



UNIVERSITY of the  
WESTERN CAPE

# Supplementary Report: Literature Review

## Researching a Deposit Return System for South Africa

Prepared October 2024



Supported by



Funded by



## Study Funders

Alliance to End Plastic Waste  
Norwegian Ministry of Foreign Affairs,  
represented by the Royal Norwegian Embassy in  
Pretoria

## Project Team

### **University of Western Cape**

Prof Catherina Schenck  
Prof Derick Blaauw  
Dr Lizette Grobler  
Bonte Edwards

### **Eunomia Research & Consulting Ltd**

Andy Grant  
Laurence Elliott  
Nicola Ainger  
Tom Flatman  
Vedashree Chandewar  
Magdalena Kaminska

### **Aquila Environmental**

Charlotte Nell

## Project Steering Group

Department of Forestry, Fisheries and the  
Environment (DFFE)

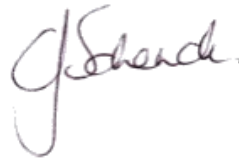
Western Cape Provincial Government

WWF South Africa

Alliance to End Plastic Waste

Norwegian Ministry of Foreign Affairs,  
represented by the Royal Norwegian Embassy in  
Pretoria

## Approved By



Professor Schenk, University of the Western Cape

## Approved By



Andy Grant, Project Director, Eunomia

## Contacts

Eunomia Research & Consulting Ltd  
37 Queen Square  
Bristol  
BS1 4QS  
United Kingdom

Tel +44 (0)117 9172250  
Fax +44 (0)8717 142942  
Web [www.eunomia.co.uk](http://www.eunomia.co.uk)

University of the Western Cape  
Robert Sobukwe Road - Private Bag X17  
Bellville 7535  
Republic of South Africa

Tel +27 21 959 3900  
Web [www.uwc.ac.za](http://www.uwc.ac.za)

## Table of Contents

---

<b>1.0 Introduction.....</b>	<b>4</b>
1.1 Waste Reclaimers in South Africa .....	4
1.2 Waste Picker Integration Guidelines .....	7
1.3 Key Relevant Legislation in South Africa .....	8
<b>2.0 Lessons Learnt from Other African Countries .....</b>	<b>9</b>
2.1 Republic of Seychelles.....	9
2.2 Botswana.....	10
2.3 Cameroon.....	11
2.4 Egypt .....	12
2.5 Ghana.....	13
2.6 Kenya .....	13
2.7 Namibia .....	13
2.8 Zimbabwe .....	14
<b>3.0 Lessons Learnt Beyond Africa .....</b>	<b>14</b>
3.1 Ecuador .....	14
3.2 Uruguay .....	15
3.3 Argentina.....	17
3.4 Brazil.....	17
3.5 Chile .....	19
3.6 Colombia.....	19
3.7 India.....	20
<b>4.0 Conclusion.....</b>	<b>21</b>

# 1.0 Introduction

This Supplementary Report on Literature Review supports and should be read alongside the main report “Researching a Deposit Return System for South Africa: Costs and Benefits of Implementing a Mandatory Deposit Return System for Beverage Packaging”. However, it can also be read as a standalone report, providing readers with information on waste reclaimers in South Africa and how waste reclaimers have been included or adapted to waste management systems in other countries. This report explores the role of waste reclaimers in South Africa, discusses the legislation and guidelines that support waste reclaimer inclusion into waste management systems in South Africa, and provides examples of how waste reclaimers have been included or have adapted to waste management systems in other countries. Lessons learnt from the findings support the way in which waste reclaimers have been designed into a potential mandatory Deposit Return System (DRS) for single-use beverage containers in South Africa.

Information about waste reclaimers in the context of South Africa is first explored. Guidelines and legislation relating to the inclusion of waste reclaimers into waste management systems in South Africa are then described. Then, examples are given of waste reclaimers and their role in waste management systems in other African countries. Examples in countries beyond Africa are then provided. Where possible, examples of DRS are provided, given its relevance to this study into a DRS for single-use beverage containers in South Africa, how waste reclaimers could be included, and what the social, economic, and environmental impacts might be.

## 1.1 Waste Reclaimers in South Africa

Waste reclaimers are widely regarded as the “backbone” of the current recycling activities in South Africa. They recover recyclables and direct them away from landfill and towards recycling.<sup>1</sup> Estimates of the total waste reclaimer population in South Africa vary, but it is thought to be about 90,000.<sup>2</sup> Both men and women are waste reclaimers, but women mostly work on landfill sites.<sup>3</sup> More than 82% of all South Africa's recycled waste in 2017 was thought to be collected by waste reclaimers.<sup>4</sup> <sup>5</sup> They collect waste materials from a variety of sources, often operating on landfills and streets. They then transport the materials to Buy Back Centres (BBCs) in trolleys, carry bags, horse carts, or “bakkies” (i.e., pick-up trucks), where they sell their materials by weight. By diverting recyclable material away from landfill, it is estimated that landfill cost savings of ZAR 750 million are achieved each year in South Africa.<sup>6</sup> However, there is a lack of reliable data on the quantity of recyclables collected by waste reclaimers in South Africa.<sup>7</sup>

The income of waste reclaimers is described as “low and uncertain” and predominantly under the global poverty line.<sup>8</sup> In terms of average prices paid by BBCs to waste reclaimers in South Africa, a study assessing BBC prices in 2017 identified the following per kilogram prices: ZAR 0.60-3.60 for PET; ZAR 3.80-14.00 for aluminium; ZAR 0.40-0.80 for steel; and ZAR 0.10-0.30 for glass. The estimated average monthly income for a waste reclaimer in South Africa was between ZAR 800-1,200 in 2017 – below the typical monthly salary of

---

<sup>1</sup> DEFF and DSI. (2020). Waste Picker Integration Guideline for South Africa: Building the Recycling Economy and Improving Livelihoods Through Integration of the Informal Sector. Available at: [link](#)

<sup>2</sup> Godfrey, L.K. (2015). Finding Value in Waste: Identifying Opportunities for Growth in a Secondary Resources Economy. *The 5th CSIR Conference, Ideas That Work, CSIR ICC, Pretoria, South Africa*, 8- 9 October 2015. Available at: [link](#)

<sup>3</sup> Blaauw, P., Pretorius, A., Viljoen, K. and Schenck, R. (2020). Adaptive Expectations and Subjective Well-being of Landfill Waste Pickers in South Africa's Free State Province. *Urban Forum*, 31(1): 135-155. Available at: [link](#)

<sup>4</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

<sup>5</sup> Godfrey, L and Oelofse, S. (2017). Historical review of waste management and recycling in South Africa. *Resources*, 6 (4): 57. Available at: [link](#)

<sup>6</sup> Godfrey, L., Strydom, W., and Phukubye, R. (2016). Integrating the Informal Sector into the South African Waste and Recycling Economy in the Context of Extended Producer Responsibility. Available at: [link](#)

<sup>7</sup> Godfrey, L. (2021). Quantifying economic activity in the informal recycling sector in South Africa. *S Afr J Sci.* 117(9/10). Available at: [link](#)

<sup>8</sup> Viljoen, K., Blaauw, P. and Schenck, R. (2016). “I would rather have a decent job”: Potential barriers preventing street-waste pickers from improving their socio-economic conditions. *S. Afr. j. econ. manag. sci.*,19 (2): 1-13. Available at: [link](#)

