REGIONAL CONFERENCE ON PHASING-OUT OF MERCURY-ADDED PRODUCTS IN THE CARIBBEAN: ENGAGEMENT, STEPS AND TOOLS, TOWARDS IMPLEMENTING THE MINAMATA CONVENTION ON MERCURY

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REPORT

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Report of the Regional Conference on Phasing-Out of Mercury-Added Products in the Caribbean: Engagement, Steps and Tools, Towards Implementing the Minamata Convention on Mercury, Port-of-Spain, Trinidad and Tobago, 6-7 June 2023

INTRODUCTION

On 6-7 June in Trinidad and Tobago, the European Environmental Bureau in cooperation with the Zero Mercury Working Group (EEB/ZMWG) and CARICOM Secretariat organised a two-day Regional Conference entitled "Phasing-Out Mercury Added Products", to share experiences on implementing the Minamata Convention, focusing on mercury-added products, and disseminating lessons learned and best practices to the broader Caribbean region. The regional Conference also sought to underline the importance of the Minamata Convention to address the global mercury crisis and encourage non-signatory Caribbean states to consider joining the Minamata family.

DAY 1

Opening Session: Welcoming Remarks:

Ms. Elena Lymberidi-Settimo, Policy Manager 'Zero Mercury Campaign' European Environmental Bureau, and International Co-coordinator, Zero Mercury Working Group (EEB/ZMWG) gave brief opening remarks, providing some history on the EEB, its work, membership and objectives. She took the opportunity to thank Antigua and Barbuda, St. Kitts and Nevis, and Trinidad and Tobago for being the three (3) pilot countries to commence the phasing-out of mercury-added products (MAPs). As co-organiser of the event, she encouraged active participation during the Meeting and the invaluable sharing of thoughts and experiences.

Mr. Balakrishna Pisupati, Head, Environment Policy, Law Division, United Nations Environment Programme (UNEP), with support to Science Policy Interfaces, Governance and Multilateral Environmental Agreements (MEAs), briefly recapped the joint work of UNEP and the Caribbean Community since 2009 to implement aspects of the MEAs, impressing upon the Meeting the importance of the event and how science informed policy-making at the national/Member State level.

Ms. Monika Stankiewicz, Executive Secretary of the Minamata Convention on Mercury, welcomed all parties and participants, highlighting the exciting opportunities for implementing some of the key areas of the programme. She stressed that the implementation of the Convention was key, as mercury pollution would continue to impact health and biodiversity. She affirmed that the Caribbean Community could be counted on for the implementation of the Convention in the area of trade and in the phasing-out of mercury products such as cosmetics, measuring devices and dental amalgam.

In providing a global overview of the Convention's implementation, she shared that 33 parties out of 133 countries were still to meet the 2020 deadlines and would be called upon to develop national strategies for mercury-added product phase-out with clear timelines. To assist with the implementation, she informed that the Convention Secretariat, with financial support from the European Commission, would be planning a global workshop in Geneva in June 2023 to develop strategies to phase out mercury-added products. Caribbean countries would be able to benefit from that support, with the hope that in the next mercury reporting period in 2025, parties would be in a position to confirm having phased-out mercury-added products. In closing, she thanked all parties for their participation and anticipated future cooperation and successful outcomes from the engagement.

On behalf of the CARICOM Secretariat, **Ms. Amrikha Singh, Programme Manager Sustainable Development**, expressed her pleasure at the opportunity to share experiences and best practices in implementing the Minamata Convention and managing the phase-out of mercury products in the Region. In partnership with the EEB and Zero Mercury Working Group, the CARICOM Secretariat was working with Member States to address the challenges of implementing the phase-out of mercury-added products and wished to place the spotlight on timely, focused work in three (3) Member States, namely Antigua and Barbuda, St. Kitts and Nevis, and Trinidad and Tobago.

This work tied into the Capacity Building Related to Multilateral Environmental Agreements in African, Caribbean and Pacific Countries (ACP MEAs) Project, in which the European Environmental Bureau, in collaboration with the Zero Mercury Working Group (EEB/ZMWG), and Caribbean Community (CARICOM) Secretariat were partners of the third phase of the African Caribbean Pacific Multilateral Environmental Agreement (ACP MEAs III) programme supported by the European Commission and UNEP, for the period 2020-2024. In this connection, the CARICOM Secretariat was the Caribbean Hub for the ACP MEAs project, which focused on: i) the development of national inventories and registries for mercury and persistent organic pollutants under the Basel, Stockholm and Minamata Conventions, ii) the development of audiovisual aids on the handling and transport of waste, iii) developing technical guidelines on the management of plastic waste, and iv) the development of short sensitisation materials for countries not yet party to the Convention.

The **CARICOM Secretariat representative** took the opportunity to thank the EEB, Zero Mercury Working Group and UNEP for building capacity in phasing-out mercury-added products and strengthening waste management systems at the national level and reducing the global mercury crisis. She spoke of eliciting meaningful change after the discussions to be held over the coming days, and the signing of the Minamata Convention by new countries.

Ms. Marie Hinds, Permanent Secretary, Ministry of Planning and Development, Trinidad and Tobago, welcomed participants to Trinidad and Tobago and underscored the importance of the work to be done over the coming days. Whilst acknowledging that Trinidad and Tobago had not yet signed the Minamata Convention, the country was actively making steps towards resolving its concerns before signing, including the conduct of its Minamata Initial Assessment (MIA) and participation in the ACP MEAs and GEF ISLANDS Caribbean Project. In this respect, Trinidad and Tobago had been involved in ongoing consultation since 2014 on the reduction of mercury use at the national level.

The **Permanent Secretary** also noted that most recently, *via* a 2022 project, the CARICOM Secretariat had assisted Trinidad and Tobago in phasing-out mercury at the national level. She admitted that while Trinidad and Tobago was willing to phase-out mercury, it would take some time. She expressed thanks to the EEB, the CARICOM Secretariat, the National Working Group of Trinidad and Tobago and other collaborators for the efforts made, and anticipated engaging discussion, with fruitful output, strategies, approaches and deliverables. She stated that the project was timely and presented an opportunity for the Region to take further concrete action to reduce and eliminate mercury in Caribbean populations and the impact of mercury on the health of the Region's people. The Caribbean would ultimately benefit from improved environmental management.

Mercury and the Minamata Convention
Why is it important?
Focus on requirements related to Article 4

Ms. Ruvimbo Kamba, Consultant to the Minamata Convention Secretariat, gave a brief history of the Convention, which had its origins as a response to a public outcry and growing demand for the protection of human health, following a decades-long incidence of mercury poisoning from the discharge of industrial wastewater from a chemical factory into the Minamata Bay in Japan. The Convention was adopted in 2013, but entered into force in 2017, and was signed by 141 Parties, with an ongoing signature drive to push for the elimination of mercury in products.

It was recalled that the Minamata Convention addressed the whole life cycle of mercury, from bans on new mercury mines, phase-outs of existing ones, control measures on emissions and releases, and the regulation of the informal sector. In addition to healthier communities and environments, joining the Convention offered other benefits such as access to technical and financial support towards the implementation of the Convention and the eventual elimination of mercury.

As it related to Annex A Mercury-Added products, in accordance with Article 4 of the Convention, which treated with taking appropriate measures against the manufacture, import and export of everyday items containing mercury, the goal was to phase out Annex A products by 2020, with a longer timeline of 2025 for a second phase-out. Products that fell under Annex A included items such as batteries, lamps, switches and relays, cosmetics, pesticides, biocides and topical antiseptics, non-electronic measuring devices such as thermometers and barometers. Under Annex A Part II, measures were listed for the phase down of dental amalgam.

At the 4th Conference of the Parties (COP-4) in March 2022, a review was conducted on the implementation timeframes for Annex A (Mercury-Added products) and B (manufacturing processes in which mercury or mercury compounds were used), which resulted in an amendment of Annex A and the addition of eight (8) products to be phased-out. It was reported that the phase-out of a further four (4) products had also been agreed. However the timelines would be further considered at the COP-5 at the end of October 2023.

In the Caribbean context, the phase out of Annex A products tied directly into the present Workshop, with a focus on the progress made by Caribbean countries toward achieving the 2020 deadlines. Consequently, countries would be invited to develop timelines, schedules and robust strategies to phase-out mercury-added products at the national level. Technical support would also be provided at the Global Workshop on Implementing the Convention Obligations on Mercury-Added Products, to be held in Geneva, Switzerland, in June 2023.

Project overview – focusing on work carried out in Antigua and Barbuda, St. Kitts and Nevis, Trinidad and Tobago towards phasing-out mercury-added products (MAPs)

This topic was presented by **Ms. Rina Guadagnini, Mercury Policy Officer, European Environmental Bureau Zero Mercury Working Group (EEB/ZMWG)**. A brief introduction of the EEB was provided, as Europe's largest network of environmental citizens' organisations for sustainable development, environmental justice and participatory democracy with 180 members, from 38 countries. She elaborated that the ZMWG was an international coalition of more than 110 public interest, environmental and health NGOs from more than 55 countries, aimed at reducing and eliminating mercury supply, use, emission and exposure, (and to assist) in the implementation of the Minamata Convention. Under the MEAs III project, the role of the EEB/ZMWG was to help formulate specific strategies in selected countries for the Article 4 phase-out provisions of the Mercury Convention, support the regions in respect of mercury-related activities, and facilitate the dissemination of results during regional and international reporting processes.

In this connection, Memoranda of Understanding (MoU) were signed with three Caribbean countries - Antigua and Barbuda, St. Kitts and Nevis, and Trinidad and Tobago, which focused on six (6) collaborative areas for mercury reduction activities, namely:

1. Roadmap for phasing-out mercury-added products (MAPs);

2. Market study of mercury-free alternatives;

3. Assessing/focusing institutional capacity;

4. Mercury-free product procurement;

5. Single Stream Product Management Pilot Project; and

6. National Implementation Plans.

As it related to the **development of a roadmap for phasing-out** Article 4 products, all three (3) countries used the ZMWG checklist and guide to develop their roadmaps to phase out MAPs, which involved the stakeholder involvement, assessing the current situation and challenges, the identification of the steps to be taken, and timelines for completion. Engagement also included contact with national mercury focal points, cross-Ministry personnel and other key stakeholders. With respect to the **market study on mercury-free alternatives to MAPs**, a consultant had been hired in each country to collect information and report on the availability of mercury-free alternatives, as well as to do spot checks to complement the main study being undertaken. Product categories were prioritised based on the country's specifics.

In the area of **capacity-building and strengthening needs**, working groups or committees on chemicals and mercury issues had been established in each country. Regarding **mercury-free product procurement**, the Ministries of Health and Public Utilities in the three pilot countries had participated in a survey on the policies and procurement process for mercury-free products. It was noted that mercury-free procurement policies for lighting, measuring devices and dental amalgam had been developed for the three countries and were under consultation with the relevant authorities and stakeholders.

