

National Interest Analysis: Minamata Convention on Mercury

Executive summary

1. The Minamata Convention on Mercury (“Convention”) is a major international development in controlling the harmful effects of mercury pollution. Agreed on 19 January 2013, it was signed in October 2013 by the EU and 91 countries, including New Zealand, in Minamata, Japan.
2. The Convention’s purpose is to protect human health and the environment from anthropogenic (man-made) releases of mercury and mercury compounds. Mercury is a toxic pollutant that can circulate globally through the oceans and the atmosphere for years or even decades, and can cause significant harm to human health and the environment, sometimes very far from its point of origin. Acute or chronic exposure can be fatal. The World Health Organisation (“WHO”) lists it as one of the top ten chemicals of major public health concern.
3. Humans are mainly exposed to mercury through emissions in the air, and from eating certain foods (mostly marine fish). The United Nations Environment Programme (“UNEP”) estimates that anthropogenic releases have increased mercury in Arctic marine animals by 10 – 12 times, compared to pre-industrial times. Mercury concentrations have also been increasing in the North Pacific Ocean over the last few decades, alongside the industrialization of East Asia. Further increases in emissions will have “long-term consequences for commercial fisheries and all consumers of marine and freshwater foods”.¹
4. To reduce these impacts, the Convention controls anthropogenic mercury releases in a number of different ways. It bans primary mercury mining, requires permits for trade in pure mercury, and regulates specific mercury products, processes, and releases to air, land and water. The Convention also targets artisanal and small-scale gold mining, and includes provisions on mercury stocks, storage, and contaminated sites.
5. This Convention is strongly aligned with the way New Zealand deals with anthropogenic mercury. It aligns with other international obligations, and takes account of New Zealand’s existing strong controls of mercury use and release. It could therefore be implemented into New Zealand law simply, and without needing to create extensive new regimes or specialised agencies. With its reasonable financial obligations and low costs to implement, ratifying the Convention and becoming a Party can provide strong benefits to New Zealand.
6. These benefits include phasing-out import of non-essential mercury products, which will decrease mercury in the waste-stream and ensure New Zealand does not become a dumping ground for out-of-date products high in mercury. It would protect New Zealand’s access to essential mercury products and mercury waste disposal facilities, as international controls on these uses of mercury develop over time. Ratifying would also help avoid further risk to Pacific fisheries, contribute to protecting global human health and the environment, and maintain New Zealand’s international environmental reputation.
7. The advantages to New Zealand ratifying the Convention outweigh the associated disadvantages. There are no significant risks or disadvantages identified that argue against New Zealand becoming a

¹ UNEP, 2013. Global Mercury Assessment 2013: Sources, Emissions, Release and Environmental Transport. UNEP Chemicals Branch, Geneva, Switzerland, p 32.

Party. This National Interest Analysis (“NIA”) concludes that it is strongly in New Zealand’s interest to ratify the Convention.

Background to the Convention

The need for global action

8. Mercury is a naturally occurring heavy metal which can cause toxic effects on humans and the environment. It is released through natural processes like volcanic and geothermal activities, or through human processes. Man-made mercury emissions primarily come from gold mining using mercury, and combustion of coal (especially coal-fired power stations). Human activities continue to increase the mercury in the air, oceans, fresh water and soil, creating “a global threat to human and environmental health”.²
9. Mercury can travel globally through oceans and the atmosphere, and cycles through these processes for years, or even decades. It accumulates in ecosystems and food chains, particularly fish, and is passed on to larger animals and humans who eat those foods. Health effects include significant damage to lungs and kidneys, as well as the nervous, immune and digestive systems. Chronic or acute exposure can cause neurological and behavioural disorders, and can be fatal.
10. Mercury mainly reaches humans through emissions in the air, and eating marine food where mercury has accumulated. Mercury levels in the oceans’ top 100 metres has doubled in the last 100 years from man-made releases, and take years or decades to be removed from circulation.³ This effect is now reaching the Pacific, as mercury levels in the North Pacific Ocean has increased over the last few decades in parallel with industrialization in East Asia.⁴
11. Artisanal and small-scale gold mining continues to be the most significant source of mercury emissions to air. This process involves mixing mercury with gold ore to remove the gold, and then burning off the mercury. It is heavily used in Sub-Saharan African, South and Southeast Asian, and South American regions.⁵ Mercury levels in the air around artisanal and small-scale gold mining burning sites “almost always exceed” recommended WHO recommended levels for public areas.⁶
12. UNEP estimated that approximately 1,960 tonnes of anthropogenic mercury was emitted to air in 2010,⁷ and at least 1,000 tonnes released to land and water⁸. Further increases in anthropogenic mercury emissions will have long-term consequences for commercial fisheries and consumers,⁹ which creates a particular risk for fisheries-dependent countries, including many Pacific Islands.

² Above n 1, p i.

³ Above n 1, p iii.

⁴ Above n 1, p 28.

⁵ Above n 1, p 12.

