

## BENEFITS OF INDONESIA RATIFICATION OF MINAMATA CONVENTION ON MERCURY

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### ABSTRACT

*The Minamata Convention on International Treaty designed to protect human health and environment from anthropogenic emissions and releases of mercury and mercury compounds. This Convention was a result of three years of meeting and negotiating, after which it was closed to 140 countries on 19 January 2013 and was adopted and signed later on 10 October 2013 at a Diplomatic Conference held in Kumamoto, Japan. Indonesia has ratified The Minamata Convention on Mercury by Law No. 11 of 2017 concerning the ratification of the Minamata Convention on Mercury. This shows the magnitude of the Indonesian Government's commitment to efforts to reduce and eliminate mercury.*

*Keywords:* Minamata Convention, Indonesia, Ratification

### INTRODUCTION

In essence, every citizen has the right to get a good and healthy environment. This right is an implementation of the objectives of the Indonesian State Government as stated in the fourth paragraph of the Preamble of the 1945 Constitution of the Republic of Indonesia (1945 Constitution of the Republic of Indonesia) that protects the entire Indonesian nation and its entire bloodshed, and promotes public welfare, educates the nation's life and participates carrying out world order based on freedom, eternal peace and social justice.

Regarding the goal of advancing public welfare, it can be interpreted that the state is responsible for improving the welfare of all citizens, one of which is to improve the degree of public health. Increasing the degree of public health can be implemented and fulfilled by carrying out a sustainable, comprehensive, directed and integrated health development which is an inseparable series of national development. The government through the health development program has the aim of increasing the highest degree of public health and maintaining the quality of Indonesia's human resources. The degree of public health and the quality of human resources are strongly influenced by the quality of the surrounding environment.

The guarantee of obtaining a good and healthy environment is regulated in Article 28H paragraph (1) of the 1945 Constitution of the Republic of Indonesia which reads: "Every person has the right to live physically and spiritually, live and get a good and healthy environment and has the right to receive health services". One of the efforts to make it happen is through regulation, control and supervision of hazardous and toxic materials, especially on mercury. Mercury is known as a material that causes significant negative impacts on the nerves and other health effects, especially the harmful effects on the fetus and toddler. Emissions and releases of mercury into the environment will eventually enter the food chain. If the food chain has been polluted, both plant and animal foods become unhealthy so that mercury accumulates in the human body. If these conditions continue continuously, it can lead to the threat of health and the quality of human resources, both now and in the future.

The use of mercury in Indonesia is found in mining, industrial and health activities. Mercury is known as a chemical element, which because of its nature is used to produce commercial products. In the mining sector, especially Small Scale Gold Mining (ASGM), elemental mercury is used for gold purification through amalgamation. In the manufacturing sector, mercury is used for the production of chlor-alkali as a cathode, vinyl chloride monomer as a catalyst, active electrical and electronic equipment such as lights, batteries, medical devices such as thermometers and tens meters, mechanical devices such as barometers and thermostats, in dental health, Mercury is used as an amalgam for tooth hole cover. Based on data from the Ministry of Commerce (in 2011-2014) the number of elemental mercury imports to Indonesia is an average of 550 kg per year and is limited to the 2 (two) tube fluorescent industry, whereas in 2015-2016 there were no submissions for mercury imports to the Ministry of Trade. Apart from being a preservative, mercury is used in vaccines, paper, dyes, detergents, soaps, and cosmetic products. As a reagent, mercury is also used in chemical laboratories, both for research and analysis purposes.

Mercury has become a global concern since mercury pollution by the Chisso Minamata Factory (CMF) company that dumped methylmercury waste into Minamata Bay, Japan. For 12 years (1956-1968) waste was disposed of as much as 80 - 150 tons, causing the nervous system and inhibiting the growth of toddlers and adults. In Indonesia, people's gold mining using mercury on Mount Botak, Buru Island, Maluku, has eliminated the livelihoods of farmers and fishermen, leading to social conflicts and miners' deaths due to workplace accidents (<http://ppid.menlhk.go.id>).

Indonesia has issued two Government Regulations (PP) related to mercury. First, Government Regulation number 74 of 2001 concerning Management of Hazardous Toxic Materials (B3), which states that mercury is categorized as B3 type and has limited use. Second, PP No. 101 of 2014 concerning B3 Waste Management states that waste containing mercury must be managed.

