



## Linear to Circular Waste Policies: Breathing Life into the Polluter Pays Principle?

**Elizabeth Gachenga**

Strathmore University, Kenya

### Abstract

Recycling clothes is lauded as a sustainable textile waste management strategy. A significant percentage of recycled clothes are exported to the Global South as second-hand clothing. Increased exports result in the accumulation of second-hand clothing waste in these countries. The result is a shift in responsibility for textile waste from consuming nations in the Global North to 'recycling' nations in the Global South. However, this 'recycling fallacy' perpetuates a form of fashion injustice. Waste laws, founded on the 'polluter pays principle', are ineffective at addressing the second-hand clothing waste problem in receiving countries. Therefore, the circular economy framework is influencing the redesign of waste laws. The circular economy could redress the problem by revitalising the polluter pays principle and extended producer responsibility policies and embedding life cycle approaches. This paper explores this possibility, using examples from Kenya (a major importer of second-hand clothing) and the European Union (a key exporter of reused clothing with emerging circular economy regulatory frameworks).

### Keywords

Circular economy; polluter pays; second-hand clothing.

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## Introduction

The subject of second-hand clothing (SHC) has been studied in different contexts and across multiple disciplines, including environmental science (Sandin and Peters 2018), economics (Wetengere 2018), anthropology (Brooks et al. 2017) and global politics (Wolff 2021). These studies have highlighted the environmental benefit of re-using clothing, the socio-economic value of the SHC trade and the negative environmental impact of SHC waste. This paper contributes to the literature by examining the SHC trade through an analysis of the legal principles underpinning waste law frameworks.

One of the foundational principles of waste management laws is the ‘polluter pays principle’ (PPP). The PPP was adopted by the Organization for Economic Co-operation and Development (OECD) in 1972 as an economic principle for allocating the costs of pollution control to their originator (OECD 1992). The PPP is the fundamental basis for most international, regional and national legal frameworks for waste management, such as the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989* (United Nations), the *Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa 1998* (Africa), Directive (EU) 2018/851 (*amending Directive 2008/98/EC*) and the *Environmental Management and Coordination Act (EMCA) 1999* (Kenya).

Applying the PPP in waste law frameworks remains a challenge (European Court of Auditors [ECA], 2021). PPP suffers from contextual limitations that hinder its effective application in the sustainable management of waste (Mamlyuk 2010). One of the major challenges faced by the PPP is the constraint of the linear economy framework, where waste is accepted as an inevitable but necessary evil. Under the model, PPP implementation mechanisms are focused predominantly on the assignment of pollution costs at the post-consumer stage of the product life cycle (Tojo and Kogg 2012).

Current efforts towards sustainable management of textile waste recognise the need for legal and policy interventions throughout the product life cycle—that is, design, use, re-use, recycling and disposal (European Environment Agency [EEA] 2021). This life cycle approach is characteristic of the circular economy (CE) framework, which proposes a radical shift from the linear model. The CE framework seeks to fundamentally transform economic activity by decoupling economic growth from the use of resources and moving towards zero waste (Romph 2018).

The change in economic models provides the opportunity to reconceptualise and reinvigorate the PPP in the CE model and strengthen it through the extended producer responsibility (EPR) policy. The global SHC trade is used to test the potential of the revitalised PPP regarding positive outcomes in the sustainable management of SHC waste.

## Second-Hand Clothing: A ‘Recycling Fallacy’

As of 2021, the global fashion market was valued at USD 1.5 trillion, and it is expected to grow to USD two trillion by 2026 (Smith 2022a). One of the factors driving the unbridled growth of the fashion industry is the adoption of a planned obsolescence strategy, with clothes designed to ensure frequent replacement to keep up with recurrent changes in fashion trends (Platform for Accelerating the Circular Economy 2021). The availability of inexpensive clothing of poor quality and the creation of fashion fads drive fast fashion culture, which is characterised by excessive purchase and frequent and premature disposal of clothing. Every year, approximately 57 million tonnes of textile waste are generated by the clothing industry (Lehman et al. 2019). It has been reported that the worldwide material loss resulting from incinerated or dumped clothes is more than USD 100 billion per year (China National Textile and Apparel Council 2020).

