2025 FULL REPORTS OF THE MINAMATA CONVENTION ON MERCURY

Report submitted on 16 December 2025
*Part E of Article 3 and Question 8.1 amended by Italy on 18 February 2026

REPORTING PERIOD:
1 January 2021 to 31 December 2024

▼ INFORMATION ON THE PARTY

1. Information on the party

Name of party
Italy

Date on which its instrument of ratification, accession, approval or acceptance was deposited
5 January 2021

Date of entry into force of the Convention for the party
5 April 2021

2. Information on the national focal point

Full name of the institution
Ministry of the environment and energy security

Title of Contact Officer
Ms.

Name of Contact Officer
Federica Gigliotti

Mailing address
Via Cristoforo Colombo 44,
00147
Rome, Italy

Telephone number
+39 06 5722 8625

Fax number
{Empty}

E-mail
gigliotti.federica@mase.gov.it

Second E-mail
{Empty}

Web page
{Empty}

3. Information about the contact officer submitting the reporting format if different from the above

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

▼ 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

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

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

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

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

If yes, please explain the measures taken to ensure that the excess mercury was disposed of in accordance with the guidelines for environmentally sound management referred to in paragraph 3 (a) of article 11 using operations that did not lead to recovery, recycling, reclamation, direct re-use or alternative uses.
The only chlor-alkali plant with mercury cell technology, present on the Italian territory, carried out the decommissioning operations on schedule by 2021 and sent for solidification and for permanent storage the obtained mercury waste, according to the national provisions and the European legislation framework, in particular the Regulation (EU) 2017/852 on mercury that, in its chapter IV, set out the provisions for the disposal of mercury waste from the decommissioning of chlor-alkali facilities.

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

With regard to question 3.5 in the second full national report, the information provided in the first short national report is valid (years 2021 and 2022), while no exports were made in 2023 and 2024.

▼ 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.
The manufacture, import or export of mercury-added products listed in Part I of Annex A to the Convention are regulated by the following European regulatory instruments, legally binding in Italy:
Regulation (EU) 2017/852 on mercury;
Regulation (EC) No. 552/2009 (Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles - amendment of annex XVII to Regulation (EC) No 1907/2006);
Regulation (EU) No. 847/2012 (amending Annex XVII to Regulation (EC) No 1907/2006 as regards mercury);
Regulation (EU) n. 528/2012 (Regulation on biocides);
Regulation (EC) n. 1907/2006 ("REACH")

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 use of dental amalgam in Italy is regulated through national legislation, in particular with the Ministerial Decree of 10 October 2001 (Official Journal no. 261 dd 09.11.2001), which establishes the prohibition of use, import and marketing, on Italian territory, of dental amalgams not prepared in the form of pre-dosed capsules, and gives rules on precautions and warnings to be reported in the instructions for use of dental amalgams marketed in Italy. Furthermore, the use of dental amalgam is regulated through European legislation and in particular by Article 10 of Regulation (EU) 2017/852. In addition, Regulation (EU) 2024/1849 of 13 June 2024 amends Regulation (EU) 2017/852 with regard to dental amalgam and other mercury-containing products subject to export, import and manufacturing bans, and also focuses on environmental pollution resulting from funeral cremation activities.

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.
On the basis of European legislation (Regulation (EU) 2017/852), Italy has approved a National Plan concerning the measures it intends to implement to phase down the use of dental amalgam (Ministerial decree 11 november 2020), which can be downloaded at this link: Il Regolamento (UE) 2017/852 sul mercurio - Ministero dell'Ambiente e della Sicurezza energetica or at the Ministry of Health link: Ministero della Salute - Mercurio.

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)

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 yes, please provide information on the measures.
The manufacture, import or export of mercury-added products listed in Part I of Annex A to the Convention are regulated by the following European regulatory instruments, legally binding in Italy:
- Regulation (EU) 2017/852 on mercury;
- Regulation (EC) No. 552/2009 (Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles - amendment of annex XVII to Regulation (EC) No 1907/2006);
- Regulation (EU) No. 847/2012 (amending Annex XVII to Regulation (EC) No 1907/2006 as regards mercury);
- Regulation (EU) n. 528/2012 (Regulation on biocides);
- Regulation (EC) n. 1907/2006 ("REACH").

