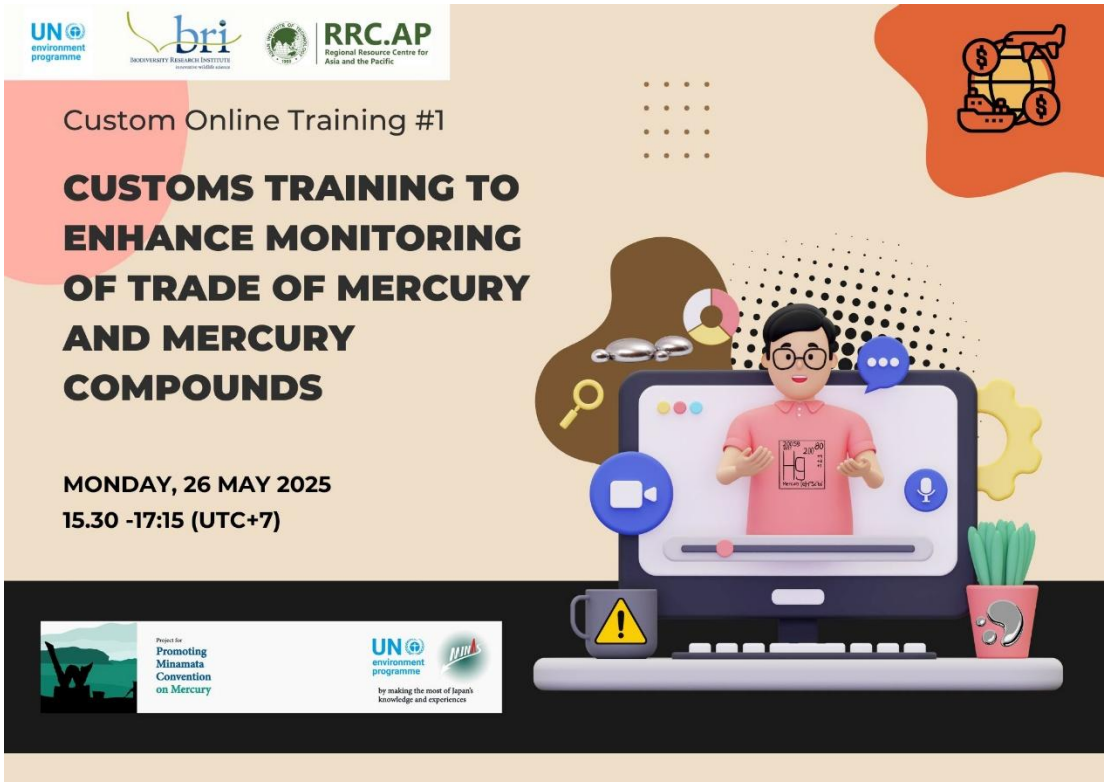
Project for Promoting Minamata Convention on Mercury by making the most of Japan's knowledge and experiences

Proceeding report

Custom Online Training 1

Custom Online Training to Enhance Monitoring of Trade of Mercury and Mercury Compounds

26 May 2025 (Online)



Prepared by:

AIT RRC.AP

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Background and Objectives

The **Online Custom Training on Monitoring the Trade of Mercury and Mercury Compounds**, held on **26 May 2025**, is part of a broader effort to build national capacity in support of the **Minamata Convention on Mercury**. The Convention is a key multilateral environmental agreement aimed at protecting human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

This training is organized under the **Japan-funded UNEP project** titled *"Project for Promoting the Minamata Convention on Mercury by Making the Most of Japan's Knowledge and Experiences."* The project seeks to strengthen implementation by facilitating **information exchange, awareness-raising, education, and technical capacity building** among participating countries.

Specifically, this session targeted **customs authorities, ministries of environment and health**, and other relevant stakeholders, with the goal of enhancing their understanding and practical ability to monitor and control mercury trade. By bringing together legal, technical, and enforcement perspectives, the training provided participants with an integrated view of the mercury trade landscape — covering:

- The global risks and sources of mercury pollution,
- Formal and informal trade flows of mercury and mercury-added products,
- Legal obligations under Article 3 of the Minamata Convention, and
- Practical challenges and tools available for national implementation and cross-border enforcement.

