

Plastic Waste Management Rules and Guidelines in India

Module II



Session Overview

Plastic Waste Management (PWM) Rules, 2016

Draft Plastic Waste Management (Amendment) Rules, 2021

National Programmes/Regulations and Guidelines

Other Regulations and Guidelines



Timeline-Plastic waste management legislations in India

**Recycled Plastics
Manufacture and
usage Rules**

1999

**Plastic Waste
Management Rules**

2016

**Draft Plastic Waste
Management
(Amendment) Rules**

2021

2011

**Plastic Waste
(Management and
Handling) Rules**

2018

**Plastic Waste
Management
(Amendment) Rules**



Plastic Waste Management (PWM) Rules, 2016



Guidance on PWM in Solid Waste Management Rules 2016

- Premise for PWM: Mandatory source segregation
- All waste generators responsible for segregating waste into 3 streams (wet, dry, domestic hazardous)
- Direct responsibility of sorting and segregation on bulk generators
- Integration of waste pickers/ rag pickers and kabadiwalas/scrap dealers into formal system:
 - strengthens segregation
 - Increases transparency of plastic waste movement across the recycling value chain and to registered recyclers
- Developers of Special Economic Zone, industrial estates/parks to earmark at least 5% of the total plot area or minimum 5 plots/ sheds for recovery and recycling facility



Guidance on PWM in Solid Waste Management Rules 2016

- Manufacturers of disposable products (e.g. tin, glass, plastics packaging) or brand owners who introduce/ sell or market such products:
 - shall provide necessary financial assistance to local authorities for the establishment of waste management system
 - or should set up systems to collect the packaging waste generated from the use of such products
- All industrial units using fuel and located within 100 km from a solid waste based RDF plant shall make arrangements within six months from the date of notification of these rules to replace at least 5 % of their fuel requirement by RDF so produced.



Plastic Waste Management Rules 2016 - Salient features & mandates

- Notified: 18th March, 2016, 1st amendment: 27th march, 2018, expected amendment in 2021
- Defines roles and responsibilities of each stakeholder: waste generator, local body, gram panchayat, manufacturer, importers and producers, shopkeepers and street vendors
- Extends the jurisdiction of applicability to both urban and rural areas
- Responsibility of waste generators is emphasized: payment of notified user charges; bulk generators and event organizers to collect and hand over waste
- 'Collect back system' for plastic waste to be operationalized by producers/brand owners, in consonance with extended producers' responsibility guidance



PWM Rules 2016 - Salient features & mandates (Contd.)

- Pre-registration of producers, importers and vendors of plastic carry bags/multilayered packaging
- Collection of PWM fee for funding a waste management system
- Thickness of carry bag made of virgin or recycled plastic increased to fifty micron or more
- Marking or labeling of carry bags with details of manufacturers, thickness and recycled status
- Protocols pertaining to degree of degradability and degree of disintegration of compostable plastic with reference to Indian Standards
- Promotes use of plastic waste for road construction, energy recovery, waste to oil etc.
- A well defined reporting structure - from recycling and manufacturing units to CPCB.



Plastic Waste Management Rules 2016 – Important Rules

- **Rule 4:** Guidelines for manufacture, importing, stocking, distribution, sale and use of plastic bags.
 - Plastic bags: Major contributors to plastic waste stream (SUPs); LDPE plastic bags are difficult to segregate
 - Important to regulate manufacturing to ensure easy recycling, avoid food toxicity from use of recycled containers and ensure appropriate use of recycled products
- **Rule 8, 9 and 14:** Responsibilities of waste generators, producers, importers and brand owners, retailers and street vendors.
 - Focus on reduce and reuse component of waste hierarchy
 - Define responsibility of waste generators in order to ensure efficient recycling



Plastic Waste Management Rules 2016 – Important Rules

- **Rule 11:** Marking and labeling
 - **Enables identification of** manufacturers of plastic carry bags or MLP items for regulatory purposes
 - **Means of identifying** recycled bags and compostable bags that adhere to stipulated standards



Rule 4 - Conditions for Manufacture, Importing, Stocking, Distribution, Sale and Use of Plastic Bags