The cost of technologies for recycling waste generated from clothing is high; therefore, this is often not an economically viable option. In developed markets such as Europe, the USA and Canada, the donation of

used clothes to charities has been adopted as a sustainability strategy intended to reduce the negative impact of textile waste. For instance, in 2018, the European Union (EU) exported used clothing worth USD 965 million—the main destination of such exports was Africa (Smith 2022b).

The low prices and short product life of SHC lead consumers in receiving countries to over-purchase and under-utilise SHC. The result is an accumulation of waste that contributes to the existing problem of a lack of sustainable waste management, common in countries of the Global South. Kenya serves as an example of the effect of SHC in Africa. SHC imports constitute approximately 1% of the monetary value of all imports. In 2019, the country imported 185,000 tonnes of SHC, compared to 176,000 tonnes in 2018 (Institute of Economic Affairs 2021). SHC waste exacerbates the pre-existing problem of solid waste management in Kenya, which includes poor segregation, inefficient collection and transportation, inadequate designated disposal sites, poor management of open dumpsites and illegal dumping. The textile waste from SHC contributes to the 2,400 tonnes of waste generated daily in the capital city, Nairobi (National Environment Management Authority [NEMA] 2014). Thus, a ‘recycling fallacy’, which camouflages the fashion injustice of shifting the responsibility of SHC waste management to importing countries, is enabled through the global SHC trade.

Arguments against this ‘fashion dumping’ have been criticised for overlooking the undeniable socio-economic and cultural benefits of the trade (Hansen 2004). While importing countries have economies now dependent upon SHC trade, the rise of the trade has had negative impacts on the local textile industries of importing countries (Russell 2020). It has been reported that SHC trade was responsible for the 40% decline in the domestic textile trade in Africa between 1981 and 2000 (Frazer 2008).

The geo-economic and political power dynamics of the SHC trade have discouraged the use of protectionist policies to protect domestic textile industries. This can be illustrated by the case of the East African Community (EAC), which is a major importer of SHC. At the 17th EAC Heads of States Summit, a proposal was made to phase out the import of SHC from the common market by 2019 as a means of protecting and revitalising the region’s domestic textile industry. However, the proposed ban was abandoned by Kenya and Uganda at the subsequent 19th EAC Heads of States Summit, following threats by the United States Trade Representative to revoke the countries’ preferential market access to the USA under the *African Growth and Opportunity Act 2000* (US; Wolff 2021).

Loopholes in the national waste law frameworks of exporting countries and weak regulatory capacity within importing countries have, in the past, led to the dumping of various toxic materials in the Global South. In 1988, large volumes of hazardous waste from Italy were illegally exported to Koko, a small fishing village in Nigeria, under the guise of building materials. The barrels were stored in a farmer’s backyard for a small fee. However, leakage from the unsealed barrels caused the poisoning of many residents (Vir 1989). This and other cases of hazardous waste dumping prompted the adoption of the *Basel Convention 1989* (United Nations 1989) and, thereafter, the *Bamako Convention 1998* (Africa). The recycling fallacy of the SHC trade has the potential to revive the ‘not in my back yard’ (NIMBY) principle, which described the injustices associated with shifting waste from developed to developing countries during the negotiation of the Basel and Bamako Conventions.

In theory, the effective application of the PPP should safeguard against the risk of NIMBY in the SHC trade by ensuring that the originator of the waste takes responsibility for its final disposal costs. However, in practice, the PPP has not been able to prevent the dumping of SHC. The following section explores how the PPP has operated in practice with respect to SHC waste.

