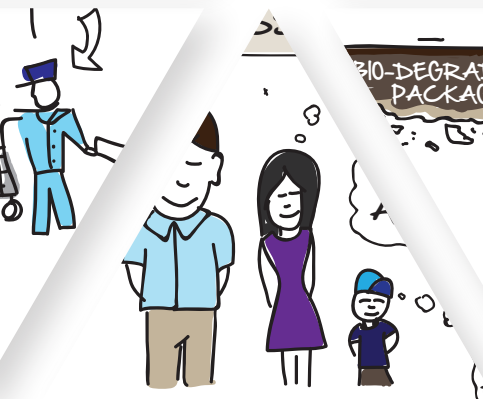
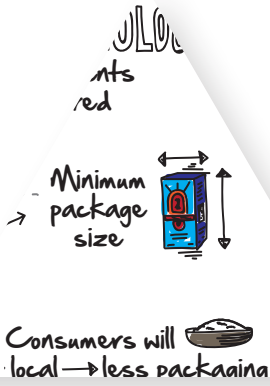


# Addressing plastic pollution in India

Report on the Stewart Investors Business Forum,  
25 July 2018, Mumbai



Partners



# About the Partners

## Stewart Investors

Stewart Investors is a long-term investor with an absolute-return mind-set, managing assets on behalf of institutional clients and individual investors globally. The team adopts a bottom-up stock-picking approach by carefully evaluating management, corporate governance, sustainability, market competition, pricing power and key financial measures of potential investee companies. The team looks at individual investments with a long-term perspective and hopes to grow with them over time. The Sustainable Funds Group in Stewart Investors explicitly targets companies that deliver sustainable development outcomes and continuously engages with companies to encourage them to improve their approach.

For further information visit: [www.stewartinvestors.com](http://www.stewartinvestors.com)

## Institute for Sustainable Futures

The Institute for Sustainable Futures (ISF) is an interdisciplinary research and consulting organisation at the University of Technology Sydney. ISF has been setting global benchmarks since 1997 in helping governments, organisations, businesses and communities achieve change towards sustainable futures. ISF utilise a unique combination of skills and perspectives to offer long-term sustainable solutions that protect and enhance the environment, human wellbeing and social equity.

For further information visit: [www.isf.uts.edu.au](http://www.isf.uts.edu.au)

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- Godrej Consumer Products
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- Jyothy Laboratories
- Marico
- Nestlé India
- Tata Chemicals
- Tata Global Beverages

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- Mr Vivek Adhia from World Resources Institute (WRI)
- Ms Subhashini Chandran and Ms Zainab Kakal from XYNTEO

A final thank you to Ms Shikha Garg, illustrator/graphic facilitator (shikha@midniteoil.in).



# Executive summary

“It’s the right time to act together”



On 25 July 2018 in Mumbai, India, Stewart Investors, in partnership with the Institute for Sustainable Futures at the University of Technology Sydney, convened a Forum of some of the largest local and multi-national consumer goods companies in India. Alongside industry and academic experts, business representatives had the opportunity for meaningful discussion, to share knowledge and develop actions to reduce plastic packaging pollution in India.

The Forum revealed a strong sense of shared purpose and a desire to work collaboratively to address the issue of plastic pollution in India. As a result of the day there was clear agreement to continue to work collaboratively on a comprehensive list of priority activities. These priorities were developed through a structured process that began with envisaging how plastics would be effectively managed in the future and then testing these ‘preferred futures’ by thinking about challenges, drivers for change and barriers to effective action.

A long list of ideas was generated, then summarised down to a short list that was prioritised by Forum participants. The potential actions were grouped under the broad headings of:

1. **Forming a peak industry body focussed on plastics:** The proposed new industry body would lead projects on behalf of members, including working together on a national strategy and targets, providing a strong voice with government, and educating consumers about appropriate disposal and recycling.
2. **Shared visions and targets:** While participants agreed that many of the building blocks for a successful plastics waste management strategy were already in place, a national, industry-led strategy, with associated targets, would help to drive change. Perhaps along the lines of the [UK’s Plastic Pact](#), this shared vision could be co-ordinated by the new peak body, but work could start earlier.
3. **Knowledge sharing and peer learning:** Participants acknowledged the importance of peer-to-peer learning. One specific opportunity identified for knowledge sharing was the development of a list of credible, responsible waste management organisations. Many of the companies represented at the Forum want to ensure that their partners have appropriate policies and procedures in place to ensure their activities are socially responsible and environmentally sustainable.
4. **Consumer awareness and behaviour change:** There was general agreement amongst participants that consumers need to be engaged to raise their awareness of recycling and the need for responsible disposal. Multiple participants therefore proposed a national communications campaign to achieve a few objectives. A separate but related opportunity is to run an education campaign through schools on the importance of recycling and proper disposal.
5. **Innovation and technology for waste management:** While many types of plastic packaging are already recycled, others have limited value and are generally not collected. Several initiatives were proposed to support investment in new or improved processes to facilitate recycling of these lower value materials. One was to run a competition for innovations in plastic waste management, as this would help the industry to understand the current landscape. Another idea was to seed an incubation fund that would invest in R&D for alternative materials.

