ROADMAP TO 2030

INDIA PLASTICS PACT

Developed by

Confederation of Indian Industry

CII-ITC Centre of Excellence for Sustainable Development

WWF

Supported by

wrap

Content

INDIA PLASTICS PACT

What is the India Plastics Pact?

Overview

The India Plastics Pact (IPP), launched in September 2021, is unifying stakeholders from across the plastics value chain to rethink the way we design, use and reuse plastics to create a circular economy for plastics packaging. As the **first Plastics Pact in Asia**, IPP joins a global community of **13 Plastics Pacts.** It unites businesses, governments, non-governmental organizations (NGOs) and citizens behind **four ambitious targets.** The vision, targets and ambition of the India Plastics Pact are aligned with the Ellen MacArthur Foundation's Plastics Initiative towards a circular economy.

The India Plastics Pact targets[1] to 2030 are:

Target 1

Define a list of unnecessary or problematic plastic packaging items and take measures to address them through redesign & innovation

Target 2

100% of plastic packaging to be reusable, recyclable or compostable[2]

Target 4

25% average recycled content across all plastic packaging

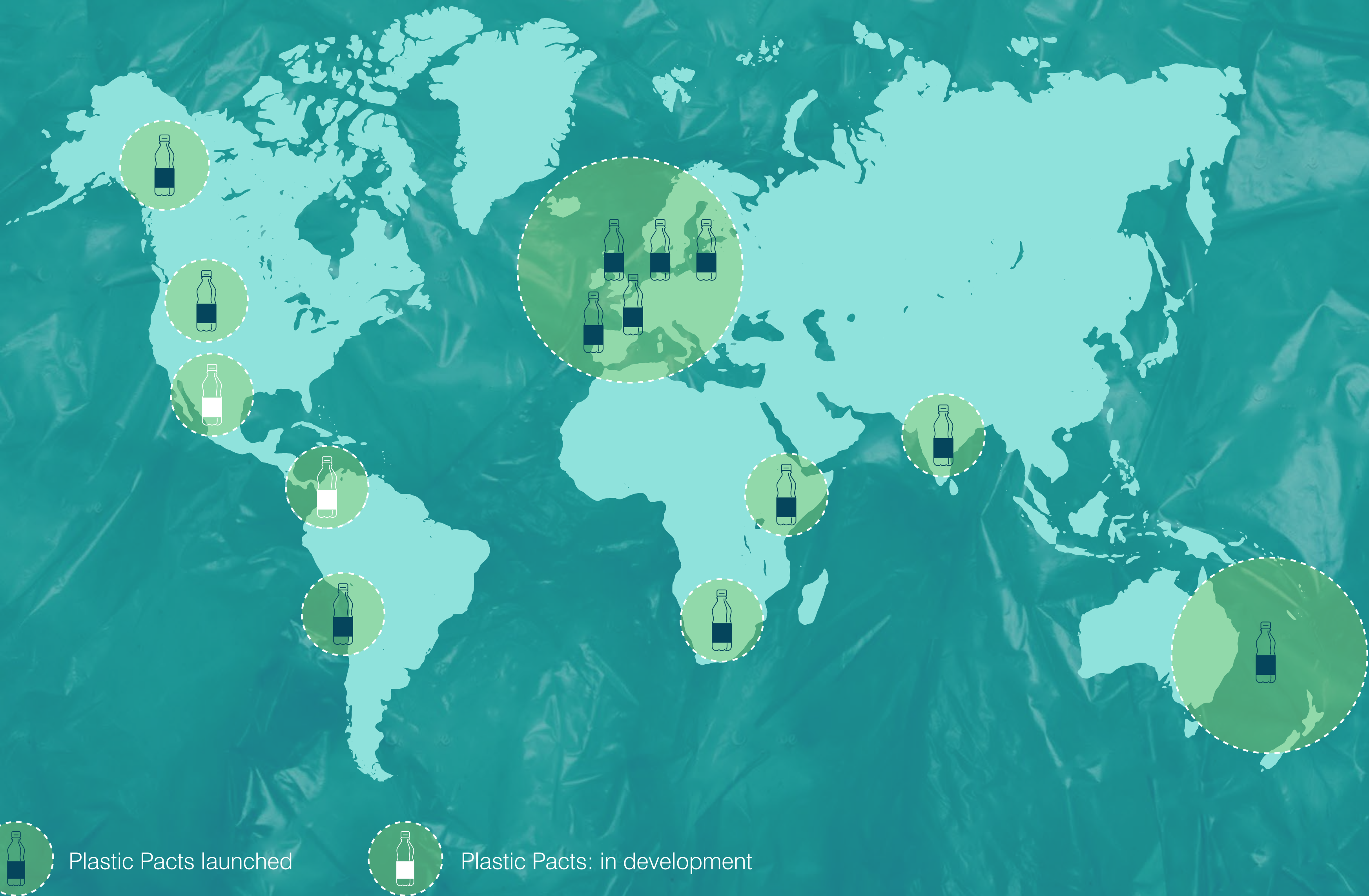
Target 3

50% of plastic packaging to be effectively recycled

[1] Targets will be reviewed periodically to ensure they reflect the latest contextual position regarding policy, technology, and society

[2] These would only include compostable plastics with all the following properties:
a) do not leave any microplastic residue,
b) used in closed-loop and controlled systems with sufficient infrastructure available or fit-for-purpose applications, and
c) properly labelled as 'Home' or 'Industrial' compostable

Plastics Pacts across the world



Why is the India Plastics Pact important?