Part E - Additional comments on this article

{Empty}

▼ 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

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.
Annex III of Regulation (EU) 2017/852 on mercury prescribes that the use of mercury and mercury compounds in the chlor-alkali production in which mercury is used as an electrode shall be prohibited as from 11 December 2017

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

Yes

No

Not applicable (do not have these facilities)

If yes, please provide information on these measures.
To our knowledge, acetaldehyde production is not available within the territory

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)

If yes, please provide information on these measures.
Annex III of Regulation (EU) 2017/852 on mercury prescribes that the use of mercury and mercury compounds in the production of vinyl chloride monomer shall be prohibited from 1 January 2022. To our knowledge, there is no vinyl chloride monomer production in Italy that involves the use of mercury and mercury compounds

SODIUM OR POTASSIUM METHYLATE OR ETHYLATE

Yes

No

Not applicable (do not have these facilities)

If yes, please provide information on these measures.
Annex III of Regulation (EU) 2017/852 on mercury prescribes that the use of mercury and mercury compounds in the production of sodium or potassium methylate or ethylate shall be prohibited from 1 January 2028. Moreover, this kind of production is subject to the following conditions: (a) no use of mercury from primary mercury mining; (b) reduction of direct and indirect release of mercury and of mercury compounds into air, water and land in terms of per unit production by 50 % by 2020 as compared to 2010; (c) supporting research and development in respect of mercury-free manufacturing processes; and (d) as from 13 June 2017, the capacity of installations using mercury and mercury compounds for the production of sodium or potassium methylate or ethylate that were in operation before that date shall not be increased and no new installations shall be allowed. To our knowledge, there is no sodium or potassium methylate or ethylate production in Italy that involves the use of mercury and mercury compounds

PRODUCTION OF POLYURETHANE USING MERCURY-CONTAINING CATALYSTS

Yes

No

Not applicable (do not have these facilities)

If yes, please provide information on these measures.
Annex III of Regulation (EU) 2017/852 on mercury prescribes that the use of mercury and mercury compounds in theproduction of polyurethane, to the extent not already restricted or prohibited in accordance with entry 62 of Annex XVII to Regulation (EC) No 1907/2006, shall be prohibited from 1 January 2018. To our knowledge, there is no polyurethane production in Italy that involves the use of mercury and mercury compounds

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

{Empty}

▼ 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

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

7.5: 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
{Empty}

Part E – Additional comments on this article

{Empty}

▼ 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 power plants
According to the definition of "new source" provided in paragraph 2 (c) of article 8, this issue is not applicable for the reporting period, as the ratification was carried out in 2021.

☑ Coal-fired industrial boilers

Coal-fired industrial boilers
According to the definition of "new source" provided in paragraph 2 (c) of article 8, this issue is not applicable for the reporting period, as the ratification was carried out in 2021.

☑ Smelting and roasting processes used in the production of non-ferrous metals

Smelting and roasting processes used in the production of non-ferrous metals
According to the definition of "new source" provided in paragraph 2 (c) of article 8, this issue is not applicable for the reporting period, as the ratification was carried out in 2021.

☑ Waste incineration facilities

Waste incineration facilities
According to the definition of "new source" provided in paragraph 2 (c) of article 8, this issue is not applicable for the reporting period, as the ratification was carried out in 2021.

☑ Cement clinker production facilities

Cement clinker production facilities
According to the definition of "new source" provided in paragraph 2 (c) of article 8, this issue is not applicable for the reporting period, as the ratification was carried out in 2021.

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
Italy, uses different BAT to prevent or reduce mercury emissions to air from the combustion of coal and/or lignite, according to Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 that establish the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants.
The BAT are applied by the use of one or a combination of Specific Techniques to reduce mercury emissions, given below (BAT23):
Carbon sorbent (e.g. activated carbon or halogenated activated carbon) injection in the flue-gas, generally used in combination with an ESP/bag filter. The use of this technique may require additional treatment steps to further segregate the mercury-containing carbon fraction prior to further reuse of the fly ash. This technique is used to reduce emissions to air of dust and metals including mercury;
Use of halogenated additives in the fuel or injected in the furnace: addition of halogen compounds (e.g. brominated additives) into the furnace to oxidize elemental mercury into soluble or particulate species, thereby enhancing mercury removal in downstream abatement systems;
Fuel pretreatment: Fuel washing, blending and mixing in order to limit/reduce the mercury content or improve mercury capture by pollution control equipment;
Fuel choice: the use of a fuel with a low ash or metals as mercury content.

