sri Lanka[2]

In the beauty and cosmetic industry, products that remove blemishes or lighten the skin have maintained popularity over the years due to many social, cultural and historical factors. These skin lightening products (SLPs) may contain a range of potentially harmful ingredients including mercury. When added to these products, inorganic mercury salts can block melanin production, resulting in a depigmentation (lightening) of skin. Exposure to mercury-added SLPs (as illustrated in Figure 2) can result in damage to vital organs including the kidney and liver, and cause neurological problems such as reduced motor skills and developmental disorders.

Figure 2: Mercury Exposure Pathways from Mercury-added Skin Lightening Products (Source: UNEP, 2025)

Sri Lanka has a competitive beauty industry, and it has been estimated that 65% of cosmetics are locally manufactured. Based on their 2019 Minamata Initial Assessment, it was found that 68% of the 23 local manufacturers surveyed used mercury in the production of cosmetics. Informal/cottage production of mercury-added skin lightening products was also noted as an issue to be assessed further. In a continued effort to phase out mercury-added skin lightening products, the Government of Sri Lanka participated in the

[2] This section was developed with reference to the following sources:

- C. Rubesinghe. 2025. Promoting Interlinkages Amongst Agencies such as Customs, Environmental Agencies, National Lab and Legislation. [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.

ongoing project, “GEF 10810: Eliminating Mercury Skin Lightening Products – Jamaica, Gabon and Sri Lanka”. Some key activities included in the project are:

- a review of legislative and institutional capacities and development of recommendations for enhancement
- development of a baseline of mercury-added SLPs present through sampling and analysis
- building of national laboratory capacity for identification of suspected mercury-added SLPs
- training of Customs stakeholders in best approaches for controlling trade of these products
- awareness-raising amongst key stakeholders including government stakeholders, manufacturers, traders, the public/consumers.

Through an assessment of the regulatory and institutional framework (Figure 3), it was found that coordination amongst several entities for the implementation of regulations and enforcement measures is needed to address the aspects related to manufacture, sale, import and export of both formal and informally produced SLPs. While an all-encompassing new legislation has been drafted, authority has been given through regulations to the National Medicines and Drugs Regulatory Authority (NMRA) to monitor products on the national market through registration of imported and locally available products, issuances of voluntary import licenses for importers and voluntary manufacturing site registration. Through the Sri Lanka Standards Institution (SLSI), the review of mercury thresholds for standard development is ongoing and through the Consumer Affairs Authority (CAA), surveillance of local and international e-markets can occur. The CAA has also published a list of mercury-added SLPs tested in previous initiatives to raise public awareness of harmful products on the market. It is anticipated that through continued project work, a global database on mercury-added SLPs will be made available that can be used to further develop national and/or regional product detention lists. Further coordination of work and development of approved action plans are scheduled for Sri Lanka to effectively.

