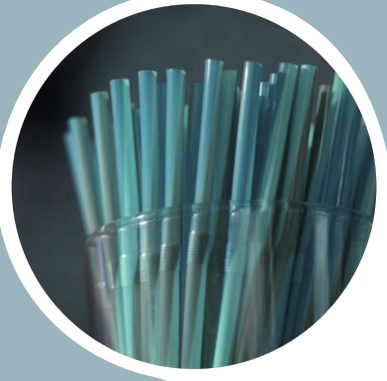
INDIA PLASTICS PACT



Tackling
Unnecessary or Problematic Plastic Packaging Items

Developed by

Confederation of Indian Industry

CII-ITC Centre of Excellence for Sustainable Development

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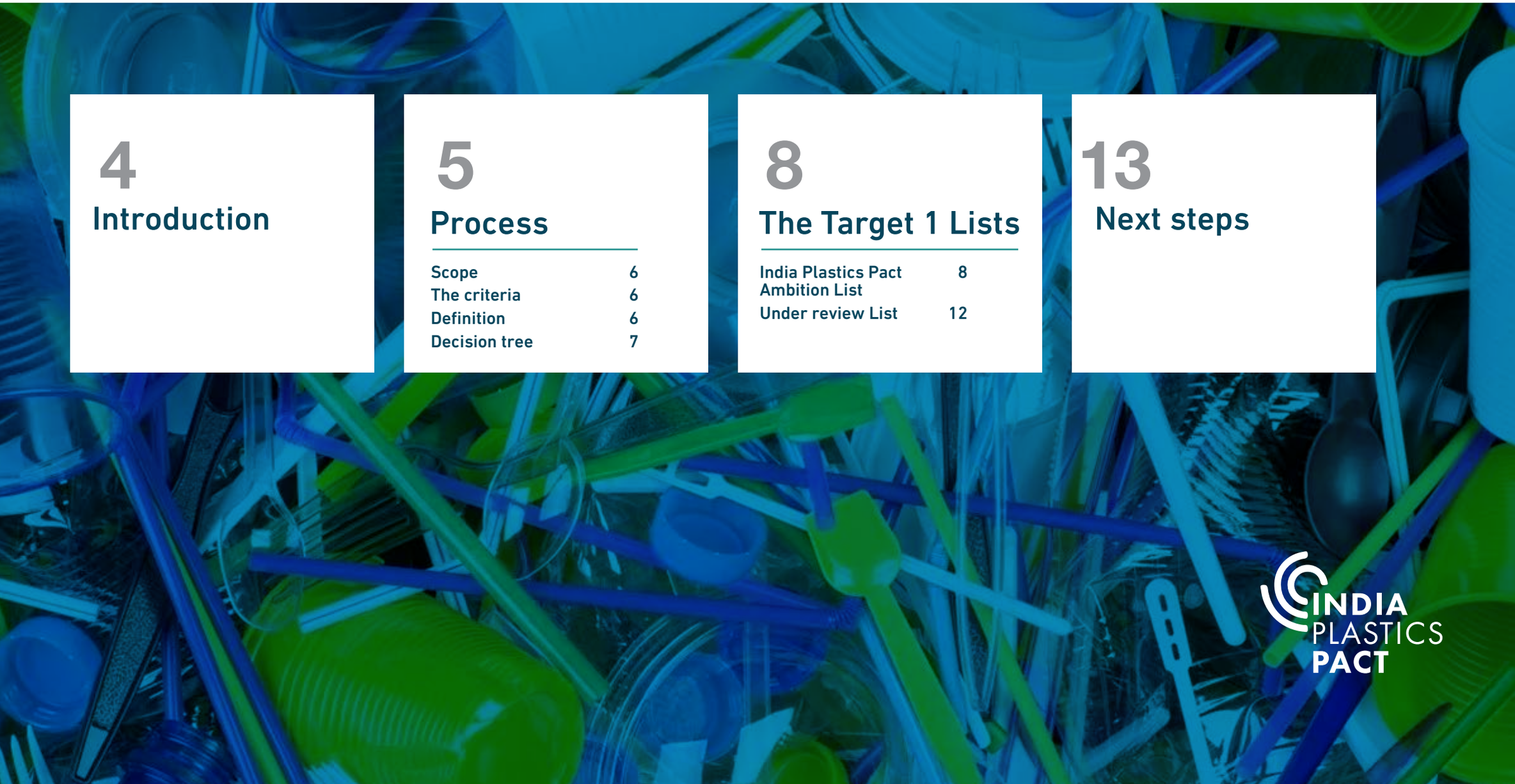
Contents