These techniques are used also in order to reduce mercury emissions to air from the co-incineration of waste with biomass, peat, coal and/or lignite.
There are also other techniques used primarily to reduce emissions of other pollutants, which have the added benefit of reducing mercury emissions into air. These techniques are described below (BAT23):
Electrostatic precipitator (ESP): Higher mercury removal efficiency is achieved at flue-gas temperatures below 130 °C. The technique is mainly used for dust control;

Bag filter: The technique is mainly used for dust control;
Dry or semi-dry FGD system: The techniques are mainly used for SOX, HCl and/or HF control;
Wet flue-gas desulphurisation (wet FGD): The techniques are mainly used for SOX, HCl and/or HF control;
Selective catalytic reduction (SCR): Only used in combination with other techniques to enhance or reduce the mercury oxidation before capture in a subsequent FGD or dedusting system. The technique is mainly used for NOX control.
Regarding the BAT for the non-ferrous metals industries, according to the Commision Implementing Decision (EU) 2016/1032, in order to reduce mercury emissions into the air (other than those that are routed to the sulphuric acid plant) from a pyrometallurgical process, BAT is one or the combination of both the following techniques given below (BAT11):
Use raw materials with a low mercury content, including by cooperating with providers in order to remove mercury from secondary materials;
Use adsorbents (e.g. activated carbon, selenium) in combination with dust filtration.
Thermal power plants with a thermal production capacity exceeding 50 MW are included into the scope of the Industrial Emissions Directive (IED), consequently the Large Combustion Plants BAT Reference document is applicable to the corresponding installations for the purposes of prevention and reduction of emissions. BAT conclusions, which are legally bindings for the operators, required also the determination of Hg for characterization of the fuel and the monitoring of the Hg emissions and the so called BAT-AEL (Associated Emission Limits) are also prescribed. For example BAT23 is specific for Hg emissions reduction.

Smelting and roasting processes used in the production of non-ferrous metals are carried out in one installation in Italy, which is also in the scope of the IED, consequently the Non-Ferrous Metals Industries BAT Reference document is applicable to the corresponding installations for the purposes of prevention and reduction of emissions. BAT conclusions, which are legally bindings for the operators, required also the determination of Hg for characterization of fuels and raw materials and the monitoring of the Hg emissions and the so called BAT-AEL (Associated Emission Limits) are also prescribed. For example BAT11 is specific for Hg emissions reduction.
For waste incinerations facilities which are in the scope of the IED, the Waste Incineration BAT Reference document is applicable to the corresponding installations for the purposes of prevention and reduction of emissions. BAT conclusions, which are legally bindings for the operators required.

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

- [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
- [x] Alternative measures to reduce emissions from relevant sources

Measures
In Italy, the principles and precautions envisaged by Directive 96/61 / EC (IPPC), subsequently updated and
integrated by Directive 2010/75/EU (IED) on industrial emissions (integrated pollution prevention and control), apply. These directives have been implemented, adopted and regulated in Italy by Legislative Decree 152/2006 and related subsequent amendments and additions. Directive 2010/75/EU lays down rules
on the integrated prevention and reduction of pollution arising from industrial activities. It also lays down
rules to prevent or, where this is not feasible, to reduce emissions to air, water and soil and to prevent the
generation of waste, in order to achieve a high level of protection of the environment as a whole.
Operators of the authorised installations under this legislation are also subject to a control and monitoring
plan which identifies pollutants, analytical methods and monitoring frequencies.

Progress

Considering that the legislation has been adopted in Italy since 2006, the undoubted progress achieved is
not directly attributable to the application of the Minamata Convention, and to date cannot be easily quantified

▼ COAL-FIRED INDUSTRIAL BOILERS

- [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
- [x] Alternative measures to reduce emissions from relevant sources

Measures
In Italy, the principles and precautions envisaged by Directive 96/61 / EC (IPPC), subsequently updated and
integrated by Directive 2010/75/EU (IED) on industrial emissions (integrated pollution prevention and control), apply. These directives have been implemented, adopted and regulated in Italy by Legislative Decree 152/2006 and related subsequent amendments and additions. Directive 2010/75/EU lays down rules
on the integrated prevention and reduction of pollution arising from industrial activities. It also lays down
rules to prevent or, where this is not feasible, to reduce emissions to air, water and soil and to prevent the
generation of waste, in order to achieve a high level of protection of the environment as a whole. Operators of the authorised installations under this legislation are also subject to a control and monitoring
plan which identifies pollutants, analytical methods and monitoring frequencies

Progress
Considering that the legislation has been adopted in Italy since 2006, the undoubted progress achieved is
not directly attributable to the application of the Minamata Convention, and to date cannot be easily quantified.
To our knowledge, this technology does not exist in the territory.

▼ 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
- [x] Alternative measures to reduce emissions from relevant sources

Measures
In Italy, the principles and precautions envisaged by Directive 96/61 / EC (IPPC), subsequently updated and
integrated by Directive 2010/75/EU (IED) on industrial emissions (integrated pollution prevention and control), apply. These directives have been implemented, adopted and regulated in Italy by Legislative Decree 152/2006 and related subsequent amendments and additions. Directive 2010/75/EU lays down rules
on the integrated prevention and reduction of pollution arising from industrial activities. It also lays down
rules to prevent or, where this is not feasible, to reduce emissions to air, water and soil and to prevent the
generation of waste, in order to achieve a high level of protection of the environment as a whole. Operators of the authorised installations under this legislation are also subject to a control and

monitoring
plan which identifies pollutants, analytical methods and monitoring frequencies

Progress
Considering that the legislation has been adopted in Italy since 2006, the undoubted progress achieved is
not directly attributable to the application of the Minamata Convention, and to date cannot be easily quantified.

