

No. 13(26)/2021-I&M (I)
NITI Aayog
(Industry Vertical)

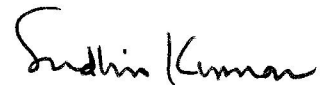
Sansad Marg, New Delhi
Dated 9th November, 2021

OFFICE MEMORANDUM

Subject: Minutes of the meeting chaired by CEO, NITI Aayog on Action Plan for Circular Economy in Electronics and Electrical Sector on 23.9.2021 and 8.10.2021

NITI Aayog vide O.M dt 4.3.2021 constituted a Committee on Circular Economy for End-of-Life Vehicles under the chairmanship of Secretary, Ministry of Electronics and Information Technology. The Committee has finalised the report/action plan and the same was shared with NITI Aayog. In order to firm up the action plan and implementation aspects covered in the report of the Committee, a meeting chaired by CEO, NITI Aayog was convened on 23.9.2021 in NITI Aayog. The next meeting on the same subject was convened on 8.10.2021

2. The combined minutes of the meeting held on 23.9.2021 and 8.10.2021, enclosing therewith the action plan (Annexure-2A & 2B) for implementation by the stakeholder Ministries/Departments/ Agencies listed against each of the action points (in column-4), are enclosed.
3. Hon'ble Prime Minister in his Independence Day Address has emphasised on Circular Economy Mission.
4. The Cabinet Secretary D.O Letter No. 1/28/2/2021- Cab. dt 23.8.2021 emphasises timely and effective implementation of the major initiatives included in the Hon'ble Prime Minister's address on Independence Day (15th August, 2021). 'Taking forward the Mission Circular Economy in full earnest' was one of the initiatives covered in the Hon'ble PM's address. The progress on the initiative will be periodically reviewed during the meetings with the conveners of the Sectoral Groups listed in D.O letter dt. 23.8.2021.
5. The information on progress of implementation of action plan (Annexure-2A & 2B) will be collated by the nodal Ministry (Ministry of Electronics and Information Technology) and shared with NITI Aayog. A substantial part of the action plan particularly the short-term actions are expected to be implemented by the stakeholders within the present financial year.
6. It is requested that NITI Aayog may be updated on the progress of implementation of the action plan by the nodal Ministry (MeitY) by 5th of every month so that the same may be communicated to the Cabinet Secretariat. The nodal officer for this matter in NITI Aayog is Adviser (Industry-II), NITI Aayog.
7. This issues with the approval of CEO, NITI Aayog.



(Sudhir Kumar)
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Secretary, Ministry of Electronics and Information Technology
Secretary, Ministry of Environment, Forest and Climate Change
Member Secretary, Central Pollution Control Board
Director General, Bureau of Indian Standards (BIS)
Secretary, Department of Science and Technology
Secretary, Ministry of Micro, Small and Medium Enterprises (MSME)
Dr. Sandip Chatterjee, Scientist F, Ministry of Electronics and Information Technology

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The list of participants is enclosed.

2. The meeting on 23.9.2021 started with a brief note on the context of the meeting by the Adviser (Industry-II), NITI Aayog and invited CEO, NITI Aayog for opening remarks.
3. CEO, NITI Aayog welcomed the participants and highlighted Hon'ble Prime Minister's announcement on Circular Economy in his Independence Day Address. He highlighted the need for business models and for ensuring that Ease of Business is not impacted by rules, regulations, processes and procedures. He also congratulated the Ministry for coming out with a detailed report for the sector. Following CEO's remarks, a detailed presentation on action plan proposed in the report on Circular Economy was made by Research Officer, NITI Aayog.
4. The presentation illustrated the present scenario, challenges and opportunities in the sector. It concluded with discussion on a detailed list of regulatory and developmental actions with corresponding stakeholders and tentative implementation timelines.
5. The CEO in the meeting held on 23.9.2021 desired that a specific presentation on the infrastructure of the e-waste recycling/recovery be made in the next meeting. It was also emphasized that the short-term actions should be completed in the present financial year.
6. Dr. Sandip Chatterjee, Scientist F, MeitY in the meeting held on 8.10.2021 made a presentation on infrastructure facility/cluster (5 in numbers) for the e-waste sector that can be integrated with small MSE-CDPs to facilitate the integration of the informal sector. It was proposed that in absence of a scheme for infrastructure facility for e-waste recycling/recovery, this could be in the form of a new scheme.
7. It was pointed out to CEO that there are provision in the waste rules to support/ allocate land in industrial areas in some of the waste rules. Further, the recommendations for supporting infrastructure have been made by other Committees also. Therefore, the need for infrastructure for promoting organized recycling in the form of eco-parks and the required support need to be considered holistically.
8. The Action Plan consisting of developmental and regulatory initiatives listed in Annex- 2A and Annex 2B respectively need to be taken up on priority. The list of actions not covered under monitorable Circular Economy Action Plan, however, those to be taken/ followed up separately by Ministries through inter-ministerial consultation, is at Annex.-2C & 2D.
9. The meeting concluded with closing remarks by CEO, NITI Aayog.

