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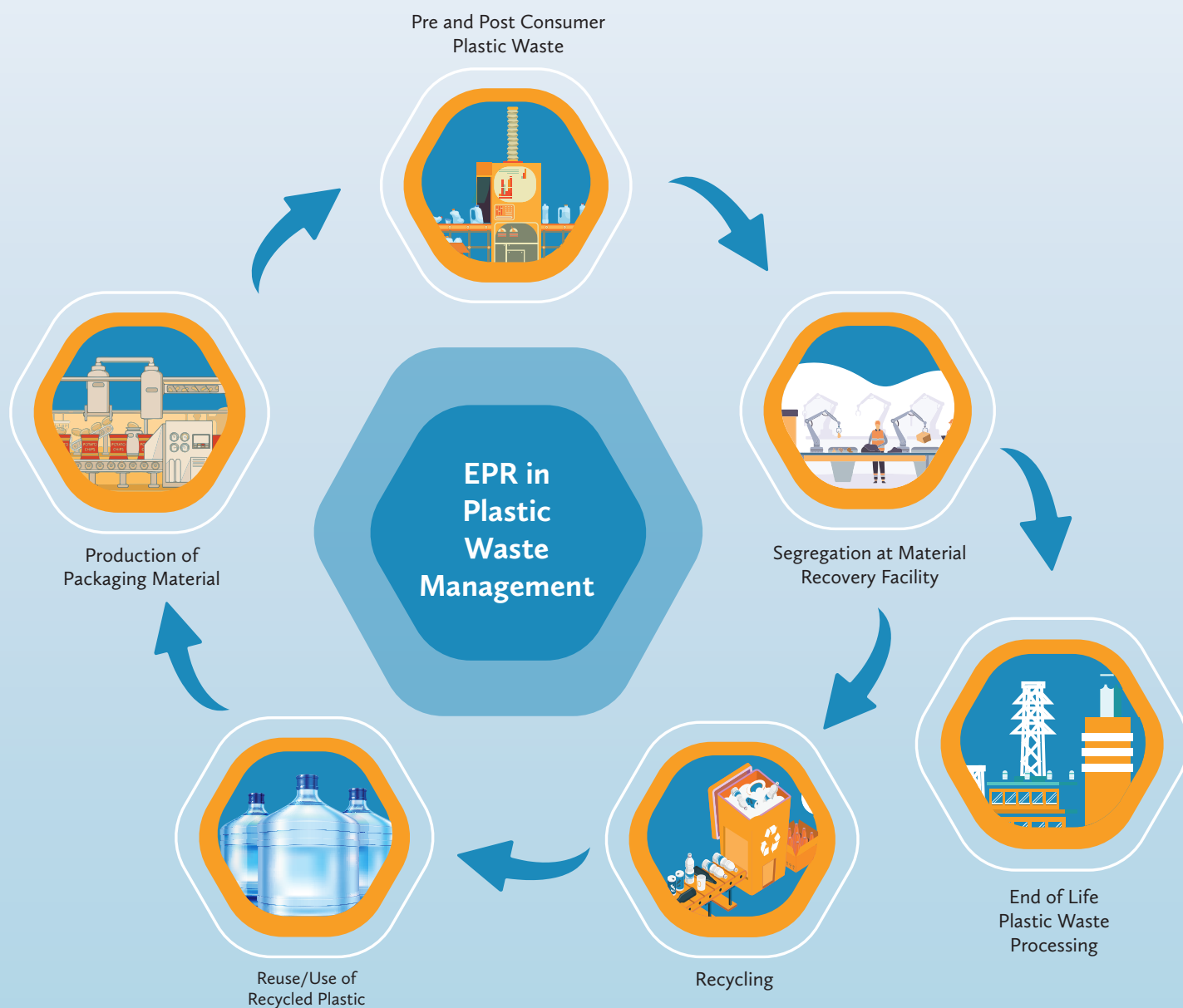
 Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

of the Federal Republic of Germany



ADVISORY

FOR IMPLEMENTATION OF EXTENDED PRODUCER RESPONSIBILITY (EPR) FOR PLASTIC PACKAGING IN UTTAR PRADESH



Department of Environment, Forest and Climate Change,
Government of Uttar Pradesh

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IMPORTANT DEFINITIONS

- a) **“Brand Owner”** means a person or company who sells any commodity under a registered brand label or trade mark;
- b) **“End of Life disposal”** means using plastic waste for generation of energy and includes co-processing (e.g. in cement kilns) or waste to oil or for road construction as per Indian Road Congress guidelines, etc;
- c) **“Importer”** means a person who imports plastic packaging product or products with plastic packaging or carry bags or multilayered packaging or plastic sheets or like;
- d) **“Pre-consumer plastic packaging waste”** means plastic packaging waste generated in the form of reject or discard at the stage of manufacturing of plastic packaging and plastic packaging waste generated during the packaging of product including reject, discard, before the plastic packaging reaches the end-use consumer of the product;
- e) **“Post-consumer plastic packaging waste”** means plastic packaging waste generated by the end-use consumer after the intended use of packaging is completed and is no longer being used for its intended purpose.
- f) **“Producer”** means person engaged in manufacture or import of carry bags or multilayered packaging or plastic sheets or like, and includes industries or individuals using plastic sheets or like or covers made of plastic sheets or multilayered packaging for packaging or wrapping the commodity;
- g) **“Recyclers”** are entities who are engaged in the process of recycling of plastic waste;
- h) **“Recycling”** means the process of transforming segregated plastic waste into a new product or raw material for producing new products;
- i) **“Reuse”** means using an object or resource material again for either the same purpose or another purpose without changing the object’s structure;
- j) **“Use of recycled plastic”** means recycled plastic, instead of virgin plastic, is used as raw material in the manufacturing process;
- k) **“Waste Management”** means the collection, storage, transportation reduction, reuse, recovery, recycling, composting or disposal of plastic waste in an environmentally sound manner;
- l) **“Waste to Energy”** means using plastic waste for generation of energy and includes co-processing (e.g. in cement kilns).



