Tuesday 19 December 2023
13:00 – 16:00 CET

Fourteenth Meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

19 December 2023, Online

For the smooth running of the webinar, please :

GLOBAL MERCURY PARTNERSHIP

UN environment programme

Please enter your name as **Organisation/Affiliation, First name, Last Name.**

Keep microphones off unless when making an intervention, cameras are optional.

Use the **"Chat"** to ask technical questions or share views.

The **meeting will be recorded for internal purposes only.** Please indicate if you have any objection.

Provisional Agenda

1. Opening of the meeting
2. Organizational matters
   (a) Election of Partnership Advisory Group Co-Chair
   (b) Adoption of the agenda
   (c) Organization of work
3. Update from the Global Mercury Partnership Secretariat and from Partnership Areas on key activities and future priorities
4. Update from the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) on mercury related activities
5. Key outcomes from the fifth meeting of the Conference of the Parties to the Minamata Convention (COP-5)
6. Future work of the Partnership: exploring opportunities for cross-cutting collaboration
   (a)Trade and flow
   (b)Biodiversity, climate change, and mercury
   (c)Any other topic
7. Improving the overall effectiveness of the Partnership in moving forward
8. Overview of preparations for the sixteenth International Conference on Mercury as a Global Pollutant (21 to 26 July 2024, Cape Town, South Africa)
9. Other matters
10. Closure of the meeting

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

1. Opening of the meeting

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

Ludovic Bernaudat

Head, Knowledge and Risk Unit,
Chemicals and Health Branch, UNEP

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

Rodges Ankrah

Environmental Protection Agency of the United States
Co-chair of the Partnership Advisory Group

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

2. Organizational matters

a) Election of Partnership Advisory Group Co-Chair
b) Adoption of the Agenda
c) Organization of work

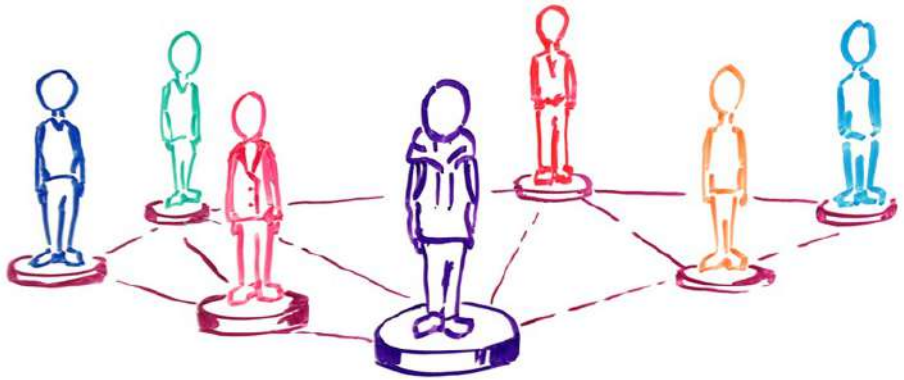
Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

3. Update from the Global Mercury Partnership Secretariat and Partnership Areas on key activities and future priorities

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

Update from the Secretariat of the Global Mercury Partnership

The Global Mercury Partnership in 2023



- **Overall Goal**: to protect human health and the environment from the releases of mercury.

- **Priorities**:
  - ✓ Support timely and effective implementation of the Minamata Convention
  - ✓ Provide knowledge and science on mercury
  - ✓ Deliver outreach and awareness raising towards global action

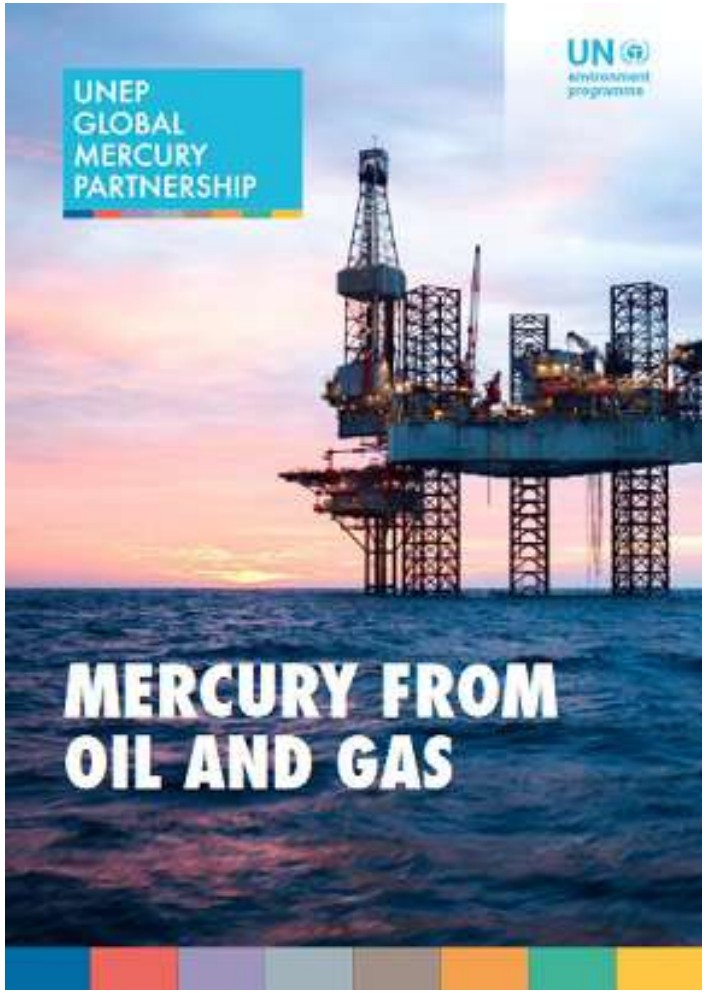
- **New members since PAG-13**: Alchemy Mining Group Inc., Australian Nuclear Science and Technology Organisation (ANSTO), Basel Convention Regional Centre for South America (CRBAS), CLASP, Development Indian Ocean Network (DION), Dialogos, EAM Environmental Inc., Fair Life for Miners to End Poverty (FLMEP), GEOMAR, Melanin Foundation, Qa3, Say no to Mercury, Tellus Holdings Limited, The Impact Facility, Ministry for the Environment and Forest Resources of Togo, and the United Nations Office on Drugs and Crime (UNODC)

- **To date: over 250 partners** from
  - ✓ Governments
  - ✓ Intergovernmental organizations
  - ✓ Non-governmental organizations
  - ✓ Industry, private sector
  - ✓ Academia, scientific community and
  - ✓ Others

UNEP
GLOBAL
MERCURY
PARTNERSHIP

Latest Events

- **Phasing down the use of dental amalgam - Virtual event** – *18 December 2023*
- **Fifth Conference of the Parties to the Minamata Convention and side events** – *between 9 October and 3 November 2023*
- **Transitioning to Mercury-Free Lighting - Virtual event - 31 August 2023**
- **Meeting of the Partnership Area on Mercury air transport and fate research** – *6 October 2023*
- **Mercury releases from Coal Combustion Area Meeting & 15th Multi-pollution Emissions from Coal workshop** – *11 July 2023*
- **U.S Department of State Mercury Grants on Artisanal and Small-scale Gold Mining** – 26 June 2023
- **Transitioning to Mercury-Free Lighting in Asia-Pacific Countries** – 19 to 20 June 2023 (in person event)
- **BRS COPs Side event: Mercury Waste Management** – 9 May 2023
- **Phasing-down the use of Dental Amalgam Global kick-off meeting** – 28 April 2023
- **Meeting of the Partnership Area on Hg in Products** – 25 April 2023
- Sound management and elimination of mercury and mercury waste in the Chlor-Alkali sector - 16 February 2023



Managing mercury along the oil and gas value chains: sharing of experience and best practices

Virtual event – 18 July 2023

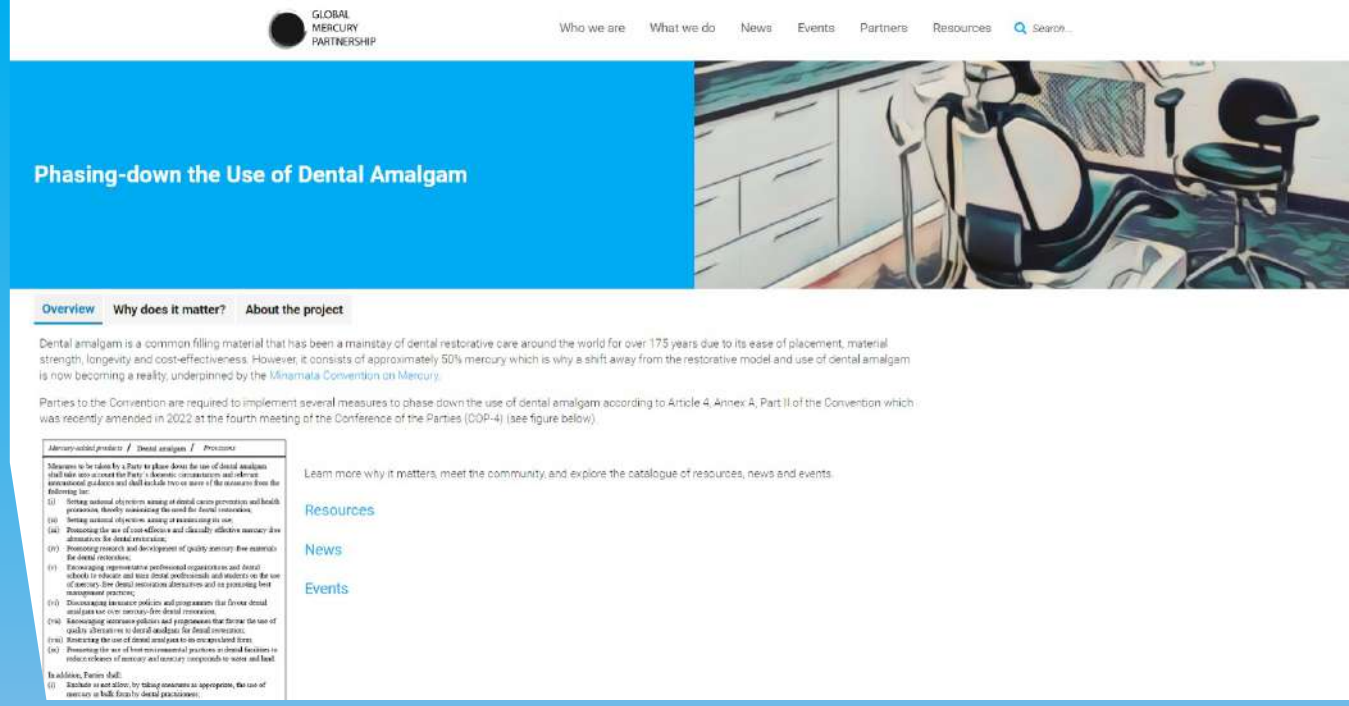
Exchange on existing best practices in managing Hg emissions, releases and waste along the oil and gas value chains.