The Ministry of Environment and Forestry (KLHK) attended the Second Meeting of the Conference of the Parties to the Minamata Convention on Mercury (COP 2), to emphasize the commitment of the Indonesian government regarding the regulation of mercury. COP2 Agenda. The meeting aimed to formulate a follow-up strategy for the management and handling of global mercury. This is a continuation of the 2017 Minamata convention, in response to the international community including Indonesia facing the effects of mercury emissions, emissions and releases on human health and the environment (<http://ppid.menlhk.go.id>).

The Indonesian government has drawn up a national action plan for the reduction and elimination of Mercury by 2030. It has also established a mercury research and monitoring committee. This is done to protect the public from the impact of using mercury through the transfer of gold processing technology and / or transfer of ASGM (Small Scale Gold Mining) mining livelihoods.

In addition, Indonesia proposes a scheme of social, economic and environmental transformation approaches that synergizes with all stakeholders. This is the key to the success of the target of reducing and eliminating mercury in Indonesia. All world communities also have equal opportunities to support and help achieve the Minamata Convention goals. Countries that have signed and ratified the Minamata convention, including Indonesia, have agreed to close ranks to regulate strategies in dealing with problems due to mercury in their entire life cycle.

Until mid-2018 at least 101 countries have ratified (ratified) this Convention. The Minamata Convention prohibits primary mercury mining, regulates mercury trade, limits the elimination of mercury use, controls emissions and releases mercury and encourages the management of environmentally friendly mercury-containing waste. The UN organization in the field of environment, UN Environment, stated that every year at least 9,000 tons of mercury are released into the atmosphere, water and soil. The biggest source of emissions and releases of mercury came from Small Scale Gold Mining (ASGM) activities, followed by coal-fired power plants, non-ferrous metal production and cement production processes (<http://ppid.menlhk.go.id>).

Indonesia is one of 92 early signatories to the Minamata Convention in Kumamoto, Japan on October 10, 2013. The convention has now signed 128 countries and entered into force since August 16, 2017, which is 90 days after receipt of the 50th state ratification instrument Romania on May 16 2017 By ratifying this convention, Indonesia will more strictly regulate the circulation and utilization of mercury in the community (<https://nasional.kompas.com>). This ratification also opens up opportunities for international cooperation to increase public awareness and knowledge about the dangers of mercury, and to facilitate access to health and environmental friendly substitute technology. In this study we will discuss the benefits of Indonesia ratifying the Minamata Convention on Mercury.

## **HISTORY OF RATIFICATION**

The ratification of the Minamata Convention on Mercury is based on the objectives of the Government of Indonesia, as stated in the opening of the 1945 Constitution of the Republic of Indonesia, which is to protect the entire nation and all of Indonesia's bloodshed, promote public welfare, educate the nation's life, and participate in implementing world order based on eternal peace and social justice. In this case, the State must guarantee that every development activity is carried out by paying attention to the environment, so as not to endanger human health and cause environmental damage.

In line with the mandate of the Opening of the 1945 Indonesian Constitution, Indonesia actively participated in the process of drafting and signing the Minamata Convention on Mercury. This convention aims to protect human health and the environment from the danger of mercury, which is an agreement between countries to reduce and eliminate the use of mercury and mercury compounds.

Pollution problems, especially those caused by mercury content, are very threatening both to environmental sustainability and to human health. Indonesia faces the problem of mercury pollution, mercury pollution has also become an international problem and it can be concluded that international action is needed to reduce the risk of mercury impacts on human health and environmental safety (<https://www.bphn.go.id>).

Based on the results of various studies conducted, it shows that the health of citizens in Indonesia is vulnerable to mercury pollution that occurs. There are still many uses of mercury in the development of technology and industry, causing high environmental pollution and declining human health in various regions in Indonesia. Some examples that can be put forward include pollution of mercury in mercury contamination in Dusun Pancer, Banyuwangi Regency, higher than the standard of quality, another example is mercury pollution in the bay of Jakarta which results in mercury poisoning in residents living around the bay of Jakarta. In order to strengthen the legal umbrella regarding the use of mercury, Indonesia endorsed the Minamata Convention on Mercury to create controls and restrictions on the use of mercury. With the ratification of this Convention, the protection of human health and the environment can be achieved and ultimately improve the quality of Indonesia's human resources (<https://www.bphn.go.id>).

