



Plastic Drawdown

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A new approach from Common Seas for addressing plastic pollution.

Plastic Drawdown is the most comprehensive approach for governments to understand plastic waste flows and optimise policies to tackle ocean pollution.

It includes a wedges methodology to support decision makers to rapidly identify key plastic flows and make effective policy interventions to reduce or 'drawdown' the flow of ocean plastic pollution.

Plastic Drawdown has been delivered in partnership with Eunomia and the support of Oxford University.



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Why Plastic Drawdown?

Plastic pollution is a pressing global issue with many transboundary environmental and social implications, which are magnified by an expanding world population, rapid economic growth and a globalised culture of disposable consumption.

Plastic is now found in our planet's most wild and remote habitats. Evidence mounts of how it not only harms precious wildlife and damages ecosystems but permeates the food we eat and the air we breathe.

For over a decade, environmental organisations and governments alike have supported a range of interventions to address plastic waste and pollution, but much of this effort has been reactive and unquantified. We possess much of the fundamental knowledge required, success now needs rapid optimisation of multiple solutions to address the issue at a systemic level.

Plastic Drawdown enables this through the most detailed and comprehensive approach to assess plastic leakage. It includes a fully developed policy assessment tool that allows governments to rapidly identify key plastic waste flows and policies to stop the flow of marine pollution.

Plastic Drawdown has been implemented in the Indonesia, Greece and the United Kingdom, and is ready to be applied worldwide.

How it works

A four-phase approach resulting in identification and mapping of plastic waste flows and leakage, an understanding of public policy interventions and their effectiveness, and a practical wedges model to enable decision-makers to investigate multiple policy portfolios.

I: Models a county's plastic waste mass and composition, and how this will change by 2030

Plastic Drawdown combines country-level waste data and item-specific consumption data for 24 macro plastic items covering approximately 95% of coastal litter and 5 micro plastic items based on emissions data. It predicts how the volume of waste for each target item changes year on year under a Business as Usual (BAU) projection to 2030.

II: Mapping waste pathways and leakage

Plastic Drawdown models how macro- and micro-plastic material flows through waste pathways, quantifying the proportion that is captured by waste management infrastructure and what is emitted into a river or the ocean.

III: Analysing the impact of key policies

A global policy analysis uses the best available evidence to define impact factors for a portfolio of 18 policy interventions. Impact factors define how a policy acts on waste flows and quantifies the potential reductions to plastic production or leakage that are achievable when a policy is delivered. They can be adjusted by decision-makers to present a more or less optimistic policy impact, according to their market and/or capacity to implement.

IV: Enabling governments to convene key actors and chart a policy pathway towards dramatically reduced ocean plastics

The Plastic Drawdown model illustrates how the volume of macro- and micro- plastics entering into, or leaking from, the plastic waste pathway changes as each policy is implemented. The central output is a wedges model, which visualises how each policy 'draws down' on the plastic leakage predicted within business as usual projection.

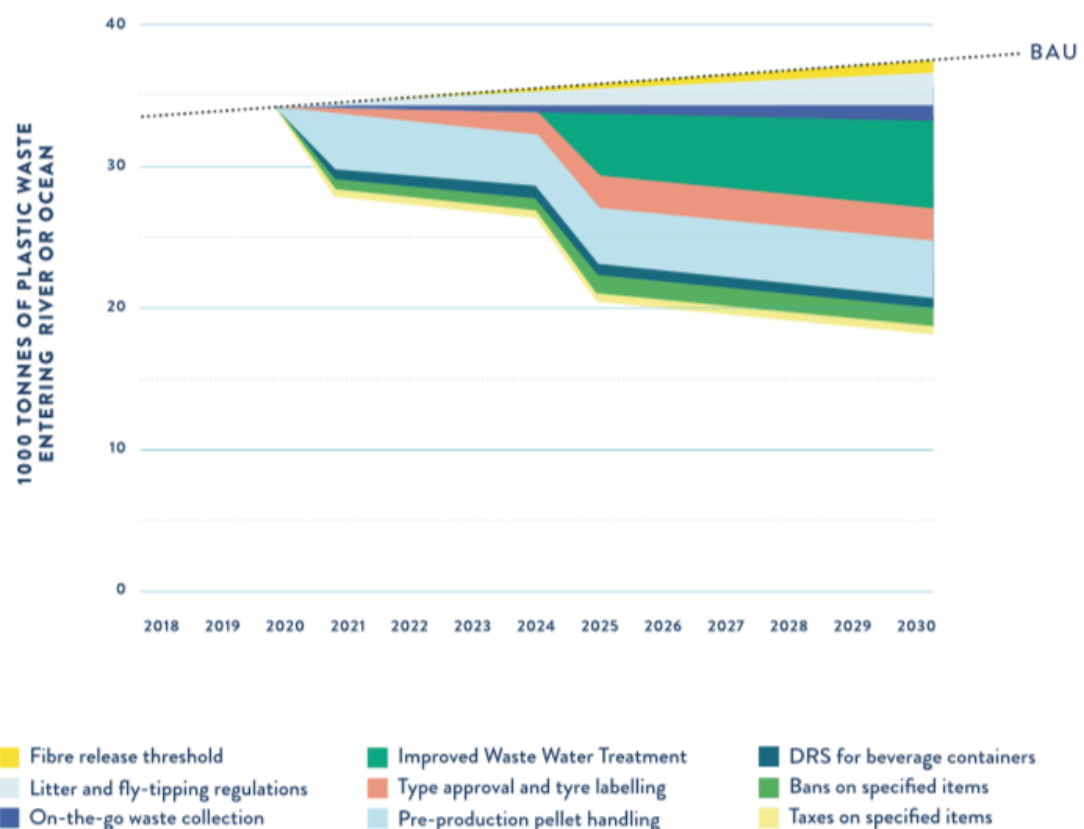
Through simple user controls, decision-makers can turn policies on or off, explore time frame and sequencing effects, and understand how different policy portfolios affect the volume of plastics entering rivers and ocean. An example illustration, with some policies of relevance to the UK's plastic waste and leakage is shown in Figure 1.

The model is part of a participatory process whereby stakeholders prioritise key policies and agree an action plan for policy, institutional, regulatory and stakeholder review and implementation.

Next steps?

Plastic Drawdown provides a common language to galvanise stakeholders, build consensus and identify locally appropriate and effective strategies. It is ready to be applied and adapted to the needs of different countries and is proposed as part of a globally consistent approach for addressing marine plastic pollution.

Common Seas welcome the chance to engage with governments and organisations who are committed to leading national or global efforts. If you are interested in being part of this journey, please contact Ben Jack, Director of Programme Delivery at: ben@commonseas.com.



About Common Seas

Common Seas is dedicated to preventing the flow of plastics into our Ocean. Our mission is to reduce the amount of plastic made and stop it polluting our people, our economies and our planet.

We provide the right people with the right tools to navigate the complexity of tackling waste at source and deliver new ways to manage and re-use plastic. Our research and work on the ground harness the collective expertise of people, governments and businesses to implement action in their own communities to halt the threats of Ocean plastic.