As it related to **single stream product management pilot project**, work was to be done to determine the feasibility of single product stream management projects and the availability of resources. A pilot project plan for environmental sound management and disposal of single stream products would possibly be developed, including the steps and costs to do so. In respect of the **development of national implementation plans**, specific areas would be

addressed, including elemental mercury supply (Article 3), interim storage of mercury and product discards (Article 10) and mercury products waste management (Article 11). Lastly, the EEB/ZMWG had been collaborating with the Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean) to assist with and complement the Global Environment Facility (GEF) ISLANDS Project and other programmes.

Study on the market transition to Mercury free/Convention compliant products in the Caribbean

- Reliable, available mercury-free alternatives;

- Findings of studies carried out in pilot countries on the capacity of Caribbean markets to transfer to mercury-free products

Ms. Tahlia Ali Shah, EEB/ZMWG Consultant presented the findings of studies carried out in the three pilot countries on the transition to mercury free/ Convention-compliant products in the Region. Given that MAPs had reliable, available mercury- free alternatives, the study looked at the capacity of Caribbean markets to transition to mercury-free products.

The following products were selected for assessment for the availability of mercury- free alternatives in the Region: fluorescent lighting devices and high intensity discharge lamps; switches, relays and thermostats; medical measuring devices such as thermometers and blood pressure gauges; dental restoration material/fillings; and topical antiseptics (such as mercurochrome in the case of Trinidad and Tobago). It was noted that while mercury-added cosmetics (including skin lightening products and whitening creams) had been identified as a potential area of concern across the Caribbean, they were not included under this study as more in-depth assessments were expected to be conducted under future regional and global initiatives. For the mercury-added products assessed under the study, it was highlighted that under the Minamata Convention, a phase out of their manufacture, import and export is required except for mercury-added dental restoration material where a “phased down” approach through the implementation of various measures was recommended.

Coming out of the initial assessments in the three (3) countries, the following activities were recommended to promote the phase-out of MAPs and the promotion of mercury-free alternative products:

- the development of communication and coordination strategies to promote mercury-free alternative products to target stakeholders in the public and private sectors;

- the coordination of public awareness efforts between government and private stakeholders in manufacturing, retail and medical sectors as essential to ensure clear communication on and phase-out of MAPs, and their replacement by mercury-free alternative products;

- coordination between EEB/ZMWG's and other related projects and initiatives for the overall protection of human health and the environment;

- the development of national environmental/green government policies to indirectly address the promotion of mercury-free alternative products through energy efficiency commitments;

- the coordination of public, private and NGOs' efforts through National Working Groups for the project and other related environmental initiatives; and

- the alignment of national policies and legislation with the Minamata Convention obligations.

Based on the findings of the study, it was evident that the replacement of MAPs with mercury-free alternatives was already an ongoing process in the Caribbean, reflecting global trends as many the global manufacturers of MAPs had already committed to the production of mercury-free alternatives. When overall efficacy, availability and accessibility was considered, the replacement of MAPs with Minamata Convention-compliant products was found to be both feasible and generally favoured due to the less or non-toxic nature of the mercury-free alternatives.

ZMWG Guide and Checklist for Phasing-out Mercury-Added Products under the Minamata Convention on Mercury

Mr. Michael Bender, Director, Mercury Policy Project, International Co-coordinator, ZMWG, presented this topic, providing the context for the development of the checklist which had its genesis in the outcomes of the 2015 World Health Organisation (WHO) report on the phase-out of mercury products in medical health care. The report looked at the environmental impact of mercury emissions, which took into account MAP releases into the environment *via*: i) mercury supply sources from mines and recycling; ii) storage and transport by brokers and traders; iii) manufacturers insertion of mercury into products; iv) mercury leakage through product breakage; v) collection, storage and recycling of MAP discards; and vi) MAP disposal in burn pits, landfills and incinerators.

The four (4) steps to phasing-out MAPs encompassed:

i) the development of a stakeholder engagement strategy which would identify relevant ministries/stakeholders; establish a structure to facilitate project input/coordination, such as through an Advisory Committee; determine roles, responsibilities and timelines; identify implementation targets, project goals, project milestones and data requirements; establish mechanisms to evaluate progress; secure financial and technical assistance; and facilitate stakeholder review and input on project deliverables;

ii) preparation of a situation assessment, which would examine the legal gaps for phasing-out MAPs; provide an inventory of MAP manufacture and trade; assess the availability of Convention-compliant products/devices; assess existing institutional capacity to support the MAPs phase-out; establish information reporting and data platforms, product testing and compliance evaluation; trade monitoring; and training of officials and enforcement;

iii) the addressing of capacity-building and strengthening needs by identifying target populations to improve hazard and risk communication outreach; establish methods for determining mercury levels in products and measures; improve occupational health and safety standards and practices for handling mercury; and promote reduction in illegal transboundary trade in mercury-added products; and

iv) the identification of key project deliverables which sought to develop or revise laws/regulations to phase out MAPs; identify priorities for filling institutional gaps/capacity needs; update occupational health and safety standards and practices for mercury handling; and identify target populations for hazard and risk communication initiatives.

The **presenter** concluded with the reminder that the toolbox of measures was available online on the ZMWG's website for easy access.

In the discussions that arose, the first question enquired about the criteria used to select the three pilot countries. In response, it was shared that the sizes of the different countries and level of interest received were determinants, as well as a number of discussions with the BCRC-Caribbean for potential countries to work with. The purpose of the current Workshop was to help other countries with their activities.

Secondly, a question was raised about addressing waste management streams. It was stated that hazardous waste required particular disposal methods which involved funding and staffing resources, the coordinated collection and consolidation of hazardous waste, its

disposal, management and transport. Given that there were varying quantities of mercury in specific products, governments would have to manage their limited resources by prioritising and tackling the largest issues in the most cost-effective way. Finally, as regards island collection and disposal of MAPs, shipping arrangements should be put in place to support those activities.

Panel discussion- Towards Phasing-out MAPs:

- Stakeholder's engagement strategy;
- Mercury free procurement policies;
- Developing a National Action Plan

This discussion was facilitated by **Ms. Elena Lymberidi-Settimo, EEB/ZMWG, and Mr. Michael Bender- MPP/ZMWG**. The **presenters** were: **Ms. Laël Bertide-Josiah and Dr. Linroy Christian, Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda**; **Ms. Keima Gardiner, Ministry of Planning and Development, Trinidad and Tobago**; and **Mr. Franklyn Connor, St. Kitts and Nevis Bureau of Standards, St. Kitts and Nevis**.

It was shared that at the national level in pilot countries, the areas of project work looked at:

i) establishing a roadmap for phasing-out mercury-added products;

ii) a market-study of mercury-free alternatives;

iii) assessing/focusing institutional capacity on the phase-out of MAPs;

iv) developing mercury-free procurement policies ; and

v) a national implementation plan for the phase out of mercury.

Panellists were asked to respond to a number of questions in an effort to provide context for the development of their stakeholder engagements and national plans. With regard to stakeholder engagement, **representatives of the pilot countries** provided background information on the entities that had been leading the phase-out of mercury-added products within respective governments. They also discussed the importance of stakeholder engagement to the process and the phase at which it had begun. **Pilot country representatives** also addressed the matter of advisory working groups and whether they had

been formed. They also discussed the roles and responsibilities for the ministries involved in the advisory groups, as well as the timeline established to move forward to phase-out MAPs.

On the matter of development of Roadmaps/National Action Plans, participants shared how the groundwork was laid for the phasing-out of MAPs, either *via* legislation or import bans. Participants also shared the key actions that were planned or being planned to phase-out MAPs in respective countries in order to address previously identified gaps. Panellists indicated how country roadmaps for the phase-out of MAPs would be incorporated into an overall national strategy to reduce use, release and exposure to mercury.

Emanating from the panel discussions, the key takeaways for other countries undertaking the phase-out of mercury-added products identified that:

i) national plans should be built off of the Minamata Initial Assessment (MIA);

ii) stakeholders should be identified and engaged early and throughout the process;

iii) an inter-agency advisory group should be formed and should agree on the steps leading to the development of a national action plan;

iv) countries should build consensus for draft resolutions to phase out the procurement of certain MAPs;

v) these steps should be followed by legal steps/processes to phase out MAPs.

vi) mercury free procurement policies could complement the work, while legislation was being prepared and adopted.

Mercury-Added Skin lightening creams, a problem to tackle in the Region

- The persistence of Skin Lightening Products;

- Strengthening enforcement

The Minamata Convention banned the manufacture and trade of cosmetics with over 1 part per million (ppm) of mercury. **Ms. Laël Bertide-Josiah, Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda**, made a presentation on this topic, which looked at the persistence of mercury-added skin lightening products (namely gels, creams, lotions and soaps) that were still available on-line and in stores (such as pharmacies and groceries), despite mercury findings. It was explained that skin

lightening practices were prevalent in the Caribbean, African and Asian regions and were usually linked to colourism and self-esteem issues.

The data was prepared using 135 products from 16 brands that were purchased in Antigua and Barbuda and analysed by Biodiversity Research Institute (BRI), in Maine, USA. Of these, two (2) brands were manufactured in the Region and contained levels of mercury higher than 1 part per million (ppm) - at 4ppm and greater than 19,000 ppm, respectively. In this vein, there were significant risks to human health from exposure to inorganic mercury found in skin lightening creams and soaps, such as kidney damage, skin rashes, skin discolouration, scarring, reduced resistance to fungal and bacterial infections, anxiety, depression, and psychosis. In the case of women and men who used those products, the side effects were also known to affect children, others in the home, and the home itself, through contact by users.

From organic forms of mercury, typically found in mascara and eye make-up cleaning products, varying degrees of toxicity to the nervous, digestive and immune systems were discovered, as well as adverse effects on the lungs, kidneys, skin and eyes. The effects of both organic and inorganic mercury exposure were best quantified through blood and urine samples, however, ethical clearance was needed to test for these effects. On the whole, it was reported that the cosmetic screening of the 135 products provided alarming results, with Jamaica being in the lead for the manufacture of skin lightening products in the Region.

Antigua and Barbuda was doing its part in curbing the use of mercury-added products through the introduction of a statutory instrument under its Memorandum of Understanding (MoU) with EEB/ZMWG under the UNEP ACP MEAs project. The draft Trade in Mercury-Added Cosmetics Regulation of 2021 stipulated that a trader must apply for a license from the Pesticide and Toxic Chemicals Control Board (PTCCB), similar to the licensing process for pesticides and toxic chemicals. The draft Regulation was accompanied by a tiered approach for penalties, inclusive of disposal fees and fines for the repeated import of harmful chemicals. It was noted that the draft Regulation was under review by the PTCCB before presentation to Cabinet for endorsement.