The issue of conservation and protection of the environment certainly cannot immediately be left to the consciousness of each individual member of the community as well as to legal entities only. Legal instruments as one of the strategies for management, preservation, and environmental protection, in Indonesian studies as a state based on law must also be developed so as to accommodate the interests of the public in a healthy, comfortable and clean environment.

The making and ratification of international agreements between the government of the Republic of Indonesia and the subject of other international law is a very important legal action because it binds the state to certain fields, and therefore the making and ratification of an international agreement is further elaborated in Act 24 of 2000 about International Agreements. In the

International Agreement Law, it is explained that the ratification of an international agreement can be carried out using a legal instrument or presidential regulation. There are various criteria that distinguish between ratification using the instrument of law and using the instruments of the Presidential Regulation (<https://www.bphn.go.id>).

In accordance with Article 14 of Law 37 of 1999 concerning Foreign Relations, officials of government institutions, both departmental and non-departmental, will sign international agreements made between the Government of the Republic of Indonesia and other governments, international organizations, or other international legal subjects, must obtain a power of attorney from the Minister. The Minister in this case is the Minister of Foreign Affairs as the minister responsible for the field of foreign relations and foreign policy, to the Minister of Environment to sign the Minamata Convention on Mercury.

In Article 28 H of the 1945 Constitution of the Republic of Indonesia, it was stated that: "Every person has the right to live in physical and spiritual prosperity, to live, and to get a good and healthy environment and the right to obtain health services". Environmental awareness is starting to develop, and it is increasingly recognized that various environmental problems are increasing and are actually sourced from the impact of human actions. To protect human health and environmental safety from intentional emissions and release of mercury and mercury compounds as a result of human activities, Indonesia ratified the Minamata Convention on Mercury and ratification of the Minamata Convention on Mercury by law because of its environmental concern.

The Minamata Convention concerning Mercury comes into force on the 90th day after receipt of an instrument or document of ratification, acceptance, approval, or statement of submission from the 50th (fiftyth) state or regional economic union. After fulfilling this requirement, the countries that have signed but have not ratified the convention will ratify the convention in accordance with national legislation. The Indonesian government has an interest in providing protection for the public from the negative impact of the use of mercury by establishing policies that support the creation of environmental conditions that are free from pollution considering sovereignty, national interests.

To protect the environment from the dangers of pollution and environmental destruction, a law is needed that is capable of acting as a powerful means of protecting the environment. Laws that function as environmental safeguards are laws that govern the environment. In order to realize government protection of the environment, the state issued various legal policies related to environmental issues.

#### **MINAMATA CONVENTION ON MERCURY**

The Minamata Convention on Mercury is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. This Convention was a result of three years of meeting and negotiating, after which the text of the Convention was approved by delegates representing close to 140 countries on 19 January 2013 in Geneva and adopted and signed later that year on 10 October 2013 at a Diplomatic Conference held in Kumamoto, Japan. The Convention is named after the Japanese city Minamata. This naming is of symbolic importance as the city went through a devastating incident of mercury poisoning. It is expected that over the next few decades, this international agreement will enhance the reduction of mercury pollution from the targeted activities responsible for the major release of mercury to the immediate environment (Bailey, 2014).

Mercury is a naturally occurring element. It can be released to the environment from natural sources – such as weathering of mercury-containing rocks, forest fires, volcanic eruptions or geothermal activities – but also from human activities. An estimated 5500-8900 tons of mercury is currently emitted and re-emitted each year to the atmosphere, with much of the re-emitted mercury considered to be related to human activity, as are the direct releases. Due to its unique properties, mercury has been used in various products and processes for hundreds of years. Currently, it is mostly utilized in industrial processes that produce chlorine (mercury chlor-alkali plants) or vinyl chloride monomer for polyvinyl chloride (PVC) production, and polyurethane elastomers. It is extensively used to extract gold from ore in artisanal and small-scale gold mining. It is contained in products such as electrical switches (including thermostats), relays, measuring and control equipment, energy-efficient fluorescent light bulbs, batteries and dental amalgam. It is also used in laboratories, cosmetics, pharmaceuticals, including in vaccines as a preservative, paints, and jewellery. Mercury is also released unintentionally from some industrial processes, such as coal-fired power and heat generation, cement production, mining and other metallurgic activities such as non-ferrous metals production, as well as from incineration of many types of waste (UNEP, 2013. Global Mercury Assessment 2013).

