

POLLUTION CAUSED BY PLASTIC

MINISTRY OF ENVIRONMENT, FOREST AND
CLIMATE CHANGE

PUBLIC ACCOUNTS COMMITTEE
(2023-24)

NINETY FIFTH REPORT

SEVENTEENTH LOK SABHA



LOK SABHA SECRETARIAT
NEW DELHI

PAC NO. 2325

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PUBLIC ACCOUNTS COMMITTEE **(2023-24)**

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**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE
CHANGE**



सत्यमेव जयते

Presented to Lok Sabha on: 07.02.2024

Laid in Rajya Sabha on: 07.02.2024

**LOK SABHA SECRETARIAT
NEW DELHI**

February, 2024 /Magha, 1945 (Saka)

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* Not appended to the cyclostyled copy of the Report

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE
(2023-24)

Shri Adhir Ranjan Chowdhury - Chairperson

MEMBERS

LOK SABHA

2. Shri Thalikkottai Rajuthevar Baalu
3. Shri Subhash Chandra Baheria
4. Shri Bhartruhari Mahtab
5. Shri Jagdambika Pal
6. Shri Vishnu Dayal Ram
7. Shri Pratap Chandra Sarangi
8. Shri Rahul Ramesh Shewale
9. Shri Gowdar Mallikarjunappa Siddeshwara
10. Shri Brijendra Singh
11. Shri Rajiv Ranjan Singh *alias* Lalan Singh
12. Dr. Satya Pal Singh
13. Shri Jayant Sinha
14. Shri Balashowry Vallabbhaneni
15. Shri Ram Kripal Yadav

RAJYA SABHA

16. Shri Shaktisinh Gohli
17. Dr. K. Laxman
18. Shri Derek O' Brien *
19. Shri Tiruchi Siva
20. Dr. M. Thambidurai
21. Shri Ghanshyam Tiwari
22. Dr. Sudhanshu Trivedi

Secretariat

1. Shri Sanjeev Sharma - Joint Secretary
2. Smt. Bharti Sanjeev Tuteja - Director
3. Ms. Malvika Mehta - Under Secretary
4. Ms. Khyati - Assistant Committee Officer

* Elected w.c.f. 19.08.2023 consequent upon retirement of Shri Sukhendu Sekhar Ray, MP on 18.08.2023.

INTRODUCTION

I, the Chairperson, Public Accounts Committee (2023-24), having been authorised by the Committee, do present this Ninety Fifth Report (Seventeenth Lok Sabha) on "**Pollution caused by Plastic**" based on Para Nos. 5.2 of C&AG Report no. 21 of 2022 relating to the Ministry of Environment, Forest and Climate Change.

2. The Report of Comptroller and Auditor General of India was laid in Rajya Sabha/ Lok Sabha on 20 December 2022.

3. The Public Accounts Committee (2023-24) selected the subject for detailed examination and report. The Committee took oral evidence of the representatives of the Ministry of Environment, Forest and Climate Change; Central Pollution Control Board; Urban Development Departments; Pollution Control Boards of Sikkim & Punjab and Urban Local Bodies concerned of metro cities (Mumbai, Chennai and Kolkata) at their sitting held on 17 July 2023. The Public Accounts Committee (2023-24) further obtained detailed information in connection with the examination of the subject of Urban Development Department and Urban Local Bodies of NCT of Delhi at their sitting held on 30 October 2023. The Committee considered and adopted this Report at their sitting held on 05 February 2024. The Minutes of the sittings of the Committee are appended to the Report.

4. For facility of reference and convenience, the Observations and Recommendations of the Committee have been printed in **bold** and form Part-II of the Report.

5. The Committee thank their predecessor Committee for taking oral evidence and obtaining information on the subject.

6. The Committee would like to express their thanks to the representatives of the Ministry of Environment, Forest and Climate Change, CPCBs/SPCBs, Urban Development Department and Urban Local Bodies for tendering evidence before them and furnishing the requisite information to the Committee in connection with the examination of the subject.

7. The Committee also place on record their appreciation of the assistance rendered to them in the matter by the Committee Secretariat and the office of the Comptroller and Auditor General of India.

NEW DELHI:
06 February, 2024
17 Magha, 1945 (Saka)

ADHIR RANJAN CHOWDHURY
Chairperson,
Public Accounts Committee

REPORT

Part-I

INTRODUCTION

The Committee are not oblivious of the fact that plastic pollution has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them.

2. In this sequel, the Public Accounts Committee decided to take up for detailed examination and report, the subject "Pollution caused by Plastic" based on Para 5.2 of Comptroller and Audit General Report No. 21 of 2022. This Para pertains to the Ministry of Environment, Forest and Climate Change (hereinafter referred to as 'the Ministry').
3. Audit conducted an assessment of effectiveness and compliance of the provisions of Plastic Waste Management Rules, in order to examine their adequacy in management of plastic waste and to address the risks posed by plastic waste to environment and health. Eighteen wards from six selected zones of three Urban Local Bodies (ULBs) in Delhi, eight ULBs & thirty Rural Local Bodies (RLBs) from six sampled districts in Punjab and four ULBs & nine Panchayati Raj Institutions (PRIs) from three sampled districts in Sikkim during the period 2015-16 to 2019-20 were assessed by the Audit.
4. The Public Accounts Committee during its examination, reviewed the activities carried out for the management of plastic waste in Ministry of Environment, Forest & Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) of the NCT of Delhi, Sikkim and Punjab provided by the Audit. The Committee also undertook review of activities of Urban Development Departments (UDDs) of the Major metropolitan cities of Delhi, Mumbai, Chennai and Kolkata as well given the gravity of the subject.
5. The Audit findings have revealed a series of discrepancies and issues in handling of plastic waste and pollution caused by it and with respect to Plastic Waste Management Rules, 2016 as enumerated below:
 - (i) a serious lack of mechanism for assessment of generation of plastic waste, its collection and safe disposal
 - (ii) the stakeholders, MoEF&CC, CPCB, SPCBs/ PCCs are not working in tandem to control generation, putting effective system for collection and safe disposal of plastic waste
 - (iii) Plastic Waste Management Rules framed by MoEF&CC lack comprehensiveness to give thrust to effective implementation and monitoring thereof

- (iv) Bye-laws of local bodies incorporating provisions of PWM Rules have not been notified by state urban departments
- (v) In absence of uniform methodology for assessment, incomplete and invalidated data is channelized to the Ministry for decision making
- (vi) Lackadaisical approach of CPCB and SPCBs/ PCCs allowed the plastic units to function without valid registrations
- (vii) Absence of action plan in place for effective implementation of the three-pronged strategy thereby leading to ineffectiveness in the implementation of PWM rules
- (viii) Non-framing of a uniform framework of Extended Producer's Responsibility resulted into non-development of a system of collecting back and processing of plastic waste with assistance of PIBOs as per PWM Rules
- (ix) Deficient system of monitoring rendered the implementation of PWM Rules ineffective to contribute in abatement of pollution caused by plastic waste
- (x) Failure in the safe management of plastic waste has detrimental long term health and environment concerns and this issue needs to be taken up on a priority basis by the Government.

The examination of the audit findings by the Committee have been detailed in succeeding paragraphs:

A. Inconsistencies in assessment of plastic waste generated

6. MoEF&CC provided the details of plastic waste generated across the country during 2015-16 to 2019-20 which it received from CPCB. This data reported by CPCB to MoEF&CC was based on the inputs provided by the SPCBs or PCCs to CPCB. However, on scrutiny of records of PCBs/PCCs, Audit found that :

- PCBs and PCCs of many states and UTs did not provide data on plastic waste generation for the period 2016-18 to CPCB.
- During 2018-20, although all the states and UTs provided the data of plastic waste generation, the reported data did not include plastic waste generated by all the ULBs and RLBs. There were data gaps due to which CPCB as well as MoEF&CC did not have complete and comprehensive picture of Plastic Waste generation in entire country during the period 2015-20.
- Audit also observed that the data received from SPCBs and PCCs was not validated by CPCB to assess its authenticity and correctness.
- All the three sampled ULBs of Delhi did not furnish the data of plastic waste generated to DPCC every year during 2015-20. The Audit findings show a

variation of 45.97 per cent in the data of NDMC and of 40 percent in case of SDMC with respect to the data provided to Audit.

- The data provided to Punjab Municipal Infrastructure Development Company (PMIDC) by ULBs of Punjab vary from 12.04 per cent to 51.93 per cent from that with Punjab PCB reported to CPCB during 2015-16 to 2019-20.
- Sikkim PCB did not report the plastic waste generated in the years 2015-16 and 2017-18 to CPCB and for the period 2016-17, 2018-19 and 2019-20, the data reported to Audit was 52.22 per cent in excess to the actual generation.

7. In their Action taken notes, the Ministry submitted the following:-

“ Previously, from 2015 till 2018 only 14 to 21 SPCBs/PCCs submitted information to CPCB. After repeated follow-up with State Pollution Control Board /Pollution Control Committees all 35 SPCBs/PCCs have started to provide information on plastic waste management.

The SPCBs/PCCs are required to validate the data submitted by the Local bodies through random sampling /field inspection.

Since the conduct of audit, in order to monitor timely submission of information by SPCBs/PCCs, the Ministry has operationalized a separate “Reporting Module” for online data reporting from all SPCBs/ PCCs on the National Dashboard on Elimination of Single Use Plastics and Effective Plastic Waste Management. Login IDs and Credentials have been created for all SPCBs/PCCs. Steps have also been taken for online annual reporting on plastic waste management by local body to SPCB / PCC.”

8. The Committee desired to know from MoEFCC whether there is an online system for compiling/ submitting the data pertaining to plastic waste management to each level of the hierarchy i.e., MOEFF&CC / CPCB/ SPCBs / PCCs / Local Bodies / Plastic Waste Recycling/ Processing Units. In this regard the Ministry through a written reply submitted as under:

“ As per Rule 17 of Plastic Waste Management (PWM) Rules 2016, plastic waste processing facility provides information to local bodies vide Form IV till 30th April of every year. Local bodies are mandated to submit information vide Form V to State Urban Development Department with copy to SPCB/ PCC till 30th June of every year. CPCB compiles information submitted by SPCBs/PCCs vide Form VI till 31st August of every year for preparing annual report on use and management of plastic waste. At present, the report is compiled through offline mode.

Since the conduct of audit, in order to monitor timely submission of information by SPCBs/PCCs, the Ministry has operationalized a separate “Reporting Module” for online data reporting from all SPCBs/ PCCs on the National Dashboard on Elimination of Single Use Plastics and Effective Plastic Waste Management. Login IDs and Credentials have been created for all SPCBs/PCCs.

Steps have also been taken for online annual reporting on plastic waste management by local body to SPCB / PCC. Through the Reporting Module shift is being made from manual-multistep system to IT enabled system. The Online annual reporting proforma for plastic waste management has data fields for collection, segregation, recycling and disposal separately. Online system will ensure timely reporting, monitoring and avoid delays."

9. In view of the gaps pointed by Audit in the data, the Committee enquired about the prescribed method by which plastic waste generation is to be assessed by the Local Bodies which are the first agency to gather this basic data and if any deviations have been noticed from the prescribed procedures. The Ministry in their written replies submitted as follows:

"There are standard methods available for assessment of and quantification of plastic waste at dump sites. One of the internationally acceptable methods is ASTM Method (D5231-92) method for assessment and quantification of plastic waste at dump sites, used by CPCB in their report on "Assessment & Characterization of Plastic Waste Generation in 60 Major Cities". The methodology was adopted to assess batch/samples of known weight of fresh Municipal Solid waste (MSW) arriving at dumpsites on different days from different sources in vehicles. From the sampled Municipal Solid Waste (MSW) the various types of plastics like PET, PE Based (LDPE/HDPE), PVC, PP, PS/ OTHER are sorted out and segregated. Finally, the segregated plastics are weighed and quantified.

The ASTM Method describes procedures for measuring the composition of unprocessed municipal solid waste (MSW) by employing manual sorting. This test method applies to determination of the mean composition of MSW based on the collection and manual sorting of a number of samples of waste over a selected time period covering a minimum of one week. This test method includes procedures for the collection of a representative sorting sample of unprocessed waste, manual sorting of the waste into individual waste components, data reduction, and reporting of the results. This test method may be applied at landfill sites, waste processing and conversion facilities, and transfer stations.

The comprehensive study of CPCB covering 60 cities spread across the north, south, east, west and central regions of the country had been used to provide the national level picture on presence and composition of plastic waste in municipal solid waste. As per CPCB, SPCBs/PCCs are required to validate data through random sampling and field inspection as per the aforementioned methodology.

The **Municipal Solid Waste Management Manual** published under Swachh Bharat Mission for use by local bodies has a methodology for waste quantification and assessment of waste composition. The Manual was prepared by Central Public Health and Environmental Engineering Organization (CPHEEO), Ministry of Housing and Urban Affairs. As the quantum and composition of waste is influenced by factors such as population, area, level of urbanization, each local body undertakes their own assessment on quantum and

composition of municipal solid waste, which is then used as benchmark value for planning and management at the city level.

The Comprehensive Action Plan developed by States / UTs for elimination of single use plastics and effective plastic waste management includes assessment of plastic waste as an activity. The Guidelines on Extended Producer Responsibility (EPR) on plastic packaging notified on 16th February 2022, has also mandated SPCBs/PCCs to undertake compositional survey of collected mixed municipal waste to determine the share of plastic waste as well as different categories of plastic packaging material."