▼ 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
- [x] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [x] Alternative measures to reduce emissions from relevant sources

Measures
In Italy, the principles and precautions envisaged by Directive 96/61 / EC (IPPC), subsequently updated and
integrated by Directive 2010/75/EU (IED) on industrial emissions (integrated pollution prevention and control), apply. These directives have been implemented, adopted and regulated in Italy by Legislative Decree 152/2006 and related subsequent amendments and additions. Directive 2010/75/EU lays down rules
on the integrated prevention and reduction of pollution arising from industrial activities. It also lays down
rules to prevent or, where this is not feasible, to reduce emissions to air, water and soil and to prevent the
generation of waste, in order to achieve a high level of protection of the environment as a whole. Operators of the authorised installations under this legislation are also subject to a control and monitoring
plan which identifies pollutants, analytical methods and monitoring frequencies

Progress
Considering that the legislation has been adopted in Italy since 2006, the undoubted progress achieved is
not directly attributable to the application of the Minamata Convention, and to date cannot be easily quantified.

▼ 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
- [x] Alternative measures to reduce emissions from relevant sources

Measures
In Italy, the principles and precautions envisaged by Directive 96/61 / EC (IPPC), subsequently updated and
integrated by Directive 2010/75/EU (IED) on industrial emissions (integrated pollution prevention and control), apply. These directives have been implemented, adopted and regulated in Italy by Legislative Decree 152/2006 and related subsequent amendments and additions. Directive 2010/75/EU lays down rules
on the integrated prevention and reduction of pollution arising from industrial activities. It also lays down
rules to prevent or, where this is not feasible, to reduce emissions to air, water and soil and to prevent the

generation of waste, in order to achieve a high level of protection of the environment as a whole. Operators of the authorised installations under this legislation are also subject to a control and monitoring
plan which identifies pollutants, analytical methods and monitoring frequencies.

Progress
Considering that the legislation has been adopted in Italy since 2006, the undoubted progress achieved is
not directly attributable to the application of the Minamata Convention, and to date cannot be easily quantified.

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

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

Part E - Additional comments on this article

{Empty}

▼ 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)

Please explain
A clear definition of "releases" and of "relevant sources of releases" under the Minamata Convention would allow a better understanding of this reporting requirement. Meanwhile the national Pollutant Release and Transfer Register (PRTR) helps providing information about releases of pollutants to water. According to the definition of releases of the European Regulation EC n.166/2006 (Reg. EPRTR: 'release' means any introduction of pollutants into the environment as a result of any human activity, whether deliberate or accidental, routine or non-routine, including spilling, emitting, discharging, injecting, disposing or dumping, or through sewer systems without final wastewater treatment), to our knowledge, there is no relevant sources of releases as defined in paragraph 2 (b) of article 9 within the territory

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)

Part E - Additional comments on this article

{Empty}

▼ 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 no, please explain
To our knowledge, there is no interim storage of non-waste mercury and mercury compounds in the territory

Part E - Additional comments on this article

To our knowledge, there is no interim storage of non-waste mercury and mercury compounds in the territory.

▼ ART. 11: MERCURY WASTES

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

- (•) Yes
- ( ) No

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

Please describe measure and effectiveness of measures
In Italy, the regulation (EU) 2017/852 sets the provisions on mercury waste. This regulation do not allow any management of mercury waste in disagreement with the provisions of Minamata Convention. In particular, Article 14 provides for traceability measures, and Article 12 sets data communication provisions. Other provisions on the environmentally sound management of mercury waste are set in Directive 2008/98/EC, establishing, inter alia, the extended producer responsibility (art. 8), in order to strengthen the re-use and the prevention, recycling and other recovery of waste, the waste management plans (art. 28) and the inspections (art. 34). Moreover, Italy is a Party of Basel Convention and therefore apply the provisions and the guidelines established by the Convention

- [ ] 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.
In Italy, the regulation (EU) 2017/852 sets the provisions on mercury waste. This regulation do not allow any management of mercury waste in disagreement with the provisions of Minamata Convention. In particular, Article 14 provides for traceability measures, and Article 12 sets data communication provisions. Other provisions on the environmentally sound management of mercury waste are set in Directive 2008/98/EC, establishing, inter alia, the extended producer responsibility (art. 8), in order to strengthen the re-use and the prevention, recycling and other recovery of waste, the waste management plans (art. 28) and the inspections (art. 34). Moreover, Italy is a Party of Basel Convention and therefore apply the provisions and the guidelines established by the Convention

