GLOBAL PLASTICS OUTLOOK

Policy scenarios to 2060

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RE-CIRCLE
Resource Efficiency & Circular Economy Project

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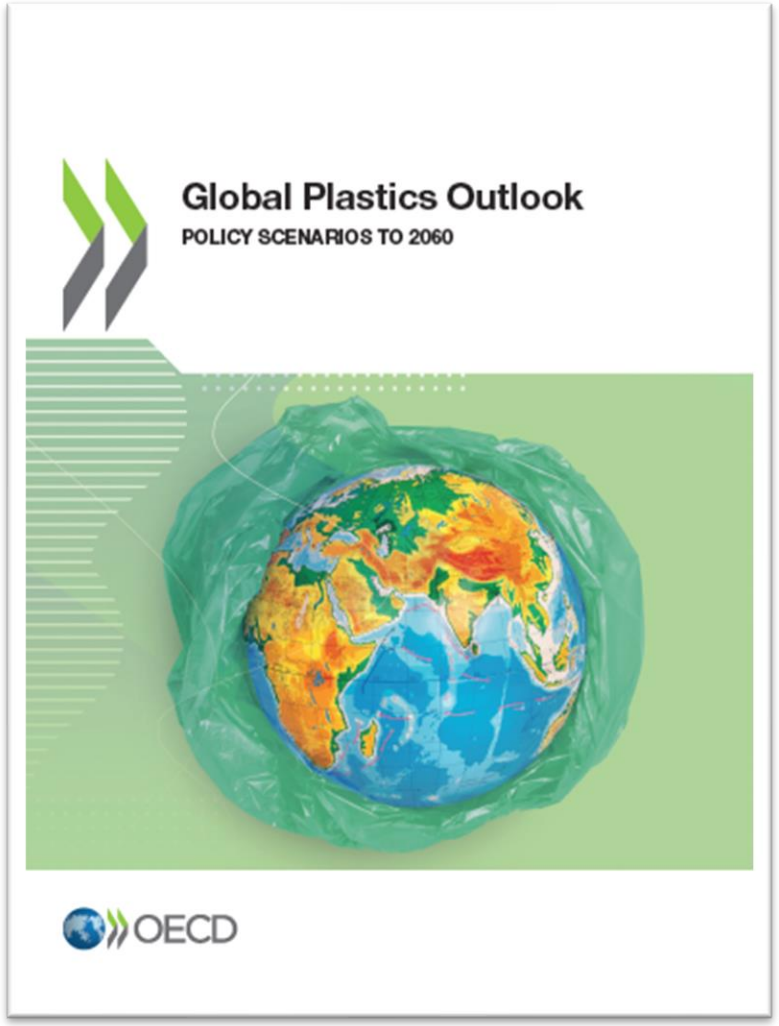
BETTER POLICIES FOR BETTER LIVES

Since the first GPO ...

- Increased ambition to end plastic pollution
  - UNEA 5.2: *Resolution 5/14 entitled "End plastic pollution: Towards an international legally binding instrument"*
  - OECD: *Ministerial Declaration on a Resilient and Healthy Environment for All*
- Increased geopolitical and economic uncertainty
  - Supply chain disruptions, spikes in commodity prices

How do we deliver on this high global ambition in the face of such uncertainties?

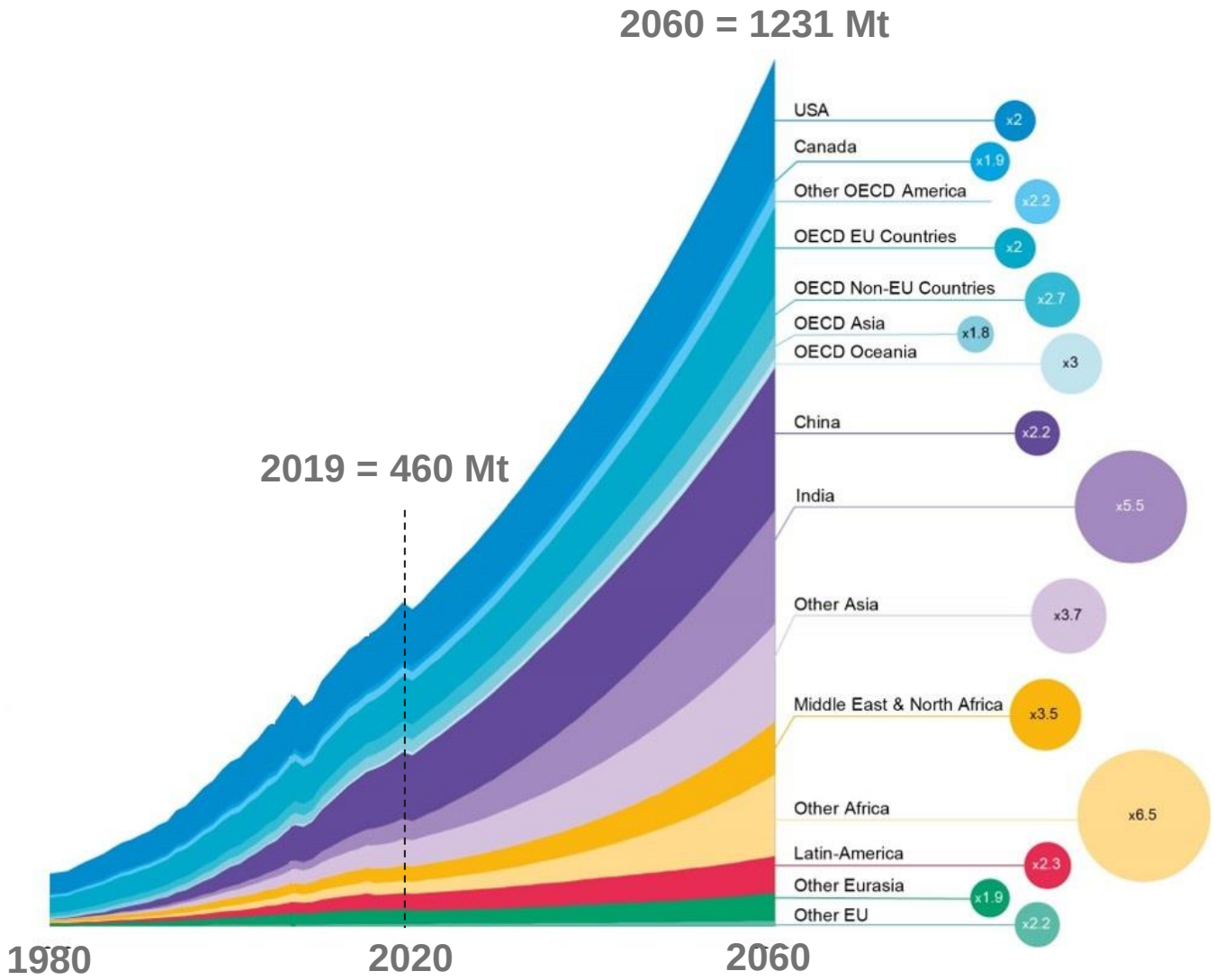
Global Plastics Outlook: Policy Scenarios to 2060



