2025 FULL REPORTS OF THE MINAMATA CONVENTION ON MERCURY

Report submitted on 12 December 2025

REPORTING PERIOD:
1 January 2021 to 31 December 2024

Attachments can be found on the website

▼ INFORMATION ON THE PARTY

1. Information on the party

Name of party
Indonesia

Date on which its instrument of ratification, accession, approval or acceptance was deposited
22 September 2017

Date of entry into force of the Convention for the party
21 December 2017

2. Information on the national focal point

Full name of the institution
Ministry of Environment/Environmental Protection Agency

Title of Contact Officer
Mr.

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Focal Point is submitting the national report

- ○ Information is submitted by the national focal point
- ◉ Information is submitted through the national focal point by the contact officer

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Full name of the institution
Ministry of Environment/Environmental Protection Agency

Title of contact officer
Director of Hazardous Substances Management

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▼ ART. 3: MERCURY SUPPLY SOURCES AND TRADE

3.1: Does the party have any primary mercury mines that were operating within its territory at the date of entry into force of the Convention for the party?

- ○ Yes – primary mercury mining with available data
- ◉ Yes – primary mercury mining with no available data
- ○ No

a) The anticipated date of closure of the mine(s): (month, year) OR

Month
{Empty}

Year
{Empty}

b) The date upon which the mine(s) closed: (month, year)

Month
November

Year
2017

c) *Total amount mined _____ metric tons per year

2021
2022
2023
2024

3.2: Does the party have any primary mercury mines that are now in operation that were not in operation at the time of entry into force of the Convention for the party?

- ◉ Yes – primary mercury mining with available data

○ Yes – primary mercury mining with no available data

○ No

If the party answered yes to either option above, please explain.
At the end of 2024, the Ministry of Environment (KLH), in collaboration with the Indonesian National Police (POLRI) and various relevant stakeholders, conducted a comprehensive field verification to ascertain the presence of primary mercury (cinnabar) mining activities at the Gunung Tembaga site in Maluku Province.
The Government of Indonesia has seized mercury originating from illegal cinnabar mining operations, as well as mercury from non-reusable sources, which is intended for management as hazardous waste. This includes, inter alia, the confiscation of 333 tonnes of cinnabar ore, reflecting the authorities' ongoing commitment to regulatory enforcement and environmental protection.

3.3: (A) Has the party endeavoured to identify individual stocks of mercury or mercury compounds exceeding 50 metric tons that are located within its territory?

3.3: (A) Has the party endeavoured to identify individual stocks of mercury or mercury compounds exceeding 50 metric tons that are located within its territory?

◉ Yes – with new data* (also to be selected by parties reporting for the first time)

○ Yes – endeavoured and indicates same stocks as reported in the previous report

○ No

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i. Please attach the results of your endeavour or indicate where it is available on the Internet;

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- IDN_3.3a_2.pdf

i. Please attach the results of your endeavour or indicate where it is available on the Internet;
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ii. Supplemental: Please provide any related information – for example, on the use or disposal of mercury from such stocks.
Through monitoring and evaluation of the implementation of the National Action Plan for the Reduction and Elimination of Mercury, the Government of Indonesia has identified individual stocks of mercury or mercury compounds exceeding 50 metric tons. The mercury stocks that remain in use in Indonesia originate from the following sources:
Chlor-alkali facilities: Mercury use amounts to 163.2×10^6 mg/cell $\times$ 18 cells = $2{,}937.6 \times 10^6$ mg = 2.94 tons. Chlor-alkali production in 2025 is no longer operating at full capacity. To date, the production of Cl and NaOH at the company is in the process of seeking mercury-free alternative technologies for its production processes.
Mercury use in the lighting industry: 0.32 kg in 2024.
Individual laboratory stocks of mercury compounds, specifically mercury oxide: 8.5 kg and 2,500 gram (2022), based on hazardous substance (B3) reporting data.

3.3: (B) Has the party endeavoured to identify individual sources of mercury-supply-generating stocks exceeding 10 metric tons per year that are located within its territory?

3.3:(B) Has the party endeavoured to identify individual sources of mercury-supply-generating stocks exceeding 10 metric tons per year that are located within its territory?

○ Yes – with new data* (also to be selected by parties reporting for the first time)

○ Yes – endeavoured and indicates same stocks as reported in the previous report

◉ No

If the party answered no to the question, please explain.
Indonesia does not have any individual sources of mercury-supply-generating stocks exceeding 10 metric tons per year within its territory.

3.4: Has the party determined that it has excess mercury available from the decommissioning of chlor-alkali facilities?

- ○ Yes
- ○ No – has determined it has no excess mercury
- ◉ No – has not made a determination

3.5: *Has the party received consent, or relied on a general notification of consent, in accordance with article 3, including any required certification from importing non-parties, for all exports of mercury from the party's territory in the reporting period?

- ☐ Yes – exports to parties
- ☐ Yes – exports to non-parties
- ☑ No – no export took place
- ☐ No – consent was not given

3.6: Has the party allowed the import of mercury from a non-party?

- ◉ No
- ○ Yes
- ○ The importing party has relied on paragraph 7 of article 3

Part E – Additional comments on this article

The Government of Indonesia notes that mercury is classified under the same Harmonized System (HS) Code whether it is designated as a material or specifically as mercury waste, which can result in exports of mercury waste from Indonesia being recorded in trade statistics as materials. To clarify, Indonesia has never exported mercury as a material; all exports have been exclusively in the form of waste. This practice stems from the country's current limitations in domestic waste treatment capacity, and the Government remains committed to enhancing its capabilities in this regard while adhering to international standards for environmentally sound management under the Minamata Convention on Mercury.

▼ ART. 4: MERCURY-ADDED PRODUCTS

4.1. Has the party taken any appropriate measures to not allow the manufacture, import or export of mercury-added products listed in Part I of Annex A of the Convention after the phase-out date specified for those products?

- ◉ Yes
- ○ No
- ○ Yes (implementing paragraph 2 of article 4)

If yes, please provide information on the measures.

Indonesia has taken comprehensive measures to prohibit the manufacture, import, and export of mercury-added products listed in Part I of Annex A.

