

Breaking the Plastic Wave

A Comprehensive Assessment of Pathways Towards Stopping Ocean Plastic Pollution

We developed perhaps the most comprehensive plastic system modelling tool to create a global analysis that evaluates various strategies to reduce ocean plastic flows and quantifies the associated economic, environmental, and social implications of each pathway.

Business-as-Usual: an untenable trajectory

Without action, the annual flow of plastic into the ocean will nearly triple by 2040, to 29 million metric tons per year. Current government and industry commitments are likely to reduce this figure by only 7 per cent.

BY 2040

2x PLASTIC GENERATION
3x PLASTIC LEAKAGE INTO OCEAN
4x PLASTIC STOCK IN THE OCEAN

29 MILLION METRIC TONS OF PLASTIC LEAKAGE INTO THE OCEAN IN 2040

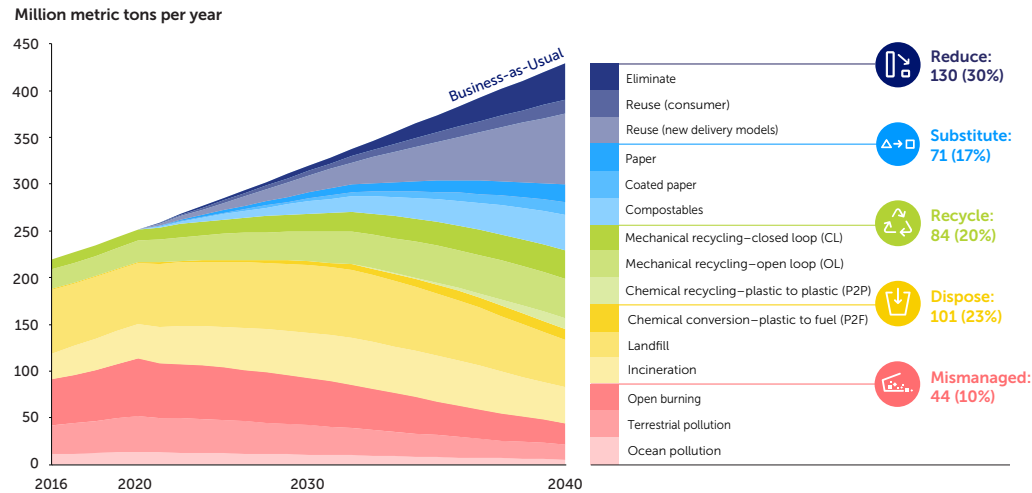
US\$100B

ANNUAL FINANCIAL RISK TO BUSINESSES IF THEY'RE REQUIRED TO COVER WASTE MANAGEMENT COSTS

Systemic change can reduce ocean plastic pollution by 80% by 2040

Industry and governments have the solutions today to reduce plastic pollution into ecosystems by about 80 per cent below projected Business-as-Usual levels by 2040 while also delivering on social, economic, and environmental objectives. Achieving this requires applying all system interventions concurrently, ambitiously, and starting immediately.

Fate of plastic under systemic change: a 'wedges' analysis



This 'wedges' figure shows the share of treatment options for the plastic that enters the system over time under the System Change Scenario. Any plastic that enters the system has a single fate, or a single 'wedge.' The numbers include macroplastic and microplastic.

VIABLE PATH TOWARDS

80% REDUCTION OF OCEAN PLASTIC POLLUTION

MULTIPLE CO-BENEFITS RELATIVE TO BUSINESS-AS-USUAL BY 2040:

US\$70B SAVING FOR GOVERNMENTS

700,000 MORE JOBS

25% REDUCTION IN PROJECTED GREENHOUSE GAS EMISSIONS

The innovation gap: near-zero leakage needs significant innovation

INNOVATION TO FOCUS ON 3 AREAS:



COLLECTION IN REMOTE/RURAL AREAS



SOLUTIONS FOR FLEXIBLE PLASTICS AND MULTIMATERIALS



MICROPLASTIC LEAKAGE FROM TYRES

AN IMPLEMENTATION DELAY OF FIVE YEARS WOULD RESULT IN AN ADDITIONAL

80

MILLION METRIC TONS OF PLASTIC GOING INTO THE OCEAN

The time to act is now

It is not the lack of technical solutions that is preventing us from addressing plastic pollution, but rather inadequate regulatory frameworks, business models, and funding mechanisms. The time is now: If we want to significantly reduce plastic leakage, we have the solutions at our fingertips.