⁶ UNEP, 2012. A Practical Guide: Reducing Mercury Use in Artisanal and Small-Scale Gold Mining. UNEP Chemicals Branch, Geneva, Switzerland, page 12.

⁷ Above n 1, p 9.

⁸ Above n 1, p iii.

⁹ Above n 1, p 32.

13. The United Nations (“UN”) recommended global action to control mercury use in 2003, and UNEP agreed in 2009 that a global legally binding instrument be created.¹⁰ All governments were invited to participate in negotiations between 2010 and 2013, and a text was agreed on 19 January 2013.
14. New Zealand’s objectives in the negotiations were to protect human health and the environment from the harmful effects of mercury, and to reduce anthropogenic mercury emissions. New Zealand aimed to ensure the Convention took into account wider environmental initiatives, was consistent with existing international agreements, and contained reasonable financial, compliance and administrative obligations. Other criteria included flexible trade controls, a focus on the most globally significant sources of mercury releases, and appropriate management or remediation of mercury-contaminated sites. These objectives and criteria were met by the final agreed text of the Convention.

Mercury in New Zealand

15. New Zealand’s most significant anthropogenic mercury sources are industrial gold and silver production, geothermal energy, and wastewater treatment. Other sources include coal-fired power generation; industrial iron and steel production; importing products containing mercury; and mercury in the waste stream.
16. New Zealand mercury use is already strictly controlled under a number of regimes, including the Resource Management Act 1991, Hazardous Substances and New Organisms Act 1996, Health and Safety in Employment Act 1992 and regulations under the Imports and Exports (Restrictions) Act 1988. Most mercury-intensive industries do not take place in New Zealand, including primary mercury mining, certain manufacturing processes, manufacturing certain mercury-containing products, and smelting activities.
17. As a result, anthropogenic mercury is not a significant pollutant in New Zealand.¹¹ New Zealand does, however, rely on other countries for access to essential mercury products, and facilities that can dispose of mercury in an environmentally sound way.

Nature and timing of the proposed treaty action

18. New Zealand signed the Convention when it opened for signature in October 2013. It is proposed that New Zealand ratify the Convention. This will involve deciding New Zealand’s phase-out dates for certain products under the Convention, amending relevant laws and regulations, and sending a formal letter to the UN agreeing the Convention applies to New Zealand (an instrument of ratification).
19. Under Article 31, the Convention will come into force 90 days after fifty countries deposit instruments of ratification, acceptance, approval or accession. If New Zealand is among the first 50, the Convention will become binding on New Zealand when the Convention enters into force. If New Zealand is not among the first 50 to ratify, the Convention will bind New Zealand 90 days after the instrument of ratification. Countries are “Parties to the Convention” only when the Convention becomes binding on them.

¹⁰ Decision 25/5.

¹¹ Australia, New Zealand and Oceania are estimated to contribute 1.1% of the global anthropogenic mercury emissions to air (UNEP Global Mercury Assessment 2013, p 11).

20. The Ministry of Foreign Affairs and Trade (MFAT) notified Tokelau of New Zealand's intention to sign the Convention. Due to the subject matter of the Convention and the difficulty Tokelau would have complying with obligations, it was not necessary to undertake a formal consultation process. Tokelau has not raised any issues with this approach. Accordingly, ratification of the Convention will not extend to Tokelau.

Reasons for New Zealand becoming a Party to the treaty

21. There are several significant reasons in favour of New Zealand becoming a Party to the Convention.
22. Primarily, New Zealand will be contributing to global efforts to protect human health and the environment. The Convention will reduce global anthropogenic releases of a dangerous pollutant, and meet New Zealand's objective to help protect human health and the environment from anthropogenic mercury.
23. The Convention primarily meets these goals by:
- Banning new primary mercury mining,¹² and phasing out existing primary mercury mining within fifteen years;
 - Controlling mercury in a number of ways, including trade in mercury, phasing-out specific non-essential products and processes (with certain exceptions), disposing of mercury wastes, and appropriate treatment for mercury-contaminated sites;
 - Focussing on the most significant sources of mercury; and
 - International collaboration, and capacity building for developing countries.
24. Secondly, the Convention will reduce the amount of mercury imported in products, which decreases the amount of mercury in the New Zealand waste stream. Global phase-out dates ensure that New Zealand does not end up a dumping ground for out-of-date mercury products after the rest of the world phases them out.
25. Thirdly, becoming a Party will protect our access to essential mercury products, and to environmentally sound facilities for mercury waste. New Zealand relies on other countries for these uses of mercury. As the Convention is reviewed and international rules around mercury develop, the best way for New Zealand to protect its interests will be for to participate in the negotiations as a Party. This ability to maintain access to essential products and disposal facilities meets New Zealand's criteria for flexible trade controls.
26. Fourthly, supporting the Convention will help avoid further risk to Pacific fisheries, where mercury levels have been increasing. Mercury circulates in oceans for much longer than in the air (about 11 years in the ocean compared to 2 years in the air),¹³ so immediate action to reduce anthropogenic emissions is needed to avert further potential harm to the Pacific in the future.
27. A fifth reason to become a Party is that it will maintain New Zealand's international environmental reputation and credibility. The Convention aligns well with New Zealand's other

¹² "primary mercury mining" or "primary mining for mercury" means mining in which the principal material sought is mercury. Often a number of minerals will be found in the same area due to the geomorphological processes that create them. The Convention does not restrict mining for any other minerals.