6. **Building the collection system:** One of the frustrations expressed by participants was that despite numerous trials and pilot schemes to improve recycling, there is no mechanism to scale these. Participants proposed a number of initiatives including:
- develop a new for-profit company or public private partnership (PPP) to aggregate collected plastic packaging
  - companies work with existing third-party collectors and recyclers to build scale
  - provide funds for equipment that would improve efficiency, for example bottle crushers, sachet compactors and pelletisers to feed waste to energy (WTE) markets
  - recognise and reward the informal sector to bring inclusivity and create a 'feel good' factor.

## Summary of actions

The 13 priority actions below are listed in order of popularity, based on the number of votes they received from Forum participants.

Rank	Action and number of votes
1.	Create a new peak industry body to proactively address plastic packaging waste on behalf of its members (21 votes)
2.	Implement a national communications campaign to educate consumers about proper use and disposal of plastic packaging (8 votes)
3.	Design a school education program to raise awareness about correct disposal and recycling of packaging (8 votes)
4.	Companies to work with common waste service providers to enable them to expand and become more efficient (8 votes)
5.	Form a new 'for-profit' company to aggregate plastic packaging waste and to help scale up local initiatives (8 votes)
6.	Develop a common vision for plastic packaging waste management including appropriate targets (7 votes)
7.	Create a knowledge network to share information on best practices, technologies and plastic waste recyclers (5 votes)
8.	Develop a funding mechanism to support innovation and renovation of packaging (5 votes)
9.	Develop an incubation fund to bring down the costs of alternative materials perhaps seeking initial funding from the International Finance Corporation (IFC), Asian Development Bank (ADB) or the Indian Government (3 votes)
10.	Eliminate plastic waste generated in-house (3 votes)
11.	Develop a target for post-consumer recycled content in packaging (1 vote)
12.	Invest in effective and easy-to-use hardware to facilitate recycling, for example bottle crushers, sachet compactors and pelletisers (1 vote)
13.	Present the outcomes of the Forum to the Ministry of the Environment Forestry and Climate Change (1 vote)

## Next steps

The challenge is to ensure that the goodwill and commitment demonstrated at the Forum is converted into action. As one of the next steps, this summary report will be circulated to participating companies and other stakeholders to continue the engagement process. The list of summary actions will require further consultation and refinement, but they provide a strong starting point for the development of an industry-led strategy. Stewart Investors hope that this will be just the first step in a new collaborative effort to reduce plastic pollution in India.



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# The story of the Forum

Stewart Investors' Sustainable Funds Group invests in companies that contribute to and benefit from sustainable development. In addition to the environmental impacts, Stewart Investors sees plastic pollution as a key investment risk, due to changing consumer preferences and regulatory risks. Stewart Investors recognises the urgent need for transformation of the global plastics economy, and the vital role that business can and should play in leading this transformation.

On 25 July 2018 in Mumbai, India, Stewart Investors, in partnership with the Institute for Sustainable Futures at the University of Technology Sydney, convened a Forum of some of the largest local and multi-national consumer goods companies in India. Stewart Investors invited to the Forum companies they either own, or are considering owning. These companies, alongside industry and academic experts, had the opportunity for meaningful discussion, to share knowledge and develop actions to reduce plastic packaging pollution in India.

The objectives of the Forum were to:

- share knowledge between businesses and experts on the issue of plastic pollution in India.
- initiate collaborative thinking and discussion on how to solve the problem of plastic pollution and the challenges and barriers to effective action.
- work collaboratively to address the problem and develop actions to reduce plastic waste.

Prior to the event, participants were sent a [Background Paper](#) that provided information on the plastics waste problem and some of the actions being taken to address it, both globally and in India. The discussion was conducted under the Chatham House Rule and all ideas and quotes in this report are unattributed to individuals.

This report presents the outcomes of the 25 July Forum on Addressing Plastic Pollution in India.

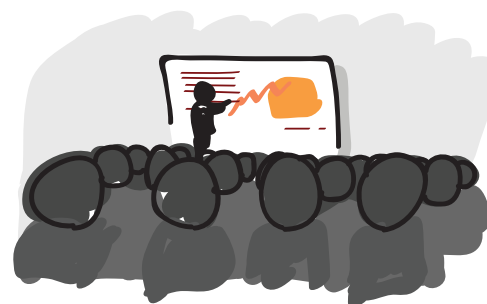
## Who was in the room

The Forum was attended by 23 participants representing 11 companies invited to attend by Stewart Investors. Also attending were representatives from World Resources Institute (WRI) India and XYNTEO, who were invited both as guest speakers and as participants. The Forum was designed and facilitated by members of the Stewart Investors team and the Institute for Sustainable Futures.

## Why people came

At the beginning of the day, participants shared their motivations for attending the Forum. Some common themes emerged across the group and people came for reasons that were both personal and professional.

Participants expressed their **care for nature, people and future generations**. There was a desire to do the right thing and to leave behind a better world. Participants shared genuine concern for sustainability and the damage that plastic is doing to people, other animals and the environment.



