

Funding Plastic Waste Management in Developing Nations: The Case for a 10% EPR Allocation

A Crisis of Plastic Pollution, and a \$15 Trillion Funding Gap

Plastic pollution is one of the most pressing global environmental challenges, and its impacts are felt most acutely in emerging countries. Every year, an estimated 310 million tonnes of plastic waste are either leaked into the environment, openly burned, or dumped in landfills without proper management. These unsound practices drive the pollution of rivers and oceans, harm public health, and contribute to air pollution emissions. At the same time, 20 million informal waste pickers - often among society's most vulnerable - toil in hazardous conditions to collect roughly 60% of the world's plastic waste [1,2]. They are the backbone of recycling in many emerging economies, yet they work with little support, facing health risks and social stigma.

Addressing this crisis will require transformational investment. By one estimate, over \$15 trillion in private capital (and another \$1.5 trillion in public funds) will be needed between now and 2040 to reduce annual mismanaged plastic waste by 90% relative to 2019 levels [3, 4]. Most of this investment gap lies in emerging countries, which host the majority of the world's largest plastic pollution hotspots. In short, there is an urgent need to massively expand waste management and recycling infrastructure in the Global South. The question facing policymakers is: how do we mobilise funding at the scale and speed required?

The UN Plastics Treaty and the Financing Challenge

The international community is negotiating a new UN Plastics Treaty to end plastic pollution, with the sixth (and hopefully final) Intergovernmental Negotiating Committee (INC-5.2) session scheduled for this August. A central piece of the treaty is its financial provisions (Article 11), which is meant to arrange how developed countries will provide financial resources, capacity-building, and technology transfer to developing countries [5]. In the latest draft text, Article 11 is heavily bracketed (i.e. full of unresolved options), indicating sharp differences among nations on how to design this Financial Mechanism. Proposed options range from creating a new dedicated multilateral fund to leveraging existing institutions like the Global Environment Facility (GEF).

The stakes are high: without adequate financing, many low-income countries simply cannot develop the waste infrastructure needed to stem plastic leakage. Yet reaching consensus on a funding mechanism has proven difficult, and there is a real risk that finalising the details could be pushed off to future Conferences of the Parties after the treaty is signed. Such delays would be costly. Developing countries can't afford to wait; every year of inaction means millions more

tonnes of plastic flowing into their communities and ecosystems. The treaty's success, therefore, hinges on finding creative ways to bridge the funding gap now, even as the formal mechanisms are still being negotiated.

Leveraging Extended Producer Responsibility for Global Impact

One immediately available solution is to tap into the resources generated by Extended Producer Responsibility (EPR) schemes in developed countries. EPR programs make producers (e.g. brands and manufacturers) financially responsible for the post-consumer waste their products generate, often through fees or tradable credits that fund recycling and waste management. Dozens of countries have EPR systems, from long-standing systems in Germany and Japan to newer laws in South Africa and the Philippines, usually focused on packaging and single-use plastics [6].

The United Kingdom's Packaging Recovery Note (PRN) system offers a compelling example of the scale of funding available. In the UK, producers must purchase PRNs (tradeable certificates) for every tonne of plastic packaging they put on the market to meet recycling targets. In 2024 alone, the value of plastic PRNs bought by brands was around £338 million (derived from publicly available data from the UK's National Packaging Waste Database). [7]. This is essentially private-sector money already being spent on compliance with recycling obligations. **We propose channelling 10% of the value of these EPR credits into a dedicated fund for certified plastic waste management projects in developing countries. In the UK's case, such an allocation would equate to roughly £33 - 34 million per year directed to emerging economies' waste infrastructure.**

Importantly, this mechanism could be replicated across multiple wealthy nations. France, Belgium, the Netherlands and others are piloting similar packaging EPR certificate systems. If a "club" of developed countries each devoted 10% of their EPR revenues to the Global South, the multiplier effect would be enormous. This approach embodies the "polluter pays" principle on an international scale: it ensures that companies and consumers in rich countries, who enjoy the benefits of plastic products, directly contribute to solving the pollution they ultimately outsource to less developed regions.