INDIA PLASTICS PACT

Introduction

The India Plastics Pact (IPP), launched in September 2021, is unifying businesses, non-governmental organizations (NGOs) and citizens to rethink the way plastic packaging is designed, used and reused. All members and supporters of the IPP work collaboratively towards achieving the following four targets by 2030:

Target 1

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

Target 2

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

Target 4

25% average recycled content across all plastic packaging

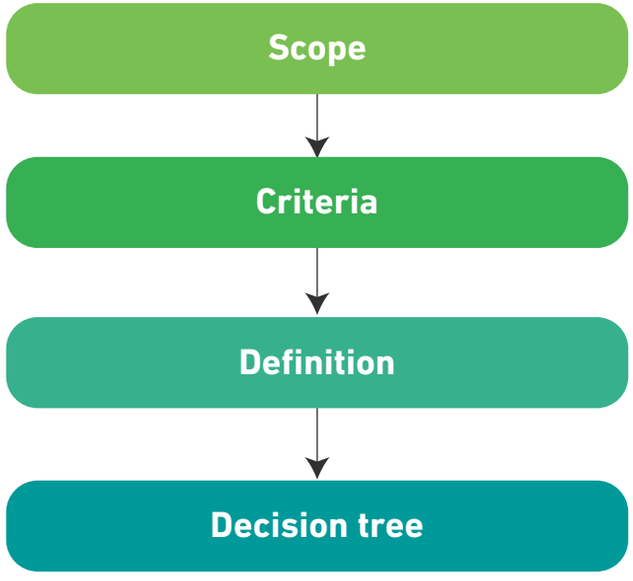
Target 3

50% of plastic packaging to be effectively recycled

Collaborative Action Groups (CAGs) focusing on each of the four targets have been formed: CAGs provide the cross-sectoral platform for discussing challenges in the way of achieving the target and possible solutions in the Indian context.

This document outlines the process followed to arrive at the list of 'unnecessary or problematic plastic packaging items' and lists them. India Plastics Pact Members and Supporters will work collaboratively to address these items through elimination, redesign and innovation.

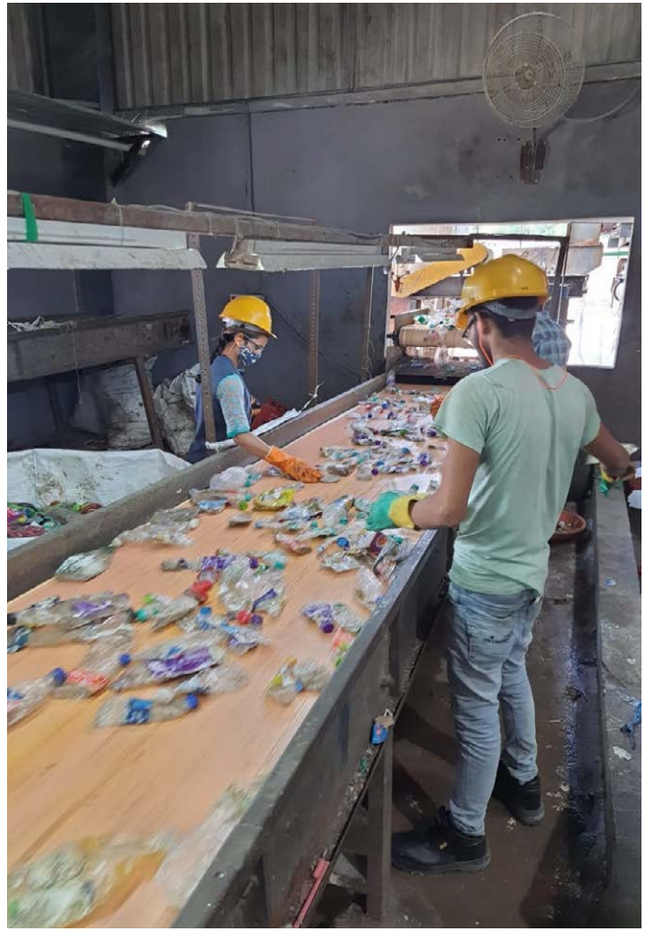
Process



Keeping in view the ambitious regulation brought out by the Government of India (GoI) with respect to single-use plastic commodities,[1] India Plastics Pact Members expressed the need to identify items for action, not already part of the GoI regulation.

