



CHANGING SAILS

ACCELERATING REGIONAL ACTIONS FOR SUSTAINABLE OCEANS IN ASIA AND THE PACIFIC

Chapter 5:
Plastic pollution in the marine environment

An ocean of plastic

- Between 3.0 million and 5.3 million tons of micro- and macroplastics, respectively, are polluting the environment annually. Estimates show that the Asia-Pacific region is the source of 44 per cent of the global volume of microplastics and 31 per cent of macroplastics.
- Causes: Weak **waste management** systems, plastic **production** and **consumption**.

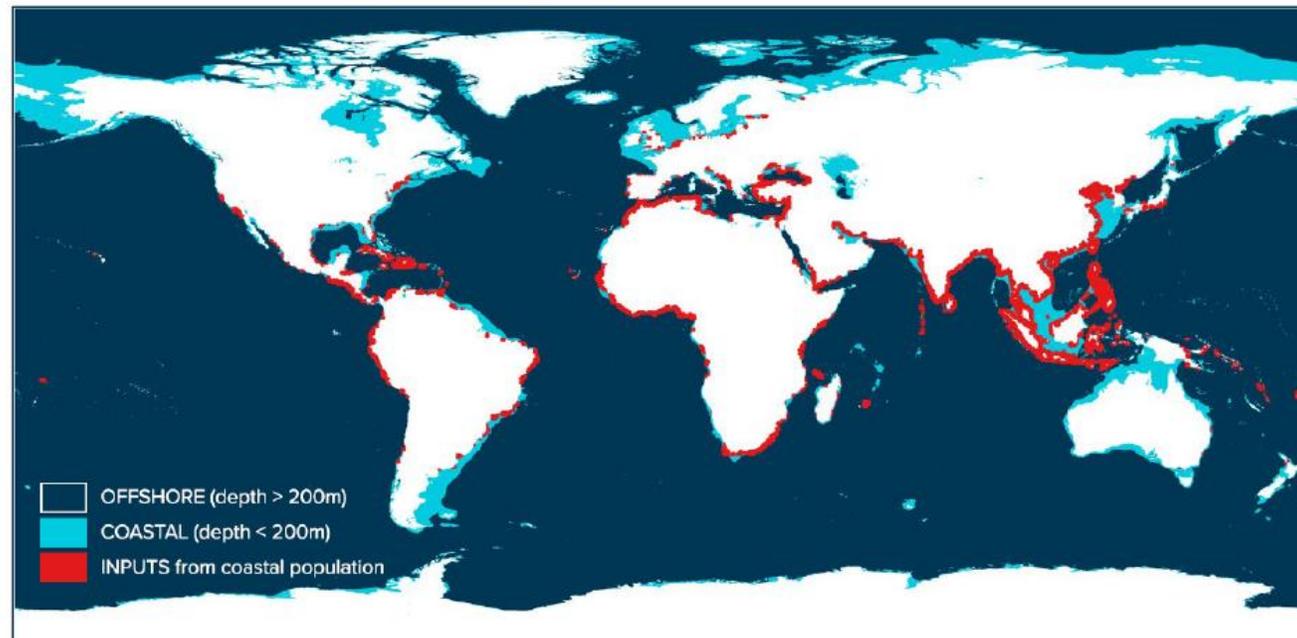
49.3% of the global plastic is produced in Asia-Pacific



38% of the global plastic is consumed in Asia-Pacific

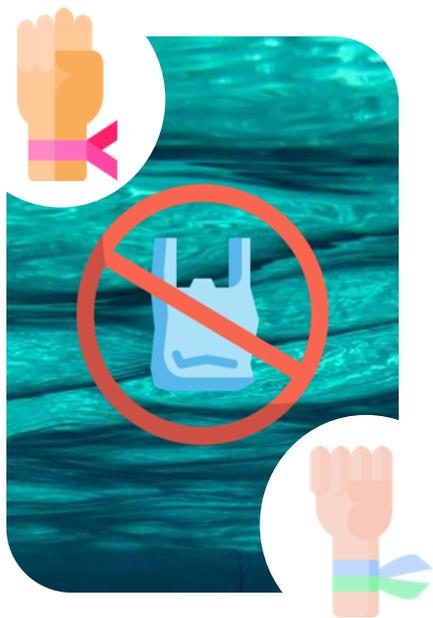


Average of total mismanaged plastic waste in top six polluting countries in Asia-Pacific: 9.6%