ABBREVIATIONS

EPR	Extended Producer Responsibility
EC	Environmental Compensation
GP	Gram Panchayat
MOEFCC	Ministry of Environment, Forest and Climate Change
MLP	Multi Layer Packaging
MRF	Material Recovery Facility
MSP	Minimum Support Price
PCF	Plastic Collection Facility
PIBOs	Producers, Importers, and Brand Owners
PTF	Plastic to Fuel
PPP	Public Private Partnership
PWPs	Plastic Waste Processors
PWM	Plastic Waste Management
RDF	Refuse Derived Fuel
SHG	Self-Help Groups
TPD	Tonnes Per Day
WTE	Waste to Energy
ULB	Urban Local Body

1. BACKGROUND

The growing consumption and mismanaged disposal have of plastic is of the major causes of environmental degradation. India is committed towards acting against pollution caused by plastic leakages in ecosystems. The Ministry of Environment, Forest and Climate Change, Government of India has notified the Plastic Waste Management & Handling Rules in year 2011 and is upgrading the rules over the passing years with the aim to strengthen the circular economy approach and decreases the environmental impact caused by plastic commodities and plastic packaging.

Furthermore, while promoting sustainable consumption of plastic, the rules also state responsibility for safe and scientific disposal by not just the municipal authorities but also the producers, importers, and brand owners (PIBOs) by the introduction of Extended Producer Responsibility (EPR) in Plastic Waste Management Rules 2016 by the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India. This was followed by the notified guidelines on Extended Producer Responsibility for Plastic Packaging by MoEFCC on 18th February 2022.

This SOP advisory compiles the latest guideline on Extended Producer Responsibility for Plastic Packaging providing framework for effective implementation of EPR and utilising it as a revenue mechanism to manage plastic waste in the Urban Local Bodies across the state of Uttar Pradesh.

1.1 What is EPR for Plastic Packaging?

As defined in the Plastic Waste Management rules, “*Extended Producers Responsibility*” (EPR) means the responsibility of a producer for the environmentally sound management of the product until the end of its life.

In simple terms, Extended Producer Responsibility (EPR) for plastic packaging is a concept that holds producer (PIBOs) responsible to manage plastic and plastic packaging waste generated by them by setting up collect-back system, reuse, recycle and ensuring End of Life disposal of the produced product establishing Circular Economy.

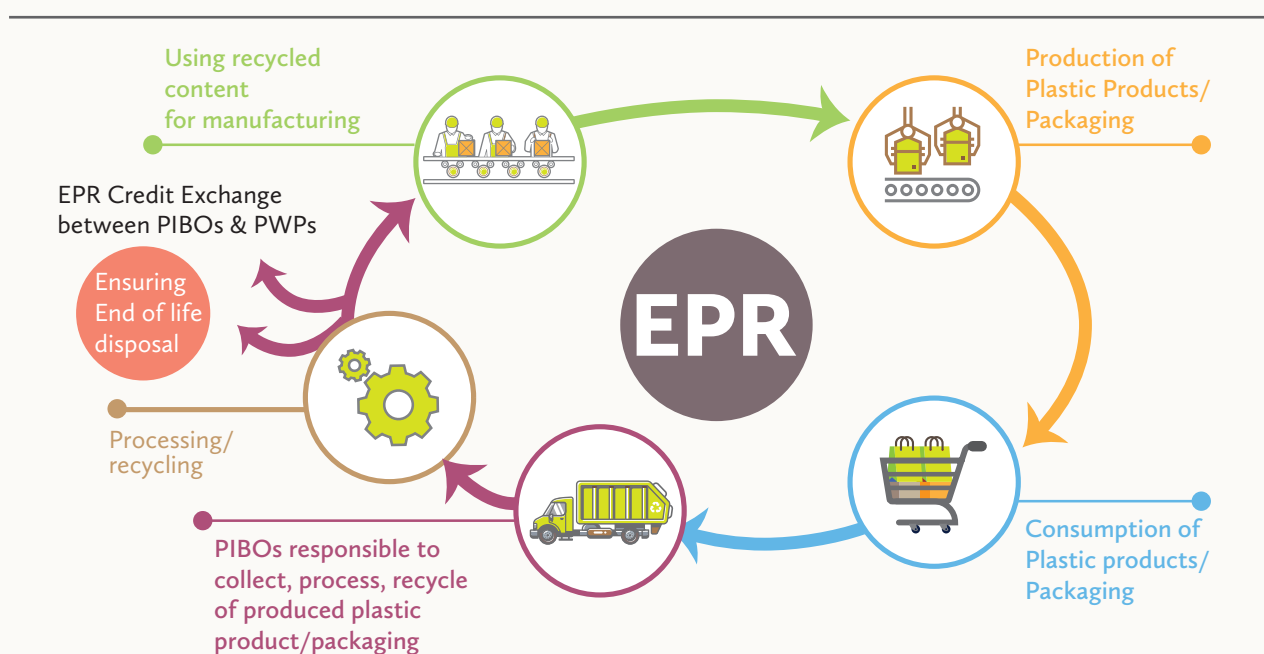


FIGURE 1 EPR FOR PLASTIC PACKAGING MECHANISM

1.2 Why is EPR for Plastic Packaging Required?

The concept of EPR was introduced to shift of responsibility upstream towards the producer and away from local bodies to manage plastic waste. EPR is a crucial policy tool that helps strengthen the circular economy approach and decreases the environmental impact caused by plastic commodities and plastic packaging.

EPR mechanism provide incentives to producers to include environmental considerations in their product design, such as reducing material consumption, using more secondary material, and promoting product eco-design.



