

Mercury Phase-Out Meeting with Thermometer Manufacturers

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Toxics Link
for a toxics-free world

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Ambala, Haryana

Date	22nd May 2026
Venue	Ambala, Haryana
Organised by	Toxics Link
Participants	13 mercury thermometer manufacturers from the Ambala region (laboratory and clinical thermometers)
Nature of Meeting	Interactive meeting on Minamata Convention compliance with mercury thermometer manufacturers
Subject	Mercury phase-out: regulatory update, transition pathways, and manufacturer concerns

1. Introduction

A meeting on mercury phase-out was convened by Toxics Link in Ambala, Haryana on 22nd May 2026 to provide thermometer manufacturers with a comprehensive briefing on India's obligations under the Minamata Convention on Mercury, and to create an open platform for manufacturers to raise concerns regarding the transition away from mercury-based instruments.

Thirteen manufacturers from the Ambala region participated, representing a significant portion of India's industrial and laboratory thermometer production community. The majority of those present were engaged in the manufacture of industrial and laboratory thermometers - including precision mercury thermometers, high-temperature industrial variants, and instruments for laboratory glassware - while a smaller number were involved in clinical thermometer production.

The meeting formed part of Toxics Link's broader engagement with mercury device manufacturing clusters across India, aimed at supporting a compliant and well-informed transition ahead of the country's 2030 mercury phase-out deadline under the Minamata Convention.

2. Opening Session and Participant Introductions

The session opened with brief introductions from all participants, during which manufacturers highlighted their individual concerns regarding the transition away from mercury measuring devices. This was followed by an address from Mr. Satish Sinha, Associate Director, Toxics Link, who spoke briefly on India's historical engagement with mercury and the shifts that have taken place across mercury-using sectors more broadly. The introductions established a shared framework of concerns and expectations for the discussions that followed.



3. Technical Session I: Mercury - History, Hazards, and the Minamata Convention

3.1 A Metal with a Long and Troubled History

Mr. Satish Sinha recounted several of history's most consequential mercury poisoning events - incidents that ultimately gave the global treaty its name and its urgency.

Historical Mercury Disasters: The Turning Points

- Minamata, Japan (1950s-60s): Industrial wastewater from a chemical plant contaminated Minamata Bay. Mercury biomagnified through the aquatic food chain, reaching dangerous concentrations in fish. Thousands of residents who consumed the fish suffered severe neurological damage - tremors, sensory loss, cognitive impairment, and in many cases, death; children were born with profound disabilities. The disease now bears the name of the city: Minamata Disease.
- Iraq (1971-72): Methylmercury-treated grain seed - intended for planting, not consumption - was mistakenly used as food. Thousands were hospitalised and hundreds died in one of the largest mercury poisoning outbreaks in history.
- Kodaikanal, India: A thermometer factory disposed of mercury-contaminated waste near a lake area, causing lasting environmental damage and community health impacts. The case became a landmark in Indian environmental activism and illustrated the consequences of inadequate industrial mercury management.

These disasters demonstrated a critical property that makes mercury uniquely dangerous: biomagnification. Unlike many pollutants, mercury accumulates and intensifies as it moves up the food chain - meaning that even low levels of environmental contamination can result in high and harmful concentrations in organisms at the top of the chain, including humans. Mr. Sinha also stressed the need for extreme caution while handling mercury during thermometer production, since mercury evaporates at room temperature, may cause a serious risk to human health.

3.2 The Minamata Convention: A Binding Global Treaty

In response to this body of evidence, 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 became a signatory in 2018, formally committing to phase out mercury across specified sectors. The Convention allows member countries to apply for phase-out extensions, subject to a firm ceiling of two extensions per country. India has now exercised both extensions, and the country's final deadline for mercury phase-out stands at 2030, with no further recourse available.

India's Treaty Position at a Glance	
Joined the Minamata Convention	2018
Maximum extensions permitted per country	2 (India has used both)
India's final mercury phase-out deadline	2030
Post-2020 mercury imports	Strictly regulated in India
Mercury recycling / refining infrastructure	Not established in India (active in Japan, Germany, China)

4. Technical Session II: Regulatory Framework and Compliance Requirements

4.1 The Import Regime After 2020

Following 2020, mercury imports into India became subject to strict regulatory controls. A valid licence is mandatory for the import of mercury or any mercury-based device, without exception. Any procurement outside official government channels is illegal and exposes manufacturers to serious legal and regulatory risk.

