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BETTER POLICIES FOR BETTER LIVES

Policy Brief

Development co-operation and the elimination of plastic pollution

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Key messages

- Ambitious policy action is needed at the global level to end plastic pollution. The implementation of stringent policies along the plastics lifecycle in all countries could eliminate the leakage of plastics to the environment. While the economic costs of implementing such policies are relatively modest overall, they are unevenly distributed across countries and largest in Sub-Saharan Africa.
- Significant resource mobilisation and international co-operation will be key to supporting the major policy efforts required in developing countries, in particular to contain plastic waste generation and to establish effective waste management systems. However, developing countries would reap important benefits from mitigating plastic pollution, as they are currently particularly vulnerable to the associated risks, including those generated beyond their borders.
- Total official development assistance (ODA) to curb plastic pollution has been growing and reached USD 1.46 billion in 2022, more than doubling from 2019 levels. Its allocation varies across regions, with some mismatch between funding needs and ODA flows.
- ODA, while insufficient to cover the investment needs, can play an important catalytic role to mobilise other sources of finance. For example, the mobilisation of private finance, which is critical, requires favourable policy and market conditions. Development co-operation can include the technical support, capacity development and technology transfer that are essential to establish robust policy frameworks, ensure reliable revenue streams for the set-up and operation of waste collection systems, and target problematic plastic applications.
- Beyond resource mobilisation, it will be crucial to align financial flows with the objectives of ending plastic pollution, particularly away from activities that exacerbate it.

Tackling plastic pollution requires global action, but the costs of intervention are unevenly distributed across countries

Plastic materials offer numerous benefits to society. However, throughout their lifecycle, plastics may contribute heavily to pollution, harm biodiversity and potentially people's health, and have implications for climate mitigation efforts. All stages of the lifecycle are implicated, from feedstock extraction and polymer production (reliance on fossil fuels, GHG emissions associated with primary polymer production) to the use and disposal of products (mismanaged waste, pollution including in rivers and oceans, and biodiversity loss). In the absence of stronger policies, it is estimated that 119 million tonnes (Mt) of plastic waste will be mismanaged[1] per year by 2040 globally, resulting in severe consequences for the environment, human health, communities and livelihoods (OECD, 2024[2]).

Further international policy action is needed at the global level to end plastic pollution, as reflected in UNEA Resolution 5/14 (United Nations Environmental Assembly, 2022[1]). OECD policy scenario simulations (2024[2]) found that the global implementation of stringent policy packages, covering multiple stages of the plastics lifecycle, could nearly eliminate plastic waste mismanagement and leakage to the environment. These include circular economy policies to reduce plastics production and waste, to improve eco-design (including toxicity reduction and longer product lifespans), and to enhance waste collection, sorting, recycling and disposal. The economic costs of implementing such policies are modest overall (with a projected 0.5% decline in global GDP by 2040), especially if compared to the negative socio-economic and environmental impacts that would be incurred under business-as-usual (OECD, 2024[2]). However, the costs of implementing ambitious policy packages are uneven across countries, and largest in Sub-Saharan Africa (with a projected 1.5% GDP loss) (OECD, 2024[2]).