¹³ Above n 1, p 21 and 27.

international obligations on hazardous chemicals and waste, and with New Zealand's national mercury controls. The Convention supports New Zealand's other measures aimed at dangerous pollutants, including other international agreements and existing laws and regulations.

28. Internationally, the Convention complements New Zealand's obligations under the Basel Convention¹⁴ (hazardous waste), the Rotterdam Convention¹⁵ (hazardous chemicals and pesticides), the Stockholm Convention¹⁶ (chemicals that are persistent organic pollutants), and the Montreal Protocol¹⁷ (ozone-depleting substances). Emissions controls may also provide co-benefits for climate change mitigation.
29. Domestically, New Zealand's existing mercury use and laws already meet most of the obligations under the Convention (see "Measures" section below). The Convention recognises efforts already in place to control mercury releases, which was one of New Zealand's criteria in the negotiations, and helps ensure the Convention has reasonable financial, compliance and administrative obligations.
30. Finally, New Zealand's support will help ensure the Convention has the largest possible impact. The more international support for the Convention, the more likely it is to achieve its goal of protecting human health and the environment from increasing anthropogenic releases of mercury and mercury compounds.

Advantages and disadvantages to New Zealand of the treaty entering into force and not entering into force for New Zealand

Advantages:

31. Advantages to New Zealand from the Convention include:
 - **Global, regional and local environmental benefits**
 - The Convention will reduce the effects of mercury pollution globally, including in the Pacific, by banning primary mercury mining and therefore reducing the amount of mercury able to be released. It will also strengthen the capacity of individual countries to control mercury emissions and releases, encouraging tighter national control over the most significant sources. Phasing-out specific non-essential products will decrease the amount of mercury in the global and New Zealand waste stream.
 - **Protecting access to essential international markets**
 - New Zealand relies on access to international markets for essential mercury products, and environmentally sound mercury waste disposal facilities. As the Convention and international rules around mercury use develop, being a Party would enable New Zealand to participate and protect its interests in these essential areas of mercury use.

¹⁴ **Basel Convention** on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

¹⁵ **Rotterdam Convention** on the Prior Informed Consent Procedure for Certain Hazardous chemicals and Pesticides in International Trade.

¹⁶ **Stockholm Convention** on Persistent Organic Pollutants.

¹⁷ **Montreal Protocol** on Substances that Deplete the Ozone Layer, protocol to the Vienna Convention for the Protection of the Ozone Layer.

- **Maintaining and enhancing environmental reputation**
 - Ratifying the Convention would demonstrate continued support for international action to reduce harm from dangerous pollutants. As a small country, New Zealand relies on constructive engagement to achieve its international goals. New Zealand has fostered a positive international environmental reputation by implementing other environmental agreements, and early commitment to the Convention would help maintain this reputation, and environmental credibility in overseas markets.
- **Reinforcing existing domestic and international policy on mercury**
 - The Convention is closely aligned with New Zealand’s existing domestic policy measures to control anthropogenic mercury, and complements New Zealand’s other international environmental obligations.
 - This alignment will enable New Zealand to implement most of the Convention at little or no cost or disadvantage to New Zealand. For example, New Zealand has had no primary mercury mining since the 1940s, so a ban on further primary mercury mining would have no impact (the Convention does not control mining other than where mercury is the primary mineral sought). The Convention also phases-out specific mercury-intensive manufacturing processes, but none of these processes take place in New Zealand.

Potential disadvantages

32. There are two potential disadvantages, which are both low risk.
33. The Convention requires countries to phase out import, export and manufacture of certain non-essential mercury products by 2030. These products include certain forms of batteries, lamps and measuring devices (“Listed Products”), and apply with various thresholds and exceptions. New Zealand does not manufacture any of the Listed Products, and is phasing out all of their use already. The Listed Products are largely forms of older technology, and are being internationally phased out in favour of lower- or mercury-free alternatives. As New Zealand does not control manufacture of the Listed Products or their alternatives, there is a low risk that the phase-out of import or export of the Listed Products could hasten New Zealand’s phase-out of these products, and increase costs on New Zealand consumers.
34. This risk will be mitigated by consultation on phase-out dates with New Zealand users and other countries, before New Zealand chooses appropriate dates. Any necessary exemptions to postpone phase-out dates in the Convention will be recorded in New Zealand’s ratification documents.
35. There is a very low risk of binding guidance being developed by the Conference of the Parties requiring higher environmental emissions controls for new facilities in an agreed list of facilities. This list includes coal-fired power plants and industrial boilers, certain mineral smelting and roasting facilities, waste incineration facilities, and cement clinker production facilities (“Agreed Facilities”). If a new Agreed Facility opens later than 5 years after the Convention enters into force for that country, they must comply with guidance on “best available techniques and best environmental practices”. This term will apply to emissions of mercury only, and take into account economic and technical considerations, and costs and benefits.

