GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS & FERTILIZERS
DEPARTMENT OF CHEMICALS & PETROCHEMICALS

LOK SABHA
UNSTARRED QUESTION NO. 1256
ANSWERED ON 06/02/2026

TRANSFORMATION OF POLYMER AND PLASTIC INDUSTRY

1256 # DR. D. PURANDESWARI:

Will the Minister of CHEMICALS AND FERTILIZERS be pleased to state:

(a) the circular economy roadmap for the polymer and plastic industry transformation by 2030;

(b) whether the Government is promoting recycled plastics usage through incentives and regulatory mandates, if so, the details thereof;

(c) whether the Government is providing support for developing bio-degradable polymer alternatives to conventional plastics, if so, the details thereof;

(d) the waste segregation and collection mechanisms for ensuring effective plastic recycling;

(e) whether the Government is establishing infrastructure for processing and converting plastic waste into value-added products, if so, the details thereof; and

(f) the manner in which the Government balance plastic waste reduction with domestic polymer industry competitiveness?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS AND FERTILIZERS

(SMT. ANUPRIYA PATEL**)**

Ans for (a) & (f)

To promote the circular economy in the country for polymer and plastic industry a regulatory frame work for management of plastic waste has been developed. To reduce plastic waste generation and safe disposal various policy measures are prescribed under Plastic Waste Management (PWM) Rules. These rules have been notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC).The rules give thrust on plastic waste minimization through ban on high-litter single-use plastic products; source segregation of the plastic waste; Extended Producer Responsibility (EPR) of Producers, Importers, and Brand Owners (PIBOs)

for the entire lifecycle of their plastic packaging; mandatory targets for reuse, recycling and use of recycled content for plastic packaging.

(b)

The Ministry of Environment, Forest and Climate Change has notified the Guidelines on the Extended Producer Responsibility (EPR) for plastic packaging on 16th February, 2022. The Guidelines stipulate mandatory targets on Producers, Importers and Brand owners (PIBOs) for recycling of plastic packaging waste, reuse of rigid plastic packaging and use of recycled plastic content

Since 2022, as per information available on the dashboard of Centralized online EPR portal for plastic packaging, there are 3012 plastic waste processors registered under EPR guidelines and around 191 lakh tonnes of plastic packaging waste has been processed.

(c)

The Department through CIPET and the Centres of Excellence is promoting research in the area of promotion of bioplastics. CIPET through its Research & Developmental wing has been developing innovative solutions in the area of development of sustainable packaging (rigids/flexible) using biopolymers like PLA (polylactic acid), PBAT (polybutylene adipate-co-terephthalate, and PHB (polyhydroxybutyrate), Seaweed etc. The Department's Centres of Excellence (CoE) at IIT Guwahati and IIT Madras are also working on promoting bio-plastics and their applications. IIT Guwahati is developing the technology for production of Poly Lactic Acid and its applications development. IIT Madras is working on developing packaging from bio-based resources.

Further to promote and develop Compostable/ Biodegradable Plastic Materials as replacement of Single Use Plastics, CIPET has established test facility at 11 centres to determine the aerobic biodegradability in soil as per ISO: 17556-2019 and compostable polymers testing as per IS/ISO: 17088:2021. Recently, BIS with active involvement of CIPET & other members, has published a provisional Indian Standard IS 17899T:2022 for Assessment of Biodegradability of Plastics in Varied Conditions. This standard addresses the aspects like biodegradation, negative effects of resulting biomass on terrestrial plant growth/organism and negative effects on the quality of the resulting biomass including the presence of high levels of regulated heavy metals. This standard is applicable for assessing the biodegradability of plastics under aerobic and anaerobic conditions.

Ans (d) and (e):

As per Plastic Waste Management Rules, 2016, local bodies and Gram Panchayats are inter alia mandated to ensure segregation, collection, channelization of waste for recycling either on their own or by engaging agencies.

Under Solid Waste component of Swachh Bharat Mission - Urban 2.0 (SBM-U 2.0), launched on 01.10.2021 with the objective of attaining 100% Garbage Free Cities (GFC), central assistance is provided for setting up various type of waste processing facilities such as Material Recovery Facilities (MRFs), composting plants, bio-methanation plants, Refused Derived Fuel (RDF) processing facilities, plastic waste processing facilities, waste to electricity plants, Construction and Demolition (C&D) waste plants, sanitary landfill including Waste to Energy Plants/ CBG plant.

States have opted for different types of waste processing facilities based on their resources, technology, topography, type of waste involved, climatic conditions etc. The following initiatives have also been taken for plastic waste management:

I. A **'Plastic Waste Management Advisory'** has been developed capturing the plastic waste generation and various ways to manage plastic waste through reduce, reuse, recycle and recovery techniques.

II. **'Swachh Survekshan and Star Rating Protocol'** have been introduced aligned with Plastic Waste Management (amendment) Rules 2021 to encourage cities to phase out single-use plastic, etc.

With the support of the Department of Chemicals and Petrochemicals, CIPET has established four demonstration Plastic Waste Management Centre (PWMC) at Bhagalpur, Bengaluru (including e-waste), Varanasi and Sanand to develop cost effective recyclates and host Demonstration Facility for recycling technology.

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