

# SUSTAINABILITY NEWS

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## NOTICE

### »» ANNUAL RETURN FILING DEADLINE FOR PLASTIC PACKAGING EPR EXTENDED TO SEPTEMBER 30, 2024 FOR FY 2023-24

Source: SGS

In a significant update, the Ministry of Environment, Forest and Climate Change (MoEF&CC) has announced an extension in the timeline for filing the Annual Return (AR) by registered Producers, Importers, and Brand Owners (PIBOs) as well as Plastic Waste Processors (PWP) for the fiscal year 2023-24. According to the Extended Producer Responsibility (EPR) Guidelines notified by MoEF&CC as the IV Amendment to the Plastic Waste Management (PWM) Rules on February 16, 2022, PIBOs and PWP who were registered during the fiscal year 2022-24 on the EPR Plastic Portal are required to file their Annual Returns for FY 2023-24 by June 30, 2024, and April 30, 2024, respectively. However, following the issuance of an Office Memorandum (OM) dated June 18, 2024, by MoEF&CC, it has been officially communicated that the deadline for filing the Annual Return on the EPR portal for plastic packaging for the FY 2023-24 has been extended to September 30, 2024, for both PIBOs and PWP registered during the year FY 2022-24.



F. No. CP-20/28/2023-UPC-II-HO-CPCB-HO-Part(1) Date: 01.07.2024

**NOTICE**

Sub: - Extension in timeline for filing of Annual Return (AR) by registered Producers, Importers & Brand owners (PIBOs) / Plastic Waste Processors (PWP) for FY 2023-24

- 1.0 The PIBOs & PWP who are registered during FY 2022-24 on the EPR Plastic Portal are required to file their Annual Returns for FY 2023-24 on or before 30.06.2024 & 30.04.2024 respectively as per provision of EPR Guidelines notified by MoEF&CC as IV Amendment to PWM Rules on 16.02.22.
- 2.0 Consequent upon OM dated 18.6.24 issued by MoEF&CC, this is to inform that the timeline for filing of annual return on EPR portal for plastic packaging, for the FY 2023-24 by PIBOs & PWP registered during the year FY 2022-24, has been extended till September 30, 2024.

All PIBOs/PWP are required to ensure that their AR is filed on the EPR portal within the stipulated timelines.

This issues with approval from Competent Authority.

*(Divya Sinha)*  
Director & I/c, UPC-II

### »» POLYPROPYLENE AND POLYVINYL CHLORIDE TO BE ADDED TO INDIA BIS CERTIFICATION LIST

Source: CIRS Group

India has recently decided to enforce strict quality control orders (QCOs) on Polypropylene (PP) materials used for molding and extrusion, as well as polyvinyl chloride (PVC) homopolymers. These materials will be added to the Bureau of India Standards (BIS) mandatory certification list, requiring that both domestically produced and imported PP and PVC products meet rigorous standards to ensure consumer safety and product reliability. This order, which will take effect 180 days after its publication, does not apply to goods intended for export. The BIS will oversee the certification and enforcement, furthering the Indian government's efforts to enhance product quality, protect consumer rights, and support sustainable economic development.

Table 1

Goods or Article	Indian Standard	Title of Indian Standard
(1)	(2)	(3)
Polypropylene (PP) Materials for Moulding and Extrusion	IS 10951: 2020	Specification for Polypropylene (PP) Materials for Moulding and Extrusion

Table 2

Goods or Article	Indian Standard	Title of Indian Standard
(1)	(2)	(3)
Poly Vinyl Chloride (PVC) Homopolymers	IS 17658:2021	Poly Vinyl Chloride (PVC) Homopolymers - Specification

## »»» ADB TO GIVE \$200 MN LOAN TO INDIA FOR SOLID WASTE MANAGEMENT IN 100 CITIES

Source: Business Standard

The Asian Development Bank (ADB) and the Government of India have signed a \$200 million loan agreement to enhance solid waste management and sanitation in 100 cities across eight states. The agreement supports the Swachh Bharat Mission 2.0 - Comprehensive Municipal Waste Management in Indian Cities Program, with the goal of improving infrastructure for waste segregation, collection, and disposal.