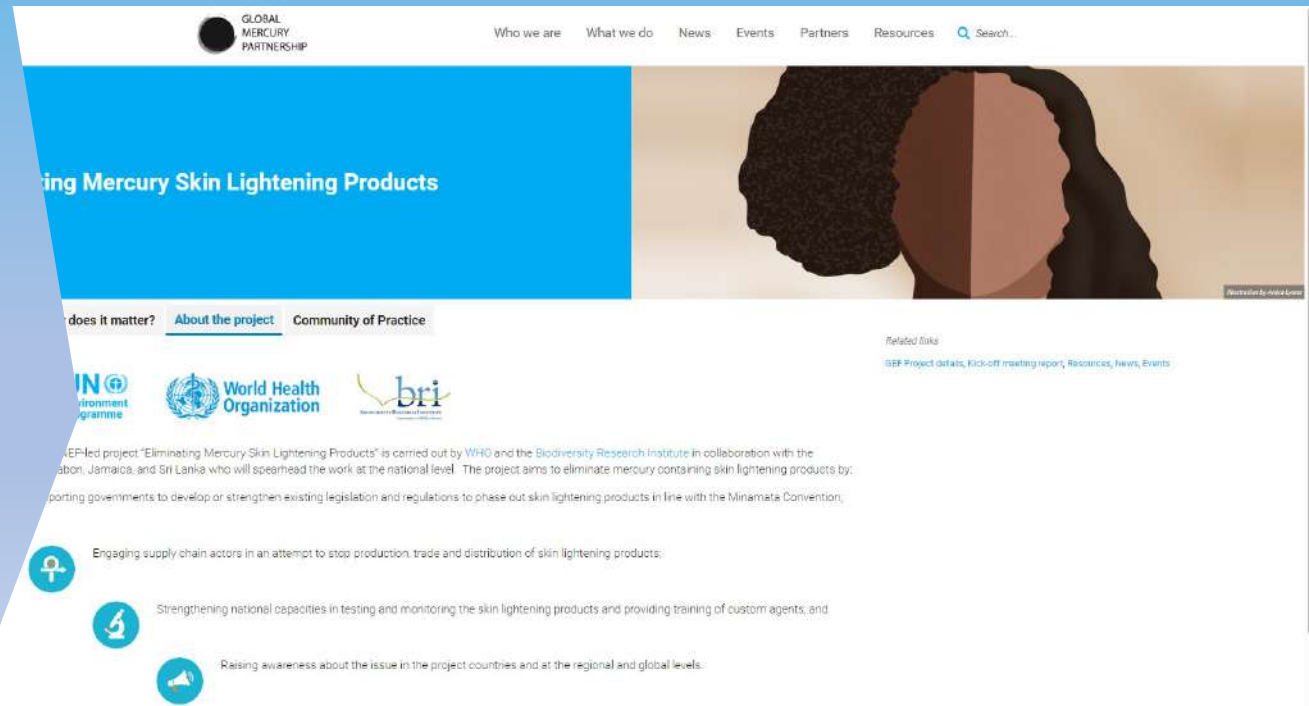
Share experiences from countries and relevant stakeholders.

Identify possible next steps for effective implementation of best practices.

https://www.unep.org/globalmercurypartnership/events/unep-event/managing-mercury-along-oil-and-gas-value-chains-sharing-experience-and-best

Development of thematic knowledge hubs in the context of GEF-funded projects related to mercury in products





Upcoming Events and Meetings

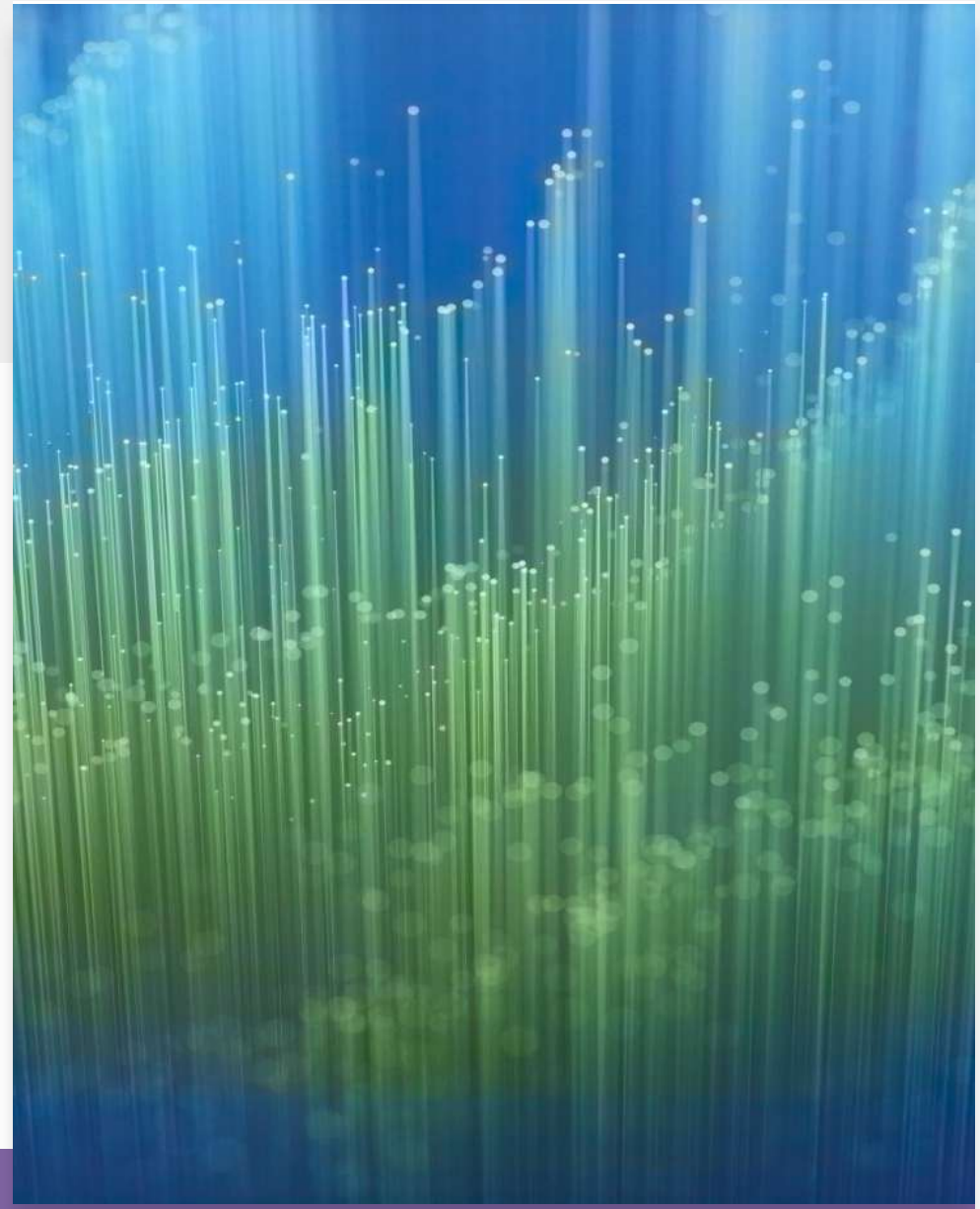
Mercury from the non-ferrous metals mining and smelting – *Q1 2024 (TBC)*

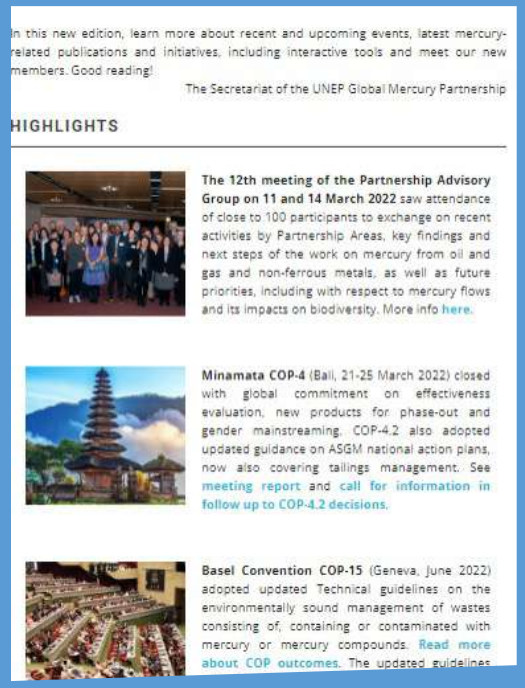
The PlanetGold Global forum on ASGM – *February 2024*

National Action Plans: reviews and integration of cross-cutting topics – *Q1 2024 (TBC)*

Partnership Areas meetings – *(TBC)*

Others – *(TBC)*




In this new edition, learn more about recent and upcoming events, latest mercury-related publications and initiatives, including interactive tools and meet our new members. Good reading!