ZAR 3,500 for a worker on minimum wage. However, income varies a lot, based on the hours and days worked, availability of material, location, and rates offered by the BBCs.<sup>9</sup> There are various estimates in the identified literature on average waste reclaimer income levels in South Africa, which are summarised in **Table 1**. Data from 2020 onwards suggests that average monthly income per waste reclaimer is in the region of ZAR 2,500-4,000. Data supplied by the African Reclaimers Organisation (ARO) enabled us to estimate that approximately 40% of this income is from beverage containers.<sup>10</sup> A similar proportion is seen in data from Stellenbosch BBC, based on a full year of purchase receipts considering only cash purchases, which are predominantly from waste reclaimers.<sup>11</sup>

**Table 1: Average monthly income of waste reclaimers in South Africa from different sources.**

Data source	Average income (ZAR/month)
Blaauw et al. (2010) <sup>12</sup>	449 – 1,142
Viljoen et al. (2012) <sup>13</sup>	1,440 – 1,730
South African Department of Environmental Affairs (2016) <sup>14</sup>	1,430
Godfrey (2017) <sup>15</sup>	800 – 1,200
Yu et al. (2020) <sup>16</sup>	2,900
Survey by UWC for this project (2023)	2,436
ARO data and BBC prices from UWC survey (2023)	3,811

Factors considered by BBCs in determining the price of recyclable material paid to waste reclaimers include the prices set by recycling companies, demand for recyclables, the volume of recyclable waste provided by BBCs to end-users, and the cost structures of individual BBCs. Considered in the cost structure are transportation and fuel costs, property/rental costs, worker salaries, electricity costs, and costs of materials and equipment involved in the sorting and baling of recyclables.<sup>17 18</sup> This fluctuating and uncertain situation makes planning for the future with the aim of improving the waste reclaimers' socio-economic circumstances a challenging venture.

<sup>9</sup> Godfrey, L. (2021). Quantifying economic activity in the informal recycling sector in South Africa. *S Afr J Sci.* 117(9/10). Available at: [link](#)

<sup>10</sup> Data provided by African Reclaimers Organisation, based on volumes collected by 8 waste reclaimers over 6 months in Johannesburg (2024). Material prices from BBC survey conducted by UWC.

<sup>11</sup> Data provided by Stellenbosch BBC (2024)

<sup>12</sup> Blaauw D, Pretorius A, Schenck R. (2019). The economics of urban waste picking in Pretoria. *Afr Rev Econ Financ.* 11(2):129–164. Available at [link](#)

<sup>13</sup> Viljoen K, Blaauw D, Schenck R. (2018). Sometimes you don't make enough to buy food: An analysis of South African street waste pickers' income'. *J Econ Financ Sci.* 11(1). Available at [link](#)

<sup>14</sup> South African Department of Environmental Affairs (DEA). (2016). Report on the Determination of the Extent and Role of Waste Picking in South Africa. Available at [link](#)

<sup>15</sup> Godfrey, L. (2021). Quantifying Economic Activity in the Informal Recycling Sector in South Africa. *South African Journal of Science.* 117(9/10). Available at: [link](#)

<sup>16</sup> Yu, D., Blaauw, D. and Schenck, R. (2020). Waste pickers in informal self-employment: Over-worked and on the breadline. *Development Southern Africa*, 37(6): 971-996. Available at: [link](#)

<sup>17</sup> Bala, S. (2021). Identifying the prospects of job creation along the value chain of plastic recycling. Master's thesis. Master of Commerce. University of the Western Cape. Available at: [link](#)

<sup>18</sup> Viljoen, J.M.M., Schenck, C.J. and Blaauw, P.F. (2012). The role and linkages of buy-back centres in the recycling industry: Pretoria and Bloemfontein (South Africa). *Acta Commerc.*, 12(1)1-12. Available at: [link](#)



## Supplementary Report: Literature Review

Nearly 50% of all waste reclaimers in South Africa collect glass and around 18% specifically collect refillable glass bottles.<sup>19 20</sup> They earn amounts ranging from ZAR 0.20-3.00 per bottle, depending on the type of bottles that they sell, and whether they are part of South Africa's voluntary DRS that are operated by the drinks industry. Nel and Schenck (2022) researched the barriers to glass collection for the waste reclaimers and BBCs in South Africa. Certain challenges waste reclaimers experienced were that they did not receive the voluntary DRS deposit in full since certain retailers held back a percentage of the deposit to cover administration costs. Other retailers did not return the deposit, but instead offered store credit, which they often then sold to others for cash. The store credit option was justified by retailers on the grounds that cash at premises presented security risks. Another issue was that waste reclaimers took refillable bottles to BBCs instead of getting the deposit from a retailer. Consequently, the waste reclaimers received lower payment compared with the deposit value. It was therefore recommended that beverage companies should educate the value chain on return protocols relevant to their voluntary DRS.<sup>21</sup>

There are also major health and safety risks facing waste reclaimers, including the various hazards at landfills and on streets, the physical work undertaken, and exposure to crime. Moreover, many waste reclaimers cannot afford medical treatment or social insurance.<sup>22</sup> Some social insurance schemes do not accommodate workers who do not qualify as "employees". Unorganised waste reclaimers, as independent workers, are excluded from the definition of "employees" in terms of the Unemployment Insurance Act. Health and safety concerns are also associated with the different locations where waste reclaimers operate. Street waste reclaimers may experience physical pain, including neck and back pain, due to activities carried out over long distances; whilst landfill waste reclaimers are exposed to risks from site operations and vehicles. Limited access to facilities, such as clean water and toilets, along with poor hygiene in landfills, poses infection and disease risks. Such hazardous working conditions, combined with a lack of protective equipment, pose significant health and safety risks.<sup>23 24</sup>

For many years, waste reclaimers around the world were largely ignored by policy makers and academics. However, there has been growing international focus by policy makers and academics on the inclusion of waste reclaimers into national policies and programmes. Morais et al. referred to waste reclaimer inclusion through various methods – such as legally recognising waste reclaimers as workers, improving working conditions, improving their representation, and providing access to training and equipment.<sup>25</sup> Despite the growing global awareness, there have been failed attempts to include waste reclaimers in policies and programmes.

The "free labour" provided by waste reclaimers has subsidised recycling in South Africa for a considerable period.<sup>26</sup> Recently, there has been a marked shift towards the inclusion of waste reclaimers both in policy and legislation in South Africa – such as the inclusion of waste reclaimers in South Africa's 'Extended Producer Responsibility Regulations 2020'.<sup>27</sup> A study reviewing countries that had implemented voluntary and mandatory EPR concluded that well-designed mandatory EPR is the preferred approach over voluntary EPR when including the informal economy (such as waste reclaimers). However, the study cautioned utilising a "mandatory approach". For instance, mandatory EPR may include fixed operational

---

<sup>19</sup> Viljoen, J.M.M. (2014). Economic and social aspects of street waste pickers in South Africa. PhD. University of Johannesburg. Available at: [link](#)

<sup>20</sup> Nel, C. and Schenck, R. (2022). Barriers to glass collection for the informal waste pickers and buy back centres in South Africa. Draft Report. Available at: [link](#)

<sup>21</sup> Nel, C. and Schenck, R. (2022). Barriers to glass collection for the informal waste pickers and buy back centres in South Africa. Draft Report. Available at: [link](#)