- **Forward-looking** to 2060 with a multi-regional, multi-sectoral dynamic model
- Presents **scenarios** for projecting future plastics use, waste and leakage
- Quantifies **policy packages** towards eliminating leakage
- Investigates synergies between plastics and **climate policies**
- Calculates **costs** of policy packages at regional level

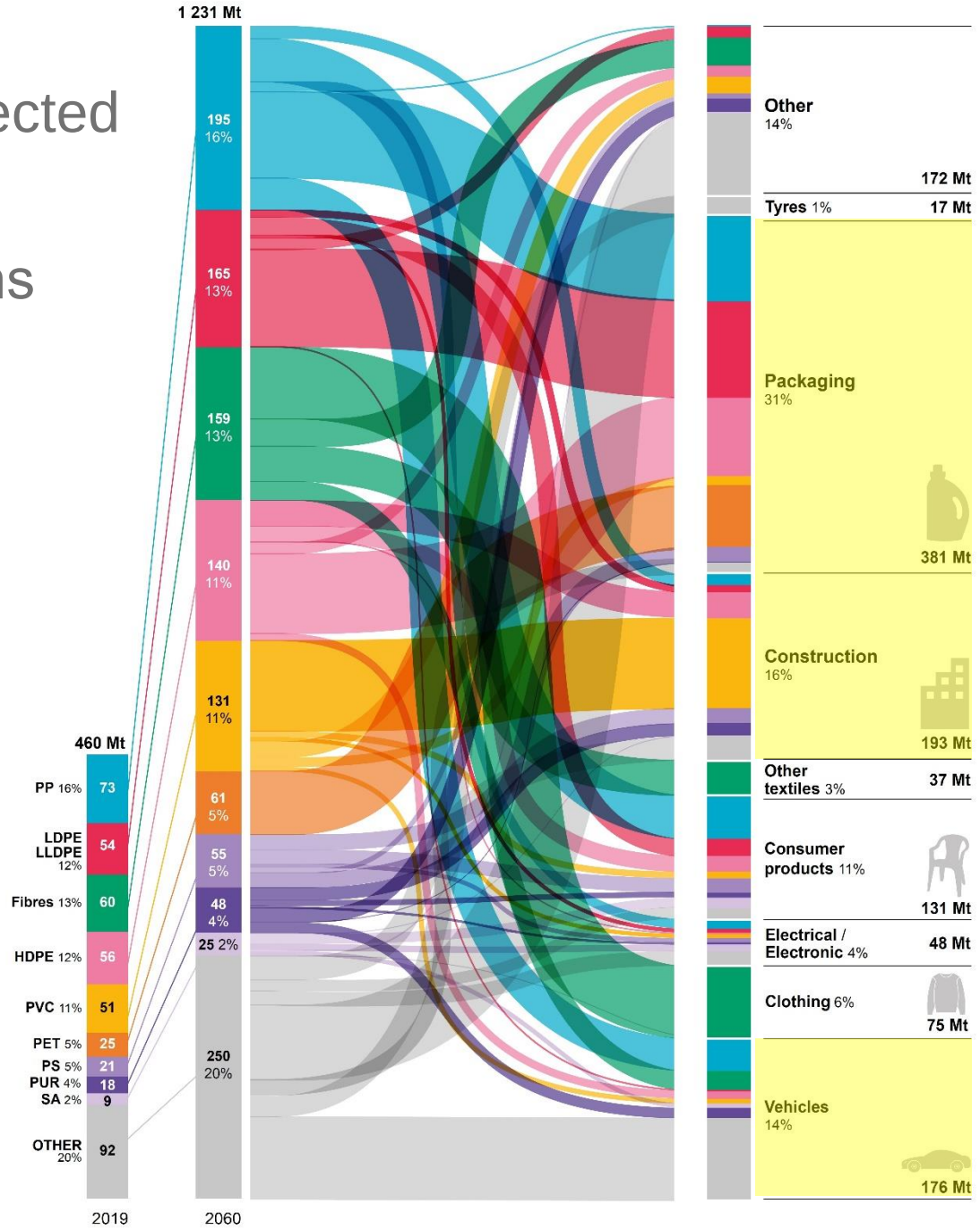

