



सत्यमेव जयते

GOVERNMENT OF RAJASTHAN



PLASTIC WASTE MANAGEMENT ACTION PLAN FOR RAJASTHAN

LOCAL SELF GOVERNMENT DEPARTMENT,
JAIPUR, RAJASTHAN, 2019

Action Plan for Plastic Waste Management

Introduction

There are 33 districts, 193 Urban Local Bodies (ULBs), 295 Panchayat Samitis and 9,892 Gram Panchayats (GPs) in Rajasthan. The ULBs, GPs, Industrial Units, RIICO, etc. are the centers of plastic waste generation in Rajasthan. As per Census 2011, the State's population is 6.86 Crores, of which around 24.87% people live in urban regions and 75.13% people in rural areas. From the total solid waste generated in Rajasthan, around **4% waste is plastic waste**.

It is becoming increasingly clear that plastics are posing significant environmental and health challenges in communities. Plastics are disturbing local ecological balances as they are easily admixed in water and land as micro-plastics. In their macro-form, they act as physical barriers that degrade soil quality and even ingested by livestock and other fauna to find its way in the human food chain. Plastics cause blockages in drains and streams resulting in severe floods and obstruction to runoffs¹.

Plastic waste disposal methods are often basic and uninformed that further exacerbate the challenge. The open burning of plastics generates toxic emissions such as carbon monoxide, dioxins, and nitrides. Low-quality plastics that are common in rural areas also leach out toxic additives and substances. Policy measures are focused on segregation, collection, and in certain cases banning the use of certain categories of plastics altogether.

However, most of this had traditionally been focused on urban India. **In 2016, the plastic waste rules were extended for rural areas for the first time, with specific duties demarcated for Gram Panchayats**. The lack of segregation of plastic waste, the absence of organized systems of collection and efficient aggregation, poor economic value in low-grade (thin) plastics and the livelihoods associated with plastic production have been the key categories of challenges.

Technically, plastics are divided into two categories, viz.:

- **Thermoplastics (Recyclable)** are those that do not undergo changes in their chemical composition when exposed to heat, and thus can be moulded repeatedly.
- **Thermosetting plastics (Non - Recyclable)** can melt and only be shaped once. They are challenging to recycle at scale given existing technologies.

Across the country, 80% of post-consumer plastic waste is thermoplastics, the remaining being thermosetting. Naturally, thermal treatment methods can only be performed on thermoplastics. Thermosetting plastics are harder to recycle, but can be broken down using chemical and mechanical processes. Within thermoplastics (recyclable), there is a wide variety of materials that are found in most common products (described below) and types of plastics shown in the figure 1 below:

¹ Tucci, E.M. Carlos, WMO/TD 1372, Urban Flood Management, 2007

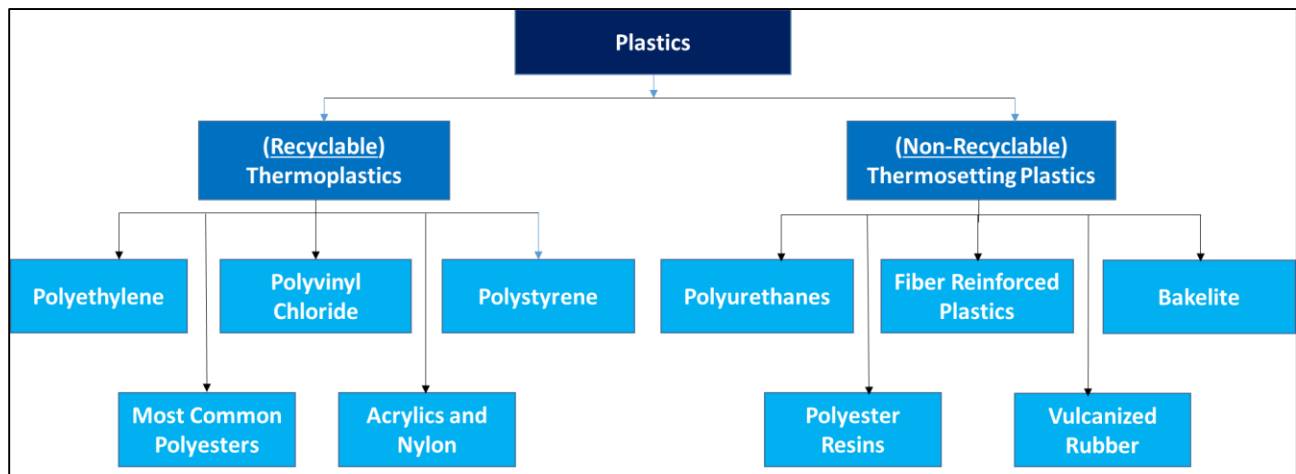


Figure 1: Types of Plastics

Common Plastic Products with Specialised Usage

Thermoplastics (Recyclable Plastics): The common plastic products derived from thermoplastics (recyclable plastics) are given below:

1. **Polyethylene (PE):** Polyethylene is the most inexpensive plastic product. It is of three sub-types:
 - a. **High density polyethylene (HDPE):** It is found most commonly in toiletry bottles, plastic cases and plastic bags, etc.
 - b. **Low density polyethylene (LDPE):** It is found in furniture, tiles and curtains, etc.
 - c. **Polyethylene terephthalate (PET):** It is found in disposable drinks' bottles, food jars, plastic films, etc.
2. **Polyvinyl chloride (PVC):** primarily found in electrical casing, irrigation/ plumbing pipes and flooring
3. **Polystyrene (PS):** disposable cups, plates and packaging material
4. **Polyesters (PES):** Fibres and textiles
5. **Acrylics and Nylons:** Fibres, toothbrush bristles, casing of electronic equipment

Thermosetting Plastics (Non-Recyclable Plastics): The common plastic products derived from thermosetting plastics (non-recyclable plastics) are given below:

1. **Polyurethanes (PU):** Cushioning foams, plastic materials found in cars, etc.
2. **Fibre Reinforced Plastics:** Storage tanks, septic tanks, building material, etc.
3. **Bakelite:** Insulating parts in electrical fixtures, laminated products, etc.
4. **Polyester Resins:** Sheet moulding compounds, toners, etc.
5. **Vulcanized Rubber:** Buffer material used in shoes and tyres, among other things, etc.

Utilisation of Plastic Waste

Plastic waste after due recycling can be used in road construction, as RDF, in cement kilns, power plants, etc. The advantages of plastic waste are given below:

1. Utilization of Plastic Waste in Road Construction: As per circular from PWD letter No. SE/Road/2018-19/D-707 dated 04/04/2019 for road construction, it has been suggested that plastic waste has great

potential for bituminous construction. If added in small dosages (5-10%) by weight of bitumen, it helps in improving Marshall Stability, Strength, Fatigue Life and other desirable properties of bituminous mix and improves longevity and pavement performance, but uniform coating of plastic to be ensured.

2. Co-processing of Plastic Waste as Refuse Derived Fuel (RDF): Co-processing refers to the use of waste materials in industry process such as cement kilns or any other large combustion plants. Co-processing indicate substitution of primary fuel by waste as raw material, or materials recovered from waste. Waste materials such as plastic wastes, used for co-processing are referred as Refuse Derived Fuel. Co-processing of plastic waste offers advantages for cement industry or power plants in saving fossil fuels or raw material consumption and thus contributing in more eco-efficient ways of production.

Applicability of Action Plan

The action plan shall be applicable within the limits of all Urban Local Bodies (ULBs), i.e. Municipal Corporations/ Councils/ Municipal Boards and Panchayati Raj Institutions (PRIs) i.e. Zila Parishads/ Panchayat Samitis/ Gram Panchayats of Rajasthan State and to every public place within the jurisdiction of the state, to every generator of plastic waste and to every premise under the ownership or occupation of any person within the limits of the ULBs and PRIs of Rajasthan State.