The training is the **first of a three-part online webinar series**, designed to complement in-person workshops and deepen stakeholder engagement across Asia and the Pacific.

Participation Details

A total of **140 participants** joined the *Online Custom Training on Monitoring the Trade of Mercury and Mercury Compounds* held on 26 May 2025. The participants represented a diverse mix of sectors and countries, aligning well with the training's goal of engaging both customs and environmental stakeholders.

Geographic Representation

The training drew participation from a wide range of countries, demonstrating broad regional interest and engagement on the topic of mercury trade monitoring. The top five countries by number of participants were: Philippines – 61 participants; Sri Lanka – 21 participants; Thailand – 16 participants; Nepal – 7 participants; & Cambodia – 6 participants.

These countries accounted for nearly 80% of the total participants. Other countries represented included Bangladesh, Malaysia, Indonesia, Lao PDR, and Vietnam, among others, highlighting a strong subregional presence from South and Southeast Asia.

Institutional Background

Attendees represented a wide range of institutions:

- Government agencies – 45 participants
- Academia/Research institutions – 44
- Other sectors (including NGOs and private sector) – 47
- UN or International organizations – 4

Gender Representation

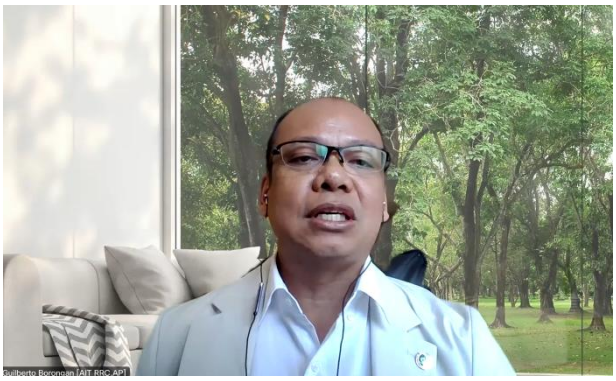
The gender distribution among participants was as follows:

- Male – 90 participants
- Female – 48 participants
- Prefer not to say – 2 participants

Opening Remarks

Mr. Thomas Verbaere, UNEP

The training session began with opening remarks from **Mr. Thomas Verbaere**, Programme Management Officer at the **United Nations Environment Programme (UNEP)**. He welcomed participants and emphasized the significance of the session as the first in a series of three custom trainings aimed at enhancing monitoring of mercury trade under the Minamata Convention. He underscored the persistent global challenges associated with mercury use, particularly in products and industrial processes, and emphasized the importance of building national capacity to prevent illegal or inappropriate mercury trade. He also highlighted that the training is part of a Japan-funded project led by UNEP to share practical knowledge and technical expertise drawn from Japan's long-standing experience in mercury management. Mr. Verbaere concluded by encouraging active participation and engagement from all attendees.



Dr. Guilberto Borongan, AIT-RRCAP

This was followed by welcoming remarks from **Dr. Guilberto Borongan**, Director of the **Asian Institute of Technology – Regional Resource Centre for Asia and the Pacific (AIT RRC.AP)**. Dr. Borongan expressed his appreciation to UNEP, the Government of Japan, and all participants, particularly those representing customs and environmental agencies. He emphasized AIT RRC.AP's role in supporting countries in the region to implement multilateral environmental agreements, including the Minamata Convention. He reaffirmed the center's commitment to capacity building and knowledge-sharing, and highlighted the value of such training in helping countries fulfill their monitoring and enforcement obligations related to mercury trade. Dr. Borongan encouraged participants to actively learn from the sessions and apply the insights to their institutional roles.