“I want my child to grow up in a world without non-biodegradable plastics”

“A good material is damaging our environment”

“Collective solutions will be optimal”

“It’s the right time to act together”

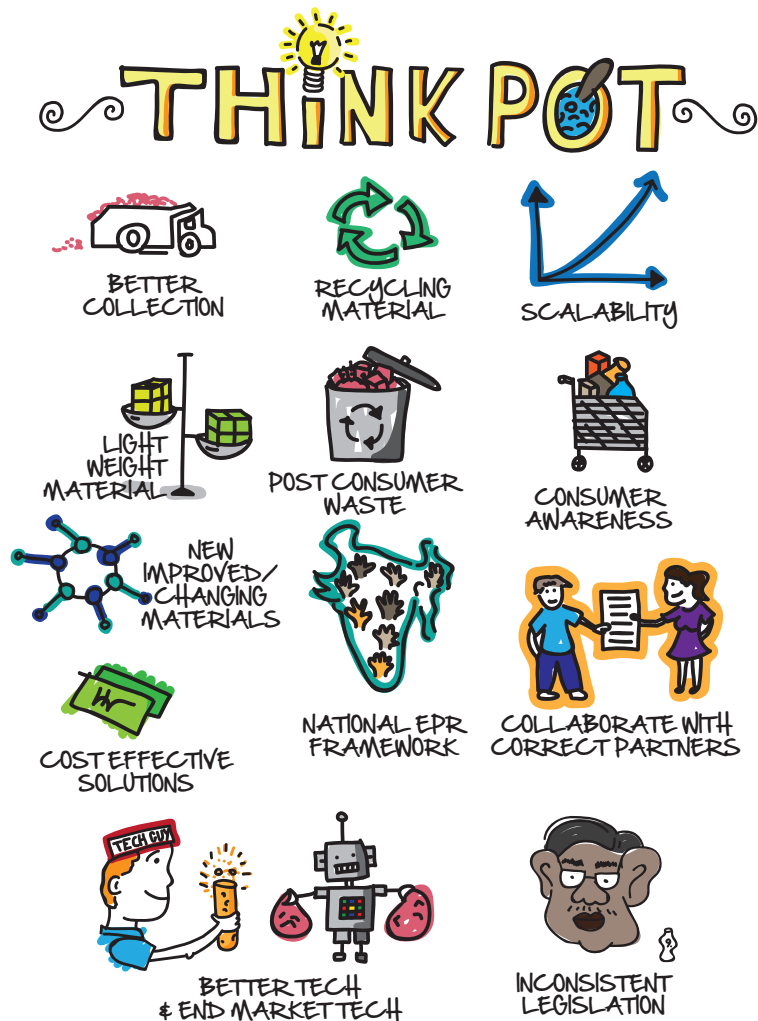
Participants also acknowledged the importance and usefulness of plastic and wanted to find better ways to manage its use and disposal.

Some participants expressed the need to address the problem because it presents a **business risk**. The perceived ‘demonisation’ of plastic is seen as a threat to some businesses and plastic litter reflects badly on brands. It was noted that the fast moving consumer goods sector creates the most plastic waste. A few companies highlighted the importance of stewardship of nature to their brand and saw their involvement in the context of “Preserving our legacy.”

Some participants came with the desire to **work on specific issues**. These included a focus on circular economy, using design thinking to embed sustainability and create solutions in the whole waste ecosystem, to consider raw materials and waste and to manage extended producer responsibility (EPR).

Participants expressed the desire to **collaborate to find solutions**.

Finally, there was a clear sense that the **time is right** to address plastic pollution in India. India is at a crucial juncture, where per capita plastic consumption is relatively low compared to other countries, but plastic pollution is growing. There is an opportunity for India to develop and grow along a more sustainable pathway and the Indian Government is creating a push factor through regulation. Participants saw the opportunity to work together right now.





# Understanding the problem

Three invited speakers presented to the Forum. Dr Helen Lewis, who co-facilitated the Forum, presented on the global issue of plastic pollution. She gave some examples of action taking place at the global and national levels to address the issue, and guidance on what companies can do within their own organisations.

Vivek Adhia, Director Climate and Head of Business Engagement for WRI India followed with a presentation that provided context on the issue within India and an overview of action being taken by Indian businesses and the informal sector. Zainab Kakal, Principal at XYNTEO, which is coordinating the India2022 initiative, provided an outline of that program, an overview of India's plastic waste value chain and actions being taken to improve it.

This was followed by a question and answer session with the three presenters as panelists. The first question, posed by the panel Chair, Lorna Logan of Stewart Investors, asked, 'What is India doing particularly well to address plastic pollution compared to other countries in the region or elsewhere?' The panelists identified a number of strengths including community concern about the issue, leadership being shown by many companies to address plastic pollution, and India's relatively high plastics recovery rate, due largely to the informal waste sector. These strengths were picked up later in the Forum, particularly in the visioning sessions.

The second question identified the need for a lead agency to coordinate action and break down silos and asked, 'Who can do this?' It was mentioned that an industry group such as the Federation of Indian Chambers of Commerce and Industry (FICCI) or an initiative such as India2022 could lead, but to achieve focus and scale, this might not be sufficient. This question was a precursor to what emerged as the strongest theme of the day and the most strongly supported action – the need for a coordinating industry body to lead on all aspects of addressing plastic pollution.

