

American Journal of
Law
(AJL)

LAW


**Plastic Waste Regime in Rwanda, Kenya and South
Africa: A Comparative Case Study**

Onyinyechi Lilian Uche



Plastic Waste Regime in Rwanda, Kenya and South Africa: A Comparative Case Study

By

 **Onyinyechi Lilian Uche^{1*}**
Nigerian Institute of Advanced Legal Studies



Article history

Submitted 08.11.2023 Revised Version Received 13.11.2023 Accepted 15.11.2023

Abstract

Purpose: Plastic waste has become a major environmental concern worldwide, posing significant challenges to ecosystems, human health, and sustainable development. This case study explores the plastic waste regimes in three African countries: Rwanda, Kenya and South Africa. By examining these countries' policies, strategies, and initiatives, the study aims to highlight their approaches to managing plastic waste and draw lessons for effective waste management practices.

Methodology: The case study utilises a comparative analysis framework to identify similarities and differences in the plastic waste regimes of the three countries. It examines the regulatory frameworks, waste management infrastructure, public awareness campaigns, and recycling initiatives implemented in each country. Furthermore, the study delves into plastic waste's socio-economic and environmental impacts and evaluates the effectiveness of the measures taken to address the issue.

Findings: Findings demonstrate that Kenya, Rwanda, and South Africa have adopted diverse strategies to tackle plastic waste. Rwanda has established a comprehensive waste management system emphasising recycling and community engagement, while Kenya has implemented a ban on plastic bags. South Africa, on the other hand, has embraced extended producer responsibility and developed a recycling infrastructure. These strategies have led to varying degrees of success in reducing plastic waste

and promoting sustainable practices. An examination of the challenges faced by each country revealed factors such as inadequate waste infrastructure, limited resources, and the need for behavioural change among citizens. It also identified the role of stakeholders, including government agencies, non-governmental organizations, and the private sector, in driving plastic waste management initiatives.

Recommendations: Finally, relying on the substantive legitimacy theory, the study provides recommendations based on the acceptability of the policies and best practices observed in the case countries. These include investment in waste management infrastructure, public education and awareness campaigns, and stakeholder collaboration. Countries can effectively address the plastic waste challenge by adopting an integrated approach that combines policy interventions, infrastructure development, and behavioural change. Overall, this case study contributes to the understanding of plastic waste management in Rwanda, Kenya and South Africa, shedding light on successful strategies and areas for improvement. It emphasises the importance of a holistic and collaborative approach to create sustainable plastic waste regimes that protect the environment, promote circular economy principles, and safeguard public health.

Keywords: *Plastic waste, Legal Framework, Single-use plastics, Plastic ban*

¹*PhD. (Law) (UWC); LLM, LLB. (Hons.); Senior Research Fellow, Nigerian Institute of Advanced Legal Studies.

1.0 INTRODUCTION

This paper aims to use comparative best practices to identify what constitutes an effective legal framework for plastic waste. To do this, it examines the regulatory frameworks, waste management infrastructure, public awareness campaigns, and recycling initiatives implemented in Rwanda, Kenya and South Africa. It also identifies standard best practices, similarities and differences in the plastic waste regimes of the three countries. Furthermore, the study delves into plastic waste's socio-economic and environmental impacts and evaluates the effectiveness of the measures taken to address the issue. The problem being addressed in this comparative case study is the effectiveness and efficiency of plastic waste regimes in the three referenced countries. This study notes that various regions have implemented different strategies and policies to manage plastic waste, including recycling programs, waste reduction initiatives and legislative measures. However, there is a lack of comprehensive understanding regarding the outcomes and effectiveness of these plastic waste regimes in different contexts.

To effectively address this problem and discover the lessons offered by these efforts to reduce plastics and manage plastic waste, the paper examines legislation and empirical works of other academics and NGOs to identify the actors involved, the interaction between them and identify alternatives that were considered though not chosen and what contextual factors mattered. It also examines the policy instruments applied in the selected jurisdictions and how they were combined and implemented.

The study adopts substantive legitimacy theory, which focuses on the content and outcome of policies.² This theory is often associated with the notion of policy effectiveness and the ability of policies to address societal problems.³ It is worth noting that scholars have long debated which combination of policy instruments are preferable.⁴ Some argue for a combination of both positive and repressive policy instruments, i.e. the give-and-take strategy,⁵ while others prefer either of the policy instruments.⁶ Nonetheless, it is believed that repressive policies are outdated and give no legitimacy to a policy or regulatory instrument.⁷ Legitimacy in this context is broadly understood as the degree to which citizens accept a policy. In contrast, effectiveness deals with the acceptability of the policy by the citizens. For example, Van der Doelen claims that the effectiveness of state intervention or policy depends on its

²Weigand F, Investigating the Role of Legitimacy in the Political Order of Conflict-torn Spaces, Working Paper, Security in Transition: An Interdisciplinary Investigation into the Security Gap. Available at <http://eprints.lse.ac.uk/62691/1/Investigating-Legitimacy-in-the-Political-Order-of-Conflict-torn-spaces.pdf> ((accessed 11 November 2023)).

³Weigand F, Investigating the Role of Legitimacy in the Political Order of Conflict-torn Spaces, Working Paper, Security in Transition: An Interdisciplinary Investigation into the Security Gap. Available at <http://eprints.lse.ac.uk/62691/1/Investigating-Legitimacy-in-the-Political-Order-of-Conflict-torn-spaces.pdf> ((accessed 11 November 2023)).

⁴Vedung E 'Policy Instruments: Typologies and Theories' in Bemelmans- Videc, Rist & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation* (2011) 21-31. Van der Doelen CJF (1998) 'The "Give-and-Take" Packaging of Policy Instruments: Optimizing Legitimacy and Effectiveness' in Bemelmans- Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation* (2011) 129-135.

⁵Van der Doelen CJF 'The "Give-and-Take" Packaging of Policy Instruments: Optimizing Legitimacy and Effectiveness' in Bemelmans-Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation*. (2011) 129-135.

⁶Carr TR 'Public administrators and policy legitimization: Policy analysis, politics and power' (1993) 16(8) *International Journal of Public Administration*, 1199-1216.

⁷Vedung E 'Policy Instruments: Typologies and Theories' in Bemelmans- Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation* (2011) Transaction Publishers New Jersey

legitimacy.⁸ The discussions in this paper are divided into four parts. The first part deals with the introduction and gives a background to the subject matter. The second part gives a context to the selected jurisdiction. The third part analyses the regulatory framework, policies, strategies and initiatives of the three reference countries, highlighting their approaches to managing plastic waste and the challenges faced, such as inadequate waste infrastructure, limited resources, and the need for behavioural change among citizens. It also considers the role of stakeholders, including government agencies, non-governmental organisations, and the private sector in driving plastic waste management initiatives. The fourth part highlights the lessons learnt and concludes the paper.

Context of the Selected Jurisdictions

Rwanda, Kenya and South Africa were selected mainly for their varying economic situations and approaches to plastic regulation. These economic situations range from competitive markets to lack of full information, risk-informed knowledge, and technological know-how. For these reasons, government interventions or policies commonly recommended for highly developed countries apply differently in these countries.⁹

Contextually, Rwanda is a sub-Saharan African country with a developmental economy similar to Nigeria.¹⁰ It is one of the few countries in the world that has introduced a complete national ban on plastic bags production and usage.¹¹ Due to its success, several scholars have tried to analyse its implementation of the plastic bags reduction policy.¹² Being a LDC, the success of the plastic bag ban has come across as surprising because of the citizens' substantial compliance with the rigid environmental policy design¹³ Research indicates that the first phase of the ban implementation resulted in a black market for plastic bags, which eventually got replaced with paper bags overtime.¹⁴ It has been suggested that Rwanda's

⁸Van der Doelen CJF 'The "Give-and-Take" Packaging of Policy Instruments: Optimizing Legitimacy and Effectiveness' in Bemelmans-Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation*. (2011) Transaction Publishers, New Jersey.

⁹Eskeland GS and Jimenez E 'Policy instruments for pollution control in developing countries' (1992) 7 (2) *The World Bank Research Observer* 145-169.

¹⁰Danielsson M *The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes – A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags*, (unpublished, master's thesis, Uppsala University, Sweden, 2017). 24- 39. Behuria P 'Ban the (Plastic) bag? Explaining variation in the implementation of Plastic bag ban in Rwanda, Kenya and Uganda' (2021) 39(8), *SAGE Journals Environment and Planning C: Politics and Space*.

¹¹ Sharp, Høj, & Wheeler 'Proscription and its impact on anti-consumption behavior and attitudes: the case of plastic bags' (2010) 9 *Journal of Consumer Behaviour* 470-484. Clapp J & Swanston L 'Doing away with plastic shopping bags: International patterns of norm emergence and policy implementation' (2009) 18 (3) *Environmental Politics*. Miller RM 'Plastic shopping bags: An Analysis of Policy Instruments for Plastic Bag Reduction' (Unpublished MScThesis, Universiteit Utrecht 2012) 33, 36.

¹²Sharp, Høj, & Wheeler 'Proscription and its impact on anti-consumption behavior and attitudes: the case of plastic bags' (2010) 9 *Journal of Consumer Behaviour* 470-484. Clapp J & Swanston L 'Doing away with plastic shopping bags: International patterns of norm emergence and policy implementation' (2009) 18 (3) *Environmental Politics* 315- 332. Kohls R 'The Plastic Bag Debate: Lessons from Rwanda' *The Dominion* June 2011 10, <https://www.torontoenvironment.org/newsroom/teainthenews/other20110610> (accessed 23 May 2021).

¹³ Danielsson M *The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes – A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags*, (unpublished, Master's thesis, Uppsala University, Sweden, 2017) 24- 39.

¹⁴According to the New York Times, women are walking across the border from the Democratic Republic of Congo with plastic bags taped to their bodies, hidden under clothing, wrapped around arms. See Ocean Wise 'Rwanda's Plastic-Bag Black Market', *New York Times* 7 December 2017 <https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html> (accessed 13 May 2021). Clavel & Émilie, 'Think you can't live without plastic bags? consider this: Rwanda did it available at <https://www.theguardian.com/commentisfree/2014/feb/15/rwanda-banned-plastic-bags-so-can->

decision to ignore the dominant western ideas on how to implement environmental policy contributed to the success of its plastic bag ban.¹⁵

South Africa is a sub-Saharan African country with an economy and cultural diversity that is comparable to Nigeria. It highlights the challenges of partial plastic bag prohibition that may not be enough to deter plastic bags pollution.¹⁶ The several policy stages it has moved through have shaped the waste sector more than in other developing countries.¹⁷ The policy timeline indicates a rising trend in the number of waste policy responses initiated since the first law preventing environmental degradation due to pollution and other activities was enacted in 1989.¹⁸ Also, its waste policy process has seen the reflection of stakeholder participation in policy development.¹⁹

Despite its multi-stage policy, research reveals that South Africa has not progressed in the shift from landfilling to recycling, as approximately 90 per cent of the waste generated in the country is still landfilled.²⁰ This implies that the different policies put in place in South Africa to minimise plastic waste have progressed slowly without remarkable success.

Conversely, Kenya's success with SUPs regulation results from its prioritisation and categorisation of SUPs, in addition to having one of the toughest regulations in the continent.²¹ For instance, the 2005 and 2017 plastic ban focused only on plastic bags and has shown 80per cent success in the ban enforcement.²² The success of the ban enforcement within Kenya has also revealed a decline in polythene bags collected along the coastal area, which shows that the ban intervention directly impacted the amount of marine litter

we (accessed 14 May 2021). See also, Pilgrim & Sophie 'Smugglers work on the dark side of Rwanda's plastic bag ban'. available at <http://america.aljazeera.com/articles/2016/2/25/rwanda-plastic-bag-ban.html> (accessed 31 May 2020).

¹⁵Danielsson M *The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes – A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags*, (unpublished, Master's thesis, Uppsala University, Sweden, 2017). 24- 39.

¹⁶Nwafor & Walker 'Plastic bags prohibition bill: a developing story of crass legalism aiming to reduce plastic marine pollution in Nigeria' (2020) 120 *Marine Policy*.

¹⁷Environmental Conservation Act Management of 1989; National Environmental Management Act of 1998; National Environmental Management Waste Act of 2008, National Domestic Waste Collection Standards of 2011, National Policy for the Provision of Basic Refuse Removal Services to Indigent Households of 2011; Waste Classification and Management Regulation of 2013; Norms and Standards for the disposal of waste to landfill of 2013; National Environmental Management Waste Amendment Act of 2014, Regulations regarding the control of the Import or Export of Waste, 2019, Amendment and Regulations and Notices Regarding Extended Producer responsibility of 2020 (EPR).

¹⁸Environmental Conservation Act of 1989. See National Environmental Management: Waste Act No 59 of 2008 NEM:WA.

¹⁹Department of Forestry, Fisheries and the Environment 'Department of Environmental Affairs Strives to Improve Plastic Bag Recycling in South Africa' available at www.dffe.gov.za/mediarelease/deaonimproveplasticbagrecyclinginSA (accessed 14 November 2022).