Since the issuance of the Minister of Health Regulation No. 41 of 2019, all healthcare facilities have phased out the use of mercury-containing medical devices. The Ministry of Health's E-Catalogue also no longer includes mercury thermometers, sphygmomanometers, or dental amalgam products. The trade of mercury-added medical devices is restricted under the Minister of Trade Regulation No. 18 of 2021 as amended by the Minister of Trade Regulation No. 40 of 2022 on prohibited exports and imports, which lists three tariff codes of mercury-containing devices banned from import, namely:

ex. 28539090: mercury-containing dental amalgam

ex. 90189090: mercury sphygmomanometers

ex. 90251100: mercury thermometers
Further restrictions are stipulated in the Minister of Trade Regulation No. 32 of 2025, which amends Regulation No. 20 of 2025 concerning the import policy and regulation of chemicals, hazardous substances, and minerals. This regulation explicitly prohibits the use and distribution of mercury for artisanal and small-scale gold mining (ASGM) activities and in the cosmetic industry.
In the cosmetic sector, the National Agency of Drug and Food Control (BPOM) regulates mercury contamination through BPOM Regulation No. 16 of 2024, which sets a maximum limit of 1 mg/kg (1 ppm) of mercury in cosmetic products. Additionally, BPOM Regulation No. 25 of 2025 on technical requirements for cosmetic ingredients lists mercury as a prohibited substance in cosmetic formulations.
The enforcement of these trade and product restrictions is supported by the Directorate General of Customs and Excise through import and export control mechanisms under the national system of prohibitions and restrictions (Lartas). DGCE ensures that mercury-containing products that do not comply with relevant regulations are not permitted to enter or leave Indonesian territory. This control refers to the Minister of Trade Regulations No. 16 and 20 of 2025 on imports, Regulations No. 22 and 23 of 2023 on exports, and Government Regulation No. 74 of 2001 on the management of hazardous and toxic substances (B3), which includes mercury.
Indonesia has established a comprehensive regulatory framework for e-commerce through Government Regulation No. 80 of 2019. Under this regulation, all business actors engaged in e-commerce activities—whether domestic or foreign—are required to comply with general business licensing and operational requirements in accordance with prevailing laws and regulations. These include obtaining a business license, relevant sectoral/technical permits, a tax identification number, and other applicable administrative obligations.
Furthermore, Minister of Trade Regulation No. 31 of 2023 delegates supervisory and enforcement authority to the Director General of Consumer Protection and Trade Compliance within the Ministry of Trade. This oversight mechanism serves to ensure full compliance by e-commerce operators with national laws, protect consumer rights, promote fair trade practices, and maintain orderly market conduct in the digital economy.

If yes, has the party registered for an exemption pursuant to article 6?

- ○ Yes
- ◉ No

4.3: (A) Has the party taken two or more measures listed in subparagraphs (i) to (ix) of part II of annex A for the mercury-added products listed in part II of annex A in accordance with the provisions set out therein?

4.3:(A) Has the party taken two or more measures listed in subparagraphs (i) to (ix) of part II of annex A for the mercury-added products listed in part II of annex A in accordance with the provisions set out therein?

- ◉ Yes
- ○ No

If yes, please provide information on the measures.
The Government of Indonesia has undertaken a series of proactive measures to regulate the use of dental amalgam, in alignment with its obligations under the Minamata Convention on Mercury and its commitment to minimizing mercury exposure in healthcare settings. These measures include:
a. The issuance and dissemination of comprehensive policy frameworks to guide the phase-out dental amalgam use;
b. Targeted capacity-building initiatives, including educational programs tailored for healthcare facilities, to promote awareness and adoption of mercury-free alternatives;
c. Collaborative efforts with relevant ministries and institutions to prohibit the importation of mercury-containing medical devices and dental amalgam, thereby strengthening border controls and ensuring compliance with national and international standards.

4.3: (B) If the amendment to annex A adopted in decision MC-4/3 has entered into force for the party, has the party (please check the appropriate box below) taken relevant measures:

4.3:(B) If the amendment to annex A adopted in decision MC-4/3 has entered into force for the party, has the party (please check the appropriate box below) taken relevant measures:

◉ Yes

○ No

○ Not applicable

If the party answered yes please select from the bellow checkboxes

☑ Excluded or not allowed, by taking measures as appropriate, the use of mercury in bulk form by dental practitioners

☑ Excluded or not allowed, by taking measures as appropriate, or recommended against, the use of dental amalgam for the dental treatment of deciduous teeth of patients under 15 years of age and of pregnant and breastfeeding women, except when such use is considered necessary by the dental practitioner based on the needs of the patient

If the party answered yes to either option above, please provide information on the measures.
Through Presidential Regulation No. 21 of 2019 on the National Action Plan for the Reduction and Elimination of Mercury (RAN-PPM), Indonesia has prohibited the use of dental amalgam in all health-care facilities nationwide since 2020. This prohibition is supported by regulatory guidance, monitoring, and coordination with relevant ministries and professional institutions to ensure compliance and to promote the use of mercury-free dental filling materials.

4.4: Has the party taken measures to prevent the incorporation into assembled products of mercury-added products whose manufacture, import and export are not allowed for it under article 4?

◉ Yes

○ No

○ No - not applicable (do not have facilities assembling products using mercury-added products)

If yes, please provide information on the measures.
Indonesia has continued to strengthen its measures to prevent the incorporation of mercury-added products into assembled products, particularly in the medical, cosmetic, and lighting industries.
In the health sector, the Minister of Health Regulation No. 41 of 2019 on the Elimination and Withdrawal of Mercury-Containing Medical Devices in Health Care Facilities prohibits the marketing and use of mercury medical devices. Furthermore, under the Minister of Environment and Forestry Regulation No. 27 of 2020, as amended by Regulation No. 13 of 2025, mercury-containing medical devices must be properly packaged and managed as hazardous waste for environmentally sound disposal.
In the cosmetic sector, the National Agency of Drug and Food Control (BPOM) enforces the prohibition of mercury in cosmetic formulations under the BPOM Regulation No. 25 of 2025 on Technical Requirements for Cosmetic Ingredients, which lists mercury as a banned substance. In addition, BPOM Regulation No. 16 of 2024 sets the maximum allowable limit for mercury contamination in cosmetics at less than 1 mg/kg (1 ppm) to prevent unintentional inclusion of mercury impurities in finished products.
In the lighting industry, Indonesia has developed technical guidelines on the environmentally sound use and management of mercury in lamp manufacturing and assembly. These guidelines serve as Best Available Techniques (BAT) and Best Environmental Practices (BEP) for the lighting industry to minimize and ultimately eliminate mercury use in lamp production. In 2024, through the Advancing Indonesia's Lighting Market to High-Efficient Technologies (ADLIGHT) project, the Government issued Government Regulation (PP) No. 33 of 2023 and accompanying policies to promote the increased use of domestically produced LED lamps in buildings and street-lighting systems. These measures are designed to accelerate the transition to mercury-free lighting alternatives across Indonesia.
Through these measures, Indonesia ensures that mercury-added products prohibited under Article 4 are not used as components in any assembled products within its territory.

4.5: Has the party discouraged the manufacture and the distribution in commerce of mercury-added products not covered by any known use in accordance with article 4, paragraph 6?

○ Yes

◉ No - no action taken

○ No – an assessment of the risks and benefits of the product demonstrates benefits to human health or the environment

If the party answered no – no action taken, please explain.
The Government of Indonesia reports that no new products containing mercury, beyond those uses explicitly recognized and addressed in the Minamata Convention on Mercury, have been identified within its jurisdiction.

Part E – Additional comments on this article

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▼ ART. 5: MANUFACTURING PROCESSES IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED

5.1: Are there facilities within the territory of the party that use mercury or mercury compounds for the processes listed in Annex B of the Minamata Convention in accordance with paragraph 5 of article 5 of the Convention?

◉ Yes

○ No

○ Do not know

If yes, please provide information on measures taken to address emissions and releases of mercury or mercury compounds from such facilities.
Indonesia currently has one chlor-alkali company in operation, which is slated for closure by the end of 2025. The operator is actively engaged in identifying and implementing an appropriate decommissioning methodology to ensure compliance with national and international standards. The chlor-alkali installation utilizes a closed-system process, which ensures that mercury remains contained within the system, with no expected losses or atmospheric releases.

