



Feedback Report: Circular Economy, Waste Management, & Marine Plastics Workshop

26 July 2022

Background

The Ocean Innovation Africa July Stakeholder workshop series was held in honour of African Day of Oceans and Seas. The intention of the workshops was to facilitate action on some of the challenges and solutions raised during discussions at the annual Ocean Innovation Africa summit.

The “Circular Economy, Waste Management and Marine Plastics” workshop looked at key challenges and opportunities for circularity in plastic value chain management and reduction of plastic waste entering the oceans in Africa.

This report is a summary of points raised during that discussion and as such statements do not necessarily reflect consensus from the workshop participants, nor the viewpoint of Ocean Innovation Africa.

Participants

- Chair: **Colette van der Ven**, Tulip Consulting
- Co-Chair: **Karina Zile**, Samudra.World
- **Lorren de Kock**, WWF-SA
- **Henry Roman**, SA Department of Science and Innovation (DSI)
- **Suzan Oelofse**, Council for Scientific and Industrial Research (CSIR)
- **Keanan Reis**, Centre for Regenerative Design and Collaboration (CDRC)
- **Oliver Bonstein**, GreenCape
- **Janine Osborne**, Sustainable Seas Trust (SST)
- **Georgina Ryan**, SA Treasury
- **Joshua Palfreman**, World Bank
- **Thomas Hart**, Greenway Africa

Introduction

The finite and sensitive nature of the resources on which society depends necessitates a Circular Economy (CE) approach to be able to use them sustainably in the long term. Although waste management and recycling are only part of the greater circular economy picture, they are an essential starting point, with direct influence on ocean health and livelihoods.

Resource and Waste Management

The concept of waste management needs to be reframed as resource management. Products and packaging should retain application and value and remain in circulation rather than enter waste streams and the environment at end of life.

Landfills

The majority of waste collected in Africa goes to landfill sites. Aside from space limitations and greenhouse gas emissions resulting from landfill use, there are very few sites where materials are separated or classified before entering landfills in Africa and little to no data is collected from them, essentially rendering many as dumpsites rather than waste management sites.

Although some sustainable alternatives are available, users are deterred by their cost and inconvenience. Increased landfill fees may provide some incentive to shift practices but without providing an accessible alternative solution they are unlikely to result in behavioural change and may inadvertently result in increased illegal dumpsites. Separation at source is needed to be able to keep track of resource flow through the value chain and ensure that resources do not enter waste streams.

Opportunities for Action

- Better data, legislation and enforcement are needed around landfills and illegal dumpsites.
- Incentives for household waste separation could help to drive separation at source.

Waste Collection

In many African countries vast amounts of waste go uncollected, particularly in low-income areas, leading to leakage into the environment. To prevent this, resources need to be perceived as having value rather than as waste. For example, plastics that end up in landfills tend to be those that are not readily collected by waste reclaimers. Highly contaminated or lower-weight items like plastic bags are more difficult to collect and recycle.

Opportunities for Action

- Creating a standard value for all reclaimed plastics would assist in getting more out of waste streams (For example payment per bag of bags collected)
- Supportive policy frameworks, like EPR, can help to ensure that the necessary tech and infrastructure is developed to deal with "low-value" plastics.

Informal Waste Sector

The informal economy in Africa is significant, as is the contribution of the informal sector to waste collection. Careful distinction must be made between integration and formalisation in efforts to integrate the informal waste management sector. Interventions cannot be force-fed and should be based on consultation with effective parties.

Resource and Waste Management (cont.)

Plastic Recycling

To eliminate single-use plastic would require a scalable and economical single-use alternative. Until such time as one becomes available current plastics need to be better managed. For now, the best legal framework available to limit plastics leaking into the environment is to use existing policies to limit problem plastics: very specific subtypes for which there isn't a strong economic argument for keeping in the country.

Products need to be designed for circularity to retain application and value at end of life so that they are kept in the market through reuse, repair, refurbishment, or remanufacture. Pollution and persistence at end of life also need to be considered, not only sustainability while in use. At times the criteria for these two measures are conflicting.

Reducing the complexity of primary plastics would greatly reduce the complexity of recycling. For example, in South Africa there are 7 grades of plastic, each multi-tiered according to different additives used in production, making recycling more costly and more complex. Very little plastic actually gets recycled, and the resulting products are sometimes hard to use. There is balance needed between design, collection, capacity to recycle, and applications for recycled materials.

Incentivising design for circularity would need consistent guidelines for industry on what recycling is and what materials can be recycled. More transparent labelling of products in this regard could also assist to shift consumer behaviour. This would require an independent body for guidelines.

Opportunities for Action

- Incentivise reduced complexity of primary plastics
- Create demand for secondary materials produced by recycling.
- Circular design could be incentivised
- Better collaboration between creators and end of life managers would aid circular design
- Independent body for industry recycling guidelines/standards

Extended Producer Responsibility

The process of collection, sorting and recycling of packaging comes at net cost, creating a funding gap of tens of millions of dollars every year globally. This has been identified as one of the major barriers to CE for packaging.

Extended Producer Responsibility (EPR) has been suggested as the most likely pathway to secure funding that is dedicated, sustainable, and sufficient to ensure that recycling continues even when it doesn't otherwise make economic sense. EPR is a powerful tool for behavioural change in producers and consumers and could be better utilised to this end.

At the moment EPR only covers limited sectors in some African countries. Extending its application across industries would have much broader impact. The concept of "producer" in EPR also needs to be carefully defined in regulations, taking into consideration the context of application.