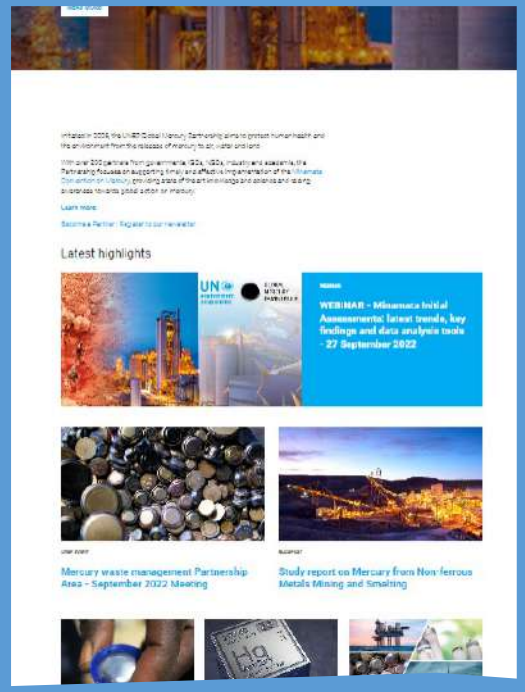
The Secretariat of the UNEP Global Mercury Partnership

HIGHLIGHTS

The 12th meeting of the Partnership Advisory Group on 11 and 14 March 2022 saw attendance of close to 100 participants to exchange on recent activities by Partnership Areas, key findings and next steps of the work on mercury from oil and gas and non-ferrous metals, as well as future priorities, including with respect to mercury flows and its impacts on biodiversity. More info here.

Minamata COP-4 (Bali, 21-25 March 2022) closed with global commitment on effectiveness evaluation, new products for phase-out and gender mainstreaming. COP-4.2 also adopted updated guidance on ASGM national action plans, now also covering tailings management. See meeting report and call for information in follow up to COP-4.2 decisions.

Basel Convention COP-15 (Geneva, June 2022) adopted updated Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds. Read more about COP outcomes. The updated guidelines


Latest highlights

WEBINAR - Minamata Initial Assessments: latest trends, key findings and data analysis tools - 27 September 2022

Mercury waste management Partnership Area - September 2022 Meeting

Study report on Mercury from Non-ferrous Metals Mining and Smelting


The Mercury air transport and fate research Area will meet on **29 June 2022, from 9:00 - 11:00 AM (EST)** in an online setting. More information available on the event page.

MINAMATA ONLINE SEASON 2

A webinar **Strengthening mercury research capacity in developing countries for science-based policy making** organized by the Secretariat of the Minamata Convention will be held on **30 June from 2:00 to 3:00 pm CEST**. The event will introduce ongoing activities implemented by UNEP to assist scientists, researchers and policy makers.

ICMGP

The **15th International Conference on Mercury as a Global Pollutant (ICMGP)** "Reducing Mercury Emissions to achieve a Greener World" will be held virtually from **25 to 29 July 2022**. View programme for the Conference and preceding workshops **(18 to 22 July)**.

OECD Global Forum on Environment dedicated to Mercury on 7 and 8 November 2022 will focus on "Working towards the elimination of mercury while reducing its harmful impacts on human health and the environment". Event will be hybrid, with both in-person and online attendance options. Further details on the event page.


Listen to Monika Stankiewicz, Minamata Convention Executive Secretary, on the occasion of the International Day for Biological Diversity on the importance of mercury pollution on global biodiversity loss, and read exploratory study on the interlinkages between the chemicals and waste MEAs and biodiversity.

Read WHO March 2022 first briefing note on oral health focusing on Prevention and treatment of dental caries with mercury-free products and minimal intervention and 2021 Report on the informal global WHO consultation with policymakers in dental public health.

Check out UNITAR's latest tools, guidelines and online courses on waste management and circular economy, sound management of chemicals and wastes and fundamentals on the Basel, Rotterdam, Stockholm and Minamata conventions.

VIEW ALL PUBLICATIONS >>

READ MORE ABOUT THE PARTNERSHIP AREAS

Artisanal and small-scale gold mining

Mercury releases from coal combustion

Mercury air transport

Reminder – Newsletter
E-mailings

Opportunity to raise awareness and feature highlights by Partnership areas and partners, events, resources, etc.

New website: Home | Global Mercury Partnership (unep.org)

Currently updating PAs webpages, Business Plans and Factsheets

Any question?

For further information and assistance, contact the Global Mercury Partnership Secretariat:

metals@un.org

Thank you very much!

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

Update from the Global Mercury Partnership Areas of Work

GLOBAL MERCURY PARTNERSHIP AREA ON:
"Mercury releases from coal combustion"

Leads / Co-lead(s): Professor Lesley Sloss, ICSC, UK
Professor Peter Nelson, Macquarie Uni, Australia

Key highlights

The ICSC has completed its 4-year US DoS project.

Indonesia outputs:

- A unit-by-unit mercury emission inventory
- A catalogue of applicable emission reduction techniques (to inform Indonesia's Minamata Compliance Strategy
- Analysis of the financial challenge and potential funding strategies
- Training and capacity building delivered to over 370 stakeholders

https://www.sustainable-carbon.org/outreach-programme/outreach-work-in-indonesia/

OUTREACH WORK IN INDONESIA – OUR USDOS PROJECT

Key highlights

India outputs:

- Best practice guidance documents on emissions monitoring, plant performance, emission control technologies, ash management, and mercury-specific reduction
- Training delivered to over 1,100 stakeholders at 12 regional events
- Legacy initiatives established – Flex-India and CEM-EG India

OUTREACH WORK IN INDIA – OUR USDOS PROJECT

https://www.sustainable-carbon.org/outreach-programme/outreach-work-in-india/

Key highlights – Global Environment Facility (GEF) Project

MACQUARIE University

OUTCOME 1:

Comprehensive coal sectoral analysis

OUTCOME 2:

Strategy for the coal sector's emissions reduction contribution to Stockholm and Minamata Conventions

Project Overview

SCENARIOS FOR FUTURE EMISSIONS PROJECTIONS

MACQUARIE University

Data sources:

Global Energy Monitor – Global Coal Plant Tracker Database
BP Statistical Review of World Energy
IEA-coal Global Database & World Energy Outlook
EMBER Database on World Electricity and Energy Statistics
Country-specific scientific literature, reports & government statistical databases

Scenarios:

Business-as-usual (**BAU**) – All CFPPs will operate for the complete duration of their design lifetime

- ***BAU-1*** – Existing plants and those under construction
- ***BAU-2*** – Existing plants & projects under (pre)construction (incl. announced, permitted, pre-permitted)

Alternative Early Retirement Scenario (**AERS**)

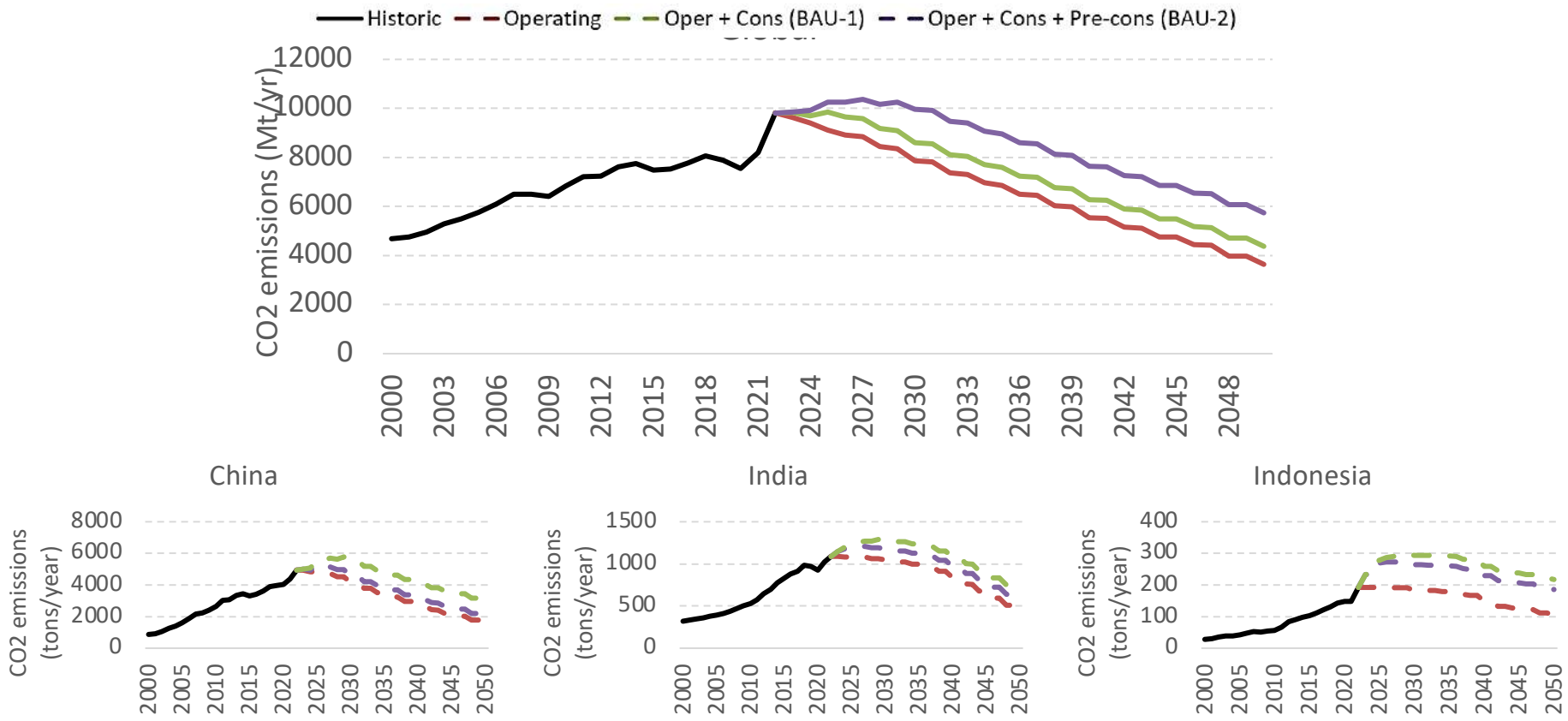
- Full modification possible – date cut-off for early retirement years

Air Pollution Control Device Retrofit for existing plants (**RETROFIT**)