10. The Committee desired to know from the Ministry the mechanism in place in CPCB to validate the data on plastic waste generation received from SPCBs/ PCCs/ Local Bodies/ Plastic Waste Recycling/ Processing Units, on which the Ministry gave the following reply:

"Local bodies are mandated for solid waste management including plastic waste management. As such collection of data on waste generation by local bodies is required for management of solid waste including plastic waste. Ministry of Housing and Urban Affairs has brought out Solid Waste Management Manual for use by urban local bodies under Swachh Bharat Mission Urban. It may be seen from inputs received from urban local bodies of four metro cities that local bodies have commissioned studies from technical institutions for waste characterization and waste quantification. The data provided by local body is submitted in prescribed form to SPCB/PCC.

As per CPCB, the SPCBs/PCCs are required to validate data submitted by the local bodies through random sampling / field inspection.

Further, as per Guidelines on Extended Producer Responsibility for plastic packaging, CPCB/SPCB/ PCC mandated to carry out a compositional survey of collected mixed municipal waste to determine the share of plastic waste as well as different categories of plastics packaging material on a half-yearly basis.

2043 Plastic Waste Processors are registered on the centralized online EPR portal for plastic packaging. These PWP's are mandated to submit online returns. The information provided by registered PWP's is on the centralized online EPR portal is verifiable."

11. The Committee enquired from the Ministry if any penal provisions been prescribed for agencies not providing the requisite data and how the compliance of the Rules was being ensured. The Ministry provided the following reply in response in this regard :

"Vide Rule 18 of Plastic Waste Management Rules, 2016, as amended, environmental compensation shall be levied based upon polluter pays principle, on persons who are not complying with the provisions of these rules, as per

guidelines notified by the CPCB. The Guidelines provide details of Environmental Compensation to be levied, rule – wise and the action take to be taken for non-compliance.

As regards, timely filing of annual returns by producers, importers and brand owners and plastic waste processors, environmental compensation regime has been prescribed. The Central Pollution Control Board pursues with SPCBS/PCCs for timely filing of annual reports. Earlier, CPCB has also taken steps available under law to ensure submission of annual reports by SPCBS/PCCs including through issuance of Directions under Section 5 of the Environment (Protection) Act, 1986, to SPCBs/PCCs. Steps have also been mooted for levying of Environmental Compensation on local bodies for not providing requisite information through annual reports."

B. Lack of uniformity in method of assessment

12. Audit further found that there is no uniform method for assessment of plastic waste generation within a State. The data of plastic waste generation reported by ULBs was based on assumptions without any sound rationale. In Delhi, East Delhi Municipal Corporation (EDMC) and NDMC assumed the plastic waste generation to be 10 per cent of the total municipal solid waste. On the other hand, SDMC calculated it at the rate of 4.4 to six per cent of the total waste generated. In Punjab, PMIDC provided the quantum of plastic waste generation computed at seven per cent of total municipal waste generated. CPCB admitted that it was not aware of the methodology being adopted by ULBs for calculation of quantity of plastic waste generated by them.

13. In their Action taken notes, the Ministry submitted the following:-

"Methodology for assessment and quantification of plastics waste has been detailed in the Report on "Assessment Characterization of Plastic Waste Generation in 60 Major Cities" prepared by CPCB.

CPCB had used internationally acceptable ASTM Method (D5231-92) method for assessment and quantification of plastics waste at dump sites. The methodology was adopted to assess batch/samples of known weight of fresh Municipal Solid waste (MSW) arriving at dumpsites on different days from different sources in vehicles.

From the sampled Municipal Solid Waste (MSW) the various types of plastics like PET, PE Based (LDPE/HDPE), PVC, PP, PS/ OTHER has been sorted out and segregated. Finally, the segregated plastics are weighed and quantified.

The ASTM Method describes procedures for measuring the composition of unprocessed municipal solid waste (MSW) by employing manual sorting. This test method applies to determination of the mean composition of MSW based on the collection and manual sorting of a number of samples of waste over a selected

time period covering a minimum of one week. This test method includes procedures for the collection of a representative sorting sample of unprocessed waste, manual sorting of the waste into individual waste components, data reduction, and reporting of the results. This test method may be applied at landfill sites, waste processing and conversion facilities, and transfer stations.

The comprehensive study of CPCB covering 60 cities spread across the north, south, east, west and central regions of the country had been used to provide the national level picture on presence and composition of plastic waste in municipal solid waste.

For use by local bodies, the *Municipal Solid Waste Management Manual* published under Swachh Bharat Mission uses the quatering and coning technique for waste quantification and assessment of waste composition.

As the quantum and composition of waste is influenced by factors such as population, area, level of urbanization, each local body undertakes their own assessment on quantum and composition of municipal, which is then used as benchmark value for planning and management at the city level."

14. The Committee desired to know if the data on generation of plastic waste is collected in a uniform manner by the Local Bodies for all States/ UTs, to which the Ministry furnished the following reply:

" There are standard methods available for assessment of and quantification of plastics waste at dump sites. One of the internationally acceptable methods is ASTM Method (D5231-92) method for assessment and quantification of plastics waste at dump sites, used by CPCB in their report Report on "Assessment & Characterization of Plastic Waste Generation in 60 Major Cities" prepared by CPCB.

The Municipal Solid Waste Management Manual published under Swachh Bharat Mission for use by local bodies also has a methodology for waste quantification and assessment of waste composition. The Manual was prepared by Central Public Health and Environmental Engineering Organisation (CPHEEO), Ministry of Housing and Urban Affairs. As the quantum and composition of waste is influenced by factors such as population, area, level of urbanization, each local body undertakes their own assessment on quantum and composition of municipal, which is then used as benchmark value for planning and management at the city level. Generally, the data on plastic waste generation is collected by technical institution for the ULB."

15. The Committee further enquired regarding on the frequency of assessment of actual plastic waste being generated in a municipal area and if any specific guidelines or standards were in place for the assessment of plastic waste, such as the types of plastic considered. The Ministry provided the following response in their written replies:

"The frequency of assessment of actual plastic waste being generated in a municipal area is determined by the local bodies concerned based upon ground situation and requirement.

As mentioned earlier, the methodology for assessment and quantification of plastics waste detailed in the CPCB Report on "Assessment & Characterization of Plastic Waste Generation in 60 Major Cities" is internationally acceptable ASTM Method (D5231-92) method for assessment and quantification of plastics waste at dump sites. The **Municipal Solid Waste Management Manual** published under Swachh Bharat Mission for use by local bodies has a methodology for waste quantification and assessment of waste composition.

As per Guidelines on Extended Producer Responsibility for plastic packaging, CPCB/SPCB/ PCC mandated to carry out a compositional survey of collected mixed municipal waste to determine the share of plastic waste as well as different categories of plastics packaging material on a half-yearly basis."

C. Improper collection, processing & disposal of plastic waste

16. The Committee learnt that Under Rule 6 and 7 of PWM Rules, 2016, the responsibilities of Local Bodies (LBs) and Gram Panchayats are defined for setting up, operationalization and co-ordination of the waste management system in their areas. Regarding availability of data on plastic waste collection, recycling, co-processing and its ultimate disposal, SPCBs and PCCs every year provide the data regarding status for implementation of Plastic Waste Management Rules, 2016 in Form VI to CPCB, which compiles the same and submits a consolidated report to MoEF&CC. Form VI comprises of data fields like estimated Plastic waste generation, Action Plan for collection & disposal of Plastic waste, number of registered Producers, Importers, Brand Owners etc. The Audit findings point to non availability of data fields of plastic waste collected, uncollected and utilized in Form VI. To this effect, CPCB pointed out the deficiencies and requested MoEF&CC for revision of Form VI by including the desired data fields. The revisions were not adopted by MoEF&CC, as suggested by CPCB, till 2021.

17. In the context of the three sampled states, the following discrepancies were highlighted by audit :

- Punjab - collection of 100 per cent plastic waste generated by ULBs during 2015-20 was reported without any documentary evidence in support. No status of the 70 per cent of plastic waste which was predominantly non-recyclable was found while 25 to 30 per cent fraction of recyclable plastic, all of which was picked and segregated

by the informal sector viz., rag pickers, junk dealers etc., and channelized to recyclers directly.

- Sikkim - Collection of 65.31 per cent (i.e. 998.38 tonnes) of the total plastic waste generated during 2015-20 was reported. The collected plastic waste was segregated by scrap vendors at landfill sites and recyclable fraction of plastic waste was sent to Siliguri, West Bengal. Sikkim PCB stated that there are no recycling or processing units in the state.

- Delhi - Data of plastic waste generation, collection and utilization during 2015-18 was found unavailable. Audit findings show only 20 per cent of the collected plastic waste was utilized during the period 2018-20.

18. In their ATNs, the Ministry submitted the following:-

“A separate **“Reporting Module”** for online data reporting from all SPCBs/ PCCs has been operationalized on the National Dashboard on Elimination of Single Use Plastics and Effective Plastic Waste Management.

The reporting module for online data reporting from all SPCBs/ PCCs has data fields related to (i) Collection, (ii) Segregation, (iii) Recycling, and (iv) Disposal.

Plastic packaging waste is an important component of plastic waste being generated in the country. Extended Producer Responsibility of plastic packaging ensures environmentally sound management of plastic packaging by producers, importers and brand owners who introduce plastic packaging in the market.

As per the Guidelines for extended producer responsibility on plastic packaging notified on 16th February 2022, a centralized online portal on extended producer responsibility on plastic packaging is operational. Producers, Importers and Brand Owners of plastic packaging and Plastic waste processors are obligated entities under EPR who have to register on the centralized online EPR portal.

Around 21,000 PIBOs are registered on the online EPR portal, having an EPR liability of 3 million tonnes for the year 2022-23, which is a significant proportion of plastic waste generated in the country.

As EPR liability is fulfilled by PIBOs, through EPR certificates generated by registered plastic waste processors, complete details for plastic packaging waste collected, recycled or sent for end of life disposal is available.

As this information is made available through centralized online EPR portal in a transparent and verifiable manner by obligated entities themselves, reliable data on management of plastic packaging waste will be available after filing of annual returns by PIBOs and PWPs after 31st October 2023, the last date of filing of returns as per Plastic Waste Management Rules.”

19. The Committee enquired from the Ministry whether waste management systems have been operationalized in all areas under the Local Bodies/ Gram Panchayats in all the States/UTs in the country and the difficulties being faced by the Local Bodies in setting up, operationalization and co-ordination of the waste management system in those areas. The Ministry furnished the following reply in response:

"Sanitation is a state subject. Local Bodies and Gram Panchayats are mandated for solid waste management. The Central Government is providing Additional Central Assistance for solid waste management including plastic waste management through Swachh Bharat Mission Urban 2.0 and Swachh Bharat Mission Grameen Phase II, for urban and rural areas of the country.

The Guidelines for Extended Producer Responsibility on plastic packaging have put a market based EPR mechanism in place. The EPR Guidelines provide a clear mechanism for local bodies to engage with PIBOs and PWPs. The implementation of the EPR in plastic packaging will further strengthen the plastic waste management infrastructure including collection, segregation, processing and environmentally sound end of life disposal.

The mechanism provided under EPR Guidelines for development of plastic waste management system is given below.

✓ Clause 11.7 of EPR Guidelines provide that the local authorities can get EPR certificates from registered PWPs for the plastic packaging waste provided by local body for waste processing. These certificates can then be exchanged with PIBOs. This would allow revenue generation opportunity for the local bodies.

✓ Clause 14.1 (c) of EPR Guidelines provide that PIBOs may develop collection and segregation infrastructure of plastic packaging waste, as required, based on implementation modality by offering for collection and waste processing through engagement with local bodies.

As regards information provided by SPCBs/PCCs to CPCB, a total 2962 out of 3724 ULBs have set up waste management system which is approx. 80% of total no. of ULBs."

20. The Committee asked the Ministry as to how it was ensuring that the action plan for collection and disposal of Plastic waste is formulated and actually implemented within the specified time frame, to which the Ministry in a written reply stated as follows:

"The National Task Force constituted by the Ministry vide office order dated 25th June 2021 oversees the implementation of comprehensive action plans developed by States/UTs. Four meetings of the National Taskforce have been held. Further, States/UTs have been asked to update the progress made in the implementation of Comprehensive action plan on the national dashboard.

IT based technologies have been put in place for effective monitoring

✓ CPCB centralized online EPR portal for plastic packaging (www.cpcbepplastic.in)

✓ National Dashboard for elimination of identified SUP items and effective implementation of PWMR, 2016 (www.suppwmdashboard.in)

✓ CPCB Monitoring Module for Compliance on Elimination of Single Use Plastic (www.cpcbplastic.in/sup)

✓ SUP Grievance Redressal App (<https://cpcb.nic.in/uploads/SUPApp.pdf>)

In addition, specific focus has also been given to plastic waste management in SBM U 2.0 and SBM (Grameen) Phase II. Swachh Sarvekhan also captures activities for elimination of single use plastics and plastic waste management.

Plastic packaging waste which is a significant component of plastic waste is covered under EPR of PIBOs. As such environmental sound management of plastic packaging waste is ensured in a time bound manner as environmental compensation will be levied on PIBOs for non-fulfilment of EPR targets.

