One Nation, One Mission – End Plastic Pollution

National Plastic Pollution Reduction Campaign

Hackathon - 2025

Eco-Alternatives to Single Use Plastics

Information Brochure

1.0 Background

Hon'ble Prime Minister of India had announced India's pledge to phase out Single Use Plastic (SUP) by 2022 on World Environment Day June 05, 2018 and also pitched for freedom from SUP while delivering the Independence Day speech on August 15, 2019. In line with the clarion call given by Hon'ble PM, Shri Narendra Modi, to phase out SUP items, Ministry of Environment, Forest and Climate Change, Government of India notified the Plastic Waste Management Amendment Rules, 2021 prohibiting the identified SUP items, which have low utility combined with high environmental impact & littering potential. As per Amendment to Plastic Waste Management (PWM) Rules dated August 12, 2021 – Import, Stocking, Production, Sale & Usage of the following items was banned w.e.f. July 01, 2022:

i. Ear buds with plastic sticks
ii. Plastic sticks for balloons
iii. Plastic flags
iv. Candy sticks
v. Ice- cream sticks
vi. Polystyrene [Thermocol] for decoration
vii. Plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, stirrers
viii. Wrapping or packing films around sweet boxes, invitation cards, and cigarette packets,
ix. Plastic or PVC banners less than 100 microns

It is to be noted that the above provisions are not applicable to commodities made of compostable plastics and biodegradable plastics.

On World Environment Day, 2025, Hon'ble Minister of Environment, Forest and Climate Change, Government of India, Sh. Bhupender Yadav inaugurated the National Plastic Pollution Reduction (NPPR) Campaign. A Hackathon on "Eco-alternatives to Single Use Plastics" was launched by Hon'ble MEF under the NPPR Campaign. This hackathon aims at finding alternative eco-friendly solutions to reduce the usage of petro-based single use plastic items.

2.0 Actions taken for Enforcement of Ban on SUP

Several key measures have been taken by CPCB to enforce the ban on SUP items, including the development of a Comprehensive Action Plan focusing on supply-side control, demand reduction and creating an enabling environment for phasing out SUP. Directions were issued to State Pollution Control Board /Pollution Control Committees (SPCB/PCCs), Urban Local Bodies (ULBs), plastic raw material manufacturers, industries using and producing SUPs etc. for effective implementation of the ban. To strengthen monitoring and enforcement, CPCB launched two web portals—the Monitoring Module for Compliance of SUP and the SUP Public Grievance Portal. Regular joint inspections with SPCBs and ULBs are conducted to break the supply chain of banned SUP items. A series of Workshops were also conducted with Central Institute of Petrochemicals Engineering & Technology (CIPET) for the micro, small & medium enterprises (MSME) to facilitate their transition from manufacturing of Single Use Plastic to their eco-alternatives. A compendium on Eco-alternatives was launched on World Environment Day, 2025 by Hon'ble MEF.

3.0 Objectives

In line with the theme for World Environment Day (WED), 2025 - Ending Plastic Pollution Globally, this hackathon has been launched with the following objectives:

- To provide a platform to showcase the efforts which are being taken across the country to develop eco-alternatives to SUP items.
- To select the best available solutions, which can be adopted as alternatives to the SUP items.

4.0 Eligible Participants

The following entities will be eligible to participate in the hackathon to showcase already developed and scalable solutions that align with the objectives of the hackathon to address plastic waste challenges.

- Start-ups registered under various Government Schemes.
- Science, Research & Educational Institutions
- Industrial Entities

5.0 Registration and Application Submission

Applicants can register through the registration form prepared for the purpose. Link to the registration form can be accessed by i) scanning the QR code in the poster, ii) Registration link provided on the CPCB Hackathon webpage, and iii) **Following Registration Form Link** :

(https://docs.google.com/forms/d/e/1FAIpQLSdHFqBaACX3_cbCErUhEDqrulixmbUXfCY7UPeoIln894FyLA/viewform?usp=sharing&ouid=110077018875699516391)

- Problem statement will be published on the CPCB Hackathon Webpage on 14th July, 2025.
- Participants can submit their developed solutions either individually or as a team, addressing one or more themes of the Hackathon, latest by 15th September, 2025.
- The solution shall be submitted as per the format provided in **Annexure I** via Email to pp.hackathon.cpcb@gmail.com.

6.0 Evaluation of the Applications for Selection of the Best Available Eco-Alternatives to SUP Items

Based on the evaluation, top 10 participants shall be invited to make a presentation, either via video conferencing or in person (with prior intimation only), to the Evaluation Committee. The winning solutions of the hackathon will be recognized and awarded attractive prizes.

7.0 Prizes for Winners

The prizes for winners to be provided by CPCB are given below:

1st Prize	2nd Prize	3rd Prize
₹ 1,00,000	₹ 75,000	₹ 50,000

8.0 Further Information

For any further Information/queries, please contact:

Phone No. 011-43102 460/459

Email ID: pp.hackathon.cpcb@gmail.com

Annexure I - Solution Submission Format for Participants

1.	**Team's Registered Email ID**					
2.	**Problem Statement ID**					
3.	**Title of the Developed Solution**					
4.	**Description of Developed Solution (50 words)**					
5.	**Comparison of Eco-Alternative with Plastic**					
	a	**Functionality**	**Test Conducted (Y/N) (Please upload test reports)**	**Plastic**	**Alternative**	**Remarks**
	i	**Strength**				
	ii	**Permeability**				
	iii	**Leachability**				
	iv	**Shelf life**				
	v	**Any other Parameter**				
	b	**Biodegradability**				
	c	**Cost per Unit (Please specify (₹)**				
	d	**Scalability and feasibility of the solution**				
6.	**Target Market/ End-user (50 words)**					
7.	**What is the novelty of the developed solution? (50 words)**					
8.	**What is the business model or funding requirement for implementation of the solution? (50 words)**					
9.	**Limitations of the developed solution and future improvements required (100 words)**					