If available, please provide information on the number and type of facilities and the estimated annual amount of mercury or mercury compounds used in those facilities.
The annual amount of mercury or mercury compounds used in 1 (one) facility is 163.2×10^6 mg/cell $\times$ 18 cells = $2{,}937.6 \times 10^6$ mg = 2.94 tons. The chlor-alkali installation utilizes a closed-system process, which ensures that mercury remains contained within the system, with no expected losses or atmospheric releases.

Please provide information on how much mercury (in metric tons) is used in the processes listed in the two first entries of Part II of Annex B in the last year of the reporting period.
Indonesia currently has one chlor-alkali company in operation, which is scheduled to cease operations by the end of 2025. The annual amount of mercury or mercury compounds used in this facility is calculated as follows:
163.2×10^6 mg/cell $\times$ 18 cells = $2{,}937.6 \times 10^6$ mg, equivalent to approximately 2.94 metric tons per year.
The chlor-alkali installation operates as a closed-system process, ensuring that mercury remains fully contained within the system, with no expected losses or atmospheric releases.

5.2: Are measures in place to not allow the use of mercury or mercury compounds in manufacturing processes listed in Part I of Annex B after the phase-out date specified in that Annex for the individual process?

CHLOR-ALKALI PRODUCTION

◉ Yes

○ No

○ Not applicable (do not have these facilities)

If yes, please provide information on these measures.

Indonesia currently operates one mercury-based chlor-alkali facility. The operating company has formally committed to fully comply with the national policy to phase out the use of mercury in this sector by the end of 2025. It is actively exploring alternative technologies for production processes, to ensure a sustainable transition. In parallel, the company is carefully assessing the most appropriate and environmentally sound methods for the decommissioning and decontamination of its existing mercury-cell facilities, in full alignment with Indonesia's obligations under the Minamata Convention.
In 2024, the Government conducted socialization sessions with the company and carried out on-site monitoring visits to verify progress, provide technical guidance, and reinforce compliance with the phase-out timeline.

ACETALDEHYDE PRODUCTION IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED AS A CATALYST

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

5.3: Are measures in place to restrict the use of mercury or mercury compounds in the processes listed in Part II of Annex B in accordance with the provisions set out therein?

VINYL CHLORIDE MONOMER PRODUCTION

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

SODIUM OR POTASSIUM METHYLATE OR ETHYLATE

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

PRODUCTION OF POLYURETHANE USING MERCURY-CONTAINING CATALYSTS

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

5.4: Is there any use of mercury or mercury compounds in a facility using the manufacturing processes listed in Annex B that did not exist prior to the date of entry into force of the Convention for the party?

- ○ Yes
- ◉ No

5.5: Has the party discouraged the development of any facility using any other manufacturing process in which mercury or mercury compounds are intentionally used that did not exist prior to the date of entry into force of the Convention?

- ○ Yes
- ◉ No – no action taken
- ○ No – the party demonstrated to the Conference of the Parties the significant environmental and health benefits of the manufacturing process and that there are no technically and economically feasible mercury-free alternatives available providing such benefits.

Part E – Additional comments on this article

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▼ ART. 7: ARTISANAL AND SMALL-SCALE GOLD MINING

7.1: Have steps been taken to reduce, and where feasible eliminate, the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, artisanal and small-scale gold mining and processing subject to article 7 within your territory?

- ◉ Yes
- ○ No
- ○ There is no artisanal and small-scale gold mining and processing subject to article 7 in which mercury amalgamation is used in the territory

If yes, please provide information on the steps.
Indonesia has taken steps to reduce and eliminate the use of mercury in artisanal and small-scale gold mining (ASGM) since the implementation of the National Action Plan on Mercury Reduction and Elimination (RAN-PPM). The measures undertaken include:
- Prohibition of mercury use in ASGM through national policy measures.
- Establishment of People's Mining Areas (WPR) under Ministerial Decree No. 174 of 2024, which stipulates that proposals submitted by local governments can only be approved if they ensure that mercury will not be used in ASGM activities.
- Construction of four mercury-free gold processing facilities in various locations during the period 2021–2024.
- Continuous research and development of non-mercury alternative technologies to support the transition toward sustainable mining practices.
- Law enforcement operations against illegal artisanal and small-scale gold mining (ASGM) activities that continue to use mercury.
- Establishment of a Directorate General of Law Enforcement within the Ministry of Energy and Mineral Resources in 2025, with a specific mandate to address illegal mining.

7.2: Has the party determined, and notified the secretariat, that artisanal and small-scale gold mining and processing within its territory is more than insignificant?

- ◉ Yes
- ○ No

7.3: Has the party developed and implemented a national action plan and submitted it to the secretariat?

- ◉ Yes
- ○ No
- ○ In progress

7.4: Attach your most recent review that must be completed under paragraph 3 (c) of article 7, unless it is not yet due

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7.5: Supplemental: Has the party cooperated with other countries or relevant intergovernmental organizations or other entities to achieve the objective of this article?

- ○ Yes
- ○ No

Please provide information
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Part E - Additional comments on this article

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▼ ART. 8: EMISSIONS

8.1: Identify any Annex D source categories for which there are new sources of emissions of mercury or mercury compounds as defined in paragraph 2 (c) of article 8.

For each of those source categories describe the measures in place, including the effectiveness of such measures, to implement the requirements of paragraph 4 of article 8.

- ☐ Coal-fired power plants
- ☐ Coal-fired industrial boilers
- ☐ Smelting and roasting processes used in the production of non-ferrous metals
- ☐ Waste incineration facilities
- ☐ Cement clinker production facilities

Has the party required the use of best available techniques or best environmental practices (BAT/BEP) to control and where feasible reduce emissions for new sources no later than 5 years after the date of entry into force of the Convention for the party?

- ◉ Yes
- ○ No (please explain)

If Yes, please explain
Indonesia has required the application of best available techniques (BAT) and best environmental practices (BEP) for new emission sources through its national regulatory framework. Government Regulation No. 22/2021 mandates that all new facilities meet emission standards developed based on BAT/BEP principles. These requirements are further elaborated in sector-specific regulations, including emission standards for coal-fired power plants, smelters, and waste incineration facilities, many of which include mercury as a regulated parameter. Through this regulatory framework, Indonesia ensures that new sources implement BAT/BEP to control and, where feasible, reduce mercury emissions in line with the Minamata Convention.

8.2: Identify any Annex D source categories for which there are existing sources of emissions of mercury or mercury compounds as defined in paragraph 2 (e) of article 8.

For each of those source categories, select and provide details on the measures implemented under paragraph 5 of article 8 and explain the progress that these applied measures have achieved in reducing emissions over time in your territory:

▼ COAL-FIRED POWER PLANTS

☑ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources

☑ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources

☑ Use of BAT/BEP to control emissions from relevant sources

☑ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions

☐ Alternative measures to reduce emissions from relevant sources

Measures
Monitoring of emission in Coal-fired power plants carried out by direct and electronic (online reporting system) monitoring.