²⁰CIPRO 'Tackle the Landfill Crisis' available at <https://www.plasticrecyclingsa.co.za/> (accessed 17 June 2020).

²¹Pritish B 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 (8) *SAGE Journals Environment and Planning C: Politics and Space*.

²²According to an internal assessment by Kenya's National Environment Management Authority (NEMA) 80% of the population has stopped using plastic carrier bags since the 2017 ban was adopted. GN 2356 and 2334 of 28 February 2017, Barret A 'Did the Kenya Plastic Bag Ban Work?' available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 10 July 10, 2022)

reaching the oceans.²³ The implementation plan of Kenya to ban SUPs in protected areas proposed alternatives to SUPs.²⁴

The detailed comparative case studies below seek to articulate best practices from the mixed successes of Rwanda, Kenya and South Africa.

Case Studies

a. Rwanda

Rwanda has had a long and deliberate approach to plastics regulation. The first attempt at its prohibition was the adoption of a law in 2008 relating to the ban on manufacturing, importation, use, and sale of polythene bags (non-biodegradable plastic bags) in the country.²⁵ The Law prohibits the manufacture, use, import, and sale of polythene (or polyethylene) bags.²⁶ It stems from a 2004 government instruction that banned the importation and manufacture of polythene plastic bags. It further extended the focus to its use by residents and businesses.²⁷ Research shows that the Law, though repealed in 2019, helped to reduce the use of plastic bags across Rwanda and improve recycling rates, with claims of 70-80 per cent of recycled plastics.²⁸ Stakeholders indicate that the prohibition of plastic bags delivered significant results, including reduced pollution within water treatment systems and reduced litter clean-up costs.²⁹ This reduction in plastic pollution is believed to contribute to a reduction of microplastics in soils with a potential improvement in the health of Rwanda's cattle and human beings.³⁰

In 2019, the scope of the prohibition law was extended beyond polythene bags to accommodate other types of plastics found to be harmful to the environment such as plastic carry bags and SUP items.³¹ The 2019 law resulted from Rwanda's Environmental Management Authority findings, which showed that flooding and low agricultural productivity resulted from improperly discarded SUPs, preventing rainwater

²³National Environment Management Authority '2 years on: Say no to plastic bags' available at https://www.nema.go.ke/index.php?option=com_content&view=article&id=296&-catid=2&Itemid=451 (accessed 12 July 2022)

²⁴Ministry of Environment 'The implementation plan for the ban of single-use plastics 2020' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 12 July 2022)

²⁵Prohibition of Manufacturing, Importation, use and Sale of Polythene bags in Rwanda, Law No 57/2008 of 10 September 2008.

²⁶Prohibition of Manufacturing, Importation, use and Sale of Polythene bags in Rwanda, Law No 57/2008 of 10 September 2008.

²⁷Prohibition of Manufacturing, Importation, use and Sale of Polythene bags in Rwanda, Law No 57/2008 of 10 September 2008. See also The World Bank Report 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://documents1.worldbank.org/curated/en/099530006222226992/pdf/P1791430174c860e0a9af0cb4b442deb33.pdf> (accessed 14 July 2022).

²⁸Dsilva E, 'Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019 <https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022).

²⁹Dsilva E 'Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019 <https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022).

³⁰Dsilva E, 'Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019 <https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022).

³¹Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Bags and Single-Use Plastic Items Rwanda, Law No. 17/2019, GN 37 of 23 September 2019. available at https://elaw.org/plastic/RW_PlasticLaws (accessed 14 June 2022).

from penetrating the soil.³² Article 2 of the Law defines SUP items as disposable plastics designed to be used once before discarding or recycling, including plastic carry bags, oxo-degradable plastics, and other items made from plastic.³³ The Law requires manufacturers or retailers to put mechanisms in place to collect and segregate used plastics for recycling.³⁴

Private persons found disposing of SUP items are fined and required to repair the damage caused.³⁵ The Law gave retailers a grace period of three months in 2020 to sell off any goods that are packaged in throwaway plastic and two years for industrial manufacturers to change production patterns to avoid SUP packaging.³⁶ It provides a list of sanctions depending on the manufacturing, importing, and retailing violation.³⁷ The sanctions include ending the practice that violates the Law, dispossession of illegal items, and fines.³⁸ Arts. 9-13 provides that recidivism doubles the fine, and the fines are deposited into the National Fund for Environment.³⁹ The Law also provides for an administrative fine of (FRW 50,000) about \$42.46 for unauthorised or unsafe disposal of plastic carry bag waste and other SUP items. The sanctions are aimed at changing citizens' behaviour regarding proper waste handling and disposal.⁴⁰ Although the stringent fines were considered oppressive, they are also considered the reason for the substantial compliance by citizens.⁴¹ The offence of illegal or unsafe disposal of plastic waste, if committed by a person with exceptional authorisation to use plastic carry-on bags and SUPs, is liable to an administrative fine of five million Rwandan francs (FRW 5,000,000) equal to (4060 USD) , and the authorisation is also suspended or withdrawn.⁴²

The ban considered exceptional cases where prohibited items may be required, e.g., a product that can only be packaged with plastic packaging material. As such, article 4 of the Law provides the possibility

³²Mahajan R 'Plastics Ban: Finding Alternatives' available at <https://www.dandc.eu/en/article/rwanda-taking-its-ban-single-use-plastic-bags-one-big-step-further-include-most-other-types> (accessed 14 July 2022.)

³³Art 2 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items Rwanda.

³⁴Art 6 of Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items Rwanda.

³⁵Art 13, Any person who piles or disposes of plastic carry bag waste and other single-use plastic items on unauthorised public or private place is liable to an administrative fine of fifty thousand Rwandan francs (FRW 50,000) and is ordered to remove such waste repair damages caused by him or her. If the acts referred to in Paragraph One of this Article are committed by a person have exceptional authorisation to use plastic carry bags and single-use plastic items treat waste, he or she is liable to an administrative fine of five million Rwandan franc (FRW 5,000,000). The is also suspended or withdrawn.

³⁶ Art 17 of Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items Rwanda.

³⁷ Arts 9-13, The Law provides for dispossession of the items and payment of administrative fines in case of violation of the Law to the tune of FRW 10,000,000 for manufacturers, ten times the cost of importation for an importer. FRW 700,000 for a wholesaler; R300,000 for a Retailer of plastic carry bags and single-use plastics.

³⁸ Art 16 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

³⁹ Art 16 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁴⁰ Art 13 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁴¹ The World Bank Report 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://documents1.worldbank.org/curated/en/09953000622226992/pdf/P1791430174c860e0a9af0cb4b442deb33.pdf> (accessed 14 July 2022).

⁴² Art 13 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

of applying for special authorisation. To enforce Article 4, the Rwanda Environment Management Authority (REMA) developed guidelines highlighting procedures and conditions for eligibility to grant special permission.⁴³ The guideline specifies who should apply,⁴⁴ how to apply and the elements of the application.⁴⁵ Article 3 of the guideline provides a list of eligibility criteria to include medical purposes, agricultural and forestry, waste collection and sanitation, construction industry, industrial use, and printing houses, while article 2 provides eligibility conditions for applications related to plastic materials for packaging purposes.⁴⁶ It provides that the product to be packaged must be produced in Rwanda; must have no alternative to plastic on either the local or international market; the product must be for export and the applicant must show that the lack of packaging material will have a direct and negative impact on the quality of the products.⁴⁷ This provision ensures that the ban does not affect the country's economic earnings from exportation.

The 2019 Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items. imposes an environmental levy on all imported goods packaged in plastic material or SUP items.⁴⁸ It also introduces an extended responsibility mechanism that mandates every manufacturer, wholesaler, or retailer of plastic carry bags or SUP items to put in place collection and segregation tools for their used products for the purpose of recycling.⁴⁹ It equally requires that all recycling procedures must be environmentally friendly.⁵⁰

Ensuring compliance is the responsibility of the following agencies: the Rwandan National Police, customs, investigation bureau, Rwanda Environment Management Authority, Standards Board; Inspectorate, and Competition and Consumer Protection Authority through inspection and monitoring the

⁴³ Guidelines on Procedures on eligibility to grant exceptional permission to manufacture, use, import, or sell single-use plastic Items or pack goods in Single-Use Plastics, Articles 1 – 2 available at https://elaw.org/system/files/attachments/publicresource/RW_BanException_Guidelines_2019.pdf (accessed 12 July 2022). The guidelines repealed the guidelines of 09/10/2019.

⁴⁴ Art 1 of the Guidelines on Procedures and Conditions for eligibility to grant special permission to manufacture, use, import or sell single-use plastic Items or pack goods in Single-Use Plastics. Provides that manufacturers of goods that require plastic material for packaging; an importer or manufacturers of home compostable single-use plastics; and a user of single-use plastic items, available at https://elaw.org/system/files/attachments/publicresource/RW_BanException_Guidelines_2019.pdf, (accessed 12 July 2022).

⁴⁵ Art 4 of the Guidelines on Procedures and Conditions for eligibility to grant exceptional permission to manufacture, use, import or sell single-use plastic Items or pack goods in Single-Use Plastics. available at https://elaw.org/system/files/attachments/publicresource/RW_BanException_Guidelines_2019.pdf (accessed 12 July 2022).

⁴⁶ Art 3 of the Guidelines on Procedures and Conditions for eligibility to grant exceptional permission to manufacture, use, import or sell single-use plastic Items or pack goods in Single-Use Plastics available at https://elaw.org/system/files/attachments/publicresource/RW_BanException_Guidelines_2019.pdf

⁴⁷ Art 3, of the Guidelines on Procedures and Conditions for eligibility to grant exceptional permission to manufacture, use, import or sell single-use plastic Items or pack goods in Single-Use Plastics available at https://elaw.org/system/files/attachments/publicresource/RW_BanException_Guidelines_2019.pdf (accessed 12 July 2022).

⁴⁸ Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items Rwanda, Article 5, Law No 17/2019 of 10/08/2019.

⁴⁹ Art 6, Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁵⁰ Art 7, Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

use, sale, manufacture, import, and export of all plastic items to achieve wide enforcement success.⁵¹ The Law set clear lines of responsibilities for each party including the establishment of REMA to coordinate and oversee environmental management for sustainable development, as well as the national fund of the environment to oversee financial regulation of the sector.⁵² Stakeholder engagement also indicated that clear lines of responsibilities exist between communities/citizens and government institutions.⁵³

There were other regulatory instruments implemented in Rwanda, such as the Organic Law No. 04/2005 of 08/04/2005, which determines the modalities of Protection, Conservation, and Promotion of the Environment in Rwanda,⁵⁴ and the Law No. 53 of 2007 establishing community works.⁵⁵ Law No. 04/2005 creates the legal framework for all waste management activities in Rwanda. It instigates the PPP and a range of financial incentives and disincentives to promote better management of waste. According to stakeholder interviews conducted in a World Bank report, collection services have been introduced to households and communities, with an estimated 88 per cent coverage across Kigali.⁵⁶ This has reduced government clean-up costs and provided reliable and sustainable methods to manage waste.⁵⁷ Law No. 53/2007 governs Umuganda (meaning “coming together in common purpose), a monthly community work including community clean-up.⁵⁸ The Law's objective is to promote clean-up of the nation and empower residents by engaging them in developing rules or policies for their communities.⁵⁹ Umuganda is believed to have an estimated total economic value of up to US\$ 200 million, which has helped build roads and schools and mitigate the impacts of solid and plastic wastes through community participation in litter clean-up exercises. The direct financial contribution of the government is reported to be US\$ 49.8 million (49.4 billion RWF); the rest are in-kind contributions of residents and businesses of participating communities.⁶⁰

There is also the regulation governing solid waste collection and transportation services 2020, which provides licencing framework for the provision of solid waste collection and transportation services.⁶¹ It mandates the public to sort their wastes to avoid littering while being transported and licenced waste

-
- ⁵¹ Art 8, Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.
- ⁵² Organic Law No.04/2005 determine the modalities of Protection, Conservation, and Promotion of the Environment in Rwanda.
- ⁵³ Law No 53/2007 of 17/11/2007 establishing community works in Rwanda (Umuganda).
- ⁵⁴ Organic Law No. 04/2005 of 08/04/2005.
- ⁵⁵ Law No.53/2007of17/11/2007.
- ⁵⁶ Rajashekar, Bowers & Gatoni ‘Assessing Waste Management services in Kigali’ available at <https://www.theigc.org/wp-content/uploads/2019/11/Rajashekar-et-al-2019-paper.pdf> (accessed 13 November 2022)
- ⁵⁷ Law No. 53/2007 of 17/11/2007 Establishing Community Works in Rwanda (2007).
- ⁵⁸ Radhia Mtonga, Commentary: Rwanda offers a plastic recycling model worth emulating, October 11, 2022, <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga/> (November 13, 2022).
- ⁵⁹ Section 1 - 3 of Law No.53/2007. The law provides for compulsory community work which aims to promote development activities in the framework of supporting the national budget and mandates every Rwandan from 18 to 65 years old to perform community works.
- ⁶⁰ Mtonga R ‘Commentary: Rwanda offers a plastic recycling model worth emulating’ available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga/> (accessed 10 October 2022).
- ⁶¹ Art 1 of Regulations Governing Solid waste and transportation Services of 2020, The Regulation No 001/EWASTAN/SW/RURA/2014 of 28/8/2014 on solid waste collection and transportation services provision in Rwanda and all other previous provisions. It was made Pursuant to Law N° 09/2013 of 01/03/2013 establishing Rwanda Utilities Regulatory Authority (RURA) and determining its mission, powers, organisation and functioning, especially in its articles 2, 4, 6, 8 and 20.

transporters to organise awareness programmes on waste segregation, recycling and re-use of segregated materials.⁶² By the contents of this law and the Law on community works discussed above, it can be said that the principle of public participation is effective in Rwanda.