Another question asked about the effectiveness of Government initiatives in the long run. It was suggested that states should engage with each other to improve coordination and consistency, and there is a need for a single platform to share information, data and industry guidance. This observation was reflected in the final outcomes of the Forum.

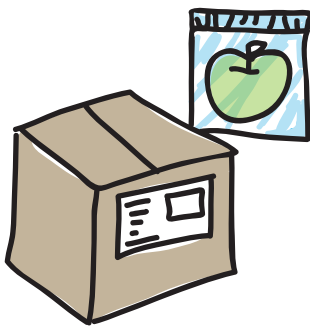
A final question enquired about the best end of life treatments for plastic, noting the need for sustainable solutions. An example that was mentioned was PET packaging being recovered for fibre, which may create more issues. This theme came up again in later sessions as the need to ensure that the "cure is not worse than the disease". In response, it was noted that there needs to be serious analysis of the waste value chain and for this to be used for communication and awareness-raising. Another response noted the circular economy principle of recycling to achieve the highest possible material value. The highest value is lost if, for example, plastic is recycled into roads where it adds value but will not be recovered again as plastic. Plastic recycled into fibre may also not achieve highest value as synthetic textiles have a low recovery rate and could create further issues due to release of microfibres to waterways during the washing process.

A final comment was made on the need for a list of people who can train others and a certification system for third party organisations that companies can work with on the issues. The issue of credibility of NGOs was noted again later in the Forum.



# Sharing organisational experience

In this session participants shared some of their successes, challenges and priorities for plastic packaging. It was evident that the Forum participant companies had thought deeply about the issues and many had initiated some very strong actions to start to combat the challenges. These are summarised below under several broad themes.



## Packaging materials and design

All of the companies reported at least one successful initiative to reduce the environmental impacts of packaging. These included:

- reducing plastic use
- light-weighting to improve material efficiency, e.g. for plastic bottles
- replacing PVC with more sustainable materials
- introducing or trialing more recyclable or compostable materials
- use of post-consumer recycled plastics
- eliminating plastics in bulk packaging.

A common challenge and priority for many organisations is to find a more recyclable alternative to multi-layered packaging (MLP)<sup>1</sup>. One participant noted that “recyclable does not equal recycled” but it is an important first step or enabler that must be followed through with the provision of recycling solutions. Other challenges that were mentioned included:

- finding recycled materials with consistent quality
- the costs and consumer acceptability of alternative materials.

## Collection and recycling

Many participants reported on successful initiatives to collect and recycle particular types of packaging, such as PET and MLP including laminated plastic pouches and coated cartons (e.g. Tetra Pak). These initiatives have generally been undertaken with local NGOs and waste pickers although at least one involved schools.

The main challenge is working out how to scale up successful pilots and local initiatives to have more impact at a state or national level. A priority for many organisations is to find an affordable solution for MLP and other low value materials. Collection and recycling costs need to be minimised to keep product prices affordable for low income consumers.

Other challenges include:

- finding the right organisations to partner with on recycling initiatives - NGOs who are credible and have a sustainable business model
- the need for a collaborative solution that collects all packaging, not just a single brand
- accessing the knowledge and experience of multinational companies that have been working on similar issues for many years.

## National framework for Extended Producer Responsibility

One of the priorities mentioned by several participants was the need for a national framework for Extended Producer Responsibility (EPR), and for this to be achieved quickly. While companies acknowledge their role in producer responsibility, there are significant challenges in meeting these obligations. Some of the issues raised by participants included:

- the need to build consensus on a national EPR framework which covers the entire value chain, from polymer manufacturer through to brand owners, importers and distributors, retailers, households, collectors, recyclers and reprocessors
- ensuring a level playing field, i.e. EPR schemes that are neutral on geography and brand
- finding the right balance of cost, technology and environment so that “the cure is not worse than disease”.



## Recycling technologies and end markets

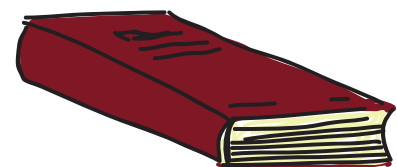
Several participants reported on successful initiatives to find new end markets for recovered plastics. Some of these involve waste-to-energy (WTE) technologies such as co-processing plastics in cement kilns or recycling them as a fuel. WTE technologies help to reduce municipal solid waste while replacing alternative fuels, but there was some recognition that this is considered a transitional technology. There is a need to find more ‘circular’ solutions that recover plastics back into plastics. A new chemical recycling technology, which is being trialed, converts the polymers in MLP back to monomers so that they can be used again to make new plastics.

## Consumer awareness

Some participants shared successful initiatives to engage consumers in recycling. This is considered by some participants as a priority because everyone has a role to play - including consumers - but many are apathetic or do not know how to recycle. Communication is a challenge in a country of 1.2 billion people.

## ‘Whimsical’ legislation

One of the priorities for participating companies is to meet their compliance obligations under national waste management Rules and state legislation. However, there are many challenges, with multiple states coming out with their own versions of the Rules, which participants described as being ‘unpredictable’, ‘inconsistent’, ‘knee jerk’ or ‘whimsical’, it makes it difficult for companies to design EPR solutions.



