NIGERIA SECOND ROUND SIP PROJECT; CAPACITY STRENGTHENING FOR IMPLEMENTATION OF THE MINAMATA CONVENTION ON MERCURY

Presented by

Oluwatoyin Olabanji
Assistant Project Team Manager

October 2023
HIGHLIGHTS

• PROJECT BACKGROUND INFORMATION
• PROJECT OUTPUTS
• DELIVERABLES
• PROJECT OUTCOMES
• IMPACTS
PROJECT BACKGROUND INFORMATION

• **Project Title:** Capacity strengthening for implementation of the Minamata Convention on Mercury in Nigeria

• **Duration:** 27 months

• **Total Amount:** USD 240,000

• **Overall Project Outcome:** Develop national implementation plans, sectoral strategies, and information tools to guide the implementation of Convention obligations

• **Executing Agency:** The Federal Ministry of Environment

• **Project Partners:** Ministry of Health, Ministry of Trade and Investments, National Environmental Standards and Regulations Enforcement Agency (NESREA), Basel Convention Coordinating Centre for the African Region (BCCC-Africa)
PROJECT OUTPUTS

• Awareness-raising and multi-stakeholder consultations conducted.

• National Implementation Strategy and sectoral National Action Plans developed.

• National Mercury Information System developed.
DELIVERABLES

• National Action Plan for Mercury Reduction in the Cement Sector,
• National Action Plan for Management of Mercury Supply Sources and Trade,
• National Action Plan for Environmental and Health Monitoring,
• National Action Plan for Environmentally Sound Management of Waste,
• National Action Plan on Mercury Added Products,
• National Implementation Strategy (NIS), and,
• A Mercury Information System (MIS).
PROJECT OUTCOMES

• A coordination structure to facilitate the implementation of the MCM’s in Nigeria, which includes clearly assigned roles and responsibilities, is established.

• Knowledge and capacity on mercury management is increased among the decision makers and technical officers.

• The nation’s capacity to process information/data on control mercury supply, use, releases, emissions, import and export is improved. This will allow for tracking of mercury material flow and provision of support to decision-making.

• Monitoring, enforcement, reporting and information-sharing mechanism of regulatory agencies is improved.

• Participatory stakeholders can manage mercury in an Environmentally Sound Manner (ESM).
**IMPACTS**

**NIGERIA SIP PROJECT**
“Capacity strengthening for implementation of the Minamata Convention on Mercury in Nigeria”

**RESULT**
- National Action Plan for Mercury Reduction in Cement Sector;
- National Action Plan for Management of Mercury Supply Sources and Trade;
- National Action Plan for Environmental and Health Monitoring;
- National Action Plan for Environmentally Sound Management of Waste;
- National Action Plan on Mercury Added Products;
- National Implementation Strategy, and, a Mercury Information System.

**IMPACT**
- Decision-making simplified
- Effective institutional and legislative framework
- Sustainable financing
- Multi-stakeholder cooperation and coordination, Information Networking
- Nigeria’s capacity to set priorities strengthened
- Effective Implementation of the MCM, and progress on mercury management tracked

**Improved human health and well-being, safe environment**
ACKNOWLEDGEMENT

• The Federal Republic of Nigeria appreciates all individuals and institutions who contributed to the success of the Nigeria SIP Project.

• We are especially grateful to the Specific International Programme (SIP) of the Minamata Convention on Mercury (MCM), United Nations Environment Programme (UNEP), for the financial and technical support.

• Special appreciation goes to the MCM-SIP team, Project Steering Committee members, consultants and project team members for the technical expertise and guidance provided by them.
- National Action Plan for Mercury Reduction in Cement Sector,
- National Action Plan for Management of Mercury Supply Sources and Trade,
- National Action Plan for Environmental and Health Monitoring,
- National Action Plan for Environmentally Sound Management of Waste,
- National Action Plan on Mercury Added Products,
Minamata Convention on Mercury
COP-5 Online Event

Impact of the SIP project in the context of the Minamata Convention implementation in the Republic of Moldova. Key lessons, opportunities and challenges.

Second Round SIP project: Support to post-ratification of the Minamata Convention to the Republic of Moldova by building phase down capacities and reducing risks associated with mercury.