The next steps looked at the potential set up of a cosmetics surveillance network in the Caribbean, with the hub being in Antigua and Barbuda. In collaboration with the GEF project on skin lightening cream, the provision of necessary laboratory services by Antigua and Barbuda would be put in place and would give rise to a review of the imported cosmetics of interest coming into that country. Expressions of interest from other countries within the Region would be sought for testing and other services, noting that surveillance could also include fish, birds, hair and cosmetics, among others, based on national interests. The level of risk and control required for the import of mercury-added products would also have to be determined and monitored, with the aim of generating data for the Region.

In the second presentation on strengthening enforcement, **Ms. Rina Guadagnini, EEB/ZMWG** discussed the elimination of mercury-added skin lightening products (SPL) in global markets and e-commerce platforms, through strengthening the enforcement of the provisions of the Minamata Convention. In this connection, it was reiterated that the accepted maximum level of mercury in products was 1ppm, and the Convention banned the manufacture and trade of cosmetics over that limit.

Building on the earlier presentation regarding the use of mercury as a bleaching agent added to creams to produce a whitening/lightening effect, she spoke of the potency of mercury as an easily absorbed substance through the skin and lungs, which could lead to a range of adverse effects on the body. Given the widespread use of SLPs (it was reported that almost 28% of persons across the globe had used skin lighteners at one time or another), the ZMWG had undertaken an extensive sampling of global cosmetic products between 2017 and 2023 which looked at local markets and online sales. During the period 2021-2022, almost half of the products sampled for that period (129 of 271 products, representing 36 different brands) tested for mercury levels above 1ppm. **Ms. Guadagnini** alerted participants to a link hosted by the ZMWG with the findings of over 1000 SLPs that had been tested for mercury levels, along with information from various governments and other agencies that alluded to potentially dangerous products.

The challenge with these findings lay in the fact that mercury was, for the most part, not listed as an ingredient in cosmetics. This meant that customers were unaware of their level of exposure to the substance and to potential skin and other health issues. Moreover, the impact of racism and colourism issues was still very strong in the Caribbean, Africa, Asia and North America. This had occasioned the widespread use of lightening formulas at one time or another. In this respect, there was an overwhelming need for cultural change to eradicate that type of thinking and product usage. **Ms. Guadagnini** shared that these products were widely available on at least 25 online platforms such as Amazon, AliExpress, eBay and Shopee, amongst others.

Emerging from the ZMWG's sampling and testing exercises, the ZMWG had made four (4) observations, noting: i) that the illegal SLP production and toxic trade had continued despite national bans and the Minamata Convention ban; ii) these high mercury SLPs remained readily available online over a sustained number of years, on the same platforms; iii) many platforms had policies in place to keep illegal SLPs from being sold; however, iv) there was a clear lack of due diligence by online platforms to keep illegal SLPs from being offered for sale.

Therefore manufacturing countries needed to ensure that there were laws in place which were enforced it – to prevent the manufacture of such products. These countries also needed to make reforms, as relevant, to ensure third party liability of online platforms.

At the same time, to curtail the widespread availability of these products, also on the ground, the ZMWG recommended the following steps to address illegal toxic SLP trade:

i) the enforcement of a legal framework, with mandates and a division of responsibilities that would impose licensing/registration requirements, establish restrictions/bans, and enforce the full disclosure and labelling of ingredients;

ii) the implementation of supporting tools and measures, including detention lists, alert systems or advisories, and capacity-building for regulation and monitoring/surveillance;

iii) the imposition of inspections and sanctions comprising severe fines and penalties, the use of screening tools for products, and increased consumer awareness; and

iv) establishment of inter-agency and international collaboration (such as with ASEAN, the East African Community and other regional blocs), and collaboration with NGOs at the local, regional and international levels.

The **ZMWG representative** further underlined key principles for online legal reform which took into account the establishment and enforcement of clear liability rules and significant penalties for online platforms where platforms needed to be held accountable for ensuring compliance with third party seller verification and ingredient disclosure. Other requirements included ensuring that e-commerce sellers complied with correct labelling and disclosure of ingredients, and the verification by online platforms of foreign third-party sellers. In this connection, the **ZMWG representative** mentioned that the GEF Project to Eliminate Mercury in Skin Lightening Products, to be implemented by the UNEP, and executed by the WHO and BRI, included one regional country – Jamaica - whose inception meeting had been scheduled to take place on 8-9 June 2023. It was noted that the ZMWG would be contributing data regarding online platforms and sales of SLPs.

Mention was made of the upcoming COP-5 on the Minamata Convention to be held from 30 October-3 November 2023. In preparation for this meeting, the **ZMWG representative** shared the African Region's proposed amendment to the Convention, which sought to delete the 1ppm mercury threshold and therefore propose a full mercury ban on mercury-added cosmetics, and to include three measures to be taken by Parties to phase out the sale or offering for sale of SLPs. In conclusion, it was impressed upon the Meeting that illegal SLPs were a mercury crisis that warranted concerted international action and collaboration

between government agencies at the domestic, regional and international levels. Moreover, enforcement was a significant challenge and was critical to stopping the manufacture of mercury-added SLPs and enforcement. Finally, online platform liability reform and increased awareness of the dangers of SLPs was needed urgently.

A question-and-answer session followed. It was suggested that increased enforcement would be matched by an increase in illicit trade. In response, a question was raised as to whether there were any counter measures to be taken. The **ZMWG representative** responded that although the Minamata Convention was in place, not all Parties had transposed the provisions into national law, nor had they enforced it. As a result, mercury-added cosmetics were still being manufactured. In addition, the challenge was that despite online platforms introducing policies to prevent dirty sellers from trading, these were not being enforced or adhered to. Online platforms were therefore profiting from sales and offerings for sale of illegal products. Additionally, cross-border sales in suitcases and other informal means were taking place. Consequently, it was hoped that countries would consider the adoption of the proposed African amendment at COP-5 to reinforce better control in the sales of mercury-added beauty products.

A question was posed to the **Antigua and Barbuda representative** as to whether the draft legislation being prepared by that country also contemplated not having lower thresholds for products, similar to what was proposed by the African bloc. In reply, it was stated that to consider the African proposal, the draft legislation would have to be taken back to the National Advisory Committee on Chemicals for further consideration and consultation, to determine the feasibility of the amendment.

With regard to a question on the countries where the mercury-added SLPs appeared to be manufactured as per their packaging, the **ZWMG representative** indicated that there were several African and Asian countries that were both party to the Convention and significant manufacturers of SLPs. As such, the suggestion was made to the Minamata Convention Secretariat to consider forming a working group with those countries to bring them in line. It was also recommended that global collaboration on illegal manufacturing be encouraged.

With regard to socio-cultural considerations on the use of SLPs, the **CARICOM Secretariat representative** shared that from the regional perspective, there had been discussions on cultural expression and issues related to colonialism, reparations and pan-African expression that would bring social-cultural issues under review. Mindful that this was a sensitive issue, she invited Antigua and Barbuda and Jamaica to share whether there had been any discussion at the national level on the socio-cultural impacts of MAPs and if so, whether it had any bearing on guiding the MAPs policy. The **Antigua and Barbuda representative** informed that while the cultural aspect existed, there had been no open discussion in Antigua and Barbuda

to address it. Notwithstanding this, she acknowledged that it was an aspect that needed to be explored before the country considered any ban.

A comment was made that companies had graduated from skin creams to injections and capsules and elicited a question as to whether the sampling included these. The **ZMWG representative** indicated that the ZMWG was not very familiar with injections and capsules, given that there were multiple routes for skin lightening. As such, those products had not been sampled, as the focus of the studies had been on skin creams, which was a multi-billion-dollar industry.

The **ZMWG representative** added that due to the high level of interest in the topic, the discussion had been included on the Workshop agenda. However, while governments had been taking measures over decades to ban products, the reality was that products were still circulating *via* the online platforms. Moreover, it was mentioned that under the terms of the Minamata Convention, the online market was neither considered an importer nor exporter. This created a loophole. Manufacturers kept producing products due to consistent purchasing. Therefore, all positions considered, the African amendment would make a significant difference if approved and adopted. It was noted that although countries like the United States and EU had long imposed product bans, the US had more recently seen the need to regulate the online space. The Minamata Convention was therefore the right space to address these issues.

Exercise: Participants prepare a draft national roadmap to phase out mercury-added products in their individual country

Ms. Elena Lymberidi-Settimo, EEB/ZMWG, facilitated this exercise, in which country representatives were asked to prepare and present a national roadmap/checklist for the phase-out of mercury-added products in their respective countries. **Representatives from St. Vincent and the Grenadines and Belize** presented their draft checklists in preparation for national roadmap development. Representatives from the three pilot countries were asked to assist with providing feedback on gaps identified, for the strengthening of the checklists/national plans.

The **St. Vincent and the Grenadines representative** also took the opportunity to inform the ZMWG that the country was awaiting the notification of the deposit of the Instrument of Accession to the Minamata Convention.

Launch of targeted awareness programme Audio-visual series on environmentally sound disposal and alternatives for mercury products and mercury waste

Under the MEAs III Project, a presentation was to be made by **CARICOM Project Consultants** on the targeted awareness programme that was packaged as an audio-visual series on environmentally sound disposal and alternatives for mercury products and mercury waste. The presentation was deferred to Day 2.

DAY 2

Recap of Day 1

Ms. Laël Bertide-Josiah, Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda, **Ms. Vicia Woods, Department of Environment, Ministry of Sustainable Development, St. Kitts and Nevis**, and **Ms. Jenelle Orosco-Allum, Technical Officer II, Waste Unit, Environmental Management Authority (EMA), Trinidad and Tobago** gave a brief recap of the discussions held on Day 1, with a focus on key insights and take aways on implementing Article 4 of the Minamata Convention. The discussions were treated as a call to action, with the objective of data gathering, learning from shared experiences and synergistic approaches on common issues, and the employment of targeted public awareness strategies to achieve population awareness, behaviour change and healthier and more sustainable environments.

Mention was made of feasible, efficient, affordable alternatives that currently existed for MAPs, as well as the importance of building upon the baseline created by the Minamata Initial Assessment (MIA) to advance the next steps in eliminating MAPs in the Region. The importance of early stakeholder engagement was reiterated prior to and throughout the development of the roadmap process. This engagement should be in parallel with the formation of an inter-agency advisory group, to agree on the steps that would lead to the development of a national action plan. Through collaboration among countries, consensus should be built to support draft resolutions to phase out the procurement of certain MAPs, and finally, all advancements should be supported by legal processes to phase out MAPs. The need for immediate and aggressive action was reiterated to stamp out the manufacture and formal, informal and online trade in SLPs. Going forward, the involvement of academia was emphasised as another important building block in the elimination of MAPs in relation to research and data collection within the Region, to support and inform decision-making. An equal level of importance was also placed on the inclusion of the economic sector and NGOs.

