

The UN Secretary-General's Advisory Board on Zero Waste

THEMATIC BRIEF

Prevention, Responsible Consumption, and Technological Development for Plastic Decontamination



Source: Flickr, Ian Jacobs

PLASTIC POLLUTION

Prevention, promotion of responsible consumption, and technological advancement are governed as fundamental pillars in the fight against plastic pollution. In this context, circular economy models emerge as crucial tools to extend the lifespan of resources and reduce the use of single-use plastics. Additionally, it is important to address the social dimensions brought by plastic pollution, to ensure that both communities and workers benefit from circular models.



A more prosperous, equitable, and sustainable future can be forged by combining circular strategies with a focus on creating dignified jobs and strengthening local economies.

Linkage to Zero Waste

The correct management of plastics, focused on prevention, promotion of responsible consumption, and technological advancement, emerges as a key strategy for circular models in the future. Through prevention, the aim is to avoid the excessive generation of plastic waste from its source, employing strategies such as reuse, eco-design, and environmental education to reduce its impact on the world's ecosystems.

It's crucial to note that promoting responsible consumption involves educating the population about the importance of proper separation at the source, making conscious purchasing decisions, and opting for more sustainable alternatives. On the other hand, technological innovation is crucial in driving research and development of new circular businesses that prioritize resource optimization and maintain the value of materials in the market for as long

as possible. It is worth mentioning that these actions not only have environmental repercussions but also generate progress in communities. Proper plastic management contributes to closing gaps by promoting equal access to resources and opportunities. Additionally, it promotes dignified employment by fostering the creation of jobs in sectors related to waste management and technological innovation. According to ECLAC, the adoption of circular economy models in Latin America and the Caribbean could generate 4.8 million jobs in the region (1). The inclusion of women in these processes is also essential to ensure equitable participation in decision-making and policy implementation.

Lastly, proper plastic management brings significant environmental benefits, such as protecting marine ecosystems, considering that between 19 to 23 million tons of plastics reach them every year, according to UNEP (2).

Objective

The objective is to promote comprehensive and sustainable management of plastic resources, focusing on preventing their waste generation, encouraging responsible consumption practices such as reuse, and continuously seeking technological innovations to enhance the recycling capacity of the plastic value chain.

This aims to increase the volume of material recycled and ensure the availability of technology to process it and direct it to closed circularity models that allow the material to be reused within the same service or industry, resulting in circular business models.

Additionally, it seeks to ensure equitable distribution of the social and economic benefits derived from these actions, paying special attention to the inclusion of marginalized communities and the generation of dignified green jobs.



Key Findings and Implications

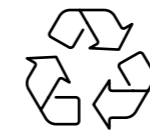
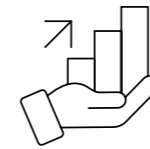
Significant environmental impact: The excessive production of plastics has generated a global environmental crisis. It is estimated that between 50 and 75 trillion plastic pieces are in the oceans, according to UNESCO (3).

Economic opportunities: Transitioning to a circular economy can generate jobs and economic opportunities. For example, the Ellen MacArthur Foundation estimates that by 2050, the circular economy for plastics could generate USD 700 billion in annual economic benefits (4).

Also, according to the ECLAC, the circular economy can generate savings in both public and private sectors, stimulate innovation, improve economic competitiveness, and create new employment opportunities in various sectors (5).

Technological challenges and innovation: Despite advances in recycling technologies, Latin America and the Caribbean still face significant challenges, such as a lack of adequate infrastructure and investment in technological innovation. According to ECLAC, in our continent, only 0.5% of GDP is allocated to innovation and research, while the United States, Japan, and the Republic of Korea invest between 2.5% and 3% of their gross domestic product (GDP) in this area (6).

Equity in waste management: It is crucial to recognize the disparities in civil society, especially among recyclers and other informal actors in the waste management chain. These disparities could be related to climate change, as 5% of annual greenhouse gas emissions come from poor waste management, according to the World Bank (7). To address these inequalities, it is necessary to improve the labour and technological conditions of these actors, ensuring equitable access to appropriate waste management systems for all communities.