FIGURE 2 MAJOR OBJECTIVES OF EPR

1.3 Benefits of EPR Implementation for Urban Local Bodies and Gram Panchayats

Implementation of EPR framework in Urban Local Body and Gram Panchayats benefits them by:



1.4 Challenges of EPR Implementation

Major challenges faced implementing EPR are:

- Poor segregation at source.
- Inadequate awareness and knowledge of guideline and waste flow among consumers & stakeholders.
- Lack of formalized take-back logistics, as setting up a collection network could be extremely complex and expensive.
- Lack of skilled resources at material recovery facility & waste collection centers.
- Rapidly growing waste volumes generated within states and imported from other states.
- Difficulty in plastic waste processing due to inadequate infrastructure, distance, and lack of connectivity to recycling/processing facilities.
- Resistance of stakeholders to participate; especially reluctance of PWPs to register and participate in EPR program
- Lack of data and monitoring mechanisms
- Lack of technical standards

2. COMPONENTS OF NEW EPR GUIDELINES FOR PLASTIC PACKAGING

The EPR legislation for plastic packaging in India makes it mandatory for Producers, Importers and Brand Owners (PIBOs) to establish circularity in the plastic and plastic packaging they produced by ensuring recycling and its appropriate disposal. A broader insight has been made with the release of EPR guideline for Plastic Packaging Ministry of Environment, Forest and Climate Change (MoEFCC) in February 2022.

- The EPR obligations and provisions of the new guidelines applies on **Plastic Waste Processors, plastic packaging Producer, Importer, Brand Owners including online platforms/marketplaces and supermarkets/retail chains**
- EPR is now applicable to both **pre-consumer and post-consumer** plastic packaging waste
- The Guideline covers 4 categories of plastic packaging **Rigid Plastic Packaging, Flexible Plastic Packaging, Multilayered Plastic Packaging and Compostable Plastic.**
- An online web portal **www.eprplastic.cpcb.gov.in** has been launched by Central Pollution Control Board to ensure the compliance to fulfil the obligation of EPR. The portal is not just limited to the registration of the PIBOs, Recyclers/Plastic waste processors but also acts as single point data repository for the implementation of EPR guidelines in the country.
- The guideline sets the **targets of PIBOs to ensure recycling from 25% to 100%** into four classified categories.
- The policy **mandates to reuse rigid plastic packaging material and to reduce the use of fresh plastic material for packaging.**
- The guideline for plastic packaging promotes the **“Polluters Pay”** principle, Environmental Compensation will be imposed with regard to the non-fulfillment of EPR targets by PIBOs to protect and improve the quality of the environment as well as to prevent, control, and abate environmental pollution.

NOTABLE TARGETS OF EPR



Fulfilling EPR obligations through recycling (2024 onwards)



Reuse of rigid packaging (Brand owners) (2025 onwards)



Use of recycled plastic (2025 onwards)

Home Plastic Waste Management Rules About EPR Dashboards FAQ SOP Important Documents

Material Recovery Facility at Geeta Colony, Delhi

EPR in Plastic Waste Management

Login as : PIBO PWP

Please enter Email Id and Password

Email

Password

Forgot Password

Register Sign in

Instruction Sheet Admin Login

*NOTE: This is to inform to all concerned

EPR Portal for Plastic Packaging

Extended Producers Responsibility (EPR) regime is under implementation in Plastic Waste Management Rules, 2016, according to which it is the responsibility of Producers, Importers and Brand-owners to ensure processing of their plastic packaging waste through recycling, re-use or end of life disposal (such as co-processing/Waste-to-energy/Plastic-to-oil/roadmaking/industrial-composting). In order to streamline implementation process of EPR, the Ministry of Environment, Forest and Climate Change, Government of India, in its fourth Amendment to the Plastic Waste Management Rules, dated February 16, 2022, notified 'Guidelines on Extended Producer Responsibility for Plastic Packaging' in the Schedule II of the Rules. As per these guidelines, Producers, Importers and Brand Owners (PIBOs) shall have to register through the online centralized portal developed by the Central Pollution Control Board (CPCB). Accordingly, this portal has been developed to register PIBOs who are operating in more than two States with CPCB and those operating in one or two States/UTs shall be registered with the concerned State Pollution Control Boards (SPCBs). PWPBs shall also have to register with the concerned SPCB/PCC in accordance with the provisions of the Section 13(3) of the Plastic Waste Management Rules, 2016 on this centralized portal developed by CPCB. The EPR Portal for Plastic Packaging provides provision for registration of PIBOs/ PWPBs in accordance with the notified EPR Guidelines. The portal will help in improving accountability, traceability and transparency of fulfillment of EPR Obligations. The portal is planned to have seven modules, which

Sh. Narendra Modi
(Hon'ble Prime Minister)

Sh. Bhupender Yadav
(Hon'ble Minister of EF&CC)

Sh. Ashwini Kumar Choubey
(Hon'ble Minister of State of EF&CC)

The choices that we make today will define our collective future. The choices may not be easy. But through awareness, technology and a genuine global partnership, I am sure we can make the right choices. Let us all join together to beat plastic pollution and make this planet a better place to live.

-Hon'ble Prime Minister of India

Figure 3: Centralized EPR Portal developed by CPCB (www.eprplastic.cpcb.gov.in)

3. TYPES OF PLASTIC COVERED UNDER EPR FOR PLASTIC PACKAGING

The following plastic/plastic packaging categories are covers under Extended Producer Responsibility:

CATEGORY I

Rigid plastic packaging

Utilization of Common Plastic Material Code:



CATEGORY II

Flexible plastic packaging of single layer or multilayer (more than one layer with different types of plastic)

Utilization of Common Plastic Material Code:



CATEGORY III

Multi-layered plastic packaging (at least one layer of plastic and at least one layer of other material)

Utilization of Common Plastic Material Code:



CATEGORY IV

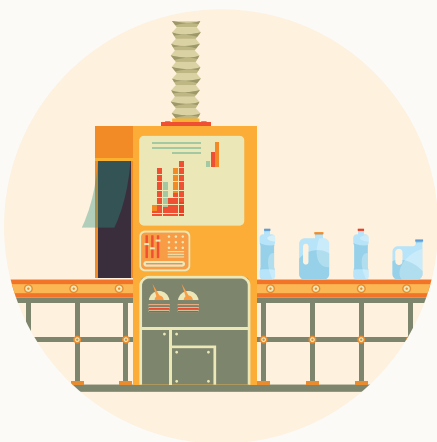
Plastic sheet or like used for packaging as well as carry bags made of compostable plastics

Compostable Plastic materials Indian Standard IS / ISO 17088:2021 titled as "Specifications for Compostable Plastics", as amended from time to time



4. WHO ARE PIBOS?

PIBOs stands for **Producers, Importers and Brand Owners** are the entities that are involved in manufacturing or import of plastic products and packaging. In order to attain EPR obligations PIBOs need to register on online web portal by CPCB in following categories:



- I. **PRODUCER (P)/**
manufacturer of plastic packaging.



- II. **IMPORTER (I)**
of all imported plastic packaging
and/or plastic packaging of
imported products.



- III. **BRAND OWNERS (BO)**
including online platforms/marketplaces and supermarkets/
retail chains other than those, which are micro and small
enterprises as per the criteria of Ministry of Micro, Small and
Medium Enterprises, Government of India.

5. WHO ARE PLASTIC WASTE PROCESSERS?

Plastic waste processors (PWP) are the entities that are involved in processing of plastic waste through recycling, using plastic waste for energy (waste to energy), converting it to oil (waste to oil) and utilizing compostable/ biodegradable plastic in industrial composting.

To achieve the targets and ensuring the compliance to fulfil the obligation of EPR, PWP shall register on online web portal by CPCB www.eprplastic.cpcb.gov.in. PWP engaged in below plastic waste processing has to register and shall not carry any business without registration obtained.

- i. Plastic Recycling – Pellet/Chips and Products
- ii. Waste to Energy (including cement/steel co-processing units)
- iii. Plastic to fuel
- iv. Industrial Composting

Urban Local Bodies and Gram Panchayats shall register as PWP on the EPR portal by CPCB if operating any plastic processing facilities to gain EPR benefits.

Process code to be selected from the drop-down menu to register as “PWP” on Centralized EPR Portal by CPCB

- R1: Recycling of CAT-I PW to Pellet/Chips
- R2: Recycling of CAT-II PW to Pellets/Chips
- R3: Recycling of CAT-III PW to Pellets/Chips/fibers
- R4: Recycling of CAT-I PW to Products
- R5: Recycling of CAT-II PW to Products
- R6: Recycling of CAT-III PW to make Products
- C1: Processing CAT-IV PW for industrial composting
- E1: End of life PW co-processing in cement plants
- E2: End of life PW co-processing in steel plants
- E3: End of life PW processing in Waste to Energy plants
- E4: End of life PW processing in Waste to Oil Units

END OF LIFE DISPOSAL

Only those plastics, which cannot be recycled will be sent for end of life disposal such as road construction, waste to energy, waste to oil, as per relevant guidelines issued by Indian Road Congress or Central Pollution Control Board from time to time.



Figure 4: Plastic to Fuel facility, Mathura-Vrindavan Municipal Corporation

6. ROLES AND RESPONSIBILITY OF STAKEHOLDERS

The roles and responsibility of stakeholders are defined under **clause 10,11,12,13** of latest notified guideline on Extended Producer Responsibility for Plastic Packaging. The guidelines does not put obligations on Urban Local Body/Gram Panchayat. However, they play a crucial role in plastic waste value chain and need to be ensured below mention to implement EPR framework:

6.1 PIBOs: Producers, Importers and Brand Owners

PIBOs shall register through the online centralized portal developed by Central Pollution Control Board and obtain registration certification.

- 6.1.1** PIBO will submit action plan containing EPR target, category-wise, where applicable in the online centralized portal.
- 6.1.2** PIBO shall maintain & provide record of category-wise quantity of plastic purchased and sold.
- 6.1.3** PIBO shall develop a separate waste stream for collection of plastic packaging waste along with ULB/GP for directly fulfilling EPR obligations. Schemes such as deposit refund system or buy back or any other model can be operated to prevent mixing plastic packaging waste with solid waste.
- 6.1.4** PIBO shall file annual returns on the plastic packaging waste collected and processed towards fulfilling obligations under Extended Producer Responsibility with the Central Pollution Control Board or concerned State Pollution Control Board.

PIBOs ARE RESPONSIBLE TO:

1. Register at EPR Portal
2. Submit EPR Action Plan
3. Fulfill obligations for :-
 - ☒ Recycling
 - ☒ Use of Recycled Content
 - ☒ Reuse
 - ☒ End of life disposal
 - ☒ Engagement in collection and recovery of the plastics
 - ☒ Submit annual returns
 - ☒ Provide proof of certificates (Plastic credits)

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6.2 PWPs: Plastic Waste Processors

- 6.2.1** PWPs shall register through the online centralized portal developed by Central Pollution Control Board and obtain registration certification.
- 6.2.2** PWPs shall submit annual return of the quantity of plastic waste processed category-wise on the EPR portal.
- 6.2.3** Only plastic waste processors registered under Plastic Waste Management Rules, 2016, as amended, shall provide certificates for plastic waste processing, except in case of use of plastic waste in road construction.

6.2.4 The certificate for plastic packaging waste provided by registered plastic waste processors shall be in the name of registered PIBO or Local authorities, as applicable, based upon agreed modalities.

6.2.5 The certificate generated for the amount of plastic packaging waste recycled by the PWP shall not be more than installed capacity of the PWP.

6.2.6 PWP shall ensure availability of all records to the Central Pollution Control Board or the concerned State Pollution Control Board for inspection.

6.2.7 PWP shall ensure that the recycling processes do not have any adverse effect on the health and the environment.

6.2.8 PWP shall ensure that the facility and recycling processes are in accordance with the standards or guidelines prescribed by the Central Pollution Control Board from time to time.