Already, around 22631 PIBOs are registered on the online EPR portal. The EPR liability for the year 2022-23 is 3 million tonnes, which is a significant proportion of plastic waste generated in the country. The PIBOs have to fulfill the EPR liability for 2022-23 by purchasing EPR certificates generated by registered PWPs and file annual return by 31st October 2023. Already EPR certificates for 2.9 million tonnes have been generated by registered plastic waste processors showing 2.9 million tonnes of plastic packaging waste has been processed in an environmentally sound manner. Out of the EPR certificates for 2.9 million tonnes, 1.75 million tonnes of EPR certificates have been procured by PIBOs to fulfill their EPR obligations. In case PIBOs do not fulfill their EPR obligations within the stipulated time they become liable for levy environmental compensation.

As such, implementation of EPR on plastic packaging ensures environmentally sound management of plastic packaging waste in a time bound manner. The progress made in the implementation of EPR can be seen in a transparent manner on the dashboard on centralized online EPR portal for plastic packaging. There is a Committee under the chairpersonship of Chairman CPCB, which oversees the implementation of EPR on plastic packaging. "

21. Further, as per the information furnished by the Ministry regarding the present status of plastic waste collected, not collected and utilized in the country, plastic waste generation in the country is approx. 3889280 TPA as per information provided by SPCBs/PCCs to CPCB for FY 2021-2022. Out of this approximately, total 1401521.9 T of plastic waste has been processed in FY 2021-22 which amounts to 36.03 percentage of the total plastic waste generation.

22. In view of data gaps on plastic waste as seen in the sampled bodies and as evident from lack of data fields in the form for reporting the data, the Committee desired to know from the Ministry if it is carrying out effective planning for managing plastic waste. The reply furnished by the Ministry in this regard is as follows:

"The comprehensive study of CPCB covering 60 cities spread across the north, south, east, west and central regions of the country had been used to provide the national level picture on presence and composition of plastic waste in municipal solid waste. The **Municipal Solid Waste Management Manual** published under Swachh Bharat Mission for use by local bodies has a methodology for waste quantification and assessment of waste composition. Data will also flow from EPR portal in respect of plastic packaging waste. The amendments have been

brought since 2021 for reducing pollution caused by littered and unmanaged plastic waste through single use plastic ban and notification of guidelines for extended producer responsibility on plastic packaging. Measures have been taken for effective reporting as well. This would further aid in effective planning for managing plastic waste

Further, CPCB has received Action Plans on plastic waste management from SPCBs/PCCs which had data for plastic waste generation, collection, processing including recycling for the years 2018-19, 2019-20, 2020-21, and 2021-22 (except Manipur).

The improvements carried out since 2021 have transformed the plastic waste management ecosystem. Progress has been made on elimination of single use plastic and implementation of EPR on plastic packaging

The use of following IT based tools for monitoring and implementation has been put in place:

- ✓ CPCB centralized online EPR portal for plastic packaging (www.cpcbepplastic.in)
- ✓ National Dashboard for elimination of identified SUP items and effective implementation of PWMR, 2016 (www.suppwmdashboard.in)
- ✓ CPCB Monitoring Module for Compliance on Elimination of Single Use Plastic (www.cpcbplastic.in/sup)
- ✓ SUP Grievance Redressal App (<https://cpcb.nic.in/uploads/SUPApp.pdf>)

The strategy adopted by the Ministry of Environment, Forest and Climate Change to tackle unmanaged and littered plastic waste has two pillars viz. placing ban on single use plastic items which have high littering potential and low utility (Reduction in plastic waste generation), and effective implementation extended producer responsibility on plastic packaging (quantitative target for recycling of plastic waste and reuse of rigid plastic packaging). In order to reduce littered and unmanaged plastic waste, a ban has already been imposed on identified single use plastic items, which have high littering potential and low utility, with effect from 1st July 2022, across the country. With respect to recycling of plastic waste and reuse, the Extended Producer Responsibility Guidelines on plastic packaging notified on 16th February 2022, provide mandatory quantitative targets for recycling plastic waste and reuse of rigid plastic packaging by producers, importers and brandowners in a phased manner.

Further, the States/UTs have been asked to develop comprehensive action plans for elimination of single use plastics and effective plastic waste management. The action plan covers ten thematic areas covering forty eight activities. Twenty four States/UTs have communicated their Comprehensive Action Plans to the Ministry. All States/UTs have constituted special taskforces under the chairpersonship of Chief Secretary to review the implementation of comprehensive action plan. Twelve Central Ministries have also developed their comprehensive action plans for undertaking activities under identified thematic areas in order to support elimination of single use plastics and effective plastic waste management. The States / UTs and concerned Central Ministries have been asked to update the progress made on comprehensive action plans on the National Dashboard on

Elimination of Single Use Plastics and Effective Plastic Waste Management. Four meetings of the National Task Force have been held to oversee and coordinate action on elimination of single use plastics and effective plastic waste management."

23. The Committee asked the Ministry of the details of the actions that have been taken to ensure validation of data collected and ensuring collection of proper data. The Ministry in this regard furnished:

"As per CPCB, SPCBs/PCCs are to validate data collected by ULB on a sample basis. As submitted earlier, the Ministry has taken steps from transitioning from manual multi-step procedures to IT based tools for transparency, accountability and ease of doing business.

Under the EPR Guideline, both PIBOs and PWPs are mandated for filing returns with respect to fulfillment of EPR obligations. The data available on centralized online EPR portal on plastic packaging is collected directly from obligated entities and is verifiable. Further relevant documents uploaded on the EPR portal have auto check features for compliance."

D. Projections of the quantities of plastic waste to be generated

24. Waste generation projects leads to waste policy formulation and is an indispensable process in waste management planning. The dominant parameters influencing the quantum of waste generated need to be described and evaluated. No projection, on the growth in plastic waste to be generated in future was available based on population size, geographical size of the area, economic growth, increased demand for consumer goods and change in manufacturing methods etc.

25. In the context of projections of the quantities of plastic waste to be generated, in their ATNs, the Ministry submitted the following:-

"Assessment of plastic waste generation, requirement of waste management infrastructure, gap analysis and strategy for development plastic waste management infrastructure at District and State level have been included as an activity in Comprehensive Action Plans of States / UTs for elimination of single use plastics and effective plastic waste management.

Waste management function is a municipal function and lies with the third tier of Government at the local body level.

The concerned local bodies undertake projection of the quantity of waste generated for development of waste management infrastructure in the area under their jurisdiction keeping in view future growth taking into account population size,

geographical size of the area, economic growth, increased demand for consumer goods etc. Delhi and Sikkim had undertaken projection of data.

At the national level, a detailed study on "Assessment and Characterization of Plastic Waste generation in 60 cities spread across the country was carried out by CPCB in 2015.

A reasonable estimate at the national level was obtained based upon the study on the proportion of plastic waste in solid waste and the plastic waste being recycled in the country.

Further, the trend in solid waste generation and plastic waste generation is also available based upon the Annual Reports submitted by Central Pollution Control Board based upon previous years' reported data."

E. Absence of policy for reduction, reuse or recycle

26. The Audit observation points to the silence of MoEF&CC on the policy for plastic waste reduction, reuse and recycling. However, the Ministry has adopted a three-pronged strategy for effective implementation of PWM Rules that includes (i) behavioural change, (ii) strengthening of institutional system for collection, segregation and recycling of plastic waste and (iii) engagement with producers, importers and brand owners through Extended Producer's Responsibility. It also came to light from Audit observations that the Ministry does not have any action plan in place for effective implementation of the said strategy during the period 2015-20. The preparation of a comprehensive action plan was initiated in May 2021 and is still underway (October 2021). The lack of action plan/policy/ strategy for reduction, reuse or recycle of plastic waste was similarly found in the sampled states.

27. The Committee have found that Pollution Control Boards are mandated to provide technical assistance and guidance to carry out, sponsor investigations and research relating to water and air pollution and prevention, control or abatement of air and water pollution. However, Audit found the only piece of work done to identify the effects of plastic waste on environment and health was undertaken in December, 2015 when CPCB conducted a study 'Impact of Plastic Waste Disposal on soil and water quality at Lucknow dumpsites'. In the study, it was recommended that dumping of plastic waste should not be allowed as it deteriorates soil and underground water quality due to leaching of additives, colours, stabilizers and fillers present in different categories of plastic products. However, CPCB accepted to have not conducted the assessment of pollution of plastic waste in air and human health for the entire country, so far. In the

sampled States, Department of Environment, Government of NCT Delhi and Punjab PCB admitted that no such study has been undertaken till date.

28. In their ATNs, the Ministry submitted the following:-

"The strategy adopted by the Ministry of Environment, Forest and Climate Change to tackle unmanaged and littered plastic waste has two pillars viz. placing ban on single use plastic items which have high littering potential and low utility (Reduction in plastic waste generation), and effective implementation extended producer responsibility on plastic packaging (quantitative target for recycling of plastic waste and reuse of rigid plastic packaging).

The States/UTs have been asked to develop comprehensive action plan for elimination single use plastics and effective plastic waste management. The action plan covers ten thematic areas covering forty eight activities.

States/UTs have communicated their Comprehensive Action Plans to the Ministry. All States/UTs have constituted special taskforces under the chairpersonship of Chief Secretary to review the implementation of comprehensive action plan.

Four meetings of the National Task Force have been held to oversee and coordinate action on elimination of single use plastics and effective plastic waste management.

Twelve Central Ministries have also developed their comprehensive action plans for undertaking activities under identified thematic areas in order to support elimination of single use plastics and effective plastic waste management.

The States / UTs and concerned Central Ministries have been asked to update the progress made on comprehensive action plans on a National dashboard on Elimination of Single Use Plastics and Effective Plastic Waste Management.

In order to reduce littered and unmanaged plastic waste, already a ban has been imposed on identified single use plastic items, which have high littering potential and low utility, with effect from 1st July 2022, all across the country.

With respect to recycling of plastic waste and reuse, the Extended Producer Responsibility Guidelines on plastic packaging notified on 16th February 2022, provide mandatory quantitative target for recycling plastic waste and reuse of rigid plastic packaging by producers, importers and brandowners in a phased manner.

The implementation of the EPR guidelines is done in a transparent and verifiable manner through a centralized online EPR portal on plastic packaging which is already under operation. The progress achieved can be seen on Dashboard of the EPR portal."

29. The Committee asked the Ministry of details of any projections that may have been made of plastic waste generation, to which the Ministry provided the following reply:

"Assessment of plastic waste generation, requirement of waste management infrastructure, gap analysis and strategy for development plastic waste management infrastructure at District and State level have been included as an

activity in Comprehensive Action Plans of States / UTs for elimination of single use plastics and effective plastic waste management.

Waste management function lies with the local body. The concerned local bodies undertake projection of the quantity of waste generated for development of waste management infrastructure in the area under their jurisdiction keeping in view future growth taking into account population size, geographical size of the area, economic growth, increasing demand for consumer goods etc.

A reasonable estimate at the national level was obtained based upon the CPCB study on the proportion of plastic waste in solid waste and the plastic waste being recycled in the country. Further, the trend in solid waste generation and plastic waste generation is also available based upon the Annual Reports submitted by Central Pollution Control Board based upon previous years' reported data.

Most importantly, with the policy changes effected through EPR Guidelines wherein SPCBs/PCCs have been mandated for undertaking compositional survey of municipal solid waste and PIBOs to provide data on actual plastic packaging being introduced in the market, the quality of data will further improve. Under the online proforma for reporting by local bodies and SPCBs/PCCs steps have been taken to include projections on plastic waste generation."

F. Non-compliance of PWM Rules 2016

i. Non-registration of Plastic units

30. Rule 13 of Plastic Waste Management Rules, 2016 provide for registration of producers, importers and brand owners and plastic waste processors. The registration of PIBOs and PWWs during the period 2015-2020 is low. A limited number of Producers, Importers and Brand owners had registered under the Rules during the period of 2015-2020.

31. Rule No. 13(1) of PWM Rules, 2016 provided that no person shall manufacture carry bags or recycle plastic bags or multi-layered packaging without obtaining a registration from the State Pollution Control Board or the Pollution Control Committee of the Union Territory concerned, as the case may be, prior to the commencement of production. Producers or brand owners operating in more than two states or UTs need to apply to CPCB for the purpose of registration and renewal in terms of Rule 13(2). Audit observed that during 2018-20, 88 brand owners and four producers were granted registrations by CPCB.

32. The Committee have found that Punjab PCB registered only 27.70 per cent of the total plastic units identified by it till March, 2020. Delhi PCC initiated the registration

process in 2018-19 only (i.e. after two years of issue of PWM Rules) and could register only 12.20 per cent identified plastic units as of now. Sikkim PCB has not yet identified plastic units functioning in the state. In response, Punjab PCB had assured to make the efforts to register the plastic units; while Sikkim PCB has informed to have initiated Extended Producer's Responsibility (EPR) registration activity online.

33. In response, the Ministry submitted the following in their ATNs:-

"The Guidelines on Extended Producer Responsibility for plastic packaging was notified on 16th February 2022.

For ease of doing business and faster processing of applications of registration, the EPR Guidelines mandate online registration of producers, importers and brand owners and plastic waste processors (<https://eprplastic.cpcb.gov.in/#/plastic/home>). EPR Guidelines notified in February 2022 lays down a clear framework for implementation and on account of effective implementation, till date 21672 Producers , Importers and Brand Owners (PIBOs) and 2003 Plastic Waste Processors (PWPs) have registered on the centralized EPR portal developed by CPCB, as opposed to 300 in 2021."

ii. Delay in application for registration

34. Rule 9(4) of PWM Rules, 2016 states that the producer, within a period of three months from the date of publication (18 March 2016) of these rules shall apply to SPCB and PCC, for grant of registration. Rule 13 of PWM Rules 2016 amended in March 2018 requires Producers and Brand Owners (PBOs) operating in more than two States or UTs to register with Central Pollution Control Board. Test check of records of 45 PBOs registered with CPCB during the period 2018-20 disclosed that these units were in operation at the time of notification of rules. Further, they had applied for registration with a delay ranging nine days to more than a year.