<sup>22</sup> Dotwana, Z. (2023). Addressing the social protection deficits for waste reclaimers in South Africa. MPhil mini-thesis. LLM (Mercantile and Labour Law). Department of Mercantile and Labour Law, University of the Western Cape. Available at: [link](#)

<sup>23</sup> Dotwana, Z. (2023). Addressing the social protection deficits for waste reclaimers in South Africa. MPhil mini-thesis. LLM (Mercantile and Labour Law). Department of Mercantile and Labour Law, University of the Western Cape. Available at: [link](#)

<sup>24</sup> Schenck, C.J., Blaauw, P.F., Viljoen, J.M.M. and Swart, E.C. (2019). Exploring the potential health risks faced by waste pickers on landfills in South Africa: A socio-ecological perspective. *International Journal of Environmental Research and Public Health*, 16(11) 1-21. Available at: [link](#)

<sup>25</sup> Morais, J., Corder, G., Golev, A., Lawson, L. and Ali, S. (2022). Global review of human waste-picking and its contribution to poverty alleviation and a circular economy. *Environmental Research Letters* 17, 063002. Available at: [link](#)

<sup>26</sup> Godfrey, L. (2021). Quantifying economic activity in the informal recycling sector in South Africa. *S Afr J Sci.* 117(9/10). Available at: [link](#)

<sup>27</sup> *Government Notice 1184 of 2020*. Available at: [link](#)

and administrative requirements, which could lead to resistance by both waste reclaimers, as it limits the flexibility and independence of waste reclaimers.<sup>28</sup> Prior to intensified calls for formalisation, waste reclaimer associations were established. Other inclusive measures by the government were established, such as waste and recycling cooperatives. However, these cooperatives have been largely unsuccessful.<sup>29</sup>

30 31

## 1.2 Waste Picker Integration Guidelines

The inclusion of waste reclaimers into policy is progressing slowly.<sup>32</sup> However, a landmark publication has been the 'Waste Picker Integration Guideline for South Africa' in 2020, which provides guidance to municipalities and industries on best practice principals for waste reclaimer (or "waste picker") integration for new and existing activities and processes.<sup>33</sup> The guideline covers various aspects of waste reclaimers' conditions and needs, such as recognition and respect, engagement during decision-making, fair and improved income, improved health and safety, and skills development and training. Whilst the guideline recognises that there is no "one-size-fits-all" solution for waste reclaimer integration, they do list numerous points to consider, which include but are not limited to:

- Discussions with waste reclaimer representatives and organisations to understand their situation, requirements, and concerns.
- Fair access to materials.
- Fair, consistent, and transparent prices for materials.
- Access to appropriate infrastructure, such as sorting space, drinking water, and toilets.
- Access to welfare and social security, such as insurance, medical care, and childcare.
- The provision of equipment to support collections, such as vehicles, trolleys, and bags.
- The provision of training and educational support.
- Contracts and agreements with private and public institutions.
- Consideration of location-specific support, such as rural areas and townships.
- Consideration of person-specific requirements, such as gender and age.
- Consideration of waste reclaimers that are not part of cooperatives or associations.

---

<sup>28</sup> Ojino, J. (2016). EPR as a mechanism for integrating the informal sector. An evaluation of post-consumer PET waste management in South Africa. Master of Science in Environmental Management and Policy. Lund, Sweden. Available at: [link](#)

<sup>29</sup> Roberson, C. (2022). Integrating unorganised waste reclaimers into formal recycling systems: The positive role of key brokers. MPhil dissertation (inclusive Innovation). Graduate School of Business, University of Cape Town. Available at: [link](#)

<sup>30</sup> Ojino, J. (2016). EPR as a mechanism for integrating the informal sector. An evaluation of post-consumer PET waste management in South Africa. Master of Science in Environmental Management and Policy. Lund, Sweden. Available at: [link](#)

<sup>31</sup> Godfrey, L., Strydom, W., and Phukubye, R. (2016). Integrating the Informal Sector into the South African Waste and Recycling Economy in the Context of Extended Producer Responsibility. Available at: [link](#)

<sup>32</sup> Blaauw, P., Pretorius, A., Viljoen, K. and Schenck, R. (2020). Adaptive Expectations and Subjective Well-being of Landfill Waste Pickers in South Africa's Free State Province. *Urban Forum*, 31(1): 135-155. Available at: [link](#)

<sup>33</sup> DEFF and DSI. (2020). Waste Picker Integration Guideline for South Africa: Building the Recycling Economy and Improving Livelihoods Through Integration of the Informal Sector. Available at: [link](#)

## 1.3 Key Relevant Legislation in South Africa

A DRS should be seen in the context of the South African government's drive towards a circular economy. Godfrey (2021) describes a circular economy as an economic model which keeps materials and products in circulation for as long as possible through practices such as reuse of products, sharing of underused assets, repairing, recycling and remanufacturing. It is based on three principles: design out waste and pollution; keep products and materials in use; and regenerate natural systems.<sup>34</sup>

Policy documents to support the drive towards a circular economy include the 2019 'White Paper for Science, Technology and Innovation'<sup>35</sup> and the 'Science, Technology and Innovation Decadal Plan 2022-2032'.<sup>36</sup> Here, the South African government recognises the importance of a circular economy in developing a sustainable, low carbon, resource efficient, and globally competitive economy. In 2020, the Department of the Environment, Forestry and Fisheries published a 'Circular Economy Guideline for the Waste Sector'.<sup>37</sup> The guideline provides practical, economical and policy instruments to enhance circularity in the waste sector. One of the economic instruments is the reference to deposit refund instrument. Great emphasis is placed by the guideline on the potential a circular economy holds to create increased income and entrepreneurial opportunities.

Key relevant legislation in South Africa regarding packaging waste (including used beverage containers) include:

- 'The Environmental Conservation Act 73 of 1989', which includes littering and waste disposal sites.
- 'The National Environmental Act 107 of 1998', which includes sustainability principles.
- 'The National Environmental Management Waste Act 59 of 2008', which supports the waste hierarchy and includes certain principles, such as "polluter pays".

Extended Producer Responsibility (EPR) for packaging (and other products) is set out in Section 18 of 'The National Environmental Management Waste Act'.<sup>38</sup> These regulations were published in May 2021, with later amendments. EPR for packaging applies the "polluter pays" principal, requiring producers and importers of packaged goods to fund the collection and treatment of packaging waste. The EPR regulations include year-on-year targets for the likes of recycled content, collection, and recycling rates for various packaging types, including beverage containers. Such targets are set from 2022 (year 1) to 2026 (year 5). The targets must be met by producers, or their assigned Producer Responsibility Organisation (PRO), who meet the targets and other EPR requirements on the producer's behalf.

