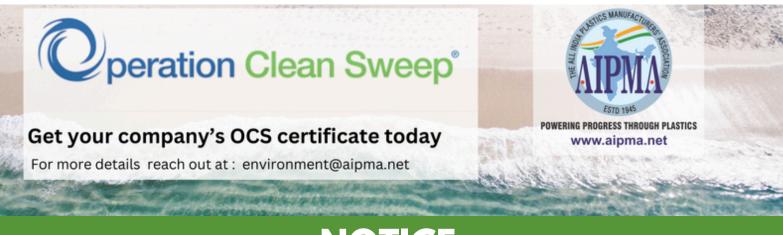
# SUSTAINABILITY NEWS

>>> NEWSLETTER <<<

### **AIPMA - ENVIRONMENT CELL**



# NOTICE

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

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 (PWPs) 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 PWPs 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 PWPs registered during the year FY 2022-24.



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Date: 01.07.2024

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

#### NOTICE

- Sub: Extension in timeline for filing of Annual Return (AR) by registered Producers, Importers & Brand owners (PIBOs) / Plastic Waste Processors (PWPs) for FY 2023-24
- 1.0 The PIBOs & PWPs 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 MoEFCC 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 & PWPs registered during the year FY 2022-24, has been extended till September 30, 2024.

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

This issues with approval from Competent Authority



### **BUSINESS TRENDS**

#### >>> NESTLÉ INTRODUCES 90% PLASTIC REDUCTION WITH NEW PAPER-BASED PACKAGING INNOVATIONS

Source: ESG Solution

Nestlé is making significant strides in sustainable packaging by introducing new paper-based solutions that drastically reduce plastic usage across several of its product lines. These innovations reflect the company's ongoing commitment to environmental responsibility and reducing its plastic footprint. One of the standout developments is the launch of new paperboard canisters for its Vital Proteins brand in the U.S. These canisters have reduced plastic use by an impressive 90% compared to previous packaging. At Nestlé's research and development facility in Bridgewater, innovative Jersey, this innovative design was created in conjunction with outside partners. The canisters include a proprietary coverlid that ensures durability and is leak-proof, making them practical for everyday use. This marks a significant shift in packaging for Vital Proteins, addressing sustainability without compromising functionality.



Nestlé has also turned its attention to transforming its coffee packaging. In the UK, the company has introduced highbarrier paper refill packs for Nescafé, allowing consumers to refill their glass jars. Comparing this novel packaging method to more conventional plastic alternatives, the package weight is reduced by 97%. The paper packaging is recyclable in local paper waste streams, which is significant since it supports Nestlé's overall sustainability objectives.

Additionally, Nestlé has rolled out a fully recyclable paper-body can for its Nescafé Cappuccino range across Europe. This marks a significant milestone in the company's efforts to move away from plastic and toward more environmentally friendly materials. Gerhard Niederreiter, Head of Nestlé's Institute of Packaging Sciences, emphasized that developing paper-based packaging is not a simple task. Each product's sensitivity to external elements such as oxygen, temperature, and moisture must be considered in order to maintain quality. Coffee, in particular, is highly sensitive to oxygen and humidity, making packaging innovations in this category more complex. Axel Touzet, Head of the Coffee Business Unit at Nestlé, highlighted the additional scientific and sustainability-focused efforts required to ensure that these packaging solutions preserve product freshness and quality.

The company aims to ensure that 95% of its plastic packaging is recyclable by 2025. Furthermore, it has set a goal to reduce the use of virgin plastic by one third, aligning with global efforts to minimize plastic waste and promote a circular economy. These initiatives reflect the company's leadership in the transition to more eco-friendly packaging and its dedication to reducing its environmental impact.