35. In sampled states, Punjab PCB granted registrations to 83 producers during 2016-20 which had applied for registration, with a delay ranging from four months to over 3.7 years. Delhi PCC registered 77 producers during 2019-20 but the records relating to their registration were not provided to Audit, citing unavailability of the same. As a result, delays, if any, in applying for registration couldn't be assessed in Audit. However, claim of Delhi PCC of non- availability of data was unjustified, as being the only authority for registration of plastic units in Delhi, it should have possessed these records.

36. Further, producers had to register within a period of three months from the date of publication of Plastic Waste Management Rules 2016 (18 March 2016). The producers which registered with CPCB and SPCBs/PCCs during the audit period did so beyond the stipulated time period.

37. Punjab PCB granted registrations to 83 producers during 2016-20 which had applied for registration, with a delay ranging from four months to over 3.7 years. Delhi PCC registered 77 producers during 2019-20 but the records relating to their registration were not available. The producers which registered with CPCB and SPCBs/PCCs during the audit period did so beyond the stipulated time period.

38. In their ATNs, the Ministry submitted the following:-

“The Guidelines on Extended Producer Responsibility for plastic packaging was notified on 16th February 2022.

The EPR Guidelines provided a clear framework and methodology for fulfillment of EPR obligations and also prescribe role and responsibilities of Producer, Importer and Brand owners, Plastic waste processors, State Pollution Control Board/Pollution Control Committees and Central Pollution Control Board.

The EPR Guidelines provides methodology for fulfillment of EPR obligations.

The provision for verification, audit and monitoring of PIBOs and Plastic Waste Processors (PWPs) has also been made.

The clarity given in EPR Guidelines has resulted in substantial increase in registration of PIBOs and PWPs on the online EPR portal. PIBOs have extended producer responsibility targets for environmentally sound management of plastic packaging introduced in the market by them.”

iii. Irregular grant of Registration

39. Further, Rule 13(5) of PWM Rules, 2016 provides the State PCBs and PCCs shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. Audit observed that Punjab PCB in contravention of provisions *ibid*, granted registration or renewal of registration to seven producers and three recyclers beyond the validity period of their consents, under the Water and Air Acts. On being pointed out, Punjab PCB assured that the plastic units would be persuaded for renewal of their Air and Water consents. Delhi PCC did not provide the records relating to date of registration and consents to Audit.

40. Punjab PCB granted registration or renewal of registration to seven producers and three recyclers beyond the validity of their consent period.. Delhi PCC was not able to provide records related to date of registration.

41. In their ATNs, the Ministry submitted the following:-

“The EPR registration has been simplified and made online for PIBOs through the centralized online EPR portal, through EPR guidelines notified on 16th February 2022.

The EPR Guidelines mandate online registration of producers, importers and brand owners and plastic waste processors(<https://eprplastic.cpcb.gov.in/#/plastic/home>).

All the relevant documents are to be uploaded on the portal itself. The portal has an auto check feature to confirm compliances.”

iv. Irregularities in renewal of registrations

42. Rule 13(11) of PWM Rules, 2016 provided that every application for renewal of registration shall be made at least one hundred twenty days before the expiry of the validity of the registration certificate. Test check of records relating to renewal of registration of PBOs registered with CPCB disclosed that the registration of 14 PBOs had already expired as of March 2020, yet they did not apply for renewal; while, the applications for renewal in 33 PBOs whose registrations had expired before March 2020 are pending with CPCB till date. Although CPCB served show cause notices to the PBOs who did not apply for renewal of registration, it did not offer any comments on the issue of pendency of applications for renewal of registration of Brand Owners. In Punjab, 24 plastic units whose registration had expired during the period 2018-20 did not apply for renewal of registration as of March 2020. Moreover, ten plastic units applied for renewal with Punjab SPCB during 2017-20, with a delay ranging from 04 months to over 1.3 years. In case of Delhi, PCC did not provide the information regarding renewal of registrations of the plastic units functioning in its jurisdiction.

43. The PIBOs did not apply for renewal registration before the expiry of registration period. The SPCBs/CPCB did not process the renewal for registration applications in a timely manner. Pendency of applications was noted.

44. In their ATNs, the Ministry submitted the following:-

"In order to have ease of doing business and while ensuring environmental protection, Rule 13 (9) of Plastic Waste Management Rules has been amended vide notification dated 27th April 2023.

The Producers, Importers and Brand Owners will not have to renew the registration certificate, until the information provided while registering has changed.

In case of plastic waste processors, where invariably Consent to Establish and Consent to operate is required, registration granted will be valid for one year and shall subsequently be for a period of three years."

45. In their background note, the Ministry have submitted that they notified the Guidelines on Extended Producer Responsibility for plastic packaging vide Plastic Waste Management (Amendment) Rules, 2022, on 16th February 2022. The Committee desired to know the reasons for delay in and low registration of Plastic Manufacturing Units. The Ministry gave the following reply:

"As per Rule 13 of Plastic Waste Management Rules, 2016, as amended, the following entities are to be registered under the rules

- Manufacturer of carry bags or recycle plastic or multilayered packaging (through EPR portal by the concerned State Pollution Control Board or Pollution Control Committee of the Union Territory, if operating in one or two states or Union territories; or the Central Pollution Control Board, if operating in more than two States or Union Territories)
- Producer or importer or brand-owner of plastic packaging (through EPR portal by the concerned State Pollution Control Board or Pollution Control Committee of the Union Territory, if operating in one or two states or Union territories; or the Central Pollution Control Board, if operating in more than two States or Union Territories)
- Plastic waste processors (through EPR portal by concerned SPCB/PCC)
- Manufacturer of plastic raw material (by CPCB)

Plastic product manufacturing units are not mandated for registration under Plastic Waste Management Rules, 2016, as amended.

Earlier the registration of producers, importers and brand owners was manual and required engagement of PIBOs with multiple Government agencies. Due to the clear framework laid down in Guidelines on Extended Producer Responsibility for plastic packaging and registration through centralized online EPR portal, as on date around 25953 Producers, Importers and Brand owners (PIBOs) are registered on the online EPR portal as against 300 in 2021."

46. Upon being asked of the number of units registered after the notification of Guidelines on Extended Producer Responsibility for plastic packaging, the Ministry replied as under:

"For ease of doing business and faster processing of applications of registration, the EPR Guidelines mandate online registration of producers, importers and brand owners and plastic waste processors. Till date 25953 Producers, Importers and Brand Owners (PIBOs) and 2043 Plastic Waste Processors (PWPs) have registered on the centralized EPR portal developed by CPCB."

47. The Committee enquired regarding the penal provisions prescribed in case of non-registration. The Ministry in this regard furnished:

"Vide Plastic Waste Management (Second Amendment) Rules, 2022, Rule 18 for imposition of environmental compensation has been introduced in the PWM Rules. Vide Rule 18, the environmental compensation shall be levied based upon polluter pays principle, on persons who are not complying with the provisions of these rules, as per guidelines notified by the CPCB. The Guidelines provide details of Environmental Compensation to be levied, rule – wise and the action take to be taken for non-compliance.

The EC for non-registration as per Guidelines is given below:

EC to be levied @ Rs.5000/- per ton (@ Rs.10000/- per ton for 2nd time and @ Rs.20000/- per ton for 3rd time). EC can be carried forward up to 3 year.

The EC levied for non-registration is equivalent to non-fulfillment of EPR target on weight basis.

The penal provisions laid down under section 15 of Environment (Protection) Act, 1986, is applicable as per law. "

48. Rule 9(4) of PWM Rules, 2016 states that the producer, within a period of three months from the date of publication (18 March 2016) of these rules shall apply to SPCB and PCC, for: grant of registration. Rule 13 of PWM Rules 2016 amended in March 2018 requires Producers and Brand Owners (PBOs) operating in more than two States or UTs to register with Central Pollution Control Board. Test check of records of 45 PBOs registered with CPCB during the period 2018-20 disclosed that these units were in operation at the time of notification of rules. Further, they had applied for registration with a delay ranging from nine days to more than a year. Delhi PCC registered 77 producers during 2019-20 but the records relating to their registration were not provided to Audit, citing unavailability of the same.

49. Rule 13(5) of PWM Rules, 2016 provides the State PCBs and PCCs shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. Audit observed that Punjab PCB, in contravention of provisions ibid, granted registration or renewal of registration to seven producers and three recyclers beyond the validity period of their

consents, under the Water and Air Acts. On being pointed out, Punjab PCB assured that the plastic units would be persuaded for renewal of their Air and Water consents. Delhi PCC did not provide the records relating to date of registration and consents to Audit.

G. Delay in Elimination of Single Use Plastic

50. On the World Environment Day in 2018, the Government announced to pledge to phase out Single Use Plastic (SUP) by January 2022. However, the Ministry of Environment and Forests (MoEF&CC) failed to implement this pledge, with the SUP items only identified in July 2021. The MoEF&CC did not devise any comprehensive action plan for phasing out SUPs till October 2021. In the sampled states, Audit observations highlight that Sikkim introduced amendments in 1998 to ban the delivery of goods or materials in plastic wrappers or bags. Punjab did not ban the manufacturing, stocking, distribution, recycling, and sale of one-time use products made from thermacol, and these were easily available in the market. In 2012, Delhi Govt. imposed a ban on the manufacturing, sale, storage, and use of all types of plastic carry bags in the National Capital Territory, which was reaffirmed by the Hon'ble National Green Tribunal. The Delhi government's actions were not comprehensive and did not fully address the issue of SUPs.

51. The Committee desired to know if the Ministry has made any analysis to gauge the impact of reduction in actual use of single use plastic (SUP) items after one year of it being banned. The reply furnished by the Ministry is as follows:

"Last one year of implementation of single use plastic ban has showcased that involvement of all stakeholders including citizens, youth, students, startups and innovators, industry and Government, has generated many replicable and scalable success-stories for elimination of single use plastics. The single use plastic ban has triggered the development of innovative eco-alternatives, new business models, increase in the manufacturing capacity and uptake of eco-alternatives. The introduction and use of alternatives to banned single use plastic items have led to generation of new employment opportunities in sustainable green ventures. State Governments and local authorities have launched innovative programmes on moving towards eco-friendly alternatives.

Already, startups and manufacturers are manufacturing eco-alternatives such as cutlery made bagasse and rice and wheat bran, straws made from dried coconut leaves, straws made from paper. As per available information, 198 manufacturers/producers of eco-alternatives have been given Consent to Establish/Consent to Operate by SPCBs/PCCs, indicating rapid development at

commercial level. In keeping with the development of eco-alternatives, Bureau of Indian Standard has notified Indian Standard IS 18267 for Food Serving Utensil made from Agri By-Products.

Pan India enforcement campaigns have been undertaken for implementation of ban on identified single use plastic items since July 2022 by CPCB, SPCBs/PCCs and local authorities. As per available information, during enforcement campaigns, a total of 853832 inspections have been carried out, of which violations were detected in 344689 cases, approximately fine of Rs. 19,05,13,471/- was imposed and 19,49,535 kg. of plastic was seized.

States and Union Territories have been asked to undertake regular enforcement drives to implement ban on identified single use plastic items and on plastic carry bags having thickness less than one hundred twenty microns covering fruit and vegetable markets, wholesale markets, local markets, flower vendors, units manufacturing plastic carry bags etc. Further, CPCB/SPCBs/PCCs have been asked to give specific focus on items, which are being sold as alternatives to banned SUP items but which are actually covered under SUP ban, such as paper plates covered with plastic sheets.

Further, for effective monitoring of ban on identified single use plastic items and plastic waste management in the country the following online platforms are in operation (a) National Dashboard for monitoring of implementation of comprehensive action plan (b) CPCB Monitoring Module for Compliance on Elimination of Single Use Plastic, and (c) CPCB Grievance Redressal App.

Already, States/UTs have been asked to undertake studies on the availability of eco-alternatives and impact of ban on identified single use plastic items through surveys."

52. As the National Task Force is reviewing measures taken by the Government on elimination of SUPs and effective implementation of Plastic Waste Management Rules, 2016, the Committee desired to know the analysis by National Task Force of the impact of the various measures taken for plastic waste management and whether it has identified any glaring issues that require utmost priority. The reply of the Ministry is furnished as below:

"The Terms of Reference of the Task Force are given below:

- a. To prepare a Comprehensive Action Plan for implementation of Plastic Waste Management Rules, 2016 and phasing out of identified Single Use Plastic items, with identified activities and timelines and synergizing efforts and resources of various Ministries/Departments/Agencies of Government of India as well as States/UTs.
- b. To monitor and guide development and implementation of Comprehensive Action Plan for implementation of PWMR, 2016 and phasing out of identified SUP items at State/UT level.