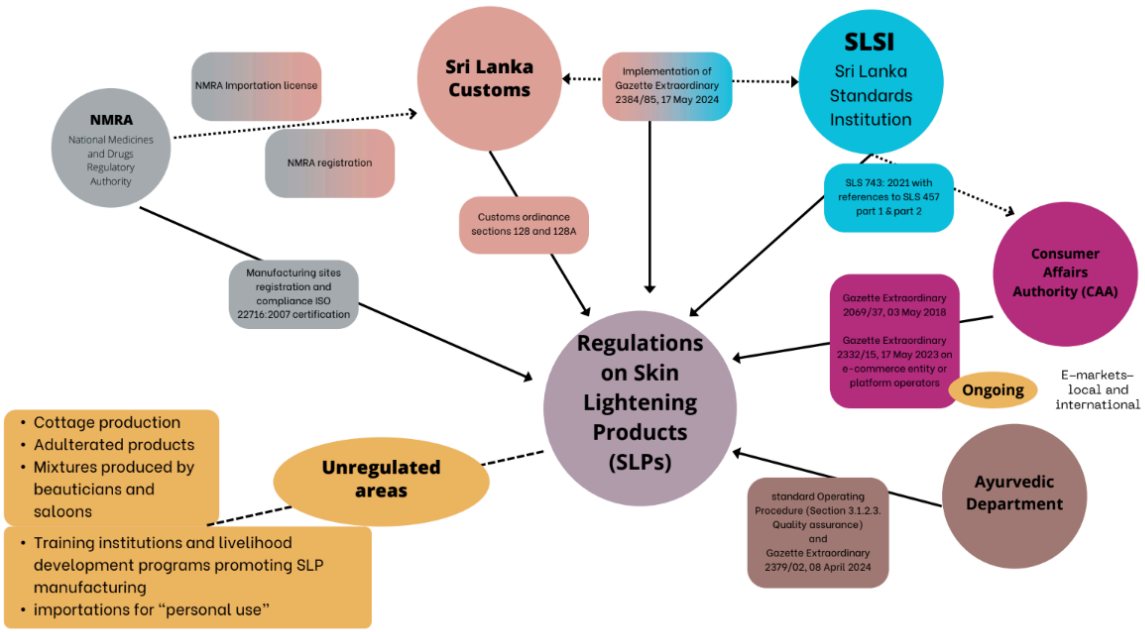

Figure 3: Summary of Current Legislative and Institutional Capacity for Monitoring Trade of Mercury-Added SLPs in Sri Lanka (C. Rubesinghe, 2025 [PowerPoint Presentation])

4.0: Recommendations for Controlling Mercury Trade

As detailed in the previous case studies for Indonesia and Sri Lanka, legislative and institutional strengthening are key aspects for effective mercury trade monitoring and control. Other important factors for consideration are summarized in this section.

4.1: Enhancement of Harmonized System (HS) Codes Used Nationally and/or Regionally[3]

The Harmonized Commodity Description and Coding System/ Harmonized System

[3] This section was developed with reference to the following sources:

- K.N. Maung. 2025. HS Codes for Mercury-added Products. [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 5 June.
- L. Ognibene. 2025. Key Obligations of the Minamata Convention On Mercury Trade Management. [PowerPoint Presentation]. Customs Training to Enhance Monitoring of Trade of Mercury and Mercury Compounds Online Webinar 1. Virtual (WebEx Platform). 26 May.

(HS) is a tool developed by the World Customs Organization for use globally by customs authorities, governmental agencies and other stakeholders to categorize and codify commodities so that they can be tracked. Internationally developed HS Codes typically follow a 6-digit format that categorizes commodities into broad groupings. To monitor the trade of mercury commodities (specific mercury compounds and mercury-added products), the applicability of international HS codes was assessed, and it was found that further classification of commodities would be needed to enhance monitoring.

For example, mercury compounds are typically tracked via *HS Code 285210- Mercury compounds, chemically defined, inorganic or organic, excluding amalgams*. While this category allows for overall monitoring of mercury compounds, it does not identify individual compounds making it difficult to assess the types of compounds used for various activities. Additionally, mercury-added products such as dental amalgams may fall under broad categories such as *HS Code 300640 …Pharmaceutical goods; dental cements and other dental fillings, bone reconstruction cements* or *HS Code 284390 Amalgams of precious metals; etc.*

To address these gaps, further sub-divisions can be created nationally and/or regionally to expand HS codes to 8-10 digits. This has already been adapted by some countries in the region for certain mercury commodities. For example, in Indonesia national 9-digit HS codes were developed for some goods such as *HS Code 3006 40 110 Dental alloy containing mercury.*

The expansion of HS codes to enable better identification of mercury-added products and compounds can be a national decision taken and developed through coordination with the ministries responsible for the environment, trade and Customs amongst other stakeholders. However, to allow for a more synergistic approach to tracking goods, it is recommended that HS Codes be developed in alignment with other countries within the region or globally[4].

4.2: Enhancing Analytical Techniques for Identifying Mercury (Example: Mercury-added Skin Lightening Products)

To enhance Customs' capacities at the border, the use of rapid analytical equipment can be considered once determined to be economically feasible. For example, in the case of tracking imports/ exports of skin-lightening products, if there is suspicion that the product may contain

[4] Further guidance can be obtained from the Minamata Convention Secretariat's website at: https://minamataconvention.org/sites/default/files/documents/working_document/4_27_Customs Codes.English.pdf

mercury but is unlabeled or lacks clear ingredient information, Customs agents can take a sample of the product for rapid testing using an X-ray fluorescence (XRF) instrument. XRF analysis is a practical, non-destructive and effective screening method to confirm the presence of mercury. It is widely used in regulatory enforcement, especially for illegal cosmetics, because it allows for quick, accurate, and reliable detection of mercury and other heavy metals, even in small amounts.