Opportunities for Action

- EPR could be modulative, such that producers of poorly designed goods or packaging (those that are destined by design for landfill) could be penalised individually rather than being blanket-subsidised by industry/Producer Responsibility Organisations (PROs).

Resource and Waste Management (cont.)

Data Collation

Collection, standardisation and provision of data around waste and resource management are lacking in many African countries. Running models depend on data to accurately inform decision makers, otherwise they must resort to “best-practice”, which can cause inefficient and out of context CE policy. Data collation would require improved capacity not only for collection, but for subsequent management.

In countries like South Africa that have a National Waste Information System (NWIS), data is still lacking, both due to lack of collection and to inconsistent presentation and storage between different locations. A standardised national system for collection, presentation and storage is needed, or, where it is already present, proper implementation/enforcement of the system.

Institutionalising data collection and management around waste would allow responsible departments to apply for funding to support municipalities in improving system for themselves with tech, data resources and consultancy for waste audits. PROs could also play a stronger role in providing data on waste and resource streams.

Opportunities for Action

- What role could standard setting bodies (Like ISO/ARSO) play in regard to standardising waste management data?
- Institutionalising and mandating data collection could be based on reporting of goals to align with mandates of various departments (For example with Department of Planning, Monitoring, and Evaluation (DPME)/ National Development plan (NDP) goals in South Africa).

Data Needed

- Resource movement, resource flows, up to end of life.
- Tonnage entering landfills.
- Characteristics of mixed waste entering landfills.
- Landfill capacity in volume/space.
- Number of illegal dumpsites.
- Volume of plastic imported in the form of packaging.

Definition and Communication of Circular Economy Concept

Circular economy is about economy not waste. It is the retention of the economic value of resources to maintain them in circulation for as long as possible. There is no one global definition of CE but African countries need to design one that best fits their context and implement it in a harmonised manner across government departments.

At the moment the lack of a shared vision means there are a lot of different voices which can pull in different directions. There is a need for education of decision makers in governments, the private sector, and banks, to broaden awareness around the economic value of CE strategies – translate ideas, concepts and evidence into programmatic ideas at government level..

Definition and Communication of Circular Economy Concept (cont.)

Making a case for Circular Economy

Circular Economy is one of the best ways to achieve a low-carbon economy and has been shown to benefit GDP, household income, job creation, welfare, and more.

Motivation to divest from investments that are already making money, like fossil fuels, would need a strong case for a viable alternative with less risk. For example, demonstrating how fossil fuel investments are becoming more risky and less worthwhile, and providing a low-risk model for CE investment.

To strengthen the case for any industrial policy requires industry support for that policy. Industry is risk averse and can be reluctant to change without being mandated. There are many reasons for this, including policy uncertainty and changing markets.

There is a need to make the business case to achieve the scale needed to unlock alternative investment mechanisms and rechannel investment into high-risk areas. To motivate a change from industry requires a technically and economically substantiated argument outlining the reasons for doing so. The focus of such arguments must be retained on end goals (like environmental and economic benefits), rather than circularity in itself.

- What Circular Economy means to the country
- How a shift like this could develop the economy
- What the cost of the shift would be
- How sustainable it will be once implemented.

Market Interventions

At the moment the instruments used to intervene in market for a CE outcome are considered blunt and not sufficiently goal orientated. The business case for CE is at times built on microeconomic focus, but policy aims to drive it from macroeconomic perspective. Traditional market interventions from governments also tend to be at macro level, which is insufficient to support value chain stakeholders. There is a need to look beyond producers to affect systems change.

Financial penalties alone are often not enough of a motivator to cause meaningful change. Presentation of alternative technologies and incentivising their adoption by industry is more likely to drive a shift in practice.

Moving away from unsustainable materials and practices currently risks incurring a cost of failed experimentation with sustainable alternatives, essentially penalising first movers. It should be the reverse, where companies stand to lose out by not joining the movement.

Funding

Funding gaps have been identified as one of the major barriers to CE development in Africa. At the moment subsidies tend to be directed towards industries with demonstrable profitability, leaving alternative business and economic models with funding deficits.

Opportunities for Action

- Studies demonstrating feasibility of CE models should be passed to funding bodies as soon as possible to speed up their process of due diligence and enable redirection of funds towards alternative business models.
- In absence of a CE coordinating body there should be additional resource and policy support for the industry bodies and NGOs that fill this role.

Coordination of Circular Economy in South Africa

South Africa has no official government custodian for CE and therefore no official leadership on the matter. The mandate presently falls under Environment but as an economic matter should be incorporated in relevant departments. Progress on circularity requires intersection of environmental and industrial policy and development objectives. There is also a need for linkage between policy and what can be effectively implemented at ground level.

Opportunities for Action

- The ideal solution would be to have an interministerial working body including DFFE, DTIC, Treasury, DSI as the central coordinating body and data repository/distributor for CE, similar to what the Global Plastic Action Partnership (GPAP) is attempting.
 - Is South Africa signed up to GPAP and will it be of use in this regard?

Concluding Remarks

There is no one silver bullet to achieve circular economy goals. It will require systemic change in behaviour and economy, and intervention at every life-cycle stage, not just waste management. To change the thinking around circular economy it needs to be presented as more than just recycling: as alternative business models and economic models to reinvent the economy. The problem is too big for one stakeholder or organisation to solve. A shift to ecocentric paradigms and behaviour requires collaboration between regulators, industry, and stakeholders.

Thank you to our fantastic workshop participants for getting this discussion going!