#### >>> PLASTIC WASTE MANAGEMENT MARKET TO WITNESS GROWTH ACCELERATION BY 2024-2032

The Plastic Waste Management Market is set for significant growth from 2024 to 2032, with forecasts indicating a valuation of USD xx.x billion by 2032. Growing consumer awareness, an increase in applications, and continuous technological breakthroughs that boost product performance are the main drivers of this upward trend. Major players like Veolia Environnement, Suez Environnement, and Waste Management are positioned to capitalize on this expanding market through strategic collaborations and investments in R&D. The market is segmented into types such as landfill, recycling, and incineration, and applications including plastic waste management and heat energy generation. Regionally, North America benefits from technological advancements and supportive policies, while Europe sees substantial investment in renewable projects despite some uncertainties. The Asia-Pacific region experiences rapid growth due to rising energy demands, while Latin America offers opportunities amid political challenges. Rich hydrocarbon reserves in the Middle East and Africa draw investment, despite ongoing security worries. All things considered, the market offers businesses who use innovation and follow changing consumer trends a lot of opportunity.

### PLASTIC RECYCLING



#### >>> WORLD'S FIRST MOBILE SORTING CONTAINER TACKLES PLASTIC POLLUTION IN RIVERS

Source: ESG Solution



STADLER and everwave have collaborated to develop SortX, the world's first mobile sorting container designed to tackle plastic pollution in rivers. SortX enables on-site sorting of plastic waste, efficiently separating recyclable from nonrecyclable materials, and closing the waste loop. Weighing 6 tons and designed for mobility, SortX can be easily transported to remote areas and set up quickly. Its prototype, deployed in Kukës, Albania, since mid-June, processed 30,000 kg of waste, with about 80% being recyclable.

The project aims to improve the efficiency of river cleanup operations while reducing environmental impacts from waste transport. everwave's garbage boats collect waste, which is sorted on-site using the container, eliminating the need for additional infrastructure or storage. The collaboration emphasizes sustainability and aims to implement permanent sorting stations at future locations. Both companies share a commitment to reducing plastic pollution and promoting the circular economy globally. SCHNEIDER ELECTRIC AND GR3N REVOLUTIONIZE PLASTIC RECYCLING Source:: EsgNews



Schneider Electric has teamed up with GR3N to scale a groundbreaking plastic recycling technology. GR3N's Microwave Assisted DEpolymerization (MADE) process breaks down difficult-to-recycle polyethylene terephthalate (PET) into its basic chemical components, allowing the production of high-quality, reusable PET. In March 2024, GR3N successfully demonstrated the MADE system at its Italian facility, powered by Schneider Electric's EcoStruxure Automation Expert, which streamlines operations by decoupling software from hardware. This innovation allows for greater flexibility and reduced costs in scaling the recycling process. With plans for a facility in Spain that will process 40,000 tons of PET waste annually, the partnership aims to reach full industrial scale by 2027. This solution provides a pathway to combat plastic waste and promote a circular economy, making plastic recycling more efficient and sustainable.

### >>> UC BERKELEY RESEARCHERS CRACK THE CODE ON PLASTIC RECYCLING

Source: Audacy

Scientists at UC Berkeley have developed a groundbreaking chemical process that could significantly reduce plastic pollution. Led by grad student RJ Conk, the team has found a way to break down the most commonly used plastics into their original raw materials—gases. Once broken down, these materials can be recycled and reused to create new plastics. "We're turning plastics back into the raw materials that made them," Conk explained. This discovery could potentially revolutionize plastic recycling by reducing the need for new petroleum-based plastics and helping to cut down on plastic waste. Study co-author John Hartwig noted that while certain plastics, like PVC or those contaminated by food dyes, still can't be recycled with this process, the breakthrough proves that the concept is possible. "This could be feasible, and before now, people didn't think it was," he said. Though more work is needed to scale this up, the research offers new hope in the fight against plastic pollution and in creating a more sustainable future for plastic recycling.