Under business as usual…

Global plastics use is on course to almost triple by 2060



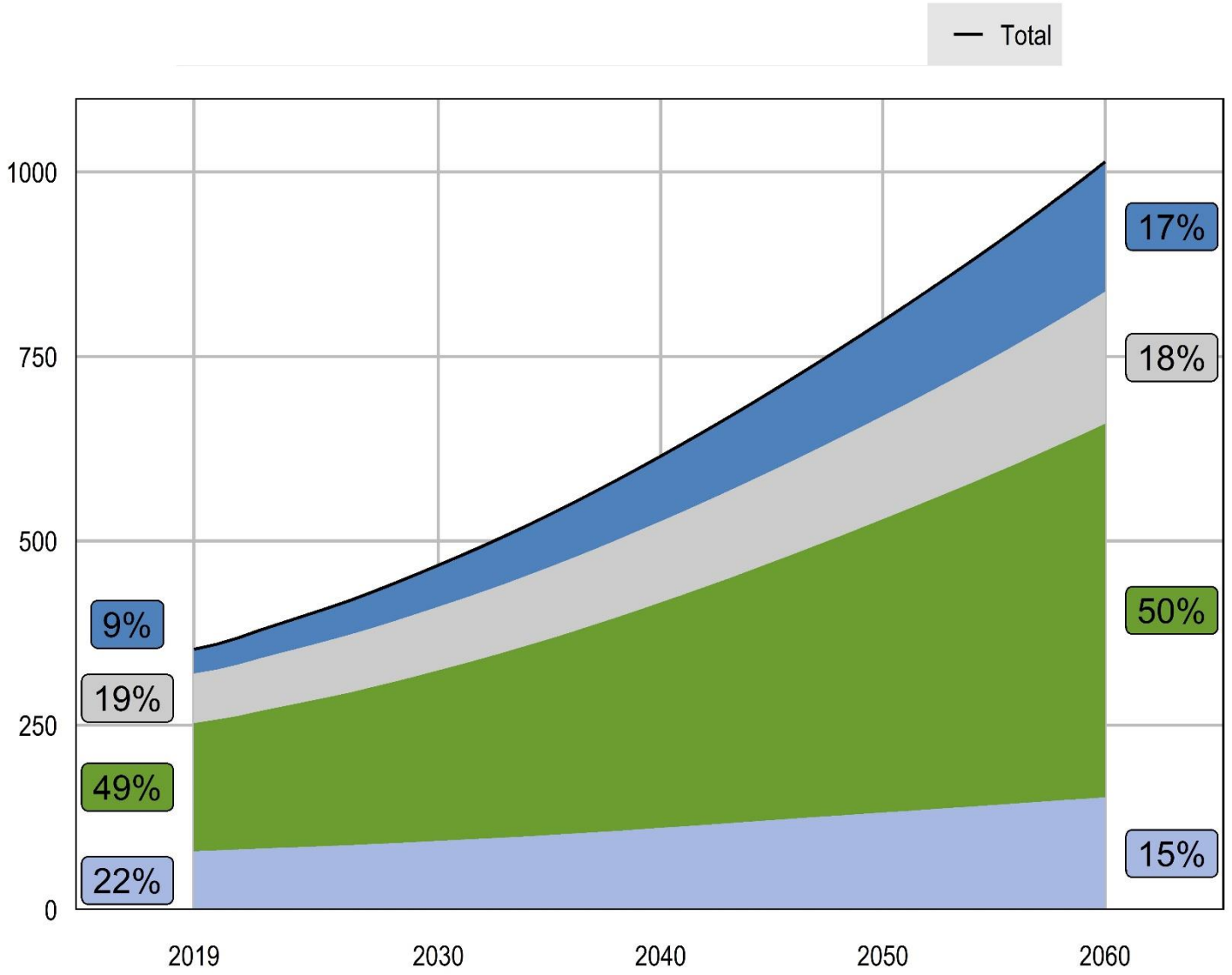
All polymers are projected to increase…

…in all applications



Packaging, construction and vehicles will be 2/3 of all use

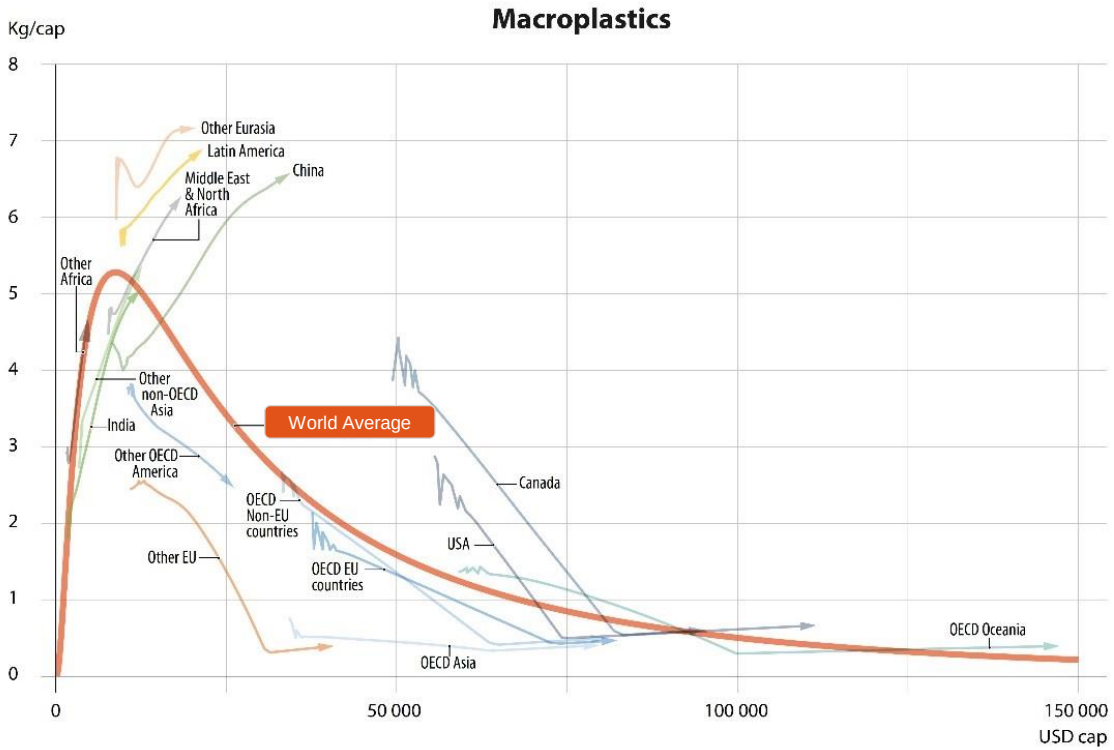
Plastic waste will also triple, half of it will still be landfilled

