



Decoding Extended Producer Responsibility: As per Plastic Waste Management Rules, 2016 (as amended in 2022)

Speaker: Ms Shivangi Vashishta,

Supported by: Mr Munish Kumar

Moderated by: Ms Mohini & Ms Ashpreet Kaur

Date of Program – 17.03.2023 (08:30 – 09:30 hrs. IST)

Corporate Office - Plot No. 44, 5th Floor, Sector 44, Gurugram - 122003 Haryana

Website: <http://www.ehsguru.com> | ehssolutions@ehsguru.com

Contact Us at +91-7947230346

Follow our LinkedIn Page - <https://www.linkedin.com/company/ehsguru/>

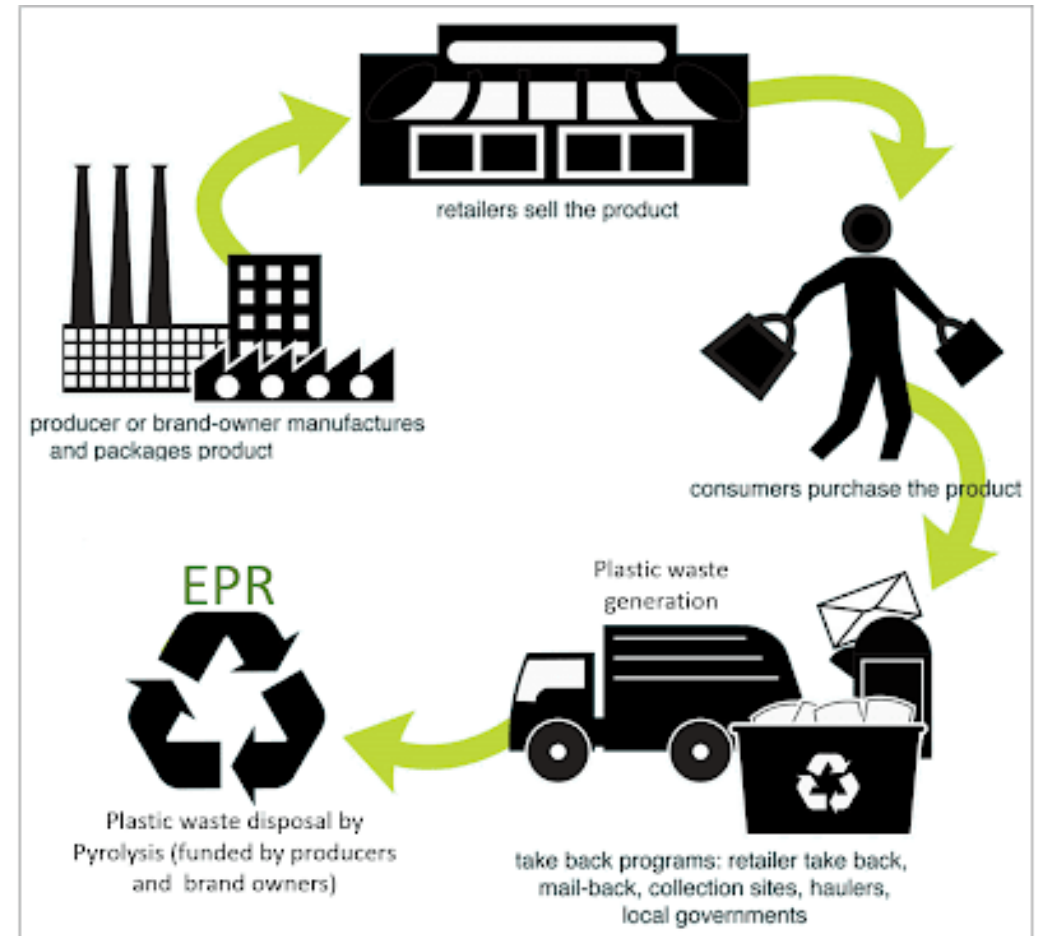


It is the worst of times, but it is the best of times, because we still have a chance”
– Sylvia Earle, world renowned and one of first female oceanographers on plastic pollution.