The success of the Rwandan Law can be seen from the language of the Law and its mode of application and operationalisation. The Law has both positive and oppressive elements. The positive element of the law is seen from its application and gradual phasing.⁶³ A three-year transition period was introduced in advance of the ban, to build awareness and support.⁶⁴ According to Jian Xie & James Martin there was early confusion among residents and businesses, who had a limited understanding of the need for the ban.⁶⁵ This led to the government undertaking multiple awareness-raising campaigns to ensure that the population understood the purpose of the ban and its benefits to health and the environment.⁶⁶ Reports show that the continuous engagement and awareness initiatives recorded an upward change in the understanding and behaviour of citizens.⁶⁷ The oppressive elements can be seen in the absence of economic interventions such as subsidies for plastic bags recycling or financial support to companies to search for and produce environmental-friendly alternatives. Additionally, the penalties in the form of imprisonment for up to one year and heavy fines all confirm the oppressive nature of the laws.

The approaches adopted by Rwanda include a comprehensive awareness campaign - for instance, through a monthly day of physical collection of plastic bags combined with educational features - to make citizens aware of the importance of behaving and consuming in environmentally- friendly ways.⁶⁸ The Law includes a few aspects of EPR, such as imposing an environmental levy on imported SUP items or goods that come packaged in plastic⁶⁹ and requiring every manufacturer, wholesaler, or retailer of plastic carry bags or SUP items to put in place mechanisms to collect and segregate used plastic carry bags and SUP

⁶² Art 24 of Regulations Governing Solid waste and transportation Services of 2020, The Regulation No 001/EWASTAN/SW/RURA/2014 of 28/8/2014 on solid waste collection and transportation services provision in Rwanda and all other previous provisions. It was made Pursuant to Law N° 09/2013 of 01/03/2013 establishing Rwanda Utilities Regulatory Authority (RURA) and determining its mission, powers, organisation and functioning, especially in its articles 2, 4, 6, 8 and 20.

⁶³ Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁶⁴ Art 17 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁶⁵ Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).

⁶⁶ Mtonga R 'Commentary: Rwanda offers a plastic recycling model worth emulating' available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga> (accessed 11 October 2022). Section 1 Law No.53/2007.

⁶⁷ Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).

⁶⁸ The 'Umuganda' a Kinyarwanda word that means "coming together in common purpose". It's a monthly community work (including community clean up) reintroduced to Rwandan life in 1998 as part of the efforts to rebuild the country after the 1994 genocide. Today, it takes place on the last Saturday of every month from 08:00 and lasts for at least three hours, with every able-bodied Rwandan aged 18 to 65 taking part. Mtonga R 'Commentary: Rwanda offers a plastic recycling model worth emulating' available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga> (accessed 11 October 2022).

⁶⁹ Art 5 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

items and hand them over to the recycling plants.⁷⁰ In addition to fines for offenders and waste collection fees which is placed according to the level of income of each house hold,⁷¹ it also adopted the PPP, where an alleged polluter or unauthorized disposal of plastic carry-on bags and SUPs is ordered to clean or remove such waste and repair whatever damage caused.⁷² The ban on polythene bags have been successful due to the government's effective enforcement of the Law.

Enforcement practices include random inspection of shops, closures, and fines for offending businesses.⁷³ Some 70 to 80 business owners have been jailed for violating the ban, although fines are the most common form of prosecution.⁷⁴ The ban incorporated a phased implementation approach by exempting the application of the Law on SUP items already ordered or in stock three (3) months from the commencement of the Law. In consideration of the resultant adverse effect of the ban, such as potential job loss or employment reduction,⁷⁵ the law gave SUP manufacturers a two-year grace period before enforcing compliance.⁷⁶

A review of Rwanda's policy package and reports on plastic pollution show that the laws and strategies adopted positively affected environmental effectiveness. This is seen from the increased recycling rates and reduction in the quantity of plastic litter in drainage systems.⁷⁷ Although there is no statistical data to quantify the progress made in plastic reduction, a decrease in plastic bag consumption was indicated as a result of Law No. 57/2008.⁷⁸ It also showed reduced cost by government on street cleaning and has been

⁷⁰ Art 6 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁷¹ Arts 2, 4, 6, 8 and 20. Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

Regulations Governing Solid waste and transportation Services 2020, The Regulation No 001/EWASTAN/SW/RURA/2014 of 28/8/2014 on solid waste collection and transportation services provision in Rwanda and all other previous provisions. It was made Pursuant to Law N° 09/2013 of 01/03/2013 establishing Rwanda Utilities Regulatory Authority (RURA) and determining its mission, powers, organisation and functioning, especially in its articles 2, 4, 6, 8 and 20.

⁷² Art 13 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁷³ Ministerial Order N° 005/2008 of 15/08/2008. Establishing modalities of inspecting companies or activities that pollute the environment, Government of Rwanda (2008).

⁷⁴ Dsilva E, Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019 available at <https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022). See also, Human Rights Watch *Justice Compromised: The Legacy of Rwanda's Community-Based Gacaca Courts*. (2011) HRW Rep <https://www.hrw.org/report/2011/05/31/justice-compromised/legacy-rwandas-community-based-gacaca-courts> (accessed 25 March 2022).

⁷⁵ Caliendo H, 'The Economic Effect of Plastic Bag Bans', available at <https://www.plasticstoday.com/business/economic-effect-plastic-bag-bans> (accessed 4 April 2021).

⁷⁶ Art 17 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

⁷⁷ Research carried out on the impact of Laws No. 04/2005 showed an improved recycling rate with the introduction of plastics recycling collections. Although there was the absence of before and after data to make a formal assessment. The improved recycling rates also helped in the implementation of Law No. 57/2008 as it reported that 70-80 per cent of waste plastics are recycled. See also Dsilva E, Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019 <https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022). See also, Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).

⁷⁸ Engagement helped confirm that it is now difficult to find plastic bags in circulation in Rwanda and materials such as textile and paper bags are reused. The changes indicate a behavioral change with plastics being replaced by alternative materials.

linked to the improved visitor and tourism numbers.⁷⁹ Scholars have attributed the successful implementation of Rwanda's plastic ban laws to the absence of business powers or a strong private sector.⁸⁰ In essence, if Rwanda had a strong group of plastic manufacturers and importers, their economic and influential power would have weakened the implementation of the laws and policies.

As seen in the Kenyan case study, businesses influence government policies and shape the direction of capitalism.⁸¹

b. Kenya

The regulation of SUPs in Kenya dates to 2005. Research reveals that grocery stores were handing out over 100 million shopping bags annually, despite the lack of waste disposal infrastructure to keep them out of the environment.⁸² As a result, they clogged waterways and drainage systems and made flooding worse during the rainy season.⁸³ According to a government-supported study in Nairobi, more than half of all cattle near cities and towns had plastics in their stomachs.⁸⁴ Some slaughter-houses were removing up to 20 plastic bags from the bowels of the cows.⁸⁵ These led to the implementation of the 2005 law prohibiting the manufacture and sale of plastic bags with a thickness of 30 microns and the placement of a levy on thicker bags.⁸⁶

Since then, four attempts have been made at implementing a complete ban on single-use bags without success⁸⁷ Literature attributes the ban's ineffective implementation to strong and prominent business powers such as manufacturers, importers, and retailers.⁸⁸ Each attempt to implement a plastic ban led to an overwhelming protest by producers and traders, arguing losses in the employment of factory workers,

-
- ⁷⁹Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).
- ⁸⁰Behuria P 'The comparative political economy of plastic bag bans in East Africa: why implementation has varied in Rwanda, Kenya and Uganda' 2019 (037) *GDI Working Paper*. Musoke R 'Polythene bags: the menace of East Africa' available at <https://www.independent.co.ug/polythene-bags-menace-east-africa/> (accessed 13 October 2022)
- ⁸¹Block F 'The ruling class does not rule' (1977) *Socialist Revolution* 6–28. Miliband R *The State in Capitalist Society* (1973) Quartet London. Lindblom C *Politics and Markets: The World's Political-economic Systems*. (1977) Basic Books New York
- ⁸²UNEP 'Kenya announces breakthrough ban on plastic bags' available at <https://www.unep.org/news-and-stories/story/kenya-announces-breakthrough-ban-plastic-bags> (accessed 13 October 2022).
- ⁸³Barret A 'Did the Kenya Plastic Bag Ban Work?' available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 14, November 2022).
- ⁸⁴Barret A 'Did the Kenya Plastic Bag Ban Work?' available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 14, November 2022).
- ⁸⁵BBC News Reality Check team 'Has Kenya's plastic bag ban worked' available at <https://www.bbc.com/news/world-africa-49421885> (accessed 14, November 2022). Lange, Inganga, Busienei *et al* 'The prevalence of plastic bag waste in the rumen of slaughtered livestock at three abattoirs in Nairobi Metropolis, Kenya and implications on livestock health' (2018) 30(11) *Livestock Research for Rural Development* Article 182 available at <http://www.lrrd.org/lrrd30/11/clang30182.html> (accessed 1 August 2022).
- ⁸⁶United Nations Environment Programme *Report 2005 Selection, Design and Implementation of Economic Instruments in the Solid Waste Management Sector in Kenya: The Case of Plastic Bags* (2005).
- ⁸⁷Pritish B 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 (8) *SAGE Journals Environment and Planning C: Politics and Space*. 1799.
- ⁸⁸Njeru J 'The urban political ecology of plastic bag waste problem in Nairobi, Kenya', (2006) 37 6 *Geoforum* 1046-1058. Pritish B 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 (8) *SAGE Journals Environment and Planning C: Politics and Space*. 1799.

losses for workers in supply outlets, and street families engaged in distribution.⁸⁹ Kenya's National Environment Management Authority (NEMA) also reported that implementation of the plastic ban law will result in job losses for more than 4000 Kenyans⁹⁰ In 2007, another attempt was made to outlaw the manufacture and importation of plastic bags up to 0.03 millimetres in thickness (30 microns), with a universal 120 per cent excise duty placed on them.⁹¹ Implementing the 2007 law led to a protest, and producers threatened to pass on the extra cost of making thicker polythene to the consumer.⁹²

In 2011, NEMA announced a new ban – covering more extensive ground than previous ones – on plastic bags below a thickness of 0.06 millimetres (60 microns).⁹³ Despite the bans, plastic production in Kenya soared to 400,000 tonnes per annum.⁹⁴ Subsequently, in August 2017, Kenya enacted a law banning the use, manufacture, and importation of all plastic bags used for commercial and household packaging and proposed to expand the ban on PET bottles.⁹⁵ The legislation gave an exemption to plastics used for primary industrial packaging at the source of the product and which does not constitute over-packaging.⁹⁶ It also allows use of plastic packaging where there is no non-plastic alternative packaging material, labelled clearly by the industry manufacturing it, and is not available on sale at the counter or given freely outside the industrial setting.⁹⁷ The legislation provides that a request for an authorisation to manufacture, export, import, or use flat plastic bags for industrial use shall be submitted with a recycling plan to be executed individually or jointly.⁹⁸

The Kenyan ban law was considered draconian and repressive due to its stringent sanction and fines.⁹⁹ For instance, it provides a four-year prison term or a fine of up to \$40,000 (4.4 million Kenyan Shillings) for anyone producing, selling, or carrying a plastic bag.¹⁰⁰ According to Watt, implementing the law saw several arrests and market closures due to non-compliance.¹⁰¹ The strict penalties are a major strategy of

⁸⁹Prithish B 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 (8)*SAGE Journals Environment and Planning C: Politics and Space*. 1799.

⁹⁰Njeru J 'The urban political ecology of plastic bag waste problem in Nairobi, Kenya', (2006) 37 (6) *Geoforum* 1046-1058.

⁹¹Gazette Notices Nos 2356 and 2334 of 2017.

⁹²Kairu P 'Will we triumph in the war on plastics?' available at <https://nation.africa/kenya/life-and-style/dn2/will-we-triumph-in-the-war-on-plastics--451908> (accessed 12 November 2022).

⁹³Independent 'Kenya Bans Plastic Bags' available at <https://www.independent.co.uk/climate-change/news/kenya-bans-plastic-bags-2179928.html> (accessed 12 November 2022).