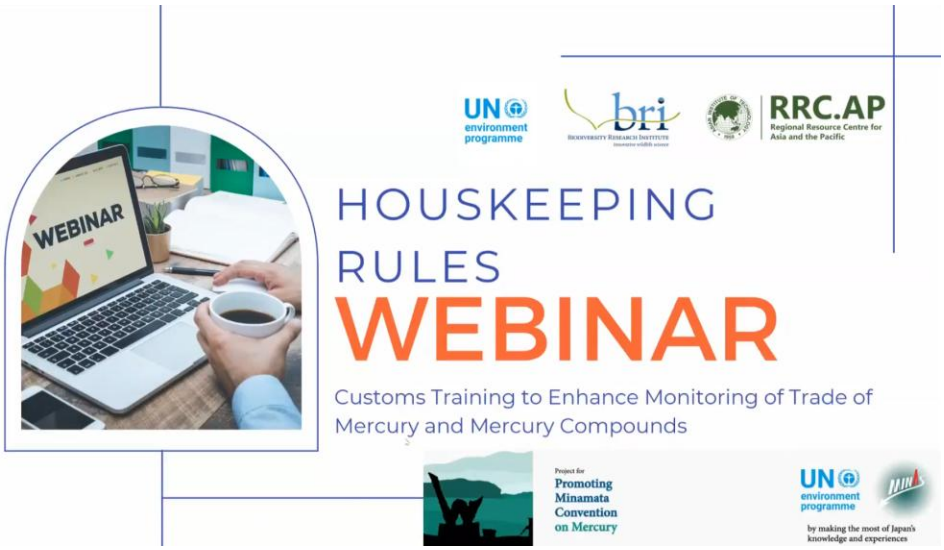
Housekeeping and Session Orientation

The housekeeping and session orientation segment was delivered by **Mr. Bishal Bhari**, Programme Officer at **AIT RRC.AP**, who also served as the session moderator.

Participants were welcomed once again and provided with key technical and engagement guidelines to ensure a smooth and interactive online experience. This included reminders about usage of chat boxes, Q&A features, recording of the meeting, and the resources to be circulated after the event.

The moderator also highlighted expectations for respectful and inclusive engagement throughout the training and encouraged participants to take full advantage of the opportunity to interact with expert speakers. A brief walkthrough of the day's agenda was shared to orient participants to the flow of the session, including thematic segments, speaker (short bio and their presentation topic), and Q&A sessions.

Light humor and informal interaction were used during this segment to create a relaxed and engaging atmosphere, helping participants feel at ease in the virtual environment.



Mr. Bishal Bhari (AIT-RRCAP) providing housekeeping rules and session orientation

Presentation 1: Mercury Uses and Toxicity

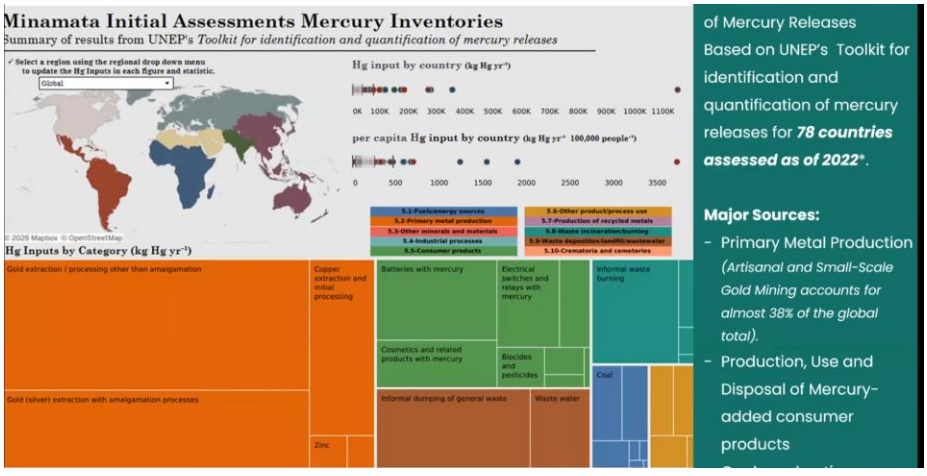
The first technical session was presented by **Ms. Tahlia Ali Shah** from the **Biodiversity Research Institute (BRI)**. Her presentation provided an overview of mercury's forms, global sources of release, and its impact on human and ecological health.

She began by introducing mercury in its elemental, inorganic, and organic forms, emphasizing the unique toxicity of methylmercury due to its ability to bioaccumulate in food chains. Using data from UNEP's global assessments, she showed that artisanal and small-scale gold mining (ASGM) is the largest single contributor to global mercury pollution. This trend is also reflected in the East Asia and Pacific region, where metal production and consumer waste are dominant sources.