Mercury and mercury compounds have long been known to be toxic to human health and the environment. Large-scale public health crises due to mercury poisoning, such as Minamata disease and Niigata Minamata disease, drew attention to the issue. In 1972, delegates to the Stockholm Conference on the Human Environment witnessed Japanese junior high school student Shinobu Sakamoto, disabled as the result of methylmercury poisoning in utero. The United Nations Environment Programme (UN Environment, previously UNEP) was established shortly thereafter (Hisatoshi; October 2013) UN Environment has been actively engaged in bringing the science of mercury poisoning to policy implementation. In 2001, the Executive Director of UN Environment was invited by its Governing Council to undertake a global assessment of mercury and its compounds, including the chemistry and health effects, sources, long-range transport, as well as prevention and control technologies relating to mercury.

In 2003, the Governing Council considered this assessment and found that there was sufficient evidence of significant global adverse impacts from mercury and its compounds to warrant further international action to reduce the risks to human health and the environment from their release to the environment. Governments were urged to adopt goals for the reduction of mercury emissions and releases and UN Environment initiated technical assistance and capacity-building activities to meet these goals.

A mercury programme to address the concerns posed by mercury was established and further strengthened by governments in 2005 and 2007 with the UNEP Global Mercury Partnership. In 2007, the Governing Council concluded that the options of enhanced voluntary measures and new or existing international legal instruments should be reviewed and assessed in order to make progress in addressing the mercury issue. In February 2009, the Governing Council of UNEP decided to develop a global legally binding instrument on mercury (United Nations Environment Programme).

An intergovernmental negotiating committee (INC) was promptly established, through which countries negotiated and developed the text of the convention. Other stakeholders, including intergovernmental and non-governmental organizations also participated in the process and contributed through sharing of views, experience and technical expertise (Rebecca; 2013). The Intergovernmental Negotiating Committee was chaired by Fernando Lugris of Uruguay and supported by the Chemicals and Health Branch of UN Environment's Economy Division. The INC held five sessions to discuss and negotiate a global agreement on mercury: INC 1, 7 to 11 June 2010, in Stockholm, Sweden; INC 2, 24 to 28 January 2011, in Chiba, Japan; INC 3, 31 October to 4 November 2011, in Nairobi, Kenya; INC 4, 27 June to 2 July 2012, in Punta del Este, Uruguay; INC 5, 13 to 18 January 2013, in Geneva, Switzerland.

On 19 January 2013, after negotiating late into the night, the negotiations concluded with close to 140 governments agreeing to the draft convention text (United Nations Environment Programme). The Convention was adopted and opened for signature for one year on 10 October 2013, at a Conference of Plenipotentiaries (Diplomatic Conference) in Kumamoto, Japan, preceded by a Preparatory Meeting from 7–8 October 2013 (United Nations Environment Programme). The European Union and 86 countries signed the Convention on the first day it was opened for signature (International Institute for Sustainable Development; 2013). A further 5 countries signed the Convention on the final day of the Diplomatic Conference, 11 October 2013. In total, the Convention has 128 signatories.

Fernando Lugris, the Uruguayan chair delegate, proclaimed, "Today in the early hours of 19 January 2013 we have closed a chapter on a journey that has taken four years of often intense but ultimately successful negotiations and opened a new chapter towards a sustainable future. This has been done in the name of vulnerable populations everywhere and represents an opportunity for a healthier and more sustainable century for all peoples" (United Nations Environment Programme).

Further to the adoption of the Convention, the intergovernmental negotiating committee was mandated to meet during the interim period preceding the opening of the first meeting of the Conference of the Parties to the Convention to facilitate its rapid entry into force and effective implementation upon entry into force. Two sessions of the INC were held : INC 6, 3 to 7 November 2014, in Bangkok, Thailand; INC 7, 10 to 15 March 2016, in Dead Sea, Jordan. Discussions covered a number of technical, financial as well as administrative and operational aspects.

The Convention required to enter into force the deposit of fifty instruments of ratification, acceptance, approval or accession by States or regional economic integration organizations. This fifty-ratification milestone was reached on 18 May 2017, hence the Convention entered into force on 16 August 2017 and held the first meeting of its Conference of the Parties (COP1) from 24 to 29 September 2017 in Geneva.