Wednesday, 11 October 2023, 14:45-15:45

Cristina Lesnic, Project Manager, Republic of Moldova
Estimated Mercury emissions from mercury-containing products

<table>
<thead>
<tr>
<th>Mercury Containing products</th>
<th>Emissions Hg kg/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometers</td>
<td>156</td>
</tr>
<tr>
<td>Electrical switches and mercury relays</td>
<td>67</td>
</tr>
<tr>
<td>Fluorescent tubes (capăt dublu)</td>
<td>5</td>
</tr>
<tr>
<td>Compact fluorescent lamps</td>
<td>2</td>
</tr>
<tr>
<td>Low pressure mercury vapor fluorescent lamps</td>
<td>1</td>
</tr>
<tr>
<td>Metal halide lamps</td>
<td>1</td>
</tr>
<tr>
<td>Mercury oxide batteries</td>
<td>1,728</td>
</tr>
<tr>
<td>Zinc oxide batteries</td>
<td>12,396</td>
</tr>
<tr>
<td>Silver oxide batteries</td>
<td>4</td>
</tr>
<tr>
<td>Manganese dioxide batteries</td>
<td>0,376</td>
</tr>
<tr>
<td>Polyurethanes (PU, PUR) produced with mercury-containing catalysts</td>
<td>1,07</td>
</tr>
<tr>
<td>Mercury paints</td>
<td>7,48</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>259,05</strong></td>
</tr>
</tbody>
</table>
National legal framework of the Republic of Moldova

- Lamps: Governmental Decision No 212/2018 for approval of the Regulation on EE&E waste
- Batteries: Governmental Decision No 586/2020 for approval of the Regulation of B&A and B&A waste
- Medical waste: Governmental Decision No 696/2018 for approval of the sanitary Regulation regarding the medical waste
- Oil refining: Governmental Decision No 731/2023 for approval of the Regulation regarding oil used
- Waste disposal: Project Regulation on temporary waste disposal
- Cement production: Governmental Decision No 205/2023 for approval of the Regulation regarding cremation and cocremation
- Emissions: Law No 277/2023 regarding industrial emissions
Viable data and findings regarding the current situation on mercury waste in the Republic of Moldova
(Inventory of quantities of mercury, gaps in the legal and institutional framework, technical assessment, e.g.)

Enhanced legal and institutional framework in line with Minamata & Basel Convention (project of Regulation on temporary storage of mercury waste, project of EPR operational Plan, solutions e.g.)

Innovative
Enhanced legal and institutional framework in line with Minamata & Basel Convention (project of Regulation on temporary storage of mercury waste, project of EPR operational Plan, solutions e.g.)

Institutional and professional capacity-building (Trainings, Regional Workshop, Replacement of mercury containing devices in the healthcare sector with alternatives solutions, Study visits in Romania and Germany)

Institutional and professional capacity-building
(Trainings, Regional Workshop, Replacement of mercury containing devices in the healthcare sector with alternatives solutions, Study visits in Romania and Germany)

Increased access to information, visibility and awareness-raising activities for national authorities, CSOs, people, local public administration (Communication and awareness Strategy, Information campaign, interviews, public information, consultations)

Cross-institutional cooperation for the implementation of the Minamata Convention

Cross-institutional cooperation for the implementation of the Minamata Convention

Risks associated with mercury reduced (prohibition of import starting on 1st January 2021, mercury free measuring devices (15 containers for storage of waste Hg and 200 free Hg thermometers, 15 free Hg sphygmomanometers) purchased and disseminated in healthcare facilities, in particular for Mother and Child Institute under Ministry of Health and National Public Safety Agency)

Identification of new area of cooperation and project ideas

Identification of new area of cooperation and project ideas
Theory of change after the SIP project

1. Legal framework developed to implement the Minamata Convention

2. Professionals trained (central and local level) and ready to apply new legal and institutional framework

3. Substitution of Hg mercury devices and equipment with Hg-free equipment

4. Safe temporary storage of mercury waste and inter-institution cooperation based on professional and transparent communication
Disseminated information about the project

About 1.231 educational institutions, 31.580 teachers and 333.199 students informed about Hg-free devices
A mercury free country! Positive messages
Regional Workshop
Thank you for your attention!
Specific International Programme of the Minamata Convention on Mercury

Second Round

Facilitating Capacity-Building with Technical Assistance and Technology Transfer for Managing Mercury in the Caribbean

Linroy Christian (PhD)
Director
Department of Analytical Services
Administrative Arrangements

Principal Agencies

Oversight and Funding Mechanism

Project Cooperation Agreement

- Signed in 2020
- Initial project duration 27 months

PROJECT OBJECTIVE:
To enhance the mercury monitoring capacity of Antigua and Barbuda, promote regional technical capacity enhancement in mercury monitoring towards the establishment of the Caribbean Region Mercury Monitoring Network (CRMMN).
The Network (CRMMN) – Output 1
## Hg Programme that Meets National Needs and Minamata Obligations-Output 2

### 1. Develop Biomonitoring Plan

<table>
<thead>
<tr>
<th>Country</th>
<th>Air (PAS)*</th>
<th>Fish</th>
<th>Birds</th>
<th>Cosmetics</th>
<th>Hair</th>
<th>Sargassum</th>
<th>Soil</th>
<th>Sediment</th>
<th>Bats</th>
<th>Turtles</th>
<th>Whales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigua and Barbuda</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Belize</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guyana</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Kitts and Nevis</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Lucia</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suriname</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. Conduct Biomonitoring with country-specific Interest