Progress
1. The emission standard for Hg parameter has been set out under the Regulation of the Minister of Environment and Forestry Number 15 of 2019 concerning Quality Standards for Thermal Power Plant Emissions
2. Some of CFPP in Indonesia has implemented High Efficiency and Low Emissions (HELE) technology to reduce mercury emissions, especially in Java and Sumatera
3. All of CFPPs have been installed with emission reduction technologies, such as particulate removal (ESP, Fabric/Bag Filter), and desulfur technology, and it would help to reduce Hg emission in CFPP as well (as a co benefit)
4. As much as 215 company had been reported the mercury emission in 2024.

▼ COAL-FIRED INDUSTRIAL BOILERS

☑ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources

☑ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources

☑ Use of BAT/BEP to control emissions from relevant sources

☑ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions

☐ Alternative measures to reduce emissions from relevant sources

Measures
Monitoring of emission in Coal-fired industrial boilers carried out by direct and electronic (online reporting system) monitoring.

Progress
Indonesia have some regulation to monitor the hazardous substance emission such as:
・ Regulation of the Minister of Environment and Forestry Number 15 of 2019 concerning Quality Standards for Thermal Power Plant Emissions
・ Regulation of the Minister of Environment and Forestry Number 1 of 2021 concerning Program for Company Performance Ratings in Environmental Management.
・ Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 87 of 2016 concerning the Electronic Licensing Reporting System for the Environmental Sector for Businesses and/or Activities
・ Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 6 of 2021 concerning Procedures and Requirements for Management of Hazardous Waste

Industries have also installed Air Pollution Control (APC) systems to minimize hazardous emissions, including mercury emissions.

▼ SMELTING AND ROASTING PROCESSES USED IN THE PRODUCTION OF NON-FERROUS METALS

- [x] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [x] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [x] Use of BAT/BEP to control emissions from relevant sources
- [x] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [ ] Alternative measures to reduce emissions from relevant sources

Measures
Monitoring of emission in Smelting and roasting processes used in the production of non-ferrous metals carried out by direct and electronic (online reporting system) monitoring.

Progress
Indonesia have some regulation to monitor the hazardous substance emission such as:
- Regulation of the Minister of Environment and Forestry Number 1 of 2021 concerning Program for Company Performance Ratings in Environmental Management.
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 87 of 2016 concerning the Electronic Licensing Reporting System for the Environmental Sector for Businesses and/or Activities
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 6 of 2021 concerning Procedures and Requirements for Management of Hazardous Waste

Industries have also installed Air Pollution Control (APC) systems to minimize hazardous emissions, including mercury emissions.

▼ WASTE INCINERATION FACILITIES

- [x] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [x] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [x] Use of BAT/BEP to control emissions from relevant sources
- [ ] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [ ] Alternative measures to reduce emissions from relevant sources

Measures
Monitoring of emission in waste incineration facilities carried out by direct and electronic (online reporting system) monitoring.

Progress
Indonesia have some regulation to monitor the hazardous substance emission such as:
- Regulation of the Minister of Environment and Forestry Number 1 of 2021 concerning Program for Company Performance Ratings in Environmental Management.
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 87 of 2016 concerning the Electronic Licensing Reporting System for the Environmental Sector for Businesses and/or Activities

- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 6 of 2021 concerning Procedures and Requirements for Management of Hazardous Waste

▼ CEMENT CLINKER PRODUCTION FACILITIES

- [x] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [x] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [x] Use of BAT/BEP to control emissions from relevant sources
- [x] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [ ] Alternative measures to reduce emissions from relevant sources

Measures
Monitoring of emission in Cement clinker production facilities carried out by direct and electronic (online reporting system) monitoring.

Progress
Indonesia have some regulation to monitor the hazardous substance emission such as:
- Regulation of the Minister of Environment and Forestry Number 1 of 2021 concerning Program for Company Performance Ratings in Environmental Management.
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 87 of 2016 concerning the Electronic Licensing Reporting System for the Environmental Sector for Businesses and/or Activities
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 6 of 2021 concerning Procedures and Requirements for Management of Hazardous Waste

Industries have also installed Air Pollution Control (APC) systems to minimize hazardous emissions, including mercury emissions.

Have the measures for existing sources under paragraph 5 of article 8 been implemented no later than 10 years after the date of entry into force of the Convention for the party?

- (●) Yes
- ( ) No

8.3: Has the party prepared an inventory of emissions from relevant sources within 5 years of entry into force of the Convention for it?

- (●) Yes
- ( ) No
- ( ) Have not been a party for 5 years

If yes, when was the inventory last updated?
1 March 2023

Please indicate where this inventory is available
The Government of Indonesia has diligently conducted a comprehensive inventory of mercury emissions from relevant sources, in full accordance with the standardized procedures and methodologies prescribed in the UNEP Toolkit (as stated in Indonesia's 2023 Minamata Initial Assessment (MIA)).
In parallel, for emissions originating from the private sector, Indonesia has implemented the SIMPEL (Online Reporting Information System) application, which facilitates efficient and transparent data submission and verification processes.
For further details, the mercury inventory is accessible via the following link:

http://simpel.menlh.go.id/2023/landing. Please note that the platform is currently available exclusively in the Indonesian language.

Attach

- IDN_8.3.pdf

8.4: Has the party chosen to establish criteria to identify relevant sources covered within a source category?

- ○ Yes
- ◉ No

8.5: Has the party chosen to prepare a national plan setting out the measures to be taken to control emissions from relevant sources and its expected targets, goals and outcomes?

- ◉ Yes
- ○ No

If yes, has the party submitted its national plan to the Conference of the Parties under this article no later than 4 years after the date of entry into force of the Convention for the party?

- ◉ Yes
- ○ No

Part E - Additional comments on this article

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▼ ART. 9: RELEASES

9.1: Are there, within the party's territory, relevant sources of releases as defined in paragraph 2 (b) of article 9?

- ○ Yes
- ◉ No
- ○ Do not know (please explain)

9.2: Has the party established an inventory of releases from relevant sources within 5 years of entry into force of the convention for it?

- ◉ Yes
- ○ Relevant sources do not exist in the territory
- ○ Have not been a party for 5 years
- ○ No (please explain)

When was the inventory last updated?
1 March 2023

Please indicate where this inventory is available.
IDN_9.2.pdf

Please explain
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Part E - Additional comments on this article

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▼ ART. 10: ENVIRONMENTALLY SOUND INTERIM STORAGE OF MERCURY, OTHER THAN WASTE MERCURY

10.1: Has the party taken measures to ensure that the interim storage of non-waste mercury and mercury compounds intended for a use allowed to a party under the Convention is undertaken in an environmentally sound manner?

◉ Yes

○ No (please explain)

○ Do not know (please explain)

If yes, please indicate the measures taken to ensure that such interim storage is undertaken in an environmentally sound manner, and the effectiveness of those measures.

The Government of Indonesia has conducted thorough monitoring of mercury stocks, excluding waste, to ensure compliance with national regulations and international best practices under the Convention. This oversight has confirmed that interim storage of such mercury has been managed in an environmentally sound manner, prioritizing safety, containment, and risk mitigation to protect human health and the ecosystem.