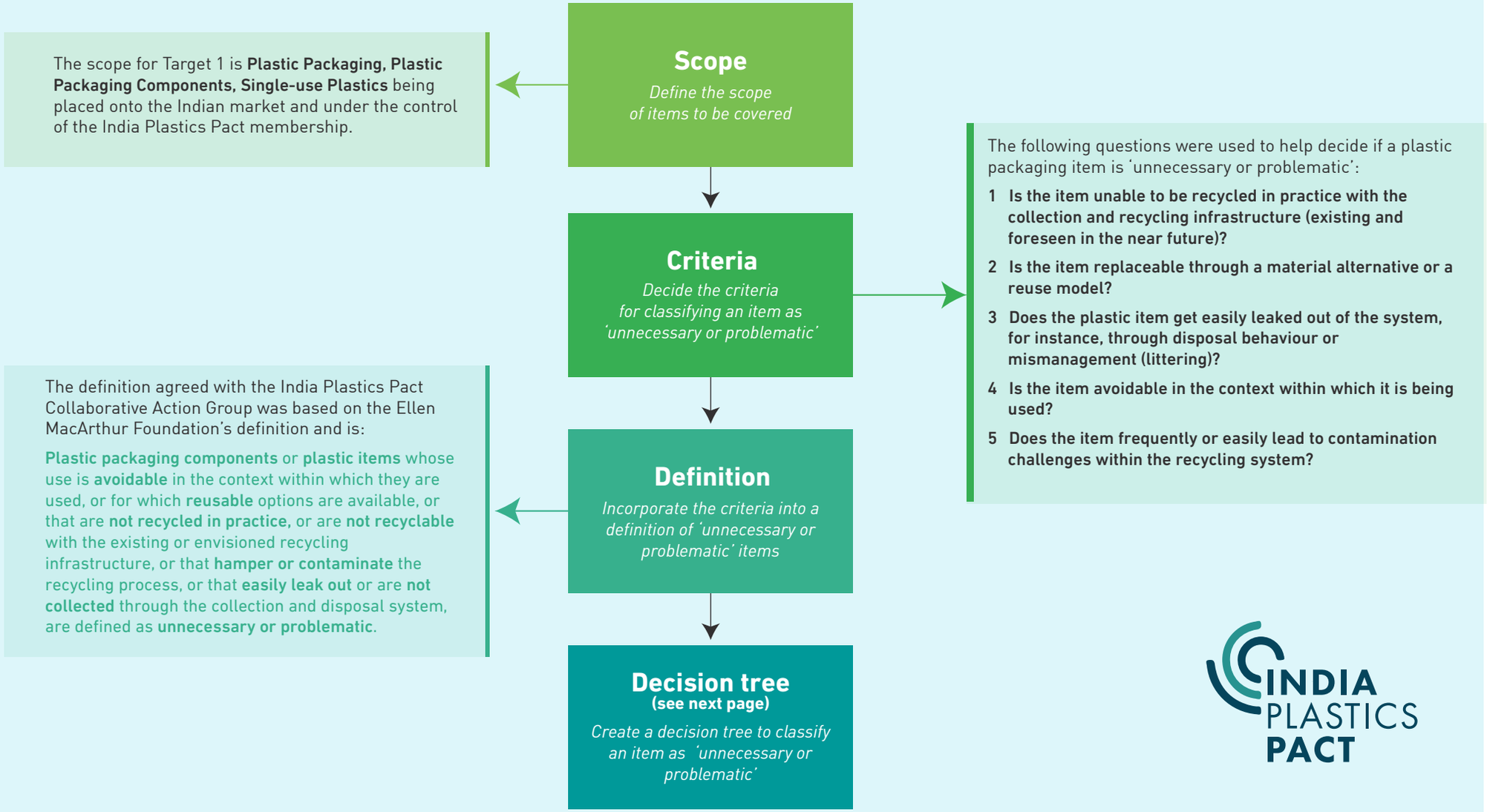
It is noteworthy that many items (such as straws, cutlery, crockery, ear buds with plastic sticks, candy sticks, and stirrers) listed in the Government of India's regulation, have been identified as 'unnecessary or problematic' by the majority of the other 12 Plastics Pacts worldwide. Thus, the India Plastics Pact's list, called the **Ambition List**, would aspire to do more than what some other Plastics Pacts may have set out to do. The steps described below were followed to arrive at items in the Ambition List (Figure 1).