- a) Carry bags and plastic packaging to be **in natural shade** or use **only pigments and colourants** as per Indian Standard IS 9833:1981 – “List of pigments and colourants”
- b) Recycled plastic or products made of recycled plastic **not to be used for storing, carrying, dispensing or packaging edibles**
- c) Carry bag of virgin or recycled plastic - **not be less than fifty microns** thick
- d) Plastic sheet in multi-layered packaging - **not less than fifty microns** thick
- e) Only **registered producers** to be provided with raw material
- f) **Plastic sachet not to be used** for storing, packing or selling gutkha, tobacco and pan masala
- g) **Recycling of plastic waste** shall conform to the Indian Standard: IS 14534:1998 - Guidelines for Recycling of Plastics



Rule 4 - Conditions for Manufacture, Importing, Stocking, Distribution, Sale and Use of Plastic Bags (Contd.)

- h) The provision of **thickness is not applicable** to **compostable plastic** carry bags; shall conform to the Indian Standard: IS 17088:2008 - Specifications for Compostable Plastics
- i) Plastic material, in any form including Vinyl Acetate - Maleic Acid - Vinyl Chloride Copolymer, is not to be used for storing, packaging or selling gutkha, pan masala and tobacco.

Rule 4 is not applicable to export oriented units or units in Central Government notified special economic zones making export oriented products, except those involved in packaging of gutkha, tobacco and pan masala, or for any surplus or rejects, left over products.



Responsibilities of waste generators (Rule 8) and Retailers and street vendors (Rule 14)



Waste Generators

- Shall minimize generation and segregate PW at source
- Not litter and ensure segregated storage at source and handover segregated waste to ULBs or collectors
- Shall pay user fee as specified by local bodies for PWM



Retailers and Street Vendors

- Shall not use carry bags, plastic sheet or MLPs which are not manufactured, labelled or marked, as prescribed.
- Defaulters are liable to pay fines to local bodies.



Responsibilities of waste generators (Rule 8)



Institutional Waste Generators

- Shall segregate and store waste according to SWM Rules, 2016 and handover segregated wastes to authorized waste processing/ disposal facilities either on its own or through authorized collectors



Event Organisers

- Shall segregate and manage waste generated during such events in accordance with the SWM Rules, 2016



Responsibilities of Producers, Importers and Brand Owners (Rule 9)

The producers to work out modalities for waste collection system based on Extended Producers Responsibility (EPR)

Producers, Importers and Brand Owners to establish a system for collecting back plastic waste from their products, especially multi-layered plastic sachets and pouches. This plan is to be submitted to the State Pollution Control Boards while applying for/renewing Consent to Establish or Operate

Manufacture and use of non- recyclable MLPs should be phased out in two years time

The producers to register themselves with the Pollution Control Board or the Pollution Control Committee

Producer to maintain a record of persons supplying plastic used as raw material to manufacture carry bags, plastic sheet or multi-layered packaging



Rule 11: Marking and Labelling

Plastic carry bags

Name, Registration number of the manufacturer and Thickness in case of carry bag;

Multi-layered packaging

Name, Registration number of the manufacturer;

Compostable Plastics

Name, Certificate number;

Recycled Carry Bags

Shall bear a label or a mark "recycled" and shall conform to the Indian Standard: IS 14534: 1998 - "Guidelines for Recycling of Plastics"



Authorities responsible under PWM Rules, 2016



**Central
Pollution
Control Board
(CPCB)**



**State Pollution
Control Boards
(SPCBs) /
Pollution
Control
Committee
(PCCs)**



**Secretary-in-
Charge, Urban
Development**



**District
Magistrate/
Deputy
Commissioner**



**Urban Local
Body**



Responsibilities of Local Body (Rule 6)

Develop and set up infrastructure for segregation, collection, storage, transportation, processing and disposal of PW

Coordinate with State Urban Development and producers/importers/brand owners to facilitate collection and channelization of PW

Process and dispose non-recyclable plastic waste according to CPCB guidelines

Channelize recyclable plastic waste fraction to recyclers

Create awareness among all stakeholders

Engage groups working with waste pickers

Ensure no open burning of plastic waste

Frame bye-laws incorporating the provisions of these rules



Role of Central Pollution Control Board mentioned in different articles of the Rules

Rule 4 (h)