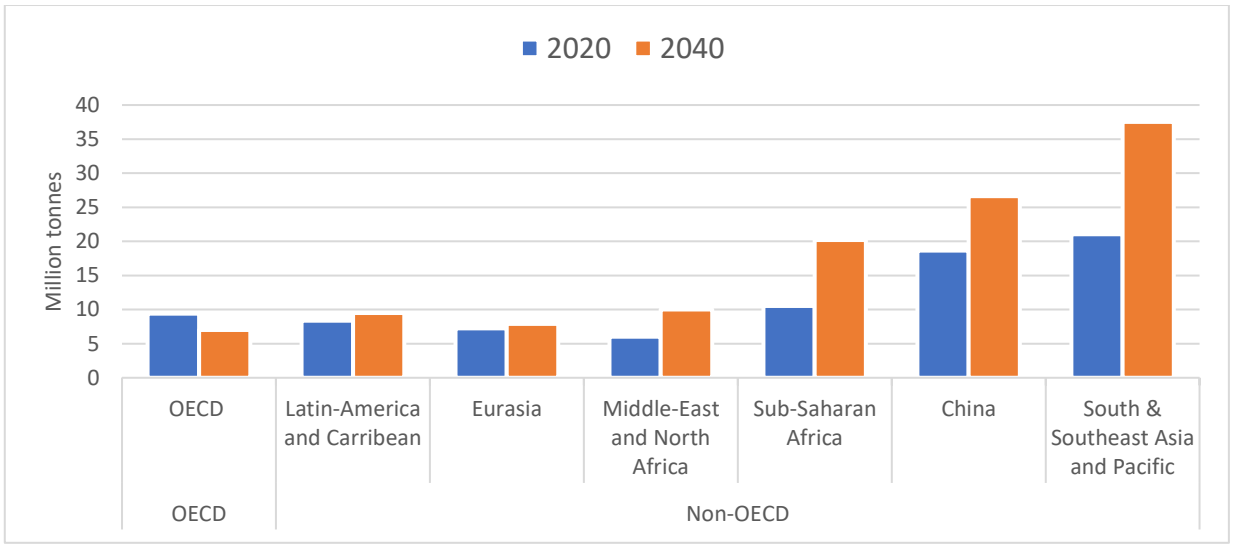
Larger policy efforts will be required in some world regions to end plastic pollution. Previous OECD (2024[2]) policy scenario modelling provides insights for a set of OECD[2] and non-OECD countries. While per capita plastics consumption and waste generation levels are stabilising in regions like Western Europe, increases are expected in rapidly growing non-OECD countries (OECD, 2024[2]). Although the share of plastic waste that is mismanaged has been declining from 60% in 1990 to 36% in 2023 in non-OECD countries, their contribution to mismanaged plastic waste in absolute terms has increased from 12 Mt to 78 Mt per year, mainly due to rapid increases in plastics use and weak solid waste management (SWM) in many countries (OECD, 2024[2]). In the absence of stringent mitigation policies, the speed of economic growth and the resulting rise in waste generation could significantly amplify plastic pollution. By 2040, the largest growth in mismanaged plastic waste would occur in South Asia, Southeast Asia and the non-OECD Pacific region (reaching 38 Mt in 2040 in total), and Sub-Saharan Africa (20 Mt in 2040) (Figure 1).

[1] Mismanaged waste is "waste that is not captured by any state-of-the-art waste collection or treatment facilities. It includes waste that is burned in open pits, dumped into seas or open waters, or disposed of in unsanitary landfills and dumpsites" (OECD, 2022. Mismanaged waste is associated with severe damage to health, human wellbeing and ecosystem services.

[2] OECD member countries include the following: Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Türkiye, United Kingdom, United States. The category "non-OECD" used in this policy brief, includes all other countries. While most "developing countries", as discussed in this policy brief, are non-OECD countries, the two categories are not equivalent.

Figure 1. Plastic pollution affects some regions much more than others

Plastic waste mismanagement by region in million tonnes (Mt) per year, *business-as-usual* projections



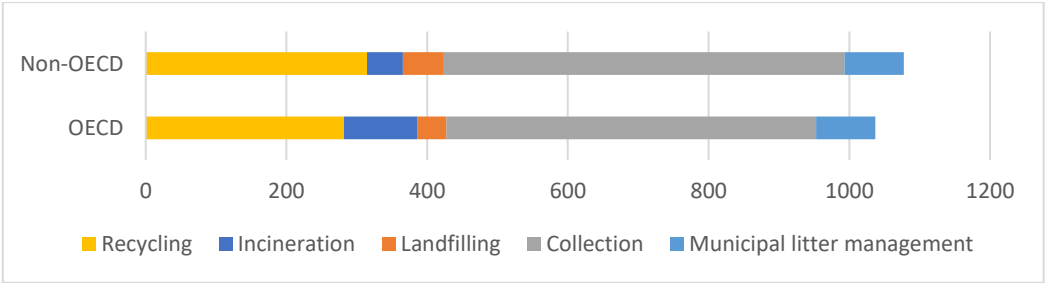
Note: In this chart, the OECD category includes both OECD and non-OECD EU countries.
Source: (OECD, 2024[2]).