Introduction:



- India generated plastic wastes of 3.46 million tonnes.
- Based on Polluter Pays Principle.
- Circular Economy.
- EPR for PWM was introduced in 2016 to:
 - Integrate environmental costs
 - Improved waste management
 - Reduction of disposal
 - Reduction of burden on municipalities
 - Design of environmentally sound products
- Rule 9 of Plastic Waste Management Rules 2016 (PWMR), as amended in February 2022. 3rd Amendment to PWMR added the II schedule.
- It lays down a phased manner of its implementation.





Source: Bizcommunity.com

Defining Important Terms (As per EPR to PWMR guidelines)

- **EPR** has been defined under clause 3 (c) of the second schedule to the Rules as the *responsibility of a producer for the environmentally sound management of the product until the end of its life.*
- **Plastic** has been defined under Clause 3(g) of the guidelines as a material which contains *as an essential ingredient a high polymer such as polyethylene terephthalate, high-density polyethylene, Vinyl, low-density polyethylene, polypropylene, polystyrene resins, multi-materials like acrylonitrile butadiene styrene, polyphenylene oxide, polycarbonate, polybutylene terephthalate.*
- **Plastic packaging** is packaging material made by using plastics for protecting, preserving, storing and transporting products in a variety of ways.



Trivia: As per PWMR, EPR makes whom responsible for plastic waste pollution?

a. Consumers

b. Government

c. Producers

d. None of the Above

Seven Types of Plastics

Source: Rekart



- Soda bottles
- Water bottles
- Medicine jars
- Peanut butter and jelly jars
- Rope
- Carpet
- Tote bags
- Combs



YES, YOU CAN RECYCLE IT!



- Milk jugs
- Non-carbonated drink bottles
- Bleach bottles
- Shampoo and conditioner bottles
- Cereal box liners
- Motor oil containers
- Toys
- Buckets



YES, YOU CAN RECYCLE IT!



- Plumbing pipes
- Credit cards
- Cooking oil bottles
- Garden hoses
- Window frames
- Shoes
- Gutters
- Ducts



**IT IS RARELY RECYCLED.
CHECK WITH YOUR RECYCLER FIRST**



- Grocery bags
- Plastic wrapping
- Cling film
- Sandwich bags
- Squeezable bottles for condiments
- Frozen food bags
- Flexible container lids
- Bubble wraps



**IT IS RARELY RECYCLED.
CHECK WITH YOUR RECYCLER FIRST**



- Plastic tableware
- Take-out container
- Butter tubs
- Fresh soup containers
- Jar and bottle caps
- Plastic diapers
- Tupperware
- Yogurt containers



**IT IS RARELY RECYCLED.
CHECK WITH YOUR RECYCLER FIRST**



- Disposable insulated coffee cups
- Plastic cutlery
- Plastic food boxes and trays
- Plastic cutlery
- Packing foam



NO, YOU CANNOT RECYCLE IT



- Eyeglasses
- CDs and DVDs + cases
- Baby bottles
- Large water bottles
- Medical storage containers
- Electrical wiring



NO, YOU CANNOT RECYCLE IT

Single-Use Plastics Ban vs. EPR



- 2nd Amendment, August 2021.
- Rule 4 (2): The manufacture, import, stocking, distribution, sale and use of single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st July, 2022:-
 1. *ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration;*
 2. *plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 micron, stirrers.*
- Compostable plastics outside its purview.
- Rule 4 (c): After amendment, the thickness of plastic carry bags has been increased from 50 microns to 120 microns from the 31st December, 2022. This will also allow reuse of plastic carry due to increase in thickness.
- The other plastic packaging waste, shall be collected and managed in an environmentally sustainable way through the Extended Producer Responsibility.

Types of Plastic Waste



I.

Category I: Rigid Plastic Packaging



II.

Category II: Flexible Plastic Packaging.



III.

Category III: Multi-layer plastic packaging,



IV.

Category IV: Plastic Sheet

(or like used for packaging as well as carry bags made of compostable plastics)

Exception (Clause 7.8): 100% biodegradable plastic packaging in the ambient environment: As it leaves no traces of microplastics/chemical residue/any other traces having adverse environmental and health impacts as certified by

- CPCB,
- Bureau of Indian Standards (BIS),
- Central Institute of Petrochemicals Engineering & Technology (CIPET)

Identify Type of Plastic:



Category I: Rigid Plastic Packaging



Protection and durability:
harder, opaque, and resistant to
high temperatures.