The manufacturers or seller of compostable plastic carry-bags shall obtain a certificate from the CPCB before marketing or selling their products

Rule 5 (C)

Thermoset plastic waste shall be processed and disposed of as per the guidelines issued from time to time by the CBCB

Rule 6 (2) (d)

The Local Bodies shall process and dispose non-recyclable fraction of plastic waste according to the guidelines issued by the CPCB

Rule 17 (d)

The CPCB shall prepare a consolidated Annual Report on the use and management of plastic waste and forward it to the Central Government along with its recommendations before the 31st August of every year



Responsibilities of other authorities



State Pollution Control Board/Pollution Control Committee

- Enforce provisions of PWM Rules, 2016 - registration, manufacture of plastic products and multi-layered packaging, processing and disposal of plastic wastes
- Provide technical support to municipalities to set up proper PWM system for segregation, collection, transportation, disposal of PW as per PWM Rules, 2016
- Ask State Urban Development Department to constitute State Level Advisory Body for implementation of PWM Rules, 2016



Responsibilities of other authorities



Secretary-in-charge of Urban Development

- Enforce provisions of PWM Rules



District Magistrate or the Deputy Commissioner

- Provide assistance to SPCBs/PCCs, Secretary-in-Charge, Urban Development Department, under his jurisdiction, to enforce provisions of PWM Rules, 2016



Annual Report on implementation of PWM Rules

Concerned Individual / Authority	Form no. (PWM Rules 2016)	Submit To	Till Date
Recycler/ Processor	Form - IV	Local Body concerned under intimation to the concerned SPCB or PCC	30 th April, of every year
Local Body	Form - V	Concerned Secretary-in-charge of the Urban Development Department under intimation to the concerned SPCB/PCC	30 th June, of every year
SPCB/PCC	Form- VI	CPCB	31 st July, of every year
CPCB	Consolidated Annual Report	Central Government	31 st August, of every year



State Level Monitoring Committee (SLMC) for monitoring of implementation

- The State government or the union Territory shall constitute a State Level Monitoring Committee to monitor the implementation of these rules.
- The Secretary, Department of Urban Development shall be the chairman of this committee.
- ULB is the key member with other members like UDD, representatives from SPCB/PCC, NGO, Industry, Academic Institution, State Tax Dept., Environment Dept. etc.
- SLMC shall meet at least once in six months & may invite experts, if necessary.



Draft Plastic Waste Management (Amendment) Rules, 2021

- Proposes to extend the applicability of the rules to brand-owner, plastic waste processor, including recycler, co-processor, etc.
- It will include new definitions of:
 - Non-woven plastic bag
 - Plastic waste processing
 - Single-use plastic (SUP) item
 - Thermoset plastic
 - Thermoplastic

What is new?



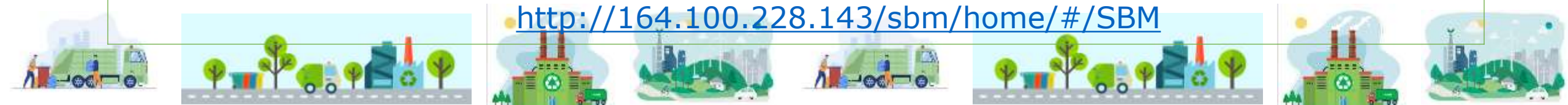
Draft Plastic Waste Management (Amendment) Rules, 2021 (Contd.)

- Proposes increasing thickness of carry bags of virgin plastic to 120 microns from 50 microns.
- Proposes that each sheet of non-woven plastic carry bag shall not be less than 60 GSM (grams per square metre) or 240 microns in thickness.
- Proposes a ban on manufacture, import, stocking, distribution, sale and use of specific single-use plastic from January 1, 2022. These include plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, and thermocol (extended polystyrene) for decoration.