Significant financial resources are needed to address plastic pollution in developing countries, but this would allow reaping important benefits

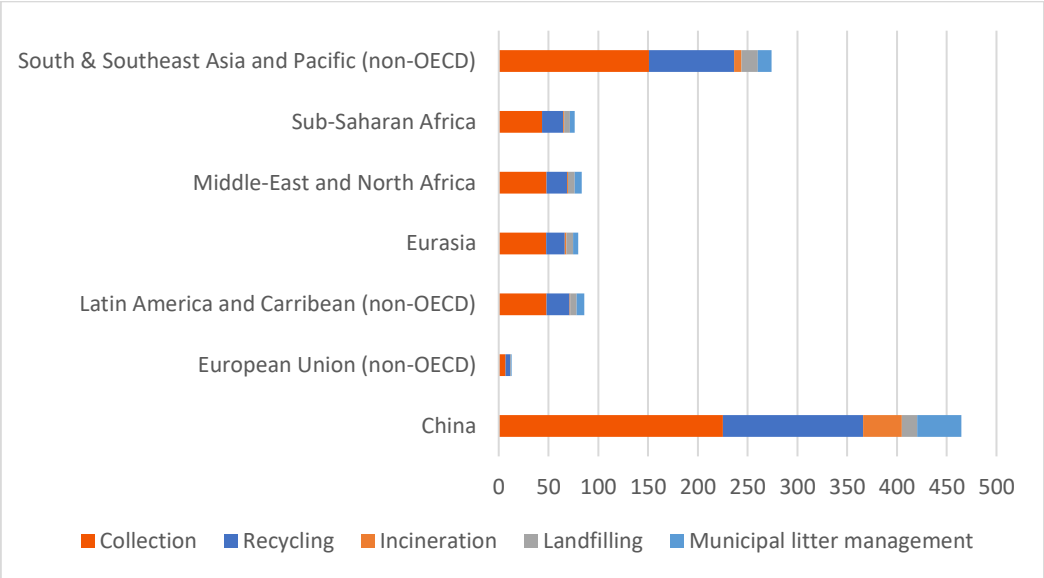
To end plastic pollution, significant resource mobilisation and international co-operation will be required. Globally, more than USD 2.1 trillion will be needed in the 2025-2040 period for enhancing SWM systems and ensuring adequate collection, recycling and disposal of plastics (OECD, 2024[2]). Estimated investment needs for waste management are evenly spread between OECD countries and the rest of the world (Figure 2, Panel A), with the largest costs expected in China as well as countries in the South and Southeast Asia, and Pacific regions (Figure 2, Panel B).

Figure 2. Significant investments are needed to boost plastic waste collection and treatment

Panel A. Cumulative waste management costs for 2020-2040 by category, USD million



Panel B. Regional breakdown of cumulative waste management costs for 2020-2040 in non-OECD countries, USD million



Note: OECD countries are not included in Panel B.
Source: Calculation from (OECD, 2024[2]).

Developing countries face substantial investment needs to cover solid waste collection as well as sorting, recycling and disposal. Their existing SWM infrastructure is often both insufficient and inadequate to deal with the growing amount of waste.[3] It is estimated that about 1.5 billion people in the Global South lack access to effective waste collection (Cottom, Cook and Velis, 2024[3]). This means that investment in solid waste collection, as well as sorting, recycling and disposal, is essential. Generally, the waste management sector offers investment opportunities in the long term; however, this requires governments to establish clear policy frameworks to attract private investments. A lack of financial resources and technical capacities, especially of local municipalities, can impede the set-up of effective SWM systems. As the informal sector currently plays a key role in waste management in many developing countries, resources would also need to be allocated to ensure a just transition for informal sector workers.

In addition, significant investments will be required to scale up interventions that help curb plastics demand and waste generation, such as improvements in eco-design, bans on problematic or avoidable plastic products, and the roll-out of reuse systems. These interventions are essential to mitigate environmental impacts and to keep the costs of plastic waste management low, especially in rapidly growing developing countries (OECD, 2024[2]).

Curbing plastic pollution would generate important benefits for developing countries, by alleviating its adverse consequences on socioeconomic outcomes. Plastic pollution[4] disproportionately affects developing countries by magnifying pre-existing vulnerabilities (Agnelli and Tortora, 2022[4]). Mismanaged plastic waste may translate into higher exposure to any known associated or potential health risks, for instance, open burning of plastic waste adds to air pollution. Mismanaged plastic waste also results in economic impacts, by damaging infrastructure such as draining systems (Agnelli and Tortora, 2022[4]).