In general, mercury held in storage—other than waste—has been utilized as a raw material in the production of lamps and chlor-alkali facilities, as well as serving as a research reagent in laboratory settings. These applications align with allowable uses under the Convention, and Indonesia remains committed to ongoing vigilance, phased reductions, and the promotion of mercury-free alternatives to further advance sustainable practices.

Part E - Additional comments on this article

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▼ ART. 11: MERCURY WASTES

11.1: Have measures outlined in article 11, paragraph 3, been implemented for the party's mercury waste?

◉ Yes

○ No

☑ Yes - the party has taken measures so that mercury waste is managed in an environmentally sound manner

Please describe measure and effectiveness of measures

The Government of Indonesia affirms that it has implemented robust measures to ensure the environmentally sound management of mercury waste, in full compliance with the provisions of the Minamata Convention on Mercury and international best practices.
Domestically, mercury waste with concentrations below 260 ppm is managed through established processes involving stabilization and solidification, followed by secure landfilling at authorized facilities. For mercury waste exceeding 260 ppm, exports are conducted to specialized international facilities for environmentally sound disposal.

☐ Yes - the party has taken measures so that mercury waste is recovered, recycled, reclaimed or directly re-used for a use allowed to a party under the Convention or for environmentally sound disposal pursuant to paragraph 3 (a)

☐ Yes - the party has taken measures so that mercury waste is not transported across international boundaries except for the purpose of environmentally sound disposal

If the party answered yes to any measures above, please describe the measures implemented pursuant to paragraph 3, and please also describe the effectiveness of those measures.

Indonesia has implemented a range of measures pursuant to paragraph 3 to ensure the environmentally sound management of mercury waste. The Government affirms that these measures are fully aligned with the Minamata Convention and international best practices.

Domestically, Indonesia manages mercury waste with concentrations below 260 ppm through stabilization and solidification, followed by disposal in secure engineered landfills that meet national safety standards. For mercury waste exceeding 260 ppm, Indonesia applies stricter controls, including exporting the waste to specialized international treatment facilities that are equipped to conduct environmentally sound disposal in accordance with global standards.

11.2: *Are there facilities for final disposal of waste consisting of mercury or mercury compounds in the party's territory?

- (●) Yes
- ( ) No
- ( ) Do not know (please explain)

If the party answered yes to any measures above, please select from the following

- [x] Yes - there are facilities in the party's territory
- [ ] Yes - there are facilities outside the party's territory accessible to the party (in accordance with paragraph 5 of article 11)

If there are facilities in the party's territory and if the information is available, how much waste consisting of mercury or mercury compounds has been subject to final disposal under the reporting period? Please specify the method of the final disposal operation/operations. If the party does not have specific data on waste consisting of mercury or mercury compounds, the party may report on the data including other mercury waste, with an explanatory note.
There are facilities for final disposal Mercury (<260 ppm) operated by private companies. Mercury waste management accommodates mercury waste <260 ppm with stabilization and solidification. Mercury is then disposed of in a landfill.

Kindly attach any additional relevant information
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Part E - Additional comments on this article

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▼ ART. 12: CONTAMINATED SITES

12.1: Has the party endeavoured to develop strategies for identifying and assessing sites contaminated by mercury or mercury compounds in its territory?

- (●) Yes
- ( ) No

Please elaborate
Indonesia has developed and implemented a comprehensive national strategy to identify, assess, and remediate sites contaminated with mercury and mercury compounds across its territory. Key achievements include:
- Establishment of a robust regulatory framework, notably through Minister of Environment and Forestry Regulation No. P.101/MENLHK/SETJEN/KUM.1/11/2018, which provides detailed guidelines for the restoration of land contaminated by hazardous and toxic waste (B3), explicitly including mercury-contaminated sites. To further strengthen these efforts and incorporate evolving best practices, the Ministry of Environment is currently undertaking a comprehensive review and proposed amendment to the regulation. This ongoing process includes targeted amendments aimed at enhancing the effectiveness of restoration initiatives, promoting more efficient resource allocation, and aligning with international standards under the Minamata Convention on Mercury.
- Development of a national database and inventory system to systematically document and track

mercury-contaminated sites.
- Formulation of national priorities and a clear roadmap for the phased remediation and long-term management of mercury-contaminated sites.
- A landmark remediation project was successfully carried out in 2024 in Ciladeun Village, Lebak Gedong District, Lebak Regency, Banten Province.
- In parallel, Indonesia continues to conduct nationwide awareness-raising and capacity-building programs at the provincial and local levels to strengthen stakeholder knowledge and institutional readiness for the sustainable management of mercury-contaminated sites.

Part E - Additional comments on this article

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▼ ART. 13: FINANCIAL RESOURCES AND MECHANISM

13.1: Has the party undertaken to provide, within its capabilities, resources in respect of those national activities that are intended to implement the Convention in accordance with its national policies, priorities, plans and programmes?

◉ Yes

○ No

Please specify
Indonesia has provided resources and financial support to implement the Minamata Convention in line with its national policies, priorities, and programmes. The support includes:
1. Implementation of the National Action Plan on Mercury Reduction and Elimination (RAN-PPM) and facilitation of the preparation of Provincial Action Plans (RAD-PPM) across all provinces, funded through the national budget (APBN), regional budgets (APBD), and other legitimate sources.
2. Dissemination, awareness-raising, and training activities for artisanal and small-scale gold miners (ASGM) in Lombok Barat, Minahasa Utara, Halmahera Selatan, and Gorontalo Utara.
3. Construction of mercury-free gold processing facilities in four locations in Indonesia, and research and development of mercury-free gold processing technology by BRIN.
4. Research and innovation activities, including mercury stabilization research, development of gold nanoparticle-based mercury sensors, and scientific dissemination through national forums such as BRIN EnviroTalk #4 – RISNOV for a Mercury-Free Indonesia 2030 and the seminar Towards Mercury-Free ASGM.
5. Remediation of mercury-contaminated sites, including in Lebak District, Banten.
6. Elimination of mercury-added medical devices in various regions.
7. International cooperation in mercury monitoring and stabilization.
8. Support for law enforcement and monitoring of illegal cinnabar mining and mercury trade.
These actions demonstrate Indonesia's commitment to providing financial, technical, and institutional resources for the sustainable implementation of the Minamata Convention.

13.2: Supplemental: Has the party, within its capabilities, contributed to the mechanism referred to in paragraph 5 of article 13?

◉ Yes

○ No

Please provide comments, if any.
Indonesia remains firmly committed to the Minamata Convention's objectives to reduce and eliminate mercury, despite not directly contributing to the financial mechanism in paragraph 5 of Article 13. Indonesia has allocated significant resources from its National Budget (APBN) and Regional Budgets (APBD) to support mercury reduction, particularly in artisanal and small-scale gold mining (ASGM), industrial processes, and waste management. Key efforts include:
Mercury-Free Technologies and Training: Funding supports mercury-free technologies, miner training, and compliance monitoring in ASGM.
Strengthened Monitoring and Enforcement: Investments enhance laboratory facilities, environmental assessments, and regulatory frameworks.
Public Awareness and Capacity Building: Nationwide campaigns educate communities and officials

on mercury risks and safe practices.
Regional budgets fund localized projects, such as site rehabilitation and alternative livelihoods for ASGM communities. Indonesia also partners with the Global Environment Facility, UNEP, UNDP, and donor countries (Japan, Canada, Switzerland) to access technical expertise and additional funding. Active participation in the Asia-Pacific Mercury Monitoring Network and hosting COP-4 in Bali (2022) further demonstrate Indonesia's commitment to global cooperation. These efforts align with the Convention's goals, advancing national and global mercury reduction initiatives.