- Based on the UNEP toolkit

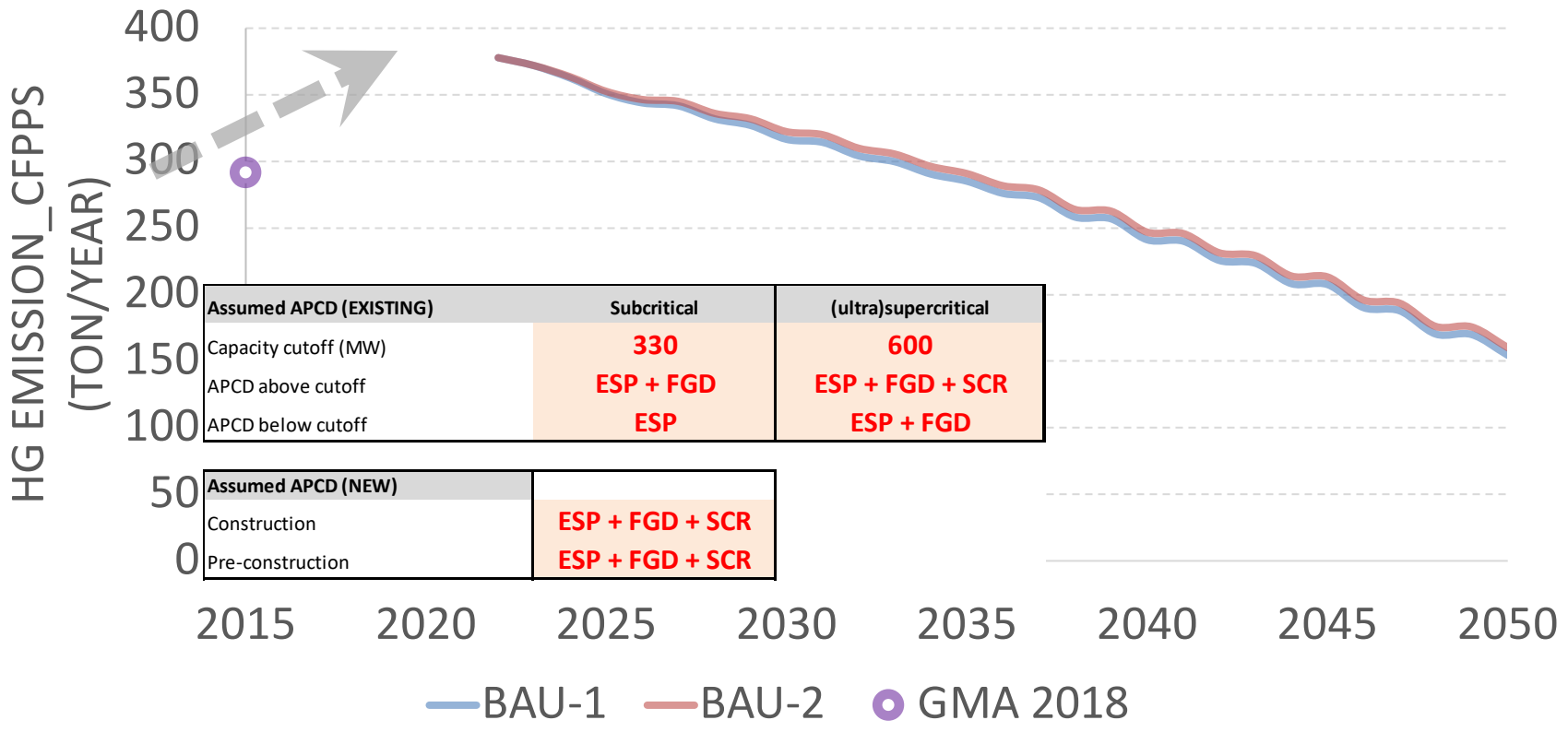
Project Overview

GLOBAL THERMAL COAL-FIRED POWER - CO2 EMISSIONS



Project Overview

GLOBAL THERMAL COAL-FIRED POWER EMISSIONS - MERCURY



Assumed APCD (EXISTING)	Subcritical	(ultra)supercritical
Capacity cutoff (MW)	330	600
APCD above cutoff	ESP + FGD	ESP + FGD + SCR
APCD below cutoff	ESP	ESP + FGD

Assumed APCD (NEW)	
Construction	ESP + FGD + SCR
Pre-construction	ESP + FGD + SCR

Planned activities and priorities for 2024

- Presence at the ICMGP 2024 in Capetown
- Potential project work on seawater FGD mercury contamination
- Find funding for further training and capacity building
- Use examples of Indonesia and South Africa – encourage other emerging regions to work with us on inventories and compliance strategies for the Minamata Convention

GLOBAL MERCURY PARTNERSHIP AREA ON:
"Mercury Waste Management"

Leads / Co-lead(s):
Ministry of the Environment Japan (MOEJ) & Dr. Misuzu Asari (Professor, Research Institute for Humanity and Nature)
[Supported by EX Research Institute (EXRI)]

Key highlights

- Activities of the WMA are guided by “the WMA Activity Plan (2022-2024)”, developed in consultation with partners of the WMA, taking into account its activities before 2020 and needs survey on mercury waste management conducted in 2021.

WMA activities (-2020)

- Resource person list
- Catalogue of technologies and services on mercury waste management
- Business plan etc…

Needs survey (2021)

- Capacity-building and technical assistance
- Regulatory arrangement, development of guidance and tools
- Financial resources / project deployment

WMA Activity Plan (2022-2024)

Activities on following areas and the establishment of corresponding working groups

WG1:
Resource development / refinement

WG2:
Capacity-building and awareness-raising

WG3:
Solution exchange

Key highlights : Activities of the WMA

- 2 WMA meetings organized in 2023
  - ✓ March 15, 2023 (Stocktaking of progress made, update from the secretariat of the GMP and the Minamata Convention, Report and future planning from Working Group, Information sharing from partners)
  - ✓ October 10, 2023 (update of WMA activities, introduction of new members, update of the work of the working groups, presentation on the implementation of a SIP project in Jordan, key issues and developments towards the COP5)
- Co-organized (with the Minamata Convention secretariat, Burkina Faso, Switzerland, BRS secretariat) a side event at the BRS COP in June 2023 on Mercury waste management (5 May 2023).
- Co-organized virtual event with another sector
  - ✓ Virtual event on mercury from oil and gas (8 July 2023)
- Carried out work to update the "The Catalogue of Technologies and Services on Mercury Waste Management "
- Welcomed 11 new members to the WMA (CLASP, Say No To Mercury, BCRC for South America, United Nations Office on Drugs and Crime, DION, The Impact Facility, Togo Ministère de l'Environnement et des Ressources Forestières, Asociación COLNODO, BlackForest Solutions GmbH, Alchemy Mining Group, Inc., Qa3)

Key highlights : Activities of the WMA WGs

Working Group 1 **Resource development / refinement**	• List of facilities on mercury wastes treatment • Factsheet on the management of certain types of mercury wastes ✓ Developed a template and identified priority mercury wastes for factsheets. ✓ Developed a factsheet for non-electronic measuring devices containing mercury ✓ Consideration of digitalization of the catalogues on mercury waste management and other information including mapping of mercury waste treatment facilities • Review Resource Person List with expertise on mercury wastes management • Training materials
Working Group 2 **Capacity-building and awareness-raising**	• Webinar in cooperation with other Partnership areas ✓ ESM of lights containing mercury ✓ Excess mercury from Chlor-alkali industries ✓ Virtual event on mercury from oil and gas (8 July 2023) ✓ Side event at the BRS COP in June 2023 on Mercury waste management (5 May 2023) • Compilation of good practices on mercury wastes management • Workshop for specific sectors and stakeholders
Working Group 3 **Solution exchange**	• Platform for matchmaking between stakeholders in needs and solution-providers ✓ Developed a concept and operational manual on solution exchange ✓ Developed a leaflet for outreach

Planned activities and priorities of the WMA for 2024

- Periodic meetings of the WMA
- Virtual events on waste management, in partnership with other sectors (e.g. event on Non-ferrous metals under consideration)
- Continuation of work to update ”The Catalogue of Technologies and Services on Mercury Waste Management ”
- Mapping of waste treatment facilities listed in the catalogue and storage facilities of mercury around the globe (under consideration)

Planned activities and priorities of the WGs for 2024

Working Group 1 **Resource development / refinement**	• Develop another set of factsheets. • Consider ways and take actions to digitalize the catalogue and other information.
Working Group 2 **Capacity-building and awareness-raising**	• Continue organizing webinars and other events relevant to mercury waste management
Working Group 3 **Solution exchange**	• Find stakeholder who can contribute to the solution exchange platform for pilot phase

GLOBAL MERCURY PARTNERSHIP AREA ON:
"Mercury air transport and fate research"

Leads / Co-lead(s): **Celia Chen, David Evers, Nicola Pirrone**

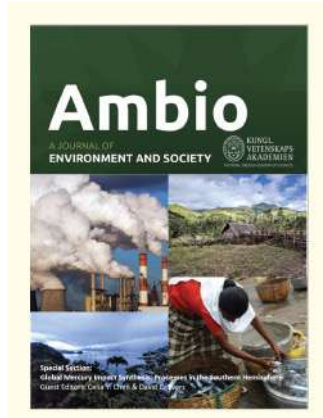
MINAMATA CONVENTION ON MERCURY

Key highlights: NEW PUBLICATIONS

Global Mercury Impact Synthesis: *Impacts of Climate on Mercury Fate and Processes in the Southern Hemisphere*

- **Mercury and Artisanal and Small-scale Gold Mining:**
- **Global Change Effects on Biogeochemical Mercury Cycling**
- **A Synthesis of Mercury Research in the Southern Hemisphere**
- *Part 1 & 2: Natural Processes & Anthropogenic Perturbations*
- **Our Evolved Understanding of the Human Health Risks of Mercury**

https://link.springer.com/journal/13280/volumes-and-issues/52-5



Global environmental mercury loads in biota and impacts on biodiversity

Provide further understanding of the science needed for both the Minamata Convention on Mercury and the Convention on Biological Diversity.