- c. Assess plastic waste generated in the country with respect to collection, recycling and end of life disposal and identify gaps in plastic waste management (Reduce, Reuse and Recycle) – policy, implementation, enforcement, infrastructure etc.
- d. Strengthen policy, regulatory, institutional mechanisms/structures for the implementation of Plastic Waste Management Rules (PWMR), 2016 and phasing out of identified Single Use Plastic (SUP) items, design appropriate management strategies and allow for allocation of financial resources for Plastic Waste Management including leveraging of funds from Swachh Bharat Mission.
- e. Develop policies for supporting the adoption of alternatives to identified single use plastic items prohibited under PWMR, 2016, as amended.
- f. Take measures for effective monitoring of implementation of elimination of identified SUP items as well as of PWM Rules, 2016, as amended.
- g. To get prepared and implemented detailed road map for activities to build awareness and outreach among public on plastic waste management and reduction in the use of SUP items.
- h. Develop strategy for building a strong public movement for mitigation of plastic pollution by involving education institutions (schools, colleges, universities), NCC, NSS, Scouts, Youth clubs, Eco clubs, NYKs, Opinion makers and voluntary organizations, with a detailed action plan in this regard.
- i. Any such other measures as may deem appropriate for elimination of identified single use plastic items and effective tackling of plastic pollution in the country.

The action points identified during the fourth NTF meeting are given below

In addition, the completion of the following actions, in respect of different stakeholders, was reiterated and recommended.

States/UTs

S. NO.	ITEM
1.	Constitution district level taskforce and for million plus cities (All States/UTs)
2.	Regular meetings of STF (All States/UTs)
3.	Preparation of Comprehensive Action Plan (CAP) (Remaining states)
4.	Implementation of CAP as per timelines (All States/UTs)
5.	Updating progress on National Dashboard (All States/UTs)
6.	Enforcement of Ban on identified Single Use Plastic (SUP) items w.e.f 1 st July 2022 (All States/UTs)
8.	Awareness Generation towards prohibition of identified single use plastic items (All States/UTs)
9.	Action taken for reducing/elimination of single use plastic items in Government offices (All States/UTs)
	Accelerated penetration of Eco-alternatives (All States and UTs)
10	Organization of Expo / fairs and development of state-specific database of eco-alternative manufacturers
11	Providing incentives for manufacturing of Eco-alternatives
12	Procurement of Eco-alternatives for Government

	offices/institutions/bodies
13	Promotion of alternatives to prohibited SUP items
14	Capacity building of MSMEs
	Extended Producer Responsibility on plastic packaging and development of recycling infrastructure (All States and UTs)
15	Mobilization and registration of Producers, Importers, Brand Owners (PIBOs) and Plastic Waste Processors (PWPs)
16	Measures to bring PWPs and PIBOs under EPR regime, who have been operating without valid CTOs through special interventions
17	Setting up of clusters of MSME recyclers / informal sector
18	Skill development to be done for manpower operating recycling units

(i) Central Ministries

Development of plastic waste management infrastructure– MRF etc.	MoHUA, DDWS
Incorporation of plastic ban provisions in bye-laws of ULBs for levy of fine	MoHUA
Targeted IEC activities in Mission mode under SBM 2.0 on the following: <ul style="list-style-type: none"> o elimination of banned SUPs and o promotion of alternatives 	MoHUA, DDWS
Technical and financial assistance to MSMEs to manufacture alternatives to banned SUP item	MoMSME
Assistance for development of recycling sector with respect to different plastic types in the country	DCPC
Promotion on innovation and development of alternatives to single use plastics	DBT, DST, CSIR, NITI, DPIIT
Development of standard for biodegradable plastics	DoCA, DCPC
Targeted activities for developing a public movement	
KVS, NVS, Schools	Department of School Education and Literacy
Universities and HEIs	Department of Higher Education
NCC	Department of Defence
NYK, NSS	Department of Youth Affairs
Celebrity Endorsement, publicity	Ministry of Information & Broadcasting

Innovative ways of inventorisation, tracking and monitoring of plastic waste in marine, terrestrial and freshwater ecosystems	MoES, DST
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CPCB/SPCB/PCC

1	Enforcement of ban on identified single use plastic items
2	Strengthening of institutional mechanism for implementation of PWM Rules
3	State-wise quarterly assessment with reference to Single Use Plastic items and prohibited SUP on sample survey basis by selected institutions
4	Timely action on complaints/grievances received on online portal / App with respect to implementation of PWM Rules at Central and State Level
5	Awareness generation and capacity building
6	Mobilization and registration of Producers, Importers, Brand Owners (PIBOs) and Plastic Waste Processors (PWPs)
7	Measures to bring PWPs and PIBOs under EPR regime, who have been operating without valid CTOs through special interventions

The availability and use of alternatives to banned single use plastics has increased in last one year. BIS has brought out an industry standard for making cutlery from agri-waste and plastic products. The State/UT Governments have taken measures for rapid penetration of alternatives. "

53. The Committee asked the Ministry regarding action taken to persuade the remaining States Governments/ UTs to prepare their action plans, to which the Ministry gave the following reply:

"Since 2021, MoEF&CC has been continuously and intensively engaged with the States/UTs for constituting special taskforce under chairpersonship of Chief secretary of State / UT and development and implementation of comprehensive action plan for elimination of single use plastics and effective plastic waste management.

In this regard ten DO letters had been written to Chief Secretary/ Principal Secretary (Environment) of States / UTs Governments between March, 2021 till to date. In addition, three Office Memorandums were also issued to State / UT Governments.

The list of dates is given below.

S. No.	Date
1	25 th March 2021
2	08 th April 2021
3	13 th April 2021
4	11 th May 2021

5	15 th November 2021
6	15 th February 2022
7	10 th May 2022
8	20 th June 2022
9	17 th August 2022
10	27 th December 2022

Dates of O.M.s

S. No.	Date
1	16 th April 2021
2	08 th July 2021
3	12 th July 2021

Due to continuous persuasion, all States/UTs have constituted Special Taskforce under Chairpersonship of Chief Secretary of State / UT Governments and twenty four State / UT Governments have prepared Comprehensive Action Plan and implementing the same. The National Taskforce oversees and coordinates the activities at the national level for elimination of single use plastics and effective plastic waste management. Four meetings of the National Taskforce have already been held. "

H. Extended Producers Responsibility

54. It has been found that extended Producer's Responsibility (EPR) is shifting of the responsibility of the end-of-life management of products and materials to their respective producers. Its objective is to establish a system reducing the burden of municipalities and placing a shared physical and/ or financial responsibility for waste management on producers and providing incentives for manufacturers to design resource efficient and low impact products. Rule 3(h) of PWM Rules, 2016 further defines Extended Producer's Responsibility as responsibility of a producer for the environmentally sound management of the product until the end of its life. In their background note, the Ministry have submitted that they notified the Guidelines on Extended Producer's Responsibility for plastic packaging vide Plastic Waste Management (Amendment) Rules, 2022, on 16th February, 2022.

55. The country has numerous brand owners and producers, but there is no uniform framework for defining inter-linkages between stakeholders for effective fulfillment of EPR liability. This lack of a uniform framework hinders SPCBs/PCCs from addressing responsibilities and liabilities in plastic waste management. The PWM Rules, 2016 mandate producers to develop waste collection systems within six months from the date

of publication of these rules, involving State Urban Development Departments. Despite 144 registered producers with Punjab PCB and Delhi PCC, none have submitted their modalities for waste collection.

I. Non-submission of modalities for waste collection by Producers

56. Rule 9(1) of PWM Rules, 2016 provided that the producers, within a period of six months from the date of publication of these rules, shall work out modalities for waste collection system based on Extended Producer's Responsibility (EPR) and involving State Urban Development Departments, through their own distribution channel/through the local body concerned, as per guidelines issued under these rules from time to time.

57. Till March 2020, 144 producers were registered with Punjab PCB and Delhi PCC. However, none of them had submitted the modalities for waste collection to their respective PCB or PCC, so far.

58. In their ATNs, the Ministry submitted the following:-

"In order to streamline the implementation of extended producer responsibility by producers, importers and brand owners Rule 9 (1) has been amended on 6th July 2022 to state as follows

"The Producers, Importers and Brand Owners shall fulfil Extended Producers Responsibility for Plastic Packaging as per guidelines specified in Schedule -II."

Schedule II of the Plastic Waste Management Rules provides the "Guidelines on Extended Producer Responsibility on plastic packaging". As per the Guidelines, the producers, importers and brand owners have to fulfil EPR obligations by obtaining EPR certificates for different categories of plastic packaging, as applicable, from registered plastic waste processors after they have processed / recycled plastic waste.

The EPR certificates can be generated by registered plastic waste processors category –wise after their plant have been physically verified by the concerned SPCB/PCC on the ground. The EPR certificates are unique and ensure transparency and accountability in processing of plastic waste.

Generation of EPR certificates ensures that the plastic waste is not only collected but it is also processed and recycled in an environmentally sound manner.

The generation and exchange of EPR certificates between producers, importers and brand owners and plastic waste processors need to be done through the centralized online portal for EPR on plastic packaging. This ensures a complete digital trail of transactions is maintained from plastic waste collection to processing plastic waste and subsequent EPR certificate generation and transfer to PIBOs for fulfilment of EPR obligations.

As on date, already EPR certificates of around 22 lakh tonnes equivalent of plastic waste processed has been generated and around 13 lakh tonnes of EPR

certificates have been exchanged between registered plastic waste processors and producers, importers and brand owners.

It may be noted that of the total EPR obligations for the year 2022-23 is 30 lakh tonnes of which already EPR certificates have been generated for 22 lakh tonnes. The last date for fulfilment of EPR obligations is 31st October 2023. A large proportion of plastic waste has not only been collected and processed in an environmentally sound manner with complete accountability and traceability."

J. Non-establishment of system for collecting back the plastic waste by Producers, Importers and Brand Owners

59. The primary responsibility for collecting used multi-layered plastic sachets, pouches, or packaging lies with brand owners, importers, and producers. They must establish a system for collecting plastic waste generated by their products and submit the plan of collection to the SPCBs for approval. Those registered with CPCB must submit an Action Plan. CPCB received the Action Plan from all 92 registered PIBOs during 2018-20, but found it inadequate. Directions for renewal, levying Environmental Compensation, and serving show cause notices were issued. A test-check of 45 PBOs revealed that 15 did not provide progress reports, 14 submitted intermittent progress reports, and 11 could not collect back entire plastic waste. Nine PBOs were renewed by CPCB, but they either did not submit progress reports or submitted them intermittently. None of 77 registered producers submitted their system of collecting plastic waste to Delhi PCC, and only seven Brand Owners could submit their plan of collection to Punjab PCB.

60. As per Rule 9(2) of PWM Rules 2016, the primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of brand owners, importers and producers, who introduce the products in the market. Further, they need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection is to be submitted to the SPCBs while applying for Consent to Establish or Operate or Renewal. Similarly, those registered with CPCB in terms of rule 13(2) of PWM (Amendment) Rules, 2018 need to submit the Action Plan to CPCB.

None out of 77 registered producers had submitted their system of collecting back the plastic waste caused by their products to Delhi PCC. Only seven Brand Owners, out of total 87 registered PIBOs could submit their plan of collection to Punjab PCB.

61. In their ATNs, the Ministry submitted the following:-

“Rule 9 relates to responsibilities of producers, importers and brand owners. The fulfilment of extended producer responsibility on plastic packaging vide Rule 9 (1) ensures that collection of plastic packaging including used multilayered plastic sachet or pouches or packaging happens.

The Guidelines on EPR for plastic packaging, notified on 16th February 2022 mandate that EPR obligations of producers, importers and brand owners can only be fulfilled by EPR certificates generated by registered plastic waste processors after processing of plastic waste. This in effect ensures that plastic packaging waste including flexible plastic packaging is collected for processing.

Multilayered plastic sachet or pouches are covered under flexible plastic packaging as per EPR Guidelines.

The EPR Guidelines provide a market based mechanism for the collection and processing of plastic packaging including flexible plastic packaging. As per clause 10.2, the action plan of producers, importer and brand owner is the taking of annual EPR target, category-wise, which is linked to the plastic packaging introduced in the market by the producers, importer and brand owner.

The mechanism of fulfilment of EPR target through EPR certificates provide a clear mechanism to ensure the objective of Sub-rule (1) and sub rule (2) of rule 9.

Further in case producers, importers and brand owners in order to develop a separate waste stream for collection of plastic packaging waste directly by operating schemes such as deposit refund system or buy back or any other model. This will prevent mixing of plastic packaging waste with solid waste, as per clause 10.5 of the EPR Guidelines.

Vide clause 14 of the EPR Guidelines, the producers importer and brandowners can also separately, collection and segregation infrastructure for plastic packaging waste, as required fulfilling Extended Producer Responsibility obligations, the Producers, Importers & Brand-Owners.

In order align Plastic Waste Management Rules with EPR Guidelines, vide Plastic Waste Management (Second Amendment) Rules 2022 notified on 6th July 2022. Rule 9 (2) was amended to remove the following clause “*This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal.*”

Further, the item 11 of Form 1 which stated earlier “Action plan on collecting back plastic waste” has been amended to “Action plan in line with the guidelines specified in Schedule –II” (EPR Guidelines are given in Schedule II).

Fulfillment of statutory EPR obligations by producers, importers and brand owners will lead development of waste management infrastructure and supply chain for collection and processing of plastic packaging waste.

As on date already 2003 plastic waste processors have registered on the centralized on EPR portal for plastic packaging.

EPR certificates of 22 lakhs tonnes of plastic packaging waste have been generated by registered plastic waste processors against the EPR target of 3 lakh tonnes for the year of 2022-23.”