### **Polluter Pays Principle And Waste Laws**

The PPP was initially adopted by the OECD in 1972 as an economic instrument for the internalisation of pollution costs (OECD 1972). The expectation was that the internalisation of these costs would send appropriate signals to the market to disincentivise the overuse of resources and pollution of the

environment. However, the decision by polluters or producers to pollute or not is based on the opportunity cost of internalising pollution costs. Where this cost is lower than the desired threshold of profit margins, the environmental good is likely to be sacrificed.

Twenty years later, the PPP was adopted as one of the principles on which environmental law is founded. Principle 16 of the *Rio Declaration on Environment and Development 1992* (United Nations Conference on Education and Development) requires national authorities to 'endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment'.

### ***The Polluter Pays Principle: A Foundational Principle in Waste Law Frameworks***

The PPP is entrenched in many waste law frameworks as the basis for making the polluter legally bound to bear the costs of pollution prevention and control measures and environmental restoration. Most regional and national waste law frameworks, including those of the EU and Kenya, are founded on the PPP, as shall be expounded. Applied to waste laws, the PPP is used as a legal principle that helps define waste, identify its generator and allocate the environmental costs caused by the pollution.

The PPP is firmly rooted in the EU Waste Framework Directive (WFD), included in the first Directive on Waste, *Council Directive 75/442/EEC* to the latest amendments in *Directive (EU) 2018/851*. Despite amendments, the PPP is still used as a foundational principle in implementing waste laws. The preamble of *Council Directive 75/442/EEC* states that the 'proportion of the costs not covered by the proceeds of treating the waste must be defrayed in accordance with the "polluter pays" principle.' Article 15 of the *Directive 2006/12/EC*, (replaced by *Directive 2008/98/EC*) qualified the PPP by widening the scope of the producer to 'either the holder of waste, previous holders or by the producers of the product from which the waste came'. In section 26 of the preamble of *Directive 2008/98/EC*, PPP is proposed as 'a guiding principle at European and international levels' for ensuring that the waste producer and holder take responsibility for the sustainable management of waste. *Directive (EU) 2018/851 (amending Directive 2008/98/EC)* reaffirms, in Article 14 (1), that the 'cost of waste management, including the cost for necessary infrastructure and its operation are to be borne by the original waste producer or by the current or previous waste holders'. This notwithstanding, Article 14(2) allows member states to determine if distributors of the product should share the costs.

Kenya's regulatory framework for environmental law is also founded on the PPP. By virtue of Articles 2(5) and 2(6) of the *Constitution of Kenya 2010* (Kenya), the country has domesticated international environmental law principles, which include Principle 16 of the Rio Declaration. The *EMCA 1999* (Kenya), which is the backbone of the country's environmental law, uses the PPP as the guiding principle for sustainable management of the environment. The current law is undergoing review, and the draft Bill has been gazetted (*EMCA Bill 2021 [Kenya]*). The PPP is integrated in the proposed law. Section 6 of the EMCA Bill provides that the PPP should guide the Environment and Land Court in exercising their jurisdiction over environmental matters. Under the Constitution, waste management is a devolved function. Apart from EMCA, a *Sustainable Waste Management Bill 2021* (Kenya) is in the final stages of enactment. Founded on the PPP, the law seeks to mitigate the risk of waste mismanagement by internalising costs for the safe disposal of the waste.

While the PPP provides a solid basis for assigning costs and liability to the polluter, supporting legislation and policies are needed to make it operational. In the case of the EU, the *Environmental Liability Directive 2004/35/EC* has been used to implement the PPP. It assigns financial liability to the originators of products or activities that cause environmental harm or that pose an imminent threat to the environment. Further, case law has contributed to the interpretation and implementation of the PPP principle, albeit with limited success (ECA 2021).