Enforcing Authorities

According to the Rule 12 of Plastic Waste Management (Amendment) Rules, 2018 prescribed by Ministry of Environment, Forest and Climate Change (MoEF&CC), the enforcing authorities for plastic waste management shall be as given below:

1. The **State Pollution Control Board** in respect of a Union territory shall be the authority for enforcement of the provisions of these rules relating **to registration, manufacture of plastic products and multi-layered packaging, processing and disposal of plastic wastes**;
2. The concerned **Secretary-in-charge of LSG** shall be the authority for enforcement of the provisions of these rules relating to **waste management by waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets**;
3. The concerned **Gram Panchayat** shall be the authority for enforcement of the provisions of these rules relating to waste management by the waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets in the rural area of the State or a Union Territory; and
4. The authorities referred to in **sub-rules (1) to (3)** shall take the assistance of the District Magistrate or the Deputy Commissioner within the territorial limits of the jurisdiction of the concerned district in the enforcement of the provisions of these rules.

Responsibility of Various Stakeholders

As per Plastic Waste Management (Amendment) Rules, 2018 the duties of various stakeholders in dealing, manufacturing and controlling plastic waste are as follows:

1. Responsibility of Local Body
2. Responsibility of Gram Panchayat
3. Responsibility of Waste Generator
4. Responsibility of Producers, Importers & Brand owners
5. Responsibility of State Pollution Control Board
6. Responsibility of Retailers & Street Vendors

A. Responsibility of Local Body:

1. Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers.
2. The local body shall be responsible for setting up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:
 - a) ensuring segregation, collection, storage, transportation, processing and disposal of plastic waste;
 - b) ensuring that no damage is caused to the environment during this process;
 - c) ensuring channelization of recyclable plastic waste fraction to recyclers;
 - d) ensuring processing and disposal on non-recyclable fraction of plastic waste in accordance with the guidelines issued by the Central Pollution Control Board;
 - e) creating awareness among all stake holders about their responsibilities;
 - f) engaging civil societies or groups working with waste pickers; and
 - g) ensuring that open burning of plastic waste does not take place.
3. The local body for setting up of system for plastic waste management shall seek assistance of producers and such system shall be set up within one year from the date of final publication of these rules in the Official Gazette of India;
4. The local body to frame bye-laws incorporating the provisions of these rules.

B. Responsibility of Gram Panchayat:

Every gram panchayat either on its own or by engaging an agency shall set up, operationalise and co-ordinate for waste management in the rural area under their control and for performing the associated functions, namely,

- a) ensuring segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment during this process;
- b) creating awareness among all stakeholders about their responsibilities; and
- c) ensuring that open burning of plastic waste does not take place

C. Responsibility of Waste Generators:

1. The waste generator shall,
 - a. Take steps to minimize generation of plastic waste and segregate plastic waste at source in accordance with the Solid Waste Management Rules, 2016 or as amended from time to time;
 - b. Not litter the plastic waste and ensure segregated storage of waste at source and handover segregated waste to urban local body or gram panchayat or agencies appointed by them or registered waste pickers', registered recyclers or waste collection agencies;
2. All institutional generators of plastic waste, shall segregate and store the waste generated by them in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2016 or amendment from time to time and handover segregated wastes to authorized waste processing or disposal facilities or deposition centers either on its own or through the authorized waste collection agency;

3. All waste generators shall pay such user fee or charge as may be specified in the bye-laws of the local bodies for plastic waste management such as waste collection or operation of the facility thereof, etc.; and
4. Every person responsible for organising an event in open space, which involves service of food stuff in plastic or multi-layered packaging shall segregate and manage the waste generated during such events in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2016 or amendment from time to time.

D. Responsibility of Producers, Importers and Brand Owners:

1. 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 Producers Responsibility and involving State Urban Development Departments, either individually or collectively, through their own distribution channel or through the local body concerned;
2. Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers, Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal. The Brand Owners whose consent has been renewed before the notification of these rules shall submit such plan within one year from the date of notification of these rules and implement with two years thereafter;
- 3. Manufacture and use of multi-layered plastic which is non-recyclable or non-energy recoverable or with no alternate use of plastic if any should be phased out in Two years' time;**
4. The producer, within a period of three months from the date of final publication of these rules in the Official Gazette shall apply to the Pollution Control Board or the Pollution Control Committee, as the case may be, of the States or the Union Territories administration concerned, for grant of registration;
5. No producer shall on and after the expiry of a period of Six Months from the date of final publication of these rules in the Official Gazette manufacture or use any plastic or multi-layered packaging for packaging of commodities without registration from the concerned State Pollution Control Board; and
6. Every producer shall maintain a record of details of the person engaged in supply of plastic used as raw material to manufacture carry bags or plastic sheet or like or cover made of plastic sheet or multi-layered packaging.