The world has seen an exponential growth in the use of plastics in recent years. Global plastic consumption has grown owing to four compounding trends: continued population growth; increase in plastic use per capita driven in part by increasing production of cheap virgin plastic; shifts to low value/non-recyclable materials; and the growing share of plastic consumption occurring in countries with low rates of collection.[3] Packaging is plastics' largest application due to its: light weight, mouldability, chemical stability, good insulation, low thermal conductivity, and barrier properties to moisture and oxygen. More than a quarter of the 400 million tonnes of plastic consumed globally is used in packaging applications.[4] In India, 15.4 million tonnes of plastic was consumed in 2018, nearly three-fifths of which was used for packaging applications.[5] Much of this plastic packaging is single-use in nature and results in large quantities of waste, which, on account of mismanagement, contributes to: wastage of resources, littering, climate change, air pollution, release of toxic chemicals, overflowing landfills, and urban flooding.

Across the globe, numerous and varying approaches have been initiated over the years to address the challenge, and include beach clean-ups, local bans, extended producer responsibility schemes and circular economy commitments; however, they have not led to significant reductions in plastic waste. What is clear, though, is that no single solution can create the required impact. Solutions need to be designed for actors across the plastics value chain and must be multi-pronged, systemic, and large-scale.

The India Plastics Pact provides a platform to unite stakeholders from across the plastics value chain and focuses on solutions and innovations, working collectively to address the challenges associated with managing plastic packaging waste. Apart from benefits to the society and the economy, delivering the targets will drive circularity of plastics packaging and tackle plastic pollution. They will deliver significant greenhouse gas reduction by curtailment of fossil-derived plastics, greater use of recycled plastics, and increased recycling.

[3] Pew Charitable Trust, SystemIQ (2020). Breaking the Plastic Wave. Available at: https://www.systemiq.earth/breakingtheplasticwave (Accessed 18 February 2022).

[4] Ellen MacArthur Foundation (2017). The New Plastics Economy: Rethinking the Future of Plastics. Available at: https://ellenmacarthurfoundation.org/the-new-plastics-economy-rethinking-the-future-of-plastics-and-catalysing (Accessed 18 February 2022).

[5] Plastindia Foundation (2019). Indian Plastics Industry Report. Available at: https://www.plastindia.org/plastic-industry-status-report.php. pp. 37 (Accessed 17 February 2022).

How will the India Plastics Pact support Extended Producer Responsibility (EPR)?

The Government of India's Extended Producer Responsibility (EPR)[6] legislation has set the mandate for tackling plastic packaging waste in India. It sets out ambitious targets for collection, recycling, reuse, and use of recycled content in plastic packaging to promote sustainable packaging and drive investments in waste management infrastructure. The India Plastics Pact will support its Members in achieving the EPR regulations by:

Guiding

on themes such as design for recyclability

Raising

funds for projects assisting research and implementation of specific challenges in the Indian context

Supporting

the creation of recycling infrastructure by enhancing innovation and investment in recycling technologies, and strengthening informal waste collection systems

Supporting

the development of end markets for recycled plastic

Providing

access to experience on EPR implementation from Plastics Pacts in other countries.

[6] The Extended Producer Responsibility (EPR) notification was released on 16th February 2022 (Notification number G.S.R. 133(E)). Available at: https://cpcb.nic.in/uploads/plasticwaste/PWM-Amendment-Rules-2022.pdf (Accessed 17 February 2022).

The 2030 Vision

A world where plastic is valued and doesn't pollute the environment

The vision, targets and ambition of the India Plastics Pact are aligned with the Ellen MacArthur Foundation's Plastics Initiative towards a circular economy, and unites all actors of the India Plastics Pact on a common understanding of an ideal future. The India Plastics Pact is based on the following three principles

Eliminate

all unnecessary or problematic plastic items

Innovate

to ensure that the plastics we do need are reusable, recyclable, or compostable

Circulate

all the plastic items we use to keep them in the economy and out of the environment

The 2030 Vision by stakeholders

Governments

- Policies are implemented and strictly enforced to eliminate unnecessary or problematic plastic packaging items, to enable the scale-up of reuse models and, to incentivize an increase in recycling capacity.
- Best practice and guidance on plastics packaging is mainstreamed throughout India and has the government's support.
- EPR policies on plastic packaging are strictly enforced, and there is full compliance by producers, importers, and brand owners.