MAP Waste Management in the Region

A: Prioritising MAP waste;

B: Environmentally sound management:

1. Training manual on Environmentally Sound management of Wastes containing Mercury or mercury compounds (MAPs) in the Caribbean;

2. National inventories for hazardous and other wastes (POPs and mercury) including safe removal for reporting under the Basel, Stockholm and Minamata Conventions

A: Prioritising MAP waste

Mr. Michael Bender, MPP/ZMWG, presented on prioritising MAP waste management in the Region. On the understanding that not all MAPs were the same in respect of their mercury content and costs for collection and disposal, the presentation looked at targeted collections from households, small quantity generators and specific sectors.

Providing context for early waste management efforts, the initial focus was on health care sector disposals, which included medical/hospital incinerators, as well as one time/periodic clean sweeps and waste stream specific disposals. In respect of clean sweeps, disposals could be further broken down into general and specific, with the latter accounting for elemental mercury disposals specifically related to laboratories, hospitals and dental facilities. Waste stream disposals with specific reference to medical waste was yet another component for consideration. The final component of waste management encompassed interim storage facilities for medium-term collections, such as what was being considered in Antigua and Barbuda, with the assumption that disposal solutions would follow soon after such collections.

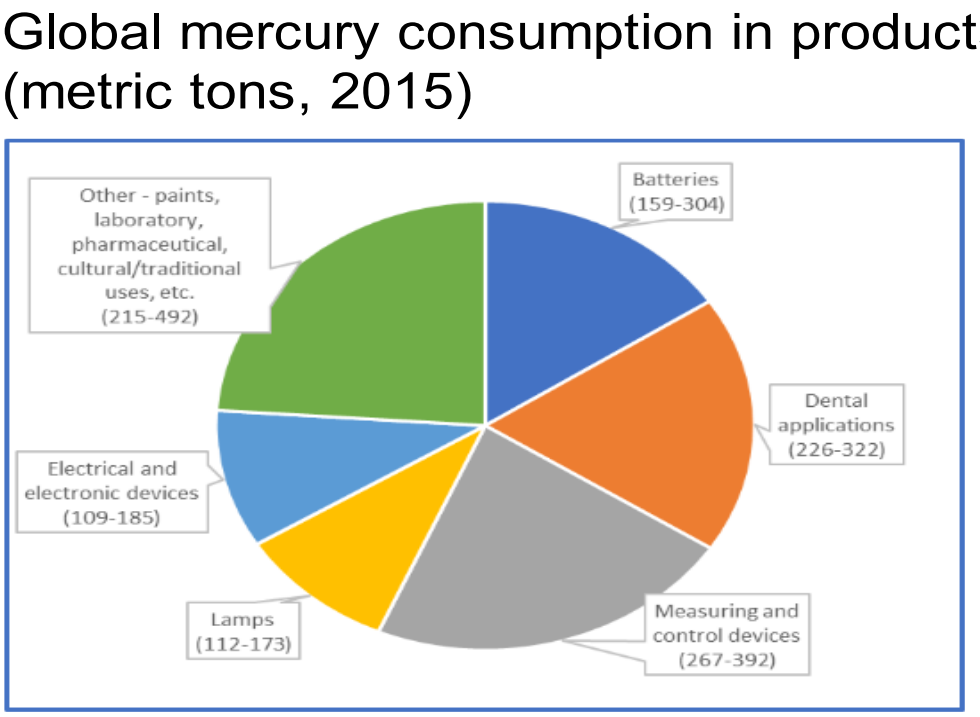
The presentation also covered the costs of environmentally sound mercury management and disposal with or without hazardous waste infrastructure. The challenges faced by developing countries in not having hazardous waste infrastructure to adequately deal with collection, storage, transportation, processing, management and disposal capabilities for cost effective Environmental Management System (EMS) of mercury were also highlighted. It was also made clear that without hazardous waste infrastructure, the disposal of mercury-added products not only became more challenging, but more expensive.

Furthermore, outside of certain developed countries, the options for environmentally sound permanent disposal of mercury were not available. As such, developing countries would sometimes store these mercury-added waste products without necessarily taking any measures. However, the longer that mercury storage took place, the more likely it was that sites would become contaminated over time. For many developing countries, the only option was to haphazardly dispose of collected mercury locally or bear the high export and disposal costs. For local storage, improper storage of mercury was a significant risk that could lead to contamination as well as break-ins and theft at storage sites.

Consequently, the point was made that if MAPs were to be banned from the present time, countries would not have to worry as much about the future effects of mercury exposure as no more mercury would be added to the environment. The cost of recycling strengthened this argument, which was borne out when comparing the cost of recycling the mercury content of a thermostat to that of a compact fluorescent light (CFL). Based on the charges cited, it was 1600 times more expensive to recycle mercury in a CFL compared to a thermostat. Other challenges in mercury lamp management included the high risk of breakage due to the fragility of CFLs and the risk of exposure to mercury vapor; the excessively high cost of lamp recycling; and the low value of recovered material from lamp waste which was costly to manage.

In terms of control measures to minimise exposure to dental mercury, statistics were presented from six (6) developed countries in Europe, comparing the percentages/rates of mercury removal from crematoria, the installation costs per crematorium for mercury removal, and the number of cremations per year. Data showed that installation costs per crematorium started at approximately US$100,000 and could range up to US$1.5M.

Participants were reminded of the global consumption of mercury products, as illustrated below:



Source: Technical Background Report to the Global Mercury Assessment 2018, UNEP/AMAP 2019

Building on this, the **presenter** summarised the status of the phase-outs for priority MAPs. Accordingly, it was shared that mercury-added batteries had already been phased out, with mercury-added lamps to be phased out soon. However, mercury-added lamps were the *most expensive product to collect for the least amount of mercury*. Concerning dental mercury, this proved expensive to collect without proper hazardous waste infrastructure. By contrast, mention was also made of the *MAP waste collection priorities that offered the least cost to collect the most mercury*, which encompassed: elemental (liquid) mercury from labs and dental clinics; MAP discards from health care facilities; mercury-added switches and relays; mercury-added pesticides; and street lighting. It was underscored that financing mechanisms were germane to the collection costs of MAPs. In this vein, the GEF ISLANDS Programme was mentioned as a source of potential funding.

B: Environmentally sound management

1. Training manual on Environmentally Sound Management of Wastes containing Mercury or mercury compounds (MAPs) in the Caribbean

Ms. Analissa Rasheed, Independent Consultant, in conjunction with BlackForest Solutions GmbH, looked at training for environmentally sound management of waste containing mercury or mercury compounds in the Caribbean, as well as national inventories for hazardous waste and other wastes such as persistent organic pollutants (POPs), and their safe removal and reporting. It was explained that POPs were a group of organic compounds that had toxic properties, remained in the environment, accumulated in food chains and posed a risk to human health and the environment.

An overview was provided on the regional waste MAP activities implemented by CARICOM under the ACP MEAS III Project, as regards the implementation of Articles 3, 4, 10 and 11 of the Minamata Convention. The objective of the consultancy was to develop a training programme for regional/sub-regional authorities on the safe removal of mercury stockpiles. The programme was executed in nine (9) Caribbean countries - Antigua and Barbuda, The Bahamas, Cuba, Dominican Republic, Guyana, Jamaica, St. Kitts and Nevis, Saint Lucia and Suriname. The process for the development of the training programme involved the conducting of a stakeholder analysis, baseline assessment and gap analysis. These analyses and the assessment had resulted in the development of a training action plan, training sessions, training manual and a training video on the environmentally sound management (ESM) of waste MAPs.

In establishing a baseline for the nine (9) countries, the policy framework and legislation were examined in the context of the Minamata and other Conventions, and the national legislation and policy documents that supported them. Additionally, the status of MAPs in the Caribbean had to be determined, taking into account existing stockpiles. Finally, the management of waste MAPs was reviewed, with attention being paid to the entire life cycle- that is collection, storage, transport and environmentally sound disposal (ESD), as well as stakeholder mapping.

Looking at the regional panorama, the **Consultant** indicated that there were common regional strengths and challenges. She noted that:

On the positive side	**On the negative side**
- All countries had prior experience managing the transboundary movement of hazardous waste (but had limited waste reduction technologies (WRT) for waste MAPs)	- There were no national regulations on the segregation of waste
- Good practices existed at some large-scale generators	- There were very few centralised interim storage facilities
- Environmental permitting systems existed in all countries	- It was unfeasible to install final disposal technologies due to prohibitive costs, limited feedstock
- All countries were Parties to the Basel Convention	- Health, Safety and Environment (HSE) protocols for many generators were inadequate
	- Waste MAPs management was largely confined to lighting equipment (bulbs and lamps) and to lesser extent, medical thermometers

These commonalities formed the basis for the development of the training sessions and the manual. The training sessions took place in August and September of 2021 with a total of 12 countries and 80 participants, split over two groups. There were seven (7) modules which looked at: i) the strategic approach to environmentally sound waste management; ii) separation, collection and handling; iii) storage, packaging and labelling; iv) transportation; v) environementally sound disposal; vi) health, safety and environment; and vii) applications.

The utility of the training extended beyond the sessions, as the training module slides could be easily adapted for use by Member States. The training slides, training manual and applications section (which offered possible frameworks and strategies for categories of MAPs in the Caribbean), provided ready tools for Member States' use. It was noted that the Training Manual had been published and had also been placed on the CARICOM website for download. https://caricom.org/CARICOM_Manual_MAY_29_2023.pdf

2. National inventories for hazardous and other wastes (POPs and mercury) including safe removal for reporting under the Basel, Stockholm and Minamata Conventions

In her second presentation, the **Consultant** explained that the objective of this project was the development of a series of audio-visual materials for targeted awareness raising for Member State and stakeholder audiences on environmentally sound disposal, and alternatives for MAPs and waste. These materials had been developed in compliance with five (5) Conventions- the Basel, Rotterdam, Stokholm, Minamata and Cartagena Conventions. The work had been done in collaboration with BlackForest Solutions GmbH, the Farr Group, the CARICOM Secretariat and the BCRC-Caribbean, and was intended for target audiences in 14 Caribbean countries- 12 CARICOM Member States, Cuba and the Dominican Republic.

Taking into consideration the message, target audience and rationale, gender considerations, format, platform and metrics, two (2) videos and one (1) infographic had been developed under the project: i) Clean-up of household mercury spills (Interactive Video); ii) Best Practices on Handling, Storage and Transport of waste Mercury-Added Products (MAPs); and iii) Mercury Thermometers & You. The first video was intended for the public, while the other was designed for the training of specific government stakeholders. The videos had been shared with the CARICOM Secretariat and the Project Countries and received comments which were addressed and incorporated into the final versions. Both videos and the infographic were viewed by the present Meeting and were seen as a good start to raising awareness on a very dense topic.