⁹⁴The Economist 'Kenya tries to ban plastic bags – again' available at <https://www.economist.com/middle-east-and-africa/2017/03/23/kenya-tries-to-ban-plastic-bags-again> (accessed 12 November 2022).

⁹⁵CAP 387 of the Environmental Management and Coordination Act of 2017 (EMCA Cap 387) Gazette notice No. 2334, of 28 February 2017.

⁹⁶Section 9, Plastic bag control and Management Regulations of 2018. See also NEMA, Government bans plastic carrier Bags, Effecting the Gazette Notice on the BAN ON PLASTIC CARRIER bags, A quarterly publication of NEMA, provides that a packaging may not be eligible for exemption if it constitutes an over-packaging, or if there exists any other reasonably feasible non-plastic alternative packaging material.

⁹⁷Section 9, Plastic bag control and Management Regulations of 2018. See also NEMA, Government bans plastic carrier Bags, Effecting the gazette Notice on the Ban on Plastic Carrier Bags', A quarterly publication of NEMA, 1 pg. 2. NEMA 'Government bans plastic carrier Bags, Effecting the gazette Notice on the Ban on Plastic Carrier Bags' available at <https://www.nema.go.ke/images/Docs/Awarness%20Materials/NEAPS/NEMA%20Quarterly%20Magazine-Jan-March%202017.pdf> (accessed 12 November 2022).

⁹⁸Section 10 and 6.4 Plastic bag control and Management Regulations of 2017.

⁹⁹Behuria P. 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 *Environ. Plan. C*. 1–18.

¹⁰⁰Environmental Management and Co-ordination Act, No. 8 of 1999, § 144 (Jan. 14, 2000), Kenya Law website.)

¹⁰¹Watts J (2018) Eight months on, is the world's most drastic plastic bag ban working? *The Guardian*, 25 April. As of August 2019, more than 500 arrests — mostly traders, small-scale businesses and citizens found with banned bags —

the plastic ban, although it was critiqued and opposed for being too strict, not giving any chance to companies that had invested in the production of plastics for decades and employed thousands of Kenyans to diversify into alternatives.

An interview with a senior member of Kenya's Association of Manufacturers (KAM) revealed that they opposed the ban because of the economic losses of its implementation. These range from the loss of 60,000 jobs to closure of 176 manufacturing companies and a loss in exports of plastic bags across the region.¹⁰² Therefore, to ensure effectiveness, compliance and slowly cushion the ban's effect, the Kenyan government gave a six-month implementation gap.¹⁰³ The Kenyan Ministry of Environment and Forestry indicated that they would encourage manufacturers to propose recycling plans instead of the potential ban.¹⁰⁴ The 2017 ban law was challenged in court by KAM for being unconstitutional, null and void.¹⁰⁵ The petitioner alleged that there was no public participation contrary to Articles 10 and 69 (1) of the Constitution of Kenya and section 5 of the Statutory Instruments Act, 2013 and without the requisite statutory authority and in contravention of sections 5, 6, 8 (1), 11(1) and (2) of the Statutory Instrument Act, No 23 of 2013.

In addition, the petitioner sought a declaration quashing the gazette notice and prohibiting its implementation on the grounds that the Gazette notice violated their rights under Article 47 of the Constitution and sections 5 and 6 of the Fair Administrative Action Act, No 4 of 2015.

The court, in response to the petition, based its decision on Articles 42 and 69 of the Constitution and section 3 of the Environmental Management and Co-ordination Act No. 8 of 1999 (EMCA) as amended by EMCA, 2015 which provides that every person in Kenya is entitled to clean and healthy environment and that it is the duty of government to safeguard and enhance the environment. The court also held that the entitlement to a clean and healthy environment under subsection (1) of the Environmental Management and Co-ordination Act No 8 of 1999 includes access by any person in Kenya to the various public elements or segments of the environment for recreational, educational, health, spiritual and cultural purposes.¹⁰⁶ Although the court acknowledged the duty of the state to provide a safe environment for its citizens, it equally shows the significant role played by KAM in the development of single-use-plastic policies in Kenya. Conversely, it can be said that the court's decision was instrumental to the significant reduction in plastic bags usage, though other single use plastics soared, leading to the enactment of a 2020 ban policy.¹⁰⁷ The Government of Kenya also noted an 80 per cent success in ban enforcement of 2017 law

have been made, and about 300 people have been prosecuted, according to NEMA, which is tasked with enforcing the ban.

¹⁰²Interview, senior KAM official, February 2018 in Behuria P. 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 *Environ. Plan. C*. 1–18.

¹⁰³In the Gazette notice No. 2334, of 28 February 2017, The Cabinet Secretary, Ministry of Environment and Natural resources while exercising powers conferred under section 3 and 86 of the Environmental Management and Co-ordination Act (EMCA Cap 387), notified the public that with effect from 6 month from the date of the notice banned the use, manufacture and importation of all plastic bags used for commercial and household packaging.

¹⁰⁴Kenya Plastic Action Plan 'Accelerating a Circular Economy in Kenya' available at https://kam.co.ke/kam/wp-content/uploads/2019/12/KPAP_Document-pages.pdf (accessed 14 November 2022).

¹⁰⁵*Kenya Association of Manufacturers & 2 Others vs Cabinet Secretary, Ministry of Environment and Natural Resources and 3Others* (2017) 32 (ELC) challenge of Gazette Notices Nos 2356 and 2334 of 2017 banning the use, manufacture and importation of all plastic bags used for commercial and household packaging for being unconstitutional, null and void.

¹⁰⁶Section 3(1) of the Environmental Management and Co-ordination Act No 8 of 1999. Revised 2016 (2014)

¹⁰⁷Ministry of Environment and Forestry, *Implementation Plan for The Ban of Single-Use Plastics in Protected Areas*, February 2020. See also National Sustainable Waste management policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018.

and reduction in marine litter.¹⁰⁸ The 2020 ban was a directive/policy to ban the use, manufacture, and importation of all SUPs, especially polyethylene terephthalate (PET) plastic bottles used for commercial and household packaging in protected areas.¹⁰⁹ This ban indicates the progressive means of tackling single-use-plastic challenge irrespective of the role played by the court.¹¹⁰

To implement the 2020 bag ban, a framework for cooperation (FOC) was developed between Kenya's Association of Manufacturers (KAM), the Ministry of Environment and Forestry (M.E.&F) and the Kenyan National Environment Management Authority to foster the implementation of the "Take Back Schemes" and EPR for PET bottles which were to be established by KAM.¹¹¹ This is in line with the draft EPR Regulations, which provides for all producers of plastic products to join an EPR scheme and form Producer Responsibility Organisations (PROs) to manage their products at the post-consumer stage. The regulations which have not been finalised will provide a list of products that shall be subject to EPR obligations and will be updated regularly to provide for new developments in the market¹¹²

The 2020 policy also provides incentives to promote the cleaning of plastics from the environment and provides VAT exemption to plastic recycling plants and companies involved in supplying machinery and equipment used to construct recycling plants.¹¹³ It reduced 15 per cent tax for the first 5 years for any investor operating a plastic recycling plant.¹¹⁴ It deleted the provision for charging Excise Duty on plastic shopping bags to align it with the Environmental Management and Coordination Act, which banned them from use.¹¹⁵ The ban policy provides alternatives to the banned single-use plastics and mandates all environmental protection agencies and media houses to protect the environment and promote awareness,

¹⁰⁸Ministry of Environment 'The implementation plan for the ban of single-use plastics' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022)

¹⁰⁹National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018.

¹¹⁰National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018. According to Wildlife Conservation and Management Act 2013, Act no.24 of 1953, CAP .204- Kenya Law, A "protected area" means a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve long-term conservation of nature with associated ecosystem services and cultural values, eg National Parks, reserves etc.

¹¹¹Extended Producer Responsibility Regulation 2020. The EPR regulation provides that all producers of products to join an Extended Producer Responsibility scheme and form Producer Responsibility Organisations (PROs) to manage their products at the post-consumer stage. The regulations will provide a list of products that shall subject to extended producer responsibility obligations which will be updated regularly to provide for new developments in the market this was included in Ministry of Environment and Forestry 'Plastic Action Plan: Implementation plan for the Ban of Single use Plastics in Protected Areas' Pg 5, February 2020 available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022)

¹¹²Draft Extended Producer Responsibility Regulations. (2020).

¹¹³Ministry of Environment and Forestry 'Plastic Action Plan: Implementation plan for the Ban of Single use Plastics in Protected Areas' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022).

¹¹⁴Ministry of Environment and Forestry 'Plastic Action Plan: Implementation plan for the Ban of Single use Plastics in Protected Areas' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022).

¹¹⁵Ministry of Environment and Forestry 'Plastic Action Plan: Implementation plan for the Ban of Single use Plastics in Protected Areas' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022).

respectively.¹¹⁶ These initiatives were expected to enhance the collection and recycling of plastics and reduce marine litter.

The Kenyan legal regime on plastic bags and SUPs involved both the government and private sector institutions such as KAM and as such has witnessed improved implementation. For instance, it was reported that large super market chains sell reusable cloth bags as alternative to polythene bags.¹¹⁷ According to a report by Robert McCune, alternatives such as use of glass bottles, use of refillable porcelain dispensers for bathroom amenities, linen bags for guest laundry and reusable canvas garbage bag have also been introduced and are currently being explored by hotels and resorts.¹¹⁸ Currently there is a strong reliance on reusable fabric or polypropylene tote bags made from a type of plastic that is easier to recycle, there is also traditional kiondo bag woven from sisal fibres.¹¹⁹ Despite the achievements recorded, the paucity of monitoring and inspection officers to monitor implementation process has led to a recent influx of plastic bags in Kenya.¹²⁰ Also, unlike Rwanda, NEMA is the only agency responsible for implementation of environmental laws, therefore, there is a recent call for the police to be part of the implementation team.¹²¹ Inadequate solid waste management and infrastructure is still a challenge in slum areas.¹²² Even where plastics are collected, there is currently no better way to deal with it sustainably except discarding it in landfills or just burning it, which is a threat to health.¹²³

Kenya has a relatively strong group of manufacturers, some of whom are politicians and thus demonstrating the direct influence of structural power in influencing policies.¹²⁴ Also, the diversified business groups are well organised. Although KAM may have been unsuccessful in blocking legislation, the association was successful in using instrumental power to maintain consistent advocacy efforts.¹²⁵

¹¹⁶Ministry of Environment and Forestry ‘Plastic Action Plan: Implementation plan for the Ban of Single use Plastics in Protected Areas’ available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf> (accessed 14 November 2022) Environmental Agencies mentioned in the policy includes Kenya Wildlife Services (KWS), Kenya Forest Service (KFS), Ministry of Environment and Forestry (MEF), District Environment Committee, (DEC), Arid Land Resource Management Project (ALRMP) NEMA etc.

¹¹⁷Martinko K ‘Kenyans adjust to life without plastic bags’ available at <https://amp-theguardian.com.cdn.ampproject.org/c/s/amp> (accessed 14 November 2022).world/2018/apr/25/nairobi-clean-up-highs-lows-kenyas-plastic-bag-ban.

¹¹⁸McCune R, ‘Purging Plastics’ available at <http://www.hotelnewsnow.com/Articles/288882/How-hotel-companies-resorts-are-banning-plastic> (accessed 15 November 2022)

¹¹⁹Barret A ‘Did the Kenya Plastic Bag Ban Work?’ available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 14 November 2022).

¹²⁰Ochieng G, ‘NEMA Chief: Ban on Plastic Carrier Bags one of Kenya’s Best Decisions’ available at <https://www.theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/2022>.[theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/](https://www.theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/) (accessed 13 November 2022)

¹²¹Ochieng G, ‘NEMA Chief: Ban on Plastic Carrier Bags one of Kenya’s Best Decisions’ available at <https://www.theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/2022>.[theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/](https://www.theelephant.info/op-eds/2022/11/07/nema-chief-ban-on-plastic-carrier-bags-one-of-kenyas-best-decisions/) (accessed 13 November 2022)

¹²²Barret A ‘Did the Kenya Plastic Bag Ban Work?’ available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 14 November 2022).

¹²³Barret A ‘Did the Kenya Plastic Bag Ban Work?’ available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 14 November 2022).

¹²⁴Arriola L *Multiethnic Coalitions in Africa: Business Financing of Opposition Election Campaigns* (2013) Cambridge University Press New York. Himbara D ‘Kenyan Capitalists, the State and Development’ (1994) 78 ch 2.