The loan agreement was signed by Juhi Mukherjee, Joint Secretary of the Finance Ministry, and Mio Oka, Country Director for ADB's India Resident Mission. Mukherjee highlighted that the program's goals, which center on making the environment cleaner, align with the Swachh Bharat (Clean India) Mission - Urban 2.0. Oka stated that the initiative will make use of cutting-edge digital technology and global best practices, integrating climate- and disaster-resilient approaches in municipal solid waste management. ADB's support will facilitate the establishment of facilities such as bio-methanation plants, composting plants, managed landfills, material recovery facilities, and plastic waste processing facilities.

Additionally, it will support the construction of community toilets and urinals, and the procurement of sweeping equipment, integrating factors for climate resilience, gender equality, and social inclusion. The initiative will increase urban local authorities' capability for sanitation and waste management, foster peer-to-peer learning, and engage with the private sector. It will include annual reviews and progress updates of city-wide solid waste and sanitation action plans.



## »»» AHMEDABAD-BASED NEPRA TO INVEST ₹650 CR IN EXPANDING WASTE TREATMENT IN NORTH & NORTH-EAST INDIA

Source: The Hindu

Nepra Resource Management Pvt Ltd, an Ahmedabad-based waste management company, plans to invest ₹650 crore in waste treatment and segregation infrastructure in cities across North and North-East India. After investing ₹250 crore in these activities, the company today manages over 1,000 tons of waste each day in Ahmedabad, Indore, Pune, Jamnagar, and Bengaluru.



Nepra is in the process of raising funds, which will be a mix of equity and structured debt, to support its expansion into states such as Uttar Pradesh, Haryana, Rajasthan, and Maharashtra. The yearly income of the firm is around ₹250 crore, with an 80% year-on-year growth. In addition, Nepra provides about three lakh tons of Refuse Derived Fuel (RDF) each year to major cement manufacturers like as Ultratech and India Cements. The RDF is made from plastic garbage that is gathered through partnerships with different urban local bodies.

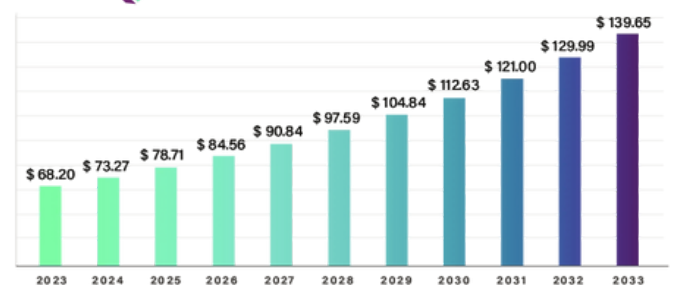
## »»» PLASTIC COMPOUNDING MARKET SIZE EXPECTED TO REACH USD 139.65 BN BY 2033

Source: GlobeNewswire

With a compound annual growth rate (CAGR) of 7.43%, the worldwide plastic compounding market is projected to increase from USD 73.27 billion in 2024 to around USD 139.65 billion by 2033. The market was estimated to be valued USD 68.20 billion in 2023 and is expected to grow to over USD 129.99 billion by 2032.

Asia Pacific dominated the market in 2023, holding a 45% revenue share. Fossil-based plastic compounds led the source segment with a 57% revenue share, though the recycled plastic segment is expected to grow the fastest. In terms of products, polypropylene (PP) generated over 31% of revenue in 2023, while polyethylene (PE) is anticipated to be the fastest-growing product segment. The automotive industry accounted for 26% of the market share by application in 2023, and the packaging segment is expected to see the fastest growth during the forecast period.