13.3: Supplemental: Has the party provided financial resources to assist developing-country parties and/or parties with economies in transition in the implementation of the Convention through other bilateral, regional and multilateral sources or channels?

◉ Yes

○ No

Please specify
As a developing country, Indonesia focuses on domestic priorities while fulfilling its Minamata Convention commitments. Though unable to provide direct financial aid, Indonesia supports other developing nations through cooperation, capacity-building, and knowledge-sharing to protect human health and the environment from mercury pollution.

Indonesia contributes to the Convention's objectives by engaging in global forums, hosting key events, and sharing practical experiences, especially in artisanal and small-scale gold mining (ASGM). Key efforts include:

Hosting COP-4: Indonesia hosted the Fourth Conference of the Parties (COP-4) in Nusa Dua, Bali, from 21-25 March 2022, bringing together over 1,000 delegates. It facilitated discussions on mercury phase-outs and ASGM challenges, leading to 12 decisions, including a gender action plan, tailored to developing countries' needs.

COP-4 Presidency Leadership: Ms. Rosa Vivien Ratnawati, elected COP-4 President at COP-3 (2019), led negotiations prioritizing developing nations. Her leadership secured the Bali Declaration on Combatting Global Illegal Trade of Mercury, promoting cooperation to combat illegal mercury trade, a critical issue for ASGM-reliant regions.

Knowledge Management and Digitalization: At COP-5, Indonesia supported the Convention's knowledge management and digitalization strategy (UNEP/MC/COP.5/19), enhancing accessible data-sharing for developing countries through programs like GEF GOLD, drawing from its ASGM experience.

Regional Capacity-Building: Through ASEAN and GEF GOLD, Indonesia shares ASGM mercury reduction techniques and low-cost tools, fostering South-South cooperation and providing training to help developing nations build resilience against mercury pollution.

Through these efforts, Indonesia advances its mercury reduction goals while supporting developing countries with equitable, sustainable solutions.

Please provide comments, if any.
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Part E - Additional comments on this article

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▼ ART. 14: CAPACITY-BUILDING, TECHNICAL ASSISTANCE AND TECHNOLOGY TRANSFER

14.1: Has the party cooperated to provide capacity-building or technical assistance, pursuant to article 14, to another party to the Convention?

○ Yes

◉ No

Please specify
While Indonesia has not yet extended direct bilateral technical assistance or capacity-building support to other Parties under the Minamata Convention, it has emerged as an active and committed partner in numerous high-impact international and regional initiatives aimed at strengthening mercury management capacities across the Asia-Pacific region and beyond. Key examples include:
Ongoing bilateral technical cooperation with the Government of Japan and the Japan International Cooperation Agency (JICA) under the Technical Cooperation Program on Mercury Emissions (initiated in 2023), focusing on advanced emission measurement and control technologies;
Collaboration with the United Nations Environment Programme (UNEP) and Japan's National Institute for Minamata Disease (NIMD) in the 2024 Mercury Laboratory Proficiency Testing Programme, enhancing analytical capabilities of national laboratories;
Active membership and contribution to the Asia-Pacific Mercury Monitoring Network (APMMN), supporting harmonized atmospheric and precipitation mercury monitoring across the region;
Strategic partnership with the Government of the Republic of Korea, the Korea Institute for Advancement of Technology (KIAT), and the Korea Mine Rehabilitation and Mineral Resources Corporation (KOMIR) for the remediation of mercury-contaminated former artisanal and small-scale gold mining sites;
Regular participation and knowledge-sharing in high-level regional forums, including the 2024 Ministry of the Environment of Japan (MOEJ) Workshop for Mercury Monitoring Promotion and Networking in Asia and the Pacific.
Through these initiatives, Indonesia not only strengthens its own institutional and technical capacity but also contributes valuable field experience, data, and lessons learned to the global effort to implement the Minamata Convention effectively.

14.2: Supplemental: Has the party received capacity-building or technical assistance pursuant to article 14?

◉ Yes

○ No

Please specify
Indonesia has received capacity-building and technical assistance from international partners to support the implementation of the Minamata Convention. The assistance includes:
- 2020-2022: Improving Health Risk Control of Mercury Exposure in Artisanal and Small-Scale Gold Mining (ASGM) and Surrounding Areas by Developing the "Participatory Approach" Model under the Specific International Programme (SIP) of the Minamata Convention, with a total value of US$ 143,340.
- 2020-2023: Capacity Building in Indonesia to Reduce Mercury Emissions from the Coal Combustion Sector funded by the U.S. Department of State, with a total value of US$ 485,000.
- 2017-2023: Integrated Sound Management of Mercury in Indonesia's Artisanal and Small-Scale Gold Mining (ISMIA) Project implemented by UNDP-GEF, with a total value of US$ 6,720,000.
- Participation in the Asia-Pacific Mercury Monitoring Network (APMMN) through Pusarpedal , for regional capacity-building on mercury monitoring and data sharing.
- Collaboration with MOEJ Japan through BCRC/JCOAL for capacity-building, training, and technical cooperation on mercury management (FGD on combating illegal trade of mercury; Workshop on Mercury Emission Control for Coal-fired Boilers in Indonesia co-Organized by KLH, MoEJ, JCOAL and BSCRC-SEA; etc).
- 2024: Grant of mercury-contaminated soil remediation equipment from the Government of the Republic of Korea through KOMIR.

Please provide comments, if any.
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14.3: Has the party promoted and facilitated the development, transfer and diffusion of and access to, up-to-date environmentally sound alternative technologies?

◉ Yes

○ No

○ Other

Please specify
Indonesia has promoted and facilitated the development and dissemination of environmentally sound technologies to replace the use of mercury and to remediate contaminated sites. Several initiatives have been undertaken, including:
- Construction of mercury-free gold processing facilities in Kapuas Hulu (West Kalimantan), North Gorontalo (Gorontalo), Kulon Progo (Yogyakarta), and West Sumbawa (West Nusa Tenggara);
- Research by BRIN on the optimization of cyanidation processes and sustainable gold ore processing, as well as the development of a patented mercury sensor based on gold nanoparticles;
- Cooperation with Republic of Korea (KIAT-KOMIR) for contaminated land remediation and equipment donation in period of 2020 - 2024;
- Planned collaboration with Japan (JICA) for the development of a mercury stabilization facility in 2026;
- Indonesia's participation in the Asia-Pacific Mercury Monitoring Network (APMMN) and proficiency testing conducted by NIMD-UNEP; and
- Availability of technical guidelines for the remediation of contaminated land through Ministerial Regulation No. 101/2018.
These efforts demonstrate Indonesia's sustained commitment to promoting the development and application of environmentally sound technologies in line with the Minamata Convention.

Part E - Additional comments on this article

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▼ ART. 16: HEALTH ASPECTS

16.1: Have measures been taken to provide information to the public on exposure to mercury in accordance with paragraph 1 of article 16?