In order to allow for future inclusions for items deemed 'unnecessary or problematic' a list of items, in an 'Under review' List was also created. Both lists were agreed upon by CAG 1 members, the wider India Plastics Pact membership and the Advisory Committee.



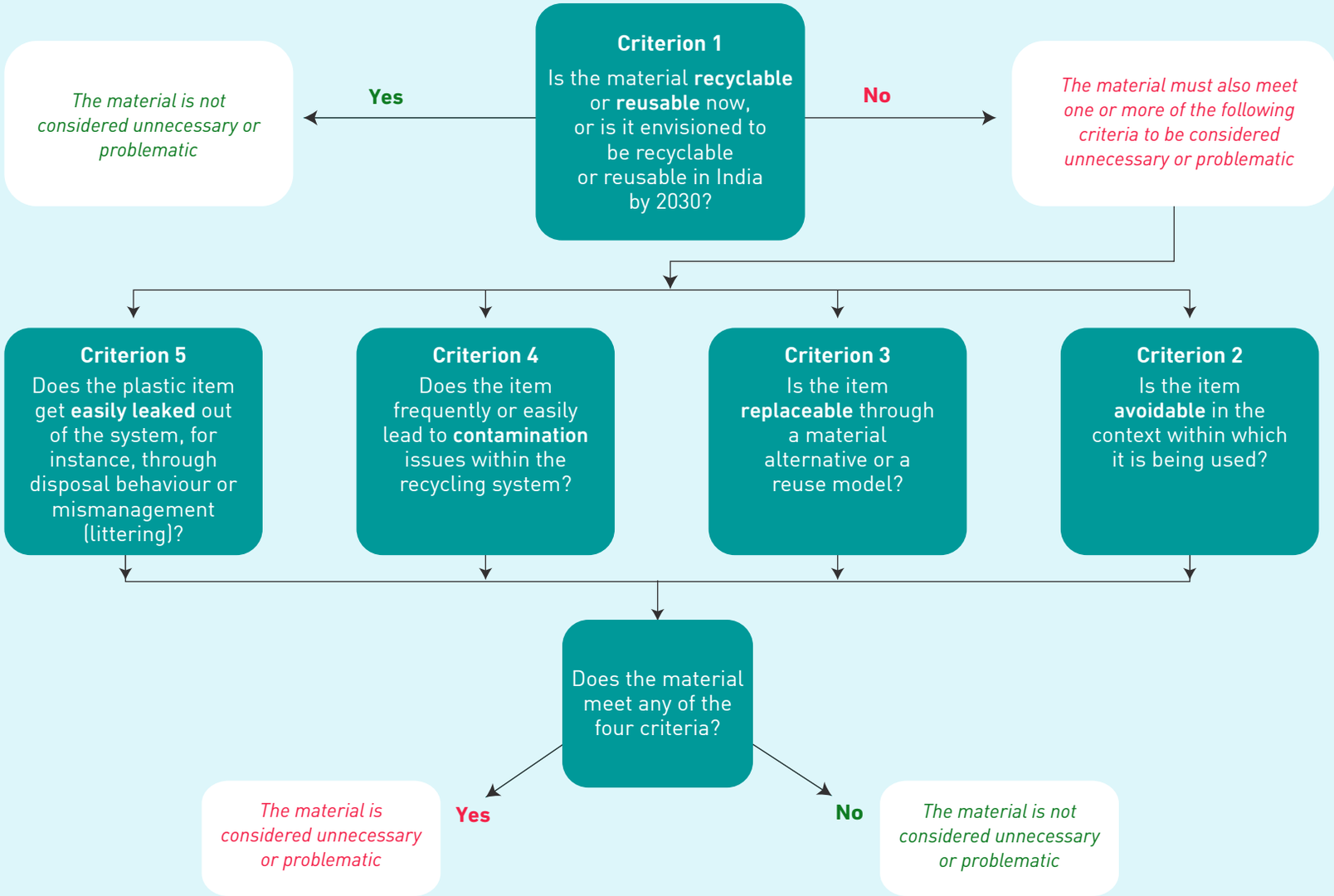
[1] Ministry of Environment Forest and Climate Change (2021). Plastic Waste Management (Amendment) Rules, 2021 (Notification No. G.S.R. 571(E)). https://moef.gov.in/en/plastic-waste-management-amendment-rules-2021/ (Accessed 17 February 2022).