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)

Part E - Additional comments on this article

{Empty}

▼ 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

Italy started to deal with contaminated sites in a systematic way at national level with Legislative Decree n.22 of February the 5th of 1997, with subsequent Ministerial Decree n.471 of October the 25th of 1999 providing specific administrative and technical procedures for identification and management. Before 1997 some Regions had their specific regional legislation. In 2006 a relevant change in legislation has been provided by the Legislative Decree n. 152, with a risk-based approach for the assessment and management of contaminated sites. The former (Ministerial Decree n.471 of 1999) and current (Legislative Decree n. 152/06 - Part IV - Title V) legislation on contaminated sites, include mercury in the list of contaminants that have reference concentration values set by the law for soil/sub-soil and groundwater. Legislation on "Contaminated Sites Management" (Annex V of Legislative Decree n. 152/06 - Part IV - Title V) provides "screening values" (Contamination Threshold Concentrations - CSC) for Mercury in soil of 1 mg/Kg for residential/green land use and 5 mg/Kg for industrial/commercial land use. Mercury screening value in surface soil of agricultural areas used for food production (Decree of the Ministry of the Environment n. 46/2019) is 1 mg/Kg. Mercury screening value in groundwater is 1 µg/L (tap water standard, according to Directive 98/83/EC). The contaminated sites identification procedure starts when occurs an event that may cause soil and/or groundwater contamination or when an historical contamination is discovered. In these cases a preliminary investigation is required to determine contaminant concentrations in the environmental media (soil, sub-soil and groundwater) and to make comparison with 'Contamination Threshold Concentrations' (CSC, i.e. screening values for residential and industrial commercial land uses). After preliminary investigation the site is defined as "Potentially Contaminated Site" if the concentrations of one or more chemicals in the environmental media (soil, sub-soil and groundwater) exceed 'Contamination Threshold Concentrations' (CSC, i.e. generic screening values). Potentially contaminated sites (i.e. sites where screening values CSC are exceeded) need a detailed site investigation followed by a site-specific risk assessment to evaluate site-specific 'Risk Threshold Concentrations' (CSR, i.e. site specific target values). However the polluter may decide directly to remediate the site to screening values (CTCs) without performing the site-specific risk assessment. If Risk Threshold Concentrations (CSR) are exceeded, than the site is defined as "Contaminated Site" and needs for intervention, i.e. remediation or risk reduction measures. A Site is defined as "Uncontaminated Site" if the contamination found in the environmental media (soil, sub-soil and groundwater) is below CSC or, if CSC are exceeded, is below the site-specific CSR derived from risk assessment. Contaminated, potentially contaminated and remediated sites managed at regional/local level are identified and listed in regional inventories. These Inventories, which are not all publicly accessible, are not specific for sites contaminated with mercury/mercury compounds, but cover all sites contaminated by chemicals for which screening values (CSC) are provided. National legislation also defines the Sites of National Interest (SIN) - National Priority List Sites - that due to their contamination/management complexity are under the direct care of the Ministry of Ecological Transition (41 SINs identified on 31/12/2019). Generally speaking, a site is included in the regional inventory as a potentially contaminated site as soon as there is an identified exceedance of one contamination threshold concentration (CSC). The information in the inventories is updated, e.g. when a given site is proved to be contaminated (exceedance of risk threshold concentration (CSR)) and then remediated.

Part E - Additional comments on this article

{Empty}

▼ 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
The Italian ratification law, namely "Legge 8 ottobre 2020, n. 134 - Ratifica ed esecuzione della Convenzione di Minamata sul mercurio, con Allegati, fatta a Kumamoto il 10 ottobre 2013", provides, in art. 4, financial provisions to meet the requirements deriving from its implementation.