South Africa's EPR for packaging regulations have been viewed as a legislative move towards waste reclaimer inclusion.<sup>39</sup> Regulation 5A(m) of the EPR regulations, for instance, requires a PRO to "...integrate informal waste collectors, reclaimers and pickers into the post-consumer collection value chain". It also states that a PRO must "...compensate waste collectors, reclaimers or pickers, who register with the National Registration Database, for collection services and environmental benefits, through the collection service fee by November 2022".<sup>40</sup> The Collection Service Fee that is paid by PROs to waste collectors/reclaimers/pickers is not defined. Instead, the regulations imply that both parties must agree on

---

<sup>34</sup> Godfrey, L. (2021). The Circular Economy as Development Opportunity: Exploring circular economy opportunities across South Africa's economic sectors. Pretoria, CSIR. Available at: [link](#)

<sup>35</sup> Department of Science and Technology (2019). The White Paper on Science, Technology and Innovation. Available at: [link](#)

<sup>36</sup> Department of Science and Innovation (2022). Science, Technology and Innovation Decadal Plan. 2022-2032. Available at: [link](#)

<sup>37</sup> Department of the Environment, Forestry and fisheries (DEFF). (2020). A Circular Economy Guideline for the Waste Sector— A Driving force towards Sustainable Consumption and Production. Available at: [link](#)

<sup>38</sup> Government Notice 1184 of 2020. Available at: [link](#)

<sup>39</sup> Talbot, T.C., Chandran, P., Allen, C., Narayan, L. and Boampong, O. (2022). Extended Producer Responsibility (EPR) and Waste Pickers. WIEGO Technical Brief No. 15. Available at: [link](#)

<sup>40</sup> Government Notice 1184 of 2020. Available at: [link](#)



the structure and values of the Collection Service Fees.<sup>41</sup> No further information on the structure or values of the Collection Service Fees have been identified, apart from an indication from one PRO that it has been negotiating fees with waste reclaimers.<sup>42</sup>

In terms of progress by PROs operating under South Africa's EPR for packaging, PETCO's 2022 annual report states they have invested nearly ZAR 54 million into South Africa's packaging collection and recycling value chain. This has reportedly contributed to almost 2,000 job opportunities and supported nearly 15,000 waste reclaimers through BBC support. PETCO also reports to have supported over 100 projects that work with waste reclaimers, SMEs, and cooperatives in all of South Africa's nine provinces. These projects have supplied waste reclaimers and organisations with equipment to improve the quantity and quality of collected packaging waste. PETCO also reported to have provided the African Reclaimers Organisation (ARO) with equipment and transport subsidies.<sup>43</sup> Another PRO, MetPacSA, has been negotiating Collection Service Fees with waste reclaimers, along with supporting waste reclaimer related projects delivered by Collect-a-Can, Packa-Ching, CL Trading, and PETCO.<sup>44</sup> Other PROs, such as Polyco<sup>45</sup> and The Glass Recycling Company,<sup>46</sup> have committed to allocate funds and deliver projects that support waste reclaimers with collecting packaging waste.

## 2.0 Lessons Learnt from Other African Countries

The literature on mandatory DRS and interactions with waste reclaimers in Africa is limited. According to Reloop, the only African country with a mandatory DRS for single-use beverage containers is the Republic of Seychelles.<sup>47</sup> As such, this mandatory DRS and waste reclaimer impacts will be explored. Additionally, voluntary DRS in other African countries will be reviewed, along with the inclusion and role of waste reclaimers in other waste management systems.

### 2.1 Republic of Seychelles

In 2007, a "Memorandum of Understanding" was signed between the government and two drinks producers, SBL and SMB, for a part-refund DRS for the Republic of Seychelles – i.e., only part of the deposit is refunded. The DRS began with single-use PET drinks bottles. This involves a SCR0.70 (ZAR 0.91) tax being applied per PET bottle entering the Seychelles market. SCR0.50 (ZAR 0.65) of the SCR0.70 tax (i.e., deposit) is returned to the consumer upon returning their empty PET bottle to one of six redemption centres. These redemption centres are privately operated, and the PET bottles are exported for recycling. The remaining SCR0.20 (ZAR 0.26) goes into the "Waste Management Trust Fund", which finances the DRS operations, logistics, and public education programmes. In essence, the cost to consumers for SBL and SMB drinks in single-use PET bottles has increased by SCR0.20 (ZAR 0.26) per bottle since the introduction of the DRS.<sup>48 49</sup>  
<sup>50</sup> The part-refund DRS later introduced single-use aluminium drinks cans. Each can incurs a SCR1.00 (ZAR 1.30) tax when it enters the Seychelles market. SCR0.50 (ZAR 0.65) of the SCR1.00 deposit is returned to the consumer upon returning their empty can to one of six redemption centres. Like the PET bottles, the aluminium cans are exported for recycling. The remaining SCR0.50 (ZAR 0.65) goes into the Waste Management Trust Fund to finance the system. As such, consumers experience a SCR0.50 (ZAR 0.65) price

---

<sup>41</sup> IUCN. (2021). Policy Effectiveness Assessment of Selected Tools for Addressing Marine Plastic Pollution. Extended Producer Responsibility in South Africa - Inclusion of the Informal Waste Sector in the EPR Scheme and Regulations. Available at: [link](#)

<sup>42</sup> Holtzhausen, M. (2023). MetPac-SA Celebrates Resounding Success at Annual General Meeting (AGM). Available at: [link](#)

<sup>43</sup> PETCO. (N.D.). PETCO Annual Review 2022. Available at: [link](#)

<sup>44</sup> Holtzhausen, M. (2023). MetPac-SA Celebrates Resounding Success at Annual General Meeting (AGM). Available at: [link](#)

<sup>45</sup> Polyco. (2021). Extended Producer Responsibility (EPR) Scheme: Submission to DFFE. 5<sup>th</sup> November 2021. Available at: [link](#)

<sup>46</sup> 3S Media. (2023). Glass Recycling Company Sees Growing Demand for Circularity in South Africa. Available at: [link](#)

<sup>47</sup> Reloop. (2022). Global deposit book 2022. An overview of deposit return systems for single-use beverage containers. Available at: [link](#)

<sup>48</sup> Lai, A., Hensley, J., Krutli, P., and Stauffacher, M. (2016). Solid Waste Management in the Seychelles: USYS TdLab Transdisciplinary Case Study 2016. Available at: [link](#)

<sup>49</sup> Reloop. (2022). Global deposit book 2022. An overview of deposit return systems for single-use beverage containers. Available at: [link](#)

<sup>50</sup> Seychelles Nation (2007). Scheme Launched to Recycle PET Bottles. 20 September 2007. Available at: [link](#)

increase for drinks in aluminium cans.<sup>51 52</sup> From 2021, all alcoholic drinks and some non-alcoholic drinks in single-use glass bottles were added to the part-refund DRS. Each bottle incurs a SCR2.00 (ZAR 2.60) tax when it enters the market. SCR1.00 (ZAR 1.30) of the SCR2.00 deposit is returned to the consumer upon returning their empty bottle to one of six redemption centres. The glass bottles are crushed and used as landfill covering, so are not recycled. The remaining SCR1.00 (ZAR 1.30) goes into the Waste Management Trust Fund to finance the system. As such, consumers experience a SCR1.00 (ZAR 1.30) price increase for certain drinks in single-use glass bottles.<sup>53 54</sup>

Due to high transportation costs, limited infrastructure, and lack of education and awareness, there is limited waste segregation and recycling collections in the Seychelles. As such, most waste is sent to landfill. Because of this, waste reclaimers are often active at landfill sites, on streets, and sourcing materials from bins, where they recover high-value materials to sell. In terms of the part-refund DRS, waste reclaimers contribute to the high return rates of single-use PET bottles and aluminium cans through the DRS. Waste reclaimers can collect up to 5,000 containers per day from bins, landfills, and on streets. By taking these containers to the redemption centres, waste reclaimers redeem the deposits. It is believed that redeemed deposits from PET bottles and aluminium cans are a large contributor to waste reclaimers' income. Analysis in 2016 estimated that about 50% of PET bottles and aluminium cans were sent to redemption centres by consumers, with the remaining 50% disposed of as general waste. Waste reclaimers therefore recover many of the disposed PET bottles and aluminium cans from bins and landfill sites, diverting them to reclamation centres. Over 90% of PET bottles and aluminium cans are recovered by waste reclaimers, with around 10% remaining in landfill. However, that since PET bottles for oil and fat are not subject to the DRS, these bottles are not often recovered by waste reclaimers. As for glass, prior to the introduction of the DRS for single-use glass bottles, concern was raised by stakeholders that the weight of glass bottles would be challenging for waste reclaimers to recover and carry.<sup>55</sup> However, since its introduction in 2021, no information on the interactions between glass bottles subject to the DRS and waste reclaimers has been identified.