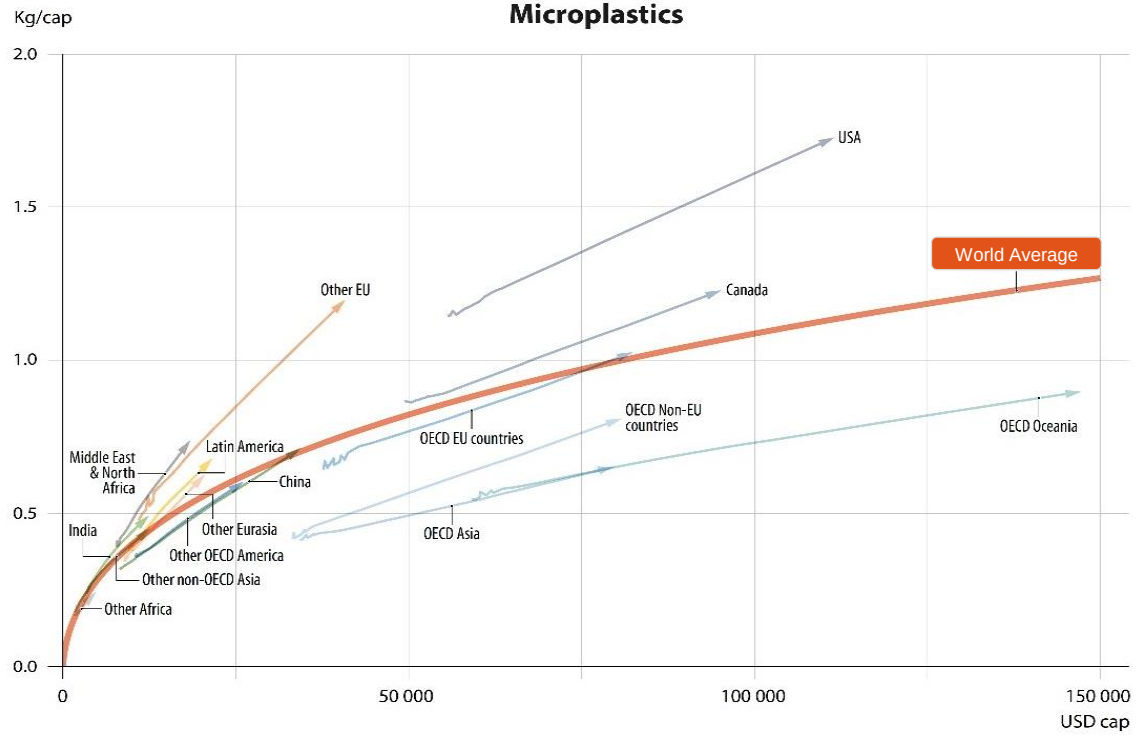


Macroplastic and microplastic leakage show different trajectories with rising incomes

Macroplastics leakage “Kuznets curve”:
from 19.4 Mt in 2019 to **38 Mt** in 2060

Microplastics leakage:
Doubling from 2019, to reach **6 Mt** in 2060





What policy packages can bend the plastics curve?

The vision behind two policy packages

Regional Action

Present situation

Current circumstances and policy landscape

How to achieve better environmental outcomes?

Gradually increasing stringency of measures

Global Ambition

Co-ordinated policy action

How do we get there?

Global Goal:

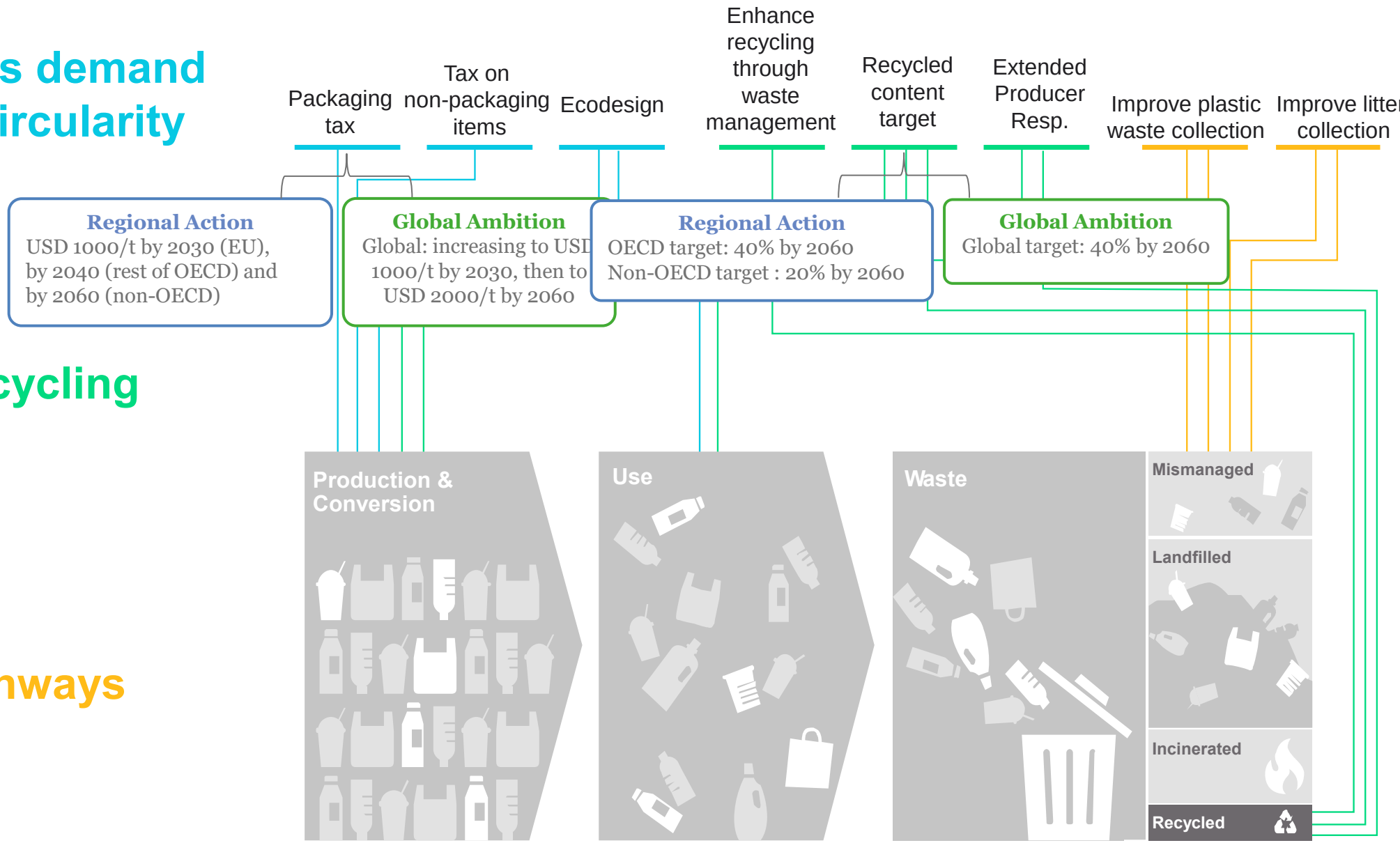
Eliminate leakage

Both policy packages target the entire plastics lifecycle

Restrain plastics demand and enhance circularity

Enhance recycling

Close leakage pathways



Restrain demand and enhance circularity

1. **Fiscal instruments** with additional stringency in packaging**:**

Regional Action:

- A tax on plastic packaging, increasing linearly from 0 in 2021 to reach USD 1 000/tonne by 2030 in the European Union (EU), by 2040 in the rest of the OECD and by 2060 in (non-EU) non-OECD countries. Constant thereafter.
- A tax on the use of all other types of plastics, introduced after 2030, starting at USD 25/tonne and reaching USD 750/tonne by 2040 in OECD countries and by 2060 in non-OECD countries. Constant thereafter.

Global Ambition:

- Global coverage and increased ambition: Packaging tax: USD 1 000/tonne by 2030, doubling by 2060; Non-packaging tax: USD 750/tonne by 2030, doubling by 2060

2. **Policy instruments to increase circularity and encourage more durable and repairable design of plastics**

Regional Action:

- an extension of product lifespans by 10% to reflect durability
- a decrease in intermediate (i.e. industrial and commercial) and final demand for durables of 5-10% by 2040 to reflect the longer lifespans of products
- an increase in the demand for repair services calibrated such that overall household and government expenditures are unaffected by the policy.

Global Ambition:

- Increased ambition: 15% lifespan increase, 10-20% decrease in demand for durables, increase in demand for repair services such that ex ante total expenditures are unchanged.

These policies are applied globally.

Enhance recycling

1. **Recycled content targets**
   - Modelled through a tax on primary plastics combined with a subsidy on secondary plastics, as a proxy for regulation to achieve the targeted share of secondary in total production of plastics.
   - *Regional Action*: OECD countries target 40% recycled content by 2060 and non-OECD countries 20%.
   - *Global Ambition*: global 40% target
2. **Region-specific recycling rate targets**;
   - *Regional Action*: 60% by 2030 and 70% by 2060 for EU and the OECD Pacific region; 60% recycling by 2060 for other OECD countries and China; 40% by 2060 for the other countries.
   - *Global Ambition*: 60% by 2030 and 80% by 2060 for EU and the OECD Pacific region; 80% recycling by 2060 for other OECD countries and the People's Republic of China; 60% by 2060 for the remaining countries.
3. **Extended producer responsibility**
   - *Regional Action*: Implemented by OECD and non-OECD EU countries for all packaging, electronics, motor vehicles and clothing; the remaining countries do not implement EPR.
   - *Global Ambition*: global coverage

Extended producer responsibility

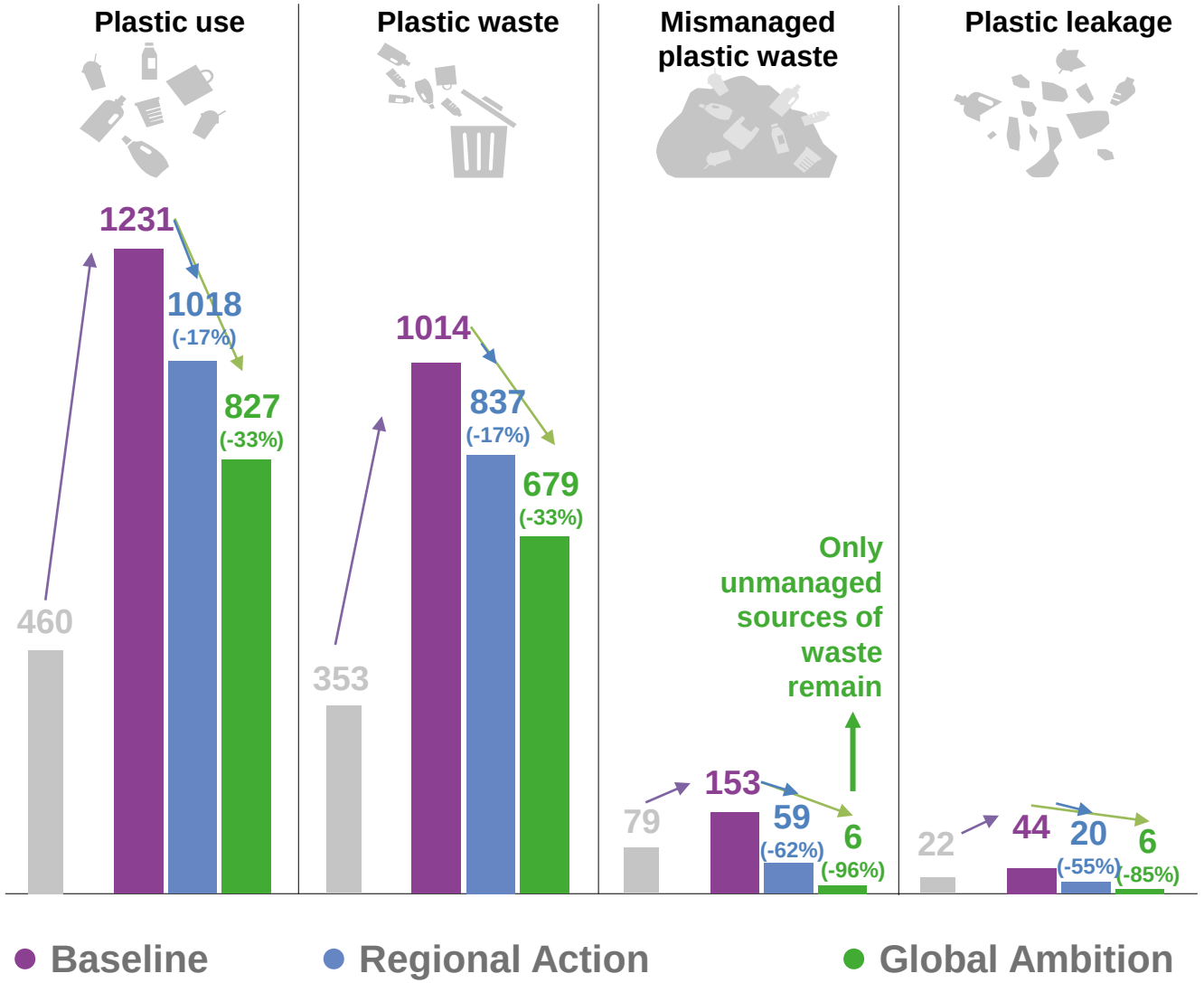
Increase in production costs	Increase in waste collected for recycling	Recycling rates increase	Investment costs
• Tax on plastics inputs for affected sectors	• Subsidy on waste sector (incl. recycling activities) so that the EPR instrument is budget neutral	• Recycling rates are increased to reflect that the policy targets recycling rather than all waste management.	• Investment in recycling facilities and waste collection for recycling adapted to account for the increased recycling rates.