Brands and Retail Businesses

- Brands and retail businesses have eliminated unnecessary or problematic plastic packaging from their portfolios (based on the agreed list under Target 1).
- Brands and retail businesses are aware of the impacts of their plastic use and have changed the way they design, use and reuse plastic packaging to keep these plastics in the economy and out of the environment.
- Upstream innovations in reuse and refill business models, and circular packaging design (packaging concepts, formats, components, and material choices) have become mainstream.
- All plastic packaging is designed and labeled by businesses to be recycled, reused, or composted.
- There is sustained, increased demand for recycled plastic by businesses due to growth in existing markets and the unlocking of new markets and applications for recycled plastic.
- Recycled polymers represent the preferred option, and their use is mainstreamed in plastic packaging.

Informal Waste Sector

- Jobs, income, and dignity of the informal waste sector have all improved, helped by good design and robust demand for recycled plastics.
- Informal waste sector is well-recognized by the government and the plastic packaging value chain.
- Integration of the informal waste sector into the municipal waste management system has improved.
- Source segregation has improved working conditions in the informal waste sector.

Plastic Recycling Businesses

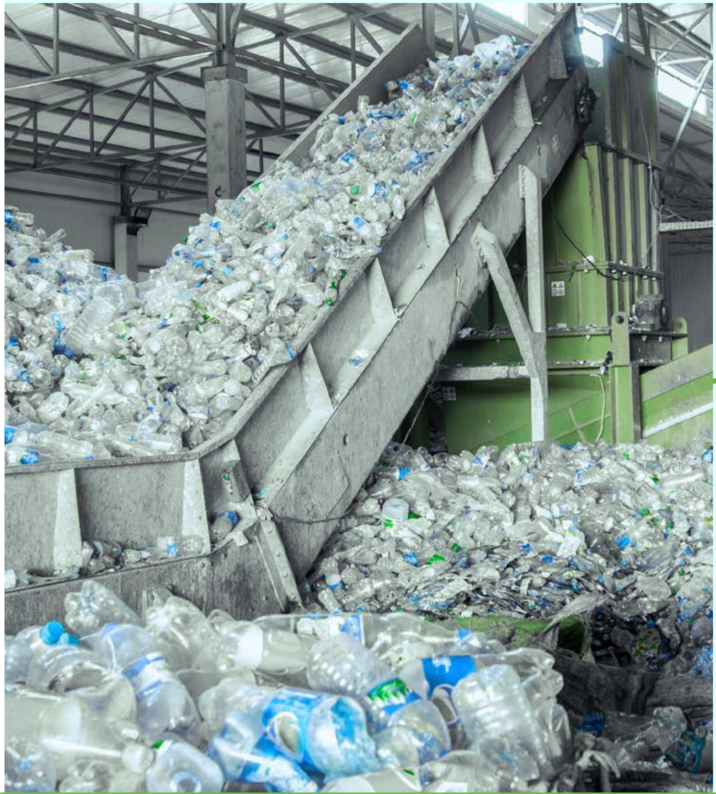
- There is increased recycling capacity to enable the effective recycling of plastic packaging.
- New recycling and sorting technologies are operational, resulting in new recycling opportunities and improved performance.
- Investment in the plastic recycling sector has increased substantially since the launch of the Pact.
- The number of jobs in the collection, sorting and recycling sector has increased.

Citizens

- Citizen awareness campaigns aligned to the values of the Pact have yielded positive results.
- Consumers are educated on plastic packaging and are active in keeping plastics out of the environment.
- Citizens have an improved understanding of what is recyclable and what is not, and participation in recycling programs has increased.
- Citizens are aware of reuse and refill options and request these at point-of-sale.
- Citizens adopt segregation at source for household waste.

Roadmap explained

The India Plastics Pact Roadmap describes the outcomes and activities key to achieving the ambitious 2030 targets and provides a clear timeline for action by the Pact Members and Supporters.



The Roadmap

Aims to inspire Members and Supporters to act, and to galvanize wider action by governments, funders, investors, NGOs, and businesses who are not Members of the India Plastics Pact

Establishes the case for a collaborative approach to tackling the challenges of plastic packaging

Illustrates where external input and investment will be needed to unlock progress

Achieving the IPP targets will significantly benefit India's plastic waste management system. However, it will require tough decisions to be made along with substantial investment and the Roadmap will provide a pathway for this. The Roadmap is a living document and will evolve in future versions as the India Plastics Pact continues to adapt and refine its actions to meet the targets by 2030.

Impact of the COVID-19 pandemic

The Roadmap of the India Plastics Pact was developed during the global COVID-19 pandemic. While some of the impacts of the pandemic on the plastics waste and recycling sector have been captured in the Roadmap, the long-term effects of the pandemic are yet to be seen and understood. Future versions of the Roadmap will reflect these impacts and changes. Regardless, the Members and Supporters involved in the India Plastics Pact remain committed to a circular economy for plastics in India, working towards the 2030 targets.

How was the Roadmap developed?