In Kenya, a human rights approach has been used to implement the PPP. Kenya's Constitution recognises the right to a clean and healthy environment as a human right (Art. 42). With Article 70, anyone may apply to a court for redress, in addition to any other legal remedies that are available with respect to the same matter. Applying the PPP, the court can order the compensation of victims by the polluter (*County Government of Kitui v Sonata Kenya Limited & 2 others* [2018] eKLR).

The failure of regulatory waste frameworks to manage waste sustainably has been blamed on the ineffective application of the PPP in assigning costs to polluters. An EU report evaluating the application of the PPP in 2014–2020 indicated that the PPP has had limited success (ECA 2021). The report noted that the principle has been applied to varying degrees but has not effectively supported the European Court of Justice (ECJ) in the assignment of liability to polluters.

Some of the reasons for the ineffective application of the PPP in waste laws include ambiguities in the definition of key concepts (e.g., such as waste; Pocklington 2002), the elusive polluter in global supply chains (Hart and Marcus 2008), unquantifiable environmental costs (Mamlyuk 2010) and the challenges in enforcing liability (Bleeker 2009). The next section considers some of these challenges.

### **Conceptual Challenges**

The effective application of the PPP is dependent on its responding adequately to fundamental questions such as: What is waste? Who is the polluter? What is the environmental cost of the waste, and to whom should it be paid? (Hart and Marcus 2008). The EU situation demonstrates some relevant challenges.

Under the EU WFD, 'waste' means 'any substance or object which the holder discards or intends or is required to discard' (Art. 3 of *Directive 2008/98/EC*). The interpretation of this definition has been a contentious issue in EU case law, with industries faulting courts for lack of consistency in application of the concept (Pocklington 2002). The EU's sector-specific approach to waste management has further complicated the definition of the concept of waste. The EU waste law framework is based on a waste hierarchy system, with waste directives targeting specific sectors. For example, *Directive 2012/19/EU* covers waste from electrical and electronic equipment; *Directive 2000/53/EC* covers end-of-life vehicles, *Directive 2013/56/EU* covers waste batteries and accumulators, and *Directive 2013/2/EU* covers packaging and packaging waste. This targeted approach risks limiting the concept of waste, given that a single product often generates various forms of waste, thereby cutting across different sectors.

Clarity in the definition of waste is particularly important in the SHC trade, where the distinction between product and waste is often blurred. Poor implementation of recovery, collection and segregation systems has led to the mix of textile waste, with used clothing exported as SHC (Bernard 2011). The fact that SHC does not leave as waste at the point of export does not preclude it from becoming waste while in transit or at its entry point. These weaknesses foster 'fashion dumping'.

Section 2 of Kenya's *EMCA Bill 2021*, extends the term waste to any 'substance, material or object that is unwanted, rejected, abandoned, discarded or disposed of or that is intended or required to be discarded or disposed of, by its holder, whether or not it can be reused, recycled or recovered and includes municipal waste, domestic waste, waste from agriculture, horticulture, aquaculture and forestry, medical waste, chemical waste, hazardous waste, toxic waste, industrial waste, pesticides and toxic substances but does not include radioactive waste' and includes 'a substance, material or object that may be designated as waste by the Cabinet Secretary by notice in the Gazette.' Despite this comprehensive definition, the lack of effective quality control systems for imported goods permits the entry of poor quality SHC that soon becomes waste.

The complexity of identifying the polluter has also hampered the implementation of the PPP. As envisaged by the OECD, the waste generator is considered the polluter, even where the generator has transferred the waste to another (OECD 1992). This would imply that the manufacturers of clothing traded as SHC are

responsible for the sustainable management of the waste. However, international trade makes it difficult to pinpoint the generator of waste given the multiple actors in global supply chains.