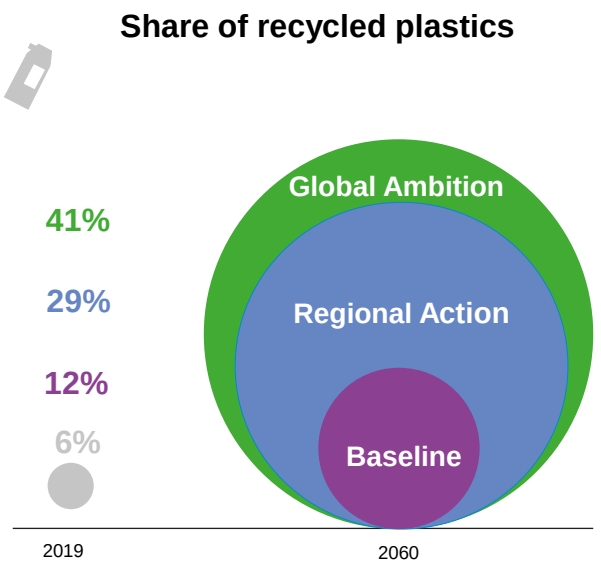
Close leakage pathways

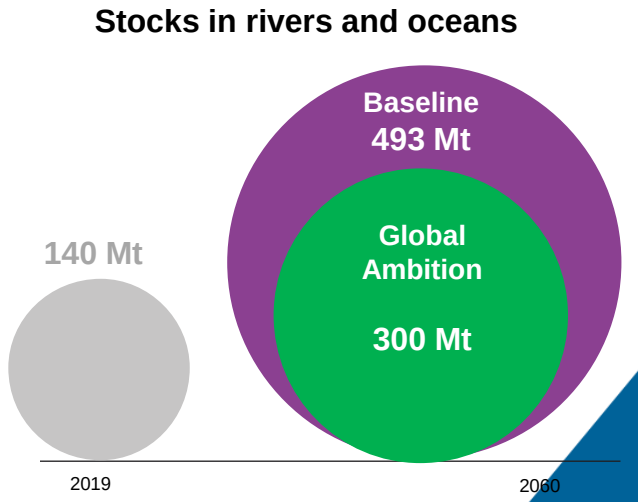
1. **Public investment in mixed waste collection and sanitary landfills**
   - *Regional Action*: OECD countries eliminate all mismanaged collected waste (e.g. dumped or burned in open pits) by 2060, and non-OECD countries halve their share of mismanaged waste by 2060.
   - *Global Ambition*: all countries eliminate the mismanagement of all collected waste by 2060
2. **Policies to improve litter collection**:
   - *Regional Action*: litter collection rates increase more rapidly with income and reach 90% for high income countries (versus 85% in the Baseline scenario)
   - *Global Ambition*: In addition, collection rates for low-income countries are increased from 65% to 75%.

Combining policies that target different lifecycle stages can drastically reduce plastics leakage