62. The Committee enquired from the Ministry if the guidelines adequately address the concerns raised by Audit, namely, non-submission of modalities for waste collection by Producers and non-establishment of system for collecting back the plastic waste by Producers, Importers and Brand Owners. The Ministry provided the following reply:

"The Ministry of Environment, Forest and Climate Change notified the Guidelines on Extended Producer Responsibility for plastic packaging vide Plastic Waste Management (Amendment) Rules, 2022, on 16th February 2022.

The key highlights of the Guidelines on Extended Producers Responsibility (EPR) on plastic packaging are as follows.

- (i) mandatory registration of Producers, Importers, and Brand Owners (PIBOs) and Plastic Waste Processors (PWPs) through centralized online portal.
- (ii) coverage of four categories of plastic packaging viz. rigid packaging, flexible packaging, multi-layered plastic packaging, and compostable plastic packaging.
- (iii) clearly defined targets for EPR.
- (iv) mandatory targets for reuse of rigid plastic packaging, minimum level of recycling of plastic waste and use of recycled plastic content in plastic packaging,
- (v) centralized online portal to support implementation of EPR
- (vi) provision sale and purchase of surplus EPR certificates,
- (vii) levy of environmental compensation for non-fulfilment of EPR obligations,
- (viii) provision for verification, audit and monitoring of obligated entities.

The Guidelines for Extended Producer Responsibility (EPR) on plastic packaging was introduced for the environmentally sound management of plastic packaging till end of its life by producers, importers and brand owners, who introduce the plastic packaging in the market. For ease of doing business the EPR framework is implemented through a centralized online portal.

As regards, non-submission modalities for waste collection by producers, Rule 9(1) of Plastic Waste Management Rules was amended on 6th July 2022, wherein, PIBOs are to declare the EPR targets only, there is now no requirement for submitting modalities for waste collection by producers. The relevant rule position is quoted below.

"The Producers, Importers and Brand Owners shall fulfil Extended Producers Responsibility for Plastic Packaging as per guidelines specified in Schedule -II."

As per the Guidelines, PIBOs have to fulfil EPR obligations by obtaining EPR certificates for different categories of plastic packaging, as applicable, from registered PWPs. Generation of EPR certificates ensures the plastic waste is collected & recycled in an environmentally sound manner.

Further, with respect to non-establishment of a system for collecting back, Rule 9 (2) of Plastic Waste Management Rules was amended to omit the following text

'This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal'. Further Form I prescribed under Rule 13 (2) has also been amended to replace 'Action plan on collecting back the plastic wastes' replaced with ' Action plan in line with the guidelines specified in Schedule -II'.

As per EPR Guidelines, the action plan of PIBOs is the taking of annual EPR target, category-wise, which is linked to the plastic packaging introduced in the market by the PIBOs. Further Clause 10.5 of EPR Guidelines, states that PIBOs may operate schemes such as deposit refund system or buy back or any other model in order to develop a separate waste stream. According to Clause 14 of the EPR Guidelines, the PIBOs may develop separately, collection and segregation infrastructure for plastic packaging waste, as required for fulfilling EPR obligations."

K. Non-setting up of system for PWM by local bodies

63. The Committee have also learnt that Rule 6(3) of PWM Rules 2016 stipulates that the local body shall set up system for the plastic waste management by seeking assistance of producers and such system shall be set up within one year from the date of publication of these rules, i.e., by 17 March 2017. Audit observed that the selected ULBs in Punjab and Sikkim did not set up a system for the plastic waste management by seeking assistance of producers, as they were not aware of the producers functioning under their jurisdiction. It was observed that in Delhi, the selected ULBs stated to have set up their own infrastructure. However, no documentary evidence in support of this comment was provided to Audit. On being pointed out, ULBs in Sikkim and Punjab replied that the details of producers would be obtained from their respective PCBs and efforts would be made to ensure setting up of system, for the plastic waste management with produce.

64. The Committee asked the Ministry regarding the current status of setting of the plastic waste management systems in the Delhi, Punjab and Sikkim and the other three metro cities. The Ministry furnished the following through a written note:

"The Guidelines on EPR for plastic packaging notified on 16th February 2022, provide a mechanism for local bodies to engage with producers, importers and brand owners and through this engagement develop a system of plastic waste management. Rule 6 (3) provides for the engagement with producers. The mechanism may be developed by ULBs. As per Clause 11.7 of the EPR Guidelines the local authorities can get EPR certificates from registered plastic waste processors for the plastic packaging waste provided by local body for waste processing. These certificates can then be exchanged with PIBOs. This would allow revenue generation opportunity for the local bodies. Further, as per clause 14.1 (c), PIBOs may develop collection and segregation infrastructure of plastic packaging waste, as required, based on implementation modality by offering for collection and waste processing through engagement with local bodies.

The centralized online EPR portal for plastic packaging has been developed incorporating the above provisions. As such the EPR Guidelines provide a clear

market-based mechanism for engagement between PIBOs and Local authorities. In addition, under Swachh Bharat Mission additional central assistance is also provided local authorities for solid waste management including plastic waste management in both urban and rural areas."

65. Rule 5(1)(a) of PWM Rules, 2016 envisages that the plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler by the Urban Local Bodies and recycling of plastic shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time. Audit found that in Punjab and Sikkim, ULBs were not involved in the process of segregation and channelization of plastic waste and the same was done by the rag pickers, informal sectors, junk dealers. Hence, these ULBs could not ensure whether the segregated recyclable plastic waste of 0.16 million tonnes was being channelized only to registered recyclers complying with the Indian standard. Moreover, Sikkim does not have recycling or processing units in the state and recyclable fraction of plastic is being sent to waste dealers in Siliguri, West Bengal. In Delhi, sampled ULBs did not provide any records regarding channelization and recycling of plastic waste.

66. The Committee desired to know from the Ministry how the ULBs are ensuring compliance of PWM Rules 2016 where in plastic waste is to be channelized to registered plastic waste recycler. The Ministry has furnished the following reply in response :

"Local bodies are establishing Material Recovery Facilities (MRFs) to segregate dry waste into various components which includes plastic waste. The plastic waste segregated at MRFs is channelized for further processing.

Establishment of MRFs by ULBs is an eligible component for support under Swachh Bharat Mission Urban. MoHUA has established "Sansaadhan" a digital monitoring platform that enables national, state, and city level agencies to regularly monitor the progress of material recovery facilities (MRFs) under their jurisdiction. Sansaadhan is a platform to link local bodies to recycling markets. Already established MRFs are being linked to the platform.

As more MRFs are established and linked to Sansaadhan platform, real time information of plastic waste segregated and channelized to waste processors will become available. Already through under EPR Guidelines on plastic packaging, around 2043 plastic waste processors which includes 1866 plastic waste recyclers are registered on centralized online EPR portal for plastic packaging.

These plastic waste processors including recyclers have provided their complete recycling process details including plastic waste recycled and outputs generated. All the registered recyclers have valid consent to operate. The quantitative details

of the plastic waste procured by registered recyclers; the quantity of product manufactured after recycling is provided by the registered recyclers directly on the EPR portal on a quarterly as well as annual basis.

The registered plastic waste processors have already generated EPR certificates for 2.9 million tonnes of plastic packaging waste. The details of plastic waste processors through the EPR portal for each state/UT is accessible to concerned SPCB/PCC. In addition, the reporting module on the National Dashboard for online data reporting data by local bodies captures data on (i) Collection, (ii) Segregation, (iii) Recycling, and (iv) Disposal."

67. Audit found all the three sampled ULBs of Delhi claimed to have complied with the Solid Waste Management Rules in disposal of inert from recycling or processing facilities; however no evidence was provided to audit to back up this claim.

68. Audit observed that the selected ULBs of Punjab did not utilize the plastic waste for road construction or energy recovery or waste to oil etc. during 2015-20. Sikkim could utilize the plastic waste for road construction only once in 2020, whereas Gangtok Municipal Corporation handed over 500 kgs. of plastic waste to National Highways & Infrastructure Development Corporation Ltd. (NHIDCL) for road construction. ULBs in Delhi utilized 4,83,625 tonnes of plastic waste in the production of Refused Drive Fuel to be used in waste to energy plant during 2015-20.

69. The Committee asked the Ministry whether any assistance is provided by the MOEFF&CC/CPCB to the states to enable them to utilize plastic waste for various activities. The following reply was provided by the Ministry in this regard:

"The Action Plan template for Ministry of Road Transport Highways, the nodal Ministry for construction of national highways in the country, includes an activity for utilization plastic waste in road construction. The Regional Offices of MoRTH have been asked assist the Dept of Environment, Urban Development Departments and ULBs of all states/UTs, to enable use of plastic waste in road construction. States/UTs have been asked for taking assistance from Central Road Research Institute for use of plastic waste in road construction. MoHUA and DDWS were asked to undertake capacity building of local bodies for effective utilization of plastic waste in road construction through better segregation."

70. PWM Rule 9 under sub-rule (1) directed the PIBOs who introduce multi-layered plastic (MLP) in the market to phase out manufacture and use of non-recyclable multilayered plastic, if any. CPCB provided year-wise data of 1187 producers involving in manufacturing of MLP registered with SPCBs or PCCs across the country during

2015-20. However, it acknowledged that it was not aware of those producers who had completely stopped or phased out manufacturing of non-recyclable MLP. Delhi PCC denied the existence of PIBOs involved in manufacture or use of non-recyclable multi-layered plastic in the state. In Punjab, the information of the PIBOs involved in manufacturing or using non-recyclable MLP was not provided by PMIDC. In Sikkim, PCB and ULBs are not aware of the producers, if any operating in the state.

71. The Committee wanted to know whether the CPCB now maintain data of producers who have completely stopped or phased out manufacturing of non-recyclable MLP?

"As per Plastic Waste Management Amendment Rules 2108 "multilayered plastic which is non-recyclable or non-energy recoverable or with no alternate use" would be phased out and not multilayered plastic which is not recyclable."

L. Absence of clear provisions for penalty for violation of PWM Rule 2016

72. Audit noticed that PWM Rules lacked clarity on the issue of penalty for violation of PWM Rules 2016, because these rules neither prescribed any penal provision for violations nor made any reference to the provisions contained in Environment (Protection) Act for the purpose. Later, CPCB framed an Environmental Compensation Regime (ECR) for violators of PWM of PWM Rules in December 2020 when directed by NGT in September 2020. However, this regime came into force in October 2021 only with the notification of EPR. Thus, lack of clarity on imposition of penalty in the PWM Rules not only allowed the violators of these rules to let off unpunished but also mitigate the effectiveness of these rules.

73. The Committee asked the Ministry whether appropriate clauses for penalty on violation of these rules have been framed now, to which the Ministry stated as under:

"Vide Plastic Waste Management (Second Amendment) Rules, 2022, Rule 18 for imposition of environmental compensation has been introduced in the PWM Rules. Vide Rule 18, the environmental compensation shall be levied based upon polluter pays principle, on persons who are not complying with the provisions of these rules, as per guidelines notified by the CPCB. The Guidelines provide details of environmental compensation to be levied, rule – wise and the action take to be taken for non-compliance.

With respect to non-fulfillment of EPR targets, the payment of environmental compensation shall not absolve the Producers, Importers & Brand-Owners of the obligations set out in these guidelines. The unfulfilled Extended Producer

Responsibility obligations for a particular year will be carried forward to the next year for a period of three years. This ensures that PIBO gets the plastic waste processed equivalent to the unfulfilled EPR target in an environmentally sound manner.

In case, the shortfall of Extended Producer Responsibility obligation is addressed within three years. The environmental compensation levied shall be returned to the Producers, Importers & Brand-Owners as given below, namely

- (i) Within one year of levying of EC: 75% return;
- (ii) Within two years 60% return;
- (iii) Within three years 40% return,

After completion of three years on environmental compensation getting due the entire environmental compensation amount shall be forfeited. This arrangement shall allow for collection and recycling of plastic packaging waste by Producers, Importers & Brand-Owners in later years as well."

74. CPCB accepted to have not conducted the assessment of pollution of plastic waste in air and human health for the entire country, so far. In the sampled states, Department of Environment, Government of NCT, Delhi and Punjab PCB admitted that no such study has been undertaken till date.

75. The Committee desired to know the reason due to which the MoEFCC/CPCB did not prioritize the task of identification of these risks to environment and human health and the steps taken to address the issue. The Ministry gave the following written reply:

"The Central Pollution Control Board conducted a study 'Impact of Plastic Waste Disposal on soil and water quality at Lucknow dumpsites. It was observed in the study that dumping of plastic waste may deteriorate soil and underground water quality due to leaching of additives, colours, stabilizers and fillers present in different categories of plastic products. Additive chemicals and microplastics released from unmanaged and littered plastic waste can cause pollution of environment.

A status report has been prepared by a joint Committee comprising CPCB, ICMR, Central Institute of Petrochemicals Engineering & Technology (CIPET), NCSCM, under the nodal coordination of CPCB on the newspaper report "Detecting microplastics in human blood".

Scientific reports, on microplastics as yet, have not been able to establish a causal relationship with health effects.

The status report is already available in public domain for wider dissemination and use by stakeholders."

M. Monitoring

76. Audit findings show that the PWM Rules, 2016 are silent on identification of a nodal department or body for overall monitoring of implementation at Central level.

Further, each State/UT were directed by MoEF&CC in March 2021 to constitute a Special Task force for preparation of a comprehensive Action Plan for implementation of PWMR 2016 and phasing out of SUPs, with identified activities and to prepare a Comprehensive Action Plan for implementation of Plastic Waste Management Rules, 2016. A National Task Force was also constituted for phasing out of identified Single Use Plastic items. The Audit found that National Task Force has not yet produced an action plan for the purpose so far and only 23 states and UTs have formed their respective task forces.

