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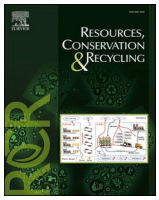

Perspective

Making policy work for Africa's circular plastics economy

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The African continent faces unique challenges in the context of the increasing plastic pollution due to the growing population, changing consumer trends, and increased urbanisation. Plastic pollution, especially from single-use packaging, is becoming a major environmental and social challenge. There are concerns that the global waste crisis will disproportionately impact Africa. In Nigeria, the country with the continent's largest population and a fast-growing economy, annual plastic waste is about 2.5 million tonnes and with a low recycling rate of about 12 percent (Babayemi et al., 2018) most plastic waste leaks into the natural environment. By 2050, the World Bank projects a 197 per cent increase of waste in Sub-Saharan Africa, with much of this being plastics (Kaza et al., 2018).

Plastics and packaging have been identified as a key sector for Africa's circular economy transition (African Circular Economy Alliance, 2021). The policy context is a critical dimension that will shape the transition to a circular plastic economy in Africa. Global commitments to tackle plastic waste have encouraged governments and policymakers across Africa to act on plastic pollution, resulting in several promising policy initiatives that promote the circular plastics economy (Oyinlola et al., 2022). However, there are significant challenges associated with national and cross-border coordination and local implementation. The current regulatory landscape across the continent requires further improvement to become an enabler for the transition to a circular plastics economy.

According to the Chatham House 'circulareconomy.earth' policy tracker, currently 50 out of 54 African countries have some form of waste management policy, strategies, or legislation in place. However, the implementation and enforcement of these policies and their coverage varies significantly from country to country. Most municipal systems and centralized solutions are overburdened, and lack of collection and recycling infrastructures hampers effective implementation of policies. This has led African policymakers to introduce bans of single-use plastics. Currently, there are 36 countries with plastic ban policies, many of which had mixed results in reducing plastic pollution. In Kenya, which introduced a plastic bag ban in 2017–2018, there has not been a noticeable reduction in the overall amount of plastic waste, but has achieved cleaner streets and waterways in urban areas. Rwanda is an exception, through a combination of a strict legal regime and enforcement, an arguably successful policy is being implemented.

Policy solutions need to go beyond implementing waste management policies and bans. We propose a policy framework consisting of four key elements: (i) implementation of mandatory Extended Producer Responsibility (EPR) schemes; (ii) a common continental approach to standards on materials, product design and recycling; (iii) support policies for digital innovations and business models for decentralized plastics collection and recycling; and (iv) social support policies for informal sector inclusion (see Fig. 1).

Extended producer responsibility (EPR): An EPR scheme for plastics would require producers of plastics to hold a responsibility in post-consumer recovery. Some African countries have already introduced EPR schemes for plastics packaging, such as South Africa where the regulations came into effect in May 2021. Kenya is considering EPR as one of the regulatory approaches to tackle plastic waste. Nigeria has already integrated specific environmental policies on a national level, including a voluntary EPR policy, to advance the life cycle management of products and improve circularity of plastics. In Zambia, the EPR regulation includes tools that the government will rely on to manage packaging materials such as plastics and their waste in an environmentally sound manner. A related supportive legislation for EPR will be on recycled content. Developing a mandatory policy that requires plastic producers to include recycled materials can result in a significant increase in demand for recyclable content. Trans-boundary coordination on EPR systems can also support existing corporate efforts and commitments through setting clear national policy directions, and also