Towards Packaging Plastic Compounding Market Size 2023 to 2033 (USD Billion)



Source: www.towardspackaging.com

# PLASTIC RECYCLING



## STUDY CLAIMS BASIC POLYMERS CAN BE RECYCLED UP TO 10 TIMES

Source: :Recycling Today



A study by the Russian Chemists Union at Rosbiotech University found that basic polymers, including HDPE, PVC, LDPE, and PP, can be recycled up to 10 times while retaining properties comparable to their original forms. Six indicators, such as molecular weight, breaking stress, and melt flow, were used in the study to assess the polymers and simulate the recycling process utilizing techniques including extrusion, granulation, and grinding. Remarkably, these results were achieved without the use of stabilizers, which are typically added to prevent degradation during recycling. This study shows the enormous possibilities for polymer reuse in a circular economy, providing a means of reducing environmental impact. Additionally, the findings have been shared with the Russian government to guide the development of recycling methodologies and policies, with the potential to lower environmental fees for polymer processors and promote more sustainable practices across the industry.

## FLASH RECYCLING BREAKTHROUGH ACHIEVES 98% EFFICIENCY IN BATTERY RECOVERY

Source: : Interesting Engineering



Representational image of used batteries piled randomly in big container.

Researchers at Rice University, led by James Tour, have created a ground-breaking flash recycling technique that recovers battery material with 98% efficiency. This environmentally friendly method, called flash Joule heating (FJH), rapidly heats battery waste to 2,500 Kelvin, creating magnetic shells and stable core structures. The technique greatly reduces metal impurities and preserves the material structure for future usage by effectively separating and purifying battery components without the need for solvents. This approach addresses the environmental challenges of recycling lithium-ion batteries, particularly from electric vehicles, and offers significant economic and ecological benefits over traditional methods. The process is being scaled industrially, with potential to handle both cathode and anode recycling.

## ALLIANCE TO END PLASTIC WASTE RECYCLING- 2023 ANNUAL REPORT

Source: Recycling Today

In 2023, the Alliance to End Plastic Waste, a group located in Singapore, presented noteworthy achievements, emphasizing their endeavors to remove around 128,000 metric tons of waste plastic from the environment since its establishment in 2019.

2023 was a crucial year for achieving the goals of the organization, as Alliance President and CEO Jacob Duer emphasized in the group's annual report. The Alliance, which has supported over 80 global projects, with 52 active by the end of 2023, focuses on innovative solutions to tackle plastic pollution, particularly in Southeast Asia, South Asia, and sub-Saharan Africa. Among the noteworthy accomplishments is a project in Durban, South Africa, which gathered over 17,500 metric tons of plastic, of which 15,800 metric tons were recycled. Recognizing the vital role that informal garbage collectors—such as reclaimers in South Africa—play in the recycling process, the Alliance also places a high priority on improving their working conditions. The organization, comprising around 70 companies from the plastics value chain, continues to push for a circular economy for plastic through carefully selected projects aimed at reducing plastic waste and fostering sustainable practices globally.

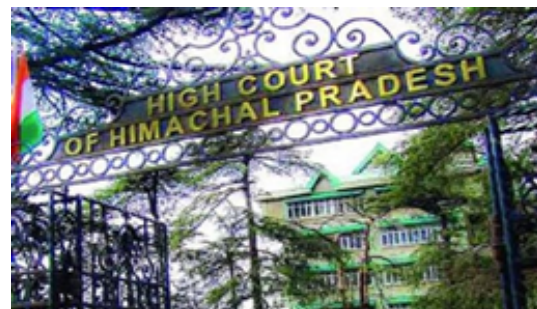


## ▶▶▶ HIMACHAL PRADESH HIGH COURT ISSUES CONTEMPT NOTICE TO PLASTIC FIRMS

Source: The Tribune India

The Himachal Pradesh High Court has issued a contempt notice to two private plastic-producing companies for failing to report the plastic waste generated by their products to the HP State Pollution Control Board (HPSPCB). This action was taken by a Division Bench, comprising Justice Tarlok Singh Chauhan and Justice Sushil Kukreja, in response to concerns about environmental damage brought on by plastic trash and the recent disasters in Rampur and Kullu caused by cloudbursts.

The court also directed the state government to present the minutes of a stakeholders' meeting scheduled for August 3, aimed at resolving plastic waste management issues. On August 8, the matter is listed for further hearing. Previously, the court had mandated that Producers, Importers, and Brand Owners (PIBOs) submit details of plastic waste generated and collaborate with local bodies and waste management agencies to improve plastic waste collection, segregation, and processing.