### 3. Information Dissemination
**Monitoring by Matrix**

Cosmetics

Bird Feathers

Bat Fur

Hair Hair

Fish Tissue

---

**Magnificent Frigate Bird**

**Matrix**

- **Body feathers (n=5)**
- **Blood (n=5)**

**Total Mercury (THg) Concentration (µg/g ww)**

---

**Feather Total Mercury (THg) Concentration (µg/g ww)**

**Species**

- Yellow Warbler (n=2)
- Grey King Bird (n=1)
- Black-whiskered Vireo (n=1)
- Caribbean Eleonora (n=2)
- Lesser Antillean Bullfinch (n=7)
- Bananaquit (n=3)
- Black-faced Grassquit (n=4)

**Country**

- Anguilla
- Antigua and Barbuda
- Belize
- Dominica
- Grenada
- Honduras
- Saint Lucia
- Saint Vincent and the Grenadines
- Suriname
- Trinidad and Tobago

---

**Cosmetics**

- Ten (10) returned Hg levels > 1 ppm
- Three (3) returned levels > 1000 ppm

**Human Hair : n=163**

---

1 ppm Threshold
0.58 ppm Recommended Safe Threshold
Passive Air Monitoring

Nevis
St Kitts
Antigua
St Lucia
Suriname
Trinidad
Belize
Develop Outreach Material – Output 3
### Global Health Trade-off for Mercury and Omega-3 in Seafood

<table>
<thead>
<tr>
<th>Meal Frequency Recommendations (based on 4 oz or 113 g fish portion)</th>
<th>&lt;500 mg</th>
<th>500-1,000 mg</th>
<th>1,000-2,000 mg</th>
<th>&gt; 2,000 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best Choices</strong> 3 Servings per week (≤ 0.15 μg/g)</td>
<td>Atlantic Cod, Butterfish, Catfish (temperate waters), Clams, Crab* (most species), Haddock, Lionfish, Lobster, Parrotfish, Scad, Scallops, Shrimp, Tilapia*</td>
<td>Atlantic Pollock, Ballyhoo, Blue Mussels, Pink Salmon, Sockeye Salmon, Squid,* Wahoo</td>
<td>Atlantic and Pacific Mackerel, Coho Salmon, Oysters</td>
<td>Anchovies*, Herring, Sardines</td>
</tr>
<tr>
<td><strong>Good Choices</strong> 2 Servings per week (0.15 - 0.23 μg/g)</td>
<td>Pacific Cod, Cockle, Croaker, Grenadier, Flounders, Hake, Scad, Snapper, Sole</td>
<td>Jacks, Mahi Mahi,* Mullet, Octopus, Skipjack Tuna (light canned tuna)</td>
<td>Atlantic Horse Mackerel, Bonito, Chinook Salmon*, European Sea Bass, Rays, Skates, Trout</td>
<td>Atlantic Salmon</td>
</tr>
<tr>
<td><strong>Good Choices</strong> 1 Servings per week (0.23 - 0.46 μg/g)</td>
<td>Catfish* (tropical waters), Red Fish, Seabreams</td>
<td>Bluefish, Croaker, Halibut, Tilefish, Trevally, White Marlin, Yellowfin Tuna</td>
<td>Albacore Tuna (white canned tuna¹), Chilean Sea Bass, Spanish Mackerel</td>
<td></td>
</tr>
<tr>
<td><strong>Choices to Avoid (US EPA)</strong> (&gt; 0.46 μg/g)</td>
<td>Bonefish, Groupers, Orange Roughy</td>
<td>Amberjack, Barracuda, Bigeye Tuna, Black Marlin, Sailfish</td>
<td>Atlantic, Pacific, and Southern Bluefin Tuna, Blackfin Tuna,* Cero, King Mackerel, Swordfish</td>
<td></td>
</tr>
<tr>
<td><strong>Choices to Avoid (WHO)</strong> (&gt; 1.0 μg/g)</td>
<td>Warsaw Grouper</td>
<td>Blue Marlin*</td>
<td>Dogfish, Ground, and Mackerel Sharks</td>
<td></td>
</tr>
</tbody>
</table>

*Species Pictured

Mercury concentrations vary widely across shark species.