36. The first Conference of the Parties will decide on “best available techniques and best environmental practices” guidance, but it is considered very unlikely to exceed New Zealand’s existing environmental requirements. This low risk could be further lessened by New Zealand ratifying the Convention early, and participating in the negotiations themselves.

Overall assessment of advantages and disadvantages

37. Overall, the benefits to New Zealand becoming a Party outweigh the disadvantages. Mercury pollution is increasing both globally and in the Pacific region, and would be addressed by this Convention. While New Zealand has reduced the effects of anthropogenic mercury domestically, mercury pollution is a global environmental issue. Ratifying the Convention would meet New Zealand’s objective to reduce harm from anthropogenic mercury, and to reduce mercury emissions. It is an added benefit that the Convention does so consistently with New Zealand’s existing domestic controls and international obligations on mercury.

Legal obligations which would be imposed on New Zealand by the treaty action, the position in respect of reservations to the treaty, and an outline of any dispute settlement mechanisms

38. The majority of the obligations in the Convention are consistent with New Zealand’s existing practice, and would require very little in the way of implementation (see next section for measures required to implement the Convention).

39. The Convention requires Parties to:

- Control existing primary mining for mercury¹⁸ or specific mercury mixtures¹⁹ (including phasing it out within 15 years), and ban new primary mercury mining (Article 3)
- Endeavour to identify stocks of mercury, specific mercury mixtures or specific mercury compounds²⁰ above certain amounts, and ensure environmentally sound disposal of mercury from particular sources (Article 3)
- Comply with an international consent regime for import and export of mercury and specific mercury mixtures (Article 3)
- Take appropriate measures to phase out, by 2020, the import, export and manufacture of specific types of products that contain mercury (with exceptions and the ability to lodge exemptions), and to discourage new mercury products without environmental or health benefits. The list of products includes particular batteries; switches; relays; lamps; cosmetics; pesticides and biocides; topical antiseptics; and measuring devices (such as

¹⁸ “mercury” means elemental mercury (Hg(0), CAS No. 7439-97-6).

¹⁹ “specific mercury mixtures” means mixtures of mercury with other substances, including alloys of mercury, with a mercury concentration of at least 95 per cent by weight.

²⁰ “specific mercury compounds” means:

- Mercury (I) chloride (known as calomel);
- Mercury (II) oxide;
- Mercury (II) sulphate;
- Mercury (II) nitrate;
- Cinnabar; and
- Mercury sulphide.

thermometers and sphygmomanometers) with feasible alternatives (“Listed Products”). Parties must also take certain measures towards dental amalgam (Article 4, Annex A)

- Take appropriate measures to control then phase out specific manufacturing processes that use mercury, take measures to control mercury releases from those facilities, and discourage new processes without environmental or health benefits (Article 5, Annex B)
 - Take steps to reduce and where feasible eliminate artisanal and small-scale gold mining that uses mercury, and to create a National Action Plan to assist with access to capacity-building and financial assistance if a country determines that its levels of artisanal and small-scale gold mining are “more than insignificant” (Article 7, Annex C)
 - To take measures to control mercury emissions from specific types of existing facilities (“Agreed Facilities”), including inventories of emissions. The Agreed Facilities are coal-fired power plants and industrial boilers; smelting and roasting processes for lead, zinc, copper, and industrial gold; waste incineration facilities; and cement clinker production facilities. If an Agreed Facility opens later than 5 years after obligations entered into force for that country, that facility must use “best available techniques and best environmental practices” for mercury emissions (Article 8, Annex D)
 - Take measures to control releases to land and water from sources that are significant and not controlled by other parts of the Convention, including inventories of releases (Article 9)
 - Take measures to ensure environmentally sound storage of mercury, specific mercury mixtures, and specific mercury compounds, and cooperate to enhance capacity building to meet this obligation (Article 10)
 - Take appropriate measures to manage in an environmentally sound manner specific waste consisting of, containing or contaminated with, mercury or general mercury compounds, only recover mercury for allowed uses, and import and export mercury wastes in accordance with international rules such as the Basel Convention (Article 11)
 - Endeavour to develop appropriate strategies to identify and assess mercury-contaminated sites, and manage the sites in an environmentally sound manner (Article 12)
 - Provide, within New Zealand’s capacities, resources to implement the Convention in accordance with national policies, priorities, plans and programmes (Article 13)
 - Cooperate to provide, within New Zealand’s capabilities, capacity building and technical assistance, and promote and facilitate technology transfer and access (Article 14)
 - Promote and facilitate the exchange and public dissemination of information on mercury and general mercury compounds, as well as endeavouring to cooperate on research (Articles 17 to 19)
 - Report to the Conference of the Parties on measures taken to implement the Convention (Article 21).
40. Under Article 32, the Convention is not subject to reservations.
41. Under Article 25, disputes between Parties should first try to be resolved by negotiation. If the dispute is not settled, it gets submitted to either an arbitration procedure or the International

Court of Justice (“ICJ”) if all Parties to the dispute have elected that option. If Parties have not elected the same option, after 12 months the dispute can be submitted to a conciliation commission at by any Party to the dispute (Annex E). In line with New Zealand’s practice in other relevant international environmental conventions, it is not proposed that New Zealand opt for arbitration or submission of disputes the ICJ.