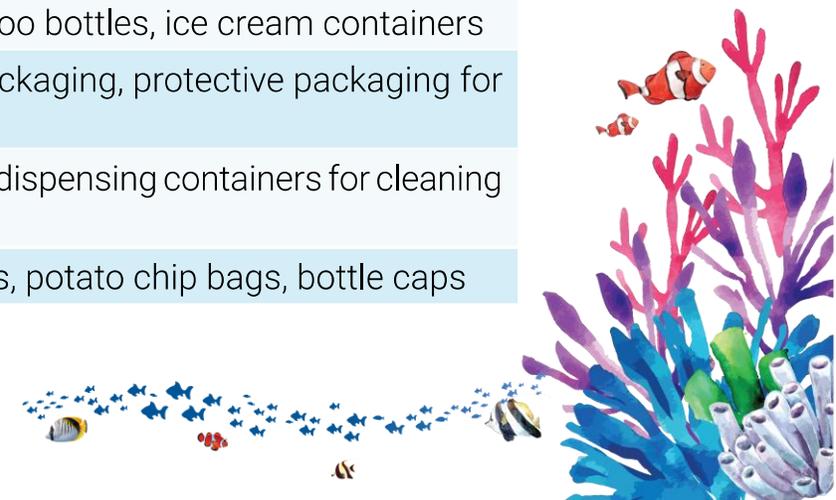
Single-use plastics

- Out of more than 400 million tons of plastic produced every year, approximately 36 per cent of it is used for single-use packaging.