6.2.9 PWP would not be able to generate credit for plastic procured by other PWP who has already generated the credit on it.

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If plastic waste is used in road construction the PIBO shall provide a self-declaration certificate in proforma developed by CPCB verified by the local authority.

6.3 CPCB: Central Pollution Control Board

6.3.1 CPCB shall register Producers, Importers & Brand-Owners who are operating in more than two states and plastic waste processors, through online portal.

6.3.2 CPCB shall coordinate and provide necessary guidance for the activities related to EPR implementation in the country.

6.3.3 CPCB shall verify compliance of PIBOs through inspection and periodic audit, as deemed appropriate.

6.3.4 CPCB shall 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.

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If PWP₂ is procuring plastic chips from PWP₁ to make a product, then they can't generate a credit on that tonnage of plastic for which PWP₁ already claimed credit.

6.4 SPCB: State Pollution Control Board

6.4.1 SPCB shall guide local authorities to map PWPs/Recyclers/Co-processing facilities/Cement kilns/ plastic to fuel/waste to energy facilities.

6.4.2 SPCB shall register Producers, Importers & Brand-Owners (operating in one or two states) and plastic waste processors, through the online portal developed by Central Pollution Control Board.

6.4.3 SPCB shall bring out a list of entities (Exception Report) who have not fulfilled their Extended Producer Responsibility responsibilities on annual basis and publish the same on their website.

6.4.4 SPCB shall establish a mechanism to ensure a regular dialogue between relevant stakeholders involved in the fulfilment of extended producer responsibility obligations under the Plastic Waste Management Rule, 2016.

- 6.4.5** SPCB shall 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.
- 6.4.6** SPCB shall monitor implementation of EPR Action Plan of PIBOs at State level to ensure its effective implementation.
- 6.4.7** SPCB shall compile PIBO wise activities operating in the state as per their EPR action plan and share it in public domain.

6.5 Urban Local Bodies/Gram Panchayats

- 6.5.1** ULB/GP shall map the registered WMAs/PWPs/Recyclers/Co-processing facilities/Cement kilns/plastic to fuel/waste to energy within 100 km of ULB boundary with support of SPCB.
- 6.5.2** ULB/GP shall register as PWPs on centralized EPR portal if operating WTE, PTF or any other plastic processing facility.
- 6.5.3** ULB/GP shall setup decentralized Plastic collection facilities/Material Recovery Facilities.
- 6.5.4** ULB/GP to ensure that recyclable plastic is channelled to registered recyclers.
- 6.5.5** ULB/GP to ensure creating awareness among stakeholders along with PIBOs.
- 6.5.6** ULB/GP to ensure non-recyclable plastic waste to be disposed in environmentally sound manner.
- 6.5.7** ULB/GP to organise time to time capacity building activities to strengthen plastic waste value chain.
- 6.5.8** ULB/GP shall engage multiple PIBOs in strengthening the waste collection network.
- 6.5.9** ULB/GP shall engage informal sector for collection and segregation of plastic waste.
- 6.5.10** ULB/GP can procure EPR certificate/credit from PWPs and sell it to PIBOs.

7. EPR IMPLEMENTATION IN URBAN LOCAL BODIES AND GRAM PANCHAYATS

The state of Uttar Pradesh has 734 urban local bodies and 58189 Gram Panchayats that annually generates over 5.53 lakh ton of plastic waste (3.7 lakh tonnes in Urban boundaries and 1.83 Lakh tonnes in Rural boundaries, as reported in the annual PWM report 2021-22 by UPPCB). The state government is taking necessary actions to address the concern of rapid growth in plastic production, consumption, and its impact on the environment. Effective from 2nd October 2018, the use, manufacture, sale, distribution, storage, transport, import or export is ban on all kinds of plastic carry bags, single-use plastic and thermocol in all urban, rural & industrial areas. Other notable measures include the constitution of the Special Task Force to monitor the status of plastic waste management and implementation of ban on single-use plastics, piloting green protocols in government and private institutes, and ongoing engagements with the private sector for plastic waste collection, recycling and co-waste processing.

Moreover, in order to incorporate circularity in the plastic waste value chain the state government aims at the implementation of Extended Producer Responsibility (EPR) and promoting plastic alternatives & eco-design in the state to meet national and international targets. For the implementation of overall EPR framework, any single model on EPR may not be suitable to be implemented in the whole state. Therefore, for the ease of implementation of EPR framework and for the participation of each and every ULB, GP, producer, importer and brand owner, the SOP document provides following different models for implementation of EPR framework.



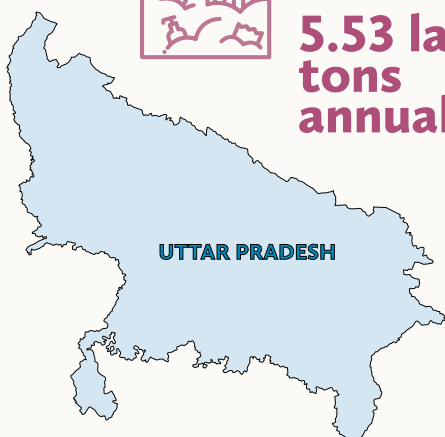
734
URBAN
LOCAL
BODIES



58189
GRAM
PANCHAYATS



PLASTIC WASTE
GENERATION OVER
**5.53 lakh
tons
annually**



EPR/PLASTIC CREDIT

EPR/Plastic Credit is a proof of execution of recycling process conducted by PWP for PIBO.

When PIBOs engage with PWPs to ensure the obligation to reuse, recovered, recycled or End of Life disposal of plastic packaging to meet their target. The Plastic/EPR credit certificate is provided by PWP to PIBO at the decided terms and cost in the lie of service provided by them, obligating to the Plastic Waste Management Rules.

The Plastic/EPR credit certificate generated by PWP is validated by physical verification of their facility and authenticated by submission of GST invoices of the purchase and sales transaction.