[3] In addition, the import of hard-to-recycle waste can add to environmental impacts in some developing countries (Agnelli and Tortora, 2022[4]).

[4] Plastic pollution is defined by the OECD as all emissions and risks resulting from the lifecycle of plastics.

Developing countries are also disproportionately impacted by plastic pollution in the marine environment, which poses substantial risks to ocean-dependent communities and economic sectors. For instance, developing countries that rely on ocean-based ecosystem services can experience negative economic impacts to tourism and the fishing industry (Agnelli and Tortora, 2022[4]). Lastly, developing countries may also be particularly vulnerable to plastic pollution generated beyond their borders: reducing cross-border impacts will benefit to the planet as a whole and to all countries including those development cooperation partners.

ODA to curb plastic pollution is growing, but additional funding is needed

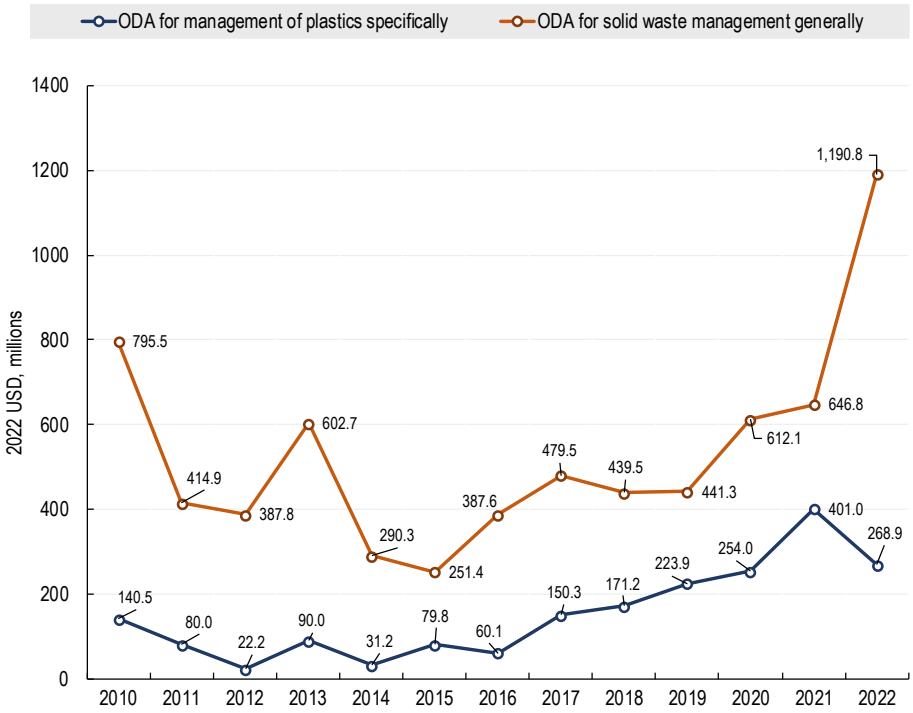
Development co-operation partners have ramped up support to reduce plastic pollution, in recent years. In the 2019-2022 period, total official development assistance (ODA) to curb plastic pollution[5] (or "total plastics-related ODA") more than doubled, from USD 665 million to USD 1.5 billion (Figure 3). This increase was largely driven by activities to improve SWM infrastructure and practices (henceforth "ODA for SWM generally"), which surged from USD 441 million in 2019 to USD 1.2 billion in 2022. ODA explicitly targeted activities related to the management, reduction, recycling and cleaning up of plastic waste (henceforth "ODA for the management of plastics specifically" or "plastics-specific ODA") was smaller, at around USD 270 million in 2022.

Bilateral providers account for the bulk of plastics-related ODA commitments. Over 90% of total ODA to curb plastic pollution between 2019 and 2022 was committed by bilateral providers[6]. Involvement from multilateral providers remains limited, but their efforts are crucial to help align and streamline efforts from bilateral actors. For example, the World Bank Group is implementing the Southeast Asia Regional Program on Combating Marine Plastics (SEA-MaP), which aims to strengthen and align regional policies and institutions for plastics circularity in Southeast Asia by supporting regional collaboration for policy development, harmonisation and implementation.