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.
Italy is a usual donor of the GEF

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
The ratification has been made in 2021

Please provide comments, if any.
{Empty}

Part E - Additional comments on this article

{Empty}

▼ 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
Italy cooperated with Argentina within an International Bilateral Agreement, funded in 2016 and lasted for 2 years, between the CNR-IIA and the INIBIOMA - CONICET (Instituto de Investigaciones en Biodiversidad y Medioambiente - Consejo Nacional de Investigaciones Científicas y Técnicas). This collaborative proposal was aimed to support programmed activities, initiated in 2011, framed in the projects Global Mercury Observation System (7th Frame Program of the European Union). The main purpose was to investigate the magnitude of the atmospheric transport of Hg and its deposition on pristine ecosystems of North Patagonia and integrate this knowledge into global databases in order to contribute understanding global patterns of Hg fluxes. The financial support of this proposal was aimed to improve the capacity of the Argentinian group to continue the Hg monitoring program in North Patagonia and ultimately reveal the magnitude of atmospheric Hg inputs to the observed dynamics of Hg in relation with regional environmental variables in catchments within Nahuel Huapi National Park. Italy is providing support to the Global Mercury Observation System (GMOS) monitoring program through the maintenance of the data infrastructure that archives Hg measurements at several sites and the Data Quality System to ensure data quality

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

- ○ Yes
- ◉ No

Please specify
Not being a developing country or a country with economy in transition, as specifically mentioned in article 14, Italy cannot receive capacity-building or technical assistance pursuant to article 14

Please provide comments, if any.
{Empty}

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 provide information
In this context, the up-to-date environmentally sound alternative technologies seem to refer to technologies useful for reducing emissions/releases of mercury or mercury compounds. If that is the case, Italy was not involved in projects covering these aspects. Otherwise, in the case that it is possible to refer to technologies useful for monitoring Hg levels in ambient air, the Italian National Research Council CNR-IIA promoted the development of Passive Air Samplers (CNR-PASs) for gaseous elemental mercury in the framework of the Global Environment Facility (GEF)-funded UNEP project "Development of a Plan for Global Monitoring of Human Exposure to and Environmental Concentrations of Mercury". The aim of the project was to harmonize the approaches and to strengthen the analytical ability, at a global level, for the accurate monitoring of the mercury concentrations, both in the ambient air and in the human biological components. In this regard, in order to develop a global Mercury Monitoring Plan for the implementation of the International Convention of Minamata on Mercury, the project was agreed by the Chemicals and Health Branch of the United Nations Environment Programme (UN Environment), in collaboration with the World Health Organization – European Centre for Environment and Health (WHO – ECEH), involved in mercury monitoring in ambient air and biological compartments, respectively. An ad-hoc campaign to monitor mercury levels in ambient air in South Africa, carried out thanks to the PAS systems, reported in the first full national report has been concluded.

Part E - Additional comments on this article

Passive Air Samplers (PASs) for mercury are innovative sampling devices developed in response to the limitations of conventional instrumentation and to the necessity of expanding the knowledge on long-range transport of mercury, to have available monitoring data from remote areas and to support the implementation of the Minamata Convention for the improvement of atmospheric mercury monitoring actions and for the characterization of mercury sources. Generally, PASs are compact and portable devices, and smaller than those of conventional instrumentation, so that they can be easily handled, transported, and installed in situ. Furthermore, PASs do not require external power supply (a limiting factor in many areas for active instruments), gas cylinders and mechanical pumps for working and, therefore, they are silent sampling devices suitable for monitoring studies both indoors and outdoors. Due to their ease of use, PAS samplers can be deployed in different positions without requiring continuous and expert installation, supervision, and maintenance by the operators. The advantages over conventional instrumentation allow to overcome the lacks shown by the active sampling technique and to integrate existing monitoring approaches. In fact, the properties of the PASs make passive sampling more appropriate and suitable for screening studies and for the monitoring of long-term mercury concentrations, as well as in background sites, even in dangerous and extreme environments, such as wild and remote areas, where electricity is not available and where the maintenance of active samplers would be difficult, as well as in developing countries where the cost of active samplers would be prohibitive.

▼ 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.
Italy has implemented several tools to inform the population about the damage to health caused by mercury pollution.
The dedicated web pages on the websites of the Ministry of the Environment and Energy Security (https://www.mase.gov.it/portale/inquinamento-da-mercurio);
Ministry of Health (https://www.salute.gov.it/new/it/tema/rischio-chimico/mercurio/) and the National Institute of Health (https://www.issalute.it/index.php/la-salute-dalla-a-alla-z-menu/m/mercurio#effetti-sulla-salute) are of particular importance.
In addition, the Ministry of the Environment and Energy Security has drawn up three information bulletins, which have wide distribution, focused on mercury, with information also on health aspects:
https://www.mase.gov.it/portale/documents/d/guest/reach_bollettino_numero1_gennaio2018_mercurio-pdf;
https://www.mase.gov.it/portale/documents/d/guest/sostanzechimiche_ambientesalute_tatuaggi_ftalati_mercurio-pdf;
https://www.mase.gov.it/portale/documents/d/guest/08_01_2024_sostanzechimiche_ambientesalute_mercurio-pdf.