Measures which the Government could or should adopt to implement the treaty action, including specific reference to implementing legislation

42. Overall, the obligations in the Convention are strongly consistent with the current use of mercury in New Zealand. New Zealand law controls mercury in a number of ways, and the following legislation is already consistent with obligations in the Convention:
 - The Resource Management Act 1991 (“RMA”) regulates discharges of mercury, and primary mining for non-Crown-owned mercury. There are National Environment Standards for contaminated sites, and a fund that helps identify, assess and remediate contaminated sites. The RMA is enforced by regional councils or territorial authorities.
 - The Crown Minerals Act 1991 (“CMA”) controls primary mining for Crown-owned mercury, and is enforced by New Zealand Petroleum and Minerals.
 - The Hazardous Substances and New Organisms Act 1996 (“HSNO”) regime regulates import, use, packaging, storage and disposal of mercury and general mercury compounds. HSNO is monitored and enforced by the Environmental Protection Authority (“EPA”).
 - The Health and Safety in Employment Act 1992 addresses mercury in the workplace, and is enforced by the Ministry of Business, Innovation and Employment.
 - Import and export of mercury wastes are managed under the Imports and Exports (Restrictions) Act 1988 (“IERA”). The EPA manages the permitting systems under IERA, and enforcement is carried out by the New Zealand Customs Service (“Customs”).
43. Other obligations in the Convention are consistent with existing practice, but would need minor legislative or regulatory amendment to confirm the status quo (for example, banning primary mercury mining and manufacturing processes that do not take place in New Zealand). Minor amendments are likely to be needed in the RMA, CMA and HSNO, and the Working Tariff Document. A non-legislative implementation approach has not been identified.
44. Three obligations would require changes to existing practice and law (likely to HSNO and the IERA regulations). These changes would be to establish a permit process for import and export of mercury and specific mercury mixtures, to phase-out import and export of the Listed Products, and to ensure mercury wastes are exported for recovery only when consistent with the Convention.
45. There are existing agencies and laws already dealing with the mercury sources covered by the Convention, and therefore no need for new agencies or a mercury act. A single regime would in fact increase costs, and overlap with existing processes. Given the low use of mercury in New Zealand, this option would be an overly regulated response for an already well-controlled area.
46. It is proposed instead that a Bill implement the Convention by amending existing law. This Bill has not yet been approved or awarded any placement in the legislative programme, but can

enter the legislative bid process after decisions about phase-out dates have been made. The legislative bid process determines when Bills are introduced, and amendments to regulations could come into effect at the same time.

47. The proposed Bill and regulation changes would:
 - Ban new mercury mining (likely in the RMA and CMA) and specific manufacturing processes that use mercury (likely in the HSNO regime).
 - Establish a permit function for import and export of mercury and specific mercury mixtures (likely in the IERA regulations).
 - Restrict import, export and manufacture of the Listed Products by the selected phase-out dates, and monitor other uses of mercury that may lead to manufacture of new mercury products and processes (likely in the HSNO regime).
 - Ensure that mercury waste is exported for recovery only when consistent with the Convention (likely in IERA regulations).
48. Other obligations would be implemented through the policy and practice of relevant agencies, including the Ministry for the Environment (“MFE”) and the EPA (for example national reports, financial resources, capacity building, and technical assistance).
49. The Convention requires reporting to show compliance, and this reporting would measure the success of the proposals against New Zealand’s objective to reduce the harm from anthropogenic mercury.

Economic, social, cultural and environmental effects of the treaty action

Environmental effects

50. The Convention is expected to have positive long term environmental effects globally, regionally and in New Zealand. Banning primary mercury mining will reduce new mercury available for redistribution, and greater international collaboration will reduce and mitigate the impacts of mercury already in circulation. Phasing-out import of the Listed Products would reduce mercury in the New Zealand and global waste stream, and ensure that New Zealand does not become a dumping ground for mercury products that no other country accepts.
51. Relevant resource management requirements and long-term environmental policy trends have resulted in laws and regulations controlling mercury emissions, releases, storage, disposal and contaminated sites. These requirements are broadly in line with those in the Convention.