The question of who the polluter is was one of the primary considerations addressed by the ECJ in the Mesquer case (*Commune de Mesquer v Total France SA and Total International Ltd.* [2008] European Union, EUR-lex). The case was between the French municipality of Mesquer and two Total oil companies and concerned the sinking of the oil tanker Erika, which resulted in oil spreading to the Mesquer municipality. In its preliminary ruling, the ECJ determined that the oil spread constituted waste as per Directive 75/442/EEC. Further, in accordance with the PPP, Total (as the producer of the oil) could be considered the polluter and, thus, made liable for the costs of cleaning up.

In his opinion, Advocate General Kokott points to two reasons why producers should take financial responsibility for the cleaning up costs. First, producers are or ought to be aware that the production of goods will necessarily result in waste. Second, the producer has the ability 'to integrate disposal costs into the price of the goods' at the production stage (*Commune de Mesquer v Total France SA and Total International Ltd.* [2008] European Union, EUR-lex Nos. 126 and 127). Based on this rationale, the producers of clothing should take responsibility for the prevention and control of pollution from textile waste. They could do so by internalising the costs of safe disposal of the waste or by covering these costs. However, subsequent laws and interpretations of the PPP indicate the complexities in apportioning liability.

Amendments to the EU WFD have extended the definition of the polluter to include the current or previous waste holders (*Directive (EU) 2018/851*). The inclusion of 'contributors of risk' in determining who the polluter is raises more questions than answers for the SHC trade. Apart from the producers of textile and apparel, it can be argued that all actors in the supply chain contribute to the 'risk of occurrence' of SHC waste. This includes the producers, wholesale outlets and retailers and the donors of the re-used clothes turned into SHC. As SHC enters the global supply chain, polluters could include the exporters, the traders of SHC and the end consumers of SHC, including the 'third hand' users who are the ultimate disposers of the waste. This hinders the practical implementation of the PPP.

The definition of the term 'pollution' in the *EMCA 1999* (Kenya) is sufficiently broad to allow the inclusion of SHC waste. In defining the PPP, the Act states that the polluter must be a person convicted of pollution by the Act or by any other applicable law and that only such a party is liable for bearing the costs of restoring the environment, compensating victims of pollution and any other incidental costs caused by the polluting action. The Act also provides for financial penalties and jail sentences for persons convicted of pollution. The formulation of the provisions of the Act limits its scope of application to SHC waste.

The use of the constitutional right to a clean and healthy environment (Art. 42) has provided an accessible avenue for the application of the PPP through case law (*Constitution of Kenya 2010* [Kenya]). The Environment and Land Court has adopted a broader approach, indicating that 'the principle entails that a person involved in any polluting activity should be responsible for the costs of preventing or dealing with any pollution caused by that activity, instead of passing them to somebody else' (*Michael Kibui & 2 others (suing on their own behalf as well as on behalf of the inhabitants of Mwamba Village of Uasin Gishu County) v Impresa Construzioni Giuseppe Maltauro SPA & 2 others* [2019] eKLR).

Under the PPP, the polluter ought to cover the 'costs of pollution prevention and control measures', the latter being 'measures decided by public authorities to ensure that the environment is in an acceptable state' (OECD 1972). However, the implementation of this element of the PPP in waste law frameworks is problematic, as illustrated by the case of Kenya.

Kenya's environmental law framework clearly sets out the costs to be internalised: 'the cost of cleaning up any element of the environment damaged by pollution, compensating victims of pollution, cost of beneficial uses lost as a result of an act of pollution and other costs that are connected with or incidental

to the foregoing' (*EMCA 1999* [Kenya]). However, the application and enforcement of this provision have been limited due to a myriad of factors. The country lacks a functional waste management system. Therefore, the lack of waste segregation, collection services, safe disposal practices, prevention of illegal dumping systems and management of dumpsites limit the application of the PPP in practice (NEMA 2014). Implementation of the PPP beyond regional or national jurisdictions has been recognised as one of the major challenges in the implementation of waste law frameworks. Inconsistencies in the application of the PPP across EU environmental laws has been highlighted as a challenge by the ECA (ECA 2021). The asymmetry in waste regulatory frameworks of countries in the Global North and those in the Global South limits the application of the PPP once goods are exported. The problem is aggravated by poor monitoring and implementation of quality controls in exporting countries and weak regulatory frameworks in importing countries. Apart from the conceptual challenges, the application of the PPP in waste law frameworks has been hampered by the stifling economic environment in which it was contextualised.