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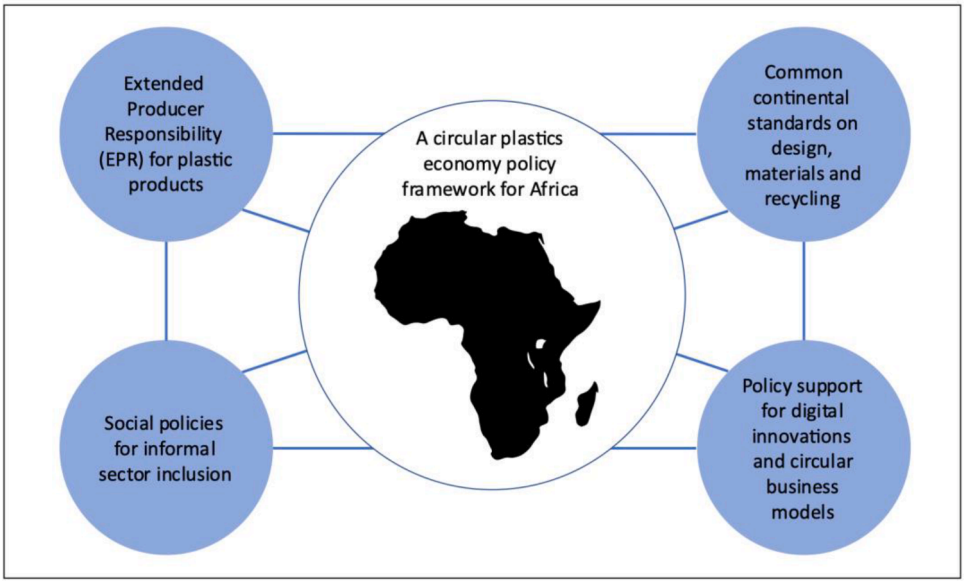

Fig. 1. An enabling policy framework for Africa's circular plastics economy consisting of four key elements.

facilitate shifting voluntary plastic packaging EPRs to become mandatory.

Common standards: The current plastic policy landscape in Africa is mainly heterogeneous in favour of activities happening only unilaterally. This disincentives investments in infrastructure for recycling as there are trade restrictions between countries that limit the availability of feedstock, making recycling plastics less attractive for investors and manufacturers compared to the use of virgin plastics. For the recycling of plastics to meet economies of scale with acceptable returns on capital, there needs to be higher input of secondary feedstock, which might not be readily available in-country and would therefore need to be sourced at regional levels in Africa. The African Free Continental Trade Agreement (AfCTA) could be a suitable framework to foster this trade for plastics circularity. Beyond trying to create profit margins for recycled content, there needs to be adoption and harmonization of acceptable standards and certifications across countries for recycled plastic for food-grade packaging. The use of recycled plastics has been established as safe and efficient, but only a few African countries allow its use. There are ongoing efforts made by the African Circular Economy Alliance and the African Standards Organization (ARSO) to develop a continental standard for recycled polyethylene terephthalate (rPET) bottles for food-contact applications.

Digital innovations for data collection and decentralized business models: There are significant data and information gaps on national and continental level when it comes to the flows and stocks of plastic materials and plastic waste (Olatayo et al., 2021). This significant lack of reliable data impacts not only scientific research such as material flow analyses, but also policy design and implementation. Filling data gaps about the quantities of plastic sources, waste flows and types of plastic waste across Africa can be addressed by digital technologies which are being widely adopted by 'digital entrepreneurs'. Due to the lack of centralised solutions, numerous small-scale enterprises have emerged, aiming to use plastic waste as an economic resource and applying digital innovations for the circular plastic economy (Kolade et al., 2022; ; Oyinlola et al., 2022). Examples include Wecyclers in Nigeria, Yo-Waste in Uganda or Banqu in South Africa. A locally managed decentralised circular economy gives waste plastic an economic value and ensures the collection, reuse and recycling of plastics is done within the community. It reduces the need for costly physical and technical infrastructure to implement an industrial circular economy of plastic by involving local community participation.

Informal sector inclusion: Many low-income countries currently rely on an informal local collection and recycling ecosystem via an organisation of waste pickers who navigate through rural and urban cities to collect recyclable materials such as metals, plastics, glass, and paper from various households and drop-off points while paying a minor fee as incentive, before cleaning and sorting to further resell for a profit. For example, 85% of plastic waste collected in Morocco is from the informal sector and other African countries have similarly high shares of informally collected plastics. Robust policies that work in tandem with industry, waste pickers and citizens need to be clearly outlined and put in place. Local content or labour requirements may be an instrument to support the involvement of MNCs in talent development where appropriate, as regards pollution regulations or concessions for upstream consumers of plastic products.

In summary, improving the existing policy environment along these four elements can enable circular plastics solutions to grow and scale-up. Regional coordination amongst African governments, international cooperation and stakeholder collaboration will be key to achieve a circular plastics economy on the continent.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Patrick Schroeder reports financial support was provided by Chatham House. Patrick Schroeder reports a relationship with Chatham House, Energy, Environment and Resources Programme that includes: funding grants.

Data Availability

Data will be made available on request.

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