Registration of Producer, Recyclers and Manufacturer (As per Rules)²:

1. No person shall manufacture carry bags or recycle plastic bags or multi-layered packaging unless the person has obtained a registration from the State Pollution Control Board, as the case may be, prior to the commencement of production;
- 2. Every producer or brand-owner shall, for the purpose of registration or for renewal of registration, make an application in Form-I to,**
 - a. "The concerned State Pollution Control Board, if operating one or two States or Union Territories"; or**
 - b. "The Central Pollution Control Board, if operating in more than two States or Union Territories".**

² The provision is as per the notification issued by Department of Environment (DoE) on dated 21st July, 2010 and Plastic Waste Management (Amendment) Rules, 2018

3. Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board, for grant of registration or renewal of registration for the recycling unit, in Form II³.
4. Every manufacturer engaged in manufacturer of plastic to be used as raw material by the producer shall make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, for the grant of registration or for the renewal of registration, in Form III⁴.
5. The State Pollution Control Board 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 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) along with a certificate of registration issued by the District Industries Centre or any other Government agency authorised in this regard.
6. The State Pollution Control Board shall not renew registration of producer unless the producer possesses and action plan endorsed by the Secretary in charge of Urban Development of the concerned State or Union Territory for setting of plastic waste management system;
7. On receipt of the application complete in all respects for the registration for recycling or processing of plastic waste under sub-rule (3), the State Pollution Control Board may, after such inquiry as it considers necessary and on being satisfied that the applicant possesses appropriate facilities, technical capabilities and equipment to handle plastic waste safely, may grant registration to the applicant on fulfilment of the conditions as may be laid down in terms of registration;
8. Every State Pollution Control Board or Pollution Control Committee shall take a decision on the grant of registration within ninety days of receipt of an application which is complete in all respects;
9. The registration granted under this rule shall initially be valid for a period of one year, unless revoked, suspended or cancelled and shall subsequently be granted for three years;
10. State Pollution Control Board or the Pollution Control Committees shall not revoke, suspend or cancel registration without providing the opportunity of a hearing to the producer or person engaged in recycling or processing of plastic wastes; and
11. 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.

E. Responsibility of State Pollution Control Board (As per Rule 12):

1. The **State Pollution Control Board** in respect of a Union territory shall be the authority for enforcement of the provisions of these rules relating to registration, manufacture of plastic products and multi-layered packaging, processing and disposal of plastic wastes;
2. The concerned **Secretary-in-charge of LSG** shall be the authority for enforcement of the provisions of these rules relating to waste management by waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multi-layered packaging;
3. The concerned **Gram Panchayat** shall be the authority for enforcement of the provisions of these rules relating to waste management by the waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multi-layered packaging in the rural area of the State or a Union Territory; and

³ As provided in Plastic Waste Management (Amendment) Rules, 2018

⁴ *ibid*

4. The authorities referred to in **sub-rules (1) to (3)** shall take the assistance of the District Magistrate or the Deputy Commissioner within the territorial limits of the jurisdiction of the concerned district in the enforcement of the provisions of these rules.

F. Responsibility of Retailers and Street Vendors:

1. Retailers or street vendors shall not sell or provide commodities to consumer in carry bags or plastic sheet or multi-layered packaging, which are not manufactured and labelled or marked, as per prescribed under these rules;
2. Every retailers or street vendors selling or providing commodities in, plastic carry bags or multi-layered packaging or plastic sheets or like or covers made of plastic sheets which are not manufactured or labelled or marked in accordance with these rules shall be liable to pay such fines as specified under the bye-laws of the local bodies.