## 2.2 Botswana

There is no mandatory DRS in Botswana, but voluntary DRS does exist. Most retailers in Botswana participate in the voluntary DRS for refillable glass bottles, operated by the drinks company, Segwana Ltd. Segwana Ltd estimated that roughly 15-20% of their soft-drink and beer sales are in refillable glass bottles. The DRS for refillable glass beer and soft drinks bottles achieve a high reported recovery rate of around 90%. The high recovery rate is related to the deposit and, importantly, the adjustment of the deposit value over time. Comparatively, glass bottles that are not subject to a DRS have lower return rates to recycling centres, and so are more prevalent as litter and in landfill. From the perspective of the local authorities, the motivation to initiate organised kerbside recycling systems of glass bottles is low as improvement potential would be minimal.<sup>56</sup>

---

<sup>51</sup> Lai, A., Hensley, J., Krutli, P., and Stauffacher, M. (2016). Solid Waste Management in the Seychelles: USYS TdLab Transdisciplinary Case Study 2016. Available at: [link](#)

<sup>52</sup> Reloop. (2022). Global deposit book 2022. An overview of deposit return systems for single-use beverage containers. Available at: [link](#)

<sup>53</sup> Reloop. (2022). Global deposit book 2022. An overview of deposit return systems for single-use beverage containers. Available at: [link](#)

<sup>54</sup> Laurence, D. (2021). Deposit on bottles of alcohol to go into effect in Seychelles on January 18. 15 January 2021. Available at: [link](#)

<sup>55</sup> Lai, A., Hensley, J., Krutli, P., and Stauffacher, M. (2016). Solid Waste Management in the Seychelles: USYS TdLab Transdisciplinary Case Study 2016. Available at: [link](#)

<sup>56</sup> Bolaane, B. (2004). Constraints to organised recycling in developing countries. Doctoral thesis. Doctor of Philosophy of Architecture, Building and Civil Engineering. Loughborough University. Available at: [link](#)

The collection of steel cans in Botswana is promoted and dominated by Collect-a-Can.<sup>57</sup> However, this product stewardship system is not legislated.<sup>58</sup> Collect-a-Can has agents throughout Botswana, who buy steel cans at BWP0.42 (ZAR 0.56) per kilogram from collectors (including waste reclaimers), and then sell these to Collect-a-Can for BWP1.00 (ZAR 1.32) per kilogram. The cans are then crushed and sent for processing.<sup>59</sup> Notably, the price paid to collectors (including waste reclaimers) is fixed and exceeds the market value for thin steel can sheet. Since the collected steel is not used in steel production, but rather used in the copper smelting industry, this is not considered “recycling” according to global definitions. Instead, it is considered down-cycling or incineration.<sup>60</sup>

Door-to-door collections of recyclable materials are mostly handled by waste reclaimers. Waste reclaimers mostly collect plastics, glass, paper, and metal,<sup>61</sup> but are not formally involved in recycling facilities.<sup>62</sup> Scrap merchants buy these materials from waste reclaimers, but do not offer a standard fee. The fees are also deemed insufficient for a suitable livelihood. Municipalities in Botswana allow recycling companies to work with a limited number of waste reclaimers at landfills, but the companies state that the cap on the number of waste reclaimers restricts the recovery of recyclables.<sup>63</sup>

There is some evidence that waste reclaimers receive support. Financial assistance for both informal recyclers and NGOs is provided. Collect-a-Can, for instance, guarantees a fixed price for steel cans collected and this price is higher than the market value for thin steel can sheet.<sup>64</sup> In addition, there is a partnership between Coca-Cola Beverages Botswana and Cleanico Waste Management Solutions. As a result of this partnership, Coca-Cola Beverages Botswana subsidises recycling, whereby waste reclaimers can receive BWP2.50 (ZAR 3.31) per kilogram of PET bottles returned to Cleanico.<sup>65</sup>

## 2.3 Cameroon

Cameroon has voluntary EPR programmes, but they are only applicable to certain packaging materials.<sup>66</sup> One such EPR programme places the financial responsibility for managing waste products on the manufacturers and importers. As part of the requirements, dealers of recyclables must have environmental permits. This presents a barrier to the informal economy. Some informal waste workers have therefore chosen to leave the waste sector because permits were too difficult to obtain.

A study on the challenges in the waste sector in Douala, Cameroon, concluded that individual waste reclaimers could not collect enough recyclables to meet requirements from the recycling facilities. There was also a lack of waste reclaimer cooperatives (herein referred to as “cooperatives”) to maximise efficiencies and scale. Additionally, the requirement of a bank account, provision of documentation, and

---

<sup>57</sup> Scheinberg, A., Van den Berg, S., Abarca, L. and Lifuka, R. (2012). The Botswana recycling guidelines. Advice on valorisation for middle-income countries. Waste, Department of Waste Management and Pollution Control and United Nations Development Programme (UNDP), Botswana, Gaborone and New York. Available at: [link](#)

<sup>58</sup> Organisation for Economic Cooperation and Development (OECD). (2016). Extended producer responsibility and the informal sector In: OECD Extended producer responsibility. Updated guidance for efficient waste management. Available at: [link](#)

<sup>59</sup> Suresh, S. and Vijayakumar, V. (2011). Waste management in Botswana. Master thesis. Energy and Environmental Engineering, Department of Management and Engineering. Linköping University, Sweden. Available at: [link](#)

<sup>60</sup> Organisation for Economic Cooperation and Development (OECD). (2016). Extended producer responsibility and the informal sector In: OECD Extended producer responsibility. Updated guidance for efficient waste management. Available at: [link](#)

<sup>61</sup> Mmerek, D. (2018). Current status of waste management in Botswana: A mini-review. Waste Management and Research, 36(7): 555-576. Available at: [link](#)

<sup>62</sup> Nagabooshnam, J.K. (2012). Solid waste generation and composition in Gaborone, Botswana. Potential for resource recovery. Masters Thesis, Linköping University, Sweden. No weblink identified.

<sup>63</sup> Scheinberg, A., Van den Berg, S., Abarca, L. and Lifuka, R. (2012). The Botswana recycling guidelines. Advice on valorisation for middle-income countries. Waste, Department of Waste Management and Pollution Control and United Nations Development Programme (UNDP), Botswana, Gaborone and New York. Available at: [link](#)

<sup>64</sup> Organisation for Economic Cooperation and Development (OECD). (2016). Extended producer responsibility and the informal sector In: OECD Extended producer responsibility. Updated guidance for efficient waste management. Available at: [link](#)

<sup>65</sup> Coca-Cola Beverages Africa (2022). Boost for environment and jobs as CCBA funds recycling campaign. 27 July. Available at: [link](#)

<sup>66</sup> Langhill, R. (2021). EPR in Africa – what to expect in the next few years. Circular Economy, Environmental, Packaging, Lorax EPI. 7 July. Available at: [link](#)

formal registration to access financial resources also limited inclusion of waste reclaimers into the waste management system. It was suggested that the government should provide support to the informal waste sector through training, funding, certifying and marketing recyclables, assisting formalisation, and assisting sales through trade organisations.<sup>67</sup> As such, Cameroon involves regulatory burdens on waste reclaimers and their inclusion into waste collection and recycling systems.