[www.briwildlife.org](http://www.briwildlife.org)
Sustainability

• MoUs established with countries and entities
  • Belize, Guyana, St Lucia, Suriname, St kitts & Nevis
  • Institute of Marine Affairs (Trinidad & Tobago)

• Continuing strategic partnerships
  • Biodiversity Research Institute
  • Environment and Climate Change Canada

• Establishing national programmes
  • Human biomonitoring (collaboration with the Pan American Health Organisation, PAHO)
  • Fish biomonitoring and fish import screening
  • Skin lightening products
  • Ecosystem monitoring (Birds, bats, soil, sediment, and air)

• Contributing to the evaluation of the effectiveness of the Minamata Convention
Outro
PERU Second Round SIP project:
Strengthening capacities to control emissions and releases of mercury in Peru

General Direction of Environmental Quality
Ministry of Environment
Approval of the Peru project: “Strengthening capacities to control emissions and releases of mercury in Peru”

USD 126 000
4 outputs

1st payment
USD 89 000
23/04/2021 Acceptance of donation
R.M. N° 070-2021-MINAM

2nd payment
USD 32 000
22/08/2023 Acceptance of the 2nd payment
R.M. N° 264-2023-MINAM

3rd payment
USD 5000
30/04/2024 Submission of project closure report

Approval: “National Implementation Plan of the Minamata Convention on Mercury”
D.S. N° 004-2019-MINAM

26 months
10 months
26 months
+10 months
1. Trainings to national institutions’ representatives in quantification and reporting of emissions and releases of mercury accomplished.

2. Workplan for the updating process of the national inventory of emissions and releases of mercury available.

3. Awareness about emissions and releases from the interim storage of mercury and the disposal of mercury raised in stakeholders.

4. National Plan draft for the control and reduction of emissions and releases of mercury elaborated and presented to relevant stakeholders.

**National Plan activities implemented under the SIP**

- **A9.1** A10.1: Four-year publication of Peru’s emissions and releases inventory.

- **A9.2**: Development (Article 8.3 of the Minamata Convention) and implementation of a National Plan for the control or reduction of mercury emissions.

- **A10.2**: Development (article 9.4 of the Minamata Convention) and implementation of a National Plan for the control or reduction of mercury releases.

- **A11.1**: Adoption of mechanisms and/or measures for the temporary storage of mercury and mercury compounds for permitted use.

- **A11.2**: Development of at least one technical guide to establish specific aspects in reference to the interim storage and transport of mercury and mercury compounds for environmentally sound permitted use in Peru.

- **A12.1**: Adoption of mechanisms and/or measures to manage mercury waste or mercury products added in an environmentally sound manner.

- **A12.2**: Development of at least one technical guide to establish specific guidelines on transport and disposal of mercury residues or mercury products added in an environmentally sound manner.

- **A16.3**: Implementation of training actions with a gender focus to potential generators of emissions and releases of mercury to calculate and report in the RETC.
ACHIEVEMENTS

OUTPUT

1. Trainings to national institutions’ representatives in quantification and reporting of emissions and releases of mercury accomplished

- Manual for implementation of Toolkit - UNEP.
- Implementation of workshops (virtual and presential) to strengthen institutional capacities for estimating emissions and releases of mercury from anthropogenic activities.
- Workshop on mercury reporting in the Pollutant Release and Transfer Register (RETC)

2022 ➔ 419

2023 ➔ 62
2. Workplan for the updating process of the national inventory of emissions and releases of mercury available

- Identification of stocks of mercury and mercury compounds greater than 50 tons, and mercury supply sources that generate stocks greater than 10 tons per year in Peru - 2021.
- First update of mercury emissions and releases inventory in Peru - 2021.
- Implementation of a workshop (presentational) for the diffusion of the national mercury inventory to raise awareness among national stakeholders.
### OUTPUT

<table>
<thead>
<tr>
<th>3. Awareness about emissions and releases from the interim storage of mercury and the disposal of mercury raised in stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Diagnosis of the transport and disposal of mercury waste in Peru.</td>
</tr>
<tr>
<td>• “National Technical Guidelines for the Transport of Mercury and Mercury Wastes and the Environmentally Sound Disposal of Mercury Wastes in Peru”</td>
</tr>
<tr>
<td>• Workshops (virtual) to socialize advances in the elaboration of technical guidelines.</td>
</tr>
<tr>
<td>• Capacity-building workshop for interim storage of mercury.</td>
</tr>
</tbody>
</table>
4. National Plan draft for the control and reduction of emissions and releases of mercury elaborated and presented to relevant stakeholders

- Diagnosis of point sources of emissions and releases of mercury.
- National Chemicals Diagnosis.
- Draft of the National Plan for the Control and Reduction of Mercury Emissions and Releases.
In subsequent applications, Peru needs to include the time for acceptance and incorporation of donations as part of the project execution schedule (3 months).

Evaluate with the SIP Secretariat the possibility of beneficiary Parties having an implementing agency for receiving funds and administrative matters.

If the result is negative, it is necessary to include in the schedule, the time it takes for each Party to obtain the approval for each contract (1 month < 8 UIT or 3 months > 8 UIT).