In the question-and-answer segment that followed the three presentations, questions were raised on the recommended storage time for MAPs collection in UN-approved drums, bearing in mind that environmental factors would influence storage times. In response, the **Consultant** indicated that the Minamata Convention contained different storage periods for different environments, with regulations varying based on whether MAPs waste was stored in warehouses versus other conditions. The key takeaway, however, was to avoid temporary storage for hazardous waste. A recommendation was made to have a plan beforehand for the housing of MAPs waste, which would take into account placement of the waste in an authorised facility in UN drums; the conditions for storage, consolidation and movement; and awareness of the conditions for the breakdown of stored materials.

Reference was made to the recycling process of mercury and there was query about whether the recycled mercury from one product was reused in mercury-added products that contained lesser quantities of mercury. The **MPP/ZMWG representative** shared that in the past, mercury discards, such as thermostats, had been collected by the manufacturing associations and recycled into other MAPs, such as mercury-added lamps in the US and EU. As mercury-added lamps were considered to be the most energy efficient options at that

time, it was therefore a good use of the recycled mercury. This was no longer the thinking present day and there was no longer a need for mercury-added lamps or bulbs, or a global appetite to encourage the manufacture of these types of MAPs. As a result, the US Department of Energy collected mercury for final disposal, by solidifying and processing it for onward landfill disposal in Canada. In the EU, it was explained that mercury discards were destined for solidification and permanent disposal in underground salt mines.

Some **CARICOM Member State representatives** shared their national processes for the replacement of MAPs, specifically CFL bulbs, with alternative products (such as light-emitting diode (LED) light fixtures). In the case of **Montserrat, the representative** shared that the Energy Department had embarked on an exercise to make the population replace CFL bulbs with LEDs. It was noted that the Department had a bulb crusher with a filter for the collected mercury waste but would subsequently transfer the hazardous waste to the general landfill. Similarly, the Electricity Department had a project to replace streetlights with environmentally friendly bulbs but stored the MAPs onsite for general discard after. The concern, therefore, was that the handling of hazardous waste at the landfill was not different to the management of municipal waste in that country, without standards for the handling of hazardous materials.

The **Consultant** indicated that although carbon filters in bulb crushers helped to contain the mercury vapours, the process should take place outdoors for reduced personal exposure. Moreover, the crushed bulbs still potentially contained mercury, which required additional care when dealing with that type of waste. As such, personal protective equipment (PPE) was required for workers as well as a waste disposal plan after collection. She impressed upon the Meeting the importance of establishing a thorough collection and storage strategy before collection began, so as to reduce the danger levels among workers at collection and interim storage zones. She recommended that the Region get on board the GEF ISLANDS Programme so as to tap into resources as a Region, to help remove MAP waste as a collective bloc. The **Consultant** also suggested that the Region have one (1) collection time before 2025 to dispose of materials.

The **Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) representative** expressed familiarity with the Montserrat project and offered a possible solution for safely managing the MAP waste. In this connection, he made reference to a pilot project carried out in the Caribbean a few years prior by the Japan International Cooperation Agency (JICA), which dealt with the removal of CFL and incandescent bulbs, for replacement with LEDs. The proposed solution was to mix the mercury waste with sulphur to form mercury sulphide which was a stable compound that could be shipped safely.

The **EEB/ZMWG representative** indicated that the annexes from the surveys for the guideline manual could provide helpful information on sites within the Region that could be upgraded for use as temporary or interim hazardous waste storage facilities for MAPs could provide a temporary, cost-effective measure. Secondly, with respect to countries that had little room for dedicated landfills for hazardous waste, she proposed that authorities could consider having a separate space within existing landfills for hazardous waste storage. She countered though, that while this could be a viable option on one hand, on the other, it could become a consolidated contaminated space, that invariably increased the volume of hazardous waste. Therefore a final disposal solution would still be imperative.

Interim Storage of MAP waste – national experience

Ms. Laël Bertide-Josiah, Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda presented her country's experience regarding the interim storage of MAP waste. This experience was part of a wider GEF project on the Development and Implementation of a Sustainable Management Mechanism for Persistent Organic Pollutants (POPs) in eight (8) Caribbean countries. The United Nations Environment Programme (UNEP) was the GEF Implementing Agency for the Caribbean and the Executing Agency was the BCRC-Caribbean. A second component of the project was the Reduction of Unintentional Persistent Organic Pollutants (UPOP) Emissions by Improving Landfill Practices, which sought to improve waste management practices and landfill operations in five (5) countries. As part of components 1 and 2, the Antigua and Barbuda Cabinet had approved the acquisition of 20 acres of land for landfill operations expansion.

In readiness for its participation in the Project, Antigua and Barbuda undertook a baseline assessment and a training needs analysis at the national level. This had included hazardous waste as part of the waste streams to be considered. It was noted that electronic waste (or e-waste- that is, anything with plugs, cords and electronic components, such as computers, mobile phones, televisions, computers and home appliances) was not captured, as this had been dealt with through alternative means. Similarly, the **Antigua and Barbuda representative** stated that classes 1, 2, 6.2 and 7 of mercury waste were not stored at the facility.

The presentation outlined the purpose of the interim hazardous waste storage facility for the temporary packaging and storage of mercury for a 6-12 month period prior to shipping. The preparations undertaken for the safe collection, registration, sorting and storage of hazardous waste included the establishment of a number of safety measures in accordance with UN safety standards, prior to the receipt of the waste material. Three persons were trained to operate the facility.

The presentation also outlined a number of potential challenges that affected the success of the project. These included: i) the holding of recent elections in January 2023 and changes to the National Solid Waste Management structure/team; ii) the engagement of a new General Manager to secure commitment to these waste management processes; iii) collaboration on a comprehensive waste management strategy, which included hauling, sorting, storing and final shipment of waste; iv) a protracted timeline for the completion of the facility's construction; and v) the constant communication required between the focal point and the Ministry of Works to drive the process forward.

Panel discussion

- Initiatives about mercury in the Caribbean Region: how to create synergies at the regional level;

- Potentially determine initiatives to be considered at the regional level, such as regional import bans and regional disposal strategy of MAPs, *et cetera*

Ms. Elena Lymberidi-Settimo EEB/ZMWG facilitated the discussion. The panel discussion consisted of presentations on:

1. Transitioning to clean and mercury-free technologies in the Caribbean- Devon Gardner, Caribbean Centre for Renewable Energy Efficiency (CCREEE);

2. A Roadmap to efficient and mercury-free lighting in the Caribbean- Javier Otero, Clean Lighting Coalition (CLiC);

3. GEF ISLANDS synergies- Rachel Ramsey, Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean);
4. Regional Monitoring network- Linroy Cristian, Antigua and Barbuda (online).

Transitioning to clean and mercury-free technologies in the Caribbean

In his presentation on Transitioning to clean and mercury-free technologies in the Caribbean, the **CCREEE representative** spoke to the phase-out of mercury light bulbs, focusing on the energy trends within CARICOM from 2012, the development of the CARICOM Energy Policy, and the Region's path towards attaining an energy efficiency target of 47% renewable energy by 2027. Setting out the trajectory from the current/legacy framework for power generation using fossil fuels, he explained the transition to more energy efficient systems, which encompassed the co-generation of power, renewable energy resources, smart energy systems control, electric vehicles, and centralised fuel production, power and storage. To this

end, he highlighted the multi-actor, demand-driven approach between the capture and use of resources, energy conversion and distribution, and the end-use energy service available.

The **CCREEE representative** explained the regional energy efficiency pathway and its established regional and national energy efficiency (EE) targets for the Caribbean Community, as well as disaggregated targets by sector. He also elaborated on the action plan developed that identified a core set of policies, regulations and market promotion mechanisms required to achieve the requisite EE targets. Looking at Member States' efforts towards energy efficiency, he referenced the **Barbados Control of Inefficient Lighting Act of 2021** and the **Inefficient Lighting Phase-Out** campaign undertaken in that country to achieve the transition, with effect from 1 January 2022. This was an example of a systematic approach to the reduction and eventual elimination of certain types of inefficient bulbs that were already within the local market as well as those to be imported.

The **CCREEE representative** touched on the causes of resistance to mercury replacement products, citing limited institutional capacity and regulations; split incentives for different types of users; bounded rationality where agencies/authorities were tasked with their own objectives, resulting in a stagnation of initiatives; and cost implications (where investments in newer technologies would be more costly initially than maintaining existing frameworks/infrastructure). He reiterated the need for having an integrated utility services (IUS) model to operate both as a distribution utility and transmission utility which would offer cost savings to grid users and endorsed the impetus to adopt and implement market standards. He concluded by advocating for a push from the health, environment and safety lens, which would be a win-win for the EE market.

A Roadmap to efficient and mercury-free lighting in the Caribbean

Mr. Javier Otero of the Clean Lighting Coalition (CLiC) presented a roadmap to efficient and mercury-free lighting in the Region. He explained that the Clean Lighting Coalition (CLiC) was a coalition of industry, public health authorities, mercury experts and NGO partners who were working together to eliminate toxic mercury in lighting through the Minamata Convention on Mercury.

In this connection, four (4) benefits of clean lighting which had positive health, economic, environment and technology impacts were outlined. Under health, the removal of mercury to protect public health and the environment was the overarching benefit, while economically, the transition to clean lighting would lead to lower utility bills, with projected energy cost savings of US$1.34 Trillion for the period 2025-2050. From an environmental perspective, the need to dump old technology would be negated, and technologically, there

was ease in retrofitting mercury-free LED lamps into existing fixtures, to provide high quality lighting that did not produce heat.

It was mentioned that whilst the Minamata Convention had agreed upon timelines of 2025 for the phase out of some MAPs, there had been no agreement on the timeline for the phase-out of linear fluorescent lamps (LFLs), which would be discussed at the upcoming COP-5. Also for discussion at the COP-5 would be the Amendment to Annex A in respect of cosmetics, dental amalgam and fluorescent lighting proposed by the African countries. In preparation for COP-5, CLiC had undertaken studies in Jamaica and Trinidad and Tobago in 2022 to quantify the benefits of the African Lighting Amendment. In both contexts, the findings showed that the prices of LED lighting continued to go down, making the replacement of CFLs more cost effective. This had had a positive impact on environmental health. In Jamaica, the calculated financial savings on fluorescent phase-out measures for CFLs in 2024, and LFLs in 2025 had shown projected savings of US$750 M over a 25-year period up to 2050. For the same estimated period in Trinidad and Tobago, financial savings were projected at US$82 M.