Benefits of XRF Analyzers for Rapid Identification of Suspected Commodities:

- **Non-Destructive Testing**: One of the major advantages of XRF analysis is that it's a non-destructive method. The product sample does not need to be destroyed or altered in any way, allowing for further analysis or testing if necessary.
- **Rapid Analysis**: XRF can provide instant results (between 30 seconds to 5 minutes), which is essential in fast-paced regulatory like border control.
- **Portable and Versatile**: Many modern XRF devices are portable, allowing inspectors or enforcement officers to test products directly at the point of inspection, such as at customs checkpoints, retail outlets, or warehouses.
- **Compliance Verification**: XRF provides precise quantitative data on mercury concentrations, making it easier to determine whether the product violates regulatory limits.
- **Relatively Cost-Effective**: XRF testing, particularly for mercury, is more cost-effective compared to traditional laboratory analyses, which are more expensive and time-consuming.

A summary of the steps used for XRF analysis is provided as follows:

1. ***Preparing the Sample***

XRF typically works with solid samples, but since skin-lightening products are often in the form of creams or soaps (e.g., solid, semi-solid or paste-like), they need to be prepared properly for testing:

- **Sample Handling**: Always use clean tools to avoid cross-contamination. A plastic spatula or a disposable scoop is ideal for transferring the cream to the sample holder or container.

- **Homogenization**: If the sample is a creamy or pasty substance, it may need to be stirred to ensure uniform

distribution of the product before testing.

- **Proper Sampling**: For creams, a small amount (typically 1-2 grams) should be collected to get an accurate picture of the product's overall composition. For soaps, grate or shave a portion of the soap, and place the shavings or powder into an XRF sample cup with a thin film (e.g., Mylar or Prolene) at the bottom.

- **Thin Layer Testing**: If testing a thick paste is problematic due to its consistency, the product can be applied onto a flat surface such as a non-reactive sheet or slide (e.g., Mylar film) to form a thin layer that the XRF device can analyze effectively.

2. Performing the XRF Test

- **Positioning the Sample**: Place the sample into the XRF analyzer's test chamber, where the X-rays will be directed at the sample. The XRF analyzer is typically handheld or may have a benchtop design, depending on the XRF model.
- **Conducting the Test**: When the XRF analyzer is activated, it will send X-rays into the sample. The device will detect the emitted fluorescent X-rays from the sample and produce an analysis of the elements, such as mercury, present.
- **Testing Duration**: The test can take anywhere from 30 seconds to 5 minutes, depending on the device's sensitivity and the sample's composition. For cream-like products, the test may require a bit longer exposure to ensure accurate measurements.

3. Analyzing the Results

- **Element Identification**: The XRF device will provide a report indicating the elements detected in the sample. Mercury will show up with a characteristic signal, and its concentration can be quantified.
- **Quantification**: XRF not only detects the presence of mercury but also provides a reading in ppm (parts per million) or percentage. Most regulatory bodies including the Minamata Convention have mercury limits of 0-1ppm on mercury-added products.
- **Mercury Detection Limits**: Most common limits of detection for mercury in an XRF is between 5 - 20 ppm depending on the type of equipment and calibration of the device. *NOTE: For most mercury-added skin lightening*

products found on the global market, mercury concentrations typically exceed 100 ppm.

4. ***Confirming the Results***

- **Cross-Verification**: If the mercury levels detected by XRF are high/suspicious or were undetected, further tests and validation methods may be required, such as sending the sample to a laboratory for independent confirmation through methods like using a Direct Mercury Analyzer (DMA), Atomic Absorption Spectroscopy (AAS) or Inductively Coupled Plasma Mass Spectrometry (ICP-MS), which are highly sensitive and more time-consuming.

- **Regulatory Thresholds**: Verify that the mercury concentration detected by XRF exceeds the regulatory limit for cosmetics.

XRF is a valuable tool for non-destructive elemental analysis, but in order to determine its suitability for use by Customs officers or other enforcement stakeholders, its limitations and important safety considerations must be reviewed. For example, one primary concern is the risk of radiation exposure, which, although low, requires strict adherence to safety protocols to prevent accidental harm. Regulatory compliance is also essential, as operating an XRF device may require specific licenses or certifications depending on regional/national laws. Technically, XRF has limitations, such as reduced sensitivity to light elements and a reliance on surface composition, which may lead to inaccurate readings if the sample is contaminated or not representative. Additionally, while the technique offers rapid results, it has a high limit of detection for mercury of approximately 5 ppm. Finally, the cost of equipment, along with ongoing maintenance and calibration needs, represents a significant investment.