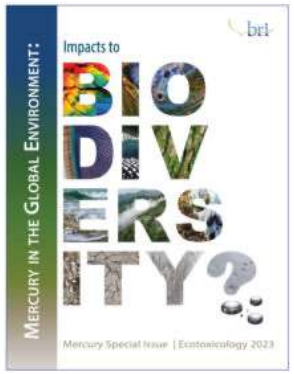
19 published papers

https://link.springer.com/collections/ifigffgedi

Biodiversity Research Institute

Science-policy piece

https://briwildlife.org/special-ecotoxicology-mercury-issue/



Key highlights: News from GEO (Group on Earth Observations)

- **Passive Sampling monitoring program:** PAS program will continue throughout the end of 2024.

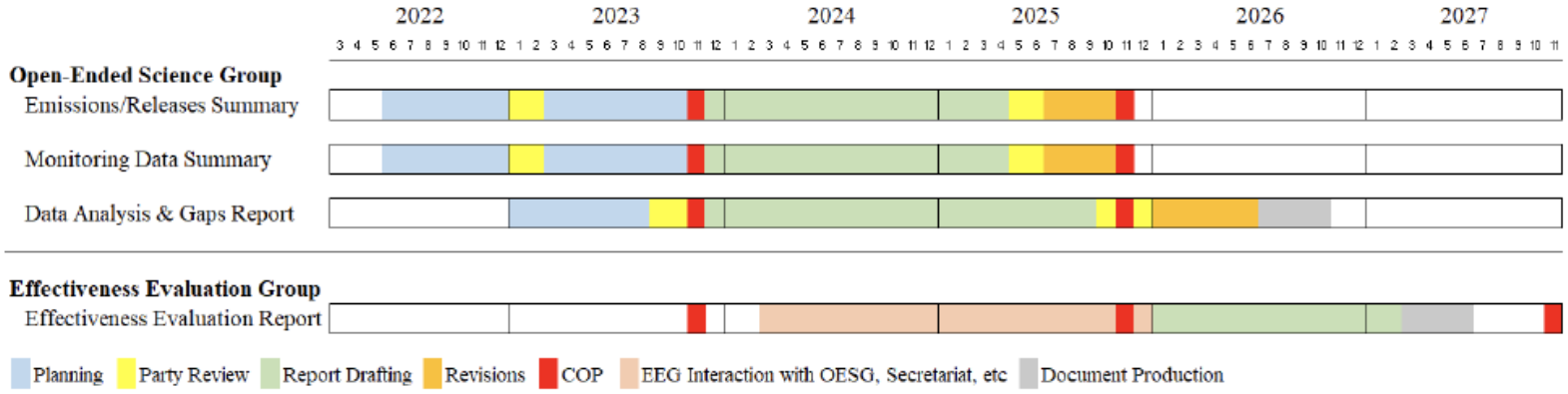
- **GMOS Network and data gathering:** South Korea became new member of GMOS and GOS4M, whereas South Africa, Australia e other countries are continuing using the GMOS GDQM QA/QC system and the GOS4M platform.

- **GOS4M Knowledge Hub**
  - **GEO post-2025 Strategy:** in this framework GOS4M will continue to develop its own program for bridging science to policy and support decision making at any geographical scale with GOS4M Platform for policy scenario analysis.
  - **GOS4M data repository:** several countries (South Korea among the last one) are using the GOS4M platform for repository and QA/QC evaluation
  - **Multi-media modeling system:** the mitigation strategy-cost model and the biota model have been completed – mid of 2024 will be released the GOS4M Multi-media modeling system platform for policy analysis.

GMOS=Global Mercury Observation System; **GOS4M**=Global Observing System for Mercury
http://www.gos4m.org/

Key highlights: Effectiveness Evaluation (EE)

- Open-ended Scientific Group and Technical Experts
  - -Co-Chairs: Terry Keating (US) and Dominique Bally Kpokro (Côte d'Ivoire)
  - -Small Working Groups: Air, Biota, Human, Other matrices (soil, sediment, freshwater, seawater), Synthesis and Modeling
- COP5 Decisions
  - -Deadline for EE (COP7)
  - -Number of regional delegates to serve on the Effectiveness Evaluation Group (5 members)



Key highlights: Upcoming ICMGP meeting

July 21-26, 2024

Plenaries: Effectiveness Evaluation, Biodiversity and Hg
Special Sessions: e.g. Biodiversity and Hg, Hg in ASGM, Advances in Analytical Chemistry, Anthropogenic Sources and Emissions, and many others

Registration: Early Bird (February 29, 2024), Standard (July 12, 2024)
Abstract Deadline: January 15, 2024

Planned activities and priorities for 2024

- Participation in OESG activities
- Involvement in organizing and attending ICMGP 2024
- Hold a 2024 F&T Partnership annual meeting
- Participation in Minamata Online

GLOBAL MERCURY PARTNERSHIP AREA ON: *Artisanal and Small-scale Gold Mining (ASGM)*

Leads / Co-lead(s): Ludovic Bernaudat, UNEP, Susan Keane, NRDC, Rodica Ivan, UNIDO

Key highlights

- 121 partners in total
- Partner activities on:
  - testing and dissemination of Hg-free technology (including women-women trainings),
  - finance,
  - responsible supply chains,
  - mercury trade,
  - remediation,
  - recovery of mercury from tailings, and
  - human health and ASGM.

Recently reported Partner Efforts:

- **Sustainable Alluvial Mining Services** (Papua New Guinea) recently signed a first-of-its kind MoU with a Local Government Authority to improve the ASGM sector in its locality.

- Also in Papua New Guinea, a group of miners have formed a "Global Community Miners Forum," comprising representatives from 12 countries, to share information and mentor/learn from each other. See https://www.artisanalminingadvocates.com/

- **PanAfgeo-WPC** just finalized their 4th and final regional training on ASM for English speaking Eastern and Northern Africa countries, consisting of 34 trainees from 17 countries, 6 co-trainers and 5 guests. All 17 countries and co-trainers have written a chapter for the next handbook to be printed in February 2024

Planned activities and priorities for 2024

- planetGOLD now has 23 countries and more are joining
- ASGM Global Forum in Ecuador (February 2024)
- Further analysis of NAP implementation and review per COP decision
- Involved in developing different projects on mercury trade and ASGM, to contribute to Bali Declaration and COP 5 decision on trade

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

SUSTAINABLE DEVELOPMENT GOALS

STRATEGIC OBJECTIVES OF THE PARTNERSHIP FOR MERCURY-FREE CHLOR-ALKALI PRODUCTION

Prevent New Facilities: Prevent the construction of new mercury-cell chlor-alkali production facilities

Reduce Emissions and Use: Minimisation of mercury emissions and usage in existing mercury-cell facilities.

Encourage Conversion: Promote the shift to non-mercury processes in these facilities

Manage Waste: Reduce or eliminate mercury releases from waste, including waste generated during conversion to non-mercury processes

Promote Safe Storage: Advocate for environmentally sound options for storing surplus mercury, limiting downstream releases from surplus mercury generated by conversion, phase-out, or closure of mercury-cell chlor-alkali facilities

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

SUSTAINABLE DEVELOPMENT GOALS

OVERVIEW OF CURRENT AND FUTURE INITIATIVES IN THE PARTNERSHIP AREA

ONGOING ACTIVITIES

- **Mexico Project Completion:** UNEP finalizing agreements to convert two mercury-cell facilities in Mexico, including mercury waste management.
- **Brazil's Chlor-Alkali Phase-Out**: ABICLOR and CLOROSUR assisting Brazil's four chlor-alkali plants in eliminating mercury, exploring opportunities for project financing.
- **Joint Webinar with Waste Management Partnership Area**: Partnership areas hosted a webinar on eliminating mercury and managing mercury waste in the chlor-alkali sector, discussing best technologies and financially viable options.

PLANNED FUTURE ACTIVITIES

- **Annual Meeting**: Organization of the Partnership's annual meeting
- **Information Gathering**: Collecting data on ongoing and potential chlor-alkali conversion projects.
- **Technology Consultation**: Offering advice on potential conversions
- **Funding Assistance**: Facilitating finance acquisition for conversion projects
- **Stocks Management Focus**: Addressing management and disposal of stocks in converted facilities
- **Enhanced Collaboration**: Increasing partnership efforts, especially in mercury supply, storage, and waste management
- **Nominating a co-lead:** We are calling on partnership area members to nominate a co-lead from their institutions.

GLOBAL MERCURY PARTNERSHIP AREA ON:
Mercury releases from cement industry

Leads / Co-leads: Claude Lorea (Global Cement and Concreate Association – GCCA), Zaigham Abbas (Ministry of Climate Change, Pakistan)

Key highlights

30 October – 3 November 2023 | Geneva, Switzerland

Meeting of the Partnership Area Co-Leads, the Chair of the Partnership Advisory Group, and the Secretariat of the Global Mercury Partnership in the margins of the fifth Conference of the Parties to the Minamata Convention on Mercury

Planned activities and priorities for 2024

- Dissemination workshop including stack measurement, BAT/ BEP – need to ensure regulators are in attendance (via national focal points)
- National project financing (UNIDO, GEF,…)
- Reporting obligation under Annex A of the Minamata convention – for parties/ countries
- Africa focus – possibly a dedicated workshop in French

GLOBAL MERCURY PARTNERSHIP AREA ON:
Mercury in Products
19 December 2023

Co-leads:

- **Thomas Groeneveld, U.S. Environmental Protection Agency**
- **Elena Lymberidi-Settimo, Zero Mercury Working Group / European Enviornmental Bureau**
- **Michael Bender, Zero Mercury Working Group / Mercury Policy Project**

Key Highlights – Meetings

- Annual Meeting (April 25, 2023) – Added Zero Mercury Working Group as Product Partnership Co-Leads

- Technical Session – "Transitioning to Mercury-Free Lighting in Asia-Pacific Countries" (June 19-20, 2023)
  - Helped convene a technical discussion on the challenges and next steps for transitioning to mercury-free lighting in Asia-Pacific
  - Discussions covered the challenges of managing, processing an disposal of mercury-added lamps
  - Low recycling rates globally (20% OECD countries), particularly in developing countries (5%) are due to high costs of recovering mercury and lack of existing hazardous waste infrastructure
  - Most cost-effective option is to transition to mercury free lighting