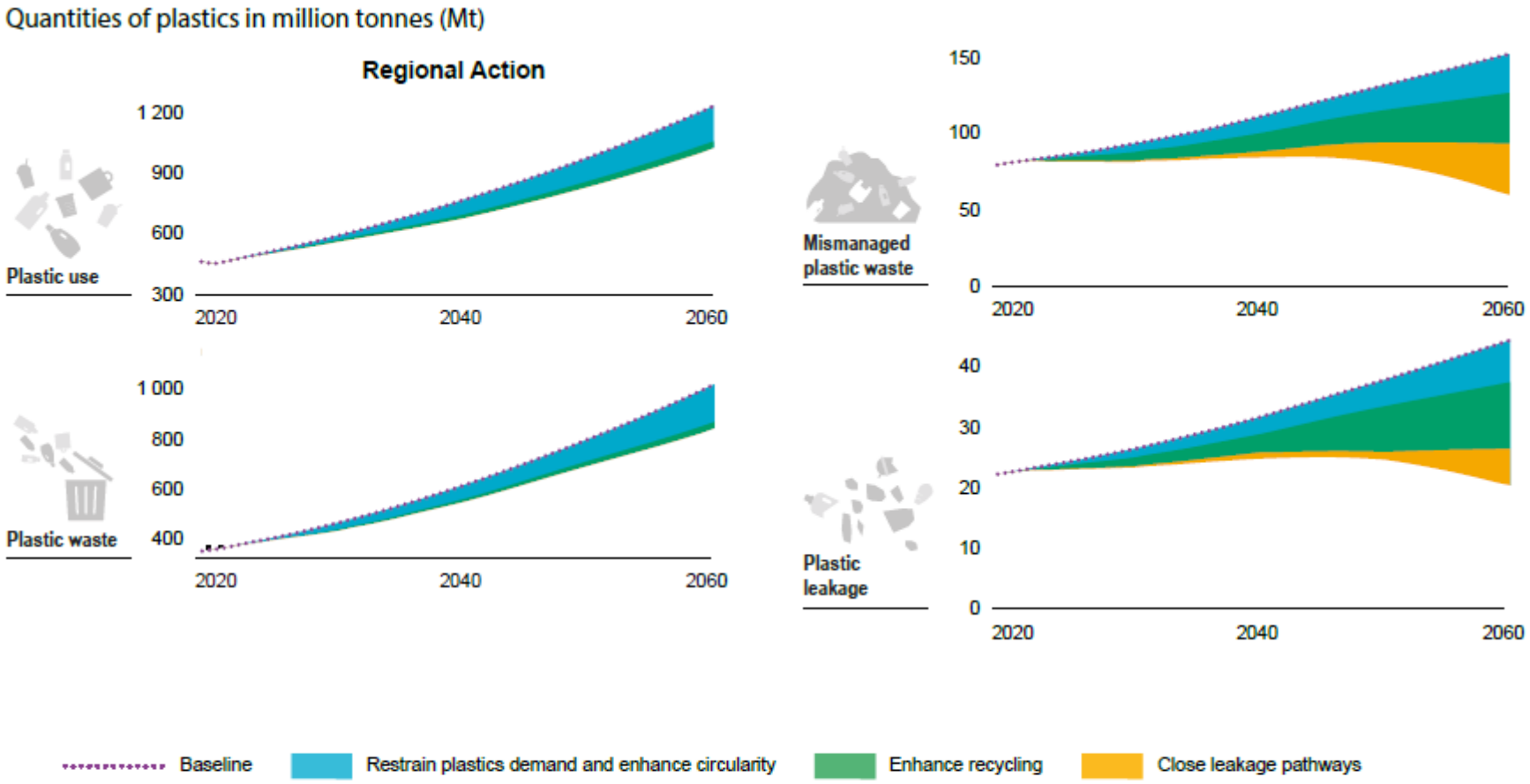
In 2060, million tonnes



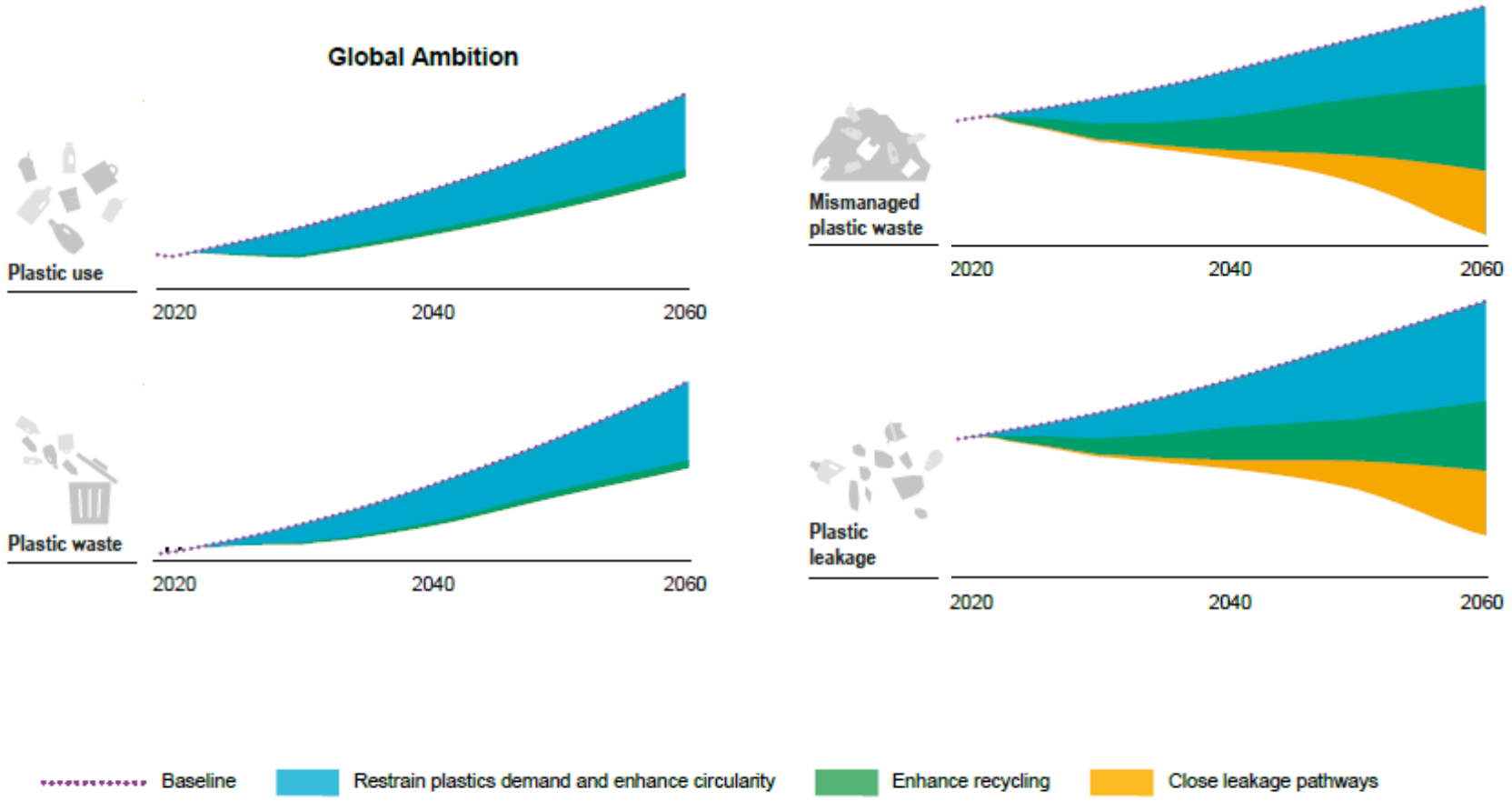




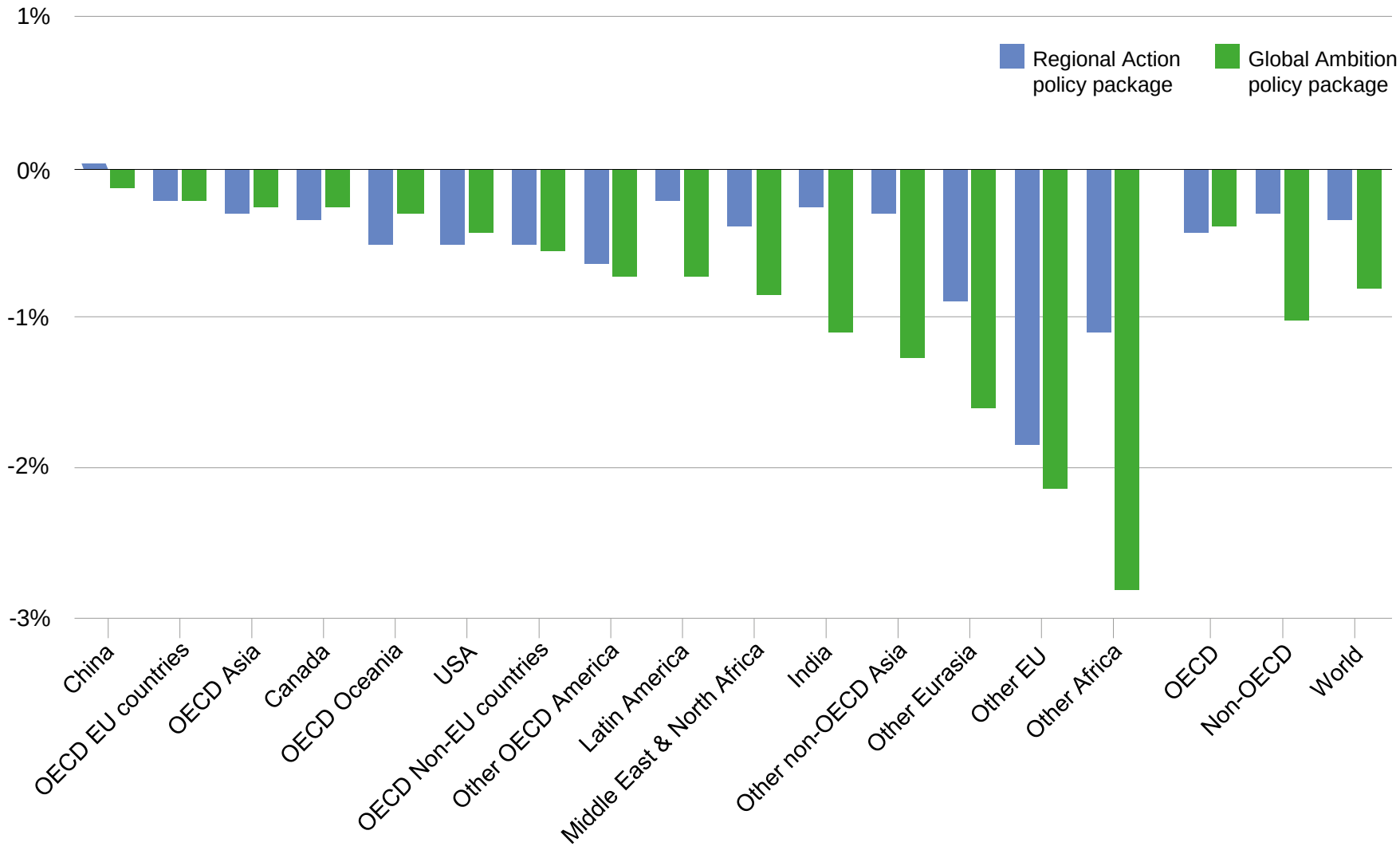
Regional Action: All pillars contribute to reducing plastic leakage to the environment



Global Action: All pillars contribute to reducing substantially plastic leakage to the environment



Annual costs are less than 1% of global GDP in 2060, but with significant regional differences



Some final takeaways

- Eliminating leakage requires global action on all aspects of the plastics life-cycle to restrain demand, enhance circularity and close leakage pathways.
- Plastic flows to the environment can be drastically reduced, at modest costs overall. However costs as a share of GDP will be higher for many developing countries.
