



Environmental  
Justice Australia

Submission

in response to

Inquiry into the Minamata Convention on Mercury

prepared by

Environmental Justice Australia

15 July 2021

## **About Environmental Justice Australia**

Environmental Justice Australia is a not-for-profit public interest legal practice. We are independent of government and corporate funding. Our legal team combines technical expertise and a practical understanding of the legal system to protect our environment.

We act as advisers and legal representatives to community-based environment groups, regional and state environmental organisations, and larger environmental NGOs, representing them in court when needed. We also provide strategic and legal support to their campaigns to address climate change, protect nature and defend the rights of communities to a healthy environment.

We also pursue new and innovative solutions to fill the gaps and fix the failures in our legal system to clear a path for a more just and sustainable world.

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## Introduction

Environmental Justice Australia (**EJA**) welcomes the opportunity to make a submission to the Joint Standing Committee on Treaties (**Committee**) in support of the Australian Government ratifying the Minamata Convention on Mercury (**Convention**).

As recognised by the Convention, mercury is a chemical of global concern and poses a significant and ongoing threat to human health and the environment because it is persistent in the environment once released and can bioaccumulate, travel large distances in the atmosphere and oceans and have significant negative effects on human health and the environment.

The Convention seeks:

“...to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.”<sup>1</sup>

Since its introduction in 2013 and subsequent entry into force in 2017, 125 countries have ratified the Convention. Australia is not one of those countries. Although Australia signed the Convention in October 2013, it is yet to ratify the Convention, setting itself apart from 30 out of 37 OECD countries that have ratified. As noted in the Final Regulatory Impact Statement (**RIS**), because Australia has not ratified the Convention it:

“... is increasingly set apart from like-minded countries and key trading partners and is also unable to fully engage in, or influence, the direction of the Convention, including decisions about future global controls on mercury.”<sup>2</sup>

We acknowledge that over the past six years the Australian Government has undertaken analysis and consultation to inform the conclusions and recommendations contained in the RIS, which concludes that there is broad support for ratification across government, business, industry and other stakeholders.

We are pleased to note that the Deputy Secretary of the Department of Agriculture, Water and the Environment identifies that ratification is the preferred option presented in the RIS.<sup>3</sup>

**Environmental Justice Australia supports the ratification of the Convention for the reasons outlined below.**

### **1. Ratification will enable Australia to participate in global efforts to protect the environment and human health from the harmful effects of mercury exposure**

Mercury is environmentally persistent – once it is released it remains in the environment and cycles between air, land, and water for many centuries. Human activities, both pre-industrial and industrial, such as cinnabar, gold and silver mining and processing, coal mining and combustion, and chlor-alkali

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<sup>1</sup> Minamata Convention on Mercury, Article 1.

<sup>2</sup> Department of Agriculture, Water and the Environment (Commonwealth), *Ratification of the Minamata Convention on Mercury: Final Regulatory Impact Statement (RIS)*, December 2020, Canberra, 5.

<sup>3</sup> Dean Knudson, ‘Regulation Impact Statement – Ratification of the Minamata Convention on Mercury – Second Pass Final Assessment’, 14 December 2020.

processes, have disrupted the global mercury and have resulted in a rise in atmospheric mercury of about 450% above natural levels.<sup>4</sup>

Mercury emitted to air can remain in the atmosphere for over a year, and in that time can travel thousands of kilometres around the world until it is deposited to land or water. From there, it may be taken up by plants, re-volatilise back into the air, be further transported by water, or be taken into the food web. It is for this reason that mercury is a global problem – mercury emitted in one jurisdiction can travel and contaminate other, far removed, parts of the world. For example, mercury has been found in significant concentrations in animals in the Arctic, which is attributable to the long-range transport of atmospheric mercury.<sup>5</sup>

Mercury is highly toxic and can cause serious and adverse effects on humans, other species and ecosystems. Exposure to even small amounts of mercury can have serious health implications on the nervous, digestive and immune systems, and on lungs, kidneys, skin and eyes. It is considered by World Health Organisation (**WHO**) as one of the top ten chemicals of major public health concern.<sup>6</sup>

Elemental mercury is toxic as a vapour if inhaled in high quantities, or in lower quantities at chronic levels. It can cause tremors, emotional changes such as irritability and mood swings, insomnia, neuromuscular changes, headaches, and cognitive difficulties.<sup>7</sup>

Methylmercury, or ‘organic mercury’, is a potent neurotoxin, particularly to developing foetuses, as it can pass through both the blood-brain barrier and the placenta. Children exposed to methylmercury in utero can experience lifelong IQ and motor-function deficits. Health impacts to adults from exposure to methylmercury include cardiovascular damage, endocrine disruption, diabetes risk, compromised immune function, and death.<sup>8</sup>

Methylmercury is also toxic to mammals, fish, and birds, and because it is not readily excreted, it bioaccumulates and is biomagnified up the food chain. Therefore, animals at the top of the food chain (including humans) are at much greater risk of methylmercury poisoning. Because it is primarily formed by microorganisms in aquatic environments, human exposure to methylmercury occurs mainly through the consumption of fish or other aquatic organisms. Australians eat a diet high in seafood — 47% more per capita than the world average — and are therefore vulnerable to exposure to methylmercury.<sup>9</sup>

The abovementioned impacts of mercury clearly require a global solution. Without ratification, Australia cannot fully work with and support other countries to mitigate the risks posed by mercury

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<sup>4</sup> United Nations Environment Programme (2018) ‘Global Mercury Assessment Report’ <<https://wedocs.unep.org/bitstream/handle/20.500.11822/27579/GMA2018.pdf?sequence=1&isAllowed=y>> (**2018 Global Mercury Assessment**), 3.