## **RULES/POLICY**

#### >>>> FRANCE'S 2025 EPR REFORM: A NEW ERA FOR PACKAGING COMPLIANCE

Source: The Tribune India

France is set to introduce significant changes to its Extended Producer Responsibility (EPR) regulations, with new compliance requirements starting from 2024. These revisions are aimed at streamlining processes, particularly by merging the EPR for printed paper products into the packaging category, as mandated by Decree No. 2023-305. Historically, France has maintained one of the most comprehensive EPR systems globally, encompassing 12 sectors, including packaging, electrical equipment, batteries, textiles, and more. Under the new law, paper products (excluding books) will no longer require separate EPR registration, as they will now fall under the packaging category. This change is set to take effect with each company's next contract renewal, starting January 1, 2024. For businesses selling in France, this means several important adjustments. Sellers are now required to register their packaging under the EPR framework, and, where relevant, register for categories such as batteries and Waste Electrical and Electronic Equipment (WEEE). The combination of categories aims to simplify compliance while ensuring adherence to France's rigorous sustainability goals.

#### Key Impacts for Sellers:

1. Reduced Registration Costs: The merger of printed paper products into the packaging category is expected to lower registration fees for sellers, as they will no longer need to obtain separate EPR numbers for non-book paper products.

2. Increased Packaging Waste Declarations: While registration costs may decrease, sellers could face higher packaging waste declarations, as printed paper products will now be counted within packaging waste reports. This change may increase the volume of waste reported under the Packaging Law, leading to higher compliance costs for waste management. These changes underscore France's commitment to simplifying its EPR framework while maintaining strict environmental oversight. Sellers must stay informed and prepared to adapt to these evolving regulations as the 2025 deadline approaches.

#### CALIFORNIA ENACTS COMPREHENSIVE BAN ON PLASTIC SHOPPING BAGS

Source: Indian Express



California has enacted a comprehensive ban on plastic shopping bags, signed into law by Governor Gavin Newsom, which will take effect in 2026. This legislation prohibits not only the thin plastic bags already banned but also thicker plastic bags that were previously marketed as reusable and recyclable. Instead, shoppers will be offered only paper alternatives if they forget their bags.

State Senator Catherine Blakespear highlighted the alarmingly low reuse and recycling rates of plastic bags, noting that individuals disposed of an average of 11 pounds of plastic bags annually by 2021, up from 8 pounds in 2004. Environmental advocates have lauded the ban, emphasizing its importance for protecting California's coastlines and marine life, and reinforcing the state's leadership in addressing plastic pollution.

With this new law, California aims to further reduce environmental pollution caused by plastic bags, aligning with the original intent of the 2014 statewide ban supported by voters. Currently, 12 states have similar statewide bans, while numerous cities across 28 states have implemented their own regulations.

### WASTE MANAGEMENT

#### INDIA EMERGES AS THE LARGEST PLASTIC POLLUTER GLOBALLY

Source: HindustanTimes

A new study by the University of Leeds, published in the journal Nature, has revealed India as the largest contributor to global plastic pollution, producing a staggering 9.3 million tons of plastic waste annually. India now tops the worldwide ranking, overtaking populous nations like China, Nigeria, and Indonesia. India urgently needs to upgrade its infrastructure for garbage collection and management, as evidenced by China's significant advancement in waste management, which has resulted in a reduction in plastic waste output to 2.8 million tons. Nearly two-thirds of global plastic pollution stems from uncollected and poorly disposed waste, with 15% of the world lacking access to adequate waste collection services.

India's waste management system remains a critical issue, with improper waste collection leading to an overwhelming accumulation of plastic waste that infiltrates every part of the environment, from deep ocean trenches to the human body. The study highlighted the global scale of the problem, comparing the annual global plastic waste output to filling New York City's Central Park and stacking it as high as 157 Empire State Buildings. Without proper intervention, India's plastic waste crisis threatens to worsen, causing greater environmental damage and health risks, while other nations, such as China, demonstrate that significant progress is possible with targeted efforts.



#### >>> J&K SETS AMBITIOUS WASTE SEGREGATION GOAL: ON TRACK FOR 100% BY 2025

Source: The Newsnow

The Jammu & Kashmir administration has set a bold target to achieve 100% waste segregation across all its Urban Local Bodies (ULBs) by December 2025. This ambitious goal, outlined in its recent six-monthly report to the National Green Tribunal (NGT), reflects the Union Territory's commitment to effective waste management under the Municipal Solid Waste (MSW) Management Rules of 2016.