Despite these challenges, XRF remains a powerful analytical method, when used responsibly and with proper training, to test commodities such as skin-lightening products for mercury in an effective, efficient, and non-destructive manner to ensure consumer safety and regulatory compliance. If mercury is suspected but not labeled, this method can quickly confirm whether the product is hazardous and should be confiscated. Following proper procedures after detection — including sample collection, testing, seizure, and further action — helps protect public health, enforce cosmetic regulations, and prevent the illegal distribution of harmful products.

4.3 Utilizing Available Resources and Databases

There are several key databases and alert systems used internationally and regionally to monitor hazardous substances and unsafe consumer products including:

- **EU Safety Gate (formerly RAPEX)** – alerts about dangerous non-food products food in the EU market and is publicly accessible and updated weekly.
- **OECD Global Recalls Portal** – consolidates recall information from member countries and facilitates cross-border cooperation and awareness.
- **ASEAN Post-Marketing Alert System (PMAS)** – covers unsafe medical devices and related products including cosmetics, pharmaceuticals, and other items regulated by health authorities.

Skin-lightening products with mercury

Alongside official sources like the EU Safety Gate, ASEAN alert systems, and national detention lists, the European Environmental Bureau/Zero Mercury Working Group **(EEB/ZMWG) Mercury-Added Skin-Lightening Products Database** is a central online repository that compiles sampling and testing results from the ZMWG campaign. Its features include a searchable interface for skin-lightening products categorized by brand, year of sampling, retailer, region, and whether legal thresholds for mercury concentrations were exceeded.

Under the GEF 10810 Eliminating Mercury Skin Lightening Products, a **global database of mercury-added skin-lightening products is being developed** by BRI that includes findings from the project as well as existing validated data worldwide including over 4000 SLP sample results obtained from approximately 50 published journal articles, 1185 SLP sample data from EEB/ZMWG research, and databases/reports released from recognized entities (e.g., NGOs and monitoring agencies). This database will be house under the Global Mercury Partnership (GMP) website and will be publicly available by November 2025.

5.0 Additional Considerations for Handling of Confiscated Mercury, Mercury Compounds, Mercury Waste or Mercury-added Products

5.1 Initiating the Confiscation Process after Detecting Mercury in Product

Once mercury has been identified, the following steps should be taken according to the regulations and protocols in place. The specific legal process may vary depending

on the jurisdiction, but the general steps are as follows:

- **Customs and Border Protection**: If the products are still in transit (i.e., at the border or customs checkpoint), the first point of contact is typically the customs authority. Customs officers should be notified immediately about the presence of mercury in the shipment.
- **Health Inspectors and Regulatory Authorities**: If the product has already entered the local market, health inspectors or regulatory agencies should be contacted to assess the product's compliance with local laws.
- **Product Inspection**: Authorities should physically inspect the products including labels, packaging, and manufacturing details that may indicate illegal content or lack of registration.

a. Verifying the Source and Supplier

- **Tracking the Origin**: It's important to trace the importer, distributor, and manufacturer of the mercury-containing products. This will help prevent future illegal shipments and may reveal larger smuggling networks.
- **Contacting Manufacturers**: If possible, authorities may contact the manufacturer (especially if it's a legitimate company) to verify if the products have been contaminated or illegally altered.

b. Seizing the Products

Once the mercury content has been confirmed, the products should be seized immediately, following the relevant legal procedures for confiscation in your jurisdiction.

- **Evidence Documentation**: Document the quantity, batch number, and product details of the confiscated goods. Taking photographs and maintaining a chain of custody for evidence will be essential for any legal action or future enforcement actions.
- **Handling Hazardous Materials**: Mercury is toxic, so proper safety measures must be taken during the confiscation process. Depending on the type of mercury, mercury compound or mercury-added product, different methods of handling should be taken. In cases of mercury and mercury compounds, authorities should ensure that personal protective equipment (PPE) is worn, including gloves and masks,

to avoid direct contact with mercury or inhalation of its vapors. For products such as mercury-added skin lightening products, gloves should be worn to minimize potential skin-to-skin contact with any leaked product.