National Programmes/Regulations and Guidelines

Rules/Guidelines and Directives	Highlights
Solid Waste Management (SWM) Rules 2016	<ul style="list-style-type: none">Notified by the Ministry of Environment, Forests and Climate Change (MoEFCC)Designates ULBs responsible for MSWM and lays down mandatory functions to be performed by various stakeholders. For more information: indiaenvironmentportal.org.in/files/file/Solid%20Waste%20Management%20Rules,%202016.pdf
Swachh Bharat Mission (SBM), 2014	<ul style="list-style-type: none">Launched on 2nd October 2014 by the Ministry of Housing and Urban Affairs (MoHUA)Concerted approach to accelerate the efforts to achieve universal sanitation coverage, improve cleanliness and eliminate open defecation in the country. For more information: http://164.100.228.143/sbm/home/#/SBM



National Programmes/Regulations and Guidelines (Contd.)

Rules/Guidelines and Directives	Highlights
Swacch Survekshan Star Rating Framework	<ul style="list-style-type: none">As part of Swacch Survekshan Garbage Free City framework user fees, penalties, spot fines for littering and enforcement of ban on plastic was included. For more information: http://gfcstarrating.org/
Revised Manual on Municipal Solid Waste Management, 2016	<ul style="list-style-type: none">Published by the Central Public Health & Environmental Engineering Organisation (CPHEEO), MoHUAProvides implementation guidelines for all aspects of MSWM, including segregation, collection, transportation, treatment and disposal. For more information: http://cpheeo.gov.in/cms/manual-on-municipal-solid-waste-management-2016.php



National Programmes/Regulations and Guidelines (Contd.)

Rules/Guidelines and Directives	Highlights
Guidelines on use of Plastic Waste in Road Construction (Provisional), 2019	Guideline by the Ministry of Railways. For more information: https://rdso.indianrailways.gov.in/works/uploads/File/WKS-G-16.pdf
Guidelines on Usage of Refuse Derived Fuel in Various Industries, 2018	To promote use of MSW based RDF. For more information: http://cpheeo.gov.in/upload/5bda791e5afb3SBMRDFBook.pdf
National Policy on Biofuels 2018	For more information: http://www.indiaenvironmentportal.org.in/files/file/national%20policy%20on%20biofuel%202018.pdf



National Programmes/Regulations and Guidelines (Contd.)

Rules/Guidelines and Directives	Highlights
Indian Road Congress Guidelines for the Use Of Waste Plastic In Hot Bituminous Mixes (Dry Process) In Wearing Courses (IRC:SP: 98-203), 2013	Provide specifications and use of plastic waste in wearing course using dry process. For more information: https://www.tce.edu/sites/default/files/PDF/IRC-Spec=Road-with-plastic-waste.pdf
Hazardous Waste (Management, Handling & Trans boundary Movement) Rules, 2016	For more information: http://iwma.in/HWM%20Rules.pdf



Other regulations and guidelines

Highlights

- IS / ISO 14851: 1999, IS / ISO 14853: 2016, IS / ISO 14855-2: 2007, IS / ISO 20200:2004, IS /ISO 16929: 2002 - these various **standards determine rates of disintegration or biodegradability** under various conditions
- IS 15532: 2004 **determines requirements, methods of sampling and test for rigid and collapsible plastic crates** for holding and transporting fruits and vegetables
- IS 14534:1998 prescribes **guidelines for the selection; segregation and processing of plastic waste/ scrap**; prescribes **guidelines to manufacturers of plastic products with regard to the marking** to be used on finished product to identify the basic raw material and whether the material used on the end product is virgin, recycled or a blend of virgin and recycled.



Other regulations and guidelines

Highlights

- IS 2798:1998 standard **prescribes methods of test for plastic containers**
- IS 14625:2014 standard **prescribes the requirements and methods of sampling and test for infant plastic feeding bottles** and receptacles excluding teats
- IS 15609: 2005 Polyethylene Flexible Pouches for the Packaging of Natural Mineral Water and Packaged Drinking Water- **Specifications of raw material, capacity and performance requirements, methods of test and sampling for flexible pouches** made from co-extruded polyethylene film for packaging natural mineral water and packaged drinking water



Other regulations and guidelines

- **Rules and other directives**

- Technical Review Committee constituted under Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008: Standard Operating Procedures (SOPs) with regard to recycling from Waste Pneumatic Tyres, used PET Bottle Scrap, lead scrap/used lead batteries and recovery of TPO from tyre scrap,

- **Highlights**

- SOPs were formulated to indicate the technical requirement with respect to environmentally sound operation of such units and import of such waste for the purpose of recycling and recovery.