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.
Several legislations including measures to protect human health from the risks of mercury exposure have been implemented in the EU and consistently implemented at national level. A non-exhaustive list of regulations below:
Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);
Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC;
Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants;
Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work;
Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products
Directive 2000/53/EC on end-of life vehicles;
Regulation (EC) No 66/2010 on the EU Ecolabel Commission;
Regulation (EC) No 450/2009 on active and intelligent materials and articles intended to come into contact with food;
Regulation (EU) 2023/988 on general product safety, amending Regulation (EU) No 1025/2012 of the European Parliament and of the Council and Directive (EU) 2020/1828 of the European Parliament and the Council, and repealing Directive 2001/95/EC of the European Parliament and of the Council and Council Directive 87/357/EEC;
Regulation (EU) 2017/746 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU;
Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control);
Directive 2008/68/EC on the inland transport of dangerous goods;
Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive);
Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food;
Directive 2014/68/EU on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment;
Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding Council;
Directive 94/33/EC on the protection of young people at work;
Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work;
EU Directive 92/58/EEC on the minimum requirements for the provision of safety and/or health signs at work
Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain;
Directives Directive 2009/48/EC on the safety of toys;
Regulation (EC) No 1223/2009 on cosmetic products.

Part E - Additional comments on this article

{Empty}

▼ 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

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

The exchange of information has been facilitated through the implementation of the GOS4M Knowledge Hub, available at https://gos4m.org/kh and therein described. The GOS4M-KH provides access to datasets and a tool to retrieve information on fate of mercury emissions, from sources to receptors, and in the future estimate of costs associated with policies. This platform includes an emulator for analyses of complex chemo-physical atmospheric model outputs, coupled with a bio-geochemical model to simulate processes in the ocean and trophic model to estimate mercury uptake by biota. The first level macro-indicator is the Hg bioaccumulation in biological endpoints, which can be Hg in fish at upper trophic level, the second level is the Hg concentration in ambient air and precipitation samples. Long- term trends of macro-indicators can be analysed to assess the effectiveness of measures on medium-long term time period and eventually estimate associated socio-economic costs.

Work has also been completed on assessing the transport and fate of mercury on a global scale, based on monitoring data from the GMOS network (covering the ten-year period 2011-2020), and on modelling activities aimed at assessing the impact of mercury and mercury compounds on human health and the environment

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

☐ 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

{Empty}

▼ 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:

☑ 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

Italy has implemented several tools to inform the population about the mercury pollution. The dedicated web pages on the websites of the Ministry of the Environment and Energy Security (https://www.mase.gov.it/portale/inquinamento-da-mercurio), and the National Institute of Health

(https://www.issalute.it/index.php/la-salute-dalla-a-alla-z-menu/m/mercurio#effetti-sulla-salute) are relevant for the provision to the public of information on health and environmental effects of mercury and mercury compounds.

☐ Alternatives to mercury and mercury compounds

☑ The topics identified in paragraph 1 of article 17

The topics identified in paragraph 1 of article 17
see the answer at the previous point (question 17.1)

☑ The results of its research, development and monitoring activities under article 19

The results of its research, development and monitoring activities under article 19
In respect to this latter aspect, information is available for the monitoring networks being part of the GOS4M (https://sdi.iia.cnr.it/gos4mcat/srv/eng/catalog.search#/home) and the national "Reti Speciali" Agreement (http://www.retispeciali.it/dati/).

☐ 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
the Ministry of the Environment and Energy Security has drawn up three information bulletins, which have wide distribution, focused on mercury, with information also on health aspects:
https://www.mase.gov.it/portale/documents/d/guest/reach_bollettino_numero1_gennaio2018_mercurio-pdf;
https://www.mase.gov.it/portale/documents/d/guest/sostanzechimiche_ambientesalute_tatuaggi_ftalati_mercurio-pdf
https://www.mase.gov.it/portale/documents/d/guest/08_01_2024_sostanzechimiche_ambientesalute_mercurio-pdf

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

Part E - Additional comments on this article

{Empty}

▼ 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
Research activity has been conducted on modelling mercury fate and transport to understand emission reduction scenarios as well as on Hg impact on human health. Results of research are published in open acces journals to make them available to the wide public.
As part of the “Reti Speciali” agreement, monitoring activities for mercury in ambient air (atmosphere and deposition) have been completed. These activities were carried out at three background monitoring stations (rural/suburban) covering the period from 2020 to 2023. Measurements of mercury in the atmosphere and in deposits were determined using a reference method, specifically, total gaseous mercury was detected using active instrumentation. The reference site is the same as previously indicated:
(http://www.retispeciali.it/dati/).
The results of this agreement were discussed in terms of geographical, seasonal and temporal variability, as well as the assessment of the influence of anthropogenic and natural sources, in a recent open access scientific article:
Bencardino, M, et al. ‘Establishing a national network for atmospheric mercury monitoring: preliminary spatial