◉ Yes

○ No

Supplemental: If yes, describe the measures that have been taken.
Indonesia continues to undertake efforts to provide information to the public regarding the risks of mercury exposure. Measures implemented include:
- Operation of Occupational Health Effort Posts (UKK) in ASGM areas to provide training and health monitoring for workers.
- Webinars for health professionals to enhance their understanding of mercury-related health hazards;
- Educational programs for health workers on the management of mercury-containing medical waste and procedures for handling mercury spills.
- Monitoring of human mercury exposure conducted by the National Public Health Laboratory Center (BBLKM) in several ASGM areas through sampling of water, sediment, soil, fish, and human hair, followed by environmental health risk assessment. The results indicated higher risk levels in ASGM areas, and findings were communicated to local authorities.
- Dissemination of information through public campaigns and social media on the dangers of mercury.

These efforts demonstrate Indonesia's continued commitment to improving public access to information and awareness of health risks associated with mercury exposure.

16.2: Have any measures been taken to protect human health in accordance with article 16 beyond the provision of information to the public on exposure to mercury (referred to in question 16.1)?

◉ Yes

○ No

Supplemental: If yes, describe the measures that have been taken.
Indonesia has taken several measures to protect human health from mercury exposure risks, including:
- Monitoring of human mercury exposure conducted by the National Public Health Laboratory Center

(BBLKM) in several ASGM areas through sampling of water, sediment, soil, fish, and human hair, followed by environmental health risk assessments. Results indicated higher risks in ASGM areas, and findings were shared with local authorities for follow-up health interventions.
- Operation of Occupational Health Effort Posts (UKK) in ASGM areas to provide training, health supervision, and regular medical check-ups for workers, as well as education on preventive measures.
- Capacity building for health professionals through national webinars on mercury hazards and management of mercury exposure cases.
- Training for health workers on the management of mercury-containing medical waste and the handling of mercury spills in health facilities.
- Development of a mercury exposure control module from ASGM activities as a reference for health officers and local governments.

These actions demonstrate Indonesia's efforts to protect human health through prevention, early detection, and strengthening of health sector capacity in addressing mercury-related risks.

Part E - Additional comments on this article

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▼ ART. 17: INFORMATION EXCHANGE

17.1: Has the party facilitated the exchange of information referred to in article 17, paragraph 1?

◉ Yes

○ No

If yes, the Party may wish to indicate in the space provided below the exchange of information it has facilitated, such as:

☐ Scientific, technical, economic and legal information concerning mercury and mercury compounds, including toxicological, ecotoxicological and safety information

☑ Information on the reduction or elimination of the production, use, trade, emissions and releases of mercury and mercury compounds

Information on the reduction or elimination of the production, use, trade, emissions and releases of mercury and mercury compounds
Indonesia has facilitated the exchange of information as referred to in Article 17, paragraph 1. For example, Indonesia has engaged in information-sharing discussions with the Ministry of the Environment of Japan through focused group discussions (FGDs). In these exchanges, Indonesia provided information on its efforts to reduce and eliminate mercury use and trade, including its cooperation with the Indonesian E-Commerce Association (idEA) to identify and take down online listings involving the sale of mercury on e-commerce platforms. This exchange supports enhanced monitoring of mercury circulation and contributes to international collaboration to prevent illegal mercury trade and develop mercury material flow.

☐ Information on technically and economically viable alternatives to:

☐ Epidemiological information concerning health impacts associated with exposure to mercury and mercury compounds, in close cooperation with the World Health Organization and other relevant organizations, as appropriate. (Art. 17.1 (a)-(d))

Part E - Additional comments on this article

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▼ ART. 18: PUBLIC INFORMATION, AWARENESS AND EDUCATION

18.1: Have measures been taken to promote and facilitate the provision to the public of the kinds of information listed in article 18, paragraph 1?

(●) Yes

( ) No

If yes, the party may wish to indicate in the space provided below, the measures it has taken to promote and facilitate information to the public, such as:
(a) Provision to the public of available information on:

[x] The effects of mercury and mercury compounds on human health and the environment

The effects of mercury and mercury compounds on human health and the environment
Comprehensive public information on the adverse effects of mercury and its compounds on human health and the environment is readily accessible through official government websites and social media. Ongoing public awareness campaigns and educational materials cover key topics, including the risks of mercury exposure, its impacts on human health (particularly on vulnerable populations such as pregnant women and children) and the environment, as well as practical guidance on safe handling, storage, and environmentally sound management and disposal of mercury-containing waste. These initiatives are designed to empower communities, stakeholders, and the general public with the knowledge needed to minimize mercury-related risks. Regular bimonthly webinars on environmental health in healthcare facilities (Fasyankes) are also conducted consistently.

[x] Alternatives to mercury and mercury compounds

Alternatives to mercury and mercury compounds
Information on alternatives to mercury and mercury compounds has been disseminated through research and publications by national institutions such as BRIN, which explore environmentally friendly and innovative technologies to replace or reduce the use of mercury. Examples include:
The use of biological methods such as Penicillium sp. and mercury-resistant bacteria for mercury removal and detoxification (IOP Conf. Series, 2022–2023).
The application of natural materials such as rice husk charcoal and modified boiler ash from sugarcane bagasse for mercury adsorption (AIP Conf. Proc., 2023–2024).
Research on alternative gold ore processing through oxidation-precipitation methods without mercury (Jurnal Ilmu Lingkungan, 2022).
These findings have been made available to the public through open-access journals and conferences, contributing to knowledge sharing on mercury-free technologies and sustainable practices.

[x] The topics identified in paragraph 1 of article 17

The topics identified in paragraph 1 of article 17
Indonesia has actively engaged in bilateral knowledge-sharing and technical cooperation on mercury management. Notable collaborations include:
Exchanges with the Ministry of the Environment of Japan (MOEJ) focusing on state-of-the-art final treatment technologies for mercury waste, environmentally sound storage solutions, and effective policy recommendations to combat illegal mercury trade.
Partnership with the Government of the Republic of Korea through the Korea Institute for Advancement of Technology (KIAT) and the Korea Mine Rehabilitation and Mineral Resources Corporation (KOMIR), centered on advanced techniques for the remediation of mercury-contaminated sites, technology transfer, and capacity-building initiatives.

[x] The results of its research, development and monitoring activities under article 19

The results of its research, development and monitoring activities under article 19
Indonesia has disseminated information to the public and has undertaken extensive research, development, and monitoring activities related to mercury, as reflected in the following scientific publications:
- Studies on mercury concentrations in sediments, atmospheric deposition, and contamination levels in ASGM areas (e.g., Pulau Panjang Banten; Banyumas; Sukabumi; West Sumbawa);
- Research on mercury exposure risks to communities, including through fish consumption (e.g., Katingan River Basin);
- Development and application of analytical methods for mercury and methylmercury measurement, including CV-AAS, ICP-OES, and UHPLC-ICP-MS;

- Research on mercury removal and bioremediation using fungi, bacteria, biochar, boiler ash, and other materials;
- Studies on mercury content in consumer products such as skincare cosmetics;
- Socio-economic assessments and spatial mapping of ASGM activities in various regions;
- Mercury pollution in coastal and marine areas: impacts, monitoring strategies, mitigation, and research directions in Indonesia;
- Crime of trading mercury without hazardous material trading business license (SIUP-B2) (a study in the instance court of Bireuen).