- **Product Recall**: If the product has already been distributed, the manufacturer or distributor should be contacted for a recall to prevent further harm to consumers. If the product is found in the market, immediate action should be taken to remove it from shelves.
- **Consumer Safety**: Authorities should issue a public health advisory to warn consumers about the risks of the product. This should include instructions on where to report the products and how to dispose of them safely.

5.2 Proper Handling, Storage and Disposal Procedures

Prior to confiscation of mercury, mercury compounds or mercury-added products, a clear protocol should be established on the available and best options for safe handling, storage and disposal. This can pose a challenge for some countries based on their available resources. The best approaches can also vary depending on the type of mercury commodity being handled.

Determining the best approaches for handling, storage and disposal (or export for safe disposal) should be a national decision and should follow the guidelines outlined by the Minamata Convention's Articles 3, 10 and 11 and subsequent supporting guidelines developed by the Minamata Secretariat.

For example, through the development of national guidelines on handling of confiscated mercury by the Government of Indonesia, it has been proposed that the procedure should follow the already established regulations for managing mercury-containing medical devices under their *Regulation of the Minister of Environment and Forestry Number P.27/MENLHK/SETJEN/KUM.1/12/2020 for Waste Management of Mercury-Containing Medical Devices* and *Regulation of the Minister of Health Number 41 of 2019 for Elimination and Retrieval of Mercury-Containing Medical Devices in Healthcare Facilities.* This follows the general procedure outlined in Figure 4 and includes assessing the confiscated items using a conformance checklist to determine the safety measures needed for handling and the appropriate next steps based on the available storage and disposal methods. Based on the type of mercury material and

the available national amenities, mercury may be stored at a secure final storage facility in-country, destroyed in an environmentally sound manner at a hazardous waste disposal facility or temporarily stored in a secure depot for export for environmentally sound disposal.

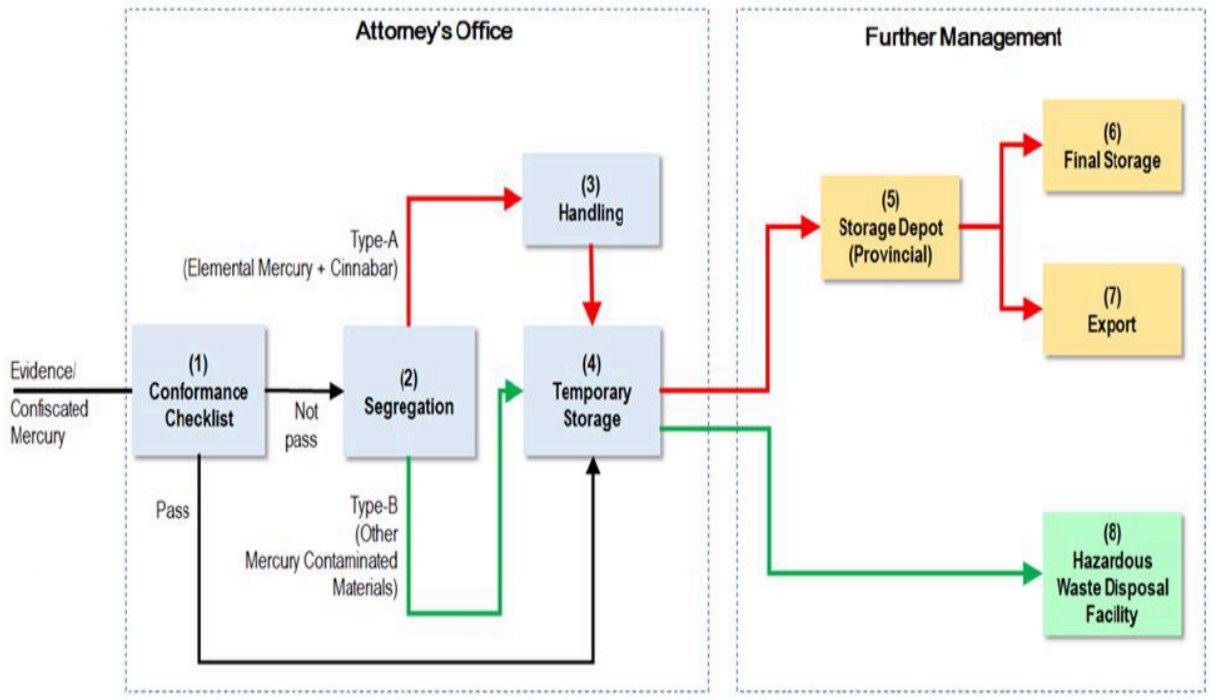

Figure 4: Example of Procedure for Handling of Confiscated Mercury for Indonesia (R.A. Suminar. 2025: PowerPoint Presentation)