¹²⁵Pritish B ‘Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda’ (2021) 39 (8) *SAGE Journals Environment and Planning C: Politics and Space*

Another effect of business power played out when Ramco, a large business group, imported 15 million shillings worth of equipment in March before the plastic ban was announced. As a result of their continued influence, plastic manufacturing business groups like Ramco and Bobmil Industries managed to obtain special clearances to manufacture a limited number of plastic bags for the local food processing industry.¹²⁶

From the above analysis, Kenya has applied different types of policy instruments to reduce the consumption of SUPs such as economic instrument, behavioural change instrument and prohibition instrument. Action plans were developed to implement these instruments. Kenya's plastic bag ban was considered suppressive because it led to job losses of between 60 to 90 per cent of factory workers and KAM argued that it had a much more penetrating effect on job losses across the manufacturing, retail and agro-processing sectors.¹²⁷ Also, there were inadequate public awareness programmes to sensitise the public on the negative impact of plastic bags and the items listed under the banned list.

c. South Africa

The National Environmental Management Act (No. 107 of 1998) is the first primary environmental law and umbrella legislation for the environment in South Africa.¹²⁸ Section 2 of the Act provides for 18 key environmental principles that guide all stakeholders in the manner in which they manage the environment.¹²⁹ It sets out principles such as holistic evaluation and integration of all environmental management decisions,¹³⁰ internalisation of externalities,¹³¹ the precautionary principle,¹³² sustainable development,¹³³ sense of place and process such as considering of alternatives¹³⁴ transparency in decision making,¹³⁵ promotion of public participation of both women and children and inclusion of traditional

¹²⁶Kairu, P 'Roar of machines dies down amid plastic bag ban' available at <https://nation.africa/kenya/news/roar-of-machines-dies-down-amid-plastic-bag-ban-460834> (accessed 14 November 2022).

¹²⁷Responses from an interviewer from Kenyan manufacturing companies and senior officials, KAM, February 2018.

¹²⁸Nel, Johan & du Plessis, W. 'An evaluation of NEMA based on a generic framework for environmental framework legislation' (2001) (8) 1 *South African Journal of Environmental Law and Policy* 1-36.

¹²⁹Section 2 (1) (a-e) The National Environmental Management Act No. 107 of 1998.

¹³⁰Section 2 (4) (I) The social economic and environmental impacts of activities, including disadvantages and benefits must be considered assessed and evaluated and decisions must be appropriate in the light of such consideration and assessment.

¹³¹Section 2 (4) (p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or mini further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.

¹³²Section 2 (4) (b) Environmental management must be integrated. Acknowledging that all elements of the environment are linked and interrelated, and it must consider the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option. See also Section 2 (4) I Sensitive, vulnerable, highly dynamic, or stressed ecosystems, such as coastal shores, estuaries, wetlands. And similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

¹³³Section 2 (3), (4) (a)(I – viii) Development must be socially, environmentally and economically sustainable.

¹³⁴Section 2 (4) (g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognizing all forms of knowledge including 40 traditional and ordinary knowledge. See also section 23-24 of the National Environmental Management Act No. 107 ,1998. South Africa.

¹³⁵Section 2 (4) (k), Decisions must be taken in m open and transparent manner, and access to 50 information must be provided in accordance with the law.

knowledge,¹³⁶ circular economy approach¹³⁷ and protection of human right and environmental justice.¹³⁸ These principles, if effectively applied, are expected to guide and protect the environment from all types of degradation arising from pollution, including SUPs.

More importantly, the Act provides that development approaches that have the tendency to pollute or degrade the environment or negatively impact on environmental rights of people or lead to waste generation must be avoided or prevented, but where it is impossible, must be minimised.¹³⁹ It also provides for the equitable and responsible use of non-renewable natural resources and application of caution in the face of limited knowledge.¹⁴⁰ Section 28 of the Act imposes a duty of care and remediation of environmental damage on the polluter.¹⁴¹ This provision is closely linked to the polluter pays and integration principles. It provides that any person who causes or has caused significant pollution or degradation of the environment must take reasonable measures to prevent such pollution except where such harm is authorised by law or cannot reasonably be avoided.¹⁴² Although the Act does not define 'significant pollution,' it can be inferred to mean irreversible damage to the human environment. This section provides environmental authorities with a streamlined enforcement mechanism in the execution of their waste management responsibilities. It serves as a guide for organs of state when discharging their duties with regards to waste management. All other environmental laws enacted in South Africa are based on these principles.

Currently, the National Environmental Management: Waste Act (No 59 of 2008, hereafter NEM:WA) is the principal legislation for waste management.¹⁴³ The Act aims to provide national standards for the regulation of the management of waste by all spheres of government and to provide specific waste management measures. It is underpinned by section 24 of the Constitution of the Republic of South Africa, 1996, which provides all citizens with the right to an environment that is not harmful to their health and well-being.¹⁴⁴ The Waste Act defines waste broadly, expanding the definition in section 1 of the repealed Environment Conservation Act 73 of 1989 to mean anything that is no longer in use.¹⁴⁵

Section 24 (d) of the repealed Environment Conservation Act 73 of 1989, empowers the Minister of DEAT to make regulations regarding the reduction, reuse, and recovery of waste.¹⁴⁶ The first plastic bag

¹³⁶ Section 2 (4) (f) and (q) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation. And participation by vulnerable and disadvantaged persons must be ensured.

¹³⁷ Section 2 (4) I Responsibility for the environmental health and safety consequences of a policy, programme, project, product. Process. Service or activity exists throughout its life cycle.

¹³⁸ Section 2 (4) (j) & I, on the right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.

¹³⁹ Section 2 (4) (a) (I – viii), see also section 28 of the National Environmental Management Act No. 107 of 1998.

¹⁴⁰ Section 2 (4) (a) (I – viii), see also section 28 of the National Environmental Management Act No. 107 of 1998.

¹⁴¹ Section 28 of the National Environmental Management Act No. 107 of 1998.

¹⁴² Section 28 of the National Environmental Management Act No. 107 of 1998.

¹⁴³ National Environmental Management: Waste Act 59 of 2008 – Proclamation No. 26 in Government Gazette 37547 dated 11 April 2014. Commencement date: 2 May 2014.

¹⁴⁴ Section 24 (a) & (b) Constitution of the Republic of South Africa of 1996.

¹⁴⁵ 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 the holder of that substance, material, or object, whether or not such substance, material or object can be reused, recycled or recovered and includes all wastes as defined in Schedule 3 to this NEMA; or ii. subject to exceptions, any other substance, material, or object that may be defined as a waste by the Minister responsible for environmental affairs by notice in the gazette.

¹⁴⁶ Section 24(d) of the Environment Conservation Act 1989.

regulations was drafted under the Act in 2000.¹⁴⁷ The Regulation bans/ prohibits SUP bags of less than 0.03 millimetres in thickness (30 microns), as of 1st January 2001 and less than 0.08 millimetres in thickness (80 microns) by June 2001.¹⁴⁸ It criminalised the use of carry-on bags not specified for use and imposed a fine of R100,000 (about US\$14,000) or a prison term of not more than 10 years.¹⁴⁹ This was to discourage indiscriminate use of SUP bags.¹⁵⁰ It was argued that the Regulation was repressive and was likely to cause job losses and increased cost on consumers.¹⁵¹ The report of the Congress of South African Trade Unions (COSATU) estimated that over 70,000 jobs would be lost if the government went ahead and implemented the draft legislation.¹⁵² As a result, there was a dialogue between stakeholders i.e. Trade Union, Organised Industry, and the Minister of Environmental Affairs and Tourism to assess the socio-economic impact of the ban.¹⁵³ They proposed thicker bags of up to a maximum of 24 microns,¹⁵⁴ to ensure that the plastic industry did not close down due to the need to invest in new equipment to make the new thicker bags.¹⁵⁵ Another proposal was to increase collection of plastic bags at the municipalities and imposed a less oppressive levy.¹⁵⁶ The proposal also includes recycling, anti-littering, public environmental education, and awareness programmes to promote environmental sustainability.¹⁵⁷ After the socio-

¹⁴⁷The Republic of South Africa Environment Conservation Act 73 of 1989. Government Gazette No. 11927, Notice No. 1188; 1989 available at https://www.environment.gov.za/sites/default/files/legislations/environment_conservation_act73of1989.pdf (accessed on 2 October 2017).

¹⁴⁸Art 2 of the Regulations Under Section 24(d) of the Environmental Conservation Act (Act No.73 of 1989) Government Gazette of 9 May 2002 No. 23393 Government Gazette, May 2002 No. 23393.

¹⁴⁹Art 3 *Repeal* Regulations Under Section 24(d) of the Environmental Conservation Act (Act No.73 of 1989). No. R543 published in Government Gazette No. 23393 dated 9 May 2002.

¹⁵⁰Dikgang, Leiman & Visser 'Analysis of the plastic bag levy in South Africa' (2012) 66 *Resour. Conserv. Recycle* 59–65. DEAT. Regulations under Section 24 (d) of the Environment Conservation Act (Act No 73 of 1989); Regulation Gazette No. 7348, Notice No. 23393. 9 May 2002; Department of Environmental Affairs and Tourism: Pretoria, South Africa, 2002; V. 443.

https://www.environment.gov.za/sites/default/files/gazetted_notices/eca_plasticbags_regulations_g23393rg7348gon543_0.pdf (accessed 21 September 2021). In addition, any person contravening the provision of the Regulations would be guilty of an offence and liable of conviction to a fine not exceeding R100 000 (about US\$14 000 as of 30 September 2003) and/or receive a jail term of not more than 10 years.

¹⁵¹Nhamo G, 'Waste Management Policy implementation in South Africa: An emerging stakeholder participation paradox' 20, (2003) 20 *SAJEE* 43.

¹⁵²Meelis T (2002). Plastic bags: Do we need them? *Labour News*, 11(1), Johannesburg: COSATU. See also Nhamo G, 'Waste Management Policy implementation in South Africa: An emerging stakeholder participation paradox' 20, (2003) 20 *SAJEE* 43.

¹⁵³Meelis, T. (2002). Plastic bags: Do we need them? *Labour News*, 11(1), Johannesburg: COSATU.

¹⁵⁴Regulations Under Section 24 of the Environmental Conservation Act, 1989 (Act No. 73 of 1989). Government Gazette No. 21203, GN 1994 of 2000. Pretoria: Government Printer.

¹⁵⁵Repeal Regulations Under Section 24 of the Environmental Conservation Act, 1989 (Act No. 73 of 1989). Government Gazette No. 21203, GN 1994 of 2000. Pretoria: Government Printer.

¹⁵⁶Meelis, T. (2002). Plastic bags: Do we need them? *Labour News*, 11(1), Johannesburg: COSATU.

¹⁵⁷RSA (Republic of South Africa) Proposed Regulations under Section 24 of the Environmental Conservation Act, 1989 (Act No. 73 of 1989). GG No. 21203, GN 1994 of 2000. Pretoria: Government Printer.

economic impact of the proposal was carried out, the draft regulation was passed into Law in 2002.¹⁵⁸ However, it was opposed and its implementation stalled leading to a further amendment in 2003.¹⁵⁹

The amendment went further to ban the production and importation of sub-standard plastics that could neither be reused nor recycled and placed the minimum thickness of the bag at 30 microns.¹⁶⁰ It equally gave a five year allowance during which bags with a gauge of 24 microns would be allowed.¹⁶¹ This Regulation was accompanied by a plastic levy of three cents (R0.03) in 2004, which later increased to six cents (R0.06) and 25 cents (R0.25) in 2017 and 2020, respectively.¹⁶² Research shows that the Regulation has not yielded the expected results of curtailing plastic bag consumption due to the small amount of levy.¹⁶³ The amendment most importantly saw two obvious revisions: specification of wall thickness and fines against offenders. The wall thickness clause was reduced from 80 microns to 30 microns and now falls under the compulsory specifications' regulation of the Department of Trade and Industry.¹⁶⁴ The US\$14,000 fine imposed in the draft 2001 plastic bag ban and subsequently in the 2002 ban regulation was scrapped and replaced with a fine not exceeding three times the commercial value of anything in respect of which the offence was committed.¹⁶⁵ The regulation also fixed the cost of plastic bags at 46 cents. Under Section 3(2), offenders can be imprisoned for a maximum of 20 days instead of the original 10 years in the 2002 regulations.¹⁶⁶ Following the reduction of the plastic bag levy, plastic bag consumption rose again.¹⁶⁷

Scholars have attributed the inadequate implementation of the Regulation to the exclusion of key stakeholders such as consumers (because they were affected by the legislation) and Non-Profit

¹⁵⁸Government Gazette of 9 May 2002 (RSA, 2002) Section 2(1) of the Regulations prohibited the manufacturing, trade, and commercial distribution of plastic bags with wall thickness less than 80 microns. Under Section 2(2), a tolerance level of 10% microns (meaning no wall thickness would be less than 72 microns) was set. The fines and other penalties remained the same, and these Regulations were supposed to enter into force on 9 May 2003.

¹⁵⁹GN 24839, No. R625. RSA (2003a). *Repeal of Regulations No. R543 published in GG No. 23393 dated 9 May 2002 in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) (ECA)*. Government Gazette No. 24739. Pretoria: Government Printer. RSA (2003b). *Regulations under Section 24 (d) of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) – Plastic Carrier Bags and Plastic Flat Bags*. GG No. 24831, 455. Pretoria: Government Printer.