The meeting ended with vote of thanks to the Chair.

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List of participants on 23.9.2021:

1. Shri Amitabh Kant, CEO, NITI Aayog (Chaired the meeting)
2. Dr. Sandip Chatterjee, Scientist F, MeitY
3. Sh. Anand Kumar, Addl Director, CPCB
4. Sh. Ved Prakash Mishra, Director, MOEF &CC
5. Sh. Sharad Kumar, Bureau of Indian Standards
6. Dr. Prasad Modak, Executive President, Environmental Management Centre LLP (Virtual participation)
7. Dr. Ajay Deshpande, Adjunct Professor, IIT Bombay (Virtual participation)

NITI Aayog:

8. Shri Sudhir Kumar, Adviser (Industry-II), NITI Aayog
9. Ms. Pratibha Sharma, Assistant Director, NITI Aayog

List of participants on 8.10.2021:

1. Shri Amitabh Kant, CEO, NITI Aayog (Chaired the meeting)
2. Dr. Sandip Chatterjee, Scientist F, MeitY
3. Sh. Ved Prakash Mishra, Director, MOEF &CC
4. Sh. Sanjay Agrarwal, Adviser, D/o Expenditure
5. Sh. Anand Kumar, Addl Director, CPCB
6. Dr. Prasad Modak, Executive President, Environmental Management Centre LLP (Virtual participation)
7. Dr. Ajay Deshpande, Adjunct Professor, IIT Bombay (Virtual participation)

Bureau of Indian Standards

10. Mr. Arun Kumar, Head, Bureau of Indian Standards
11. Ms. Madhurima Madhav, Scientist D Bureau of Indian Standards
12. Sh. V K Rawat, Bureau of Indian Standards

NITI Aayog:

13. Shri Sudhir Kumar, Adviser (Industry-II), NITI Aayog
14. Ms. Pratibha Sharma, Assistant Director, NITI Aayog

Action Plan**CIRCULAR ECONOMY IN ELECTRONICS AND ELECTRICAL SECTOR****Annexure- 2A**

SI No.	Action Point	Nature of Intervention	Implementing Agency/ Actor	Timeline
1.	Capacity Building: <ol style="list-style-type: none"> Skilling of the informal sector so that they can be formalised either with existing recyclers or become entrepreneurs. Develop capacities for formal recycling of e-waste in India. Transfer of indigenous technologies and holding to the local recyclers till commercialization Provide technology and machineries at affordable cost Using schemes and incentives from the MSME ministry to develop CFCs for the micro enterprises in this sector and enable technology and infrastructure along with smart financial instruments 	Capacity Building / Under existing Scheme of New Scheme	MeitY, DST, Ministry of MSME	3 Months
2.	For the informal sector, including the small aggregators investments to	Clusters/CFC	Ministry of MSME /MeitY	3 Months

	made to strengthen their skills in dismantling, machinery and systems approach to bring materials efficiency.			
3.	Conduct training sessions to develop capacities of the ULBs.	Capacity Building	Min of Housing and Urban Affairs /MeitY/CPCB	3 Months
4.	<p>Knowledge Base/ Studies:</p> <p>i. Study on critical raw materials (CRMs) and potential contribution of secondary raw materials (SRM) if they are recovered.</p> <p>ii. Identify best available technologies to promote recycling and recovery of secondary raw materials.</p>	Study	MeitY, MoEF&CC, CPCB	3 Months
5.	Conduct studies to understand recycler capabilities to recover material fractions from each product category.	Knowledge Base/ Studies	CPCB, MeitY, DST	3 Months
6.	Analysis of EPR finances and material flow through the e-waste collection and recycling value chain in the past years to understand fairness of the current system.	Study	CPCB, MOEF&CC, MeitY	3 Months
7.	MoEF&CC, MeitY, CPCB, ULBs, Producers and other stakeholders to conduct awareness programmes on e- waste management, RE/CE label to make consumers responsible towards product usage and safe disposal	Awareness Building	MeitY, CPCB	3 Months
8.	To promote consumer awareness on legislation	Awareness Building	MoEF&CC, CPCB, MeitY	3 Months