<sup>5</sup> 2018 Global Mercury Assessment, 27 and 48.

<sup>6</sup> World Health Organisation (31 March 2017) ‘Mercury and Health’, <<https://www.who.int/news-room/fact-sheets/detail/mercury-and-health>>.

<sup>7</sup> United States Environmental Protection Agency (2020) ‘Health Effects of Exposure to Mercury’ <<https://www.epa.gov/mercury/health-effects-exposures-mercury>>.

<sup>8</sup> Harvard University Center for Climate, Health, and the Global Environment, Mercury Matters 2020: A Science Brief for Journalists and Policymakers (17 April 2020), <<https://www.hsph.harvard.edu/c-change/news/mercury-matters-2020-a-science-brief-for-journalists/>>.

<sup>9</sup> Department of the Environment and Energy (Commonwealth), *National Phase down of Mercury: Ratification of the Minamata Convention on Mercury – Final Regulation Impact Statement – Exposure Draft*, December 2016, Canberra, 3 and 17.

at the global level. As noted in the RIS, on a per capita basis, Australia's industrial mercury emissions are higher than the world per capita average.<sup>10</sup> Australia must therefore do its part in combatting the risks presented by mercury and ratify the Convention to ensure it participates in the global community working to limit and mitigate the impacts of mercury.

## **2. Ratification will ensure Australia reduces mercury pollution from human activity**

The RIS outlines that implementation of obligations under the Convention will be relatively straightforward and low-cost, involving minor amendments to legislation or policies.<sup>11</sup> To the extent that legislation and policies will require amendment to ensure the implementation of Convention obligations, those are outlined as being:<sup>12</sup>

- a. additional federal legislation to implement Convention obligations for the import and export of mercury and the import, manufacture and export of certain mercury-containing products specified in the Convention;
- b. some adjustments to the application of state and territory legislation related to mining, manufacturing processes, pollution control and storage and waste management involving mercury; and
- c. the administration, information, reporting and planning for the implementation of the Convention.

The RIS outlines that the above changes will ensure Australia further reduces its mercury pollution from human activity by better regulating some mercury-added products, including certain lighting products, pesticides, therapeutic goods and devices. We support ratification of the Convention on the basis that it will result in better regulation of these products and improved environmental outcomes.

We also support ratification because it will require the application of best available techniques and best environmental practices for existing industrial facilities, thereby ensuring emissions from these industries align with Convention requirements and the commitment to reduce mercury emissions.

## **3. Ratification will ensure Australia participates in international affairs and is a responsible trading partner**

As noted in the RIS, because 125 countries, including Australia's major trading partners, are Parties to the Convention, there will be impacts on Australia's ability to trade in goods that are subject to controls under the Convention.<sup>13</sup> Countries bound by the convention must phase out the import, manufacture and export of certain mercury-containing products by 31 December 2020. Mercury-containing products recently phased out for import, manufacture and export under the Convention will become less available in Australia, requiring it to adjust to changed trading conditions regardless of whether it has or has not ratified the Convention. The RIS outlines that these trade conditions may

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<sup>10</sup> Department of Agriculture, Water and the Environment (Commonwealth), above n 2, 13.

<sup>11</sup> Ibid, 14.

<sup>12</sup> Ibid, 18.

<sup>13</sup> Ibid.

present costs to Australian businesses and that Australia should ratify the Convention in order to fully participate in these trade conversations.<sup>14</sup>

By ratifying the Convention, Australia would be in a position to begin to contribute to, and advance Australia's interests in, the decisions of the Convention as soon as possible. This would include seeking relevant exemptions for some imports for short periods of time (such as HPMV lamps). As outlined in the RIS, there are further benefits to be gained by ratifying, including ensuring that Australia is engaged with the international community and is abreast of scientific developments and emerging issues<sup>15</sup> and that contributing to the global effort to reduce mercury pollution will safeguard Australians against future international increases in mercury emissions.

#### **4. Ratification will be economically beneficial for Australian communities**

The RIS clearly indicates that it is cost beneficial for Australia to ratify the Convention.

The health costs of mercury are placed at approximately \$5,273 per kilogram (based on 2020A\$) when focused primarily on the loss of IQ in infants and \$23,730 per kilogram when focussed on the impact of mercury emissions on heart attacks in Australia. The impacts of mercury on cardiovascular disease and heart attacks in Australia is estimated to cost approximately \$1.3 billion per year.<sup>16</sup> These are substantial costs, which would be reduced over time as mercury-containing products are no longer being imported to Australia and forming part of its waste stream and through better regulation of mercury emissions from industry.

The energy consumption savings gained by the phase-out of HPMV streetlights is also significant, equating to approximately \$17.3 million between 2020 and 2030 and a carbon dioxide emissions saving worth \$4.5 million.<sup>17</sup> As indicated in the RIS, the regulatory burden of the replacement of HPMV streetlights would be the same as if Australia does not ratify the Convention.

As noted in the Marsden Jacob Associates cost-benefit report (2018), which underpins the conclusions in the RIS, the net value associated with ratification is estimated to be between \$100.9 million and \$157.7 million.<sup>18</sup> Australia must therefore ratify the Convention to ensure these benefits are fully realised.

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<sup>14</sup> Ibid.

<sup>15</sup> Ibid, 15.

<sup>16</sup> Ibid, 48-50.

<sup>17</sup> Ibid, 532.

<sup>18</sup> Marsden Jacob Associates, *Costs and benefits of Australia phasing-down mercury: revised report*, June 2018, Melbourne, 9.