### ***The Polluter Pays Principle and Waste Law Frameworks in the Linear Economy***

The PPP was conceptualised within a specific economic context, which influenced its nature, mode of operation and goal. The PPP was envisioned primarily as a principle for securing economic efficiency (OECD 1992). Its adoption as a legal principle also occurred within a specific economic context. The interface of international trade and the environment was a major cause of controversy at the 1992 Rio Conference, with these tensions influencing the framing of Principles 12 and 16 (Handl 2012). Principle 12 of the *Rio Declaration 1992* (United Nations Conference on Environment and Development) recognises the need to avoid environmental degradation during trade, with the caution that 'trade policy measures for environmental purposes should not constitute ... a disguised restriction on international trade'. The caveat, included in Principle 16— 'without distorting international trade and investment'—demonstrates the demarcation of the PPP. The failure of the attempted ban on SHC by the EAC confirms that this delicate interplay of economic and environmental interests in international trade continues (Wolff 2021).

The PPP was born and has since operated within a linear economic model. The term 'linear economy' is used to describe the economic model of take-make-dispose. Such a model fosters the unbridled use of resources without due regard for the environment (Boulding 1966). Waste law frameworks in a linear economy are founded on the assumption that waste is an undesired but inevitable end product of economic growth. Thus, the laws implicitly authorise pollution subject to the allocation of its costs to the originator of the waste. Under this model, the fundamental role of waste laws is to implement the PPP by tracking the originator of waste and ensuring that the originator bears the environmental costs of its disposal. This focus on the end-of-life stage limits the potential of the PPP, as shall be demonstrated below. Under the linear economy, the focus of the PPP is to determine what constitutes waste and allocate its disposal costs to the polluter as effectively as possible.

The CE framework proposes a radical shift from the prevalent linear economic framework to a new model characterised by a life cycle approach. The transition to the CE provides an opportunity to reconceptualise the PPP in a different economic model.

### **Polluter Pays Principle in the Circular Economy**

The term 'circular economy' has been described in various ways. The popularised definition is a 'framework for an economy that is restorative and regenerative by design' (Ellen MacArthur Foundation 2017). Based on an analysis of various definitions in the literature, Kirchherr, Reike and Hekkert proposed the definition of CE as 'an economic system that replaces the "end-of-life" concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes' (Kirchherr, Reike and Hekkert, 2017, p.229)

The CE fosters the eco-designing of products, elimination of planned obsolescence practices, rationalisation of consumption patterns and extension of product life through re-use and, most importantly, regeneration of end products to value-added resources (Ellen MacArthur Foundation 2017).

In this model, the sustainable disposal of waste is tolerated as a last resort. Early interventions are required to ensure that negative environmental impacts are not transferred from one stage of the product life cycle to another (Syngellakis 2003).

From an idealistic perspective, the absolute elimination of waste would result in the obliteration of SHC waste. In a futuristic CE world, any potential textile waste would be used for the rebuilding of capital in its multiple forms—that is, financial, manufactured, human, social and natural enhancement of the biological or technical flow of goods and service through a continuous value-addition circle (Ellen MacArthur Foundation 2017).

The question of the relevance of waste laws in a zero waste economy has been polemicised (Lesniewska and Steenmans 2020). Undoubtedly, CE will contribute to the reduction of waste, but the entire elimination of waste is implausible. However, even without waste, the new economic model requires legal and policy mechanisms to extend the responsibilities of producers, from the pre-production to the post-consumption stage.