The first draft of the Roadmap was based on the Secretariat's understanding of the plastic packaging value chain. The Advisory Committee, who is responsible for providing oversight, advice, and insights to guide the successful delivery of the India Plastics Pact, assessed this version of the Roadmap and provided relevant feedback. The revised version was then presented to the Members and Supporters for their inputs which have been incorporated into the present version.

Roadmap: key audiences

Even though this document is a knowledge resource for anyone involved in the plastics packaging value chain, the intended audience for this document is:

- **India Plastics Pact Members and Supporters**
- **Government officials at all levels (such as central, state, city, and village) whose work impacts plastics in India (for instance, Ministry of Environment, Forest and Climate Change, Food Safety and Standards Authority of India, Ministry of Petroleum and Natural Gas, Ministry of Commerce and Industry, Ministry of Chemicals and Fertilizers, Ministry of Housing and Urban Affairs, Ministry of Jal Shakti, NITI Aayog, Urban Local Bodies, Village Panchayats)**
- **Recyclers and waste management organizations outside the India Plastics Pact**
- **Producers, retailers, and brand owners in the plastics value chain outside India Plastics Pact**
- **Investors associated with the plastics value chain**
- **Other Plastics Pacts and organizations worldwide working toward the shared goal of creating a circular plastics economy**

What does the Roadmap cover?

Achieving the vision of the India Plastics Pact will require collective action by all those involved. The Roadmap:

- **states the expected outcomes and timeline for delivery of the Pact's four targets**
- **details out activities corresponding to expected outcomes together with a timeline, and identifying responsible stakeholders. These are:**
  - The India Plastics Pact Secretariat
  - Collaborative Action Groups (CAGs)[7]
  - Brand owners and retailers
  - Plastic and packaging manufacturers
  - Producer Responsibility Organizations (PROs)
  - Informal waste collectors
  - Recyclers (formal and informal)
  - Governments
  - Investors and innovators

The subsequent sections outline each stakeholder's responsibility, categorised as 'Lead' or 'Support'. The Lead (L) is responsible for the delivery and enforcement of the activity. The Support (S) role provides guidance and input, resourcing if applicable, and assists with the distribution, and dissemination of the output.

The India Plastics Pact Roadmap

[7] A Collaborative Action Group (CAG) is a representative subset of all the Members and Supporters of the India Plastics Pact that works on key action areas of each target of the India Plastics Pact. Currently, there are four CAGs in total, representing each target.

Targets: **outcomes and activities**

Target 1: Define a list of unnecessary or problematic plastic packaging items and take measures to address them through redesign and innovation

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
1.1 Address unnecessary or problematic plastic packaging items by IPP members	1.1.1 Establish a Collaborative Action Group (CAG) for Target 1						IPP	Collaborative Action Group
	1.1.2 CAG reviews and agrees IPP definition for unnecessary or problematic plastic packaging items (aligned with EMF definition where possible); and defines a list of items/components to be tackled (over two to three phases)						Collaborative Action Group	IPP
	1.1.3 Publication of Target 1 list and guidance with external communications (Phase 1)						IPP	Collaborative Action Group
	1.1.4 Integrate the agreed list into the IPP reporting template to allow the target to be monitored						IPP	
	1.1.5 IPP members develop an action plan and take action eliminating/addressing the agreed items in their businesses/supply chains						Brand Owners & Retailers	IPP, Plastic & Packaging Manufacturers
	1.1.6 Review list of unnecessary or problematic plastic packaging items to ensure relevance is maintained						Collaborative Action Group	IPP
	1.1.7 Progress by IPP members on addressing the GOI banned items is communicated to demonstrate action						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
1.2 Improved understanding of the impact of alternatives (and trade-offs) amongst IPP members	1.2.1 Develop guidance on existing alternatives (such as alternative delivery mechanisms, material changes, redesign, format change and elimination) and support businesses make informed decision						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturer
	1.2.2 Deliver communications externally on the impact of material choices and possible unintended consequences						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturer
1.3 Identify innovations and technical solutions for unnecessary or problematic packs/formats	1.3.1 Undertake review internationally (and with other Plastics Pacts) to identify possible innovations and solutions						IPP	
	1.3.2 Work with the IPP members (and other experts) to identify possible solutions and replicate existing options appropriate for the Indian context						Brand Owners & Retailers	IPP, Others
	1.3.3 Develop calls for innovation projects/design challenges to explore potential solutions (funding dependent)						IPP	
1.4 Agree and align action on unnecessary or problematic plastic packaging items with stakeholders who have a substantial stake but are beyond the Pact membership	1.4.1 Identify the key businesses and organisations with a major role to play in the items to be addressed						IPP	
	1.4.2 Disseminate guidance and engage with businesses and organisations to tackle unnecessary or problematic plastic packaging items						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturer, PROs, Recyclers, NGOs