Action Plan for Plastic Waste Management

| # | Action Points | Responsibility | Timeline | Monitored By |
|---|--|----------------|------------------------------|---|
| Actionable Points for Urban Local Body | | | | |
| 1. | To develop and set up infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic and solid waste either on its own or by engaging agencies or producers and creating Material Recovery Facility (MRF). | ULB | Dec 2020 | LSG |
| 2. | To set up, operationalize and co-ordinate waste management system and for performing the associated functions and ensure the following: a) Segregation, collection, storage, transportation, processing and disposal of plastic waste; b) Channelization of recyclable plastic waste fraction to recyclers; c) Processing and disposal on non-recyclable fraction of plastic waste including RDF; d) Engaging civil societies or groups working with waste pickers; and e) Open burning of plastic waste does not take place. | ULB | To comply by Dec' 2019 | LSG |
| 3. | To set up the system for plastic waste management and shall seek assistance of producers. | ULB | March, 2020 | State Level Monitoring Committee under the administrative control of DoE ⁵ |
| 4. | To frame bye laws incorporating the provision of Plastic Waste Management Rules | ULB | within 3 months ⁶ | State Level Monitoring Committee under the |

⁵ As per the order issued by administrative reforms department, dated 05.04.2019 regarding state level monitoring committee (SLMC) according to the Plastic Waste Management (Amendment) Rules, 2018.

⁶ within 3 months from the notification of action plan

| # | Action Points | Responsibility | Timeline | Monitored By |
|--|---|----------------|---|-------------------------------|
| | | | | administrative control of DoE |
| 5. | The ULBs shall seize banned plastic carry bags and impose fine on defaulters as per provision of The Rajasthan Municipalities Act, 2009 (Article 258) ⁷ . | ULB | Regular Activity | LSG |
| 6. | To constitute State Level Advisory Body for implementation of PWM (amendment) Rules, 2018. | LSG | State Level Advisory Body (SLAB) Constituted in April, 2019 | DoE ⁸ |
| 7. | Organize IEC/ BCC activities and awareness programmes in various districts involving Municipalities & other stake-holders. | ULB | To comply by Oct, 2019 | LSG |
| 8. | Submission of Annual Report to SPCB in form V ⁹ . | ULB | 30 th June of every year | RSPCB |
| Actionable Points for Gram Panchayat (GP) | | | | |
| 1. | To set up, operationalize and co-ordinate waste management in the rural area for performing associated functions, namely: <ul style="list-style-type: none"> a) ensure segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment during this process; b) create awareness among all stakeholders about their responsibilities; and c) ensure that open burning of plastic waste does not take place | Gram Panchayat | March 2020 | PR Department |

⁷ As per the notification issued by Department of Environment (DoE) on dated 21st July, 2010. & as per Article 258 of Chapter 12 for Municipal Powers and Offences of the Rajasthan Municipality Act, 2009

⁸ As per the order issued by administrative reforms department, dated 05.04.2019 regarding state level monitoring committee according to the Plastic Waste Management (Amendment) Rules, 2018.

⁹ As provided in Plastic Waste Management (Amendment) Rules, 2018

| # | Action Points | Responsibility | Timeline | Monitored By |
|---|---|---|---|---|
| 2. | Organize IEC/ BCC activities and awareness programmes in Gram Panchayats. | Gram Panchayat | To comply by Oct, 2019 | Designated by PR Department |
| Actionable Points for Waste Generators/ Bulk Waste Generator | | | | |
| 1. | To take steps for minimizing generation of plastic waste and segregate plastic waste at source. | Waste Generators | Within 3 months ¹⁰ | RSPCB/ LSG/ PR Department |
| 2. | Not to litter the plastic waste and ensure segregated storage of waste at source and handover segregated waste to ULB or Gram Panchayat or agencies appointed by them or registered waste pickers', registered recyclers or waste collection agencies | Waste Generators | | |
| 3. | All institutional generators of plastic waste shall segregate and store the plastic waste generated and handover segregated waste to authorized waste processing or disposal facilities or deposition centers either on its own or through the authorized waste collection agency | Institutional / Bulk Waste Generators | | |
| 4. | Shall pay user fee or charge as specified in the bye-laws of the local bodies for plastic waste management. | Waste Generators | | |
| 5. | In organizing of an event in open space that involves service of food stuff in plastic or multi-layered packaging shall segregate and manage the waste generated. | Event Organizers / Bulk Waste Generators | | |
| Actionable Points for Producers, Importers and Brand Owners | | | | |
| 1. | To work out modalities for waste collection system based on Extended Producers Responsibility (EPR) through their own distribution channel | Producers, Importers & Brand Owners | within 6 months ¹¹ | RSPCB under the administrative control of DoE |
| 2. | Product Introducers in market shall perform collection of used multi-layered plastic sachet or pouches or packaging material : <ul style="list-style-type: none"> Plan of collection to be submitted to RSPCB while applying for consent to establish or operate or renewal. | Product Introducers / Producers, Importers & Brand Owners | To submit plan in 1 year and implement in 2 years | |