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7.1 Model 1: Decentralize Revenue Generation Model

Model Suitability

- GP/ULB population less than or equal to 3 Lakhs
- Total plastic waste less than or equal to 10 TPD
- PIBOs with plastic production less than or equal to 10 TPD

In model 1, the GP/ULB to ensure segregated door-to-door waste collection and managing in plastic waste through manual/semi-mechanized MRF/PCF in collaboration with PIBOs. To manage MLP/SUP waste i.e., Category 3 waste, engagement with SHG groups making linkages through Skill India Mission.

Major Components

- Setting up decentralize manual/semi mechanized MRF/PCF.
- Engagement of informal sector for operationalization of MRF/PCF
- Processing MLP/SUP waste through registered processing units.
- Formation/engagement of SHG for utilization of MLP/SUP waste and creating linkages through Skill India Mission.
- Utilizing non-recyclable waste in road construction.

Following are some of the ways in which this model may be implemented:

- 7.1.1** ULB/GP shall map the registered WMAs/PWPs/Recyclers/Co-processing facilities/Cement kilns/plastic to fuel/waste to energy within 100 km of ULB boundary.
- 7.1.2** ULB/GP shall engage PIBOs/PWPs/Recyclers for their support in Collection, segregation, processing, and scientific disposal of non-recyclable plastic waste.
- 7.1.3** ULB/GP shall engage informal sector for collecting and segregate plastic waste.
- 7.1.4** Setting up decentralized semi-mechanized Material Recovery Facility/Plastic Collection Facility in PPP model in collaboration with PIBOs/PWPs/Recyclers.
- 7.1.5** ULB/GP to facilitate PIBO for introducing 'Deposit Return schemes' to buy back consumed plastic product with a predefined buy back price printed on plastic products/prices to incentivize the consumers segregating and returning the used plastic products.
- 7.1.6** ULB/GP shall ensure processing and disposal of plastic waste through registered PWP on EPR portal developed by CPCB.
- 7.1.7** ULB/GP shall utilize non-recyclable plastic in Road Construction and shall provide declaration to particular PIBO to gain benefit of EPR Credit.
- 7.1.8** ULB/GP shall form/engage SHG creating link with Skill India Mission for utilization of MLP waste by recycling/upcycling it to products like bags, pouches, decor, mattress and useful products.
- 7.1.9** ULB/GP shall create necessary awareness among citizens and other stakeholders on 3R principal with partnered PIBOs & PWP.
- 7.1.10** ULB/GP shall set a revenue stream by agreement to sell the plastic waste and RDF to PWP.
- 7.1.11** ULB/GP shall procure EPR certificates from the PWP in lieu of services provided to them.

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SHG engaged for recycling/ Upcycling of MLP shall register under category of "Recycler" as PWP on EPR Portal.

- 7.1.12** ULB/GP on the centralized EPR portal can authorise PWP for transfer certificate to particular PIBOs or can sell the procured EPR certificate to PIBO.
- 7.1.13** Selling of EPR credit/certificate can be done on the MSP/terms decided through tendering/ agreement.