Economic effects

52. Ratifying the Convention would have a low overall impact on the economy. Most obligations are met under existing practice, and the remaining few obligations do not require significant changes to New Zealand law or practice.
53. There are three possible negative economic effects.
54. The “Potential disadvantages” section notes a low risk that transitioning away from some Listed Products may increase costs on consumers. To some extent, this risk arises regardless of ratification, because other countries manufacture these products and can phase them out

under the Convention by themselves. The Convention provides sufficient flexibility to ensure that New Zealand can select appropriate phase-out dates based on the impacts on industry, and the phase-out dates of other countries. As an example, **Appendix 1** details New Zealand's use of the Listed Products in 2012.

55. Secondly, there may be minor administrative costs to apply to import or export mercury or specific mercury mixtures. This cost is not likely to be significant. In any case, New Zealand will also face these costs as trading partners become Parties to the Convention. The reason for this de facto compliance is because the Convention requires a similar certification for trade with non-Parties. This low cost will therefore eventuate regardless of whether New Zealand ratifies the Convention.
56. Lastly, there is a remote possibility that guidance on "best available techniques and best environmental practices" could exceed existing New Zealand emissions controls. Agreed Facilities established 5 years or more after the Convention enters into force are required to meet guidance developed by the Conference of the Parties on "best available techniques and best environmental practices" for mercury emissions. As noted above, it is very unlikely that internationally agreed guidance would exceed New Zealand's existing requirements. The scope of the existing Agreed Facilities in 2012 is attached as **Appendix 2** (although "best available techniques and best environmental practices" will apply to new facilities only, not existing ones).

Social and cultural effects

57. There are no specific cultural or social effects anticipated by the treaty action.

The costs to New Zealand of compliance with the treaty

58. There would be minor fixed financial costs required to comply with the Convention. Parties will face two types of financial obligations after the Convention enters into force (likely 2016 or 2017).
59. The first cost is an international subscription to help pay for the Secretariat, and the administrative costs of the Convention. While the exact cost will not be confirmed until the Convention is operational, other similar Conventions require \$10,000 to \$20,000 NZD per year, per Convention. This cost can be met through Vote Environment's existing non-departmental appropriation "International Subscriptions".
60. New Zealand would also be required to contribute "within its capabilities" to the Global Environment Facility Trust Fund ("GEF"), to assist developing countries to implement the Convention. New Zealand and other countries already contribute to the GEF under other UN agreements. Negotiations on how much countries will contribute to the GEF happen every four years, with the next round finishing in 2014. New Zealand's final contributions will be decided in the next round of negotiations, and will be met as part of New Zealand's regular contributions to the GEF.
61. There are unlikely to be any hidden costs for Government outside of minor administrative costs for the EPA and Customs, and the cost of creating a Bill. Maintaining inventories of emissions and releases will be a minor on-going cost, but are already taking place and can continue to be

met through the Vote Environment multi-class output appropriation “Environmental Management Obligations and Programmes”.

Completed or proposed consultation with the community and parties interested in the treaty action

62. The following Government agencies have been consulted in the preparation of this NIA: MFAT, the Ministry of Business, Innovation and Employment, the Ministry for Primary Industries, the New Zealand Customs Service, the Department of Conservation, the Ministry of Health, the EPA, the New Zealand Transport Agency, and the Treasury.
63. Consultation on the Convention has taken place in a number of ways.
64. In 2009, MFE commissioned an inventory of mercury sources, uses and levels for 2008, which identified the most common uses of mercury. This inventory required broad contact with industry, representative bodies, and central and local government, and was completed in accordance with a UNEP Toolkit designed to identify expected sources of mercury use. This engagement identified users of mercury, and levels of use.
65. In 2010, the Environmental Risk Management Authority (“ERMA”, now the EPA) approached mercury users from that inventory with a discussion document, “Negotiations for a Global Legally Binding Agreement on Mercury”. This consultation sought general support for some type of mercury convention to inform the New Zealand negotiating position in the second round of negotiations. Approximately 49 companies, industry bodies, local councils and government agencies were approached directly for their views and comments on particular issues, and the discussion document was released to the public in general through the ERMA website. Only 19 responses were received, but these were generally supportive of a mercury Convention. These views were used to develop New Zealand’s interests for the negotiations, particularly those relating to recovery of waste mercury, contaminated sites, primary mining, and relevant emissions sources.
66. Throughout 2010 to 2013, MFE undertook targeted consultation with industry bodies, companies, government departments, non-Governmental organisations and local councils to seek views on uses of mercury, interests and proposed text. This engagement was also used to inform New Zealand’s interests, and negotiating positions.
67. In 2012, MFE identified iwi living in areas with potentially increased mercury levels, and invited these groups to provide any concerns, views or issues with the direction of the negotiations. No responses were received.
68. In 2013, MFE commissioned a second mercury inventory. This inventory required direct contact with approximately 170 industry stakeholders, councils, and government agencies to estimate mercury use in 2012. This inventory was based on an updated UN toolkit to identify known uses of mercury. Organisations were informed that a mercury convention text had been agreed, and information on mercury use was sought.
69. The groundwork laid through this consultation and engagement has provided a good understanding of the impacts of the Convention on New Zealand. This view will be supplemented by further consultation on expected phase-out dates, both with New Zealand industry and international trading partners.