Key Highlights – Meetings (cont'd)

- Global Workshop on the Implementation of the Minamata Obligations on Mercury-added Products (June 21-23, 2023)
  - Engaged in 3-day meeting hosted by the Minamata Secretariat aimed at supporting Parties in complying with the obligations to phase-out the mercury-added products of Annex I Part 1, as well as phase down dental amalgam
  - Discussed opportunities for Parties to exchange information on current status and identified challenges in the implementation of Article 4 of the Convention
  - https://mercuryconvention.org/en/events/phase-out-mercury-added-products-global-workshop-21-23-june

Key Highlights – GEF-funded Projects

- Launching GEF-funded Project on Phasing Out Skin Lightening Products (February 2023)
  - Attended and contributed to the kick-off meeting of the GEF project on "Eliminating Mercury Skin Lightening Products"
  - www.unep.org/globalmercurypartnership/our-work/mercury-products/eliminating-mercury-skin-lightening-products

- Launching GEF-funded Project on Dental Amalgam (April 2023)
  - Attended the global kick-off meeting of the GEF project: "Accelerate implementation of dental amalgam provisions and strengthen country capacities in the environmental sound management of associated wastes under the Minamata Convention"
  - www.unep.org/globalmercurypartnership/our-work/mercury-products/phasing-down-the-use-of-dental-amalgam

Key Highlights – Overall MAPs Phase Out

Zero Mercury Working Group (EEB/ZMWG)

Capacity Building Related to Multilateral Environmental Agreements in African, Caribbean and Pacific Countries – Phase 3 (ACP-MEA's) Project

- Assisted Antigua & Barbuda (ATG), St Kitt & Nevis (SKN) and Trinidad & Tobago (TTO): roadmaps/National Action Plans towards phasing out mercury added products
- Developed Mercury free Procurement Policies for measuring devices/dental and lamps adopted by authorities
- Conducted Market studies on availability of mercury free products
- National Working Group mtgs in SKN & TTO
- Conducted Regional Conference on Phasing out mercury added products in the Caribbean co-organized with CARICOM, 6-7 June 2023

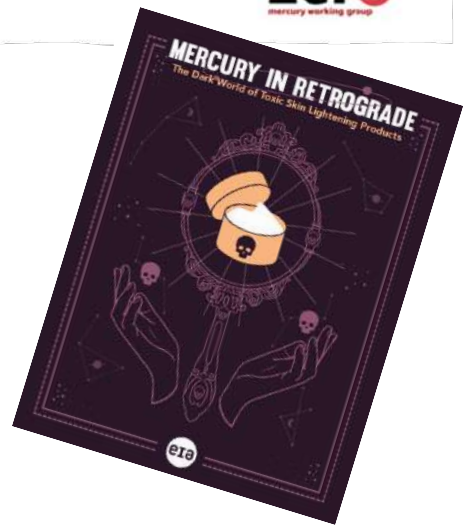
Key Highlights – Skin Lightening Products

Zero Mercury Working Group

- Released ZMWG sampling report mercury/SLP
- In collaboration with the government of Uganda, co-hosted COP5 online side event on mercury/SLPs
- **Online SLP database** published
- Supported projects in the Philippines (BT), Ivory Coast (CASE),Bangladesh (ESDO), Nigeria (SRADEV) and Kenya (CEJAD), towards curtailing mercury/SLPs
- Supported project in Pakistan (SDPI) involving engaging national focal point and hosting dermatology roundtable

Environmental Investigation Agency

- Revealed standard practice across the globe for manufacturers to add 3-4% of a mercury compound, (e.g. ammoniated mercury), to SLPs
- Production centers in Thailand, Jamaica, Pakistan
- Identified intermediary transit ports in several other Minamata Parties including Spain, UAE, and USA.



Key Highlights – Fluorescent Lighting

Phase-Out of Fluorescent Lighting

- The Clean Lighting Coalition (CLiC) has assisted governments around the world in assessing their lighting markets and developing the technical, economic and environmental justification for adopting regulations that phase-out fluorescent lighting*
- These activities (which include the provision of locally relevant evidence on the benefits of a lighting transition) resulted in adoption of policies that phase-out fluorescent lamps, shifting instead to cost-effective, mercury-free, energy-efficient LED lamps
- CLiC is currently supporting Brazil, China, Bangladesh, Nigeria and Burkina Faso in developing efficiency standards that will transition markets to LEDs and remove fluorescents earlier than 2027
- CLiC has also supported efforts in the USA that have resulted in fluorescents phase-outs in California, Vermont, Colorado, Hawaii, Rhode Island, Maine and Oregon

*Download the 2023 Global Report here: https://cleanlightingcoalition.org/2023-global-report/

Key Highlights – Dental Amalgam

Make Dental Amalgam History Campaign (World Alliance for Mercury-Free Dentistry)

- Assisting countries implement the COP4 “Children’s Amendment” to phase out of amalgam in children/pregnant and breastfeeding women
- Assisting countries in implementing phase down/out measures at the Global MAPs workshop 21 to 23 June 2023 in Geneva, Switzerland.
- Hosted workshops supporting the Children’s Amendment for West/ Central Africa (25-26 April), for East/Southern Africa (28-29 April), for North/Southwest Asia (1-2 May) and for Nigeria/Ghana (17 May 2023)
- Supporting efforts in several countries to end amalgam use in government programs, in military dentistry, in young women, and in other subpopulations
- In the United States, supporting a shift in dental school education to 100% focus on mercury-free dentistry, and persuading dental product companies to stop selling amalgam

Planned Activities and Priorities for 2024

- **Assist Secretariat to gather information for report on challenges of banning manufacture/trade of mercury-added cosmetics**
  1. Draft a questionnaire/checklist along with COP5 decision
  2. Identify types of entities potentially relevant to provide such information
  3. Survey interested Parties, countries and other entities
  4. Compile information to present and submit to Secretariat by end of June 2023

- **Webinars**
  1. Host 2-3 webinars on mercury-added products
  2. Topics TBA

- **Conduct outreach, to determine if there is interest in developing MAP fact sheets on:**
  1. Alternatives to dental amalgam
  2. Alternatives to mercury-added lamps
  3. Alternatives to other MAPs

- **Other Partner's activities**

GLOBAL MERCURY PARTNERSHIP AREA ON:
Mercury supply and Storage

Co-lead(s): Judith Torres (Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, Uruguay); Lilian Corra (International Society of Doctors for the Environment – ISDE)

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

4. Update from the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) on mercury related activities

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

5. Key outcomes from the fifth meeting of the Conference of the Parties to the Minamata Convention (COP-5)

Update on Minamata Convention COP-5

14th Global Mercury Partnership Advisory Group Meeting, 19 December 2023

Secretariat of the Minamata Convention on Mercury

Fifth meeting of the Conference of the Parties

Fifth meeting of the Conference of the Parties to the Minamata Convention on Mercury (COP-5)

Geneva, Switzerland, 30 Oct 2023 - 03 Nov 2023

More than 800 participants and 115 Parties represented

21 decision adopted

COP-5 Decisions

MINAMATA CONVENTION ON MERCURY

- 5/1: The effects of mercury pollution on Indigenous Peoples and on local communities
- 5/2: Mercury supply sources and trade
- 5/3: Study of the global supply, trade and use of mercury compounds
- 5/4: Amendments to annexes A and B
- 5/5: Preparation of a report on cosmetics listed in part I of annex A to the Minamata Convention on Mercury
- 5/6: Information on the Economic and Technical Feasibility of Mercury-Free Catalysts in VCM Production
- 5/7: Artisanal and small-scale gold mining
- 5/8:Mercury emissions
- 5/9:Guidance on BAT/BEP to control releases
- 5/10: Mercury waste thresholds
- 5/11: Review of the financial mechanism
- 5/12: Capacity building, technical assistance and technology transfer
- 5/13: National reporting
- 5/14: First effectiveness evaluation of the Minamata Convention on Mercury
- 5/15: Gender action plan
- 5/16: Knowledge management
- 5/17: Contribution of the Minamata Convention to the Kunming-Montreal Global Biodiversity Framework
- 5/18:Enhanced international cooperation and coordination
- 5/19: Cooperation between the secretariat of the Minamata Convention on Mercury and the BRS secretariat
- 5/20: Programme of work and budget for 2024-2025
- 5/21:Dates and venue of COP-6

COP-5 Decisions

- 5/1: The effects of mercury pollution on In
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- 5/ Feasibility of Mercury-Free Catalysts in VCM Production
- 5/7: Artisanal and small-scale gold mining
- 5/8:Mercury emissions
- 5/
- 5/
- 5/11: Review of the financial mechanism
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- 5/20: Programme of work and budget for 2024-2025
- 5/21:Dates and venue of COP-6

Parties requested the Secretariat to continue and enhance cooperation with the Global Mercury Partnership, and to engage with the Partnership in the consideration of options for strengthening the capacity-building, technical assistance and technology transfer programme of the secretariat and for enhancing support to parties as they cooperate to provide capacity-building and technical assistance pursuant to Article 14

Parties called for enhanced international cooperation and coordination

COP-5 Decisions

- 5/1: The effects of mercury pollution on Indigenous Peoples and on local communities
- 5/2: Mercury supply sources and trade
- 5/3: Study of the global supply, trade and use of mercury compounds
- 5/4: Amendments to annexes A and B
- 5/5: Preparation of a report on cosmetics listed in part I of annex A to the Minamata Convention on Mercury
- 5/6: Information on the Economic and Technical Feasibility of Mercury-Free Catalysts in VCM Production
- 5/7: Artisanal [illegible] all-scale gold mining
- 5/[illegible]
- 5/[illegible]
- 5/[illegible]
- 5/[illegible]

Development of guidance to assist parties in identifying, managing and reducing mercury trade from primary mercury mining

Drafting of an update to the existing guidance on stocks

Study of the global supply, production, trade and use of mercury compounds

Submission of information to the Secretariat by 31 March 2025 on technically and economically feasible alternatives to the use of mercury and mercury compounds in vinyl chloride monomer production