¹⁶⁰Art 3 *Repeal Regulations Under Section 24(d) of the Environmental Conservation Act (Act No.73 of 1989). No. R543 published in Government Gazette No. 23393 dated 9 May 2002*. See also Mazhandu, Muzenda, Mamvura et al 'Integrated and consolidated review of plastic waste management and bio-based biodegradable plastics: challenges and opportunities' (2020) 12(20) *Sustainability* 8360, doi:10.3390/su12208360. United Nations Environment Programme *Single Use Plastics Report 2018- Single Use Plastics: A Roadmap for Sustainability (2018) available at <https://www.unep.org/resources/report/single-use-plastics-roadmap-sustainability>* (accessed 14 November 2022).

¹⁶¹Plastic Carrier Bags and Plastic Flat Bag Regulations of 2003.

¹⁶²Plastic Carrier Bags and Plastic Flat Bag Regulations of 2003.

¹⁶³Department of Environmental Affairs Strives to Improve Plastic Bag Recycling in South Africa, Department of Environmental Affairs, 2017. DEA, Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy Hosts Plastic Colloquium, Department of Environmental Affairs, 2019.

¹⁶⁴Plastic Carrier Bags and Plastic Flat Bag Regulations of 2003.

¹⁶⁵RSA (Republic of South Africa). (2003a). *Repeal of Regulations No. R543 published in Government Gazette No. 23393 dated 9 May 2002 in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) (ECA)*. Government Gazette No. 24739. Pretoria: Government Printer.

¹⁶⁶Section 3(2) of RSA (2003a). *Repeal of Regulations No. R543 published in Government Gazette No. 23393 dated 9 May 2002 in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) (ECA)*. GG No. 24739. Pretoria: Government Printer.

¹⁶⁷Kirsten E, 'Africa leads world in plastic bag ban' available at <https://getaway.co.za>. (accessed 17 November 2022) see Mangizvo RV 'The incidence of plastic waste and their effects in Alice, South Africa' (2012) 1, (2) *Online Journal of Social Sciences* 49–53

organisations (NGOs) because they were meant to provide public education to avoid misinformation on why the consumers will have to pay more for the new type of plastic bags.¹⁶⁸ Also, the absence of an inspectorate and lack of direct involvement of local authorities made it difficult to oversee implementation.¹⁶⁹ The inclusion of organised labour and organised industry in the legislation making process was to ensure public participation and that the plastic bag packaging value chain, especially in terms of production, sustainability and employment do not crash, however, retail outlets opted for alternatives considered environmentally friendly such as paper, cloth and plastic basket.¹⁷⁰ It was reported that a retail outlet sold 300,000 green bags imported from Ireland within two days and placed order for two million more green bags which severely impacted the plastic bag packaging in south Africa.¹⁷¹ The DEAT reported that there was 80-90 per cent drop in the demand for plastic shopping bags by September 2003.¹⁷² This was attributed to the levying of a charge of 46 cents on each plastic bag.¹⁷³

South Africa developed other waste management policies and strategies which in one way affected plastic waste management. The Polokwane Declaration of 2001, for example, aimed for zero waste to landfill.¹⁷⁴ The declaration targeted to reduce the of waste generated in South Africa by 50 per cent in 2012, to divert 25 per cent of waste from the landfill by 2012, and to have zero waste to landfill by 2022, although the last option was subsequently revised down to 70 per cent.¹⁷⁵ The failure of the Polokwane declaration led to the release of the National Waste Management Strategy (NWMS) of 2011 and 2020.

The development of a National Waste Management Strategy (NWMS 2011) is a statutory requirement of the National Environmental Management Act: Waste Act.¹⁷⁶ This strategy aims to ensure that the objectives of the Waste Act are fulfilled.¹⁷⁷ The NWMS of 2011 stressed the importance of reusing, recycling, and recovering waste.¹⁷⁸ Its target was to have waste collection in 95 per cent of households in

¹⁶⁸Nhamo G ‘Waste Management Policy implementation in South Africa: An emerging stakeholder participation paradox’ (2003) 20 *Southern African Journal of Environmental Education* 46-47. See also Nhamo G ‘Social marketing: Can it enhance reuse and recycling at the household level in the SADC region?’ at the EEASA 21st International Conference Windhoek Namibia (2003a). Nhamo G *Plastic bags: Regulations, Compliance, Tensions and Responses* (Unpublished research proposal and poster, Rhodes University, Grahamstown. (2003b).

¹⁶⁹Department of Environmental Affairs and Tourism ‘Inspection of readiness of retailers on the eve of Plastic Bag Regulations effect’ available at <http://www.environment.gov.za> (accessed 17 November 2022).

¹⁷⁰Nhamo G ‘Waste Management Policy implementation in South Africa: An emerging stakeholder participation paradox’ (2003) 20 *Southern African Journal of Environmental Education* 46-47.

¹⁷¹Ngobese Z ‘Degradable plastic bags go on sale in July’ available at <http://www.busrep.co.za/> (accessed 17 November 2022). Daily Dispatch ‘Retailer sold out of green bags’ in Nhamo G *Waste Management Policy Implementation in South Africa: An emerging Stakeholder participation paradox* (2003) 20 *Southern African Journal of Environmental Education* 47.

¹⁷²Department of Environmental Affairs and Tourism (DEAT) 2003, Request for official position and update on the Plastic Bags Regulation implementation. (Email communication, 1 October 2003).

¹⁷³Knowler W ‘Why prices are rising’ available at http://www.iol.co.za/general/other/lol_container.php (accessed 25 September 2008).

¹⁷⁴Polokwane Declaration on Waste Management of September 2001,

¹⁷⁵Polokwane Declaration on Waste Management of September 2001, DEA, Working on Waste, Department of Environmental Affairs, 2019. See also Taiwo, Otieno & Venter ‘Towards attaining the Polokwane waste reduction goals – where are we?’ (2008) 53 *Town and Regional Planning* 25-31 doi:10.10520/EJC108684.

¹⁷⁶ Section 6 of the National Environmental Management: Waste Act 59 of 2008. NEM:WA. 2008.

¹⁷⁷ Department of Environmental Affairs, 2011 (DEA). National Waste Management Strategy, 2011.

¹⁷⁸ Department of Environmental Affairs, 2011 (DEA). National Waste Management Strategy, 2011.

urban areas and 75 per cent in rural areas by 2016. In urban and rural areas, 64.7 per cent of households and 75.1 per cent of households now have access to waste collection services.¹⁷⁹

In 2020, a new NWMS was released, reinforcing the need for the continuation of awareness campaign,¹⁸⁰ diverting 40 per cent of waste from landfill in five years, 55 per cent in 10 years, and 70 per cent to 100 per cent in 15 years.¹⁸¹ Another principal aim of the 2020 NWMS is minimising illegal dumping of waste, littering, and use of SUPs such as disposable cups and straws.¹⁸² The NWMS does not explicitly focus on plastic waste, instead, it is a waste management strategy expected to curb all types of solid waste and promote waste minimisation, reuse, recycling, recovery, and green economy.¹⁸³ Report showed that the impact of the 2020 NWMS is that 60 per cent of municipalities are conducting awareness programmes while all schools now teach waste management as part of the curriculum.¹⁸⁴

In 2020, South Africa transitioned from a voluntary EPR mechanism to a mandatory EPR tool.¹⁸⁵ The purpose of the EPR regulation is to mandate producers of SUP products and plastic packaging to set up procedures for collecting, recovering, reusing, recycling, and disposal of their products in the post-consumer stage.¹⁸⁶ The regulation mandates all existing producers to register with the Department by virtue of section 18 (1) of the Waste Act within six months of coming into effect of the Regulation.¹⁸⁷ It mandates them to develop and submit an EPR scheme to the Minister or establish a producer responsibility organisation (PRO) that must prepare and submit an EPR scheme to the Minister.¹⁸⁸ It also mandates all existing private PROs to register with the department.¹⁸⁹

The Regulation defined EPR as a producer's responsibility for an identified product extended to the post-consumer stage of the identified product's life cycle.¹⁹⁰ The implication of the above is that South Africa introduced an industry managed EPR scheme which entails every producer belonging to an industry body that represents their interest and drive their own recycling and collection efforts.¹⁹¹

¹⁷⁹ Mazhandu, Muzenda, Belaid et al 'A review of plastic waste management practices: what can South Africa learn' (2021) 6(2) *Advances in Science, Technology and Engineering Systems Journal (ASTESJ)* 1013-1028.

¹⁸⁰ Department of Environmental Affairs (DEA), National Waste Management Strategy, 2020.

¹⁸¹ Department of Environmental Affairs (DEA), National Waste Management Strategy, 2020.

¹⁸² Department of Environmental Affairs (DEA), National Waste Management Strategy, 2020.

¹⁸³ Department of Environmental Affairs (DEA), National Waste Management Strategy, 2020.

¹⁸⁴ Department of Environmental Affairs (DEA), National Waste Management Strategy, 2020. Mazhandu, Muzenda, Belaid et al 'A review of plastic waste management practices: what can South Africa learn' (2021) 6(2) *Advances in Science, Technology and Engineering Systems Journal (ASTESJ)* 1013-1028.

¹⁸⁵ National Environmental Management: Waste Act of 2008 (Act No.59 of 2008) Amendment of the regulations and notices regarding Extended Producer Responsibility of 2020. Government Gazette No 44078.

¹⁸⁶ Regulation 2 of the Extended Producer Responsibility Regulations of 2020, Issues under section 69 1 (b), (g), i) (l), (o), (dd) and (ee) of the Waste Act of 2008.

¹⁸⁷ Regulation 2 of the Extended Producer Responsibility Regulations of 2020 published under Gazette 43879 on 5 November 2020.

¹⁸⁸ Regulation 6(1) (a) of the Extended Producer Responsibility Regulations of 2020 published under Gazette 43879 on 5 November 2020.

¹⁸⁹ Regulation 3 of the Extended Producer Responsibility Regulations of 2020 published under Gazette 43879 on 5 November 2020.

¹⁹⁰ Regulation 2 (a) of the Extended Producer Responsibility Regulations of 2020 published under Gazette 43879 on 5 November 2020.

¹⁹¹ Withdrawal of The Section 28 Notice Calling for Paper and Packing Industry, Electrical and Electronic Industry and Lighting Industry Waste Management Plans in Terms of Section 28 of the National Environmental Management: Waste Act 208 available at https://www.gov.za/sites/default/files/gcis_document/201912/42909gon1659.pdf (accessed 14 November 2023).

The Regulation provides for an EPR fee per tonne of plastic packaging, either manufactured or imported,¹⁹² and set strict targets for yearly collection and recycling that needs to be met over the next five years.¹⁹³ The EPR regulation has been amended four times to get a workable and functioning EPR mechanism. For instance, in the first Regulation made in 2020, there was no timeline set for submission of the EPR scheme to the Minister; this was amended in the subsequent amendment of 5 May 2021 mandating them to submit the EPR scheme not later than 5 November 2021.¹⁹⁴ The Regulation included some specific positive steps such as defining a retailer as a producer in circumstances where the importer or licensed agent of the product is unknown.¹⁹⁵ It also indicates the roles of relevant stakeholders by separating the obligation of product responsibility organisations and producers responsibility and also empowering the EPR department within the Ministry to monitor compliance.¹⁹⁶

Apart from legal instruments, other initiatives have been launched by the government and civil society organisations to change public attitudes and perceptions and lessen plastic waste's impact while creating employment simultaneously. There is the South Africa initiative to end plastic pollution in the environment formed in 2019.¹⁹⁷ The initiative was formed because other single-use-plastic waste management efforts had failed to address the unique challenge faced in South Africa with regards to waste management infrastructure, education and awareness. It formed six working groups to look into the areas of technology, innovation and design; infrastructure development; introduction of bioplastics and alternatives; education and awareness in combatting litter; ensuring standards and compliance and; integrating waste pickers into circular economy.¹⁹⁸ The mandate of the working groups is to find solutions to specific problems based on sustainable life-cycle assessments and developed specifically for the South African context and with the purpose of changing human behaviour in the process.¹⁹⁹

The initiatives include Operation Phakisa,²⁰⁰ the Recycling Enterprise Support Programme (RESP),²⁰¹ and the Good Green Deeds programme.²⁰² The Pikitup programme is a voluntary separation of waste at source programme in some suburbs of Johannesburg.²⁰³ Most of the initiatives did not yield results despite being mandatory, like the Pikitup programme, because of the absence of fines or punishment for non-

¹⁹² See Explanatory Memorandum of the Draft Amendments to the regulations and notices regarding extended producer responsibility 2020, Government Gazette of 19 March 2021, no 44295 pg24.

¹⁹³ Regulation 7 of the Extended Producer Responsibility Regulations of 2020. Gazetted on 5th May 2021 no 44078

¹⁹⁴ Regulation 7 of the Extended Producer Responsibility Regulations of 2020.

¹⁹⁵ See Explanatory Memorandum of the Draft Amendments to the regulations and notices regarding extended producer responsibility 2020, Government Gazette of 19 March 2021, no 44295 pg24.

¹⁹⁶ See Explanatory Memorandum of the Draft Amendments to the regulations and notices regarding extended producer responsibility 2020, Government Gazette of 19 March 2021, no 44295 pg24.