Further, CLiC compared the cumulative benefits of the global phase-out of LFLs for implementation in 2025, 2027 or 2030, and provided a breakdown of the impact of a 2-year delay from 2025 to 2027, versus a 5-year delay from 2025 to 2030:

Phase-Out Year ->	2025	2027	2030
Mercury Savings	198 tonnes	162 tonnes	116 tonnes
Financial Savings	US$1.34 trillion	US$1.12 trillion	$818 billion
CO_2 Savings	3.3 GT	2.7 GT	1.9 GT
Energy Savings	9,602 TWh	8,022 TWh	5,845 TWh

- A 2-year delay (2025 to 2027) loss would result in: 36 tonnes of mercury savings, US$221 billion in electricity bill savings, and 600 million tonnes of CO_2 savings; whereas

- A 5-year delay (2025 to 2030) loss would result in: 82 tonnes of avoidable mercury pollution, over half a trillion dollars in electricity bills and 1.4 GT of CO_2 savings.

Bearing these economic and environmental considerations in mind, the CLiC recommended a CARICOM roadmap that focused on: i) the development of regional standards and national legislation; ii) harmonisation with best practice standards worldwide, including the use of UNEP United for Efficiency (U4E) Model Regulation Guidelines for general service lamps and linear lighting; and iii) establishing a sound Monitoring, Verification and Enforcement (MVE) system with regional support. The MVE system was intended to provide a holistic approach

that involved Customs checks; product testing, certification and registration; market surveillance by compliance authorities; verified product testing by competent laboratories; reporting; and enforcement of compliance.

In this connection, the establishment of a common registry of certified products for CARICOM was recommended, as was reliance on regional Centres of Excellence for testing, such as the Energy Efficiency Lighting Laboratory in Trinidad and Tobago, and specialised labs in the Latin American region, such as the Instituto Costarricense de Electricidad in Costa Rica. Capacity development for the testing of products at Customs with portable test kits was another effective tool that was put forward.

Overall, the **CLiC representative** underscored the importance of regional synergies to phase out toxic lighting, which would be more effective if pursued by a bloc of countries than through individual country actions. In support of this, harmonised standards with international best practices would help maintain lower lamp prices and dissuade technology dumping. Additionally, the adoption of technology-neutral standards based on model regulations for harmonious implementation was recommended, alongside having a regional approach to MVE. Through these combined, unified efforts as a Region, it was emphasised that CARICOM could play an important role in mercury lighting outcomes at COP-5.

In the questions that arose from the CCREEE and CLiC presentations, the role of utility stakeholders was raised in the phase-out of MAPs, and in the development of standards and MVE systems. In reply, the **CCREEE representative** affirmed that regional stakeholder bodies such as CCREEE and the CARICOM Regional Organisation for Standards and Quality (CROSQ), were involved in the development of these processes, however, the challenge lay in the fact that regional standards did not take effect until and unless countries adopted them. As a result, regional standards had been developed but had not been adopted and therefore were not effective. Regarding the role of utilities in the phase-out of MAPs, it was essential that they developed packages of interventions for different end users (such as commercial and household users). Additionally, utilities played a central role in the adoption of standards, aligning their practices in conformity with regional standards, even if not yet adopted at the national level. Finally, they played a key role in the removal, storage and disposal of MAPs and the management of the MAPs waste management programme.

As it related to additional information on the portable test kits for LED lamps that were recommended in the CLiC presentation, the **CLiC representative** stated that the portable kits did not replace lab inspections but offered quick testing at Customs to verify that the lighting goods that were shipped were in compliance with requisite standards. It was mentioned that kits could perform a flicker test and were equipped with a spectrometer. Moreover, the tests could be conducted by representatives of the Regulation Authority on site at Customs. The

representative advised that the training for the testing was inexpensive and was relatively short and indicated that test kits were available at approximately US$2,000-3,000 per device.

The **CCREEE representative** added that there were world class labs/Centres of Excellence to test equipment in Trinidad and Tobago, and in Jamaica, with certification at the end of the process as a means of verification. He confirmed that international regulations and regional standards were applied for the testing and were accompanied by the required testing procedures and conditions. In respect of whether there was an alert system or database for products/equipment that did not meet the regional standards, he affirmed that CROSQ produced a database for those products and equipment, to which the standards bureau/agency in each Member State had access.

The **Facilitator** reiterated the importance of having both regulations and standards in place in order to develop a roadmap and asked about the biggest challenges for Caribbean countries to accelerate the management of mercury waste products in the Region. In the case of Belize, it was shared that the balancing of internal concerns regarding general solid waste management was the main challenge, which was compounded by the additional burden of dealing with mercury waste. As such, it was acknowledged that a balanced, holistic approach should be taken to deal with both solid waste and mercury/hazardous waste.

GEF ISLANDS synergies

Ms. Rachel Ramsey, Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean) introduced the Centre as one of fourteen (14) regional centres around the world to support Parties to the Basel, Rotterdam and Stockholm (BRS) Conventions. In the case of the BCRC-Caribbean, the aim was to support Caribbean Parties' implementation of their Convention obligations concerning the sustainable management of waste and chemicals. She went on to explain that the GEF "Implementing Sustainable Low and Non-Chemical Development" in Small Island Developing States (ISLANDS) Programme aimed at supporting Small Island Development Staties (SIDS) to enter a safe chemical development pathway through strengthening their ability to control the flow of chemicals, products and materials into their territories and to unlock resources for long-term management of chemicals and wastes in SIDS.

The GEF was the funding mechanism for the Stockholm and Minamata Conventions. The **BCRC-Caribbean representative** delved into the sustainable financing aspect of the Project, noting that the FAO, IDB and UNEP were the implementing partners for the Caribbean Region with the BCRC-Caribbean as Executing Agency. Additionally, the Programme sought to identify synergies with regional agencies such as CROSQ and the University of the West Indies (UWI) in order to avoid duplication.

There were four (4) project components, the first of which involved preventing the future build-up of chemicals entering SIDS through legal and institutional strengthening; a training needs assessment and the development of a sustainable training programme; the strengthening of customs and border control; the enforcement of regional labelling and standards; and sustainable procurement. Under the second component which dealt with the safe management and disposal of existing chemicals, products and materials, priorities included: the identification of stockpiles; development of management and disposal plans; UPOP awareness raising; and hazardous waste management which encompassed post disaster, tourism, medical, rural integration and infrastructure development.

Component three treated with the safe management of products entering SIDS and the closing of material and product loops for producers. This encompassed e-waste management and extended producer responsibility (EPR); the Environmentally Sound Management of End-of-Life Vehicles (ELVs); plastic waste management, including plastic waste from the cruise ship sector; and polyvinyl chloride (PVC) management, which included flooring and pipe products. Finally, the fourth component dealt with knowledge management and communications, which included information management; reporting; information exchange; private sector collaboration; and a youth plastic tide turners challenge.

The **BCRC-Caribbean representative** indicated that the major challenge lay with obtaining national endorsement by Member States to advance the project.

Regional Monitoring network

Dr. Linroy Cristian, Director of Analytical Services and Minamata Convention Focal Point for Antigua and Barbuda delivered a virtual presentation on Mercury Monitoring in the Caribbean. In providing context to the development of a regional mercury monitoring network, it was explained that Antigua and Barbuda was one of ten countries selected for the Second Round of Projects under the Specific International Programme to support Capacity Building and Technical Assistance (SIP) of the Minamata Convention. The SIP was one of the two components of the financial mechanism of the Minamata Convention on Mercury, along with the Global Environment Facility (GEF). Coming out of the SIP, funding was provided for the "***Facilitating Capacity-Building with Technical Assistance and Technology Transfer for Managing Mercury in the Caribbean Project"*** on Mercury monitoring in the Caribbean Region. One of the recommendations from this project was the development of a regional monitoring network for mercury, which in turn led to the establishment of the Caribbean Region Mercury Monitoring Network (CRMMN).

The purpose of the CRMMN was to improve mercury data sets in the Region; engage in technology transfer; derive benefits from shared experiences and capacity; improve implementation of the Minamata Convention; and act as a catalyst for greater collaboration. Antigua and Barbuda functioned as the Administrative Coordinator and Central Lab, where it would coordinate sampling and testing; ensure quality assurance and quality control comparability and data sets; promote information awareness and dissemination; and address the sustainability of the Network.

The scope of the Network would encompass:

- Human Biomonitoring Data (Hair) which would measure dietary exposure to mercury and use of skin lightening creams;
- Fish Biomonitoring- to record elevated mercury levels in fish within the Region;
- Cosmetics Screening;
- Bird and Bat Biomonitoring where bat fur would be looked at to see how fecundity and health were affected by mercury exposure; and
- Passive Air Sampling (PAS) for mercury contamination in Nevis, St. Kitts, Antigua, Saint Lucia, Suriname, Trinidad and Tobago and Belize, for analysis by a Direct Mercury Analyzer (DMA) in Antigua and Barbuda and in Canada.

Although the Network was still in its fledgling stage, it was working on improving the regional capacity of labs and data monitoring in the Region. The **Antigua and Barbuda representative** emphasised that the sustainability of the network was of paramount importance and shared that Suriname, Trinidad and Tobago, St. Kitts and Nevis and Belize had already signed onto the Network. It was noted that Guyana and Cuba were almost ready to sign, while The Bahamas required more time.

Regarding fish biomonitoring, it was shared that there were elevated levels of mercury in some fish in Antigua and Barbuda. Additionally, samples were to be received from Trinidad and Tobago, Saint Lucia, Guyana and Belize for testing. A workshop on biomonitoring in fish would be held in September 2023, with the data from the programme to be published. In respect of bird biomonitoring, the Network would look at the frigate birds of Barbuda, noting that there was ongoing collaboration with Trinidad and Tobago regarding the monitoring of the scarlet ibis and other birds there.

In terms of expressions of interest by Caribbean countries for areas to be monitored, 9 of the 11 participating countries expressed an interest in PAS, with 7 in fish biomonitoring, and 8 in cosmetics, as the most common areas of interest. Other areas of interest included bird, hair, sargassum, soil, sediment, bat and turtle biomonitoring. The **Antigua and Barbuda representative** concluded with the next steps for the Network, of which a number of data collection activities were listed, to be accompanied by continuous engagement at the country level to develop the Network and to increase public awareness. It was noted that an assessment of the Network's contribution to the MAPs process would also have to be carried out by the Minamata Open-Ended Science Group for Effectiveness Evaluation (OESG) in the future.

In the discussions emanating from the two presentations, a question was posed on what else could be done to complement the work carried out under the GEF ISLANDS Project and CRMMN. The **BCRC-Caribbean representative** indicated that **BCRC-Caribbean** tried to extend training and capacity-building opportunities to other non-project countries within the Region to provide harmonised information sharing. Similarly, she made a case to development agencies for the sharing of training material and products with the BCRC for a wider reach. Lastly, the value of the Council for Trade and Economic Development (COTED)- Environment was mentioned, in terms of moving policies and legislation forward at a regional level, based on the outcomes of the recent CARICOM consultancies.