<sup>1</sup>Multi-layer: composed of two or more materials joined together through co-extrusion or lamination in order to achieve specific barrier or mechanical properties. This often results in thinner and lighter packaging (compared to mono-layer), which reduces the resources required to produce and transport products. Compositions range from three to nine layers. With so much variation in materials and structure, these formats add to the complexity of recovery and recycling

# Imagining a plastic pollution free India

Participants split into four groups to imagine what India would look like in 2030 if the plastic pollution problem is successfully addressed. Participants presented their different visions using words, diagrams, drawings and picture cards.

One group created a diagram of elements that combined to present the India of 2030 (Figure 1).

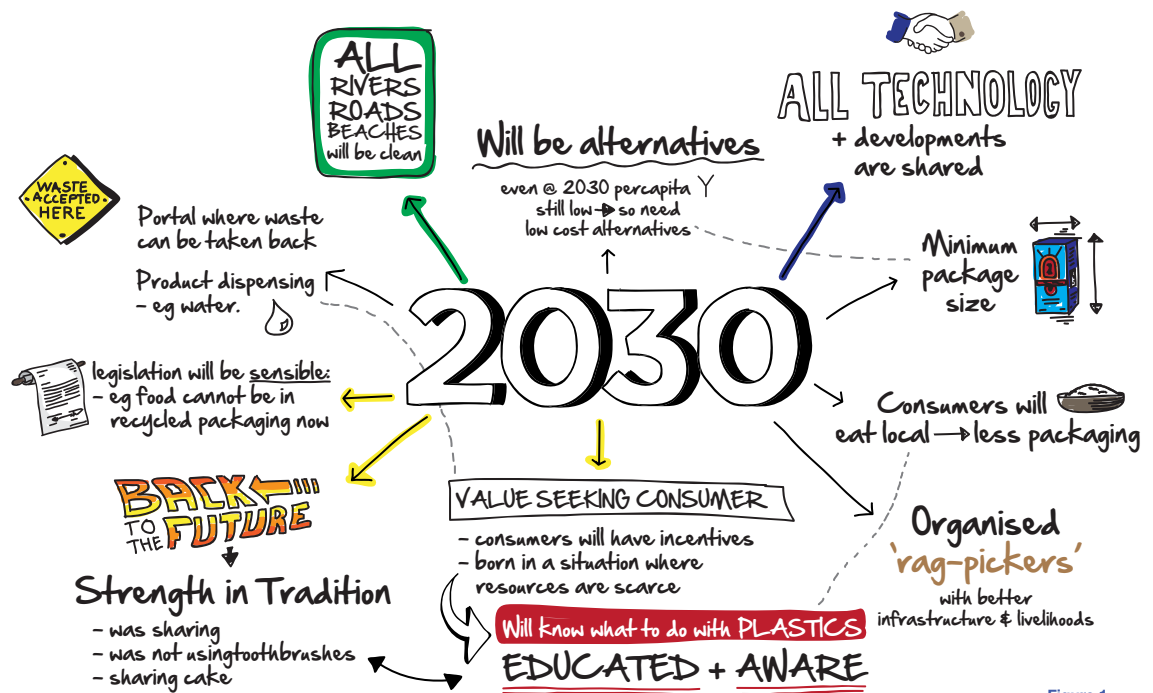


Figure 1

This image combined a number of elements:

- environment - the Ganges and indeed all rivers, roads and beaches are clean
- technology - there are low cost alternatives, all technologies and developments are shared and package size is minimised
- social factors - consumers eat local food which means less packaging, waste pickers are organised with better infrastructure and livelihoods, consumers know what to do with plastics because they are well educated and aware
- culture - there is a return to traditional values of reuse, recycling and minimal waste ('back to the future') with more sharing and traditional alternatives to plastic items such as toothbrushes
- infrastructure - this could include a portal for buy-back of packaging waste and where products, such as water, can be dispensed in bulk
- legislation - regulation is 'sensible' and enabling, for example recycled materials could be allowed in certain types of food packaging

A second group described their vision using words. They described a more aware, sustainable, growing and clean India in sync with nature. In this India there are more jobs, more tourism, strong and clear regulatory mandates (incentives), self-discipline, and strong government facilitation. In this vision, current strengths are continued and further developed: the informal sector is formalised, packaging is labelled for material type, and there is continuous research into alternative packaging. Some changes have happened: Indians have a stronger sense of civic responsibility, all packaging is segregated in households, companies use only 100% recyclable packaging, there are buy-back schemes (e.g. deposits), regulation is cleaner and simpler, and there is a central body to oversee all these elements.

Another group expressed their vision through illustrations that tell the story of Arti, an Indian girl in 2030 (Figure 2). She eats a sweet and disposes of the wrapper (which is made from biodegradable materials) responsibly in a bin. The bins look inviting and waste is segregated, making it easy for Arti to act responsibly. Arti knows how to do this because she has been taught it in school. She in turn spreads the message to her household, and politicians take note and support consumer efforts. The Government tells residents that “if you don’t manage plastics, plastics will manage you”. This is facilitated by a better urban map of the waste ecosystem. Waste pickers are well organised and managed and have more humane working conditions and effective tools. Overseeing the whole ecosystem is an ‘angel’ governing body, which is a collaboration between NGOs, companies and government.