70. Once appropriate phase-out dates are selected, these will also be tested through the legislative consultation to implement the Convention. As a result of the consultation to date, mercury stakeholders will be well-primed to engage in this further consultation.

Subsequent protocols and/or amendments to the treaty and their likely effects

Amendment process

71. The Articles of the Convention may be amended under Article 26. Any Party may propose amendments, which the Secretariat must communicate to Parties at least six months before a meeting to adopt them. Amendments are adopted by a three-fourths majority of Parties present and voting, but only become binding on Parties that ratify, accept or approve the amendment.
72. The Articles of the Convention can be contrasted to the annexes. The Articles set out substantive obligations, while the annexes set out lists that are subject to the Articles (for example, the Listed Products are in an annex, while the obligations to phase them out is in an Article).
73. Under Article 27, the process to amend annexes is slightly different from Articles. Amendments to annexes are proposed and adopted in the same way, but become automatically binding after one year, except on Parties that object (tacit acceptance). Parties can choose, however, that amendments to annexes only apply to them if they lodge a new, specific ratification, acceptance or approval (explicit acceptance). Parties must make it clear which form of acceptance will apply to them when they first become a Party to the Convention.
74. Guidance on “best available techniques and best environmental practices” is also relevant. While not an “amendment”, it is binding on Parties under Article 8. Parties must ensure that Agreed Facilities established later than 5 years after the Convention comply with “best available techniques and best environmental practices”. As described above in the “Potential disadvantages” section, it is considered very unlikely this guidance would require amendments to New Zealand’s existing environmental controls. No other guidance is binding in this way.

Likely amendments and non-binding guidelines

75. No amendments to the Articles are anticipated at this time. The Convention notes that new annexes may be developed in future establishing requirements around environmentally sound interim storage of mercury, and mercury wastes. These annexes would be subject to the annex adoption and entry into force procedures outlined in paragraphs 71 to 73 above.
76. Conferences of the Parties must also adopt various non-binding guidelines. These guidelines will include the permit process for trade in mercury and specific mercury mixtures, criteria for deciding how much mercury is being emitted from different sources, best available techniques and best environmental practices for releases of mercury to land and water, inventory methodologies, and finance.
77. The Conference of the Parties will review the Listed Products in Annex A and the manufacturing processes in Annex B within five years of the Convention entering into force.

Withdrawal or denunciation provision in the treaty

78. Article 33 sets out withdrawal from the Convention. Any Party may withdraw by giving written notification to the Secretary-General, at any time after three years after the Convention entered into force for them. Withdrawal takes effect either one year from the date of that notification, or any later date specified.

Agency Disclosure Statement

79. There would be no significant impact on New Zealand's economic growth forecast as a result of the implementation of the Convention, but legislative changes are required. Therefore, MFE has determined the adequacy of this NIA, and it has been reviewed by MFAT.
80. This NIA analyses whether it is in New Zealand's interest to ratify the Minamata Convention on Mercury. There are no key gaps, assumptions or dependencies in the analysis other than those identified in this paper. Similarly, there are no significant constraints, caveats or uncertainties concerning the analysis beyond those noted.
81. The primary uncertainties identified are:
- **Exact funding value known when Convention operational**
The Convention prescribes two types funding: an annual subscription to assist with the administration of the secretariat, and voluntary contributions to assist with developing country's to implement the Convention. The exact value of this funding will remain uncertain until the Convention is operational. Similar subscriptions to other Conventions have been \$10,000 to \$20,000 per Convention, per year. New Zealand's level of voluntary funding will be decided through GEF replenishment negotiations in 2014.
 - **Potential cost of transition to Listed Product alternatives**
Alternatives are largely available for the Listed Products, and New Zealand can time its phase-out to ensure consistency with international trends and a minimal impact on businesses. However, it is possible some costs could be required to transition to some alternatives. New Zealand does not manufacture these products, so will be reliant on international markets whether a Party to the Convention or not.
 - **Relevant legislation currently under review**
Some legislation identified is currently under review (for example the RMA, HSNO and the Health and Safety in Employment Act 1992). It will be important to monitor these amendments to ensure that relevant obligations in the Convention are taken into account.
 - **Guidelines to be developed on "best available techniques and best environmental practices" for new Agreed Facilities**
Guidance on "best available techniques and best environmental practices" will be developed at the first Conference of the Parties. Any Agreed Facilities established later than 5 years after the Convention enters into force for that country will need to comply with this guidance. It is highly unlikely that New Zealand would need to change environmental controls to implement this obligation, and this risk is considered very low.
82. Ratification and implementation of the Convention will not impair private property rights, market competition, or the incentives on businesses to invest, nor will it override fundamental

common law principles. It may impose minor additional costs on importers and exporters of mercury and specific mercury mixtures. However, ratification is considered likely to benefit New Zealand overall.