## ▶▶▶ GDA BANS USE OF PLASTIC BOTTLES IN GULMARG

Source: Daily Excelsior

The Gulmarg Development Authority (GDA) has instructed hoteliers to stop using plastic water bottles within their hotels and switch to glass bottles, aiming to make the tourist resort plastic-free. The Chief Executive Officer of the GDA praised the hotels in this direction for their prior green initiatives, which included eco-tourism conclaves and anti-polythene drives. As Gulmarg is known to be an environmentally sensitive place, the GDA underlined how important it is to finish this shift within a month in order to help maintain its unspoiled beauty.



The GDA highlighted the collaborative efforts with the local municipality and stakeholders to maintain a clean and plastic-free environment in Gulmarg. The move to enforce a complete ban on plastic is part of broader measures to protect the area's natural beauty and ensure sustainable tourism practices.

## ▶▶▶ NGT IMPOSES UP TO ₹50,000 FINE FOR DUMPING SOLID WASTE IN UNAUTHORISED AREAS IN UTTAR PRADESH

Source: The Hindu

The National Green Tribunal (NGT) has enforced a comprehensive ban on littering and dumping solid waste at unauthorized locations across Uttar Pradesh. Serious violations of the Solid Waste Management (SWM) standards are the basis for this order, dated July 26, 2024. This is especially the case in Gorakhpur, where tons of waste were discovered piled along the Rapti River embankment.

The NGT criticized central, state, and local authorities for their failure to enforce these rules, leading to significant environmental degradation and public health risks.

Under this new mandate, violators will face strict penalties: ₹5,000 for individuals on their first offense, escalating to ₹10,000 for subsequent violations. Urban local bodies and bulk waste generators will be fined ₹25,000 for the first offense and ₹50,000 for further violations. The tribunal emphasized the urgent need for proper waste management systems, especially given the existence of legacy garbage at important locations like Gorakhpur's Ekla Bandha. By requiring more stringent adherence to SWM regulations throughout the state, the NGT's ruling seeks to reduce environmental pollution and safeguard public health.

# WASTE MANAGEMENT

## COIMBATORE'S KANIYUR VILLAGE PANCHAYAT RECEIVES ISO CERTIFICATION FOR EFFECTIVE GOVERNANCE, WASTE MANAGEMENT

Source: The Times of India

Kaniyur village panchayat's waste management system is a standout achievement. They process 1,300 kg of solid and wet waste daily, converting it into bio-enriched organic manure. This manure is then sold to farmers and the public at ₹20 per kg, promoting sustainable farming practices within the community.



In addition to waste management, the panchayat has implemented an efficient sewage treatment system. They operate a sewage treatment plant (STP) with a capacity to treat 25,000 liters of sewage per day, servicing 200 households in Ponndampalayam. More than 300 plants are irrigated with the treated water, demonstrating a dedication to water conservation and reuse. Plans are also underway to expand the STPs to other villages within the panchayat. To further their sustainability efforts, the panchayat has invested in renewable energy. They constructed a 75KW solar power plant to pump water from borewells for public consumption in the Thaneer Pandal and Unjapalayam districts, greatly lowering their expenses for electricity.

Also, the panchayat planted ten thousand trees on 20 acres to create four mini-forests, increasing green cover and promoting ecological restoration.

## CENTRE ADVISES STATES AND UTS TO USE PLASTIC WASTE IN ROAD CONSTRUCTION IN CITIES

Source: The Indian Express

The central government has recently advised states and Union Territories (UTs) to incorporate plastic waste in road construction as a strategy to address plastic waste management. Plastic garbage should make up as much as eight percent of the bitumen weight on internal roadways in housing colonies and office complexes, as well as other urban highways.

This directive is aimed at promoting the sustainable use of non-recyclable plastic in infrastructure projects. The Indian Road Congress, which released recommendations in 2013 regarding the use of plastic material in road building, is the group that spearheaded this project.