Crucially, this idea does not require waiting for new tax legislation or the creation of a formal UN fund (which could take years). Governments can act in partnership with industry to earmark a share of existing EPR fees or credits for overseas projects. By doing so, developed nations and global brands can demonstrate their commitment to treaty goals now, jump-starting progress instead of stalling until a complex multilateral fund is operational. It's a proactive step that complements the treaty process: think of it as an early "down payment" on the treaty's promise of financial assistance.

Ensuring Integrity and Impact - Lessons from Carbon Markets

Any mechanism directing funds to developing countries must ensure the money is used effectively and transparently. Fortunately, we can draw on proven models from international climate finance. The Clean Development Mechanism (CDM) under the Kyoto Protocol showed

how developed countries could invest in emissions-reducing projects in developing nations and count the resulting credits toward their own targets. Similarly, under a plastics-focused scheme, countries contributing a slice of EPR funds abroad could potentially count those gains (e.g. tonnes of waste collected and managed and/or recycled) toward their national action plans under the new treaty, adopting a results-based approach akin to the CDM's legacy.

To guarantee that funded projects truly deliver environmental benefits, we can use independent certification standards. A leading example is Verra's Plastic Waste Reduction Standard, which rigorously certifies projects that collect or recycle plastic that would otherwise pollute the environment. By channelling EPR-derived funds into projects certified by reputable standards like Verra, governments and companies can be confident that each dollar translates into real, measurable waste reduction on the ground. Indeed, even the World Bank has endorsed this approach - its recent \$100 million Plastic Waste Reduction Bond is an innovative outcome-based bond that uses Verra-issued plastic credits to quantify and reward the removal and recycling of plastic waste in countries like Ghana and Indonesia [8]. This kind of third-party verification and outcome tracking brings credibility and scalability to the funding mechanism, reassuring all stakeholders that the investments are making a difference.

Complementing Treaty Mechanisms and Private Initiatives

It's worth emphasising that an EPR-funded global mechanism would not exist in isolation - it would complement other financial solutions under discussion and in practice. For example, the treaty negotiations can consider a "plastic polymer levy" - essentially a small fee on the production of new (virgin) plastic resin [6]. This fee would be collected upstream from polymer producers, while EPR fees are collected downstream from product manufacturers and retailers, making the two tools naturally synergistic [6]. Treaty experts note that a polymer fee could funnel revenue predominantly to developing countries to support waste management infrastructure, whereas EPR revenues typically cover domestic waste management costs in the country where they're raised [6]. Dedicating a portion of EPR funds internationally, as we propose, cleverly bridges that gap - it extends the reach of EPR beyond national borders, aligning it with the global solidarity spirit of the treaty. In effect, it means developed-world producers and consumers contribute both at home *and* abroad: they finance local recycling and also help build systems in the places suffering the worst pollution.

Additionally, our proposed mechanism would reinforce and scale up voluntary private-sector investments already underway. In recent years, alliances of companies and investors have begun pouring funds into waste and recycling solutions in emerging economies - from corporate pledges to eliminate plastic leakage, to impact investors backing recycling start-ups, to coalitions like the Alliance to End Plastic Waste. However, these voluntary efforts, while important, remain far below what's needed. By contrast, leveraging a fraction of mandatory EPR payments provides a sustained, significant funding stream, driven by regulation but implemented in partnership with industry. It can co-exist with other innovative financing approaches, such as the World Bank's outcome bond or venture funds for circular economy infrastructure, creating an overall financing ecosystem where public, private and blended capital all reinforce each other. As the UN Development Programme has argued, harnessing private

financing is vital alongside public financing to close the plastics funding gap [6]. Our 10% EPR allocation is precisely the kind of tangible, shareable mechanism that can channel private-sector funds in line with public policy goals.