Submission of information to the Secretariat by 30 June 2024 on challenges in preventing the manufacture, import and export of cosmetics listed in part I of Annex A as well as on current or proposed measures for addressing these challenges, preparation of a draft report compiling and synthesizing the submitted information, and review and comment on related Secretariat report

COP-5 Decisions

- 5/1: The effects of mercury pollution on Indigenous Peoples and on local communities
- [illegible]
- [illegible]
- [illegible]
- [illegible] in part I of anne[illegible] Minamata Convention on Mercury
- 5/6: Info[illegible]n on the Economic and Technical Feasibilit[illegible] Mercury-Free Catalysts in VCM Productio[illegible]
- 5/7: Artisanal and small-scale gold mining
- 5/8:Mercury emissions
- 5/9:Guidance on BAT/BEP to control releases
- 5/10: Mercury waste thresholds
- 5/11: Review of the financial mechanism
- 5/12: Capacity building, technical assistance and technology transfer
- 5/[illegible]
- 5/[illegible]ata Co[illegible]
- 5/15: Ge[illegible] plan
- 5/16:[illegible]ge management
- 5/[illegible]ntribution of the Minamata Convention to the
- 5/[illegible] co[illegible]
- 5/[illegible] M[illegible]
- 5/[illegible]

Development of supplemental guidance on the effective engagement and participation of Indigenous Peoples, local communities and other stakeholders in the development and implementation of NAPs

Submission of information on experience in using guidance on mercury emissions under Article 8

Submission of information from Parties on their waste management regulations and programmes by 31 October 2024, and submission of data and information on the effectiveness of the threshold for waste contaminated with mercury in protecting human health and the environment, as well as on challenges and experiences related to its use

Information sharing on relevant technologies and private sector initiatives in support of the desk study and case studies to be compiled by the Secretariat on capacity-building, technical assistance and technology cooperation, as well as related webinars including on the planetGOLD technology transfer activities

Participation in the Open-ended Scientific Group and the Effectiveness Evaluation Group

Engagements on priority actions of the Minamata Convention Gender Action Plan

Preparation of a draft road map, including possible actions and indicators, to support Parties in demonstrating and maximizing the co-benefits arising from the implementation of the Minamata Convention and the Kunming-Montreal Global Biodiversity Framework

- 5/12: Capacity building, technical assistance and technology transfer
- 5/13: National reporting
- 5/14: First effectiveness evaluation of the Minamata Convention on Mercury
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- 5/20: Programme of work and budget for 2024-2025
- 5/21:Dates and venue of COP-6

MINAMATA CONVENTION ON MERCURY

Thank you for your attention

Secretariat of the Minamata Convention on Mercury
United Nations Environment Programme
11-13, Chemin des Anémones - 1219 Châtelaine, Switzerland

WEB: www.mercuryconvention.org
MAIL: MEA-MinamataSecretariat@un.org
TWITTER: @minamataMEA
#MakeMercuryHistory

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

5 minutes break

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

6. Future work of the Partnership: exploring opportunities for cross-cutting collaboration

a) Trade and flow
b) Biodiversity, climate change, and mercury
c) Any other topic

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

a) Trade and flow

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

b) Biodiversity, climate change and mercury

ASGM and Biodiversity in the Special Issue on Hg Ecotoxycology

Citation

Dossou Etui, Imelda M., Stylo, Malgorzata, Davis Kenneth, Evers, David C., Vera, I. Slaveykova, Burton, M., Wood, C. (2023). Artisanal and Small-scale Gold Mining and Biodiversity: A Global Literature Review. Special Issue on Mercury Ecotoxicology. In Journal of Ecotoxicology.

BIODIVERSITY RESEARCH INSTITUTE
innovative wildlife science

UN environment programme

GLOBAL MERCURY PARTNERSHIP

In total

116 documents consulted, together with the 27 National Action Plans (NAPs) published as of July 2023.

Type of documents	Distribution
Scientific Article	65
Report	30
Other (Toolkit, press articles, etc.)	11
Thesis	5
Guide	5
Period Coverage	**Distribution**
1995 – 2000	4
2000 – 2005	7
2005 – 2010	9
2010 – 2015	8
2015 – 2020	47
2020 – 2023	41
Geographic Coverage	**Distribution**
Global coverage	43
Sub-Saharan Africa	40
Latin America	28
Asia	5

Key highlights

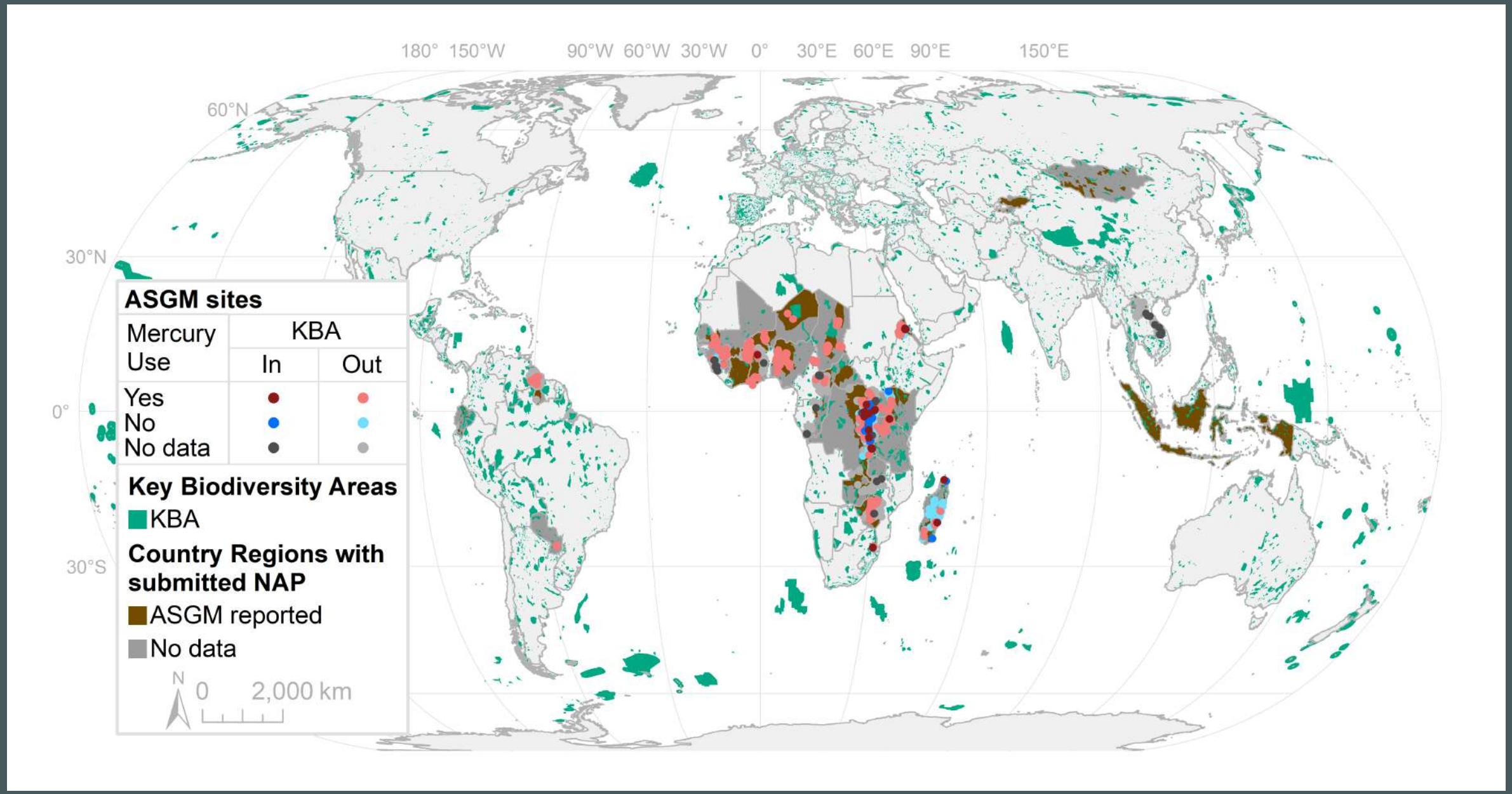
ASGM, Key Biodiversity Areas, and Protected Areas

- Many ASGM countries show the highest levels of biological diversity in all 3 key ASGM regions:
  - **Africa**: Congo, Côte d'Ivoire, Ghana, Guinea, Kenya, Madagascar, Nigeria, Tanzania, DRC, Uganda, Zambia and Zimbabwe;
  - **Asia**: Cambodia, Indonesia, Mongolia;
  - **South America**: Ecuador, Guyana, Paraguay.

- Relationships between ASGM operations and loss of biodiversity reported in all 27 NAPs.

- Occurrence of ASGM within or around the vicinity of protected areas: 9 out of the 27 NAPs submitted (Congo, DRC, Lao Peoples Democratic Republic, Madagascar, Mongolia, Niger, eSwatini, Uganda, Zambia).

- More than 20% of reviewed documents highlight ASGM activities near or in the premises of biodiversity hotspots and protected areas.