Figure 1: Process of finalizing the items on the Target 1 Lists



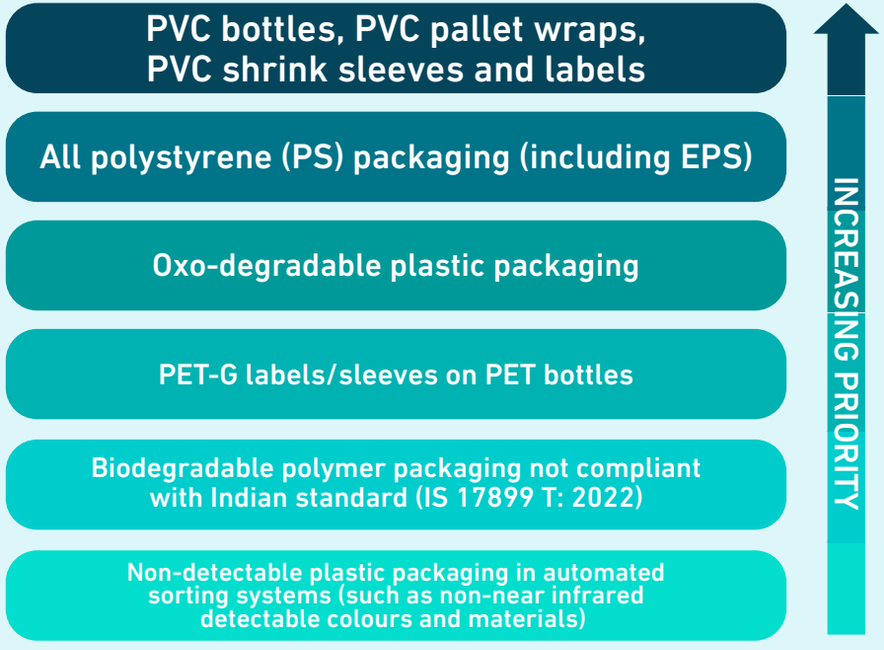
The decision tree (Figure 2) represents the decision-making process used to arrive at the items categorized as 'unnecessary or problematic'.

Figure 2: Decision tree



The Target 1 Lists

Figure 3: IPP Ambition List



India Plastics Pact Ambition List

The list (Figure 3) contains items categorized as 'unnecessary or problematic' which need to be addressed by the India Plastics Pact Members and Supporters through (but not limited to) the following means:

- Substitution with a material that is recycled in practice[2]
- Exploring reusable alternatives
- Redesigning to eliminate the need for an item
- Commissioning studies to further understand their impacts and identify suitable alternatives

Beyond the Ambition List, members are also encouraged to address as 'priority actions', any overpackaging and excess packaging. Product ranges and packs should be reviewed in detail and where a pack component or item is not required for protection or any function, it should be considered for removal. As well as reducing cost, the removal of unnecessary and excess packaging helps simplify sorting and recycling. Examples include aspects such as overwraps on primary packs, excess head space and unnecessary components. These can be considered as 'quick wins.'

[2] When substitutes are introduced, unintended consequences such as food waste must be considered and avoided.

The reasons for including these items in the IPP Ambition List have been described below.