[5] Total ODA to curb plastic pollution (or "total plastics-related ODA") is the sum of ODA to improve solid waste management infrastructure and practices (i.e., "ODA for waste management generally" or "other waste-related ODA") and ODA explicitly targeted at activities related to the management, reduction, recycling and cleaning up of plastic waste (i.e., "ODA for the management of plastics specifically" or "plastics-specific ODA").

[6] Full dataset available at: OECD Data Platform on Ocean Finance

Figure 3. An increase in ODA for SWM drove the surge in ODA to curb plastic pollution



Note: Figures are in 2022 constant prices and represent ODA from all official providers (i.e., DAC, non-DAC, and multilateral)
Source: https://oecdch.art/3d4888b8db. Full dataset available at: OECD Data Platform on Ocean Finance.

After a decline in most of the 2010s in the share of debt instruments within total ODA to curb plastic pollution, there has been a sharp uptick in the use of these financing mechanisms since 2018. Loans, commonly used by development co-operation providers for large infrastructure investments, like waste management, accounted for just 15% of total ODA to curb plastic pollution in 2018 (USD 92 million). In 2022, this share had risen to 52% of total plastics-related ODA (USD 756 million). This can be explained by an increase in the volume of ODA for SWM generally, of which just over half were loans in 2019-2022. Nevertheless, grants, which play a crucial role in catalysing public and private sector investment towards institutions and policies that combat plastic pollution, remain ODA providers' favoured instrument in supporting plastics management. Between 2019 and 2022, 78% of plastics-specific ODA were in the form of grants[7].

The allocation of ODA to curb plastic pollution varies across regions. In 2021-2022, Asia received by far the largest share of ODA, at USD 497 million per year on average, followed by the Americas (USD 263 million per year) and Africa (USD 195 million per year). There is a mismatch between flows of ODA to curb plastic pollution and regions where finance and support are most needed. For instance, Sub-Saharan Africa is expected to face substantial costs to eliminate leakage to the environment (OECD, 2024[2]). However, the region only received 15% of total plastics-related ODA on average in 2021-2022.[8] Only one African country featured in the top ten individual recipients of ODA to curb plastic pollution in

[7] Ibid

[8] Regional disparities are also visible in trends in private capital, with the African continent receiving only 0.3% of total private investments in 2023, according to recent tracking efforts (The Circulate Initiative, 2024.

2021-2022.[9] Relevant criteria for improved allocation of development finance include projected rapid increases in plastics consumption and waste generation, high contributions to leakage, and a high financial burden associated with enhancing policies and waste management systems.

Overall, total plastics-related ODA remains a small share of gross ODA commitments (0.5% in 2022), given other competing needs, and it is likely to remain small compared to the financing needs to virtually end plastic pollution.[10] Additional sources of funding should be considered in order to achieve sustainable levels of funding, including revenue from the households and firms benefiting from public waste management services, as well as private sector investments. Development co-operation will also be instrumental to accelerate the required infrastructural investments and policy changes, as further discussed in the next section.

Development co-operation is pivotal to scale up action to end plastic pollution

ODA can play an important catalytic role to mobilise other sources of public and private finance. While many governments in developing countries have demonstrated high ambition to tackle pollution, financing challenges can constrain action and implementation. While ODA alone cannot bridge the financing gap, it can be used as a stable source of external finance to spur blended finance approaches, mobilising private finance and catalysing additional funding targeted at plastic pollution and waste management. Development co-operation plays an important role in providing developing countries with access to other financing instruments such as green and blue bonds, which enable the mobilisation of additional resources from private financial markets. Development agencies can promote waste management and recycling as an investment opportunity by addressing unfavourable risk-return investment profiles through financial instruments and mechanisms, including guarantees and insurance. Development agencies can also promote results-based financing to address weaknesses in SWM at the municipal level, where they need to help overcome structural barriers such as a lack of adequate data.