The presentation further explored mercury-added products such as fluorescent lamps, thermometers, and cosmetics, highlighting how their improper disposal remains a long-term concern despite ongoing global phase-out efforts under the Minamata Convention.

Tahlia then shifted focus to the environmental and health impacts of mercury exposure. She explained how mercury transforms into methylmercury in aquatic environments and accumulates in fish, posing serious health risks to communities reliant on seafood. Special attention was given to biological hotspots such as wetlands and mangroves. She concluded with a review of health impacts, including Minamata disease, underscoring the developmental risks for children and unborn babies.

This session effectively framed mercury not just as a pollutant, but as a critical public health and environmental issue requiring integrated response across sectors.



Ms. Tahlia explaining the sources of Mercury in her presentation

Q&A Highlights

A question was raised by the Moderator in challenges in identifying and addressing mercury sources. In response, Tahlia emphasized the issue of limited awareness among both consumers and vulnerable communities, particularly in the artisanal and small-scale gold mining (ASGM) sector. She stressed the importance of stakeholder engagement and public education, especially for those using mercury as a livelihood tool, as well as the need for stronger inter-agency coordination and clear national regulations to manage mercury trade and usage effectively.

There was a question raised on how to identify mercury containing skin lightening product. She responded agreeing that mercury is often not listed on packaging despite being banned in many countries. She highlighted BRI's ongoing project aimed at identifying mercury in cosmetic products through randomized product sampling and laboratory analysis. The goal is to develop a global database to inform regulation and raise awareness among both consumers and regulatory bodies.

Presentation 2: Global Mercury Trade

The second session was delivered by **Ms. Anna Kobylecka**, Environment Programme Manager at the **World Customs Organization (WCO)**. Her presentation offered a comprehensive overview of the international trade landscape for mercury, including both formal trade flows and informal or illegal movements, with reference to the obligations of countries under the Minamata Convention.

She began by outlining key provisions of the Convention relevant to trade, including Article 3, which requires prior informed consent for mercury exports, and Article 4, which restricts trade in mercury-added products post phase-out dates. She also referenced Article 7, which requires Parties with artisanal and small-scale gold mining (ASGM) to take measures preventing the diversion of mercury into these activities.

Table 13. Global mercury consumption by geographic region

Regional mercury consumption (tonnes)	2005	2010	2015
East and Southeast Asia	1 600 - 1 900	1 697 - 2 638	1 931 - 2 882
South Asia	300 - 500	124 - 182	192 - 334
European Union	400 - 480	314 - 470	194 - 304
CIS and other European countries	150 - 230	115 - 189	113 - 230
Middle Eastern States	50 - 100	77 - 106	79 - 136
North Africa	30 - 50	22 - 29	29 - 52
Sub - Saharan Africa	50 - 120	216 - 506	234 - 660
North America	200 - 240	191 - 275	107 - 167
Central America and the Caribbean	40 - 80	54 - 88	51 - 104
South America	140 - 200	433 - 897	458 - 1 130
Australia, New Zealand and Oceania	20 - 40	15 - 20	16 - 27
Total	**3 000 - 3 900**	**3 258 - 5 400**	**3 404 - 6 027**

Source: UNEP's Global Mercury Supply, Trade and Demand Report

Ms. Anna gave insights into global mercury consumption during her presentation

Anna presented visual maps and datasets from UNEP and global trade databases illustrating the complexity and scale of mercury trade across regions. Notably, she discussed the persistence of trade corridors involving countries such as Tajikistan, the United Arab Emirates, and Nigeria, which play key roles as exporters or transit points. Trade maps from 2008 and 2015 (pages 5–6) and more recent interactive trade tools (page 7) showed how these routes have evolved over time.

The presentation emphasized the limitations of current global trade databases such as Comtrade, which often aggregate mercury compounds under broad codes, making it difficult to track individual substances accurately. Anna highlighted that over 9,500 mercury compounds are listed in public chemical databases, yet international tracking of these compounds remains weak due to naming inconsistencies and vague classifications.