Quiz

1. Channeling recyclable plastic waste fraction to registered recyclers is responsibility of:

- a) Urban local body
- b) State pollution control board
- c) Private recycler

2. Setting-up of system for plastic waste management with the assistance of producers is responsibility of:

- a) Urban Local Body
- b) State pollution control board
- c) Private recycler

3. Carry bags made from compostable plastics shall conform to:

- a) Indian Standard: IS 17088:2008
- b) Indian Standard: IS 14534:1998
- c) Indian Standard : IS 9833:1981



Quiz (Contd.)

4. Carry bags made of recycled plastic or products made of recycled plastic shall not be used for storing, carrying, dispensing or packaging ready to eat or drink food stuff

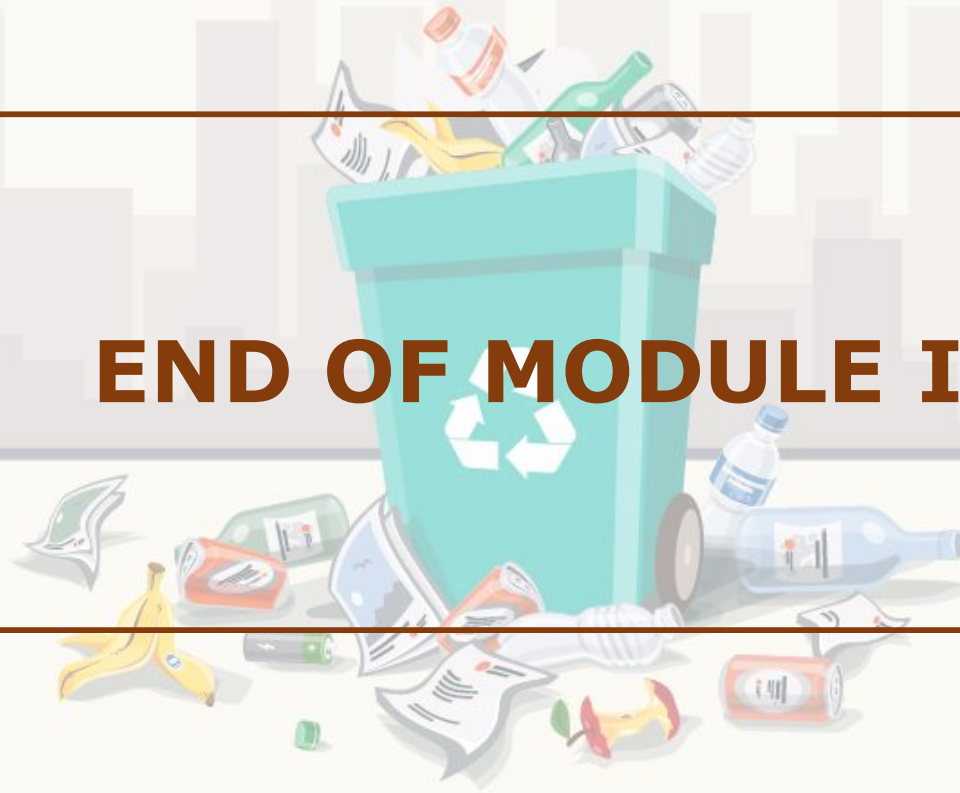
- a) Yes
- b) No

5. Minimum thickness of 50 micron is applicable to:

- a) Only virgin plastic carry bags
- b) Only recycled plastic carry bags
- c) Both virgin and recycled plastic carry bags
- d) Virgin, recycled and compostable carry bags



END OF MODULE II





Disclaimer

The Training Modules on developing 'Plastic Waste Management Strategy and Action Plan for Urban Local Bodies(ULBs)' is prepared by ICLEI-Local Governments for Sustainability, South Asia under the contract- Development of Knowledge, Training and Capacity Building Materials on Plastic Waste Management based on the activities of GHMC, supported by the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET). The views expressed in this document do not necessarily represent the official decision or stated policy of the United Nations Environment Programme. The citing of trade names in this document does not constitute any endorsement.

Copyright © IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) and ICLEI – Local Governments for Sustainability, South Asia (2021)

This product may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made.