## 2.4 Egypt

In 2003, the Egyptian government outsourced waste management to private companies through contracts.<sup>68</sup> These contracts ended in 2017. The private companies lacked the required licenses, did not comply with Egypt's waste regulations, and they lacked coordination. Additionally, if the waste reclaimers chose to work for the private companies, they would incur a 90% reduction in income, since they were only paid for collection and not for processing recyclables. As such, waste reclaimers continued to collect waste from residents informally. As part of the waste collection system, residents paid fees to the waste reclaimers and the government – a situation that caused dissatisfaction with Cairo residents. The municipal fees were triple the amount charged by the waste reclaimers and the fees were billed as part of the residents' electricity bills.<sup>69</sup> The infrastructure in Cairo was also not suitable for large waste vehicles, which struggled to manoeuvre the narrow streets.<sup>70</sup> This required residents to transport their waste to another location and at a more expensive price than the waste reclaimers offered. Because of this automatic government billing for waste collections (i.e., residents could not avoid payment), the waste reclaimers had to reduce their fees by around 75% and work longer hours to continue to encourage uptake from residents. With the help of community organisations, the waste reclaimers formed cooperatives. These cooperatives were contracted by the government. Eventually, the government provided the waste reclaimers with uniforms, vehicles, training, and initiated the formalisation of the sector.

In 2019, there were about 50,000 to 100,000 waste reclaimers in Cairo. They collect waste from the residents, door-to-door, for a fee. Waste collectors in Cairo collect approximately 50% of the municipal waste collected, with private contractors collecting 30% and the municipality collecting 20%.<sup>71</sup> The materials collected include plastics, paper, glass, metals, and textiles.<sup>72</sup> The waste reclaimers sort the waste manually and only collect what they can sell.

Egypt's Waste Law introduces EPR. This legislation, however, presents some challenges. The definition of recycling does not allow recycled plastic to be used for its original purpose and to enable a circular approach. Producer obligations are also unclear, as are the definition and implementation of EPR. Classification of hazardous and non-hazardous waste, consistency of technical product specifications, and cost implications are also concerns. Again, the government opted to utilise the private sector to collect, transport, treat, and dispose of waste, with the intention that waste reclaimers are employed by the contractors. The government also planned to make employment of registered waste reclaimers mandatory.<sup>73</sup>

---

<sup>67</sup> McKay, J.M., Mbanda, J.T-D. and Lawton, M. (2015). Exploring the challenges facing the solid waste sector in Douala, Cameroon *Environmental Economics*, 6(3): 93-102. Available at: [link](#)

<sup>68</sup> Soth, A. (2022). Cairo's Zabbaleen and Secret Life of Trash. *JSTOR Daily*. 30 November. Available at: [link](#)

<sup>69</sup> Hooshmand, D. (2019, updated 2023). The Zabbaleen: The unique story of the 'garbage people' of Cairo. July 4 2023 (12 April 2019). Available at: [link](#)

<sup>70</sup> Soth, A. (2022). Cairo's Zabbaleen and Secret Life of Trash. *JSTOR Daily*. 30 November. Available at: [link](#)

<sup>71</sup> Enterprise. (2021). Is there room for the Zabbaleen in Egypt's new waste management system? *Going Green*. Available at: [link](#)

<sup>72</sup> Frisch, S. and Pautrat, C. (2021). Extended producer responsibility scheme for packaging waste in Egypt. *Deutsche Gesellschaft für Internationale Zusammenarbeit, Global Project "Support of the Export Initiative for Green Technologies"*. Available at: [link](#)

<sup>73</sup> Enterprise. (2021). Is there room for the Zabbaleen in Egypt's new waste management system? *Going Green*. Available at: [link](#)

## 2.5 Ghana

An estimated 20-30% of the solid waste in Ghana is recycled by the informal economy.<sup>74</sup> However, they are not regulated by standards and formal processes.<sup>75</sup> This challenge increases risk for all parties in the value chain and places restrictions on the engagement of larger institutions. Initiatives like the Global Plastic Action Partnership combat plastic pollution and contribute to research about the types and quantities of plastic collected by waste reclaimers in the country. Relationships were established between local waste reclaimer organisations in Ghana, micro-, small- and medium-sized enterprises, multinational companies, and local authorities. Collaborations are contributing to the development of a mobile software package providing waste reclaimers with the average prices for different materials. This application will increase transparency in the value chain and earning power, while also providing additional incentives for waste reclaimers to collect the most valuable materials in terms of the demand by potential buyers and recyclers.

## 2.6 Kenya

Waste reclaimers in Kenya collect recyclables, mainly from dumpsites. The Kenya Plastics Pact, a collaborative initiative consisting of various stakeholders in the plastics value chain, is guided by the Kenya Plastics Pact Roadmap and promotes the inclusion of the informal economy. This support for inclusion is related to the target of the roadmap to ensure that 40% of plastic packaging is recycled and to improve the informal economy value chain. Three main activities are set out to achieve this outcome. Firstly, projects and pilots need to be upscaled to increase collection and to improve transportation and recycling practices by 2026. Secondly, the capacity within the informal economy needs to be improved by encouraging registration, providing training, and enhancing the use of protective measures by 2026. Thirdly, existing guidelines for the inclusion of waste reclaimers into the waste management system needs to be supported. To capture PET bottles for recycling, Coca-Cola and PETCO have collaborated to incentivise waste reclaimers and others to return PET bottles to recycling facilities. This involves PETCO paying an additional KES5.00 (ZAR 0.70) per kilogram for PET bottles, which is in addition to the KES19.00 (ZAR 2.65) per kilogram paid by recyclers. From 2018 to 2020, this additional incentive increased the recycling rate of PET bottles from 5% to 40%.<sup>76</sup>

In terms of including waste reclaimers into a potential DRS, one study suggested designing in waste reclaimers, with the goal of improving livelihoods. It also suggested that a proportion of system funds should be allocated to waste reclaimers.<sup>77</sup> Another study proposed that a 'Waste Pickers Fund' should be established and that a portion of the fees paid by producers could be donated to this fund for the improvement of waste reclaimers' welfare.<sup>78</sup>

## 2.7 Namibia

The National Solid Waste Management Strategy for Namibia set out examples of pilot projects to prepare for the roll-out of collection systems for recyclables on a larger scale. One of these examples was a pilot to assess the potential for a DRS for glass and plastic bottles. A more recent report refers to a recommendation by the ministry to introduce "a comprehensive compulsory deposit and refund system

---

<sup>74</sup> Quartey, E.T., Tosefa, H., Danquah, K.A.B. and Obrsalova, I. (2015). Theoretical framework for plastic waste management in Ghana through extended producer responsibility: Case of sachet water waste. *Int J Environ Res Public Health*, 12(8): 9907-9919 Available at: [link](#)