She also addressed the illicit trade dimension, drawing on data from WCO's Illicit Trade Reports. Although the number of recorded seizures remains low, the volume seized increased significantly rising from 421 kg in 2022 to 1.23 tons in 2023. Nearly all recent seizures occurred in West Africa, with Burkina Faso accounting for 97% of reported seizures in 2023, linked to shipments transiting from Niger to Mali.

Anna concluded by noting that enforcement remains a challenge due to insufficient data granularity, limited customs training on chemical-specific risks, and lack of integration across regulatory agencies. She advocated for enhanced cooperation between customs authorities and environmental agencies, better use of trade intelligence tools, and stronger implementation of Convention provisions at the national level.

Q&A Highlights

During the Q&A session, participants raised several questions related to regional trade dynamics, data interpretation, and enforcement practices concerning mercury trade.

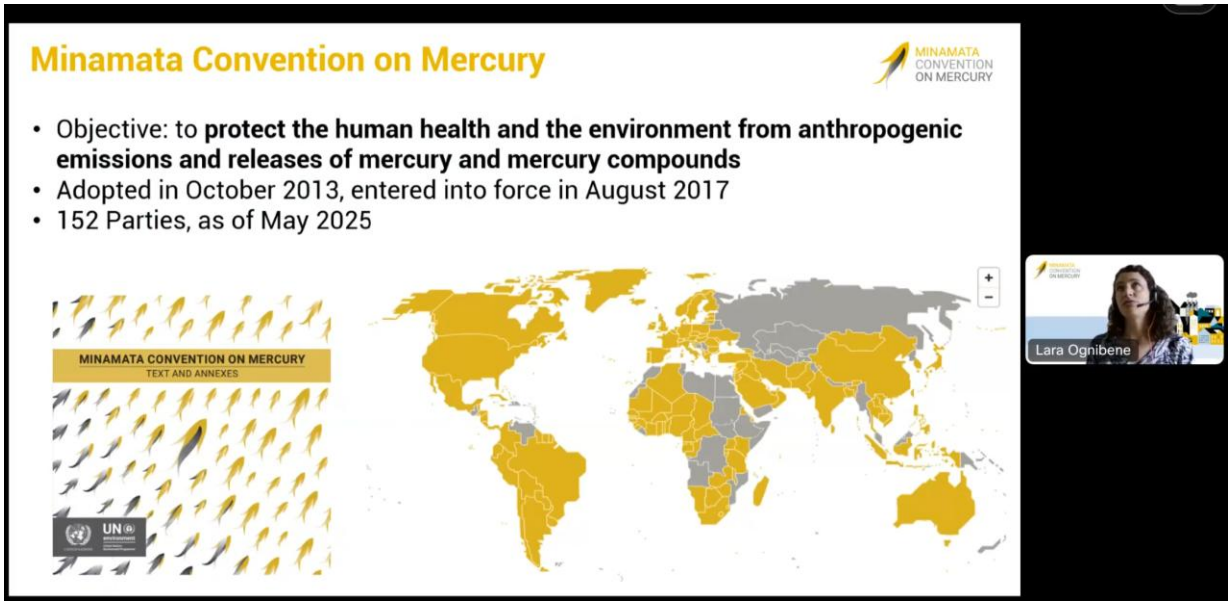
In response to a question about the high mercury consumption reported in East and Southeast Asia, Anna noted that countries such as Indonesia, the Philippines, Malaysia, and Thailand were key actors in the region's mercury trade landscape. She highlighted their involvement both in formal trade and artisanal gold mining activities, which remain significant sources of mercury demand and use.

Another participant sought clarification on the seemingly disproportionate increase in seizure volume despite a low number of reported cases in WCO's illicit trade data. Anna explained that while only two seizures were recorded in 2022 and four in 2023, the total quantity of mercury intercepted increased by 192%, reflecting a notable escalation in trade volume despite limited reporting.

The final question focused on practical advice for customs and environmental officers dealing with the identification of mercury compounds at border checkpoints. Anna acknowledged the challenge posed by the existence of over 9,500 mercury-related compounds, many of which are not clearly defined within standard trade codes. She advised officers to closely analyze national import/export records, make use of specific HS codes designated for mercury and its compounds, and supplement their procedures with granular customs classifications where available—such as those developed in the European Union. She emphasized the importance of tracing trade flows and verifying levels of compliance through both WCO frameworks and national regulatory tools.