Through the promotion of targeted policy instruments, development co-operation providers can both help establish sustainable revenue streams for municipal SWM and attract investments along the value chain. Components of effective policy frameworks may include Extended Producer Responsibility (EPR) schemes,[11] taxes and restrictions on problematic plastics, eco-design criteria (such as recycled content and recyclability requirements), household waste charges, as well as interventions to set up, finance and enhance waste collection and treatment. In cases of limited technical and planning capacity for municipal SWM, insufficient national policies to promote sustainable plastics use or a low capacity for regulation enforcement, development co-operation can offer policy design and implementation support.

Development agencies can play an important role in providing technical assistance and capacity development to central, regional and local governments, in multiple ways. First, through the promotion of stakeholder dialogues to foster exchange, co-ordination, and implement national action plans. Multi-stakeholder engagement is important to design solutions that consider relevant socio-economic dynamics influencing the plastics value chain, for example engaging with the informal waste sector. Indigenous communities should also be involved in plastic waste management processes where their

[9] Full dataset available at: OECD Data Platform on Ocean Finance

[10] Recent analysis by Lerpiniere et al. , which analysed OECD official development finance data for the 2003-2021 period, also concluded that official development finance focused on solid waste management remains very low (less than 1% of total official development finance), despite an 8-fold increase over the period considered.

[11] EPR schemes are “an environmental policy approach in which a producer’s responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product’s life cycle” (OECD, 2016.

specific knowledge and practices can inform more effective and respectful waste reduction strategies. Second, advocating for gender sensitive approaches to projects along the value chain can help to account for women's needs, accelerate their empowerment in the waste sector and promote participation in circular solutions. Furthermore, development co-operation also has a crucial role to help developing countries build the capacity and regulatory frameworks to design and manage such financial instruments. Finally, development co-operation providers can strengthen local capacity for plastics-related innovation (e.g., through grants to local research centres) and technology transfer, to alleviate developing countries' difficulties in benefiting from technological solutions.

Beyond resource mobilisation, it is imperative to align development finance with sustainability and circular economy principles. This includes a redirection of financial flows, away from the linear production of primary plastics (UN Environment Programme Finance Initiative, 2023[5]), towards financing systems that eliminate problematic plastics and hazardous chemicals, promote higher resource efficiency and lower waste generation through eco-design and reuse systems, and promote environmentally-sound and effective SWM and recycling. Development co-operation providers should look to re-orient financial investments destined for developing countries towards these activities. For example, the United Nations Environment Programme Finance Initiative (UNEP FI) has developed a guidance to help financial institutions apply the Sustainable Blue Economy Finance Principles to the waste prevention and management sector, outlining which investments to avoid, challenge or actively seek out, based on their alignment with best practices (Agnelli and Tortora, 2022[4]). Furthermore, development co-operation providers can support the creation of enabling environments for the private sector by providing clear and supportive policy and regulatory frameworks, strengthening public-private partnerships, aligning fiscal incentives with the behaviours that lead to lower environmental and health risks and reforming government support that is misaligned with plastic pollution mitigation.

What can policymakers do?

- **To end plastic pollution, a major redirection and mobilisation of investments will be required globally to support the implementation of policies along the plastics lifecycle** (OECD, 2024[2]). This ought to be a critical aspect of development co-operation providers' efforts to facilitate a sustainable ocean economy transition in developing countries. Looking ahead, several priorities emerge, as detailed below.
- **Gain a more granular understanding of financing needs across the plastics value chain and what types of financing can be mobilised to support interventions.** A better understanding of capital flows and trends, from public and private sources, could help assess financing gaps, including in specific countries and optimise resource allocation.
- **Establish robust policy frameworks and sustainable flows of domestic public finance to ramp up waste management systems.** Developing countries can benefit from partnerships with development co-operation providers to scale up the mobilisation of domestic resources at large (e.g., through strengthened public finance management) (OECD, 2022[6]).
- **Leverage private sector investment to scale public finance efforts.** Policies aligned with the goal of ending plastic pollution can incentivize the re-alignment of private capital, for instance to support recycling, waste management infrastructure development, product eco-design, materials innovation, and reuse. Blended finance mechanisms and partnerships between public and private sectors can reduce risks for private investors and increase funding flow.
- **Align all finance sources with the objective of ending plastic pollution.** Development co-operation providers and governments alike can emphasise investments that facilitate circular economy models, aiming for reductions in plastic use, improved resource efficiency, and lower environmental and health risks.

Explore further

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