In 2015, the Ministry of Road Transport and Highways (MoRTH) made it mandatory to use plastic waste mixed with bitumen in roads within a 50-kilometer radius of urban areas with populations of 5 lakh and above. This has been reinforced by the Ministry of Housing and Urban Affairs (MoHUA), which is urging the states and UTs to apply these principles to all infrastructure projects, including treatment plants and departmental roads.

Though utilizing plastic trash in road construction is a useful way to dispose of it at the end of its useful life, other experts advise against using it as the main answer to the growing problem of plastic waste.

They highlight that the primary objective should be to reduce plastic waste, with mechanical recycling and co-processing coming in second and third.

Roughly 60% of India's 4.12 million tons of plastic garbage generated in 2020–21 was recycled, according to the Central Pollution Control Board (CPCB). Road building can also benefit economically from the use of plastic trash; a kilometer of road might save ₹6.3 lakh, according to the Ministry of Housing and Urban Affairs.



The states and UTs were also asked to take up the issue with their major road construction departments, including PWD, Rural Development Department and Panchayati Raj. (File)

### DO YOU KNOW

**RECYCLING CREATES 6 TIMES MORE JOBS THAN LAND-FILLING AND 36 TIMES MORE THAN INCINERATING.**

# NEW RESEARCH/INOVATION

## »» SINGAPORE UNIVERSITY FINDS BIORESEARCH APPLICATIONS IN RECYCLED PLASTICS

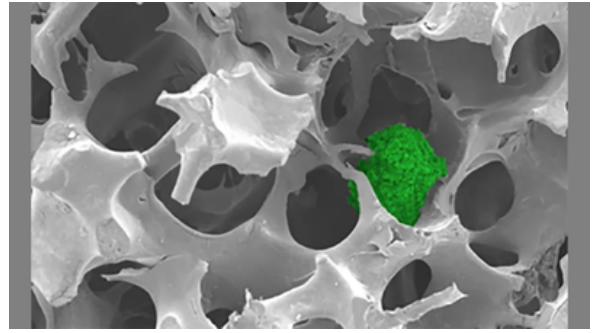
Source: Recycling Today

Researchers at Nanyang Technological University (NTU) in Singapore have developed innovative methods to repurpose plastic waste into valuable materials.

One project converts discarded acrylonitrile butadiene styrene (ABS) from keyboards into “mini tumors” for medical testing, offering an alternative to existing cell culture matrices.

Another initiative transforms marine plastic litter into hydrogen fuel and carbon additives for polymer foams, enhancing strength and durability.

A third project uses LEDs and catalysts to convert plastics like polypropylene and polystyrene into compounds for energy storage. These breakthroughs demonstrate potential end markets for plastic scrap, advancing the circular economy and reducing environmental impact.



The “tumors” application involves converting acrylonitrile butadiene styrene (ABS) commonly used in computer equipment into a medical laboratory product.

## »» STARTUP REPLACES 6 MILLION PLASTIC BAGS WITH PROTOTYPE MADE FROM CORN WASTE THAT DECOMPOSES IN 180 DAYS

Source: Good News Network



Mohammed Azhar Mohiuddin with eco-friendly plastic bags – BioReform

Mohammed Azhar Mohiuddin, an entrepreneur from Hyderabad, has developed a plastic-like carrier bag made from sugar, cellulose, and corn fibers through his company, Bio Reform. Bio Reform, which focuses on small companies in India, has already replaced six million plastic bags nationwide. Motivated by the environmental challenges highlighted during the pandemic, Mohiuddin focused on reducing plastic use, particularly in shopping bags. After studying a biodegradable polymer called PBAT, he secured funding and launched his venture. In spite of obstacles like bankruptcy and juggling academic obligations, Bio Reform is currently producing close to 500,000 bags a year, bringing in \$180,000.

Mohiuddin remains committed to combating plastic pollution and contributing to a plastic-free India.

## DO YOU KNOW?



UP TO 40% LESS FUEL IS USED TO TRANSPORT DRINKS IN PLASTIC BOTTLES COMPARED TO GLASS BOTTLES



RECYCLING 1 TONNE OF PLASTIC BOTTLES SAVES 1.5 TONNE OF CARBON