Presentation 3: Legal Obligations under the Minamata Convention

The final technical session was delivered by Ms. Lara Ognibene, Legal Officer at the Secretariat of the Minamata Convention on Mercury. Her presentation focused on the legal framework governing mercury trade under Article 3 of the Convention, which addresses both supply sources and international movement of mercury.



Ms. Lara providing details of Minamata Convention during her presentation

She began by restating the Convention's objective to protect human health and the environment from mercury emissions, noting that 152 Parties had ratified the treaty as of June 2025. Article 3 requires Parties to control mercury trade through measures such as obtaining written consent from importing countries and ensuring that the trade is either for allowed use or for environmentally sound storage. These requirements apply to trade between Parties, as well as transactions involving non-Parties, and are effective immediately upon a country's ratification.

To illustrate how the rules are applied, Lara presented three trade scenarios involving different combinations of Party and non-Party status. She explained the documentation needed in each case, including specific forms adopted by the Conference of the Parties, such as Form A for imports between Parties and Form C for certification by non-Parties. She also noted that countries like Canada, Japan, Thailand, and the United States have submitted general notifications of consent that simplify the process under defined conditions.

The presentation further highlighted Decision MC-5/2, which encourages Parties to build enforcement capacity, report implementation challenges, and contribute to the development of guidance. Reported challenges include illegal mercury transit, re-export, trade of unknown origin, and its continued use in artisanal and small-scale gold mining. Lara concluded by sharing examples of regional collaboration, such as a joint initiative among Senegal, Burkina Faso, and Togo to develop model regulations and strengthen control systems for mercury trade.

Q&A Highlights

In the Q&A following her presentation, Lara Ognibene addressed two key questions from the moderator and participants. First, she was asked about the practical challenges customs officers face in implementing and reporting under the Minamata Convention. She noted that one of the primary obstacles is the lack of coordination between customs authorities and national focal points, who are responsible for granting consent to mercury imports. This often results in confusion about the proper use and verification of required trade forms. She emphasized the importance of ensuring that customs officers are aware of the forms, understand the process, and verify that documentation is properly authorized. She also mentioned the difficulty in detecting mercury at border checkpoints due to its various forms and the lack of technical tools for on-site identification.

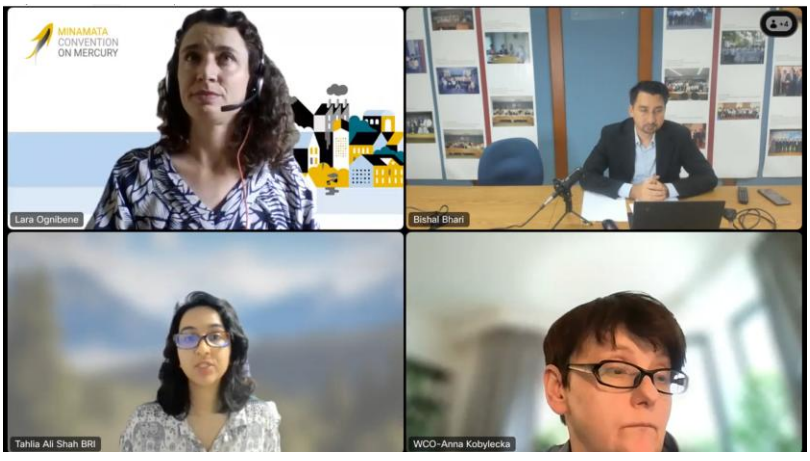
A participant then asked what happened to seized mercury involved in illegal trade — whether such shipments are repatriated to the country of origin. Lara clarified that the Minamata Convention does not contain any provision for the repatriation of seized mercury, unlike some other environmental treaties. She explained that in most countries, seized mercury is treated as hazardous waste and must be managed and disposed of in accordance with national waste legislation and Article 11 of the Convention, which governs mercury waste.