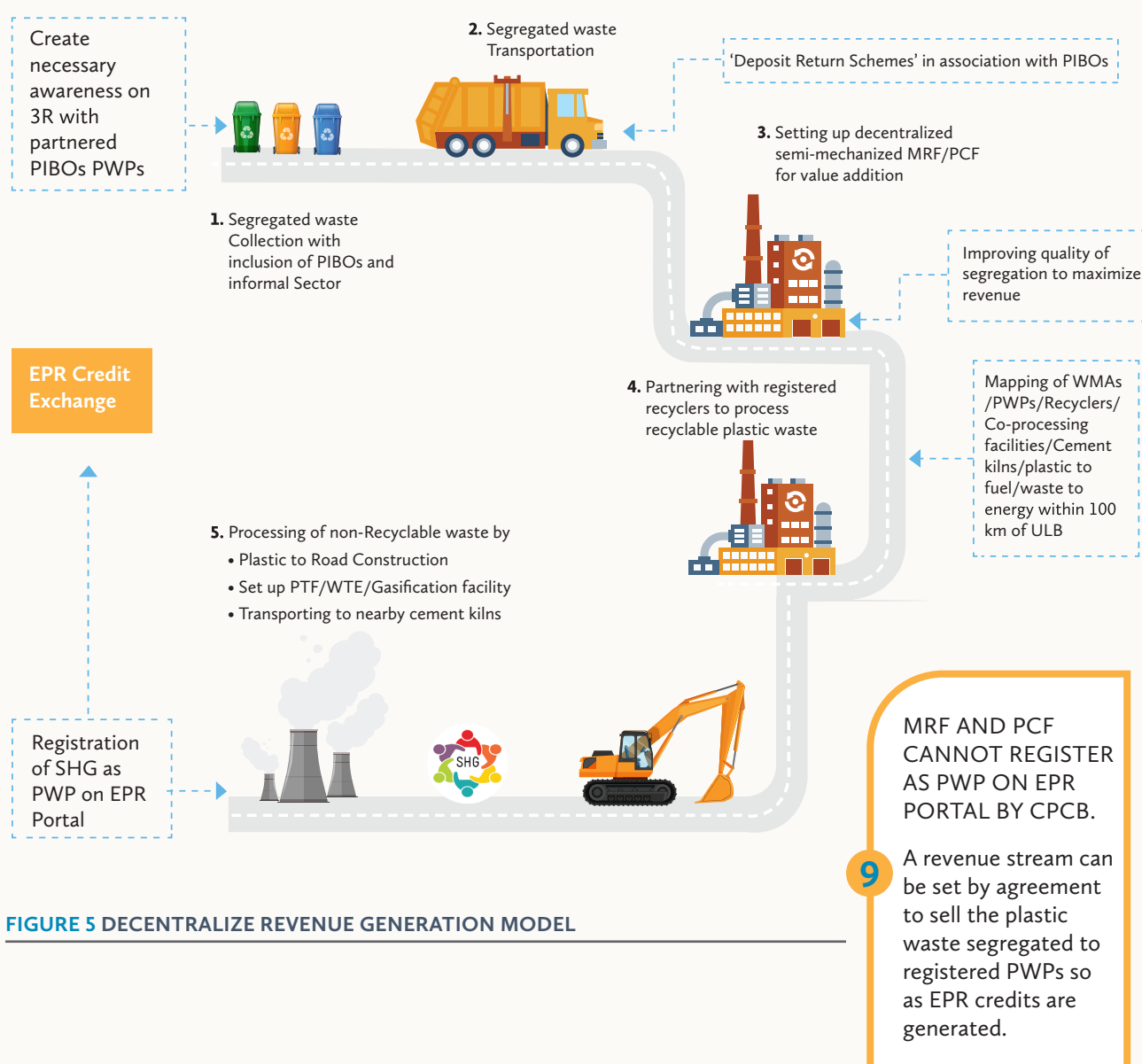


FIGURE 5 DECENTRALIZE REVENUE GENERATION MODEL

7.2 Model 2: Integrated EPR Credit Trading Model 1

Model Suitability

- ULB population 3.1 Lakh to 10 Lakh
- Total plastic waste generation between 10.1 TPD and 25 TPD
- PIBOs with plastic production between 10.1 TPD and 25 TPD

In model 2, the ULB to ensure plastic waste management in partnership with multiple PIBOs. *To implement this model the ULB must register as PWP on centralized EPR portal by CPCB to trade EPR Credits.*

Major Components

- Setting up PTF/WTE facility
- Conducting compositional survey and MSP study

Following are some of the ways in which this model may be implemented:

- 7.2.1** ULB/GP shall map the registered WMAs/PWPs/Recyclers/Co-processing facilities/Cement kilns/plastic to fuel/ waste to energy within 100 km of ULB boundary.
- 7.2.2** ULB/GP shall engage PIBO/PWP/Recyclers for their support in Collection, segregation, processing, and scientific disposal of non-recyclable plastic waste.
- 7.2.3** ULB/GP shall engage informal sector for collecting and segregate plastic waste.
- 7.2.4** ULB/GP shall setup collection and transportation system with registered PIBO/PWP/ Recyclers on EPR Portal by CPCB
- 7.2.5** ***Setting up of multiple fully mechanized Material Recovery Facility/Plastic Collection Facility in PPP model of capacity up to 5 TPD.***
- 7.2.6** ULB/GP to facilitate PIBO for introducing 'Deposit Return schemes' to buy back consumed plastic product with a predefined buy back price printed on plastic products/prices to incentivize the consumers segregating and returning the used plastic products.
- 7.2.7** ULB/GP shall ensure processing and disposal of plastic waste through registered PWP on EPR portal developed by CPCB.
- 7.2.8** ULB/GP shall set up PTF/WTE facility of capacity up to 2 TPD if there is no end of disposal facility available nearby.
- 7.2.9** ULB/GP shall conduct 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.
- 7.2.10** ULB/GP ***shall utilize non-recyclable plastic in Road Construction as per relevant guidelines issued by Indian Road Congress and shall provide declaration to particular PIBO to gain benefit of EPR Credit.***

- 7.2.11** ULB/GP shall create necessary awareness among citizens and other stakeholders on 3R principal with partnered PIBOs & PWP.
- 7.2.12** ULB/GP ***shall set a revenue stream by agreement to sell the plastic waste and RDF to PWPs.***
- 7.2.13** ULB/GP on the centralized EPR portal can authorise PWP for transfer certificate to particular PIBOs or can sell the procured EPR certificate to PIBO.
- 7.2.14** Selling of EPR credit/certificate can be done on the MSP/terms decided through tendering/ agreement.