¹⁹⁷ Plastics SA 'SA Initiative to end plastic waste in the environment' available at <https://www.plasticsinfo.co.za/s-a-alliance-to-end-plastic-waste-in-the-environment/> (accessed 19 November 2020).

¹⁹⁸ Hanekom A 'South African initiative to end plastic pollution in the environment' (2020) 116(5/6) *S Afr J Sci*.

¹⁹⁹ Hanekom A 'South African initiative to end plastic pollution in the environment' (2020) 116(5/6) *S Afr J Sci*.

²⁰⁰ DEA & DPME 'Operation Phakisa, Chemical and Waste Economy' available at https://www.dffe.gov.za/projectsprogrammes/operationphakisa_chemical_waste_economy (accessed 19 November 2020).

²⁰¹ Tikologo, Izindaba & Omngewingsnuus 'Minister drives thuma mina call for a cleaner SA' available at https://www.dffe.gov.za/sites/default/files/docs/publications/environnews_sowetansupplementJune2018.pdf

²⁰² South African Government 'Good green deeds: keeping South Africa clean' available at <https://www.gov.za/goodgreendeeds> (accessed 19 November 2020) 2019.

²⁰³ Pikitup Frequently asked questions FAQ's – waste separation at source programme, <http://www.pikitup.co.za/mandatory-separation-at-source-frequently-asked-questions/> (accessed 19 November 2020).

compliance.²⁰⁴ For instance, the Pikitup initiative opted to incentivise residents while collecting mixed waste, creating a point of plastic waste leakage. Other plastic waste initiatives by CSOs include plastic waste management campaigns such as the annual Clean-up and Recycle SA Week, the International Coastal Clean-up Day (ICC),²⁰⁵ and the weekly #KleenaJoburg campaign launched in December 2019.²⁰⁶ The Two Oceans Aquarium, a civil society organisation in Cape Town, also runs a campaign called "Rethink the Bag," which educates people on the harm SUP bags can cause in the marine environment. They have also launched a petition to urge the Government to ban SUP bags.²⁰⁷

Overall, cases from other countries who have implemented plastic bag levy or tax have shown a significant reduction in plastic bag consumption.²⁰⁸ The combined effect of plastic bag ban and levy or tax have proved effective in some regions like Rwanda and Kenya while a single policy approach of levies or taxes has worked for other regions.²⁰⁹ Other plastic waste approaches include awareness programmes which were applied in Tanzania through education campaigns,²¹⁰ and the recognition of waste picking cooperatives as service providers in Brazil.²¹¹ They also created a mechanism to integrate informal waste workers into the country's formal system. The law made to this effect was done in consultation with the private and informal waste sectors.

Lessons and Conclusion

This paper has analysed the legal and policy regimes for plastics in Rwanda, Kenya and South Africa. It has also examined how they are applied, and their effect on eliminating or reducing plastic waste. The chapter finds that countries adopt different approaches to solving their plastic waste problems. This is evident in the Rwandan inclusion of a comprehensive awareness campaign through a monthly day of physical collection of plastic bags, combined with educational features to make citizens aware of the importance of behaving and consuming in environmentally friendly ways.²¹² Rwanda also imposes the

²⁰⁴ Pikitup Frequently asked questions FAQ's – waste separation at source programme, <http://www.pikitup.co.za/mandatory-separation-at-source-frequently-asked-questions/> (accessed 19 November 2020).

²⁰⁵ Department of Forestry, Fisheries, and the Environment 'South Africa commemorates International Coastal Clean-Up Day' available at <https://www.dffe.gov.za/mediarelease/southafricacommemoratesinternationalcoastalcleanupday> (accessed 19 November 2020).

²⁰⁶ Joburg 'Mayor Makhubo takes Kleena Joburg Campaign to Alexandra' available at <https://www.joburg.org.za/media/Newsroom/Pages/2020%20News%20Articles/January%202020/Mayor-Makhubo-takes-Kleena-Joburg-campaign-to-Alexandra.aspx> (accessed 19 November 2020)

²⁰⁷ Two Oceans Aquarium, Rethink the Bag for a Single-Use Plastic Shopping Bag Free South Africa, 2020

²⁰⁸ Chasse C, *Evaluation of Legal Strategies for the Reduction of Plastic Bag Consumption* (Master thesis, Harvard Extension School, Cambridge, MA, USA, 2018). Scientific Action and Advocacy Network 'Effectiveness of plastic regulation around the world' available at https://plasticpollutioncoalitionresources.org/wp-content/uploads/2017/03/Effectiveness_of_plastic_regulation_around_the_world_4_pages.pdf (accessed 20 November 2022).

²⁰⁹ Department of Environment, Food & Rural Affairs, 'Plastic bag charge introduced in England' available at <https://www.gov.uk/government/news/plastic-bag-charge-introduced-in-england> (accessed 20 November 2022).

²¹⁰ Kaza, Yao, Perinaz et al *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*. (2018) The World Bank. Washington DC available at <https://doi.org/10.1596/978-1-4648-1329-0> (accessed 10 March 2023).

²¹¹ National Solid Waste National Policy (PNRS), 2010, Brazil.

²¹² The 'Umuganda' a Kinyarwanda word that means "coming together in common purpose". It's a monthly community work (including community clean up) reintroduced to Rwandan life in 1998 as part of the efforts to rebuild the country after the 1994 genocide. Today, it takes place on the last Saturday of every month from 08:00 and lasts for at least three hours, with every able-bodied Rwandan aged 18 to 65 taking part. Mtonga R 'Commentary: Rwanda offers a plastic

responsibility of developing waste segregation and collection mechanisms on manufacturers, wholesalers, and retailers, as well as their eventual transfer to recycling facilities.²¹³ These approaches adopted and applied by Rwanda gave legitimacy to the Plastic waste management laws and regulations thereby gaining acceptance from the public

On the other hand, Kenya employed the strict penalty approach of imposing a four-year prison term or a fine of up to 4.4 million Kenyan Shillings (\$40,000) for anyone producing, selling, or carrying a plastic bag.²¹⁴ Kenya mandates all plastic producers to form Producer Responsibility Organisations (PROs) to manage their products at the post-consumer stage.²¹⁵ South Africa criminalized the use of plastic bags that could neither be reused nor recycled and placed the minimum thickness of the bag at 30 microns.²¹⁶ It equally imposed a strict fine of R100,000 (about US\$ 14,000) or a prison term of not more than 10 years.²¹⁷

Two common approaches employed by the case study countries is the selective ban approach i.e. certain types of plastic that were considered harmful to the environment were banned. They include plastic carry-on bags and polyethene terephthalate (PET) plastic bottles used for commercial and household packaging in protected areas.²¹⁸ The selective ban approach depicts a phased method of outlawing the manufacture and use of some types of plastics, which in countries like Rwanda helped manufacturers to switch to environmentally friendly products.²¹⁹ It also reveals an upward trend in the volume of plastic policies introduced over time by the countries as new approaches to managing plastic waste evolve. The analysis exposes the challenges experienced in the implementation of plastic policies and the strategies employed, which have given rise to some recorded success. For instance, it was reported that the continuous engagement and awareness initiatives introduced in Rwanda recorded an upward change in the understanding and behaviour of citizens.²²⁰

The chapter also reveals that stakeholder engagement in policymaking can either delay or speed up the passage of laws, and strong business power remains a significant barrier to plastic waste regulation. This is illustrated in South Africa and Kenya respectively, where legislative resistance from strong businesses was seen as an impediment to enacting plastic waste regulations.²²¹ Other impediments to the effective

recycling model worth emulating' available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga> (accessed 11 October 2022).

²¹³ Art 6 Law No 17/2019 of 10/08/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Single-Use Plastic Items.

²¹⁴ Environmental Management and Co-ordination Act, No. 8 of 1999, § 144 (Jan. 14, 2000), Kenya Law website.)

²¹⁵ Kenya's Draft Extended Producer Responsibility Regulations. (2020)

²¹⁶ Art 3 *Repeal Regulations Under Section 24(d) of the Environmental Conservation Act (Act No.73 of 1989). No. R543 published in Government Gazette No. 23393 dated 9 May 2002.* See also Mazhandu, Muzenda, Mamvura et al 'Integrated and consolidated review of plastic waste management and bio-based biodegradable plastics: challenges and opportunities' (2020) 12(20) *Sustainability* 8360, doi:10.3390/su12208360. United Nations Environment Programme *Single Use Plastics Report 2018- Single Use Plastics: A Roadmap for Sustainability (2018) available at <https://www.unep.org/resources/report/single-use-plastics-roadmap-sustainability>* (accessed 14 November 2022).

²¹⁷ Art 3 *Repeal Regulations Under Section 24(d) of the Environmental Conservation Act (Act No.73 of 1989). No. R543 published in Government Gazette No. 23393 dated 9 May 2002.*

²¹⁸ National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018.

²¹⁹ Caliendo H, 'The Economic Effect of Plastic Bag Bans', available at <https://www.plasticstoday.com/business/economic-effect-plastic-bag-bans> (accessed 4 April 2021).?

²²⁰ Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).

²²¹ Chapter four, Pg 132.

implementation of the laws are the lack of alternatives and weak enforcement as seen in the three countries.²²² Despite impressive success, the delivery of waste management services in the examined countries face significant challenges due to lack of data and poor data management systems for waste disposal. This makes it difficult to design policies for effective waste management and assess the impact of policies on plastic waste recycling.

This chapter found that economic instruments such as levies and taxes brought about better outcomes regarding the reduction of production, importation, and use of plastics. It also found that economic policy rather than an outright ban is better for addressing the tripartite problem of poor waste disposal, change in consumption, and waste handling patterns.

Finally, the paper recommends that to design a sustainable legal and regulatory framework for plastic waste management, there is a need for investment in waste management infrastructure, public education and awareness campaigns and collaboration among stakeholders. Also, approaches such as using stringent fines, taxes, levies and strict sanctions, developing alternatives to plastics and providing incentives or buy-back as an EPR implementation mechanism should be adopted.²²³ The study finds that adopting an integrated approach that combines policy interventions, infrastructure development and behavioural change can effectively address plastic waste challenge.

²²² Chapter four, Pg 132.

²²³ Chapter 4, Pg 117.

Books

- Caliendo H, 'The Economic Effect of Plastic Bag Bans', available at <https://www.plasticstoday.com/business/economic-effect-plastic-bag-bans> (accessed 4 April 2021).
- Kohls R 'The Plastic Bag Debate: Lessons from Rwanda' *The Dominion* June 2011 10, <https://www.torontoenvironment.org/newsroom/teainthenews/other20110610> (accessed 23 May 2021).
- Lindblom C *Politics and Markets: The World's Political-economic Systems*. (1977) Basic Books New York
- Xie J & Martin J 'Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis' available at <https://openknowledge.worldbank.org/bitstream/handle/10986/37607/P1791430174c860e0a9af0cb4b442deb33.pdf?sequence=1&isAllowed=y> (accessed 13 October 2022).

Chapter in Books

- Van der Doelen CJF 'The "Give-and-Take" Packaging of Policy Instruments: Optimizing Legitimacy and Effectiveness' in Bemelmans-Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation*. (2011) 129-135.
- Vedung E 'Policy Instruments: Typologies and Theories' in Bemelmans- Videc, Rist, & Vedung (eds.) *Carrots, Sticks and Sermons – Policy Instruments and Their Evaluation* (2011) Transaction Publishers New Jersey

Bulletins

- Caliendo H, 'The Economic Effect of Plastic Bag Bans', (February 6, 2013) available at <https://www.plasticstoday.com/business/economic-effect-plastic-bag-bans>
- CIPRO 'Tackle the Landfill Crisis' available at <https://www.plasticrecyclingsa.co.za/> (accessed 17 June 2020).
- The Economist 'Kenya tries to ban plastic bags – again' (Mar 23 2017) available at <https://www.economist.com/middle-east-and-africa/2017/03/23/kenya-tries-to-ban-plastic-bags-again>
- Tikologo, Izindaba & Omngewingsnuus 'Minister drives thuma mina call for a cleaner SA' available at https://www.dffe.gov.za/sites/default/files/docs/publications/environnews_sowetansupplementJune2018.pdf
- Kairu P 'Will we triumph in the war on plastics?' available at <https://nation.africa/kenya/life-and-style/dn2/will-we-triumph-in-the-war-on-plastics-451908>
- Kirsten E, 'Africa leads world in plastic bag ban' (2019) available at <https://getaway.co.za>. (accessed 17 November 2022)
- Kenya Plastic Action Plan 'Accelerating a Circular Economy in Kenya' available at https://kam.co.ke/kam/wp-content/uploads/2019/12/KPAP_Document-pages.pdf (accessed 14 November 2022).
- Knowler W 'Why prices are rising' available at http://www.iol.co.za/general/other/lol_container.php (accessed 25 September 2008).