Regulatory Measures by MOEF & CC / Ministry of Finance

Sl No.	Action Point	Nature of Intervention	Implementing Agency/ Actor	Timeline
1.	Revision of E-waste Rules			
i.	Revision of E-waste Rules for to allow flexibility in collection channels, graded penalties, assignment of shared responsibilities with clear accountability among all stakeholders, recognition of informal sector and other changes as may be necessary.	Regulatory	MOEF&CC/CPCB /MeitY	3 Months
ii.	E-waste Rules should be amended to enforce prohibition on e-auction by bulk consumers.	Regulatory	MOEF&CC/ULB/SPCB /PCC/Min of Housing and Urban Affairs /MeitY	3 Months
iii.	Integration of informal sector into formal collection systems.	Regulatory	MOEF&CC /CPCB	3 Months
iv.	To amend E-waste Rules to provide accountability and penalty for all stakeholders	Regulatory	MOEF&CC / CPCB	3 Months
v.	Ensure mandatory registration and enforcement actions against bulk consumers.	Regulatory	CPCB/ SPCB/MoHUA/ ULBs	3 Months
vi.	MoEF&CC /Ministry of Housing and Urban Affairs to develop necessary system and process at ULBs to aid integration with EPR systems	Regulatory	MOEF&CC/ /Min of Housing and Urban Affairs /MeitY	3 Months
vii.	<ul style="list-style-type: none"> Develop and implement product-wise material recovery targets for recyclers. Moving towards recycling targets 	Regulatory / Audit	MeitY, DST, CPCB	4 Months
2.	Notification by Ministry of Finance on disposal of e-waste by Government Agencies / CPSEs with	Regulatory	Ministry of Finance /CPCB /MeitY	3 Months

	<p>regard to writing off of the asset towards EPR targets of producers and allow collection by the PROs/ Producers/Brands towards EPR obligation</p> <p>The guidelines for recognition of e waste complying the rules to be formulated by CPCB. The Notification would clarify the position of provision of GFR specific to e-waste rules.</p>			
3.	<p>To develop inventorisation methodologies using available data sources such as GST, industry reports and others. Though SPCB are required to have information about inventories, such info is lacking in absence of methodology and required information. Inventories are required to be assessed at State levels for developing preproperate developmental strategies.</p>	Regulatory	CPCB/ Ministry of Finance /MOEF&CC	3 Months
4.	<p>Detailed analysis to estimate the costs of compliance across e-waste value chain to ensure fairness to the current system, economic models.</p>	Regulation	CPCB/MOEF&CC/ MeitY	3 Months
5.	<p>Development of monitoring guidelines for material and financial flows across the e- waste value system to measure and improve e-waste ecosystem</p>	Regulatory	CPCB/MOEF&CC/SPCB	6 Months
6.	<p>Develop standards and practices for all stakeholders</p>	Regulatory	CPCB/MOEF&CC	3 Months
7.	<p>Develop audit protocols and enforcement strategies for all</p>	Regulatory	CPCB/ MOEF&CC	3 Months

	stakeholders including PROs.			
8.	Develop audit protocols and enforcement strategies for recyclers.	Regulatory	CPCB	3 Months
9.	Integrate all stakeholders with the centralized digital system.	Regulatory	CPCB / MeitY	3 Months
10.	CPCB/SPCBs/PCCs to monitor capacity utilization through the suggested digital monitoring system and site inspection scan	Regulatory	CPCB	3 Months
11.	Sustainable Product Policy to be developed by MeitY to promote design for recyclable, and longer lasting Products.	Regulatory	MeitY, MoEF&CC	6 Months

Medium Term Action Plan:

1.	Establishing a mechanism to digitally track the use of critical materials in India and their supply from mining e-waste. This can be done in line with PROSUM project in the EU, to digitally track material specific data from electronic, automobiles, construction, mining waste and solar panels.	Adoption of best practices	MeitY, MoEF&CC, CPCB	6 Months
2.	Adopt internationally harmonized RE/CE labels/ online dissemination of information.	Adoption of best practices	MeitY/ Producers/ MoEF&CC, CPCB	6 Months
3.	Government and line ministries to ensure bulk consumers alignment to the products complying the best practices	Adoption of best practices	MeitY	6 Months
4.	Promote adoption of product subscription/ lease models.	Adoption of best practices	MeitY/ Producers	6 Months
5.	Conduct training and capacity building of CPCB, SPCB.	Capacity Building	CPCB, MOEF&CC	6 Months
6.	Promote adaptive skills and capacity of informal sector workers.	Capacity Building	MeitY and MoSDE	6 Months
7.	Create skill development schemes to train and register informal collection agents which can be a part of "Green Skill Development Programme"	Capacity Building	Ministry of Skill Development/ MeitY	6 Months
8.	Skill Development for repair centres	Capacity building	Ministry of Skill Development /Producers/ MeitY	6 Months
9.	To form incentive plans for promotion of best available technology for extraction of suitable	Incentive structure	MeitY, MoEF&CC, CPCB	6 Months

	quality and quantity of secondary raw materials.			
10.	ULBs to set up e-waste collection, segregation and disposal systems (example- smart city program KPI).	Infrastructure	Min of Housing and Urban Affairs /MeitY	6 Months
11.	Long term Joint collaboration initiatives supporting upgradation of the informal sector workers in the value chain to be supported	Integrating informal sector	MeitY, DST	6 Months
12.	Techno-financial analysis providing comparison of recycling/refurbishment techniques and technologies available locally and globally.	Study / Research and development	MeitY, DST, CPCB	6 Months
13.	Compilation of global best practices.	Study / Research and development	MeitY, MoEF&CC, CPCB	6 Months
14.	Guidelines to adopt design for recyclability, disassembly and repairability and longer lasting products.	Study / Research and development	MeitY, MoEF&CC, CPCB	6 Months

Long Term Actions by MoEF&CC/ MeitY

Sl No.	Action Point	Nature of Intervention	Implementing Agency/ Actor	Timeline
1.	Create value chains which allow secondary resources to compete with virgin ones.	Adoption of best practices	MoEF&CC, MeitY	2 Years
2.	Promote trading of secondary raw materials in commodity markets and exchanges	Adoption of best practices	MoEF&CC/ MeitY	2 Years
3.	Encourage integration of secondary raw materials with global supply chains.	Adoption of best practices	MoEF&CC/ MeitY	2 Years
4.	Future incentive schemes to promote technology and competitiveness (like PLI Scheme of MeitY) to encourage use of secondary raw materials. Feasibility, impact assessment studies and stakeholder consultations be held to evaluate availability of quality and quantity of secondary raw materials to ensure that any such incentive schemes are successful and implementable	Incentive structure	MeitY, MoEF&CC, CPCB	2 Years
5.	Developing metrics for linking future PLI with design for recyclable and longer lasting products.	Incentive structure	MeitY, MoEF&CC, CPCB	2 Years
6.	Formulate incentives for manufacturers of secondary raw material to develop higher quality and quantity.	Incentive Structure	MoEF&CC/ MeitY	2 Years
7.	Joint collaboration initiatives supporting upgradation of the informal sector workers in the value. GIZ DPP initiatives are such tool may be availed to support collaborations across	Integrating informal sector	MeitY, CPCB, DST	2 Years

	private sector and public sector			
8.	Development of guidelines in-line with global best practices to promote eco-design	Research and development	MeitY, MoEF&CC, CPCB	2 Years
9.	Develop criteria for identifying the products with best environmental performance in the focus industry sector or product group.	Research and development	MeitY, MoEF&CC, CPCB	2 Years
10.	More systemic focus to be maintained on R&D on a regular basis to bring out the new cost-effective, locally manageable technologies; processes, to encourage innovators, start-ups, NGOs.	Research and development	MeitY, MoEF&CC, CPCB	2 Years
11.	To evaluate the performance, productivity and waste discharges	Research and development	MeitY/ MoEF&CC/ CPCB	2 Years
12.	Develop and adopt supply chain standards for secondary materials	Standards	MoEF&CC/ MeitY	2 Years