83. This NIA follows strictly the guidelines under Standing Order 395, thoroughly establishing the rationale for New Zealand's implementation of the Convention. MFE's view is that the paper clearly demonstrates that the benefits of implementation outweigh the identified costs and risks.

Appendix 1: New Zealand's 2012 use of Listed Products to be phased-out under the Convention

Note that New Zealand does not manufacture any of the Listed Products.

| Types of specified products | Use in New Zealand to be phased out |
|--|--|
| Batteries | <p>Mercury oxide batteries (0.19% of 2012 battery imports) and zinc air batteries with a mercury concentration greater than 2% (between 0 and 5% of 2012 battery imports).</p> <p>These batteries are primarily used in older forms of technology, and are being phased out in favour of newer alternatives.</p> |
| Switches and relays | <p>There is an indefinite exemption for switches and relays where no feasible alternative exists.</p> |
| Lamps – CFLs and LFLs | <p>This category is primarily mercury-containing energy saver light bulbs (“CFLs”) and fluorescent tube lights (“LFLs”), with mercury contents above certain thresholds.</p> <p>The large majority, if not all, of these types of lamps imported into New Zealand are below thresholds, and would be unaffected by this obligation.</p> |
| Lamps – HPMVs | <p>High pressure mercury vapour lamps are primarily used domestically in older street lights – a study in 2001 estimated that approximately 20% of New Zealand street lights remain HPMV (or approximately 39,525).²¹</p> <p>The New Zealand Transport Agency recommends alternatives to HPMV lights both due to whole-of-life value and performance, and HPMV lamps are already being phased out. Councils will be consulted on appropriate phase-out dates.</p> |
| Lamps – CCFLs and EEFLs | <p>These lamps are primarily found in liquid crystal display (“LCD”) screens in televisions and computers. Industry representatives indicate that these lamps are being phased out.</p> <p>There is an indefinite exception where feasible mercury-free alternatives are not available.</p> |
| Certain mercury containing cosmetics | <p>Cosmetics containing mercury are either banned in New Zealand, or fall within exceptions to the Convention.</p> |
| Pesticides, biocides and topical antiseptics | <p>There are no mercury pesticides or biocides registered in New Zealand. Ministry of Health states it is unlikely there are any topical antiseptics containing mercury in New Zealand, and certainly not in any significant amount. The impact on New Zealand of phasing these products out is expected to be minimal.</p> |
| Electronic measuring devices with feasible mercury-free alternatives | <p>Major users such as larger hospitals, the New Zealand Meteorological Service and calibration facilities are phasing out most uses of mercury in these instruments.</p> <p>There is an indefinite exception where feasible mercury-free alternatives are not available.</p> |

²¹ Stewardship Solutions (2008). *New Zealand Lighting Industry Product Stewardships Scheme: Phase 1: Assessment and Review*. Prepared for Lighting Council and New Zealand the Electricity Commission, page 18 sourcing Energy & Technical Services Ltd (2001) *EECA Street Lighting Energy Efficiency Study*, published by the Energy Efficiency and Conservation Authority (EECA).

Appendix 2 – New Zealand’s 2012 Agreed Facilities listed for emissions under the Convention

Note that existing Resource Management Act 1991 controls are sufficient to meet obligations towards these facilities, but any **new** facilities established later than 5 years after the Convention enters into force for New Zealand would be required to meet guidance on “best available techniques and best environmental practices” for mercury emissions.

| Specified emissions sources | Facilities in New Zealand |
|--|--|
| Coal-fired power plants | There is one power station with four coal-fired units (Huntly). |
| Coal-fired industrial boilers | There are up to 180 coal-fired industrial boilers operating in New Zealand, mainly in small operations of between 0.2 and 20 MW, but up to 43 MW. The boilers affected will depend on guidance from the Conference of the Parties about the definition of “industrial”, and how to estimate the 75% of emissions subject to obligations. This guidance is anticipated to target only the largest boilers. |
| Smelting and roasting processes used in the production of: <ul style="list-style-type: none"> • Lead; • Zinc; • Copper; and • Industrial gold. | There are no smelting and roasting processes for lead, zinc or copper in New Zealand. There are also no smelting processes for industrial gold in New Zealand, and no traditional “roasting” processes. The Macrae’s mine in Otago does use a form of heat extraction however. Although it is unclear whether this would be a “roasting process” under the Convention, the potential obligations would already be met by the RMA in any case. The Macrae’s mine processes approximately 73% of New Zealand’s industrial gold. New Zealand’s industrial gold production in 2012 was 10.2 tonnes. |
| Waste incineration facilities | There is one hazardous waste incinerator in New Plymouth, and a ban on any further hazardous waste incineration facilities anywhere else in New Zealand. There is one medical waste incinerator in Greymouth, and a sewage sludge incinerator in Dunedin. |
| Cement clinker production facilities | There are two cement plants in operation, currently operating in Northland (Golden Bay) and on the West Coast (Holcim). The Holcim plant has announced it will close in 2015 or 2016. |