Target 2: 100% of plastic packaging to be reusable, recyclable or compostable

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
2.1 Understanding and adoption of improved recyclability	2.1.1 Establish a Collaborative Action Group (CAG) for Target 2						IPP	Collaborative Action Group
	2.1.2 Define 'recyclable' for the India context (align with EPR requirements where appropriate)						Collaborative Action Group	IPP
	2.1.3 Agree actions and messaging on unrecyclable packaging						Collaborative Action Group	IPP
	2.1.4 Research/survey with recyclers to establish design and polymer choices that hinder effective recycling (rigids/bottles/films)						IPP	PROs, Recyclers
	2.1.5 Develop design guidance ('golden rules') for packaging design for rigids/bottles/films that will facilitate effective recycling						Collaborative Action Group	IPP, PROs, Recyclers
	2.1.6 Publish and disseminate/communicate (through workshops, webinars, etc.) guidance for bottles/rigids/films with members/others						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers
	2.1.7 IPP members will adopt design principles and guidance in their new (and relaunched) products (bottles/rigids/films)						Brand Owners & Retailers, Plastic & Packaging Manufacturers	IPP
	2.1.8 Consolidate best practices from other Pacts on items/formats that have moved to 'mono-polymer' with required functional performance						IPP	Brand Owners & Retailers, Recyclers
	2.1.9 Cascade recommendations to businesses outside IPP (legislation driver)						IPP	Brand Owners & Retailers, PROs, Supporters
2.2 Understanding and adoption of reuse models	2.2.1 Agree definition of 'reuse' and 'refill' appropriate for IPP						Collaborative Action Group	IPP
	2.2.2 Review the state of plastics packaging reuse and refill innovations in India, including identification of barriers and opportunities						IPP	Collaborative Action Group
	2.2.3 Showcase different reuse technologies and formats being adopted (by members/others)						IPP	Brand Owners & Retailers, PROs, Recyclers, Investors & Innovators

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
	2.2.4 IPP members initiate reuse pilots or projects (subject to funding), and lessons learnt are shared to inform the wider sector						Brand Owners & Retailers	IPP
	2.2.5 Develop pipeline of funding opportunities/partners for investing in reuse and refill business models in India (e.g., incubators and innovation competitions)						IPP	Investors & Innovators
2.3 Development of a national on-pack recycling label scheme	2.3.1 Explore the potential benefits and challenges for a standard recycling/reuse label for consumer goods in India (beyond just plastics potentially)						IPP	Brand Owners & Retailers
	2.3.2 Develop a business model scenario(s) for a voluntary Indian label scheme and how it could operate - subject to findings from above						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers
	2.3.3 India on-pack recycling/reuse label developed - subject to findings from above						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers
2.4 Understanding and adoption of alternative materials (e.g., compostable/ biomass residue)	2.4.1 Insights report on the current and emerging use of alternative materials						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers, NGO, Investors & Innovators
	2.4.2 Develop a position paper and advice on compostable/ biodegradable packaging for IPP members						IPP	Brand Owners & Retailers, Recyclers
	2.4.3 Develop member guidance to support decision making on use of materials to help avoid unintended consequences. E.g., webinars/'decision tree' guidance document						IPP	
	2.4.4 Monitoring of new materials and technologies and evaluation of how they could contribute to IPP targets						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Investors & Innovators
	2.4.5 Pilot on the use of one/two alternative packaging materials by members						Brand Owners & Retailers	

Target 3: 50% of plastics packaging to be effectively recycled

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
3.1 Thorough understanding of the current recycling landscape in India	3.1.1 Establish a Collaborative Action Group (CAG) for Target 3 focusing on landscape assessment						IPP	Collaborative Action Group
	3.1.2 Landscape assessment report of plastics recycling in India (mapping material flows/capacity/end markets)						IPP	Collaborative Action Group
	3.1.3 Formulate targets and develop strategy paper for main polymers and packaging formats (including building scenarios to achieve Target 3)						IPP	Brand Owners & Retailers, Recyclers
	3.1.4 Collate best practices for recycling of plastic packaging (e.g., by states, ULBs, informal sector, businesses)						Collaborative Action Group	IPP, Brand Owners & Retailers, Recyclers, Governments, NGOs
	3.1.5 Capacity building of members and supporters on the term "effectively recycled" and how to achieve "effective recycling"						IPP	
3.2 Support to informal waste sector to increase jobs and recycling rates	3.2.1 Output and recommendations from UKRI technical project						IPP	
	3.2.2 Initiate one project with informal waste sector						IPP	NGOs
	3.2.3 Review technology options and opportunities/barriers at each stage of the value chain						IPP	Collaborative Action Group
	3.2.4 Collate practices/support by IPP members to accelerate segregation and collection (linked to 3.3.1)						IPP	Brand Owners & Retailers, PROs, NGOs
	3.2.5 Conduct capacity building workshops for the informal waste workers (for instance: to inform them about changes arising from implementation of Target 2, such as on-pack recycling labels)						IPP	NGOs