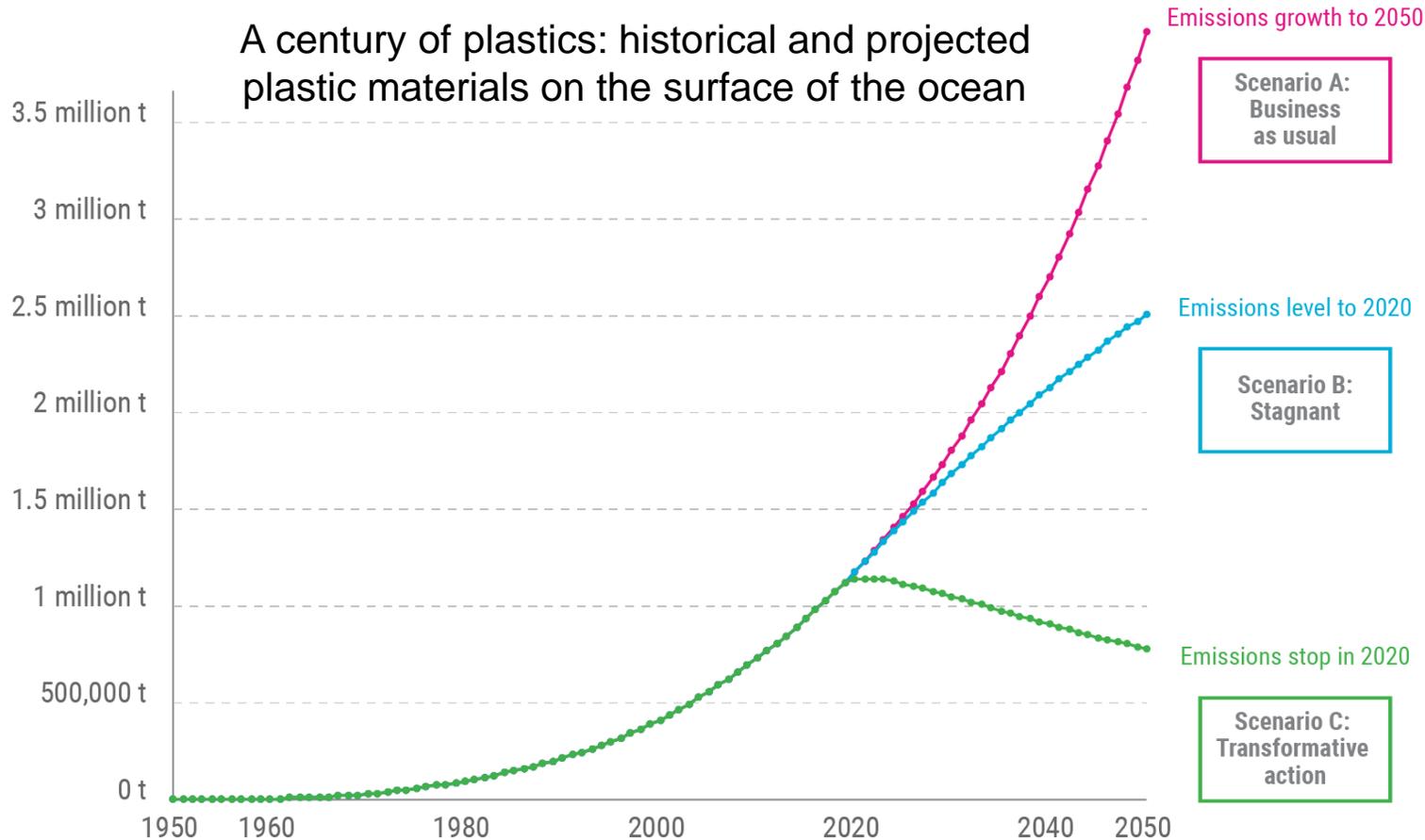
Main polymers used in the production of single-use plastics

| Plastic | Use |
|----------------------------------|--|
| Low density polyethylene (LDPE) | → Bags, trays, containers, food packaging film |
| Polystyrene (PS) | → Cutlery, plates and cups |
| High density polyethylene (HDPE) | → Milk bottles, freezer bags, shampoo bottles, ice cream containers |
| Expanded polystyrene (EPS) | → Hot drink cups, insulated food packaging, protective packaging for fragile items |
| Polyethylene terephthalate (PET) | → Bottles for water and other drinks, dispensing containers for cleaning fluids, biscuit trays |
| Polypropylene (PP) | → Microwave dishes, ice cream tubs, potato chip bags, bottle caps |



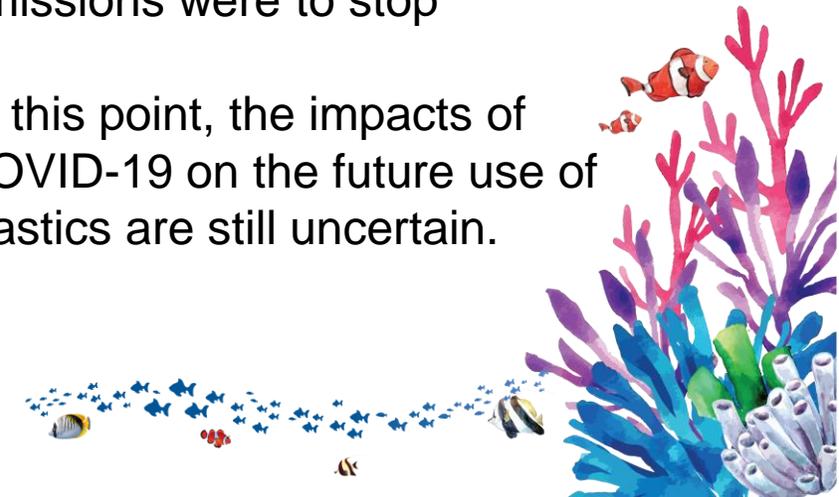
Flattening the plastic curve

A century of plastics: historical and projected plastic materials on the surface of the ocean