¹⁰ within 3 months from the notification of action plan

¹¹ within 6 months from the notification of action plan

| # | Action Points | Responsibility | Timeline | Monitored By |
|--|--|-------------------------------------|-------------------------------|---|
| 3. | To phase out manufacture and use of multi-layered plastic which is non-recyclable or non-energy recoverable or with no alternate use | Producers, Importers & Brand Owners | 2 Years ¹² | |
| 4. | To obtain Grant of registration from Pollution Control Board or the Pollution Control Committee and must not manufacture or use any plastic or multi-layered packaging for packaging of commodities without registration | Producers, Importers & Brand Owners | within 3 months ¹³ | |
| 5 | No producer shall manufacture or use any plastic or multi-layered packaging for packaging of commodities without registration from the concerned State Pollution Control Board or the Pollution Control Committees | Producers, Importers & Brand Owners | within 6 months ¹⁴ | |
| 6. | To maintain records of persons engaged in supply of plastic used as raw material to manufacture carry bags or plastic sheet or cover made of plastic sheet or multi-layered packaging | Producers, Importers & Brand Owners | To comply by Dec, 2019 | |
| Actionable Points for State Pollution Control Board | | | | |
| 1. | Registration, manufacturing of plastic products and multi-layered packaging, processing and disposal of plastic waste and monitoring at district collector level by ROs of SPCB. | RSPCB | To comply by Dec'19 | RSPCB under the administrative control of DoE |
| 2. | District Collectors & ROs of RSPCB ¹⁵ shall seize banned carry bags and file complaints under section 19 of EPA, 1986 as per notification on July, 21 st 2010. | District Collector/ ROs of RSCP B | | |
| 3. | All industrial units using fuel and located within one hundred Km from a solid waste based refuse derived fuel plant shall make arrangements to replace at least 5% of their fuel requirement by refuse derived fuel. | RSPCB | Compliance Done | |
| 4. | To design and develop mechanism for registration of EPRs and set up registration/ collection centers. | RSPCB | Within 3 months ¹⁶ | |

¹² Timeline as provided in Plastic Waste Management (Amendment) Rules, 2018

¹³ within 3 months from the notification of action plan

¹⁴ within 6 months from the notification of action plan

¹⁵ As per the notification issued by Department of Environment (DoE) on dated 21st July, 2010 & as per Article 258 of Chapter 12 for Municipal Powers and Offences of the Rajasthan Municipality Act, 2009

¹⁶ within 3 months from the notification of action plan

| # | Action Points | Responsibility | Timeline | Monitored By |
|---|---|---------------------------|--|--|
| Actionable Points for Retailers and Street Vendors | | | | |
| 1. | Not to sell or provide commodities to consumer in carry bags or plastic sheet or multi-layered packaging. | Retailers, Street Vendors | Directions issued to ULBs to seize banned plastic carry bags and to impose fines on defaulters as a regular activity | State Level Monitoring Committee under the administrative control of DoE |
| 2. | Not to sell or provide goods and commodities in plastic carry bags or multi-layered packaging or plastic sheets or covers made of plastic sheets manufactured or labelled or marked in accordance with these rules are liable for fines as per Bye laws ¹⁷ . | Retailers, Street Vendors | Compliance Done | |

¹⁷ Refer Rajasthan State SWM and Plastic Waste Management byelaws.