and temporal insights from Italy.' Atmospheric Environment (2025): 121477 (DOI: https://doi.org/10.1016/j.atmosenv.2025.121477).
To supplement the Special Mercury Network, established to implement air quality legislation (Articles 6 and 8 of Legislative Decree 155/2010), an ad hoc national mercury network has been set up to monitor total gaseous mercury using passive samplers. This network comprises 14 stations distributed throughout the country. Monitoring activities began in December 2022 and are still ongoing under the ROMINA agreement. A platform dedicated to this network has been created, which reports seasonal data from the 14 reference stations. The link to the platform is as follows: https://www.retispeciali.it/rnhg/form.php.
A list of recent papers can be found at (https://sdi.iia.cnr.it/hermes/dissemination/dissemination.zul)
National monitoring of mercury in ambient air occurs through "Reti Speciali" (http://www.retispeciali.it/dati/).
Below is a list of the latest scientific articles added to those indicated in response to the first full report:
• Bencardino, M., D'amore, F., Angot, H., Angiuli, L., Bertrand, Y., Cairns, W., ... & Pirrone, N. (2024). Patterns and trends of atmospheric mercury in the GMOS network: Insights based on a decade of measurements. Environmental Pollution, 363, 125104. (DOI: https://doi.org/10.1016/j.envpol.2024.125104);
• Bruno, D. E., De Simone, F., Cinnirella, S., Hedgecock, I. M., D'Amore, F., & Pirrone, N. (2022). Reducing mercury emission uncertainty from artisanal and small-scale gold mining using bootstrap confidence intervals: an assessment of emission reduction scenarios. Atmosphere, 14(1), 62. (DOI: https://doi.org/10.3390/atmos14010062).
• Bruno, D. E., & De Simone, F. (2024). ASGM Mercury Discharges in Tropical Basins: Assessment of the Criticality of Their Geographical Distribution. Sustainability, 16(7), 2991. (DOI: https://doi.org/10.3390/su16072991).
• De Simone, F., Hedgecock, I. M., Bruno, D. E., Cinnirella, S., Sprovieri, F., & Pirrone, N. (2024). Modelling the anthropogenic Hg pollution fingerprint on the marine fishery production worldwide: A preliminary exposure assessment for people living in countries having different income levels. Environment International, 190, 108891. (DOI: https://doi.org/10.1016/j.envint.2024.108891).
• Hedgecock, I. M., De Simone, F., Carbone, F., and Pirrone, N.: Modelling the Fate of Mercury Emissions from Artisanal and Small Scale Gold Mining, EGUsphere [preprint], https://doi.org/10.5194/egusphere-2024-861, 2024.
In addition was conducted an "Exploratory study for mercury speciation in sediment and soil" available at the following link quaderni_ispra_mercurio-speciazione_def_14feb_completo.pdf

Regarding actions towards effective and sustainable management of mercury contamination, a research project, called MOVERS-Hg (monitoring and assessment of exposure and risks from Hg-contaminated soils) has been launched in 2025. Mercury contamination in Italy is primarily linked to historical mining activities and industrial processes, with significant impacts on soils, sediments, and water systems. The most critical areas include the Monte Amiata district in southern Tuscany, where mercury released during mining has affected ecosystems for over 200 km along the Paglia-Tiber river system, and the Isonzo plain in Friuli Venezia Giulia, contaminated by mining operations in Idrija (Slovenia). These extensive contaminated zones are only partially recorded in national remediation databases, creating gaps in compliance with EU reporting obligations under Regulation (EU) 2017/852.
Current risk assessment practices often rely on pseudo-total mercury content, leading to overly conservative approaches such as large-scale soil excavation and disposal. These measures are environmentally and economically unsustainable and do not reflect the actual mobility or toxicity of mercury compounds.
The MOVERS-Hg project responds to these challenges by developing screening procedures to identify mobilizable mercury forms and innovative risk assessment methodologies tailored to mercury's chemical behaviour. This approach supports targeted interventions, sustainable management of contaminated sites, and improved protection of human health, particularly from methylmercury and elemental mercury exposure.
These actions directly align with the Minamata Convention objectives: ensuring environmentally sound management of contaminated sites, protecting human health, strengthening institutional capacity through training, and promoting public awareness. Furthermore, the project enhances data collection and transparency, contributing to more accurate national and EU reporting, and ultimately supporting global efforts to minimize mercury risks.

☐ 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

☐ 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

☐ 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 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

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

Part E - Additional comments on this article

{Empty}

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

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

No relevant comments on this point.

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

Comments regarding the reporting format and possible improvements, if any

No relevant comments on this point.