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
3.3 Ensuring investment, infrastructure and end markets are in place to meet Target 3	3.3.1 Collate guidance for better waste collection and sorting practices in India						IPP	Brand Owners & Retailers, PROs
	3.3.2 Develop, stimulate, and contribute to pilots and projects that help demonstrate options to increase recycling rate						Investors & innovators	IPP, Recyclers
	3.3.3 Set up investment webinars or an investment forum for investing into recycling infrastructure						IPP	Recyclers, Investors & innovators
	3.3.4 Increased investment and installed capacity for recycling infrastructure for bottles/rigids/films with a focus on MSMEs						Recyclers	IPP, Brand Owners & Retailers, Investors & innovators
	3.3.5 Increased investment and installed capacity for non-mechanical recycling infrastructure (link to 4.2.5)						Investors & innovators	IPP, Recyclers
	3.3.6 Coordinate activities across IPP membership to accelerate recycling rate						IPP	
	3.3.7 Amplify and replicate (where possible) work done by waste management organisations (such as recyclers and PROs) to increase the recycling rate						IPP	
3.4 Citizens support for IPP targets through increased adoption of recycling/ reuse behaviours	3.4.1 Identify key messages for citizen engagement						IPP	
	3.4.2 Explore potential and develop citizen engagement campaign (with IPP members, their employees or conducted by the Secretariat) to promote plastics recycling/reuse						IPP	Brand Owners & Retailers, Supporters
	3.4.3 IPP members review opportunities in their marketing/ communications etc. to support the IPP aims and encourage sustainable consumer behaviour						Brand Owners & Retailers	
	3.4.4 Collaborate with other existing citizen engagement campaigns to promote plastics recycling/reuse						IPP	

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
3.5 Alignment with national policies	3.5.1 Review of existing policies to understand alignment and barriers towards achieving IPP targets						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers, Governments, NGOs
	3.5.2 Feed into EPR developments to ensure support for recycling of all formats/polymers and IPP targets are aligned with national targets						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers, Governments, NGOs
	3.5.3 Encourage businesses to fulfil EPR targets						Brand Owners & Retailers	IPP, Recyclers
3.6 Reporting framework for target 3	3.6.1 Develop methodology for tracking and reporting Target 3						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers

Target 4: 25% average recycled content across all plastic packaging

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
4.1 Thorough understanding of end markets of recycled plastic packaging	4.1.1 Establish a Collaborative Action Group (CAG) for Target 4						IPP	Collaborative Action Group
	4.1.2 Market assessment report of recycled content, polymers used, etc. (current situation)						IPP	Collaborative Action Group, PROs, Recyclers
	4.1.3 Identify and analyse the main challenges/limitations and potential opportunities in the use of recycled content in bottles/rigids/films						Collaborative Action Group	IPP, Plastic & Packaging Manufacturers
	4.1.4 Analyze and model scenarios and develop strategy for achieving 25% recycled content (Target 4) by resin and format						IPP	Collaborative Action Group, Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers Investors & innovators
	4.1.5 Support IPP Members in identifying areas of their greatest opportunity to increase recycled content and putting a plan in place to reach their commitments						IPP	Collaborative Action Group, Brand Owners & Retailers
4.2 Understanding of the value of post-consumer recycled plastic, and increased demand for post-consumer recycled plastic in existing and new packaging applications and sectors	4.2.1 Develop webinar series for IPP members to showcase how other markets/businesses have adopted use of recycled plastics						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers
	4.2.2 Develop clear guidance on challenges, opportunities (quick wins) and best practices to guide the increased use of post-consumer recycled content						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers
	4.2.3 Develop a procurement toolkit to facilitate the use of post-consumer recycled content						IPP	Brand Owners & Retailers, Plastic & Packaging Manufacturers, Recyclers
	4.2.4 IPP retailers/brands /food service specify recycled content in existing and new products where possible (articulated in member Action Plans)						Brand Owners & Retailers	IPP, Collaborative Action Group, Plastic & Packaging Manufacturers

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
4.3 Investment and infrastructure in place to generate sufficient recycled material to meet Target 4	4.3.1 Report on future investment needs in India (to meet in 5,10,15 years) (follow-up to 4.1.2)						IPP	Collaborative Action Group
	4.3.2 Work with stakeholders to stimulate funding for recyclers to improve the quality of recyclate produced						IPP	Brand Owners & Retailers, Recyclers, Governments
	4.3.3 Waste and recycling sector secure investment in additional capacity to meet the target						Recyclers	IPP, PROs, Governments, NGO, Investors & innovators
	4.3.4 Analyse opportunities presented by non-mechanical recycling and likely timescales						IPP	Recyclers
4.4 Increased use of recycled food-grade packaging across all formats	4.4.1 Identify current advances in the development of food grade recycled plastics (PET/PP/PE)						IPP	Brand Owners & Retailers
	4.4.2 Analyse potential sorting, cleaning and decontamination mechanisms that could enable the development of food grade recycled plastics						Recyclers	IPP, Brand Owners & Retailers
	4.4.3 Investigate the use of functional barriers to enable the use of recycled plastics in food applications						Brand Owners & Retailers	IPP
	4.4.4 Support for implementation of identified solutions to produce recycled food-grade packaging						Recyclers	IPP