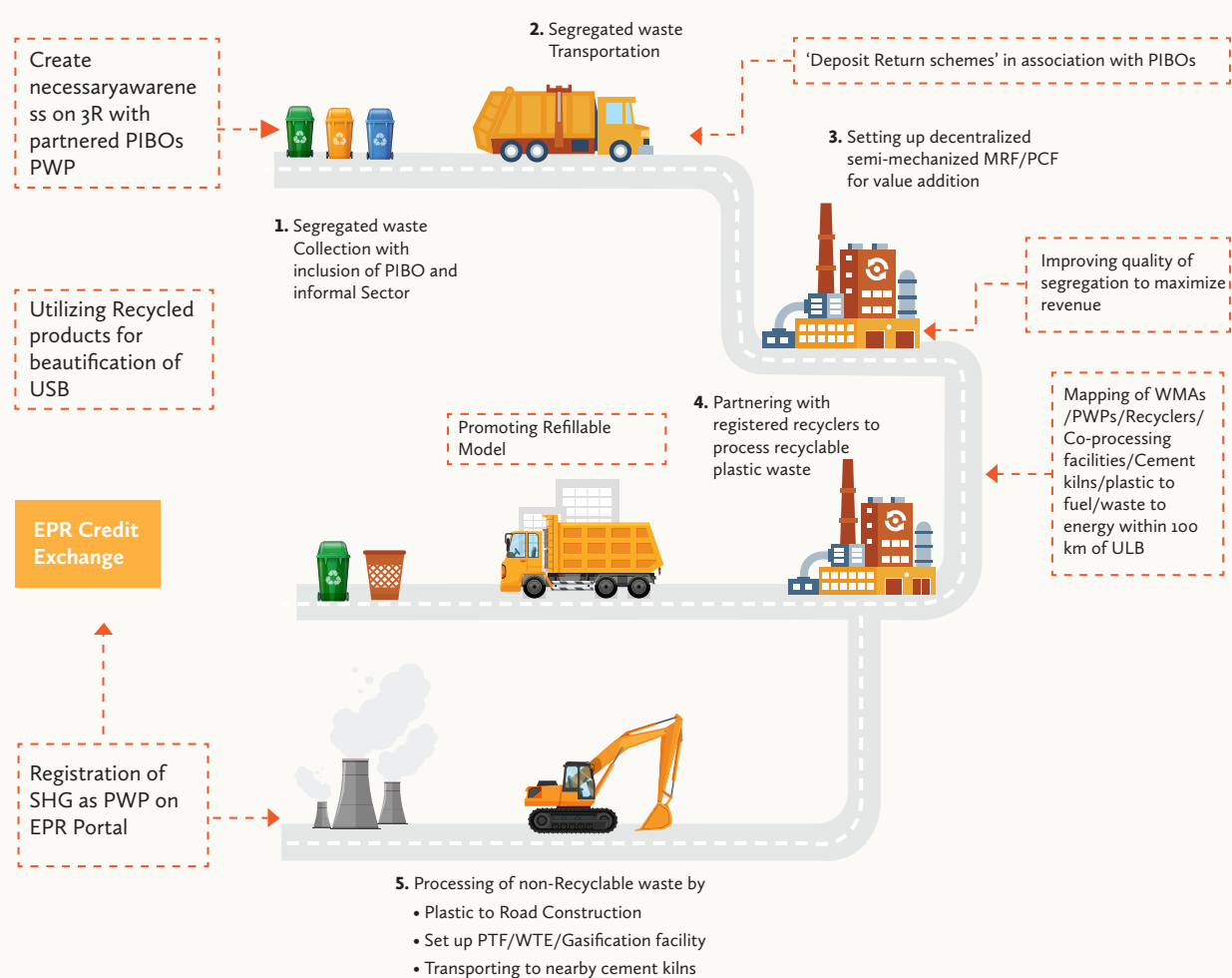


FIGURE 6 INTEGRATED EPR CREDIT TRADING MODEL

7.3 Model 3: Integrated EPR Credit Trading Model 2

Model Suitability

- ULB population more than 10.1 lakhs
- Total plastic waste generation more than 25 TPD
- PIBOs with plastic production more than 25 TPD

Model 3 shall cover bigger scope of implementation of EPR by engagement with bigger brands that has huge EPR targets. *ULB shall register as PWP on centralized EPR portal by CPCB to trade EPR Credits.*

Major Components

- Conducting compositional survey and MSP study.
- Setting up centralized MRF/PCF centers in PPP model.
- Engaging informal sector in MRF/PCF operations.
- Setting up PTF/WTE facility to process and dispose non-recyclable waste (SUP/MLP).
- Promoting Refillable Model.

Following are some of the ways in which this model may be implemented:

- 7.3.1** ULB/GP shall map the registered WMAs/PWPs/Recyclers/Co-processing facilities/Cement kilns/plastic to fuel/waste to energy within 100 km of ULB boundary.
- 7.3.2** ULB/GP shall roll out tender to engage multiple PIBOs/PWPs/Recyclers for their support in Collection, segregation, processing, and scientific disposal of non-recyclable plastic waste.
- 7.3.3** ULB/GP shall engage informal sector for collection and segregation of plastic waste.
- 7.3.4** ULB/GP shall setup Segregated Waste Collection & Transportation system along with PIBOs/PWPs.
- 7.3.5** ULB/GP shall setup multiple fully mechanized Material Recovery Facility/Plastic Collection Facility in PPP model, engaging informal sector in operations.
- 7.3.6** ULB/GP to facilitate PIBO for introducing 'Deposit Return schemes' to buy back consumed plastic product with a predefined buy back price printed on plastic products/prices issued by the ULB to incentivize the consumers segregating and returning the used plastic products.
- 7.3.7** ***ULB/GP shall promote Refillable models in order to reduce the plastic waste generation.***
- 7.3.8** ***ULB/GP shall setup collection and transportation system with registered PIBO/PWP/Recyclers on EPR Portal by CPCB.***
- 7.3.9** **ULB/GP shall install multiple WTE/PTF/Gasification facility/any other plastic processing facility in PPP model and shall register on centralized EPR portal by CPCB as PWP.**
- 7.3.10** ULB/GP shall utilize non-recyclable plastic in Road Construction as per relevant guidelines issued by *Indian Road Congress* and shall provide declaration to particular PIBO to gain benefit of EPR Credit.
- 7.3.11** ULB/GP shall create necessary awareness among citizens and other stakeholders on 3R principal with partnered PIBOs & PWP.

- 7.3.12** ULB/GP shall set a revenue stream by agreement to sell the plastic waste and RDF to PWPs.
- 7.3.13** ULB/GP on the centralized EPR portal can authorise PWP for transfer certificate to particular PIBOs or can sell the procured EPR certificate to PIBO.
- 7.3.14** Selling of EPR credit/certificate can be done on the MSP/terms decided through tendering/ agreement.
- 7.3.15** ULB/GP shall conduct 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.

Revenue generation through EPR mechanism by Gram Panchayats/Urban Local Bodies:

1. Revenue generation can be maximized by improving quality of segregation and setting a revenue stream by agreement to sell the plastic waste and RDF to registered PWPs.
2. If ULB/GP is operating any plastic waste processing facility (plastic to fuel/waste to energy/ MLP recycling unit) then it shall register under category of “PWP” on the EPR portal by CPCB to gain EPR benefits.
3. The revenue generated from the EPR credit can be shared with the partnered organization operating the MRF and engaged informal sector workers.
4. EPR credit can be generated on the centralized portal created by CPCB. EPR credits will be generated according to category of plastic waste.
5. ULB/GP to trade EPR credit can reach out to PIBOs registered on centralized EPR portal by CPCB.
6. Upon the physical verification of PWP by SPCB, EPR credit certificate can be generated. The generated certificate can be further transfer/sell to local bodies/PIBOs.

Notes

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Uttar Pradesh Plastic Waste Management Conclave 2022

Implementation of EPR in the state of Uttar Pradesh