Variety of substrates & shapes.

Increased recycling
capabilities.

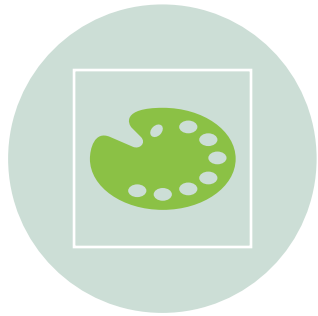
Plastic material acts very well
as a barrier to moisture,
oxygen and CO₂, so it is
widely used as a container for
beverages, food, medicines,
cosmetic products.

Not cost effective: Increased
shipping cost & requires lot of
space.



B.

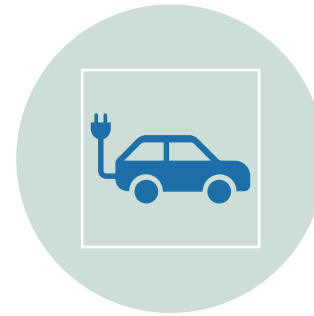
Category II: Flexible Plastic Packaging



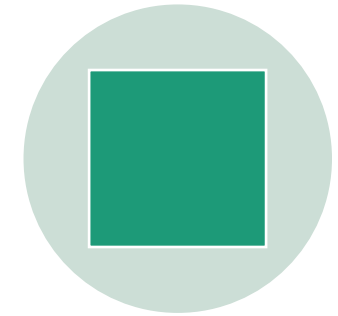
Versatile And Customizable



Film Promotes Reuse And Convenience



Environmentally Friendly: It Requires Less Energy To Manufacture And Transport, And It Generates Smaller Quantities Of Greenhouse Gases On Its Way To Market.



Minimizes Production Costs

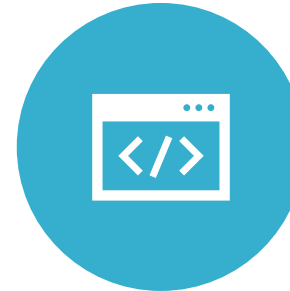


C.

Category III: Multi-layer Plastic Packaging



PWM rules 2016, is “any material used for packaging and having at least one layer of plastic as the main ingredient in combination with one or more layers of materials such as paper, paper board, polymeric materials, metalised layers or aluminium foil, either in the form of laminate or co-extruded structure



Protects sensitive food products translating into longer shelf life, is lightweight, makes transportation easy, and is also graphics friendly



Comes in all sizes: from a shampoo sachet to large packets of chips. The lightweight and small size of MLPs, make them almost omnipresent, easy to throw away but difficult to collect.



In 2018, PWMR amended the term ‘non-recyclable multi-layered plastic’ was replaced with this definition: “multi-layered plastic which is non-recyclable or non-energy recoverable or with no alternate use.”



Category IV: Plastic Sheet

- Or like used for packaging as well as carry bags made of compostable plastics.
- Principal uses are in **packaging film, trash and grocery bags, agricultural mulch, wire and cable insulation, squeeze bottles, toys, and housewares.**

Trivia: Is EPR compliance mandated for all types of plastic waste?



Yes



No



No clarity in the law



None of the above

Key Stakeholders



Producers

- of plastic packaging.

Importers

- of all imported plastic packaging and/or plastic packaging of imported products.

Brand Owners

- a person or company who sells any commodity with plastic packaging under a registered brand.
- including online platforms/marketplaces and supermarkets/retail chains, excluding micro and small enterprises as per the criteria of the Ministry of MSME, Government of India.

Plastic Waste Processors (PWPs)

- Registered on the portal (provision 13(3) of PWMR, 2016)

Urban Local Bodies

CPCB & SPCBs/ PCC

Responsibilities of Producer, Importer, and Brand Owners



Irrespective of the turnover or scale of operation should follow EPR guidelines under PWMR.



Register at the CPCB's EPR portal.



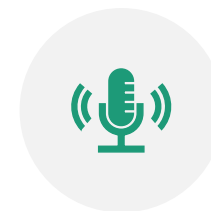
Submit an Action Plan detailing the quantity of plastic produced or imported, the quantity collected and recycled, and the measures taken to prevent littering.



Provide a **plastic credit certificate**.