Outcome	Activities	Delivery by					Roles	
		End 2022	End 2024	End 2026	End 2028	End 2030	Lead	Support
4.5 Alignment with national policies	4.5.1 Feed into EPR developments to ensure support for plastics recycling and alignment between IPP targets and national targets (linked to 3.5.2)						Collaborative Action Group	IPP
	4.5.2 Research existing and emerging standards and take a position with respect to how the Pact will increase the use of post-consumer recycled content						IPP	Brand Owners & Retailers, Recyclers
	4.5.3 Monitor the policy decisions surrounding non-mechanical recycling and whether it complies with recycled content definitions						IPP	
4.6 Citizen engagement	4.6.1 Citizen research on attitudes and behaviour relating to recycled content in food packaging and products, and how best to communicate (including the value of a label).						IPP	NGOs
	4.6.2 Develop national recycled content message for on-pack label scheme						IPP	Brand Owners & Retailers, Recyclers
	4.6.3 Citizen engagement campaigns developed to promote acceptance of recycled content in packaging						IPP	Brand Owners & Retailers, Recyclers, Trade Bodies

Challenges
and solutions

Achieving the India Plastics Pact's vision and targets will be a challenge: some of the most significant ones together with possible solutions are listed below.

Target 1: Define a list of unnecessary or problematic plastic packaging items and take measures to address them through redesign and innovation

Potential challenges

Brand owners might show resistance towards eliminating plastic packaging items which are an important part of their product portfolio but are a part of Target 1 (unnecessary or problematic plastic packaging items)

Viable alternatives to some of the identified unnecessary or problematic plastic packaging items may not be available

Switching to alternatives of unnecessary or problematic plastic packaging items might incur additional costs for brand owners

Timescale needed to implement changes might not be sufficient as changes would require innovation and redesign

Potential solutions

Environmental impacts of the alternatives should be factored into the decision-making process by utilizing tools such as Life Cycle Assessment (LCA)

Different reuse and refill delivery models should be explored apart from trialling alternative materials

Communication and marketing from brand owners about switching to alternative materials would ensure buy-in from customers

Sharing evidence with citizens on the environmental drawbacks of using single-use plastics would help with citizen education

Target 2: 100% of plastic packaging to be reusable, recyclable or compostable

Potential challenges

- Brand owners might be reluctant to change their packaging design or packaging material due to the fear of adversely affecting product sales
- Design changes might affect product functionality
- Increase in short-term fixed costs arising due to the transition to recyclable plastics might dissuade brand owners from making the switch
- Changes in distribution systems and logistics due to changes in packaging designs (format and size) may need more time for implementation
- Redesigning and finding substitutes for multi-layered packaging formats might be a challenge

Potential solutions

- Technical projects on problematic packaging formats and polymers to identify implementable solutions must be conducted
- All concerned teams (for instance, product design, packaging, marketing, sales, research, and development) must be involved while making packaging design changes
- Consumers must be engaged to improve their understanding of the environmental benefits of recycling and reuse
- The technical limitations of recycling products should be identified
- On-pack labelling should communicate the importance of the design change

Target 3: 50% of plastic packaging to be effectively recycled

Potential challenges

- Weak end markets for recycled content would discourage recycling
- Increase in sorting and recycling capacity will need planning, investment, and installation in a short timeframe
- Lack of source segregation would hinder recycling
- Availability of technologies for recycling multi-layered plastics would pose a challenge
- Current system might face the challenge of limited trained human resources to keep up with the ambitious target

Potential solutions

- Major businesses, recyclers, and investors along with central and state government authorities must work together to increase recycling capacity and create end markets.
- Increase in availability of plastic packaging which is easily recyclable would encourage investment and innovation in recycling
- Innovation projects and problem-solving sessions should be conducted to share information on alternative designs, collection and sorting technologies
- Engagement with the informal waste sector through structured interventions would help strengthen the plastic waste collection systems.

Target 4: 25% average recycled content across all plastic packaging

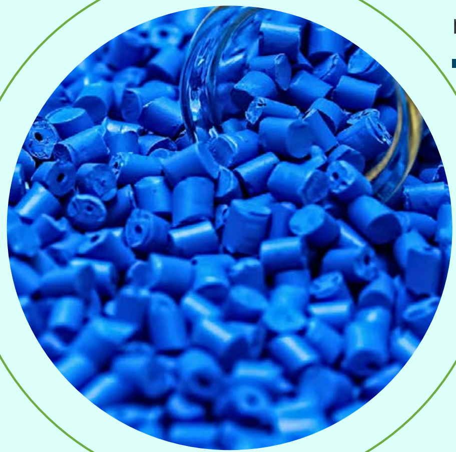
Potential challenges

Lack of recycling of packaging waste would lead to shortages in the supply of recycled content, which would inflate prices of recycled content

Lack of sorting and detection technology to allow food-grade recycled content to be used in more food packaging applications