180° 150°W 90°W 60°W 30°W 0° 30°E 60°E 90°E 150°E
60°N
30°N
0°
30°S
ASGM sites
Mercury Use
KBA
In
Out
Yes
No
No data
Key Biodiversity Areas
KBA
Country Regions with submitted NAP
ASGM reported
No data
N
0
2,000 km

Mercury use in ASGM	KBA			% of ASGM sites in KBAs
	In	Out	Total	
Democratic Republic of the Congo	229	1895	2124	10,8%
Sierra Leone	19	116	135	14,1%
Central African Republic	13	248	261	5,0%
Laos	10	31	41	24,4%
Uganda	8	71	79	10,1%
Eritrea	5	19	24	20,8%
Madagascar	5	49	54	9,3%
Republic of the Congo	5	16	21	23,8%
Swaziland	3	9	12	25,0%
Zimbabwe	3	317	320	0,9%
Tanzania	2	335	337	0,6%
Zambia	2	14	16	12,5%
Ghana	1	16	17	5,9%
Togo	1	83	84	1,2%
Burkina Faso	0	180	180	0,0%
Burundi	0	54	54	0,0%
Chad	0	59	59	0,0%
Guinea	0	42	42	0,0%
Guyana	0	292	292	0,0%
Niger	0	18	18	0,0%
Nigeria	0	79	79	0,0%
Paraguay	0	43	43	0,0%
Senegal	0	53	53	0,0%
Total	306	4 039	4 345	7,0%

ASGM, biodiversity and ecosystem services: observed impacts

- Deforestation
- Land degradation and loss of habitats
- Chemical pollution
- Physical impacts on water

Picture: Imelda Dossou Etui, Migori County, Kenya

Deforestation (18 countries)	Land degradation and loss of habitat (16 countries)	Chemical pollution (17 countries)	Physical impacts on water (13 countries)
Burkina Faso	Burundi	Burkina Faso	Central African Republic
Central African Republic	Chad	Burundi	Guyana
Chad	Guyana	Congo	Indonesia
Democratic Republic of the Congo	Indonesia	Chad	Kyrgyzstan
Ecuador	Kyrgyzstan	Guinea	Lao Peoples Democratic Republic
Ghana	Lao Peoples Democratic Republic	Guyana	Mali
Guinea	Madagascar	Indonesia	Nigeria
Guyana	Mali	Madagascar	Paraguay
Indonesia	Nigeria	Mali	Senegal
Mali	Senegal	Nigeria	Sierra Leone
Nigeria	Sierra Leone	Paraguay	Uganda
Senegal	eSwatini	Senegal	Zambia
Sierra Leone	Tanzania	Sierra Leone	Zimbabwe
eSwatini	Uganda	Tanzania	
Tanzania	Zambia	Uganda	
Uganda	Zimbabwe	Zambia	
Zambia		Zimbabwe	
Zimbabwe			

Deforestation, loss of vegetation and forest cover coupled with land degradation and loss of habitats

Pictures: Imelda Dossou Etui, Narok County, Kenya

Chemical pollution

Mainly through the use of Hg and Cn

Nearly 70% of NAPs and 50% of documents reviewed mention the contamination of terrestrial and aquatic ecosystems by chemicals.

Physical impacts on water

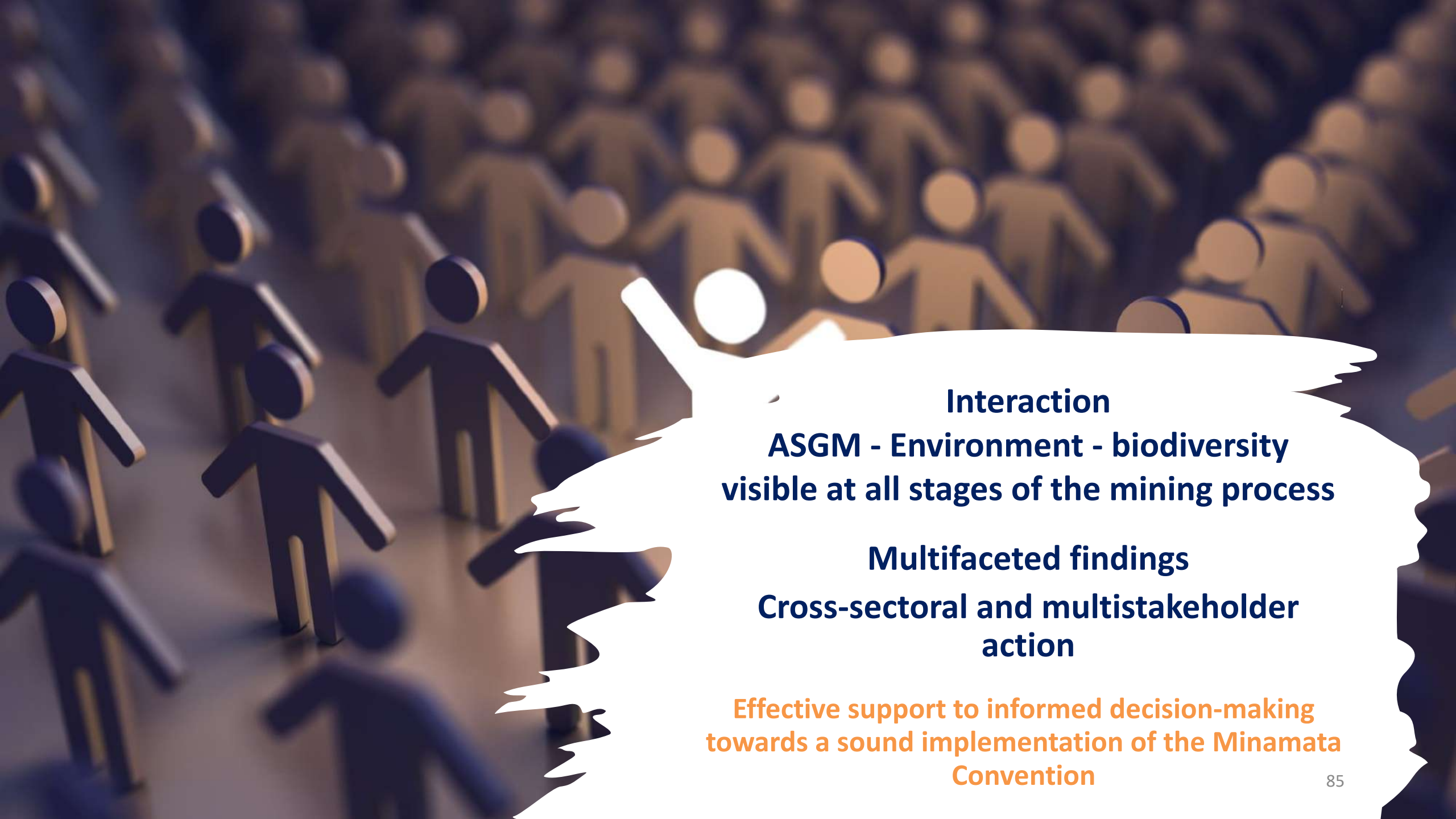
The increase in water turbidity reported as a common physical impact.

Type	Benefits
Provisioning Services	• Provision of food, fuel, and fibre • Generation and renewal of soil fertility, including nutrient cycling
Regulating Services	• Purification of air and water • Prevention of rivers drying • Detoxification and decomposition of wastes • Stabilization and moderation of the Earth's climate • Moderation of floods, droughts, temperature extremes, and the forces of wind • Pollination of plants, including many crops • Control of pests and diseases
Supporting Services	• Provision of shelter and building materials • Habitats for plants and animals • Maintenance of genetic resources as key inputs to crop varieties and livestock breeds, medicines, and other products
Cultural Services	• Cultural and aesthetic benefits • Scientific Research • Cultural and spiritual believes

Conclusions and Recommendations

- ASGM in protected areas
- Tropical regions of greatest concern
- Key species affected
- Insufficiency and/or lack of adequate policy frameworks

- Limited adequate initiatives for mine closure
- Mapping ASGM impacts on the environment
- Need for improving communication and awareness raising



Interaction
ASGM - Environment - biodiversity
visible at all stages of the mining process

Multifaceted findings

Cross-sectoral and multistakeholder action

Effective support to informed decision-making towards a sound implementation of the Minamata Convention

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

c) Any other topic

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

7. Improving the overall effectiveness of the Partnership in moving forward

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

8. Overview of preparations for the sixteenth International Conference on Mercury as a Global Pollutant (ICMGP-16)

https://www.mercurycapetown.com/

6 Plenaries

- Conference Theme
  From Minamata to Africa and Beyond/CC
- Policy:
  Effectiveness Evaluation
- ASGM
- Next Generation (3X 20 min Talks)
  New and emerging research
- Hg and Biodiversity
- Hg and Industry/Oil and Gas
  ESKOM and SASOL

South African Weather Service

Program at a Glance

- Sessions starts @ 9am
- 6 Plenary Sessions during the week, 2 on Monday
- 3 Poster Session (Mo, Tue & Thu)
- Oral Sessions will be 15 min
- 6 Concurrent Sessions/depending on total abstracts received 15 Jan
- Plenary will take place before lunch

Total Oral Presentations for the week:

- 72 Monday
- 96 on Tue and Thu
- 36 Wed
- 30 Fri
- **Total Oral Session = 330 Talks**

South African Weather Service

WORKSHOPS & SPECIAL SESSIONS
Now Closed

ABSTRACT SUBMISSION CLOSING
15 Jan 2024

EARLY BIRD REGISTRATION
28 FEB 2024

South African Weather Service

Workshop Progress

- Workshops on Sun 21 July 10h00 till 17h00
- Half day and full day Sessions
- Received 4 Submissions to date
- (Cost $25)

South African Weather Service

SPECIAL SESSIONS

Special Session: Mercury-selenium interaction in biota
Special Session: Hg and MeHg in marine food webs
Special Session: Microbial communities associated with mercury transformation in various environments
Special Session: New Methods for Atmospheric Mercury Measurement and Calibration
Special Session: Mercury Pollution in Asia: Challenges, Impacts, and Solutions
Special Session: The Impact of Mercury Across the Oil and Gas Value Chain
Special Session: Implications of Mercury Contamination During the Decommissioning of Oil and Gas Infrastructure
Special Session: Advances in statistical/machine learning and process-based models for global Hg cycling
Special Session: Mercury research in the Southern Hemisphere

Special Session/Round Table Discussion:
ICMGP Community contribution towards SPP

South African Weather Service

ICMGP and the GMP

ASGM
Hg in Coal
Air Fate and Transport

Mercury cell chlor-alkali production
Mercury in products
Mercury waste management
Mercury supply and storage
Mercury releases from the cement industry

South African Weather Service

SEE YOU IN CAPE TOWN IN JULY

"The fairest Cape in all the world" Sir Francis Drake (1580)

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

9. Other matters

Fourteenth meeting of the UNEP Global Mercury Partnership Advisory Group (PAG-14)

10. Closure of the meeting