

Stakeholder Consultation on Transition from Mercury-Containing Thermometers and Sphygmomanometers to Mercury-Free Alternatives

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Toxics Link
for a toxics-free world

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Date	23 June 2026
Venue	Toxics Link Office, New Delhi
Time	11:00 AM - 2:00 PM
Meeting Type	Stakeholder Consultation (Interactive)

1. Introduction

Toxics Link organized a stakeholder consultation on 23 June 2026 at its office in New Delhi to discuss the transition from mercury-containing thermometers and sphygmomanometers to mercury-free alternatives. The consultation was convened as part of Toxics Link's ongoing engagement with India's mercury phase-out agenda under the Minamata Convention on Mercury, and forms part of a broader field-research and outreach effort with manufacturing clusters in Delhi-NCR, Ambala, Sonipat, and Pune.

The meeting brought together manufacturers of mercury-based and mercury-free thermometers and sphygmomanometers, traders and distributors, and representatives of Toxics Link and the World Health Organisation (WHO) India, in an interactive format designed to surface first-hand industry concerns, encourage peer-to-peer learning among manufacturers, and chart a collaborative way forward. The complete list of attendees is provided at Annexure-I.

2. Welcome and Opening Session

2.1 Welcome Address - Dr. Hema Patel, Senior Programme Coordinator, Waste & Sustainability, Toxics Link

Dr. Hema Patel welcomed the participants and introduced Toxics Link as a not-for-profit environmental organisation working to address knowledge gaps on toxicity and waste, with a particular focus on vulnerable and marginalised communities. She noted that the organisation works across the domains of waste and sustainability, chemicals and health, and information and communication, and has been engaged with mercury-related issues for over three decades.

She underlined the well-established toxicity of mercury, noting that the World Health Organisation lists it among the top ten chemicals of major public health concern. Mercury bio-accumulates and biomagnifies through food chains and ecosystems, with human exposure occurring mainly through inhalation of elemental mercury vapour and consumption of fish contaminated with methylmercury. She explained that exposure can cause severe neurological damage, kidney dysfunction, and developmental disorders, with children and early life stages being particularly vulnerable. Dr. Patel added that mercury-containing medical devices such as thermometers and sphygmomanometers pose occupational health risks to healthcare workers and patients alike, given the potential for breakage and release of mercury vapour.



She concluded by summarising the global and national commitments toward phasing out mercury, referencing the Minamata Convention on Mercury as well as notifications issued by the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Environment, Forest and Climate Change (MoEFCC), both of which are actively working towards a mercury-free healthcare sector in India.

2.2 Opening Remarks and Context Setting - Mr. Satish Sinha, Associate Director, Toxics Link

Mr. Satish Sinha set the context for the consultation, tracing Toxics Link's engagement with mercury phase-out in India over more than 25 years. He recalled that 153 countries came together under the United Nations Environment Programme to negotiate and adopt the Minamata Convention on Mercury, a binding international treaty designed to protect human health and the environment from anthropogenic mercury emissions and releases; India ratified the treaty in 2018.

Mr. Sinha noted that Toxics Link has played an important role in shaping India's mercury policy at both the national and international level, having participated in meetings of the Minamata Convention and contributed to India's engagement with the treaty. He informed participants that at the sixth Conference of the Parties (COP-6), held in Geneva in November 2025, decisions were adopted granting extensions of temporary exemptions from phase-out obligations for certain categories of mercury-added products to three countries - India, Bangladesh, and Thailand.

He identified a major challenge emerging from Toxics Link's field research: a lack of clarity regarding the import and use of mercury, making it difficult to distinguish manufacturers importing mercury for their own device production from those supplying it onward to other manufacturers or into the black market. He noted that Toxics Link has worked on mercury issues since 2003, well before the Minamata Convention came into effect in 2013, and that the Government of India has issued office orders and directives on the phase-out and safe disposal of mercury since 2007. Despite this history, he observed that a communication gap persists, with many stakeholders across the value chain - including manufacturers, traders, and distributors - not fully aware of the regulatory timelines or the support available to facilitate a smooth transition.



Mr. Sinha presented the list of mercury-added products under Annex A of the Minamata Convention along with the revised phase-out timelines, informing participants that the manufacture, import, and export of most mercury-added healthcare devices must end by 2030, while the phase-out deadline for dental amalgam is 2034. He also noted that MoEFCC issued a notification on 20 April 2026 to phase out mercury-added products in India by 2030, and that Article 3 of the Convention regulates the primary mining of mercury, with mining operations (including in Tajikistan) set to cease after the 2030 phase-out. He closed by stating that the purpose of the meeting was to hear directly from industry representatives, understand their concerns, facilitate peer-to-peer learning, and chart a way forward collaboratively.

3. Address from Ms. Anu Agrawal, World Health Organisation (WHO), India

Ms. Anu Agrawal briefed participants on the current regulatory status. She explained that WHO India is working closely with the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Ministry of Health and Family Welfare (MoHFW) to support a smooth transition towards the manufacturing of mercury-free products.

She informed participants that MoEFCC has written to relevant ministries regarding the COP-6 decisions on the Minamata Convention, prohibiting the manufacture, import, and export of mercury-added products, including thermometers and sphygmomanometers, by 2030, and that several states have already issued their own phase-out orders for hospitals. She was clear that there will be no further extension beyond 2030.