<sup>75</sup> World Economic Forum. (2023). Data benefits Ghana's fight against plastic pollution. 31 May. World Economic Forum. Available at: [link](#)

<sup>76</sup> Maudhui House (2023). Kenya is ready for a deposit return scheme. Available at: [link](#)

<sup>77</sup> Musasia, B.S. (2021). A business case for a deposit return scheme for Kenya. 22 December. Clean up Kenya. Available at: [link](#)

<sup>78</sup> Musasia, B.S. (2021). Here is why the proposed Kenya extended producer responsibility law is likely to fail. 24 September. Clean up Kenya. Available at: [link](#)



on all single-use plastic drink bottles" by the 1st of January 2025.<sup>79</sup> In the National Solid Waste Management Strategy for Namibia, two policy aspects that were earmarked for development. These were waste management regulations that required standards, and guidance on best practice management of waste reclaimers. This included consultation with waste reclaimers. In terms of effectively managing disposal sites, the organisation of financial incentives was scheduled from 2020 to 2022. However, the National Solid Waste Management Strategy for Namibia cautions that organisational initiatives would require a large time investment and considerable dialogue to establish cooperation with waste reclaimers and to agree to suitable incentives. By 2021, the waste reclaimers were not formally included, recognised, or regulated. Municipal regulation was also lacking in terms of inclusion, registration, and coordination of waste reclaimers.<sup>80</sup> However, a study conducted in Swakopmund, Namibia, indicated that a lack of policy on waste reclaimers was not the norm in all towns in Namibia. In Swakopmund, the town's waste policy provided an opportunity to waste reclaimers to collect recyclables and earn an income.<sup>81</sup>

## 2.8 Zimbabwe

Makarichi et al. noted the important role of waste reclaimers in Zimbabwe in the collection of plastics in most cities and towns. Waste reclaimers work on dumpsites, with studies suggesting formalisation and legalisation to increase waste recycling, to improve the standard of work, the quality of plastics collected, and data collection on the informal economy.<sup>82</sup>

National Breweries, United Bottlers, and AFDIS, among others, have voluntary DRS for glass, plastic, steel, and aluminium beverage containers, including refillable glass bottles.<sup>83</sup> However, Ngwenya illustrated the importance of providing competitive prices for recyclables with the example of bottles made from HDPE, with local plastic converting industries buying a tonne of these bottles for ZWL1,000 (ZAR 2.30). The author suggested that a ZWL0.50 deposit included in the price of the product would translate to waste reclaimer earnings of ZWL150,000 (ZAR 340) for one tonne. The author argued that this would limit the littering and disposal of beverage containers. In addition, empty bottles could be exchanged for other services. Ngwenya was in favour of a legislated DRS because it would lead to uniform prices. Ngwenya argued that the deposit level should deter dumping of recyclables, encourage recycling, and motivate waste reclaimers.<sup>84</sup>

## 3.0 Lessons Learnt Beyond Africa

The literature on mandatory DRS and interactions with waste reclaimers in countries outside of Africa is also limited. However, a mandatory DRS in Ecuador was identified, along with an upcoming mandatory DRS in Uruguay. As such, these were reviewed. For other countries, mostly in South America, waste reclaimer interactions with EPR for packaging and other waste management systems were reviewed.

### 3.1 Ecuador

There are an estimated 20,000 waste reclaimers in Ecuador, of which only 6% are believed to be associated with a cooperative. The inclusion of waste reclaimers in Ecuador varies region-to-region, with some major

---

<sup>79</sup> Sustainability Middle East and Africa. (2023). Namibia reveals planned ban on single-use plastics by 2026. 5 July. Available at: [link](#)

<sup>80</sup> Nambuli, F., Togarepi, C. and Shikongo, A. (2021). Waste scavenging a problem or an opportunity for integrated waste management in Namibia: A case of Keetmanshoop Municipality, Namibia. *Environment and Pollution*, 10(2). Available at: [link](#)

<sup>81</sup> Kadhila, T., De Wit, M.P. and Schenck, R. (2023). A conceptual framework for sustainable waste management in small municipalities: the cases of Langebaan, South Africa and Swakopmund, Namibia. *Environ Sci Pollut Res*. Available at: [link](#)

<sup>82</sup> Makarichi, L. and Okpara, K. and Jutidamrongphan, W. (2023). Choosing among plastic waste management options: Lessons from Zimbabwe's plastic waste flows. Available at: [link](#)

<sup>83</sup> Kaseke, N. (2005). The use of deposit refunds as pollution control policy in urban areas: The case of Zimbabwe (Harare). Paper Final Report Accounting for Urban Environment Workshop, Ethiopia, Addis Ababa: 5 January 2004. Available at: [link](#)

<sup>84</sup> Ngwenya, E. (2019). Container deposit refund scheme – the answer to solid waste pollution. 15 November. Cite. Available at: [link](#)

municipalities, such as Quito, formally including cooperatives in the collection and sorting of recyclable waste.<sup>85</sup>

In the city of Loja, only waste reclaimers that were members of a cooperative were permitted by the municipality to collect recyclable material. Waste reclaimers that were not affiliated with a cooperative were prohibited from collecting recyclable material. Joining a cooperative involved paying a monthly fee or sacrificing a percentage of earnings to the municipality. This would allow them access to the material and, in some cases, the use of sorting facilities and a uniform. Despite findings that waste reclaimers could receive a higher income by joining a cooperative, many waste reclaimers were reluctant. Reasons included reluctance to pay membership fees and preference to work independently, plus a lack of understanding and awareness.<sup>86</sup>

Ecuador introduced its national mandatory DRS for PET bottles in 2011. As part of the system, a US\$0.02 (ZAR 0.36) deposit was applied per bottle, which was returned to the consumer returned the empty bottle to a collection centre. If the collection centres were unable to determine the number of bottles collected, the refunded amount back to the drinks producers was applied on a per kilogram rate. The DRS increased recycling rates of PET bottles from 39% prior to its introduction to above 100%, due to illegal cross-border imports of PET bottles. As a result, the government had to pay out US\$12.8 million (ZAR 230 million) in deposits that had not initially been paid.<sup>87</sup> In terms of waste reclaimers, it was suggested that redeemed deposits represented 50-60% of some waste reclaimers' income. However, there were challenges and risks. One challenge was that the DRS required individuals to have certain forms of identification and be registered in the National Taxpayers Registry. Very few cooperatives were registered on the tax register. Furthermore, the registration process to allow organisations to reclaim deposits from recovered containers was complex. Because of this, no cooperatives were authorised to participate and reclaim deposits from recovered bottles. As such, there were intermediaries between the waste reclaimers and the recycling facilities that paid waste reclaimers for deposit-bearing PET bottles. However, this was often less than the value of the deposit. Another challenge with the DRS was the pricing mechanism used. Specifically, to financially protect the government from fraudulent deposit claims, bi-annual adjustments were made to the number of PET bottles per kilogram for calculating refunds. This resulted in waste reclaimers needing to collect more PET bottles to earn the same level of income. Finally, the deposit rate of US\$0.02 (ZAR 0.36) remained fixed for over 10 years, with no adjustment for inflation. As such, waste reclaimers had to increase the number of recovered PET bottles to sustain their livelihoods.<sup>88</sup>