4.2 A Bridging Pathway: Direct Import Licences

Recognising that a complete overnight transition is not feasible for all manufacturers, it was confirmed that a transitional mechanism is available: thermometer manufacturers can apply directly to the Ministry of Environment, Forest and Climate Change for a mercury import licence covering a period up to 2030. This provides a compliant, legal supply pathway during the transition window, without requiring manufacturers to immediately leave existing product lines.

4.3 The Post-2030 Horizon

After 2030, mercury imports into India will be negligible, reduced to the smallest possible quantities needed for residual, tightly regulated uses. Manufacturers of mercury-based devices who have not transitioned to alternative technologies by that point will face severe supply constraints and legal exposure.

5. Discussion: Manufacturers' Concerns

The floor was then opened to manufacturers, who raised a range of concerns - practical, technical, and reflective of the genuine anxiety of small business owners confronting a significant structural change to their industry. The concerns are recorded below as they were discussed.

5.1 Securing Mercury Supply During the Transition

- Multiple manufacturers sought clarity on how to procure mercury legally through official channels. Mr. Satish Sinha confirmed the direct import licence route via the Ministry of Environment, Forest and Climate Change, the focal point for the Minamata Convention.
- There was community concern about the risk of continued dependence on informal supply chains. Manufacturers were strongly advised to formalise their procurement through government channels without delay.

5.2 Technology Transition: Acquiring Alternative Manufacturing Capability

- The most widely shared concern was the practical challenge of transitioning to alternative thermometer manufacturing - specifically, how to acquire the technology, plant, and machinery needed to manufacture digital or other non-mercury thermometers.
- Manufacturers noted that their customer base - industrial companies and laboratories - is itself under regulatory pressure to eliminate mercury-based instruments from procurement lists, and is actively requesting alternatives. The demand signal for transition is clear; what is lacking is supply-side support.
- Manufacturers requested that the government issue clear, actionable guidelines covering the machinery, production processes, and capital investment required to set up alternative thermometer manufacturing facilities, particularly for the laboratory segment, which presents distinct technical challenges compared to clinical thermometers.

5.3 The Laboratory Thermometer Segment: A Specific Gap

- A pointed concern was raised regarding the component supply chain for laboratory thermometers. PCB manufacturers and component importers have oriented their supply chains primarily toward clinical thermometer manufacturers, leaving laboratory thermometer producers without access to the specific components needed to transition to digital alternatives.
- Manufacturers requested government facilitation to enable importers to supply laboratory thermometer components on the same terms as clinical components, and sought regulatory guidance to formalise this pathway.
- It was also noted that laboratory glassware currently relies on mercury for calibration. Transition standards and alternative calibration methods for laboratory instruments need to be developed and notified by appropriate standards bodies such as the Bureau of Indian Standards (BIS).

5.4 Protecting the Livelihoods of Small Manufacturers

- Several participants stressed that the thermometer manufacturing cluster in Ambala is composed predominantly of micro and small enterprises, many of them multi-generational family businesses. The concern was expressed directly: small manufacturers must not be left behind in a transition that was designed for their protection, not their loss.
- Manufacturers requested that transition support schemes - covering retraining, capital subsidies, and technology access - be designed specifically with small-scale producers in mind, in coordination with the Ministry of MSME.

5.5 A Note on Accuracy: Setting the Record Straight

Mr. Satish Sinha addressed a concern raised informally that alternative thermometers may be less accurate than mercury thermometers. This was firmly corrected: the scientific and technical evidence is clear that modern alternative technologies, including digital thermometers, are as accurate as traditional mercury thermometers. Manufacturers were urged not to use accuracy as a basis for resisting transition, and to avoid making misleading statements to customers or policymakers on this point.