The growing number of CE laws across the globe provides confirmation of the need for supportive legal frameworks. In the last decade, countries worldwide have incorporated the CE framework in their policies, action plans and national and regional strategies. Some countries have developed specific CE laws, such as the *Circular Economy Promotion Law of China 2009* (China), which has gradually transitioned the national CE policies to a standalone law (Zhao 2020), and the *Law Regarding a Circular Economy and the Fight Against Waste 2020* (France). Other countries have re-contextualised their waste laws using a CE framework, such as the *Act to Promote Circular Economy and Safeguard the Environmentally Compatible Management of Waste 2012* (Germany). The extent to which the CE laws are novel laws and not simply rebranded waste laws is debatable (Backes 2017). However, whether novel laws or rebranded waste laws, there is a need to re-evaluate the role of the PPP in the operationalisation of these laws. To implement the life cycle approach, the mandate of the PPP must be broadened beyond the end-of-life stage. The EPR was envisioned as an instrument for enhancing the PPP's mandate to include waste prevention and reduction, product re-use, increased use of recycled materials in production, reduced natural resource consumption, internalisation of environmental costs into product prices and energy recovery when incineration is considered appropriate (OECD 1998).

### **Extended Producer Responsibility and Circular Fashion**

Global efforts towards circular fashion aim to ensure that fashion products are 'used more, made to be made again, made from safe and recycled or renewable inputs' (Ellen MacArthur Foundation 2020). EPR policies are critical for the implementation of these elements of circular fashion. Using Kenya's proposed EPR framework, this paper evaluates the extent to which EPR frameworks can be used to revitalise the PPP and, in the process, resolve the problem of SHC waste.

#### ***Kenya's Emerging Extended Producer Responsibility Framework***

Kenya is in the process of developing and amending various environmental laws. The development of these various laws is occurring concurrently, which provides the opportunity for integrating the CE and EPR in the broader environmental law framework. The Bills and Regulations discussed are in draft form and have yet to be enacted as law. However, most are at the final stages of approval and are unlikely to change substantively when enacted.

The proposed laws and regulations include the draft *Environmental Management and Coordination Bill 2021* (Kenya), which is the backbone of the environmental law framework in the country and requires all citizens to adopt CE in the management of waste, the *Sustainable Waste Management Bill 2021* (Kenya) and the draft *EMCA (Extended Producer Responsibility) Regulations 2021* (Kenya).



For example, the draft *Extended Producer Regulations 2021* embraces the CE as a goal and is intended to operationalise the PPP. Textile waste is included in the list of products falling within the scope of the draft EPR Regulations (First Schedule), indicating the potential of the Regulations to manage the SHC trade. Some provisions in the Regulations that can mitigate the SHC waste problem—by supporting the CE and extending the PPP—are highlighted in the following section. The success of these nascent EPR schemes is measured against their potential to respond to the questions that have challenged the PPP: What is waste? Who is the polluter? What are the environmental costs, and to whom and how should they be paid? (Hart and Marcus 2008).

### *Identifying the Producer*

Kenya's draft EPR Regulations define the producer as 'an entity that introduces goods, products and packaging into the country using authorised means, by manufacturing, importing, distributing, converting, selling or re-selling or otherwise brings' (Art. 2). This implies that the importer of SHC products into Kenya can be regarded as the producer. However, as the SHC trade comprises a variety of actors, interconnected through a multiplicity of supply lines and value chains, other actors can also be regarded as producers or contributors of risk (IEA 2021).

One of the proposed changes to the Regulations, currently under discussion, is the inclusion of brand owners in the definition of producers. This mitigates the risk of the producer evading responsibility by using intermediaries to convert the packaging. Applied to SHC, this could require some of the top global clothing brands to assume the obligations of the volume of clothes exported to the SHC market (Musasia 2021).