## **BENEFITS OF INDONESIA RATIFYING THE MINAMATA CONVENTION ON MERCURY**

Since 2009, Indonesia has played an active role in the Intergovernmental Negotiating Committee (INC) on Legally Binding of the first Instrument of Mercury in Stockholm 2010 as a result of the implementation of the Governing Councils by the United Nations Environment Programme (UNEP). The purpose of the meeting was to form international regulations regarding the influence of continued global mercury until 2013 INC. V in Geneva with agreements regarding the Minamata Convention on Mercury convention. This Minamata Convention was signed by 128 countries in Japan on October 10, 2013 (<http://gusirawanpasaribu.com>).

On September 24, 2017, the Conference of Parties / COP will take place at the Minamata Convention in Geneva. Indonesia officially ratified this convention through Law Number 11 of 2017 concerning Endorsement of the Minamata Convention on Mercury. Submission of Depository International of Regulation (IoR) to the Secretariat General of the United Nations in New York, United States. Indonesia has an active space and full voting rights in decision making at regional and global forums about the Minamata Convention. Included in the development of procedures, guidelines and modalities (<https://www.mongabay.co.id>).

The benefits of ratifying the Minamata Convention for Indonesia include:

1. Provide a legal basis for the state to issue legislation and policies to ensure a clean and healthy environment for the Indonesian people.
2. Provide security and maintain health and protect future generations of human resources due to the negative impact of mercury;
3. Strengthening control of procurement, distribution, circulation, trade in mercury and mercury compounds;
4. Ensure business certainty in the industrial, health, small-scale gold and energy mining sectors;
5. Encouraging the industrial sector not to use mercury as raw material and auxiliary materials in the production process;
6. Limiting the use of mercury as an additional ingredient in products and controlling mercury emissions;
7. Encourage the health sector to no longer use mercury in health equipment and products for health;
8. Increase the capacity of health workers to help or help people affected by mercury;
9. Encouraging people not to use mercury in their activities;

10. Encourage the energy sector to reduce mercury release to air, water and soil.
11. Strengthening the regulation and supervision of the management of waste containing mercury;
12. Reducing the risk of soil, water and air contaminated with mercury;
13. Providing opportunities for Indonesia to obtain international assistance, including technical assistance, technology transfer and funding in an effort to control mercury emissions and the elimination of mercury in industrial sector activities and activities in Indonesia;
14. Increasing global cooperation for the exchange of information in research and development, especially substitutes for mercury in industrial processes and in order to achieve sustainable development goals.

Indonesia ratified the Minamata Convention to control the circulation and use of hazardous toxic substances (B3) by conducting a Depository International of Regulation (IoR) to the Secretariat General of the United Nations in New York, United States. After President Joko Widodo passed Law No. 11 of 2017 concerning Endorsement of the Minamata Convention on Mercury (Minamata Convention on Mercury). The Indonesian government has officially conducted an IoR deposit (<https://www.suara.com>).

Ratification of this convention provides space for Indonesia to play a more active role and has full voting rights in the decision-making process at regional and global forums related to various arrangements for implementing the Minamata Convention including in the development of procedures, guidelines and other modalities. This ratification also provides a great opportunity for Indonesia to benefit from accessing funding sources, transfer technology, capacity building and international cooperation to support the National Action Plan (RAN) for Handling Mercury.

## CONCLUSION

The Minamata Convention does not only synergize, but also strengthens the rules of trade and circulation of mercury at the national level, which the Indonesian Government has ratified the Minamata Convention on Mercury through Law No. 11 of 2017 signed by President Joko Widodo on September 20, 2017 and promulgated in the State Gazette no. 209 of 2017. With the issuance of the law, the practice of the circulation and use of mercury in all regions of Indonesia is now bound by the rules in the Convention. The Indonesian Government's quick step in ratifying this convention is the result of very strong coordination between various Ministries and Institutions, as well as the support of the Indonesian Parliament. This step is the fulfillment of the constitutional mandate to protect the people of Indonesia from the threat of mercury pollution that endangers the health and ecosystem of the environment. This ratification also opens up opportunities for international cooperation to increase public awareness and knowledge about the dangers of mercury, and to facilitate access to health and environmental friendly substitute technology.

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