Open Q&A session

The Open Q&A session invited participants to engage with all three speakers in a concluding discussion. The moderator initiated the segment with a question directed to the panel: what recommendations they would offer to strengthen collaboration among customs, environmental agencies, and enforcement teams in line with the objectives of the Minamata Convention.

Ms. Tahlia Ali Shah responded by emphasizing the importance of first understanding the obligations under the Convention and conducting a legislative or gap analysis to assess how existing national regulations align with those requirements. She noted that countries need not reinvent systems but rather evaluate their current practices and seek to integrate the Convention's obligations into them. She pointed to the resources available through the Convention Secretariat, as well as guidance from institutions like the Biodiversity Research Institute, to support countries in adapting and implementing these measures effectively.

A follow-up question from a participant focused on whether mercury contamination could be confused with arsenic or if the symptoms in fisheries were less visible in mercury-related cases. This question referenced recent news from Northern Thailand where such concerns were raised. Tahlia responded by noting that while she could not speak specifically to arsenic, it is common for artisanal and small-scale gold mining (ASGM) to involve a range of hazardous chemicals beyond mercury, including cyanide. She explained that through national action plans supported by the Minamata Convention, countries are increasingly addressing these pollutants comprehensively. Measures designed to reduce mercury use often have co-benefits in tackling other toxic contaminants, thus advancing overall environmental health and safety.



Open Q&A Session

Closing Remarks

The training concluded with closing remarks delivered by **Mr. Thomas Verbaere**, Programme Management Officer at **UNEP**.

Mr. Verbaere thanked all participants for their time and engagement, expressing appreciation for the active involvement of customs officers and environmental authorities throughout the session. He also acknowledged the contributions of the expert speakers — Ms. Tahlia Ali Shah, Ms. Anna Kobylecka, and Ms. Lara Ognibene — for providing diverse and relevant perspectives on mercury risks, trade dynamics, and legal obligations under the Minamata Convention.

He reiterated UNEP's appreciation to the **Government of Japan** for funding the training series and expressed gratitude to **AIT RRC.AP** for facilitating the session. Mr. Verbaere emphasized that the training is part of a broader initiative and noted that **additional sessions are planned** to continue building capacity among national agencies involved in mercury monitoring and management.

He concluded by thanking all organizing partners and encouraging participants to remain engaged in the upcoming events.

Participant Feedback

There were **36 responses** to the feedback survey. The summary of the feedback is as follows:

Overall, how would you rate the quality of the training session?

Participant responses to overall satisfaction were mixed. Most respondents (58%) indicated they were Satisfied with the training, while 33% rated it Very Satisfied. However, 8% of respondents (3 participants) expressed that they were Very Dissatisfied, indicating a minority had a strongly negative experience.

How would you rate your level of preparation for the course?

Participant preparedness was mixed. While 31% rated their preparation as Very Good, and 17% as Excellent, the majority (39%) reported a Satisfactory level. Notably, 14% felt only Fairly prepared.

What was your level of skill/knowledge at the start of the course?

Initial self-assessments indicate that participants began the course with modest levels of knowledge. A combined 68% rated themselves as either Satisfactory (36%), Fair (33%), or Poor (8%). Only 22% considered themselves Very Good, and 8% Excellent.

What was your level of skill/knowledge at the end of the course?

Post-training assessments improved substantially. 47% rated their skills as Satisfactory, 36% as Very Good, and 11% as Excellent. Only 6% still felt their knowledge was Fair. These results demonstrate a positive shift in self-assessed capability, with most participants progressing from fair or satisfactory to higher levels of confidence and understanding.

Contribution of the course to your skill/knowledge

Most participants saw clear value from the course: 33% marked the contribution as Excellent, 31% as Very Good, and 33% as Satisfactory. Just 11% remained at Fair.

Likelihood of applying learning of the training in their work

Participants responded positively when asked if they would apply their new knowledge in practice: 56% indicated they were Likely, and 34% said Very Likely. However, 11% were Unsure.

Most valuable concept or takeaway

Participants most frequently cited insights into mercury trade regulation, the Minamata Convention, mercury-added products (especially cosmetics), and practical tools like HS coding and databases. These themes show that both the legal-regulatory framework and product identification were highly valued. Relevance to actual customs work—such as identifying illicit mercury flows—was appreciated, reinforcing that practical focus is essential.