☐ Activities to meet its obligations under the Convention

(b) Education, training and public awareness related to the effects of exposure to mercury and mercury compounds on human health and the environment in collaboration with relevant intergovernmental and non-governmental organizations and vulnerable populations, as appropriate.

Activities to meet its obligations under the Convention
Education and public awareness campaigns: Indonesia has conducted nationwide awareness and education campaigns targeting healthcare workers and local governments, focusing on the health and environmental impacts of mercury exposure.
Training and capacity-building: The Ministry of Health has developed and delivered training modules for health officers and environmental health professionals on identifying populations at risk of mercury exposure, conducting basic health examinations, and carrying out effective risk communication in ASGM areas.

(Art. 18 (1) (a) and (b))

Part E - Additional comments on this article

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▼ ART. 19: RESEARCH, DEVELOPMENT AND MONITORING

19.1: Has the party undertaken any research, development and monitoring in accordance with paragraph 1 of article 19?

◉ Yes

○ No

If yes, the party may wish to indicate in the space provided below, the research, development and monitoring it has undertaken, such as:

☑ Inventories of use, consumption, anthropogenic emissions to air and releases to water and land of mercury and mercury compounds

Inventories of use, consumption, anthropogenic emissions to air and releases to water and land of mercury and mercury compounds
Indonesia has conducted a comprehensive inventory of mercury use, the results of which are documented in the country's Minamata Initial Assessment (MIA). This report was officially submitted to the Secretariat of the Minamata Convention in early 2023.

☑ Modelling and geographically representative monitoring of levels of mercury and mercury compounds in vulnerable populations and in environmental media, including biotic media such as fish, marine mammals, sea turtles and birds, as well as collaboration in the collection and exchange of relevant and appropriate samples

Modelling and geographically representative monitoring of levels of mercury and mercury compounds in vulnerable populations and in environmental media, including biotic media such as fish, marine mammals, sea turtles and birds, as well as collaboration in the collection and exchange of relevant and appropriate samples
A systematic national programme for mercury exposure monitoring in humans and the environment has not yet been fully established. Nevertheless, targeted monitoring activities have been conducted by the National Institute of Health Research and Development (through its network of Public Health Laboratories - BBLK/BBLKM) in selected artisanal and small-scale gold mining areas. These activities

include the systematic collection and analysis of environmental samples (water, sediment, soil, and fish) as well as biological samples (human hair). The resulting environmental health risk assessments indicate that communities living in or near mining areas face a significantly higher level of mercury exposure and associated health risks compared to populations outside these areas.

☑ Assessments of the impact of mercury and mercury compounds on human health and the environment, in addition to social, economic and cultural impacts, particularly in respect of vulnerable populations

Assessments of the impact of mercury and mercury compounds on human health and the environment, in addition to social, economic and cultural impacts, particularly in respect of vulnerable populations
The Ministry of Health of the Republic of Indonesia conducts assessments of the human health impacts of mercury exposure through targeted exposure monitoring activities in artisanal and small-scale gold mining areas. In addition, the Ministry implements awareness-raising and capacity-building measures, including through Occupational Health Posts and national webinars designed to equip health professionals with up-to-date knowledge on the risks posed by mercury. Findings from these studies are systematically shared with relevant provincial and local authorities to inform evidence-based actions aimed at protecting at-risk communities.

☐ Harmonized methodologies for the activities undertaken under subparagraphs (a), (b) and (c) of paragraph 1 of article 19

☐ Information on the environmental cycle, transport (including long-range transport and deposition), transformation and fate of mercury and mercury compounds in a range of ecosystems, taking appropriate account of the distinction between anthropogenic and natural emissions and releases of mercury and of remobilization of mercury from historic deposition

☑ Information on commerce and trade in mercury and mercury compounds and mercury-added products

Information on commerce and trade in mercury and mercury compounds and mercury-added products
Regular monitoring of online trade (e-commerce platforms) is conducted. In 2025, a substantial decline was observed in the open sale of mercury under common keywords such as “merkuri”, “air raksa”, and “mercury-containing medical devices”. However, some traders have shifted to alternative or coded terminology to evade detection.

☑ Information and research on the technical and economic availability of mercury-free products and processes and on best available techniques and best environmental practices to reduce and monitor emissions and releases of mercury and mercury compounds

Information and research on the technical and economic availability of mercury-free products and processes and on best available techniques and best environmental practices to reduce and monitor emissions and releases of mercury and mercury compounds
Indonesia has advanced technical and economic research on mercury-free processes, specifically designed for use by artisanal and small-scale miners. Detailed Engineering Designs (DED) have been completed for the pilot project. In addition, Indonesia is considering future updates to its mercury emission standards, with plans to potentially expand the scope beyond thermal power plants to include coal-fired boilers in the manufacturing sector.

(Art. 19 (1) (a)-(g))

Part E - Additional comments on this article

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▼ COMMENTS REGARDING POSSIBLE CHALLENGES IN MEETING THE OBJECTIVES OF THE CONVENTION

Part C: Comments regarding possible challenges in meeting the objectives of the Convention

The Government of Indonesia recognizes the multifaceted challenges in advancing mercury reduction efforts and remains strong in its commitment to addressing them through collaborative

international partnerships, in alignment with the Minamata Convention on Mercury. Key areas of focus include:
- Enhancing research and development for alternative technologies in artisanal and small-scale gold mining (ASGM), where mercury and cyanide-free methods—such as gravity concentration and cyanide extraction alternatives—require further innovation and validation. Indonesia welcomes technical assistance and knowledge-sharing to overcome current implementation hurdles.
- Securing financial support to strengthen monitoring of mercury emissions, particularly in designated private sectors, to improve data accuracy and regulatory compliance.
- Intensifying supervision across numerous mercury source locations to prevent illicit use in illegal mining and related activities, thereby bolstering enforcement mechanisms and community engagement.
- Developing domestic facilities for the final disposal of mercury waste and mercury-containing wastes exceeding 260 ppm, as current capacities necessitate reliance on international exports. Robust monitoring of stored mercury remains a priority to ensure environmentally sound management.
- As an archipelagic state with extensive small ports and docks, Indonesia confronts persistent vulnerabilities to illegal mercury trade. The Government is actively working to enhance law enforcement coordination and foster innovative, multi-stakeholder solutions through strengthened inter-agency and international cooperation.
- Formulating effective strategies for the remediation of mercury-contaminated soils in affected regions, drawing on best available techniques and global expertise.
- Providing specialized training programs for law enforcement officers to build capacity in mercury-related investigations and seizures.
- Expanding and upgrading mercury testing laboratory infrastructure to address current limitations in analytical capabilities and ensure timely, reliable assessments.
- Indonesia highly appreciates the support of the international community in these endeavors and looks forward to continued dialogue and assistance to achieve sustainable mercury phase-out and environmental protection.

▼ COMMENTS REGARDING THE REPORTING FORMAT AND POSSIBLE IMPROVEMENTS, IF ANY

Comments regarding the reporting format and possible improvements, if any

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