The **Facilitator** also spoke to the importance of synergies and resources from the GEF (as the largest funding source in the Region) to see how best to address country needs, after having assessed the landscape and what was done previously. Regarding issues such as waste removal, she recommended that economies of scale be considered to make efforts more cost effective as a Region. On the issue of the MEAs, she added that national laws needed to be revised to address legal gaps, and consideration should be given to the imposition of regional importation bans. Regarding the latter, she intimated that discussions should take place among the CARICOM Secretariat, BCRC-Caribbean and the EEB/ZMWG.

The **Trinidad and Tobago representative** concurred on the challenge of legal gaps, especially with the amendment of national laws for the MEAs, pesticides and Minamata Convention. Regarding the adoption of regional standards, the suggestion was made for consideration to be given to the establishment of a task group with the Trinidad and Tobago Bureau of Standards (TTBS) to spearhead the requirements by national stakeholder and regulation entities to adopt the standards nationally.

A question was directed at **Antigua and Barbuda** on whether the biomonitoring of inter-tidal fish species and sargassum had already begun. In his response, it was noted that there was potential to monitor other species of fish. Regarding the collection of sargassum, this had not yet begun as the parameters for mercury and arsenic remained to be determined.

Lessons learned and next steps

Ms. Analissa Rasheed, Independent Consultant, gave an overview of the lessons learned and the next steps, including some benefits of the Minamata Convention that had not been touched on before:

Benefits to the Region	Direction of the Minamata Convention
Mobilise funding to drive projects at a regional level through the GEF and ACP MEAs	Additions to Annex A
Accessible funding at a national level- the SIP	For the SIP: change in funding approach by defining a work programme for each round, to focus on foreseeable matters requiring attention
Regional capacity to analyse mercury – support science-based policy decisions	Custom Codes: improve the effectiveness of trade control through the use of eight or ten digit codes to better distinguish MAPs from other products; and for new MAPs listed in the Convention
Facilitates information sharing and learning	Inventory Toolkit: enhance the UNEP Inventory Toolkit to include, among other improvements, a tool for national mercury mass flow analysis
	Better understanding in certain sectors, e.g. oil and gas

In keeping with the remit of the consultancy on mercury, POPs and plastics, she informed that an inventory on POPs and plastics was also being undertaken.

The **Dominica representative, as a Non-Party Country representative**, indicated that the Convention had not yet been ratified by that country, but advised that the phase-out of CFLs was taking place in Dominica. Going forward, the roadmap was very critical for Dominica, which would sequence the ratification of the Convention. Of equal importance were the ban on the import of mercury product, and the management, collection and disposal of waste streams. In respect of gaps, he commented that a main gap was that there was no clear jurisdiction on the entity responsible for some of the issues identified. He concluded by acknowledging the need to have national stakeholder consultations to plan the next steps.

Wrap up and conclusions

Ms. Elena Lymberidi-Settimo, EEB/ZMWG highlighted the recommendations and next steps.

In relation to the key takeaways from the Conference, the following were set out:

In respect of Antigua and Barbuda, there was a call for action to:

1) learn from shared experiences, as the Region shared common issues;

2) include public communication strategies for key stakeholders and the public at large;

3) create synergistic approaches between Chemicals and Waste Conventions and the Minamata Convention;

4) value academia's role in developing capacity-building in data generation on trade, economics, cultural practices and to help establish causality;

5) generate national implementation plans (NIPs) for healthier communities and environments.

As regards MAPs, it was imperative to:

1) **TURN OFF THE MERCURY TAP** by phasing-out MAPs as soon as possible so that future waste was not created. Also, giving effect to those resolutions that were focused on phasing-out certain MAPs including lamps, medical products/devices and dental amalgam would eliminate more than half of the mercury consumption in the Region;

2) engage stakeholders early and throughout the process; form inter-agency advisory groups; and agree on the steps leading to the development of national action plans;

3) ultimately ensure that legal mechanisms were put in place, either through legislation or import bans, to phase out MAPs;

4) raise awareness of targeted populations.

In respect of the Next Steps, the recommendations were to:

1) create/adapt activities in ongoing projects and at the regional level that could address some gaps identified, for example, access to resources to start the Minamata Initial Assessment (MIA) with countries that had not benefitted at all/were Non-Party Countries;

2) access policy assistance to 'tidy' up approaches at the country level;

3) establish roadmaps and national action plans (NAPS) to frame the phase-out of MAPs, which could be outlined for SIP projects;

4) look more closely at environmentally safe management practices to address existing gaps; find and implement solutions; upgrade existing interim facilities; prioritise; and resolve the final disposal/recycling of MAPs to be sent out of the country.

Regarding the Establishment of Waste Management Priorities:

1) recognise that a comprehensive plan should be in place for ensuring the safe environmentally sound management (ESM) and disposal of waste, including assurances that adequate staffing, funding and resources were in place, before collecting elemental mercury and MAP discards;

2) recognise that collecting elemental mercury and certain MAP discards with higher mercury concentrations needed to be given the highest priority for ESM and disposal export;

3) bearing in mind the need for cost effectiveness, determine if one-time collections were viable for the Region, and identify existing locations for collection;

4) recognise that interim storage facilities for consolidating mercury and other hazardous waste were key to hazardous waste collection; as such, identify authorised interim storage facilities that were operated by the public or private sectors.

Ms. Amrikha Singh, Programme Manager, Sustainable Development, CARICOM Secretariat, gave a regional perspective on the recommended next steps in relation to the banning of mercury products as a bloc, indicating that the Council for Trade and Economic Development (COTED) was not a monolith but comprised different decision-making stakeholders depending on the area of responsibility, such as trade, energy and the environment.

Additionally, she emphasised that regional policy applications were not a panacea for resolving issues that were pending at the national level but were a reflection of national positions at the regional level. Given that CARICOM Member States observed the concepts of subsidiarity and sovereignty, she advised that while trade bans could be agreed to at the regional level, trade bans would have to occur first at the national level. Elaborating on this, she specified that a ban on products like pesticides would encompass trade, health and environmental issues, which were governed by three separate bodies and separate Ministries, and would have to be carefully managed, as pesticides directly affected the productive sector (including agriculture and fisheries). Additionally, given the broad impact of imposing a ban, a consultative process with various stakeholder groups (such as producers and importers) would have to take place, before a consensus position could be arrived at nationally.

She made the recommendation for the completion of the regional study being done on the Minamata products, plastics and POPs, be submitted to the COTED for ultimate sensitisation and consideration. Once the outcomes of the study became available, she gave the Community's commitment to sensitise Ministers of the Environment on the priority issues for policy direction. She also made a case for the continuity of the collaborative work that was taking place regionally, through various regional institutions and entities with specialised areas of focus in fisheries, the environment, health, tourism and statistics.

In respect of advancing the work on MEAs and MAPs, the **Secretariat representative** alluded to the CARICOM Environmental and Natural Resources Policy Framework that was proposed to the COTED Environment since 2008 and was finally approved in 2022. She observed that this would have an important bearing on the legislation, chemical waste and mercury issues. She posited that model legislation was very difficult to pass at the national level, proffering that it was often easier to amend existing legislation instead of passing a new comprehensive one. To this end, she proposed that Member States take a closer look at the legislative work to be done in national waste management systems and with respect to the Common Environmental Policy, so as to put forward a holistic strengthening of that area. On these issues, she gave the Secretariat's commitment to advancing the recommendations made at the level of COTED Officials, for consideration.

In closing, the **Secretariat representative** acknowledged the many months of work involved in putting the Conference together and thanked the Minamata Convention Secretariat, partner agencies, the host country and Member States for their collaboration. Coming out of the Meeting, she recognised that there was much work to be done in the way of identifying gaps and finding synergies and encouraged countries to continue to work together to reduce MAPs and their impact in the Region.

Ms. Elena Lymberidi-Settimo, EEB/ZMWG thanked Member States, partner agencies and the CARICOM Secretariat for the collaboration and fruitful discussions over the two days of the Conference and expressed the EEB/ZMWG's continued support for providing assistance to Caribbean countries, especially with the preparation of national roadmaps.

On behalf of the host country, **Ms. Keima Gardiner, Ministry of Planning and Development, Trinidad and Tobago**, commended the work done by the CARICOM Secretariat, EEB/ZMWG and donor agencies for the successful holding of the Conference, and thanked participating countries for the information sharing that had taken place. She emphasised the importance of a multi-stakeholder approach which looked at areas for further work, gaps on legislative, institutional and waste disposal issues, how to enhance regional solutions for "turning off the mercury tap", and the value of national road-mapping exercises. She thanked participants and stakeholders for the monumental amount of work that was taking place in the Region and for sharing experiences, approaches and ideas. These collectively provided a baseline to move forward. Finally, she congratulated Belize and St. Vincent and the Grenadines on their accession to the Minamata Convention.

APPENDIX I

Phasing out mercury added products in the Caribbean:

Engagement, Steps and Tools towards implementing the Minamata Convention on Mercury

Tuesday 6 and Wednesday 7 June 2023, Port of Spain, Trinidad and Tobago

VENUE: HILTON TRINIDAD & CONFERENCE CENTRE

CONCEPT NOTE and AGENDA

6 June 2023

CONCEPT NOTE

1.0 BACKGROUND AND CONTEXT

The European Environmental Bureau, in collaboration with the Zero Mercury Working Group (EEB/ZMWG), and Caribbean Community (CARICOM) Secretariat are partners of the third phase of the African Caribbean Pacific Multilateral Environmental Agreement (ACP MEAs III) programme supported by the European Commission and UNEP, running from 2020-2024.

The ACP MEAs programme is a partnership between the European Union, the Organization of African, Caribbean and Pacific States, UN Environment Programme and the Food and Agriculture Organization of the United Nations. The programme aims to build capacity in 79 countries in Africa, Caribbean, and the Pacific (ACP) to address the environmental challenges they face and to reap the benefits of improved environmental governance at regional and national levels. [from ACP website]

The EEB/ZMWG has focused its work on the Caribbean region, has been supporting CARICOM's mercury work and has been assisting the Governments of Antigua and Barbuda, St Kitts and Nevis and Trinidad and Tobago in developing policies, programmes and/or practices to phase out Minamata Convention, Article 4 listed mercury added products (MAPs).

The Caribbean Community (CARICOM) Secretariat serves as the Caribbean Hub for the ACP-MEAs Project. The overall objective of the ACP-MEAs Project in the Caribbean is to enhance countries' capacity to comply with MEAs and so to improve countries' management of their environment and natural resources. Support for enforcement and compliance to the Minamata Convention will be linked to specific outputs, lessons learnt and intended outcomes summarized under specific activities and deliverables to guide the implementation of the Convention in the future.