5.3 Legal Action and Public Awareness

The best approaches for legal action against traders of illegal mercury will vary based on each country's established regulations but may follow these general steps:

- **Investigate and Prosecute**: If the confiscated mercury items are part of a larger illegal distribution network, investigations should be launched to identify importers, distributors, and manufacturers involved. Enforcement measures should be taken against those

violating regulations, including potential fines or criminal charges. The authorities should pursue legal action against those involved in the import, manufacture, or sale of mercury-added products. This includes individuals or companies involved in illegal marketing, counterfeiting, or importation of prohibited substances.

- **Regulatory Enforcement and Penalties**: Depending on the severity of the violation, enforcement may involve issuing recalls, imposing penalties, or taking legal action to hold the responsible parties accountable. Penalties for violating mercury regulations may include fines, product recalls, and even criminal charges. The severity of penalties may depend on the quantity of mercury present, the risk posed to consumers, and whether there was malicious intent or gross negligence.

Public awareness is another key factor in reducing the demand for mercury. It is recommended that the following steps are included in national action plans to manage mercury trade:

- **Educating Consumers**: After the confiscation and destruction of mercury-added products, authorities should initiate public awareness campaigns to inform the public about the dangers of such products.
- **Reporting**: Authorities must also report any suspicious products, importers, manufacturers, or distributors to the relevant Consumer Affairs or Standards and Regulations divisions. This supports timely enforcement actions and helps protect public health and safety.

5.4 Follow-Up and Ongoing Monitoring

It is important to monitor the market for illegal reshipments or counterfeit products. This may be done through:

- **Market Surveillance**: Regular inspections of stores, markets, and online platforms should be conducted to identify potential violations.
- **Import Audits**: Ongoing audits of import shipments and manufacturers should be conducted to ensure compliance with regulatory standards.

Confiscating mercury, mercury compounds and mercury-added products is a complex, multi-step process that involves coordination between customs authorities, regulatory agencies, law enforcement, and waste disposal facilities. It requires vigilance at every stage, from identifying products before they enter the market to ensuring their safe destruction after confiscation. The primary goal is to protect public health and the environment by removing harmful products and holding those responsible accountable. By following these procedures, authorities can help safeguard consumers from the dangers posed by mercury in cosmetics while reinforcing strict import and health regulations.

6.0 References

- C. Rubesinghe. 2025. Promoting Interlinkages Amongst Agencies such as Customs, Environmental Agencies, National Lab and Legislation. [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.
- D. Evers, Y. Ismawati, L. Bell, M. Burton, A. Guilbert, M. Hunter, E. Jenkins, D. Paramita, K. Regan, T. Ali Shah, T. Tear. 2024. Mercury in Indonesia: Reducing Supply and Availability. Biodiversity Research Institute Science Communications 2024-16. 12 pp
- D. Paramita. 2025. Indonesia's Experience in Drafting Guidelines for Handling Seized Mercury and Cinnabar [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.
- K. Zaki. 2025. Managing Mercury Trade, Storage and Disposal in ASGM [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 5 June.
- K.N. Maung. 2025. HS Codes for Mercury-added Products. [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 5 June.
- L. Ognibene. 2025. Key Obligations of the Minamata Convention On Mercury Trade Management. [PowerPoint Presentation]. Customs Training to Enhance Monitoring of Trade of Mercury and Mercury Compounds Online Webinar 1. Virtual (WebEx Platform). 26 May.
- R.A. Suminar. 2025. Guidelines on the Reduction and Elimination of Mercury and Handling of Confiscated Mercury [PowerPoint Presentation], Sub-regional Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds and Mercury-added Skin Lightening Products. Colombo, Sri Lanka. 4 June.
- UNEP. 2024. 2024 Fact Sheet on Mercury Trade [online]. Available at: Fact sheet Trade[44]