Fulfil targets and responsibilities for recycling, use of recycled plastic, reuse, end-of-life disposal, collection, and recovery.



Submit Annual returns. (Rule 17 of PWMR)

Half-Yearly Progress reports within 15 days of completion of the corresponding half-year term

Responsibilities of Plastic Waste Processors



Registration



Limit according to the installed capacity of the enterprise.



Issue certificates for plastic waste processing.



Provide accurate information, otherwise barred for 1 year.



Submit annual returns after the end of every FY.



For those doing End-of-Life disposal, provide information annually on the portal.

TARGETS (Clause 7)

- EPR
- Recycling based Obligation
- Reuse
- Use of Recycled Plastic Content
- End-of-Life Disposal



- **Producers:**

2022-23 = 70% EPR of the eligible quantity

2023-24 onwards= 100%

Eligible quantity for producers is a sum of the average plastic packaging sold in the previous financial year and pre-consumer plastic waste of the last two financial years and then reducing it by the amount of the annual quantity supplied to the registered companies mentioned under sub-clause 4 (iii)* in the previous financial year.

- **Importers:**

2022-23 = 70% eligible quantity for importers which is a sum of the average plastic packaging material or plastic packaging of imported products imported and sold plus pre-consumer plastic waste of the last two years and then reducing it by the amount of the annual quantity supplied to the registered companies mentioned under sub-clause 4 (iii) in the previous financial year.

- **Brand Owners:**

2022-23 = 70% of the eligible quantity which is calculated as a sum of average weight virgin plastic material purchased and introduced in market of the last two years plus average quantity of pre-consumer plastic packaging in those years.

	Year	EPR Target
I	2021-22	35 %
II	2022 – 23	70 %
III	2023 – 24 and onwards	100 %

*[Sub-Clause 4 (iii): Brand Owners including online platforms/marketplaces and supermarkets/retail chains other than those, which are micro and small enterprises as per the criteria of the Ministry of Micro, Small and Medium Enterprises, Government of India.]

Recycling-based obligations:

The minimum threshold of recycling (not taking end-of-life disposal into account) of plastic packaging waste.
(% of EPR Target)

- **Producers**
- **Importers**
- **Brand Owners**

Plastic Packaging Category	2023-24	2024-25	2025-26	2026-27 and onwards
Category I	50	60	70	80
Category II	30	40	50	60
Category III	30	40	50	60

Obligation relating to reuse: Brand Owners

Brand owners utilizing Category 1 (rigid) plastic packaging must be mandated to fulfil the obligation of reusing the packaging.

The table shows the minimum obligation of reuse:

	Year	Target (as % of Category I rigid plastic packaging in the product sold out annually)
A	Category I rigid plastic packaging of product with vol. or weight equivalent or more than 0.9 litres or kg but less than 4.9 litres or kg, depending on the case.	
I	2023 – 24	10
II	2024 – 25	15
III	2025 – 26	20
IV	2026 – 27 and onwards	25
B	Category I rigid plastic packaging of product with vol. of weight equivalent or more than 4.9 litres or kg.	
I	2023 – 24	70
II	2024 – 25	75
III	2025 – 26	80
IV	2026 – 27 and onwards	85

Obligation for the use of recycled plastic content:

- The table below shows the percentage of *plastic* packaging which must comprise recycled plastic. (Percentage of plastic manufactured for the year)
- **Producers:** Where not possible, then CPCB will provide exemption.
- **Brand Owners**
- **Importers:** Any recycled plastic used in imported material shall not be considered towards fulfilment of obligation. Importer will have to purchase certificate.

Plastic packaging category	2023-24	2024-25	2025-26	2026-27 and onwards
Category I	30	40	50	60
Category II	20	20	30	30
Category III	5	5	10	10

End-of-Life Disposal

Plastic that lacks recyclable characteristics such as MLPs is mandatorily sent to the end of the life disposal such as (as per the norms of PWM Rule, 2016):

- Road Construction
- Waste to Oil
- Waste to Energy



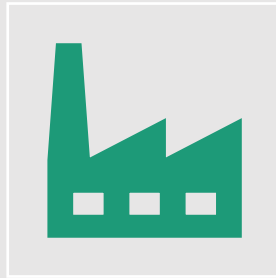
Plastic Packaging Waste Collection System by Producers, Importers & Brand-Owners:

- Onus on the PIBOs to ensure the collection of plastic packaging waste from the collection points **with respect to the expanse of the area covered and the volume.**
- PIBOs are also required to offer the collection of plastic by the bodies like urban local bodies, gram panchayats, other public authorities or third parties (PWMA) carrying out waste management and then to arrange for the collection from all such entities.
- PIBOs have to ensure collected waste is recycled in a registered facility by a recycler or is put to its allowed end-use as per the Rules.