Figure 2

The fourth group presented their vision using picture cards (Figure 3). They asked the question, how can we protect our beautiful, natural environment? Their answer was that it will require thought, research, collaboration, continuing discussion and financial investment. The 'jokers' (politicians) are no longer involved. Everyone knows what's right and how to manage plastic waste ('conscious and conscientious'). It's not just about visible waste: there are also no microplastics in the environment. This leads to better outcomes for nature, other animals, food systems, people, culture, and human livelihoods – for India and the whole world. We have to choose between actions that lead to alternative outcomes - unhappiness or happiness.

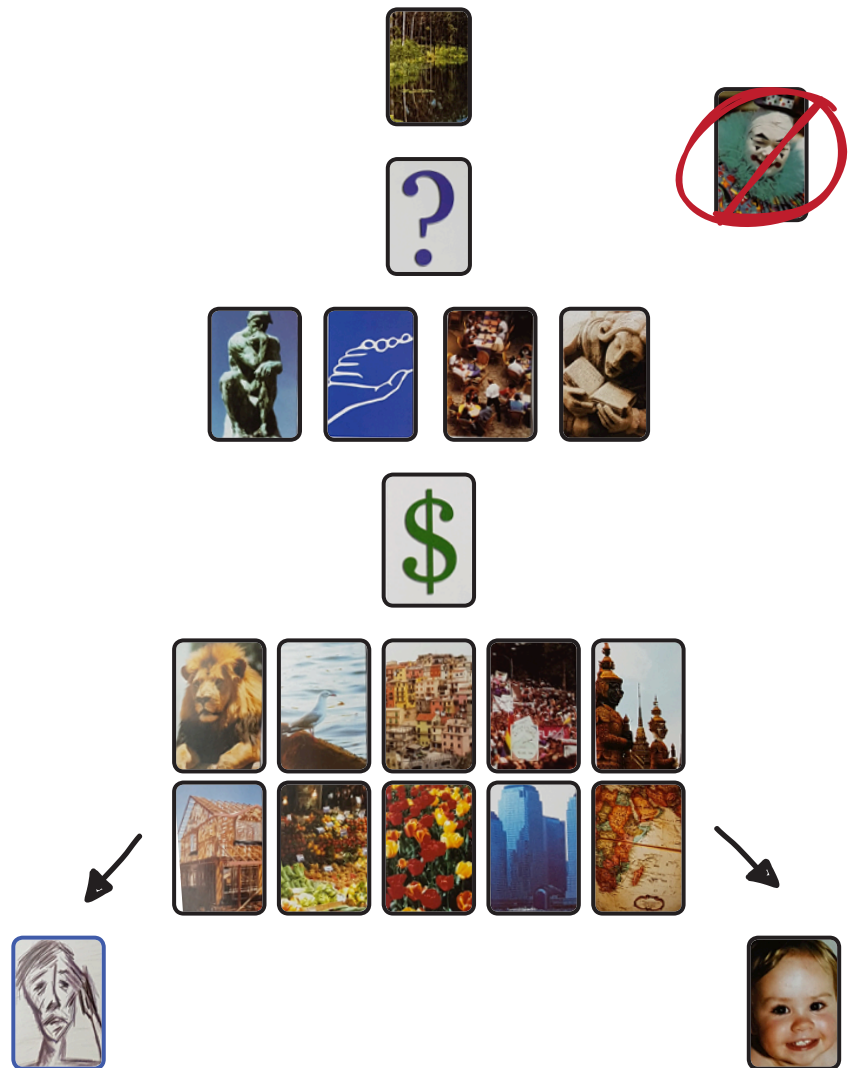
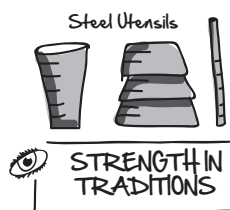


Figure 3

Across the four visions, common elements of the preferred future emerged:

- a clean, green, prosperous India that is in sync with nature
- people, animals, the environment and livelihoods are all valued
- a well organised, managed and resourced informal waste sector
- a peak body that oversees all aspects of plastic use and management
- well informed, aware and responsible consumers, supported through education and communication
- systems and infrastructure that support effective waste management
- collaboration between businesses and with other important stakeholders
- feasible, cost-effective packaging alternatives that are well used
- sensible and effective regulation.

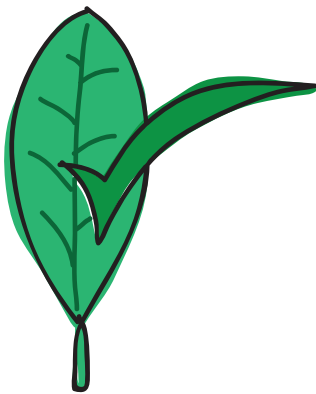


## Exploring the practicalities of a plastic pollution free India

To ground their visions in reality, participants used the 'Futures Triangle' tool, developed by Sohail Inayatullah, to consider the 'pull' of a preferred future, the 'push' of current trends or drivers, and the 'weight' of barriers that might work against achieving the preferred future.