### *Obligations of the Producer*

Under the draft Regulations, producers will be required to join a Producer Responsibility Organization (PRO), which will undertake some of their responsibilities. For example, in France, PROs have been used to manage textile waste (EEA 2021). Applied to SHC, manufacturers of clothing imported as SHC could assume the financial responsibility for recovery, collection, sorting, recycling and treatment through their PROs. In anticipation of the approval of the Regulations, the Kenya Extended Producer Responsible Organisation has been registered as the first PRO in the country. Manufacturers of clothing could collaborate through collective EPR schemes to reduce the costs of collection, segregation, recovery and so forth. The implementation of a modulated fees approach would motivate lower-end fashion stores that import used clothing into the country. This approach has been tested in France, which has a mandatory EPR scheme. Eco-TLC, accredited by the French government as a PRO, has helped to reduce textile waste, despite their failure to meet pre-set targets (EEA 2021). The practicality of using PROs for SHC remains unclear.

### *Compensation for Environmental Costs*

In some countries, the revenue generated from producer fees is used to finance EPR schemes within the country (Tojo and Kogg 2012). Implementing the producer fees concept and its reinvestment in EPR schemes is likely to be a challenge in Kenya. The country lacks a fully functional waste management system (NEMA 2014). County governments responsible for waste collection lack the capacity to achieve full coverage. The gap has created a private waste collection industry, including garbage collection service providers and waste pickers working in poorly maintained dumpsites. Such situations raise the question of whether the compensation should be payable to the municipal authorities—in Kenya, this would be the county governments (Tojo and Kogg 2012). It has been proposed that the Regulations include provisions to protect waste pickers who play a role at the waste collection and segregation stages (Musasia 2021). A mandatory deposit return scheme could also be used to create better employment terms and business opportunities. The potential of the emerging EPR schemes to mitigate the waste (particularly textile waste) problem in Kenya will become clearer as the legal frameworks are enacted and enforced.

## **Zero Waste Fallacy**

Is there a possibility that the CE framework will achieve a zero or almost zero waste state? If so, would waste laws lose their relevance? Further, could they be replaced by normative principles governing materials and products? Literature in the area confirms the validity of these questions (Backes 2017). The new business models to support CE frameworks for fashion must ensure that re-use models adopted are equitable and just (Drew et al. 2020). If not, the SHC recycling fallacy will continue.

CE initiatives and EPR policies run the risk of creating a zero waste fallacy. The concept of regeneration of resources and the use of SHC end products to rebuild value-added capital could become an excuse for preventing their categorisation as waste. Weak implementation of CE laws and EPR schemes in developing countries could result in the transformation of textile waste into low value products, which are essentially rebranded waste. Thus, producers' evasion of their responsibility for waste disposal would turn the zero waste strategy into a fallacy.

The CE seeks to radically disrupt the premise of the linear economy, which comprises a causal link between economic growth and the use of resources and the necessary association of human good with economic growth (Romph 2018). The achievement of this lofty ideal requires a fundamental change of worldview where human good is identified with resource stewardship rather than economic growth. In such a world, problems such as resource waste, specifically SHC waste, would become extinct. However, at present, this is a utopian dream.

## **Conclusion**

Using the case of the global SHC trade, this paper has revived the discussion of the application of the PPP as a foundational principle of waste laws in the context of the transition from a linear economy to a CE. It is argued that linear systems authorise and permit pollution, limiting the role of PPP to the management of waste at the end-of-life stage of the product life cycle. In contrast, CE frameworks seek to transform the economic model through interventions at all stages of the product life cycle with a zero waste goal. This shift in economic model provides the opportunity to reconceptualise the PPP in a new environment. It is envisaged that the revitalised PPP will use EPR policies to implement the CE framework; this shift could positively affect the SHC trade. However, time will prove how all this works in practice.

*Correspondence:* Dr Elizabeth Gachenga, Senior Lecturer, Strathmore Law School, Strathmore University, Nairobi, Kenya [egachenga@strathmore.edu](mailto:egachenga@strathmore.edu)

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