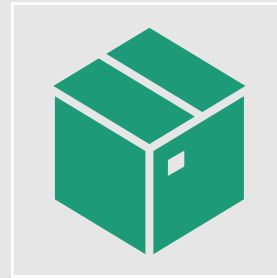


Modes of PWM

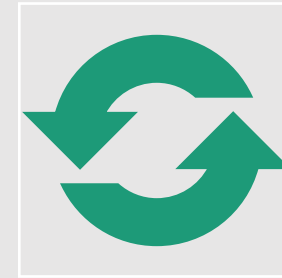
Source: Annexure I



**PWM through Own
Distribution Channel.**



**PWM through Direct
engagement with ULB.**



**PWM through engagement
with Waste Management
Agency (WMA), which in
turn should engage with
ULBs.**

PWM through Own Distribution Channel



Plastic waste shall be collected through the same channel through which it is introduced in the market.

Detail of the collection mechanism such as the introduction of a Deposit Refund Scheme, setting up of collection centres etc. shall be submitted at the time of registration.

Engagement with local bodies shall not be required for this option.

Plastic Waste Processing: PIBO has to engage with Plastic Waste Processing Facility (PWPF)- (Recycler/ Co-processor, etc.) for processing the plastic waste. PWPF should be registered with SPCB/PCC (Rule 13(3) of PWM Rules).

The number of WMAs/PIBO to engage with PWPF shall be limited by the processing capacity of PWMF as per Registration issued by SPCB/PCC.

The following details have to be provided for each of the PWPFs engage with for processing of waste:

- Name of PWPF
- Name of State /UT
- Type of PWPF (Recycling, co-processing, WtE, road making, Waste to Oil etc.)
- PWPF Processing Capacity (TPA)
- The validity date of Registration of PWPF
- Qty of PW to be processed in PWPF
- Type of PW to be processed (Low value (LDPE, MLP, PP); High valued (HDPE, PP, PET etc.))

Brand Owner has to sign an agreement (Format given in Annexure IV) with the PWPF.

PWM through Direct engagement with ULB



- **Plastic Waste Collection:** Engagement with ULB/designated state authority can be for
 - segregation,
 - collection,
 - transportation of waste,
 - channelization of waste to PWPF,
 - setting up/ operation & maintenance of material recovery facility (MRF)/ Refused Derived Fuel (RDF),
 - Engagement of the informal sector in PWM etc. as per provision of PWM Rules.
- A document issued by the concerned ULB / designated state authority supporting PIBO's engagement is required at the time of Registration to CPCB.
- **Plastic Waste Processing:**
- Same as for PWM by its own distribution channel.

PWM through engagement with Waste Management Agency (WMA)



PIBOs may also engage with WMAs for

- segregation,
- collection,
- transportation of waste,
- channelization of waste to PWPF,
- setting up/ operation & maintenance of material recovery facility (MRF)/ Refused Derived Fuel (RDF),
- Engagement of the informal sector in PWM etc. as per the provision of PWM Rules.

Such WMAs shall be enrolled with the concerned ULB/ designated state authority.

Multiple WMAs can be engaged by Producers & Brand Owners for PWM.

The following details have to be provided for each of the WMA engaged with:

- Name of the waste management agency
- Qty & type of plastic waste proposed to be managed through WMA
- Validity of agreement with WMA

Producers & Brand-Owners should have an Agreement (Annexure-V) with WMA for PWM.

The scope of Work of the WMA shall be clearly defined in the Agreement.

Surplus Credits And Exchange

- **A surplus in one category can only be used for off-setting, carry forward and sale in the same category.**
 - For eg., for a brand owner, a surplus under reuse can be used against reuse, recycling and also the end-of-life disposal. A surplus under recycling can be used for recycling and end-of-life disposal.
- PIBOs can meet their EPR obligations under a category by purchasing surplus EPR certificates from other PIBOs of the same category.
- Transactions are to be submitted on the portal while filing annual returns.