Building on the previous visioning session, participants identified further **compelling images** of the future that pull us forward. These included the pull of a greener, cleaner, pollution-free planet and India in which we can once again swim in the ocean, but also retain convenience. In a sustainable India, there would be more "purpose led" or "vision driven" organisations and there would be more professional arrangements for managing plastic waste, for example, waste pickers would be professionalised. There would be skill development and collaboration between small initiatives and large corporations. The younger generation would have higher awareness and there would be discipline to change behaviour. This would also lead to many more jobs and more meaningful work for the people involved.

However, participants recognised that lack of appropriate action could lead to **competing images** of the future. In this alternative future there would be climate change, pollution and depletion of resources. This would damage the economy and lead to loss of livelihood.



Participants discussed and identified the **drivers and trends** of today that are shaping the future. These include growing consumer awareness and social, judicial and NGO activism. There is increasing personal awareness of the hazards posed by plastic pollution and a desire to get back to nature. However, population is increasing, and with it, consumption. Political will and regulation were noted as pushing factors although it was noted that there is a tendency towards "whimsical policy." Technology can be an enabling factor, along with percolation of global best practices. Pilots are helping to demonstrate solutions.

One group used the session to begin discussing factors that are needed to push towards the preferred future. These include increasing consumer awareness using both carrots and sticks ('fear works') via schools, societies and celebrities. The group noted that technology supports both EPR and development of materials that are environmentally friendly and economically viable. Financial support is needed to make the business of waste management lucrative. Participants identified the need for a coherent national regulatory framework and authority that is agnostic on brand and geography.

Participants discussed barriers to change and agreed that a critical barrier is the high cost of alternative packaging solutions and technologies and the cost and current structure of EPR. The inadequate waste disposal infrastructure and ecosystem, the fragmented approach to waste management and issues of NGO credibility were also identified. Differences in perception and conflicts between federal and state governments are problematic. There are too many players who 'call the shots' and there is a gap between intention and accountability. There was a sense that manufacturers do not take responsibility and there is a lack of appropriate incentives. A lack of civic responsibility and consumer apathy and ignorance were also identified as barriers. Behaviour change takes time and the chalta hai ('so be it') attitude has to go. Potent communication will be required to address this.



# Developing collaborative actions

Participants engaged in a structured process to identify and prioritise collaborative actions. Individuals initially worked in pairs or small groups to brainstorm opportunities. These were refined by larger groups and categorised according to their perceived ease of implementation (easy or hard) and the estimated timeframe (short or long term). Working with the facilitators, priority actions from each table were clustered together under six common themes. Participants then further prioritised the actions through a simple voting process.



## A peak industry body to drive collaborative action

This was the strongest recommendation to emerge from the discussions. The lack of a strong, central industry body to drive collaborative action was considered a major gap. There was a strong view that the challenges involved in addressing plastic waste at scale, including fragmented collection networks, consumer apathy and the need to comply with state-based regulations, require strong collaborative action. It was also felt that industry needs to be proactive and not wait for governments to act.

The proposed new industry body would lead projects on behalf of members, including working together on a national strategy and targets, providing a strong voice with government, and educating consumers about appropriate disposal and recycling. It was suggested that companies would have to commit sufficient funds for an effective secretariat.

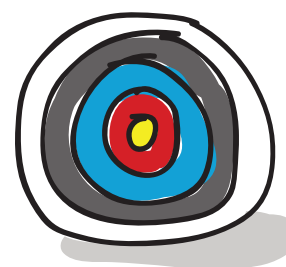
The potential to establish a sub-group within an existing industry association, e.g. Confederation of Indian Industry (CII) or Federation of Indian Chambers of Commerce and Industry (FICCI), was discussed. A risk of this approach is that the issue may not receive appropriate focus. A new organisation was considered by most participants to be the best way forward. The Australian Packaging Covenant Organisation was raised as a potential model worth exploring further.

## Shared vision and targets

Participants agreed that many of the building blocks for a successful plastics waste management strategy were already in place, including a strong informal waste sector, national and state regulations, and numerous pilot projects and partnerships that demonstrate successful strategies. A national, industry-led strategy, with associated targets, would help to drive change.

A number of targets were proposed, and those that received most support were eliminating in-house plastic waste and post-consumer recycled content in packaging. These will require further industry consultation to ensure that targets are appropriate and supported by most companies. [The UK Plastic Pact](#) was raised as a potential model.

“If we can get this right the other actions will follow”



## Knowledge sharing and peer learning

Participants acknowledged the importance of peer-to-peer learning, both within the group attending the Forum and with other companies in India and elsewhere. It was noted that multinational companies have a lot of experience to share because plastic waste management has been an issue in developed economies for decades.



One specific opportunity identified for knowledge sharing was the development of a list of credible, responsible waste management organisations. Many of the companies represented at the Forum want to ensure that their partners have appropriate policies and procedures in place to ensure their activities are socially responsible and environmentally sustainable.

## Consumer awareness and behaviour change

There was general agreement amongst participants that consumers need to be engaged to raise their awareness of recycling and the need for responsible disposal. Multiple participants therefore proposed a national communications campaign to achieve a few objectives. For example, it could demonstrate corporate responsibility (“brand owners are not to blame”) while encouraging appropriate use and disposal of packaging.

One element of the campaign could be a consistent message that all companies add as a tag to their usual TV and digital advertising. The campaign could be run in collaboration with government.