PVC bottles, PVC pallet wraps, PVC shrink sleeves and labels[3]

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- Leads to contamination during recycling: PVC bottles, sleeves and labels in PET recycling streams lower the quality of recyclate; processing might cause chlorine emissions (manual, visual sorting common in India, cannot distinguish between PVC and PET).
- Poor market demand leads to uncollected packaging waste and open burning of PVC.

All polystyrene (PS) packaging (including EPS)

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- Polystyrene packaging is lightweight, and the quantities used are too small to make collection and investments in recycling infrastructure viable.

[3] It is worth noting that outside of packaging, PVC has many applications such as for doors and windows.

Oxo-degradable plastic packaging

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- Oxo-degradable plastics contaminate the recycling process, if mixed with conventional plastic resins.
- The time required for complete breakdown of oxo-degradable plastics into organic matter, carbon dioxide and water is not defined. Oxo-degradable plastics may degrade into microplastics.[4]

PET-G labels/sleeves on PET bottles

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- PET-G contaminates the recycling of PET waste streams, causing black specks if mixed with PET.
- Labels and sleeves made of PET-G are identical in appearance and texture, to those made of PET, and may not be separated by manual, visual sorting processes.

[4] Napper, I. E.; Thompson, R. C. (2019). Environmental Deterioration of Biodegradable, Oxo-biodegradable, Compostable, and Conventional Plastic Carrier Bags in the Sea, Soil, and Open-Air Over a 3-Year Period. Environmental Science & Technology. Available at: https://pubs.acs.org/doi/10.1021/acs.est.8b06984 [Accessed on 14 April 2022]

Biodegradable polymer packaging not compliant with Indian Standard (IS 17899 T: 2022)[5]

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- Leads to contamination within recycling system if mixed with conventional plastic resins.

Plastic packaging not detectable in automated sorting systems using near infrared detection

Reason for inclusion

- Suitable recyclable alternatives exist for this material.
- Interference with Near Infrared (NIR) detection technology used to sort plastic waste. Certain materials and pigments (such as carbon black) used in packaging, interfere with detection and could increase quantities of waste going to landfill.
- Automated detection using NIR technology is not widespread currently, but could be in the future.

[5] Plastics Sectional Committee (2022). IS 17899 T: 2022 - Assessment of Biodegradability of Plastics in Varied Conditions (Tentative Indian Standard). Bureau of Indian Standards. Available at: https://standardsbis.bsbedge.com/BIS_searchstandard.aspx?Standard_Number=IS+17899+T&id=35905

Under review List

This list (Figure 4) contains items which require further deliberations as conclusive scientific evidence which supports their inclusion in the IPP Ambition List is lacking.

Figure 4: Under review List

PET-G labels/sleeves on other packaging

PET-G labels/sleeves on other packaging

Reason for inclusion

- Sufficient evidence exists to show that PET-G contamination affects PET recycling, resulting in recycled content which is not suitable for bottle-to-bottle recycling. However, further evidence is needed to regard PET-G as a contaminant for packaging formats other than PET.

Next steps

Publishing the list of items to be taken up for action is the first step towards achieving Target 1. The IPP recognizes that items mentioned in the Ambition List will be addressed in a phased manner by 2026. More 'unnecessary or problematic' items might be added to the IPP's Under review List, which, after review could then move to the Ambition List.

To make sure Target 1 of the Pact is achieved

Members will

- Develop an action plan to address the agreed items in their businesses/supply chains (by 2023)
- Work collaboratively to identify possible solutions appropriate to the Indian context (by 2024)

Collaborative action group will

- Continuously review the list of problematic and unnecessary items to ensure relevance is maintained
- Add items to the list as required

Secretariat will

- Provide knowledge and experience from other Plastics Pacts to identify possible innovations, solutions and help businesses make informed decisions (by end 2023)
- Communicate progress by IPP members on addressing the GoI items to demonstrate action (by 2024)
- Disseminate guidance and cascade progress to non-members (by 2024)

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.

Joining the Pact means signing the Pact in its entirety and committing to its goals

Sign up today by emailing:

takeaction@indiaplastics.org

Know more

www.indiaplasticspact.org

India Plastics Pact

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