6. Agreed Actions and Next Steps

1. Manufacturers to apply for direct mercury import licences through the Ministry of Environment, Forest and Climate Change for a two-to-three-year transitional supply window.
2. The industry association and manufacturing community, along with the Ambala Chamber of Commerce, to formally write to the Ministry of Environment and the Ministry of Health requesting a structured joint consultation meeting.
3. Experts to provide manufacturers with necessary information on the procedure for legal mercury imports, and to approach the government as an association of manufacturers.
4. Manufacturers, collectively through the association, to submit a formal request to the government for guidelines on alternative thermometer manufacturing, covering plant, machinery, components, and technology transfer mechanisms.

5. The association to take up with regulatory authorities the specific gap in component supply for laboratory thermometer manufacturers, and to request directives enabling importers to serve this segment.
6. A follow-up tri-ministerial consultation (Environment, Health, MSME) to be sought, with the Ambala Chamber of Commerce as the coordinating body.
7. All manufacturers to conduct internal audits of existing mercury stock and procurement sources, and begin the process of formalising supply through government channels.

7. Closing Remarks and Way Forward

The meeting concluded with an acknowledgement that the path ahead - while demanding - is navigable. The regulatory trajectory is fixed: India's mercury phase-out commitment is a legal obligation, and 2030 is an immovable deadline. Both Toxics Link and the industry stakeholders present affirmed that the transition need not mean the end of thermometer manufacturing in Ambala, only its transformation.

The expertise, infrastructure, and skilled workforce that have made Ambala a significant centre of precision instrument and laboratory thermometer manufacturing are assets that can be redeployed toward alternative technologies. The next steps agreed at this meeting are intended to ensure that no manufacturer is left to navigate the transition alone. Mr. Satish Sinha assured manufacturers that their concerns would be conveyed to ministry representatives.

The meeting was formally closed, with a follow-up communication to be issued by the association to all participants, summarising the action points and providing guidance on the ministry contact approach.

Annexure: List of Participants

- Mr. Satish Sinha, Associate Director, Toxics Link
- Dr. Hema Patel
- Mr. Vinod Kumar

Laboratory Mercury Thermometer Manufacturers

S. No.	Manufacturer Name and Address	Contact / Email
1	Vishal Arora, J K India Instrument Pvt. Ltd., Village Manglai, Ambala Cantt.	9416070301 / jksscientific@gmail.com
2	Piyush Jain, Almin, 3663, Kali Bari Road, Ambala Cantt.	9812132977 / almin_ambala@yahoo.co.in
3	Parmanand Saini, Precision Thermometer, 2626 Timber Market, Ambala Cantt.	9355690332
4	Amarjeet Singh, Vichiter Thermometer, 3704/19 Pamnol Cottage.	9416141141 / Singhharmohinder17@gmail.com
5	Om Dutt, Parash Deluxe Thermometers, C-168/1 Khajuri Khas, Delhi 110094.	9210784844 / omdutt@gmail.com
6	Harbans Lal, Sainco Thermometer, 58, New Palam Vihar, Ambala Cantt.	8295449069 / Saincothermometer00@gmail.com
7	Yash Kirti Sharma, Shan Thermometer & Glass Work, 17-C Nisnat Bagh, Ambala Cantt.	9416027617 / shanthermometer@gmail.com
8	Mukesh Kumar Saini, M K Thermometer.	8950105464
9	Sohan Lal, Shan Scientific Industries, Ambala Cantt.	9416889817
10	Vikram Chaudhary, President, ASIMA.	9812007073 / idealpackagine@gmail.com

Clinical Thermometer Manufacturers

S. No.	Manufacturer Name and Address	Contact / Email
1	Ram Mehar Rana, Maharana Thermometers, 40/6, Kumhar Gate, Sonapat, Sonipat-131001, Haryana.	9896802778 / maharanathermometerind@gmail.com
2	Shiv Kapoor, Hanimax Thermometers, F-81, Vishnu Garden, New Delhi-110018.	9810058226 / 7011169339 / Hanimax_78@rediffmail.com
3	Rajiv Kapoor, Thermoplast, RZ-16, Sayyad Nangloi Gaon, New Delhi-87.	9811546466 / thermoplast555@gmail.com