On the 6 and 7th of June in Trinidad and Tobago, the EEB/ZMWG and CARICOM are organising a two day Regional Conference , to share experiences on implementing the Minamata convention, focusing on mercury added products, and to disseminate lessons learned and best practices to the broader Caribbean region. The Regional Conference will also seek to underline once more the importance of the Minamata Convention to addressing the global mercury crisis and to encourage non-signatory Caribbean states to consider joining the Minamata family.

1.1 Phasing out mercury added products in the Caribbean.

Under the ACP MEAs III, the EEB/ZMWG has established a Memorandum of Understanding with the governments of Antigua and Barbuda, St Kitts and Nevis and Trinidad and Tobago to assist them in phasing out those mercury added products listed under Article 4 of the Minamata Convention.

During the Regional Conference, country MAPs phase out experiences will be shared along with several tools, questionnaires and research models utilised to focus such efforts. These include the ZMWG Guide and Checklist to phase out MAPs, a model template for developing a national roadmap for phasing out MAPs, a market study on mercury free product alternatives and examples of mercury free procurement policies. **Furthermore, the wider relevant work and experiences within the Region (e.g. mercury testing, waste management, illicit trade) will also be shared, possible synergies explored along with opportunities for regional cooperation**

1.2 CARICOM Support for Enforcement and Compliance to the Basel, Rotterdam, Stockholm, Minamata and Cartagena (BRSMC) Conventions

The CARICOM Secretariat with support from a consortium of consultants have undertaken a combination of actions on Persistent Organic Pollutants (PoPs), Mercury Products and Plastic Waste as reported under the Basel, Rotterdam, Stockholm and Minamata, Cartagena (BRSMC) Conventions. The expected results includes *inter alia* improved knowledge sharing, guidelines and mechanisms for the effective implementation of MEAs related to chemicals and waste.

During the conference the CARICOM's project activities and deliverables, its successes, constraints and lessons learnt will be shared, to guide the implementation of related projects in the future. We will link the outputs and intended outcomes with the wider context of enforcement and compliance with the BRSMC Conventions in the region. Participants will be engaged to share their perspectives on the outcomes of the project and crucially, they will be asked to consider the next steps in the region's ongoing march towards sustainable chemicals and wastes management. Here, CARICOM will also highlight their strategic workplan in this sector.

2.0 Regional Conference Objectives

The Conference's objectives are to support the implementation of MEAs, through the identification of gaps and by building capacity to close these gaps in the chemicals and waste clusters at the national and regional levels, in ACP countries, through the development of stronger compliance and enforcement measures, focusing specifically on the Minamata Convention. This will support ACP countries in addressing the challenges associated with mercury and the sound management of mercury waste.

Specific Objectives are:

1. To provide participants with tools and country examples of e.g. roadmaps to phase out mercury added products, how to develop and implement stakeholder strategy and mercury free procurement policies.
2. To provide knowledge and capacity to develop a roadmap for phasing out MAPs at the national level.
3. Afford an opportunity to discuss regional synergies and initiatives will be provided through the **exchange of views and opinions.**

3.0 Expected outputs

At the end of the meeting, participants are expected to have their awareness raised vis a vis:

- the Minamata Convention
- mercury added products and their mercury free alternatives
- prioritizing MAP waste
- environmental sound management of MAP waste

Furthermore, participants will be provided with examples of roadmaps to phase out mercury added products, how and who to engage for a stakeholder strategy and mercury free procurement policies.

Finally, they will have the opportunity to learn and start developing a roadmap towards phasing out MAPs in their own country.

4.0 Target Groups

The conference is organised primarily targeting government officials, other technical officers, policy advisors and other multi-sectoral Member States focal points from the Caribbean region and other Small Island nations.

- National Minamata Focal Points
- Representative of the Ministry with responsibility for mercury added products, chemicals and wastes
- Representative of the Ministry with responsibility for Environment and Sustainable Development
- Representative of Civil Society

5.0 Conference Agenda

The meeting will be held in hybrid mode and in English.

CONFERENCE DAY 1		
Timing	**Activity**	**Speakers**
	Moderator Day 1	Tushara Maharaj, Ministry of Planning and Development, Trinidad and Tobago
09:00-9:30	Registration	Rina Guadagnini, EEB Shunae Samuels, CARICOM
09:30-10-00	Opening session welcoming remarks	Presenters: Marie Hinds, Permanent Secretary, Ministry of Planning and Development, Trinidad and Tobago Monika Stankiewicz, Executive Secretary, Minamata Convention or Mercury (online) Elena Lymberidi-Settimo, Policy Manager 'Zero Mercury Campaign' European Environmental Bureau, International Co-coordinator, Zero Mercury Working Group Ms. Amrikha Singh, Programme Manager Sustainable Development, CARICOM Secretariat Dr. Balakrishna Pisupati, Global Program Manager, ACP MEAs program, UNEP (online)
10.00-10.05	Group Photo	
10.05-10.25	Mercury and the Minamata Convention, why is it important- Focus on requirements related to Article 4.	Presenter: Ruvimbo Kamba, Staff Consultant to the Secretariat of the Minamata Convention on Mercury

10.25-10.40	Project overview – focusing on work carried out in Antigua & Barbuda, St. Kitts & Nevis, Trinidad & Tobago towards phasing out mercury added products (MAPs). 1. Roadmap for phasing out mercury-added products 2. Market study of mercury-free alternatives 3. Assessing/focusing institutional capacity 4. Mercury-free product procurement 5. Single stream product management pilot project 6. National Implementation Plan	Presenter: Rina Guadagnini, Policy officer Mercury, EEB/ZMWG
10.40–11.00	Coffee Break	
11.00-11.20	Study on transition to Mercury free/ Convention compliant products in the Caribbean - MAPs have reliable, available mercury free alternatives - Findings of studies carried out in TTO, SKN and ATG, on the capacity of the Caribbean markets to transfer to mercury free products. Q&A	Presenter: Tahlia Ali Shah, EEB/ZMWG Consultant
11.20 – 11.35	ZMWG Guide and Checklist for Phasing out Mercury Added Products under the Minamata Convention on Mercury	Presenter: Michael Bender, Director, Mercury Policy Project, International Co-coordinator, ZMWG
11.35 – 12.30	Towards Phasing out MAPs; Panel discussion - Stakeholder's engagement strategy - Mercury free procurement policies - Developing a National Action Plan	Facilitator: Elena Lymberidi-Settimo, EEB/ZMWG Presenters: Dr. Linroy Christian (remote), Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda Keima Gardiner, Ministry of Planning and Development, Trinidad and Tobago Franklyn Connors, Bureau of Standards St. Kitts and Nevis
13.00-14:00	Lunch	
14:00 – 14.30	Mercury added Skin lightening creams, a problem to tackle in the region Skin Lightening Products – still on-line (and on the stores) despite mercury findings. Strengthening enforcement	Presenters: Lael Bertide-Josiah, Department of Analytical Services, Ministry of Agriculture, Fisheries and Barbuda Affairs, Antigua and Barbuda Rina Guadagnini, Global perspective, MPP/EEB/ZMWG
14.30-16.00	Exercise: Participants prepare a draft national roadmap to phase out mercury added products in their country.	Facilitator: Elena Lymberidi-Settimo, EEB/ZMWG Presenters: One/two volunteer government(s) to present what they drafted

Including coffee break	Volunteer Gov(s) presents their draft to the group Q and A	Q and A
16.00-16.30	Launch of targeted awareness programme Audio-visual series on environmentally sound disposal and alternatives for mercury products and mercury waste	Presenters: Analissa Rasheed, Independent consultant and BlackForest Solutions Akeem Williams, Consultant Farr Group Limited
16.30-16.45	Wrap up and closure of day 1	
18.00 – 20.00	Cocktail at Savannah Terrace	

CONFERENCE DAY 2		
Timing	**Activity**	**Comments**
	Moderator Day 2	Teshia Jn Baptiste, Project Coordinator, Caribbean Hub – ACP MEAs Project
9:00-9.30	Welcome to day 2 and recap day 1 (5min 'key insights/take-aways on implementing Art. 4')	Presenters: Lael Bertide-Josiah , Antigua and Barbuda Vicia Woods, Department of Environment, Ministry of Sustainable Development, St. Kitts and Nevis Trinidad and Tobago
9.30-10:30	MAP Waste management in the Region A: Prioritising MAP waste B: Environmentally sound management 1. Training manual on Environmentally Sound management of Wastes containing Mercury or mercury compounds (MAPs) in the Caribbean 2. National inventories for hazardous and other wastes (PoPs and mercury) including safe removal for reporting under the Basel, Stockholm and Minamata Conventions. Discussion	Presenters: Michael Bender, MPP/ZMWG, Analissa Rasheed, Independent Consultant & BlackForest Solutions
10.30-10.50	Coffee Break	
10.50-11.20	Interim Storage of MAP waste – national experience	Presenter: Caribbean country experience, Lael, Antigua and Barbuda

CONFERENCE DAY 2		
Timing	**Activity**	**Comments**
11:20-13.00	Panel discussion Initiatives about mercury in the Caribbean Region: how to create synergies at regional level Discuss and potentially determine initiatives to be considered at the regional level e.g. *Regional import bans, Regional disposal strategy of MAPs, etc*	Facilitator: Elena Lymberidi-Settimo EEB/ZMWG Panelists: 1. *Transitioning to clean and mercury-free technologies in the Caribbean*, Devon Gardner, Caribbean Center for Renewable Energy Efficiency (CCREEE) 2. *A Roadmap to efficient and mercury-free lighting in the Caribbean*, Javier Otero, Clean Lighting Coalition (CLiC) 3. *GEF ISLANDS synergies*, Rachel Ramsey, Basel Convention Regional Center for Training and Technology Transfer for the Caribbean (BCRC-Caribbean) 4. *Regional Monitoring network* Linroy Cristian, Antigua and Barbuda(online)
13.00 - 14:00	Lunch	
14:00-15.00	Lessons learnt and next steps	Presenters: Analissa Rasheed, Independent Consultant & BlackForest Solutions Elena Lymberidi-Settimo, EEB/ZMWG Non-party Country representative (TBC) Ms. Amrikha Singh, Programme Manager Sustainable Development, CARICOM Secretariat
15:00-15.30	Wrap up and conclusions.	Teshia Jn Baptiste, Project Coordinator, Caribbean Hub – ACP MEAs Project Elena Lymberidi-Settimo, EEB/ZMWG Keima Gardiner, Ministry of Planning and Development, Trinidad and Tobago

APPENDIX II

LIST OF PARTICIPANTS

REGIONAL CONFERENCE ON PHASING OUT OF MERCURY ADDED PRODUCTS IN THE CARIBBEAN: ENGAGEMENT, STEPS AND TOOLS, TOWARDS IMPLEMENTING THE MINAMATA CONVENTION ON MERCURY
PORT OF SPAIN, TRINIDAD AND TOBAGO
6 -7 JUNE 2023

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