A prominent example of how to address these inequalities is the Solutions to Plastic Pollution Through Inclusive Recycling (SPPIRe) project by Ocean Conservancy. This project is leading and implementing initiatives in Colombia to encourage informal waste pickers to collect low-value plastics, while also promoting the generation of knowledge and opportunities to improve the development of circular economy policies and models with waste picker organizations in the Caribbean region. Since 2021, SPPIRe has invested in strengthening 26 recycling organizations, improving their technology for the proper treatment and management of materials, as well as increasing the income received by informal recyclers and eliminating gender gaps. Currently, approximately 146 tons of low-value plastics are collected each month.

Global cooperation: It is important to highlight the work being done by the global network of plastic pacts worldwide, led by WRAP and the Ellen MacArthur Foundation (8). However, stronger international cooperation is needed to effectively address the problem and promote long-term solutions.

Recommendations and Call to Action

Promote education and awareness: Continue implementing educational programs at all levels to raise awareness about the importance of responsible plastic management and encourage sustainable consumption practices.

Investment in waste management infrastructure: Local authorities and governments are called to generate the right incentives for investment in infrastructure for waste prevention, separation and recycling, as well as research to ensure efficient plastic management.

Incentivize the circular economy: Implement policies and measures that promote the adoption of business models based on the circular economy, which extend the lifespan of products and reduce the generation of plastic waste.

Active citizen participation: Encourage active participation of communities in cleanliness, recycling, and plastic waste reduction initiatives, creating a culture of environmental responsibility and active citizenship.

Collaborative strategies for sustainable plastic management: According to the experience of initiatives such as the Plastic Pacts, as in the case of Colombia, it is crucial to consider that these collaborative platforms promote opportunities to highlight the importance of eco-design and reuse, as well as to create participation opportunities for public and private actors in the value chains of plastic packaging.

Furthermore, collective circular economy initiatives such as Red Reciclo, managed by Cempre Colombia, are an ideal complement to these collaborative platforms. These initiatives work on strengthening value chain actors and creating sustainable chains through partnerships, activations, and collective work with different stakeholders to ensure the effective transformation of materials. They also focus on collection strategies, such as investing in the chain, the ongoing work, and establishing and incentivizing organizational infrastructure.



Among the OECD countries, New Zealand has the highest figure – about 727 kg of waste per capita sent to landfill. Further, globally more than 75% of construction waste is not currently reused or recycled and has residual value (Purchase, C.K., et al., 2021).

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References

1. [La economía circular: un modelo económico que lleva al crecimiento y al empleo sin comprometer el medio ambiente | Noticias ONU - Noticias ONU. \(2021, 21 march\).](#) and [La economía circular: un modelo económico que lleva al crecimiento y al empleo sin comprometer el medio ambiente. & ECLAC/ILO Employment Situation in Latin America and the Caribbean. Number 19. Environmental sustainability and employment in Latin America and the Caribbean \(cepal.org\) - CEPAL & OIT. \(2018\). ECLAC/ILO](#)
2. [Plastic Pollution \(unep.org\) - UNEP \(2023\)](#)
3. [Plastic pollution in the ocean: data, facts, consequences \(unesco.org\) - UNESCO. \(2022, may\)](#)
4. [The New Plastics Economy: Rethinking the future of plastics. \(ellenmacarthurfoundation.org\) - World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, The New Plastics Economy: Rethinking the future of plastics \(2016\)](#)
5. [Circularity gap report América Latina y el Caribe \(cepal.org\) - CEPAL. \(2023\). Circularity gap report América Latina y el Caribe.](#)
6. [Comunicado América Latina y el Caribe rezagada en investigación y desarrollo | Comisión Económica para América Latina y el Caribe \(cepal.org\) - CEPAL. \(2004\)](#)
7. [Los desechos: un análisis actualizado del futuro de la gestión de los desechos sólidos \(bancomundial.org\) - Banco Mundial. \(2018, september\)](#)
8. [The Plastics Pact Network | Ellen MacArthur Foundation](#)