77. The Audit findings further show absence of guidelines and standards for monitoring of plastic pollution. CPCB has not prepared any guidelines or standards or any body for the purpose of monitoring of plastic pollution in surface water, soil and micro plastics in air. Punjab PCB also admitted to have not taken any step in this regard. Delhi PCC is stated to have neither prepared guidelines/ standards for monitoring of plastic pollution in surface water, soil and microplastics in air nor constituted a body for the purpose so far.

78. Audit found that regarding the assessment of quantum of plastic waste generated and processed, the responsibility of maintaining the inventory of Producers, Importers, Brand Owners (PIBOs) lies with CPCB, SPCBs and PCCs, as they are the registering authorities as per MoEF&CC. Further CPCB admitted regarding non maintenance of the annual inventory of Producers, Importers, Brand Owners, manufacturers and recyclers. CPCB later provided a list of 1419 recyclers in 31 States and UTs based on the information uploaded on the websites by respective SPCBs and PCCs.

79. The Committee desired to know from the Ministry regarding the contours of the National task Force set up for monitoring the implementation of plastic waste management rules 2016 as amended from time to time. The written reply furnished by the Ministry is as under:

"India is committed to phase out identified single use plastic items, which have low utility and high adverse environment impact by 2022. In this regard, the States/UTs have been requested to constitute a Special Task Force for taking measures to eliminate single use plastics and to prepare a comprehensive action plan for implementation in mission mode. Concerned central Ministries/Departments have also been requested to develop comprehensive action plan for elimination of identified single use plastic items.

2. Elimination of identified single use plastic items by 2022 requires effective coordination and collaboration between concerned Ministries/Departments/Agencies and State/UT governments. Accordingly, a National Task Force for taking measures to eliminate identified Single Use Plastic in mission mode is hereby constituted with the following composition:

(i)	Secretary, Ministry of Environment, Forest and Climate Change	Chairman
(ii)	Representative of Secretary (not below the rank of Joint Secretary), Ministry of Housing and Urban Affairs	Member
(iii)	Representative of Secretary (not below the rank of Joint Secretary), Ministry of Micro, Small and Medium Enterprises	Member
(iv)	Representative of Secretary (not below the rank of Joint Secretary), Department of Commerce	Member
(v)	Representative of Secretary (not below the rank of Joint Secretary), Department for Promotion of Industry and Internal Trade	Member
(vi)	Representative of Secretary (not below the rank of Joint Secretary), Ministry of Road, Transport and Highways	Member
(vii)	Representative of Secretary (not below the rank of Joint Secretary), Ministry of Earth Sciences	Member
(viii)	Representative of Secretary (not below the rank of Joint Secretary), Department of Consumer Affairs	Member
(ix)	Representative of Secretary (not below the rank of Joint Secretary), Department of Drinking Water and Sanitation	Member
(x)	Representative of Secretary (not below the rank of Joint Secretary), Department of Science and Technology	Member
(xi)	Representative of Secretary (not below the rank of Joint Secretary), Department of Chemical and Petrochemicals	Member
(xii)	Representative of Chief Secretary/Administrator (Additional Chief Secretary / Principal Secretary of Nodal Department identified by the State / UT governments) of State / UT governments	Member

The Terms of Reference of the Task Force are as given below:

- a) To prepare a Comprehensive Action Plan for the implementation of Plastic Waste Management Rules, 2016 and phasing out of identified Single Use Plastic items, with identified activities and timelines and synergizing efforts and resources of various Ministries/Departments/Agencies of the Government of India as well as States/UTS.
- b) To monitor and guide the development and implementation of a Comprehensive Action Plan for the implementation of PWMR, 2016, and phasing out of identified SUP items at State/UT level.
- c) Assess plastic waste generated in the country with respect to collection, recycling, and end of life disposal and identify gaps in plastic waste management (Reduce, Reuse, and Recycle)-policy, implementation, enforcement, infrastructure, etc.
- d) Strengthen policy, regulatory, and institutional mechanisms/structures for the implementation of Plastic Waste Management Rules (PWMR), 2016 and

phasing out of identified Single Use Plastic (SUP) items, design appropriate management strategies, and allow for the allocation of financial resources for Plastic Waste. Management, including leveraging of funds from the Swachh Bharat Mission.

e) Develop policies for supporting the adoption of alternatives to identified single-use plastic items prohibited under PWMR, 2016, as amended.

f) Take measures for effective monitoring of the implementation of elimination of identified SUP items as well as of PWM Rules, 2016, as amended.

g) To get prepared and implemented a detailed road map for activities to build awareness and outreach among the public on plastic waste management and reduction in the use of SUP items.

h) Develop a strategy for building a strong public movement for the mitigation of plastic pollution by involving education institutions (schools, colleges, universities), NCC, NSS, Scouts, and Youth clubs. Eco clubs, NYKS, Opinion makers, and voluntary organizations, with a detailed action plan in this regard.

Any such other measures as may deem appropriate for the elimination of identified single use plastic items and effective tackling of plastic pollution in the country."

Part –B

Observations/ Recommendations of the Committee

Plastic products have become an integral part of our daily life as a result of which the polymer is produced at a massive scale worldwide. Once plastic is discarded after its utility is over, it is termed as plastic waste. It is a fact that plastic waste never degrades, and remains on landscape for hundreds of years unless recycled. It is estimated that approximately 70% of plastic packaging products are converted into plastic waste in a short span. Plastic products pollution due to littered and mismanaged plastic waste is a global environmental issue that needs to be addressed with due seriousness and urgency. It has adverse impacts on ecosystems in general and marine ecosystems in particular (80% of plastic waste originates from land sources. 9.2 billion tons of plastic has been produced since 1950, of which 7 billion tons of waste has been generated. Each year, 400 million tons of plastic is produced, of which one-third is produced for single use products and around 10 million tons is dumped into the ocean). MoEF&CC under the provisions of the Environment (Protection) Act, 1986 (EPA 1986), notified the Plastic Waste (Management and Handling) Rules, 2011. To implement these rules more effectively and to give thrust on plastic waste minimization, source segregation, recycling, involving producers, manufacturers, importers, brand owners, waste pickers, recyclers and waste processors in collection of plastic waste, amended Plastic Waste Management Rules (PWM), 2016 was notified and has been amended many times the last being in April, 2023.

The Committee note that Audit assessed effectiveness and compliance of the provisions of Plastic Waste Management Rules in order to examine their adequacy in management of plastic waste and to address the risks posed by plastic waste to environment and health.

The Committee also note that 18 wards from six selected zones of three Urban Local Bodies (ULBs) in Delhi, eight ULBs & thirty Rural Local Bodies (RLBs) from six sampled districts in Punjab and four ULBs & nine Panchayati Raj Institutions (PRIs) from three sampled districts in Sikkim were selected for review of records pertaining to the period 2015-16 to 2019-20. The Committee find that

Audit covered the activities carried out for the management of plastic waste in Ministry of Environment, Forest & Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) of the selected states, Panchayati Raj Institutions, Gram Panchayats (GPs) and Urban Development Departments (UDDs) of the selected states. The Committee *inter-alia* observe from Audit findings that Ministry of Environment, Forest & Climate Change (MoEF&CC) had no action plan for implementation of Plastic Waste Management Rules 2016, as a result of which the same could not be implemented effectively and efficiently.

Based on their interaction with the Ministry of Environment, Forest & Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) and Urban Development Departments (UDDs) of the selected states and metro cities and the replies received from them, the Committee have recorded their observations and recommendations on issues contained in the audit report that merit consideration in the succeeding paragraphs.

Assessment of generated plastic waste

1. The Committee note that Rule no. 17 of PWM Rules 2016 stipulates that every recycling/ processing unit, local body, PCB/ PCC and CPCB is to provide the information on use and management of plastic waste annually to the next higher authority in hierarchy viz. plastic waste recycling/ processing units to Local Bodies to PCBs/ PCCs to CPCB to MoEF&CC. The Committee observe from Audit findings that many SPCBs/ PCCs did not provide data on plastic waste generation for the period 2016-18 to CPCB. Further, between 2018-20, data provided by SPCBs / PCCs did not include plastic waste generated by all the ULBs and RLBs. The Committee also note that data received from SPCB/PCC was not validated by CPCB and in certain cases, there were inconsistencies in data shared by ULBs with SPCB/PCC and variations were observed in the data of plastic waste generation as provided to Audit and as reported to SPCBs/PCCs by local bodies from 12% to 45 % which is indicative of unreliability of the data being reported. The Committee note from the ATNs submitted by the Ministry that after repeated follow-up, all 35 SPCBs/PCCs have started to provide information on

plastic waste management. The Committee also observe that the Ministry has operationalized a separate "Reporting Module" and steps have been taken for local bodies to annually report data online and the SPCBs/PCCs to validate data submitted by the local bodies through random sampling/ field inspection for online data reporting on the National Dashboard on Elimination of Single Use Plastics and Effective Plastic Waste Management.

The Committee while opining that having reliable assessment of amount of plastic waste being generated is the first step towards managing it effectively and efficiently recommend that a robust monitoring mechanism for ensuring regular and continuous collection, validation and sharing of data may be developed and implemented in letter and spirit and thereby enable effective decision making. The Committee, further, recommend that reporting of data online on the national dashboard may be made mandatory and while reporting the data online at the first level and for validation of the data so reported, local bodies and SPCBs/PCCs may upload photographs/ videos of the process (assessment in case of local bodies and validation in case of SPCBs/PCCs) along with GPS location, on monthly basis. Further, the general public may also be encouraged to upload photos/ videos of the dumps that remain unreported/ unnoticed.

Method of assessment of plastic waste not uniform

2. The Committee note that there has been no uniform method for assessment of plastic waste generation within a state and that the data of plastic waste generation reported by ULBs was based on assumptions and lacked any sound rationale. Shockingly, the CPCB admitted that it was not aware of the methodology being adopted by ULBs for calculation of quantity of plastic waste generated by them. The Committee are aware that the Municipal Solid Waste Management Manual published under the Swachh Bharat Mission for use by Local bodies has a methodology prescribed for waste quantification and assessment of waste composition. The Committee further observe from the reply of the Ministry that one of the internationally accepted methods for assessment of plastic waste is ASTM Method which may be adopted to assess batch/ samples of known weight of fresh Municipal Solid Waste arriving at dumpsites on different days from different sources in vehicles. The Committee while noting that as the

quantum and composition of waste is influenced by factors such as population, area, level of urbanization etc, each local body undertakes its own assessment on quantum and composition of municipal solid waste, recommend that respective ULBs in coordination with SPCBs/ PCC in their State decide upon usage of any of the aforesaid methodologies for assessment and quantification of waste including plastic waste and thereafter establish benchmark values for planning and management of the waste at the city level; and upload the methodology followed and the benchmark values on the national dashboard, which would enable monitoring by the next higher authority.

Projections of the quantities of plastic waste to be generated

3. The Committee are aware that future projections of waste generation are indispensable for a comprehensive waste policy formulation and waste management planning. Hence, to make realistic projections about the growth of waste in the future, the dominant parameters should be identified and their expected influence on the waste amounts should be described and evaluated. The Committee note that the Ministry carried out a study on “Assessment and Characterization of Plastic Waste generation in 60 major cities” undertaken by CPCB in January 2015 wherein the assessment of plastic waste was carried out at dumpsites to suggest the roadmap and make recommendations for plastic waste management in the country. However, the Committee note that there were no projections on growth in plastic waste based on the results of this study. CPCB also admitted before the Committee to have not made any projection of the plastic waste generation based on population size, geographical size of the area, economic growth, increased demand for consumer goods and change in manufacturing methods etc. The Committee, while expressing disappointment at the lackadaisical approach of the CPCB in handling the problem of pollution recommend that the Ministry, in coordination with CPCB/SPCBs take concrete steps for making projections of waste generation for formulating a comprehensive waste management policy. Further, the Committee note that Urban Local Bodies have commissioned studies from technical institutions for waste characterisation and quantification and recommend here that such studies may also include future projections of waste generation, particularly keeping in

mind, population size and type, geographical size of the area, economic growth, type of consumer goods being sought and changes in manufacturing as well as packaging methods.