Ms. Agrawal clarified that the government is not seeking to immediately shut down existing licence holders, and wants to create space for an orderly transition, recognising the financial and operational challenges involved. She suggested that the Legal Metrology Department and the National Physical Laboratory be consulted on the standardisation of alternative devices, and noted that directions are being issued to remove mercury instruments from the Government e-Marketplace (GeM) Portal, since these cannot be used beyond 2030, and to guide the disposal of existing stock. In response to a point raised during the meeting that mercury-based thermometers are still used in the education sector, she suggested that the Directorate General of Health Services (DGHS) issue a letter to the Ministry of Education to discontinue their use for educational purposes.

4. Issues, Concerns and Challenges Raised by Manufacturers

4.1 Licensing and Regulatory Concerns

- Manufacturers raised concerns about the implementation of Central Drugs Standard Control Organisation (CDSCO) regulations on certification for mercury-based thermometer manufacturers.
- Several participants noted that obtaining a licence is difficult and costly, and that securing a new CDSCO licence for alternative products is an equally challenging process.

4.2 Technical and Manufacturing Challenges

- Manufacturing mercury-free alternatives (digital thermometers and sphygmomanometers) requires different machinery, raw materials, and technical know-how, which many existing manufacturers do not currently possess in-house.
- Workers engaged in mercury thermometer manufacturing need training to produce alternative devices; the cost and arrangement of such training is a major concern, particularly for small manufacturers.
- The lack of designated training centres and courses was flagged as a significant gap, with participants suggesting that the government establish training centres in collaboration with industry.
- Participants noted the absence of indigenous technology for manufacturing alternative devices, and that developing such technology would require significant investment in research, development, and manufacturing.

4.3 Accuracy and Standardisation Concerns of Alternative Devices

- Concerns were raised about the accuracy and standardisation of digital and mercury-free alternatives currently available in the market.
- While ISO standards for mercury-free alternatives exist internationally, participants noted that their adoption and enforcement in India needs to be clarified and strengthened.
- Some participants perceived that certain digital alternatives available in the Indian market do not meet adequate quality standards, and called for regulatory guidance from CDSCO on quality benchmarks for approved alternatives.
- Participants highlighted the absence of government facilities for testing the accuracy and quality of alternative instruments, and stressed the urgent need for sufficient, cost-effective testing laboratories, with accuracy ideally regulated through ISO/BIS lab testing.

4.4 Market and Economic Concerns

- Demand for mercury thermometers persists due to their perceived accuracy and continued institutional requirements, compared with digital alternatives.
- Dependence on imported components from China for digital thermometer and sphygmomanometer manufacturing was flagged as a supply-chain vulnerability.
- Many distributors and retailers remain unaware of the phase-out timeline, contributing to market uncertainty.
- Participants noted that the import of mercury and mercury-containing components is already becoming restricted, and requested clarity on the future mercury supply trajectory.

4.5 Waste and Disposal Concerns

- Participants noted the absence of a robust system for the collection and disposal of mercury-containing devices already in circulation.

5. Experience Sharing - Manufacturers of Mercury-Free Alternatives

Manufacturers who have already transitioned, either fully or partially, to mercury-free alternatives shared their experience with the group.

- Several manufacturers reported having successfully shifted to digital thermometer production, noting that although the transition involves initial capital and training investment, it is feasible.
- Some manufacturers described a production mix of approximately 60% mercury-free and 40% mercury-based blood pressure monitors, driven primarily by demand from hospitals and institutional buyers.
- One thermometer manufacturer who has shifted to digital production disputed the perception of accuracy problems in digital thermometers, noting that device cost is largely determined by one or two imported components, and that device lifespan depends heavily on the quality of imported printed circuit boards (PCBs).
- Peer knowledge-sharing was highlighted as a critical enabler, with manufacturers who have already transitioned expressing willingness to support others on raw material sourcing, process changes, and meeting quality standards.
- Participants urged Toxics Link to request the government to permit the legal import of mercury for a period of one to two years during the transition, to support a smooth shift to mercury-free thermometer and sphygmomanometer manufacturing.



6. Way Forward and Recommended Actions

The following action points were agreed upon or recommended by participants:

- Government to set up designated training centres for re-skilling workers in mercury-free device manufacturing, in collaboration with industry.
- State governments to operationalise mercury waste collection mechanisms for devices already in circulation, in line with central government directives.
- CDSO or BIS to issue clear quality and accuracy standards for mercury-free alternative devices (thermometers, sphygmomanometers) to address concerns about substandard products.

- Components for alternative thermometers and sphygmomanometers to be manufactured in India through industrial collaboration, for both laboratory and healthcare devices.
- Sufficient and cost-effective testing laboratories to be made available to manufacturers to ensure the accuracy of alternative devices.
- Toxics Link to convey to the government the industry's request to facilitate legal import of mercury for one to two years for transitioning thermometer and sphygmomanometer manufacturers.

7. Closing Remarks

Mr. Satish Sinha thanked all participants for their valuable inputs and reiterated that the purpose of the consultation was to ensure a smooth, equitable, and well-supported transition, rather than to create disruption for the industry. He noted that manufacturers, traders, government, and civil society must work together to ensure that India meets its Minamata Convention commitments by 2030.

Participants were encouraged to stay engaged through subsequent consultations and to share information with the Toxics Link team on their specific mercury requirements, to help facilitate import licences of mercury for a one-to-two-year transition period.