With 78 ULBs, including two major municipal corporations, J&K generates over 1,632 metric tonnes of waste daily. A decentralized waste management model is in place, focusing on source segregation, door-to-door collection, and designated waste disposal sites. In smaller ULBs, the emphasis is on pit composting and Material Recovery Facilities (MRFs) to manage dry waste. Larger towns like Jammu and Srinagar are seeing the development of integrated waste management facilities, including a 210-tonne bio-methanation plant in Jammu and underground waste collection bins in Srinagar.



Currently, segregation rates vary, with some regions reporting up to 82% success. Extensive public awareness campaigns are underway, focusing on Information, Education, and Communication (IEC) activities to increase community involvement. By mobilizing citizens through door-to-door visits and campaigns, the administration hopes to bridge the gap and achieve full segregation.

A significant milestone is the remediation of 3.91 lakh metric tonnes of legacy waste, with an additional 17.58 lakh metric tonnes targeted under the Swachh Bharat Mission 2.0.

As J&K continues to expand its waste management infrastructure, including modern waste processing equipment and the deployment of new collection vehicles, the UT is on course to make remarkable progress toward achieving its 2025 targets, ensuring a cleaner and greener future for its residents.

DO YOU KNOW

AUDI STARTS MASS PRODUCTION OF CAR GRILLES WITH RECYCLED PLASTIC

### **NEW RESEARCH/INOVATION**

### >>> CSIRO AND MURDOCH UNIVERSITY LAUNCH BIOPLASTICS INNOVATION HUB TO

#### END PLASTIC WASTE

Source: The Hindu

RCSIRO, Australia's national science agency, and Murdoch University have launched The Bioplastics Innovation Hub, an \$8 million collaboration focused on developing 100% compostable plastic. This initiative aims to address global plastic pollution by creating biologically derived plastics that fully degrade in compost, land, or water. The Hub brings together expertise in microbiology, synthetic biology, and advanced manufacturing to translate bioplastics research into real-world applications, such as packaging materials like bottles, caps, and films. The first key project involves a partnership with Ecopha Biotech to create compostable water bottles using food industry waste.

The Hub is also dedicated to training the next generation workforce in biomanufacturing, helping to establish a commercial bioplastics sector in Australia. This initiative aligns with CSIRO's goal of reducing plastic waste in Australia by 80% by 2030 and supports the country's commitment to the United Nations Global Treaty on plastic pollution. Through collaborations with various stakeholders, including research teams, entrepreneurs, and policymakers, the Hub aims to drive technological innovation and sustainability in plastics manufacturing, contributing to a greener economy.



#### KERALA COLLEGE STUDENT RECEIVES INDIAN PATENT FOR METHOD TO PRODUCE METHANE FROM PLASTIC WASTE

Source: Onmanorama.

Abel Abraham Jacob was on a train when he the magnitude of the problem of plastic waste dawned upon him. This sparked his determination to find a solution. A Commerce student from Saintgits College of Applied Sciences in Kerala, Abel has recently come up with an invention that could change the face of waste management.

He even secured an Indian patent for his innovative method of converting plastic waste into methane. His research, titled 'Production of Methane from Plastic Waste by Combined Autogenic Pyrolysis and Fluidized Bed Gasification', was officially recognised on 29 August, 2024. Inspired by his grandfather's love for nature, Abel's passion for environmental conservation developed early on. Joining the Climate Change vertical of YUVA at Saintgits College then allowed him to explore his research interests. After countless experiments and 25 unsuccessful attempts, he finally achieved a breakthrough on his 26th trial.

Abel's unique process combines autogenic pyrolysis and fluidised bed gasification to produce methane from plastic waste, earning him significant recognition and the esteemed Indian patent. But his journey was not without its challenges. Initially, he faced scepticism from Dr Vishnuprasad, a chemical engineering professor, but persistence and enthusiasm became his weapons. Together, they developed multiple prototypes, eventually leading to a successful invention.

# **DO YOU KNOW?**



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THE WORLD IS PUMPING OUT 57 MILLION TONS OF PLASTIC POLLUTION A YEAR