A Call to Action at INC-5: No Time to Waste

The upcoming INC-5.2 negotiations offer a pivotal chance to move this idea from proposal to reality. We urge treaty negotiators, policymakers, and corporate leaders convening at the talks: do not let debates over financing hold back progress on the treaty. While delegates hash out the details of Article 11's official funding mechanism - a process that could stretch on even after the treaty's text is agreed - they should also embrace parallel solutions that can start delivering impact immediately. Allocating 10% of the EPR market value to certified projects in developing countries is a viable and scalable option that can be implemented right now. It doesn't require waiting for new international funds to be set up or for legislatures to appropriate fresh aid budgets. Instead, it builds on existing producer responsibility systems and channels their revenues toward the communities and environments that need it most.

The call to action is clear: developed countries and industry players should collaborate on piloting this 10% allocation mechanism as soon as possible and incorporate its principles into the treaty's framework. Early adopters can signal a strong commitment to the treaty's vision, inspire confidence among developing country partners, and generate real-world case studies of success. If a coalition of forward-thinking nations announces such EPR-backed funding commitments at INC-5, it would send a powerful message that the world is ready to invest in solving the plastic crisis without delay.

Time is of the essence. Every year of inaction means millions more tonnes of plastic in our oceans and communities, and another year that millions of waste workers remain in danger and poverty. By exploring innovative financing like the 10% EPR allocation - alongside measures like polymer fees and enhanced producer responsibilities - we can kick-start the flow of funds needed to build waste management infrastructure where it's most urgently required. Let us seize this opportunity to align words with deeds. As negotiators finalise the global plastics treaty, let's ensure that bold interim actions on financing are part of the legacy, proving that we will not allow funding delays to stall our fight against plastic pollution. The plastics treaty can set the course for a future free of plastic pollution, but the journey begins now with concrete solutions and shared responsibility.

Sources:

1. World Economic Forum. Uplifting people is key to solving the plastic pollution crisis [Internet]. Geneva: World Economic Forum; 2025 Jan [cited 2025 Jul 11]. Available from: <https://www.weforum.org/stories/2025/01/uplifting-people-key-to-solving-plastic-pollution-crisis/>

2. World Bank. Financing Plastic Management in Emerging Markets: Market Assessment and Design Considerations for Results-Based Financing [Internet]. 2024 Apr [cited 2025 Jul 11]. Available from:
<https://documents1.worldbank.org/curated/en/099030724102533579/pdf/P1772251e7542e04319cf71929a5508ac9e.pdf>
3. The Circulate Initiative. Plastics Circularity Investment Tracker [Internet]. 2024 [cited 2025 Jul 11]. Available from:
<https://www.thecirculateinitiative.org/plastics-circularity-investment-tracker/>
4. World Economic Forum. Financing Coordination Group: Building a new financial ecosystem for plastic pollution [Internet]. Geneva: World Economic Forum; [cited 2025 Jul 11]. Available from: <https://initiatives.weforum.org/financing-coordination-group/home>
5. United Nations Environment Programme. Revised draft text of the international legally binding instrument on plastic pollution, including in the marine environment (“Chair’s Text”) [Internet]. 2024 Apr [cited 2025 Jul 11]. Available from:
https://wedocs.unep.org/bitstream/handle/20.500.11822/46710/Chairs_Text.pdf
6. World Economic Forum. Extended producer responsibility and the global plastics treaty: what experts say [Internet]. Geneva: World Economic Forum; 2024 Nov [cited 2025 Jul 11]. Available from:
<https://www.weforum.org/stories/2024/11/extended-producer-responsibility-global-plastics-treaty-experts/>
7. Environment Agency. National Packaging Waste Database (NPWD): Public Summary Data [Internet]. Bristol: Environment Agency; [cited 2025 Jul 14]. Available from:
<https://npwd.environment-agency.gov.uk/Public/PublicSummaryData.aspx>
8. World Bank. World Bank’s new outcome bond helps communities remove and recycle plastic waste [Internet]. 2024 Jan 24 [cited 2025 Jul 11]. Available from:
<https://www.worldbank.org/en/news/press-release/2024/01/24/world-bank-s-new-outcome-bond-helps-communities-remove-and-recycle-plastic-waste>