Standards that allow recycled content usage in food contact plastic packaging are still being developed

Flexible packaging would pose a challenge as it is difficult to use recycled content in flexible plastic packaging



Potential solutions

Developing pilot projects would help in addressing the challenges of using recycled content

Implementing packaging design changes in flexible packaging would enable a higher amount of recycled content to be used in plastic packaging

Investing in chemical recycling would result in better quality of recycled content, which has higher acceptability in food contact plastic packaging

Collective action **towards 2030 Vision**

The India Plastics Pact Members are being asked to:

- Embed the IPP targets and interim milestones in their corporate and organizational strategy
- Review packaging ranges and portfolios to identify opportunities to improve recyclability, reusability, recycled content, and consumer messaging in accordance with the IPP vision
- Develop clear accountability internally; provide objectives and training to product category, procurement, and technical teams
- Support consumer behavior changes for recycling and reuse through corporate and brand channels
- Initiate new partnerships for innovation with suppliers, customers, investors, local authorities, and technology providers
- Work with suppliers to obtain accurate data for tracking and reporting progress
- Communicate successes of the India Plastics Pact to consumers and partners

The India Plastics Pact Secretariat commits to:

- Guide Members to develop their action plans to achieve the India Plastics Pact targets
- Report on the progress of the India Plastics Pact targets and activities undertaken by the Members and promote their successes
- Convene Members to tackle obstacles where collaboration is needed
- Develop and share good practice guidance to set a clear direction
- Review targets and activities considering policy changes and reforms
- Continue to be the key ‘go-to’ organization for independent, evidence-based research, and strategic direction
- Seek additional external funding to fund projects, campaigns, and research to accelerate progress to meet the India Plastics Pact targets

Annex 1

Definitions

Circular economy

An economy that is restorative and regenerative by design. It is focused on economic activity that builds and rebuilds overall system health. The concept recognizes the importance of the economy needing to work effectively at all scales — for big and small businesses, for organizations and individuals, globally and locally. It is based on three principles: design waste and pollution; keep products and materials in use; and regenerate natural systems.[8]

Compostable packaging

A packaging or packaging component is compostable if it is in compliance with relevant national and international compostability standards and if its successful post-consumer collection, sorting, and composting is proven to work in practice and at scale.[9]

Plastic packaging

All products made of plastic[10] are used for the containment, protection, handling, delivery, and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. 'Non-returnable' items used for the same purposes shall also constitute packaging.[11]

Recyclable

An item is recyclable if its successful post-consumer collection, sorting, and recycling is proven to work in practice and at scale.[12]

Recycling

Any recovery operation by which waste materials are reprocessed into products, materials, or substances for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials to be used as fuels or for backfilling operations.[12]

Reusable

This refers to a product or packaging conceived, designed, and placed on the market to accomplish within its lifecycle multiple trips or rotations by being refilled or reused for the same purpose for which it was conceived.[13]

Reuse

This refers to any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.[13]

Unnecessary or problematic plastic packaging items

Plastic packaging components or plastic items whose use is avoidable in the context within which they are used, or for which reusable options are available, or that are not recycled in practice, or are not recyclable with the existing or envisioned recycling infrastructure, or that hamper or contaminate the recycling process, or that easily leak out or are not collected through the collection and disposal system, are defined as problematic or unnecessary.

Waste

Any substance or object which the holder discards or intends or is required to discard.[13]

[8] Ellen MacArthur Foundation. The Circular Economy in Detail. Available at: https://www.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail (Accessed 18 February 2022).
[9] Ellen MacArthur Foundation (2020). New Plastics Economy Global Commitment: Commitments, Vision and Definitions. Available at: https://emf.thirdlight.com/link/pq2algvgnv1n-uitck8/@/preview/1?o (Accessed 18 February 2022).
[10] Packaging which is made of 100% plastic by weight or composite packaging where more than 50% of the pack by weight is plastic, is in scope of the India Plastics Pact.
[11] Ellen MacArthur Foundation (2020). New Plastics Economy Global Commitment: Commitments, Vision and Definitions. Available at: https://emf.thirdlight.com/link/pq2algvgnv1n-uitck8/@/preview/1?o (Accessed 18 February 2022).
[12] Official Journal of the European Union (2008). Directive 2008/98/Ec of The European Parliament and of The Council. Available at: https://emf.thirdlight.com/link/pq2algvgnv1n-uitck8/@/preview/1?o (Accessed 18 February 2022).
[13] Official Journal of the European Union (2018). Directive (Eu) 2018/852 Of the European Parliament And Of The Council. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0852&from=EN (Accessed 18 February 2022).

Supporting the

INDIA
PLASTICS
PACT

The India Plastics Pact is open to businesses, recyclers, plastic producers, investors, non-governmental organizations, business associations, and other relevant organizations in the plastics value chain.

Signup today by emailing

takeaction@indiaplastics.org

Know more

www.indiaplasticspact.org

India Plastics Pact

The India Plastics Pact: A Roadmap to 2030 v1 25/08/2022.