Registration

Link to the portal: <https://eprplastic.cpcb.gov.in/#/plastic/home>



As per the guidelines, PIBOs and PWPs have to register with the concerned SPCB/PCC as per Section 13(3) of PWMR, 2016 on the centralized portal developed by CPCB.



First registration is valid for 1 year, subsequently- 3 years. (CPCB SOP)



The portal is planned to have 7 modules, which allow:

- 1. Registration of PWPs**
- 2. Registration of PIBOs,**
- 3. Issuing certificates by PWPs & Exchange of credits,**
4. Real-time monitoring of transactions between PIBOs and PWPs,
5. Levy of environmental compensation and
6. Providing system-generated reports and
7. Facilitating the filing of annual returns for the stakeholders.

4. Is the EPR registration requirement only for producers, brand owners and importers?



Yes



No



There is no clarity in the law.



None of the above.



Documents Checklist

Source: CPCB Standard Operating Procedure (SOP) for Registration of Producers, Importers & Brand Owners (PIBOs) under Plastic Waste Management (PWM) Rules, 2016, as amended

Link:

https://cpcb.nic.in/uploads/plasticwaste/SOP_EPR_PWM_23-03-2021.pdf

KYC requirements:

- A PDF copy of the Company's PAN, CIN & GST (the combined copies of GST invoices in all the States/UTs where the PIBO is operating) and
- A PDF copy of the authorised person's PAN & Aadhar.

Other Documents Required for Registration:

- A proof of selling in more than two states (GST/ tax invoice etc),
- A District Industries Centre (DIC) Certificate if the unit has a production facility,
- Valid consents under Air & Water Act if the unit has a production facility and
- Documents for Action Plan required for fulfilling EPR liability (State/UT wise).
 - A document issued by ULB / designated state authority related to engagement of PIBO/WMA (as applicable),
 - Registration issued by SPCBs/PCCs to PWPF to be engaged with for PW processing,
 - An agreement of PIBO/WMA with PWPF for PW processing (as applicable) and
 - An agreement of PIBO with WMA (as applicable).

What Happens After Applying for Registration?



CPCB will examine the application and shortcomings, if any, are communicated to the applicant within **7 working days of receipt of the application.**



Internally, all concerned officials should respond **within 2 working days of receipt** of the required documents.



In case, no response is received from the applicant for **30 days of receipt of CPCB's communication**: The application is considered withdrawn.



If CPCB does not send any response to the applicant **within 1 month of the receipt of the complete application**: The Registration certificate will be considered as generated.

5. What is the duration of time taken by CPCB to process registration application?



1 week



1 month



2 weeks



None of the Above

Environmental Compensation

- **Based on Polluter-Pays Principle. What is it?**
- Who will impose? The CPCB for PIBOs in two or more states, respective SPCB.
- **All PIBOs have to fulfil their EPR target for the given year, even in the case of paying EC.**
- A **timeline of 3 years** to fulfil the missed targets in that particular FY.
- **Repayment of EC:**
 - **within 1 year of the imposition of EC: a 75% return,**
 - **2 years: a 60% return and**
 - **3 years: 40%.**
 - **After 3 years of EC being owed, the entire EC amount shall be forfeited.**
- The payment is to be made in an **escrow account**, which shall be used for gathering, recycling and end-of-life disposal.
- **Violation of accountabilities** - Section 15 of EP Act, 1986.



Trivia: What is the nature of EPR compliance?

a. Voluntary

b. Mandatory

c. Both

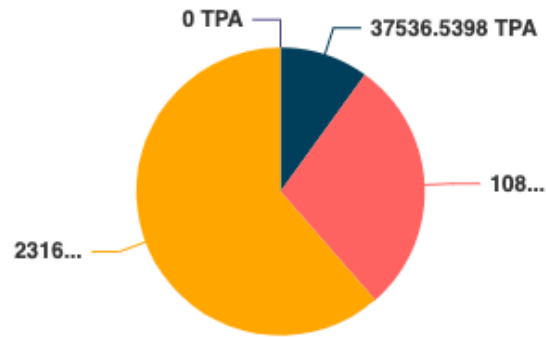
d. None



CPCB Data:

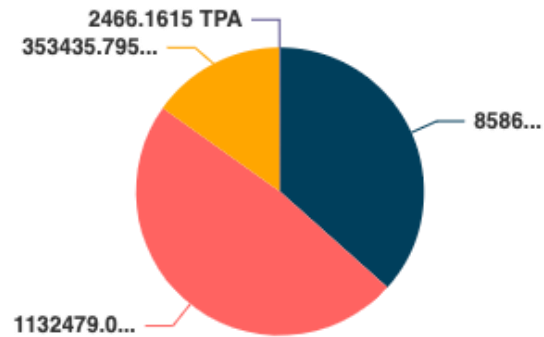


Avg. Qty. (Tons) of Plastic Procured :
377243.0859 TPA



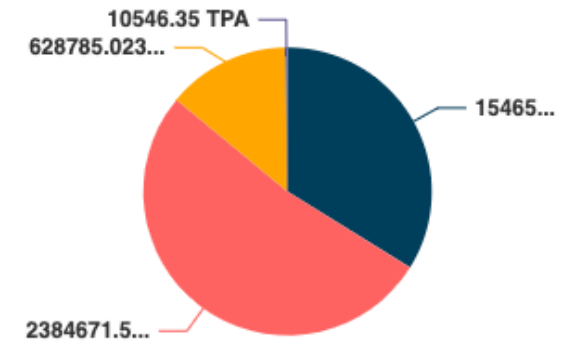
- Cat-I (Rigid Plastic)
- Cat-II (Flexible Plastic)
- Cat-III (MLP)
- Cat-IV (Compostable Plastic)

Total EPR Targets : 2347006.0793 TPA



- Cat-I (Rigid Plastic)
- Cat-II (Flexible Plastic)
- Cat-III (MLP)
- Cat-IV (Compostable Plastic)

Avg. Qty. (Tons) of PW Generated :
4570525.4443 TPA



- Cat-I (Rigid Plastic)
- Cat-II (Flexible Plastic)
- Cat-III (MLP)
- Cat-IV (Compostable Plastic)

Points of Concern

1. Status of Ragpickers in the EPR regime.

2. The technology used for end-of-life processing of plastic waste- GHG-emissions intensive.

3. Only packaging plastic waste is under its regulatory scope.

4. No segregation at the consumer's end increases the difficulty.

5. Leaves out the most-desirable option of plastic waste reduction / minimisation

6. Registration

Trivia: Do entity only collecting plastic waste need to register as PWP?

a. Yes

b. No

c. No clarity in provisions.

d. None of the Above



Conclusion



- Therefore, schedule II to PWMR is a comprehensive framework for addressing the need to prescribe a proper and holistic procedure for underpinning EPR on PIBOs.
- Lays down a forward-looking mechanism of EPR surplus exchange.
- Reinforce the principle of polluter-pays principle and circular economy concept.
- However, concerns need to be addressed.
- Environmentally sound technology for waste processing.
- The informal sector needs to be acknowledged.
- The scope of plastic waste needs to be increased beyond packaging.
- Sensitization is needed at all levels: Improving source segregation, ensuring collection and transportation of segregated waste and encouraging the country to identify and use affordable plastic alternative products.

THANKS!

Feedback Link - <https://tinyurl.com/egssg>

WRITE TO US FOR ANY SUPPORT IN EPR/EHSS/ESG SERVICES

EHS Guru Sustainable Solutions Private Limited

Corporate Office - North : Plot No. 44, 5th Floor, Sector 44, Gurugram - 122003 Haryana

South: T-5, Block B, Gayatri Ocean Blue, Kumarapalli, Whitefield, Bengaluru - 560066, Karnataka

Website: <http://www.ehsguru.com> | ehssolutions@ehsguru.com

Contacts - 080-48112006 | +91-7947230346 | +91-9899000186

CIN - U74999HR2017PTC070756 MSME - UDYAM-HR-05-0017772 DPIIT Certified Startup - DIPP42574

PAN - AAECE7867N TAN - RTKE02209E GSTIN - 06AAECE7867N1ZY(Haryana)

GSTIN - 29AAECE7867N1ZQ (Karnataka)