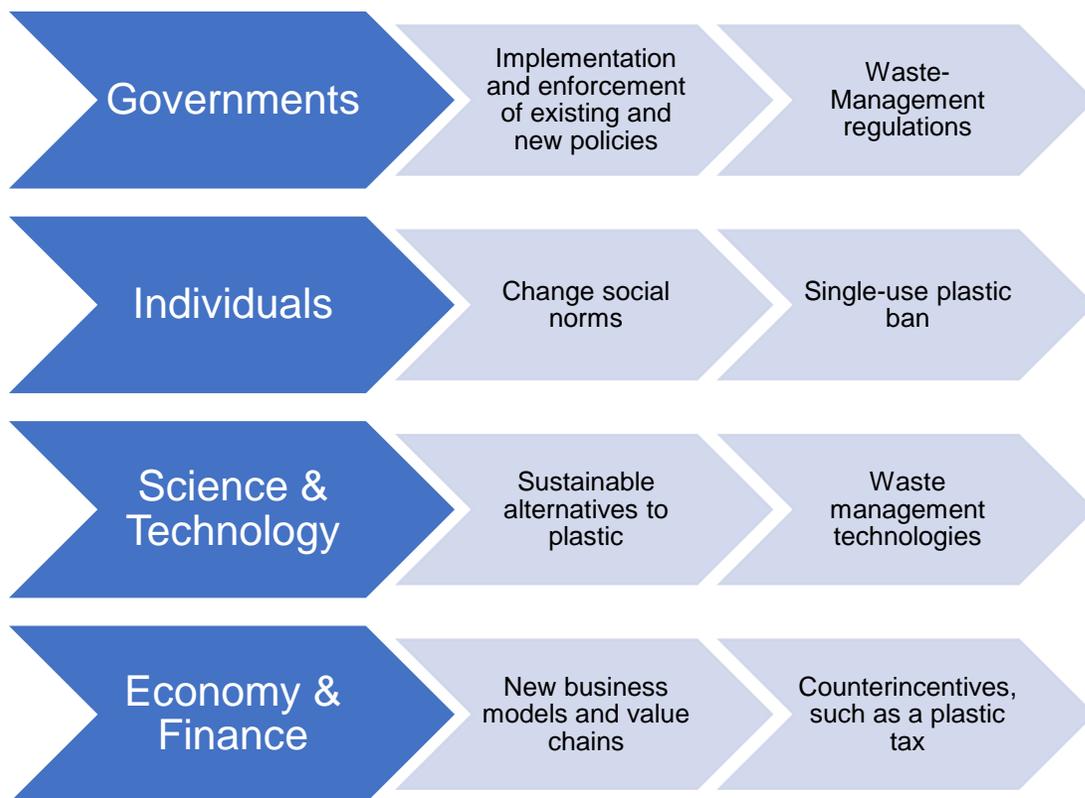
Source: Lebreton et al. (2019). A global mass budget for positively buoyant macroplastic debris in the ocean.

- The amount of plastic debris could triple in the next three decades
- This trend could be reversed and the volume of marine debris would decline if emissions were to stop
- At this point, the impacts of COVID-19 on the future use of plastics are still uncertain.



Recommended actions

Who does what?



Private sector:

- **Engage:** Be part of the **conversation**, participate in multi-stakeholder **dialogue platforms** such as the Asia-Pacific Day for the Ocean.
- **Innovation:** Reflect on commodities, value chains and technologies.
- **Opportunity:** New markets may provide a different business development. Look for different business models.
- **Anticipate:** Be prepared for counterincentives, such as a plastic tax or other forms of levy. Also for regulations related to industrial waste management.
- **Be a green and blue company!** Businesses able to adapt to changing demands, including sustainability, are more likely to succeed in the long term.



Thank you!



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