A separate but related opportunity is to run an education campaign through schools on the importance of recycling and proper disposal. This could build on a schools’ program that will be implemented by XYNTEO later in 2018, combining curricula materials and opportunities to recycle plastic packaging.

## Innovation and technology for waste management

While many types of plastic packaging are already recycled, for example PET bottles, others have limited value and are generally not collected. These include plastic sachets and MLP. The solutions for these materials include alternative (recyclable or compostable) materials, and new markets for the materials at end of life.

Several initiatives were proposed to support investment in new or improved processes. The first of these is to run a competition for innovations in plastic waste management, as this would help the industry to understand the current landscape by identifying key players and emerging technologies.

Other opportunities include:

- an incubation fund that would invest in R&D for alternative materials
- a funding mechanism to develop and share technologies, for example through the International Finance Corporation (IFC), Asian Development Bank (ADB) or Government of India.

## Building the collection system

One of the frustrations expressed by participants was that despite numerous trials and pilot schemes to improve recycling for certain types of packaging, there is no mechanism at present to scale these up to a state or national level. To support higher recovery rates and to meet their regulatory obligations for extended producer responsibility (EPR), participants supported a number of initiatives that would leverage and build on existing processes. These included:

- develop a new for-profit company to aggregate collected plastic packaging, possibly in partnership with government or municipalities (public private partnerships)
- companies to work with the same third-party collectors and recyclers in order to build scale
- provide funds for equipment that would improve efficiencies, for example bottle crushers, sachet compactors and pelletisers to feed waste to energy (WTE) markets
- recognise and reward the informal sector to bring inclusivity and create a 'feel good' factor.

## Actions summary

The actions below are listed in order of popularity, based on the number of votes they received from Forum participants. A few additional actions that received no votes are incorporated in the discussion of actions above.





Action and number of votes	
1	Create a new peak industry body to proactively address plastic packaging waste on behalf of its members (21 votes)
2	Implement a national communications campaign to educate consumers about proper use and disposal of plastic packaging (8 votes)
3	Design a school education program to raise awareness about correct disposal and recycling of packaging (8 votes)
4	Companies to work with common waste service providers to enable them to expand and become more efficient (8 votes)
5	Form a new 'for-profit' company to aggregate plastic packaging waste and to help scale up local initiatives (8 votes)
6	Develop a common vision for plastic packaging waste management including appropriate targets (7 votes)
7	Create a knowledge network to share information on best practices, technologies and plastic waste recyclers (5 votes)
8	Develop a funding mechanism to support innovation and renovation of packaging (5 votes)
9	Develop an incubation fund to bring down the costs of alternative materials through an existing organisation such as IFC, ADB or the Indian Government (3 votes)
10	Eliminate plastic waste generated in-house (3 votes)
11	Develop a target for post-consumer recycled content in packaging (1 vote)
12	Invest in effective and easy-to-use hardware to facilitate recycling, for example bottle crushers, sachet compactors and pelletisers (1 vote)
13	Present the outcomes of the Forum to the Ministry of the Environment Forestry and Climate Change (1 vote)

# Conclusion and next steps

The Forum achieved its objectives of sharing knowledge on the issue of plastic pollution in India and facilitating some initial discussions about how to solve the problem collaboratively. There are many initiatives already underway, including packaging improvements and pilot recycling projects in partnership with local NGOs.

Participants participated enthusiastically and were generous in sharing their knowledge and experience with peers. They demonstrated a high level of goodwill, genuine concern for the future and a strong desire to collaborate to address the issue. Participants were also very clear in their view that industry must take the lead on this issue to drive change in collaboration with governments and NGOs.

The challenge is to ensure that the goodwill and commitment demonstrated at the Forum is converted into action. As one of the next steps, this summary report will be circulated to participating companies and other stakeholders to continue the engagement process. The summary list of actions will require further consultation and refinement, but they provide a strong starting point for the development of an industry-led strategy. Another proposed action was for CEOs from the largest companies, such as Hindustan Unilever and Nestlé, to contact other CEOs to encourage them to participate.

Stewart Investors hope that this will be just the first step in a new collaborative effort to reduce plastic pollution in India.



# Appendix 1: Agenda

## Forum objectives

- Share knowledge between businesses and experts on the issue of plastic pollution in India
- Initiate collaborative thinking and discussion on how to solve the problem of plastic pollution and the challenges and barriers to effective action
- Work collaboratively to address the problem and develop actions to reduce plastic waste.

Item	Time
<b>Arrival, registration and refreshments</b>	<b>8.30–9.00am</b>
Welcome and introductions	9.00–9.30am
Understanding the plastic pollution problem	9.30–10.30am
Morning tea	10.30–10.45am
Sharing organisational experience & knowledge	10.45–11.45am
Imagining a plastic pollution free India	11.45am–12.30pm
Lunch	12.30–1.15pm
Exploring the practicalities of a plastic pollution free India and sharing knowledge	1.15–2.00pm
Identifying and refining collaborative actions	2.00–3.15pm
Afternoon tea	3.15–3.30pm
Refining and prioritising actions	3.30–4.40pm
Wrap up, thank you and next steps	4.40–5.00pm
<b>Close</b>	<b>5.00pm</b>
CEO and participant drinks reception	5:30–7.00pm