- Even if leakage is eliminated, stocks of accumulated plastics in rivers and oceans will still double. Flanking efforts are needed to tackle clean-up as well.
- Trade scenarios highlight how policies on the transboundary movement of plastic waste can drastically divert trading patterns and thus have important implications both for regional recycling opportunities and plastic leakage into the environment.
- To achieve a more circular use of plastics, trade policies and environmental policies need to go hand-in-hand, so that any asymmetries do not result in reduced recycling rates or increased pollution.

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THANK YOU!

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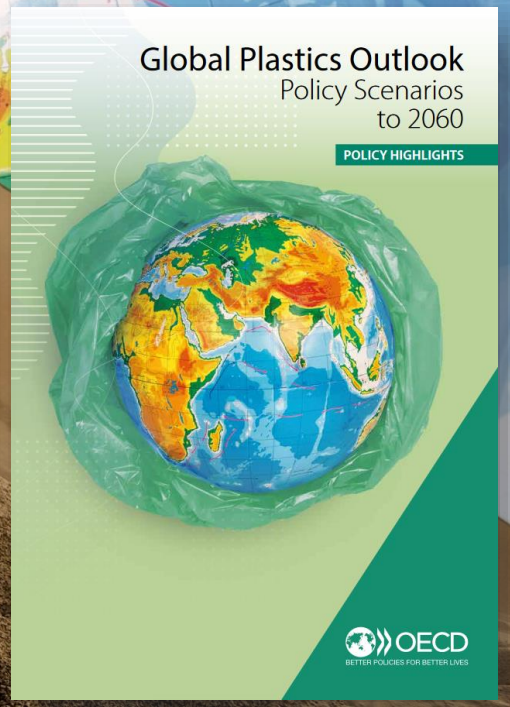
www.oecd.org/environment/plastics

http://oe.cd/recircle



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Modelling framework