

**Stakeholder Consultation**  
**on**  
**EPR Framework for E-Waste Management**

Sept 01, 2025 | Indian International Centre, New Delhi



## Toxics Link Towards a Robust EPR Framework for E-Waste Management



Toxics Link organised a stakeholder consultation to discuss the growing challenges of e-waste in India, evaluate the effectiveness of the E-waste Management Rules 2022 and the implementation challenges, share global best practices and deliberate on how to strengthen the Extended Producer Responsibility (EPR) framework.

The meeting titled “Towards a Robust EPR Framework for E-Waste Management” was held on September 1, 2025 at the India International Centre, New Delhi.

Highlighting on India’s digital growth and its impact on material demand, the first speaker Dr Sandip Chatterjee, Senior Advisor, Sustainable Electronics Recycling International (SERI), said digital technologies are material-intensive as modern devices use over 60 elements of the periodic table compared to just 10 in the 1990s. He pointed out that India is the third-largest e-waste generator (~4.17 million metric tonnes) and expressed concern over data reliability on recycling and material recovery. He warned that inaccurate reporting on the Central Pollution Control Board (CPCB) portal could affect policies and industry.

Dr Chatterjee threw light on exclusion of bulk consumers in the 2022 EPR Rules, increase in GST from 5% to 18% and shrinking number of registered recyclers (from 600–700 in 2016 to ~384). Expressing concern over data security in e-waste recycling (personal and institutional data leakage), he informed that 70% of e-waste is still being processed informally and recommended integration of informal workers through MSME cluster models. He also suggested adoption of international standards (R2, ISO, TCO) to enhance credibility and enable exports, recognition of refurbishment

as a sustainable business model, and stronger audit mechanisms and third-party oversight to prevent certificate trading and ensure compliance to strengthen EPR framework.

The second speaker Mr Anand Kumar, Consultant, Manufacturers Association of Information Technology (MAIT) and Former Additional Director and Divisional Head of Waste Management-III Division, CPCB, provided a historical overview of India's e-waste regulations and said the 2011 Rules introduced dismantlers and recyclers but required state-level authorisations; the 2016 Rules shifted to central authorisation via CPCB and introduced collection targets and EPR plans; and 2022 Rules digitised the system with an online portal, expanded scope with 106 equipment categories, and formally recognised refurbishers.

Sharing details from the EPR portal, he said that over 10,000 entities (mostly producers/importers) have registered, around 384 recyclers and 75-80 refurbishers are active, environmental compensation (EC) guidelines have been established to penalise violations, and certificates linked with GST invoices are being issued to ensure traceability.

Speaking about the challenges, Mr Kumar said there are frequent errors in data filing by producers, valuable components from e-waste go missing before it reaches recyclers), and small recyclers lack technological capacity for full recovery. He informed about the upcoming Electronic Trading Platform (ETP) expected by 2025 for transparent EPR certificate trading.

Mr Kumar suggested strengthening of the auditing and monitoring of recyclers, inclusion of bulk consumers in future amendments, and continuous refinement of conversion factors and recovery efficiency benchmarks.

Mr Satish Sinha, Associate Director, Toxics Link, who also moderated the session, provided a historical context of advocacy, referring to early efforts (*Scrapping the High-Tech Myth*, 2003). He said though there is progress, India is still struggling with limited recycling technologies, especially for recovery of critical raw materials and rare earths. He stated that despite having a portal and framework, the core challenge of capacity-building of recyclers and concern over effective material recovery remains. Reiterating that sustainability lies in maximising recovery and reducing dependence on imports, he urged stakeholders to focus on long-term systemic reforms rather than surface-level compliance.

Ms Swati Vishan, Senior Programme Officer, Waste and Sustainability Team, Toxics Link, presented the findings from an ongoing study by Toxics Link on EPR implementation. The objective of the study she said is: understanding policy framework and amendments, identifying gaps in EPR implementation, and exploring challenges faced by stakeholders.

She said the key findings of the study are: though registration is mandatory there is no clarity on how many entities should be registered vs. how many actually are; the quarterly and annual returns are mandated but based on self-reported data; monitoring of recycling capacity and occupational safety is not strong; metal recovery is currently limited to aluminium, copper, iron, and gold; and EPR certificate trading is prone to malpractices due to reliance on GST invoices alone.

The Toxics Link study suggests improved data transparency and verification, expansion of stakeholder coverage, strengthening of reverse supply chains, enhancement in consumer awareness, introduction of incentives for product design, quality recycling, etc.

Following the presentations by speakers, the participants debated over the gap between registered entities (~10,000) and the much larger number of actual market players (~1 lakh+). They agreed on the urgent need for data accuracy, monitoring, and integration of the informal sector and aligning of the Indian recyclers with global sustainability standards for market access and credibility.

The meeting concluded with a consensus on the urgent need to bridge regulatory gaps, ensure credible data and compliance, and align India's e-waste management framework with international best practices. The speakers collectively emphasised that strengthening EPR, integrating informal sectors, and adopting global standards will be crucial for India's transition towards a circular and sustainable e-waste economy.

The action points that emerged from the meeting include:

1. Strengthening regulatory monitoring and auditing through third-party mechanisms.
2. Integrating the informal sector into formal recycling systems via cluster development.
3. Mandating international certifications (R2/ISO/TCO) for recyclers and refurbishers.
4. Strengthening data security standards for e-waste handling and refurbishment.
5. Accelerating development of the Electronic Trading Platform (ETP) for transparent certificate exchange.
6. Increasing consumer awareness campaigns and institutional responsibility.
7. Building capacity and infrastructure for recovering critical and rare metals.