Aspects needing improvement

Critical feedback revealed several recurring areas of improvement:

- Clarity on legal provisions and technical detection methods
- Real-life enforcement examples
- More time for discussion and interactive elements
- Pre-distribution of materials

Additional comments or suggestions

While many responded with “No” or “None,” useful suggestions included:

- Extending the training duration
- Including polls or interactive elements
- Adding short videos or real-world case clips
- Sharing slides beforehand

Annex 1: Concept Note and Program Agenda

Online Custom Training #1

Customs Training to Enhance Monitoring of Trade of Mercury and Mercury Compounds

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26th of May 2025

Concept Note and Programme Agenda

Background and Objectives

Minamata Convention on Mercury (the Convention) is one of the newest multilateral environmental agreements aiming at protecting human health and environment from anthropogenic emissions and release of mercury and mercury compounds. There has been a growing need for capacity building concerning appropriate mercury monitoring skills in developing countries to ensure the implementation of the required efforts to monitor the levels of mercury and mercury compounds.

United Nations Environment Programme (UNEP) is implementing a Japan-funded project called "Project for promoting the Minamata Convention on Mercury by making the most of Japan's knowledge and experiences1" to support its member states for the implementation of the Convention. The project has a special focus on the area of information exchange, awareness and education, research, development, and monitoring. A comprehensive programme was designed to strengthen enabling capacity, build on the resources in and around Minamata, and employ technologies held by institutions in Japan for the effective implementation of the Convention's obligations.

In addition to the in-person workshop planned, kindly note that national stakeholders will also be invited to participate in a series of online training sessions to be held tentatively from May to July 2025. These brief online webinars will provide key context to the issues related to mercury, global mercury trade and the obligations of the Minamata Convention on

Mercury. Attendees of all sessions will receive a Certificate of Participation.

Participation Details

Date: Wednesday 26th of May 2025

Venue: Virtual (Webex).

Registration: Please register for the webinar from the link or QR-code below:

https://rrcap.webex.com/webappng/sites/rrcap/webinar/webinarSeries/register/6168a6a0b1bf436994389c98019c5e87

Project title: Project for Promoting Minamata Convention on Mercury by making the most of Japan's knowledge and experiences.

Webinar title: Customs Training to Enhance Monitoring of Trade of Mercury, Mercury Compounds.

Participants: Ministries of Environment, Ministries of Health and Custom Authorities.

Language: English only (no interpretation provided)

Contact: japanmercuryproject@un.org; warm@rrcap.ait.ac.th

Project web: https://www.unep.org/topics/chemicals-and-pollution-action/pollution-and- health/heavy-metals/mercury/promoting-minamata

Programme Agenda

Time (UTC+7)		
15:30-15:33	**Opening Remark** Expected outcomes of the training series.	Thomas Verbaere, UNEP
15:33-15:36	**Opening Remark**	Guilberto Borongan AIT RRC.AP
15:36-15:40	**Housekeeping Announcement + Speaker Introduction**	Bishal Bhari (AIT RRCAP)
15:40-15:55	**Issues related to mercury, its uses and toxicity to human health and the environment.** Global overview of mercury hazards and risks.	Tahlia Ali Shah, Biodiversity Research Institute
15:55-16h00	**Q&A**	Moderator: Bishal Bhari (AIT RRCAP)
16:00-16:20	**Global trade of mercury, mercury compounds and mercury added products.** Overview of the main trends and route of formal and informal mercury trade globally and in the region.	Anna Kobylecka, World Custom Organization
16:20-16:25	**Q&A**	Moderator: Bishal Bhari (AIT RRCAP)
16:25- 16:30	**Health Break**	
16:30-16:50	**Key obligations of the Minamata Convention on mercury trade management**Presentation of the main provision on mercury trade under Article 3 of the Convention.	Lara Ognibene, Minamata Secretariat
16:50-17:00	**Q&A (To all the speakers)**	Moderator: Bishal Bhari (AIT RRCAP)
17:00-17:05	**Closing Remark**	Thomas Verbaere, UNEP