Absence of a policy and action plan for plastic waste reduction, reuse or recycle

4. The Committee note that MoEFCC is the nodal agency in the administrative structure of the Central Government for planning, promotion, co-ordination and overseeing the implementation of India's environmental policies and programmes. Yet, the MoEFCC remained silent on the existence of a policy for plastic waste reduction, reuse and recycling. However, the Ministry has informed to have adopted a three-pronged strategy for effective implementation of PWM Rules that includes (i) behavioural change, (ii) strengthening of institutional system for collection, segregation and recycling of plastic waste and (iii) engagement with producers, importers and brand owners through Extended Producer's Responsibility. The Committee note that MoEFCC did not have any action plan in place for effective implementation of the said strategy during the period 2015-20. The preparation of a comprehensive action plan was initiated only in May 2021. The Committee further note that in all the three sampled States, no action plan was found in place for management of plastic waste, except in Punjab and that too only for urban areas since April, 2019. The Committee observe from the submission of the Ministry of Environment, Forest and Climate Change that it has now adopted a twin pronged strategy of placing ban on single use plastic items which have high littering potential and low utility (Reduction in plastic waste generation), and effective implementation of extended producer responsibility on plastic packaging (quantitative target for recycling of plastic waste and reuse of rigid plastic packaging). The Committee also note that Comprehensive Action Plans (CAPs) have been prepared by all States/ UTs and special taskforces have also been constituted under the Chief Secretary to review the implementation of comprehensive action plans. A National Task force has been constituted by the Ministry in June 2021 to oversee the implementation of the CAPs of the States/UTs. The States/ UTs are required to update progress made on comprehensive action plans on the National Dashboard. The Committee

recommend that the National Task Force as well as the Task Forces at the State/UT level may review the action taken at regular intervals and put their remarks against the updates uploaded by the States/ UTs on the national dashboard. While taking note of the host of initiatives taken by the Ministry, the Committee nevertheless, observe that plastic can still be seen strewn across all the urban and rural areas of the country indicating that the agencies have not been able to enforce ban on production of single use Plastic or non-recyclable plastic. The Committee are of the considered opinion that a comprehensive policy is required for containing pollution caused by plastics as finding a cost effective and dependable alternative to plastic is a pre requisite for its elimination. The Committee, therefore, recommend that identification and development of environmentally friendly alternatives to single-use plastic products, taking into account the full life cycle implications of those alternatives may be encouraged and accordingly producers designing alternatives to single-use plastics may be incentivized. The Committee are of the considered opinion that immediate and effective steps, in addition to the Extended Producers Responsibility, including spreading awareness about the eco-friendly alternatives and ill-effects of single-use plastics, providing for funds for R&D on finding alternatives, making the implementing agencies accountable, promoting use of recycled plastic content and increasing the recycling facilities to process the amount of plastic that is being produced may be taken to efficaciously enforce the ban on single use plastics on ground.

Registration of Producers, Importers, Brand Owners, manufacturers and recyclers

5. Audit has highlighted various irregularities in the process of registration of producers, importers, brand owners, manufacturers and recyclers. The Committee observe that Rule No. 13(1) of PWM Rules, 2016 provided that no person shall manufacture carry bags or recycle plastic bags or multi-layered packaging without obtaining a registration from the State Pollution Control Board or the Pollution Control Committee of the Union Territory concerned, as the case may be, prior to the commencement of production. Producers or brand owners operating in more than two states or UTs need to apply to CPCB for the purpose

of registration and renewal in terms of Rule 13(2). The Committee observe that only a limited number of producers, importers and brand owners registered under the rules during 2015-20 and the producers which registered with CPCB and SPCBs/ PCCs during the audit period did so beyond the stipulated time period. The Committee further note that Rule 13(5) of PWM Rules, 2016 provides the State PCBs and PCCs shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. While Punjab PCB granted registration or renewal of registration to 7 producers and 3 recyclers beyond the validity of their consent, Delhi PCC did not provide records related to date of registration. Further, the Committee observe that Rule 13(11) of PWM Rules, 2016 provided that every application for renewal of registration shall be made at least one hundred twenty days before the expiry of the validity of the registration certificate and that the PIBOs did not apply for renewal registration before the expiry of registration period. The SPCBs/CPCB did not process the renewal for registration applications in a timely manner and there was pendency of applications. The Committee note from the response of the Ministry that the Guidelines on Extended Producer Responsibility for plastic packaging was notified on 16th February 2022. These guidelines mandate online registration of producers, importers and brand owners and plastic waste processors and provide a clear framework and methodology for fulfillment of EPR obligations and also prescribe role and responsibilities of Producer, Importer and Brand owners, Plastic waste processors, State Pollution Control Board/Pollution Control Committees and Central Pollution Control Board. The Committee note that 21672 Producers, Importers and Brand Owners (PIBOs) and 2003 Plastic Waste Processors (PWPs) had registered on the centralized EPR portal developed by CPCB, as opposed to 300 in 2021. While noting that EPR registration has been simplified, the Committee would like to know the resultant reduction in the time being taken for PIBOs to register, and also for renewals. The Committee are of the considered view that in order to enforce the extended responsibility of the producers, it is imperative that the Ministry have a clear idea of the number of such producers in the country. The Committee would like to be apprised of the mechanism by which

the Urban Local Bodies identify the producers in their areas including those who are reluctant to register and the targets and the timelines that have been set by the Ministry to register all the existing small and large PIBOs on the portal and the steps being taken to expedite registrations and renewals as well as provision of incentives, if any, for small producers.

Extended Producer's Responsibility

6. The Committee note that Rule 3(h) of PWM Rules, 2016 defines Extended Producer's Responsibility as responsibility of a producer for the environmentally sound management of the product until the end of its life. The Committee note that Rule 9(1) of PWM Rules, 2016 provides that the producers, within a period of six months from the date of publication of the rules, shall work out modalities for waste collection system based on Extended Producer's Responsibility (EPR) and involving State Urban Development Departments, through their own distribution channel/ through the local body concerned, as per guidelines issued under the rules from time to time. The Committee observe from Audit findings that till March 2020, 144 producers were registered with Punjab PCB and Delhi PCC. However, none of them had submitted the modalities for waste collection to their respective PCB or PCC. The Committee also note that as per Rule 9(2) of PWM Rules 2016, the primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of brand owners, importers and producers, who introduce the products in the market. Further, they need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection is to be submitted to the SPCBs while applying for Consent to Establish or Operate or Renewal. Similarly, those registered with CPCB in terms of rule 13(2) of PWM (Amendment) Rules, 2018 need to submit the Action Plan to CPCB. The Committee observe that none out of 77 registered producers had submitted their system of collecting back the plastic waste caused by their products to Delhi PCC. Only seven Brand Owners, out of total 87 registered PIBOs could submit their plan of collection to Punjab PCB. The Committee note from the reply of the Ministry that as per the Guidelines, the producers, importers and brand owners have to fulfil EPR obligations by obtaining EPR certificates for different categories of plastic packaging, as applicable, from registered plastic

waste processors after they have processed / recycled plastic waste. This includes multi-layered plastic sachet or pouches. The EPR certificates can be generated by registered plastic waste processors category-wise after their plants have been physically verified by the concerned SPCB/PCC on the ground. The EPR certificates are unique and ensure transparency and accountability in processing of plastic waste. The Committee note that the total EPR obligations for the year 2022-23 is 30 lakh tonnes of which EPR certificates had been generated for 22 lakh tonnes. The Committee also note that, as per clause 10.5 of the EPR Guidelines, in case of producers, importers and brand owners there is a possibility to develop a separate waste stream for collection of plastic packaging waste directly by operating schemes such as deposit refund system or buy back etc. While noting that separate waste stream will prevent mixing of plastic packaging waste with solid waste, the Committee recommend that the producers may be encouraged to develop separate waste stream for collection of plastic packaging waste directly to reduce the time taken in recycling the plastic waste. The Committee also desire to know whether the annual targets were achieved in issue of EPR certificates for the balance 8 lakh tonnes.

Non-setting up of system for PWM by local bodies

7. The Committee note that despite the stipulation of Rule 6(3) of PWM Rules 2016 that the local body shall set up system for the plastic waste management by seeking assistance of producers within one year from the date of publication of the PWM Rules, i.e., by 17 March 2017; the selected ULBs in Punjab and Sikkim did not set up a system for the plastic waste management by seeking assistance of producers, as they were not aware of the producers functioning under their jurisdiction. In Delhi, the selected ULBs are stated to have set up their own infrastructure, however, no documentary evidence in support thereof was provided. The Committee note that the EPR Guidelines provide a clear market based mechanism for engagement between PIBOs and Local authorities. However, the Committee are disappointed to note that when asked about the status of the setting up of plastic waste management systems in Delhi, Punjab, Sikkim and the three other metro cities, there was no clear response from the Ministry on whether PWM systems have been developed by the ULBs. The Committee are of the opinion that providing for mechanisms will not resolve the

issue unless followed up by continuous monitoring by the Ministry and the CPCB/SPCBs. The Committee, therefore, recommend that the national dashboard may also reflect the PWM systems so developed by the ULBs under all the States/UTs. The Committee also desire that best practices followed by various ULBs may be compiled by the CPCB and uploaded on the dashboard to enable other ULBs to implement the same. The Committee also recommend that penal provisions for not setting up the PWM systems by all the Urban Local Bodies may be made for and imposed by the concerned regulatory authorities.

In this context, the Committee observe from a statement made by representatives of MoHUA that across the country, 22 crore Million Tonnes (MT) of legacy dumpsites lie in the form of different 'mountains of waste'. Out of this 22 crore MT of waste, in the Phase-I of Swachh Bharat Mission, four crore MT of waste has been cleared and 17 crore MT of work order has been awarded. However, the Committee also consider it to be prudent to point out there are regretful instances of dumpsites being present in the middle of cities/towns such as Murshidabad which may cause extreme health hazards such as cholera/typhoid and hoards of pulmonary diseases with the children residing in the nearby areas being the most vulnerable. Had the Local Bodies made their PWM systems in time, such a problem of legacy waste would not have arisen. The Committee recommend that the MoEFCC in collaboration with the MoHUA and ULBs may take necessary steps to ensure that such legacy waste dumpsites are not created in the middle of habitation and existing dumps are cleared on an urgent basis.

Discrepancies in recycling of plastic waste

8. The Committee note that Rule 5(1)(a) of PWM Rules, 2016 envisages that the plastic waste, which can be recycled, shall be channelized to registered plastic waste recyclers by the Urban Local Bodies and recycling of plastic shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time. The Committee note that in Punjab and Sikkim, ULBs were not involved in the process of segregation and channelization of plastic waste and the same was done by the rag pickers, informal sectors and junk dealers. Hence, these ULBs could not ensure whether the segregated

recyclable plastic waste of 0.16 million tonnes was being channelized only to registered recyclers complying with the Indian standards. The Committee also note that Sikkim does not have recycling or processing units in the state and recyclable fraction of plastic is being sent to waste dealers in Siliguri, West Bengal. Shockingly, the Committee note that in Delhi, sampled ULBs did not provide any records regarding channelization and recycling of plastic waste. The Committee are of the considered opinion that even before channelizing plastic waste to registered recyclers, a comprehensive action plan has to be made to create plastic waste recycling facilities commensurate with the amount of plastic waste being generated currently as well as to cater to plastic waste that may be generated in the future. The Committee accordingly, recommend that a structured roadmap may be made in collaboration with all the States/ UTs to create commensurate plastic waste recycling facilities in the country to cater to current and future needs.

The Committee note from the reply of the Ministry that Local bodies are establishing Material Recovery Facilities (MRFs) to segregate dry waste into various components which includes plastic waste. The plastic waste segregated at MRFs is channelized for further processing. The Committee are of the considered opinion that involvement of the informal sector including rag pickers and junk dealers for collection and segregation of plastic waste may be encouraged to create employment opportunities/ earning avenues and expedite the process of segregation.

The Committee further observe that the UN Environment Program identifies three market shifts to bring about change to the legacy which plastic has left – reuse, recycle, and re-orient and diversify and that these three shifts would result in an 80 per cent decrease in plastic pollution and could lead to the net creation of 700,000 additional jobs by 2040. In this direction, the Committee recommend that efforts may be made for phasing out plastics and replacing by reusable products based on a circular economy approach. The Committee recommend that solutions for tackling this issue may be identified to bring new opportunities for innovation, competitiveness and job creation.

Monitoring

9. The Committee observe from Audit findings that there was a need for identification of nodal department or body for overall monitoring of implementation of Plastic Waste Management Rules at Central level. The Committee note from the response of the Ministry that the monitoring of implementation of Plastic Waste Management Rules at the Central level has always been overseen by the Ministry with assistance from Central Pollution Control Board and SPCBs/PCCs through the mechanism of Annual Reporting and continuous engagement with stakeholders including State and Local Governments, industry and citizens, as required. The Committee note that a National Taskforce on elimination of single use plastics and effective plastic waste management has held four meetings to oversee and coordinate the activities at the national level; state Task Forces have been constituted and digital and IT based technologies have been extensively utilized. The Committee also note that a committee under the chairpersonship of Chairman, Central Pollution Control Board to recommend measures to Ministry of Environment, Forest and Climate Change for effective implementation of Extended Producer Responsibility including amendments to Extended Producer Responsibility guidelines has also been created. The Committee can apparently see from the oral evidence rendered before them that there is lack of coordination amongst the agencies concerned with the resolution of related issues. They, therefore, recommend that a unified effort in combating the problem may be undertaken by all stakeholders. The Committee further recommend that clear responsibilities may be assigned, coordination mechanism may be provided for and informed to all the stakeholders such as Ministries, PCBs/PCCs and ULBs, PIBOs etc. and the details thereof may be uploaded on the National dashboard and strict compliance of the same be ensured.

Identification of sources of air pollution in Delhi

10. The Committee feel that this subject is particularly crucial at this juncture as many cities in India, particularly the National Capital Region of Delhi are

reeling under extremely high levels of pollution. Since air pollution is playing havoc with the health and lives of residents of Delhi, the Committee are of the view that a study may be urgently conducted to identify the sources of air pollution in Delhi. The Committee would like to be apprised of the terms of reference and findings of the said study and the action proposed to be taken on the findings of the study. The Committee are of the firm view that a robust and fiercely active pollution control mechanism is required to be urgently developed by the Government to mitigate the excruciating suffering of the common man and the degradation of the environment. It should be the collective endeavour of the entire country to ensure that the tag of one of the most polluted countries may be removed as speedily as possible.

NEW DELHI:
06 February, 2024
17 Magha, 1945 (Saka)

ADHIR RANJAN CHOWDHURY
Chairperson
Public Accounts Committee