Mahajan R 'Plastics Ban: Finding Alternatives' (2020) available at <https://www.dandc.eu/en/article/rwanda-taking-its-ban-single-use-plastic-bags-one-big-step-further-include-most-other-types>

Radhia Mtonga, 'Commentary: Rwanda offers a plastic recycling model worth emulating' *Recycling today*, October 11, 2022, <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga/>

Scientific Action and Advocacy Network 'Effectiveness of plastic regulation around the world' available at https://plasticpollutioncoalitionresources.org/wp-content/uploads/2017/03/Effectiveness_of_plastic_regulation_around_the_world_4_pages.pdf (accessed 20 November 2022).

Cases

Kenya Association of Manufacturers & 2 Others vs Cabinet Secretary, Ministry of Environment and Natural Resources and 3Others (2017) 32 (ELC)

Journals

Block F 'The ruling class does not rule' (1977) *Socialist Revolution*.

Behuria P 'Ban the (Plastic) bag? Explaining variation in the implementation of Plastic bag ban in Rwanda, Kenya and Uganda' (2021) 39(8), *SAGE Journals Environment and Planning C: Politics and Space*.

Carr TR 'Public administrators and policy legitimization: Policy analysis, politics and power' (1993) 16(8) *International Journal of Public Administration*,

Chasse C, *Evaluation of Legal Strategies for the Reduction of Plastic Bag Consumption* (Master thesis, Harvard Extension School, Cambridge, MA, USA, 2018).

Clapp J & Swanston L 'Doing away with plastic shopping bags: International patterns of norm emergence and policy implementation' (2009) 18 (3) *Environmental Politics*.

Dikgang, Leiman & Visser 'Analysis of the plastic bag levy in South Africa' (2012) 66 *Resour. Conserv. Recycle*

Eskeland GS and Jimenez E 'Policy instruments for pollution control in developing countries' (1992) 7 (2) *The World Bank Research Observer*

Hanekom A 'South African initiative to end plastic pollution in the environment' (2020) 116(5/6) *S Afr J Sci*.

Kaza, Yao, Perinaz et al *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*. (2018)

Lange, Inganga, Busienei et al 'The prevalence of plastic bag waste in the rumen of slaughtered livestock at three abattoirs in Nairobi Metropolis, Kenya and implications on livestock health' (2018) *Livestock Research for Rural Development* 30(11) Article #182.

Mangizvo RV 'The incidence of plastic waste and their effects in Alice, South Africa' (2012) 1, (2) *Online Journal of Social Sciences* 49–53

- Mazhandu, Muzenda, Mamvura et al 'Integrated and consolidated review of plastic waste management and bio-based biodegradable plastics: challenges and opportunities' (2020) 12(20) *Sustainability* 8360,
- Mazhandu, Muzenda, Belaid et al 'A review of plastic waste management practices: what can South Africa learn' (2021) 6(2) *Advances in Science, Technology and Engineering Systems Journal (ASTESJ)* 1013-1028.
- Meelis T (2002). Plastic bags: Do we need them? *Labour News*, 11(1), Johannesburg: COSATU.
- Miliband R *The State in Capitalist Society* (1973) Quartet London.
- Nhamo G 'Social marketing: Can it enhance reuse and recycling at the household level in the SADC region?' at the EEASA 21st International Conference Windhoek Namibia (2003a).
- Muzenda, Mamvura et al 'Integrated and consolidated review of plastic waste management and bio-based biodegradable plastics: challenges and opportunities' (2020) 12(20) *Sustainability* 8360, doi:10.3390/su12208360.
- Ngobese Z 'Degradable plastic bags go on sale in July' available at <http://www.busrep.co.za/> (accessed 17 November 2022).
- Nhamo G 'Waste Management Policy implementation in South Africa: An emerging stakeholder participation paradox' (2003) 20 *Southern African Journal of Environmental Education*.
- Njeru J 'The urban political ecology of plastic bag waste problem in Nairobi, Kenya', (2006) 37 6 *Geoforum*
- Nwafor & Walker 'Plastic bags prohibition bill: a developing story of crass legalism aiming to reduce plastic marine pollution in Nigeria' (2020) 120 *Marine Policy*.
- Taiwo, Otieno & Venter 'Towards attaining the Polokwane waste reduction goals – where are we?' (2008) 53 *Town and Regional Planning* 25-31 doi:10.10520/EJC108684.
- Pritish B 'Ban the (plastic) bag? Explaining variation in the implementation of plastic bag bans in Rwanda, Kenya and Uganda' (2021) 39 (8) *SAGE Journals Environment and Planning C: Politics and Space*.
- Sharp, Høj, & Wheeler 'Proscription and its impact on anti-consumption behavior and attitudes: the case of plastic bags' (2010) 9 *Journal of Consumer Behavior*.

Legislation

- Constitution of the Republic of South Africa of 1996.
- Environmental Conservation Act Management of 1989; National Environmental Management Act of 1998;
- Environmental Conservation Act of 1989.
- Environmental Management and Coordination Act of 2017 (EMC A Cap 387) Gazette notice No. 2334, of 28 February 2017.
- Environmental Management and Coordination Act No 8 of 1999. Revised 2016 (2014)
- Environmental Management and Co-ordination Act, No. 8 of 1999, § 144 (Jan. 14, 2000)

Environmental Management and Co-ordination Act, No. 8 of 1999, § 144 (Jan. 14, 2000), Kenya.

Environmental Conservation Act (Act No.73

Gazette notice No. 2334, of 28 February 2017,

Law No 53/2007 of 17/11/2007 establishing community works in Rwanda (Umuganda).

Law N° 09/2013 of 01/03/2013 establishing the Rwanda Utilities Regulatory Authority (RURA)

Law No. 17/2019, GN 37 of 23 September 2019. Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Bags and Single-Use Plastic Items Rwanda,

National Environmental Management: Waste Act No 59 of 2008 NEM: WA.

National Environmental Management Act No. 107 of 1998.

National Environmental Management Waste Amendment Act of 2014,

National Environmental Management Act No. 107 ,1998. South Africa.

Organic Law No.04/2005 determines the modalities of Protection, Conservation, and Promotion of the Environment in Rwanda.

Plastic Bag Control and Management Regulations of 2018.

Plastic Carrier Bags and Plastic Flat Bag Regulations of 2003.

Polokwane Declaration on Waste Management of September 2001,

Prohibition of Manufacturing, Importation, Use and Sale of Polythene bags in Rwanda, Law No 57/2008 of 10 September 2008.

Republic of South Africa Environment Conservation Act 73 of 1989.

Wildlife Conservation and Management Act 2013, Act no.24 of 1953, CAP .204-

Regulations, Policies and Guidelines and Action Plans

Amendment and Regulations and Notices Regarding Extended Producer Responsibility of 2020 (EPR).

Extended Producer Responsibility Regulation 2020.

Guidelines on Procedures on eligibility to grant exceptional permission to manufacture, use, import, or sell single-use plastic Items or pack goods in Single-Use Plastics

Kenya's Draft Extended Producer Responsibility Regulations. (2020)

Ministry of Environment and Forestry, *Implementation Plan for The Ban of Single-Use Plastics in Protected Areas*, February 2020.

Ministry of Environment 'The implementation plan for the ban of single-use plastics' available at <https://www.tourism.go.ke/wp-content/uploads/2020/05/Action-Plan-Single-Use-Plastics-Ban-in-Protected-Areas-February2020.pdf>

Ministry of Environment and Forestry 'Plastic Action Plan: Implementation plan for the Ban of Single-use Plastics in Protected Areas' Pg 5, February 2020

National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018.

Ministerial Order N° 005/2008 of 15/08/2008. Establishing modalities of inspecting companies or activities that pollute the environment, Government of Rwanda (2008).

National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018)

National Domestic Waste Collection Standards of 201.

National Policy for the Provision of Basic Refuse Removal Services to Indigent Households of 2011

Norms and Standards for the Disposal of waste to landfill of 2013.

National Waste Management Strategy, 2011. Department of Environmental Affairs, 2011 (DEA).

Regulations regarding the control of the Import or Export of Waste, 2019,

Regulations Governing Solid Waste and Transportation Services of 2020,

Regulation No 001/EWASTAN/SW/RURA/2014 of 28/8/2014 on solid waste collection and transportation services provision in Rwanda and all other previous provisions.

Repeal of Regulations No. R543 published in GG No. 23393 dated 9 May 200

Waste Classification and Management Regulation of 2013

Reports

Behuria P ‘The comparative political economy of plastic bag bans in East Africa: why implementation has varied in Rwanda, Kenya and Uganda’ 2019 (037) *GDI Working Paper*.

Human Rights Watch *Justice Compromised: The Legacy of Rwanda’s Community-Based Gacaca Courts*. (2011) HRW Rep

Ministry of Environment ‘The implementation plan for the ban of single-use plastics 2020

Mtonga R ‘Commentary: Rwanda offers a plastic recycling model worth emulating’ available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga> (accessed 11 October 2022).

National Sustainable Waste Management Policy Ministry of Environment and Forestry; (Sessional Paper No. X of 2018).

Rajashekar, Bowers & Gatoni ‘Assessing Waste Management services in Kigali’ (2019) Final Report, International Growth Centre (C-38435-RWA-1)

UNEP ‘Kenya announces breakthrough ban on plastic bags. (2017)

United Nations Environment Programme *Report 2005 Selection, Design and Implementation of Economic Instruments in the Solid Waste Management Sector in Kenya: The Case of Plastic Bags*’ (2005).

United Nations Environment Programme *Single Use Plastics Report 2018- Single Use Plastics: A Roadmap for Sustainability* (2018)

Weigand F, Investigating the Role of Legitimacy in the Political Order of Conflict-torn Spaces, (2015) Working Paper, Security in Transition: An Interdisciplinary Investigation into the Security Gap.

World Bank Report (2019) ‘Plastic Waste Management in Rwanda: An Ex-Post Policy Analysis.

Mtonga R 'Commentary: Rwanda offers a plastic recycling model worth emulating' available at <https://www.recyclingtoday.com/article/rwanda-plastic-recycling-circular-economy-radhia-mtonga> (accessed 11 October 2022).

Thesis and Research Proposal

Danielsson M The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes – A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags, (unpublished, master's thesis, Uppsala University, Sweden, 2017).

Miller RM 'Plastic shopping bags: An Analysis of Policy Instruments for Plastic Bag Reduction' (Unpublished MSc thesis, Universiteit Utrecht 2012) 33, 36.

Nhamo G *Plastic bags: Regulations, Compliance, Tensions and Responses* (Unpublished research proposal and poster, Rhodes University, Grahamstown. (2003b).

Newspaper

Barret A 'Did the Kenya Plastic Bag Ban Work?' available at <https://bioplasticsnews.com/2020/03/04/plastic-bag-ban-kenya/> (accessed 10 July 10, 2022)

BBC News Reality Check team 'Has Kenya's plastic bag ban worked' (28 August 2019) available at <https://www.bbc.com/news/world-africa-49421885> (accessed 14, November 2022).

Clavel & Émilie, 'Think you can't live without plastic bags? consider this: Rwanda did it available at <https://www.theguardian.com/commentisfree/2014/feb/15/rwanda-banned-plastic-bags-so-can-we> (accessed 14 May 2021).

Dsilva E, 'Going surgical on plastics in Rwanda' *Down To Earth* 24 December 2019
<https://www.downtoearth.org.in/news/waste/going-surgical-on-plastics-in-Rwanda-68446> (accessed 25 October 2022).

Independent 'Kenya Bans Plastic Bags' available at <https://www.independent.co.uk/climate-change/news/kenya-bans-plastic-bags-2179928.html> (accessed 12 November 2022).

Martinko K 'Kenyans adjust to life without plastic bags' available at <https://amp-theguardian.com.cdn.ampproject.org/c/s/amp> (accessed 14 November 2022)

McCune R, 'Purging Plastics' available at <http://www.hotelnewsnow.com/Articles/288882/How-hotel-companies-resorts-are-banning-plastic> (accessed 15 November 2022)

Musoke R 'Polythene bags: the menace of East Africa' *The Independent* (April 23, 2017) available at <https://www.independent.co.ug/polythene-bags-menace-east-africa/> (accessed 13 October 2022)

National Environment Management Authority '2 years on: Say no to plastic bags' available at https://www.nema.go.ke/index.php?option=com_content&view=article&id=296&-catid=2&Itemid=451 (accessed 12 July 2022).

Ocean Wise 'Rwanda's Plastic-Bag Black Market', *New York Times* 7 December 2017
<https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html> (accessed 13 May 2021).

Pilgrim & Sophie ‘Smugglers work on the dark side of Rwanda’s plastic bag ban’. available at <http://america.aljazeera.com/articles/2016/2/25/rwanda-plastic-bag-ban.html> (accessed 31 May 2020).

Watts J Eight months on, is the world’s most drastic plastic bag ban working? The Guardian, 25 April.2018

License

Copyright (c) 2023 Onyinyechi Lilian Uche



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Authors retain copyright and grant the journal right of first publication with the work simultaneously licensed under a [Creative Commons Attribution \(CC-BY\) 4.0 License](https://creativecommons.org/licenses/by/4.0/) that allows others to share the work with an acknowledgment of the work’s authorship and initial publication in this journal.