## 3.2 Uruguay

In Uruguay, EPR for packaging was introduced in 2007 under the 'Ley de Envases' law. The EPR requires producers and importers of packaged goods to pay a fee based on the quantity of packaging placed on the market per year. Notably, the fees fund the salaries of waste reclaimers working at registered sorting facilities, install packaging waste collection points, and fund sorting facilities and relevant equipment. In the regions where EPR has been implemented into regional law, sorting facilities are operated by cooperatives. The producer fees and value of sold materials contribute to the waste reclaimers' salaries. Furthermore, due to the low value of liquid paperboard beverage cartons and expanded polystyrene packaging, subsidies are paid by producers to incentivise the collection, sorting, and recycling of these materials.<sup>89</sup>

In the capital, Montevideo, there are an estimated 3,000 to 5,000 waste reclaimers. Due to an existing waste sorting and recycling contract between the municipality and a private company, recyclable

---

<sup>85</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>86</sup> Iñiguez-Gallardo, V. and Mejía, P. (2023). Perspectives of informal street waste pickers in Loja-Ecuador. Available at: [link](#)

<sup>87</sup> Viteri, J. (2022). Ecuador's Deposit Return System for Pet Plastic Bottles. Available at: [link](#)

<sup>88</sup> Viteri, J. (2022). Ecuador's Deposit Return System for Pet Plastic Bottles. Available at: [link](#)

<sup>89</sup> Matonte-Silva, C. and O'Hare, P. (2022). Packaging EPR in Uruguay. March 2022. Global Alliance of Waste Pickers and WIEGO. Available at: [link](#)

## Supplementary Report: Literature Review

material in the central region of Montevideo is not accessible to waste reclaimers. However, the transportation of the material to sorting facilities is permitted. As such, waste reclaimers have other options to be included in waste management activities in Montevideo. Some waste reclaimers work at the four sorting facilities, where they receive a fixed salary and social welfare benefits. Other waste reclaimers collect waste and transport it to the sorting facilities. Some waste reclaimers are members of Montevideo's five cooperatives, providing waste collection and recycling services to private businesses. Finally, there are waste reclaimers who work independently, often at the landfill site.<sup>90</sup>

Despite the benefits associated with Uruguay's inclusion of waste reclaimers into policy and waste management, there are some issues. First, EPR was intended to be followed nationally, but only six of Uruguay's 19 regions have adopted it. As such, there is limited benefit to Uruguay's waste reclaimer population. Second, the development of EPR lacked consultation with waste reclaimers and others in the informal economy. This resulted in trade unions disagreeing with various elements of the law. Third, the collection rates achieved for recyclable material are low, at around 4% of all packaging placed on the market being collected for recycling. Fourth, it is argued that EPR has worsened many waste reclaimers' access to material. Despite attempts to increase the number of waste reclaimers working formally within cooperatives, many prefer the independence and flexibility of working informally.<sup>91</sup>

As for Montevideo, whilst some waste reclaimers are formally included in its waste management system, there are challenges. These include conflicts between private companies, the municipality, and waste reclaimers over access to recyclable material.<sup>92</sup> There is also limited involvement of waste reclaimers in the sorting facilities, with only about 10% of Montevideo's waste reclaimers working at the sorting facilities.<sup>93</sup> Additionally, it has been argued that there are limited incentives for waste reclaimers at sorting facilities to improve sorting rates, since they receive a fixed income. As such, it is suggested that more appropriate incentive mechanisms should be considered to improve income and sorting rates.<sup>94</sup>

Due to the low uptake of EPR and thus low recycling rates achieved by the existing system in Uruguay, a new approach is being introduced. Uruguay's 'Vale Plan' aims to increase packaging recycling rates from 5% to 50% by 2025.<sup>95</sup> To achieve this, two systems will be implemented. The first will be a mandatory DRS for single-use beverage containers across Uruguay. The second will be a kerbside or collection point recycling service for packaging waste in towns with over 5,000 residents. The mandatory DRS will be for single-use PET bottles, glass bottles, aluminium cans, and liquid paperboard cartons. A return-to-retail approach will be used, using manual and automated (Reverse Vending Machines) return options. The DRS is expected to be implemented in Uruguay at the end of 2024, with around 9,000 return locations across Uruguay.<sup>96</sup> It is anticipated to cost US\$50 million (ZAR 900 million) to implement.<sup>97</sup> Whilst the impact on waste reclaimers is currently unknown, there are concerns that their livelihoods will be negatively impacted.<sup>98</sup> However, meeting minutes from a parliamentary meeting suggests that the Vale Plan will generate roughly 1,000 new jobs, mostly at sorting and counting facilities. This exceeds the 250 waste sorters currently working in

---

<sup>90</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>91</sup> Matonte-Silva, C. and O'Hare, P. (2022). Packaging EPR in Uruguay. March 2022. Global Alliance of Waste Pickers and WIEGO. Available at: [link](#)

<sup>92</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>93</sup> Matonte-Silva, C. and O'Hare, P. (2022). Packaging EPR in Uruguay. March 2022. Global Alliance of Waste Pickers and WIEGO. Available at: [link](#)

<sup>94</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>95</sup> Uruguay Ministry of Environment (2023). From the Packaging Management Plan to the Vale Plan. [Translated into English.] Available at: [link](#)

<sup>96</sup> Camara de Industrias del Uruguay (2023). Plan Vale Uruguay – Summary. June 2023. [Translated into English.] Available at: [link](#)

<sup>97</sup> Parlamento del Uruguay (2022). XLIX Legislature, No. 1118 of 2022. Single Use Plastic Products. Shorthand Version of the Meeting Held On November 8, 2022. Available at: [link](#)

<sup>98</sup> Pena, A., Pons, F., Mosera, P., and Varela, V. (2022). Renewing the Socioeconomic Fabric of Montevideo Through Waste. Available at: [link](#)

Uruguay, which include waste reclaimers. However, a speaker in the meeting believed there would be competition for material due to the introduction of the DRS and kerbside recycling service.<sup>99</sup>

### 3.3 Argentina

The management of municipal waste in Argentina is the responsibility of municipalities. As such, the inclusion of waste reclaimers into policies and waste operations varies region to region. Where waste reclaimers are included in waste collection and recycling systems, it is usually the cooperatives that provides their members with payment, equipment, and social benefits.<sup>100</sup>

The City of Buenos Aires is widely regarded as an example of successful waste reclaimer inclusion. The local government introduced the 'Integral Management of Municipal Solid Urban Waste' law in 2005. This law recognises waste reclaimers as key players in the recycling system. Because of this, there are 12 cooperatives contracted by the Buenos Aires government to collect and sort recyclable material from its three million residents. To achieve this, Buenos Aires is divided into 12 zones, with each zone managed by a cooperative. The registered waste reclaimers collect recyclable waste from residents and transport the material to one of 16 sorting facilities. These facilities are also operated by cooperatives.<sup>101</sup> In total, it is estimated that between 5,500<sup>102</sup> and 6,500<sup>103</sup> registered waste reclaimers manage Buenos Aires' recyclable waste through these contracts. This represents approximately half of the 10,000 to 12,000 waste reclaimers operating in Buenos Aires. The waste reclaimers that operate the collections and sorting through these contracts receive a monthly payment, along with insurance, a work uniform, childcare, and transportation to their place of work – all provided by their cooperative. It is estimated that a waste reclaimer working as part of a cooperative can earn roughly double that of a non-registered independent waste reclaimer, along with various welfare benefits. These factors incentivise formalisation, as more waste reclaimers are encouraged to register with cooperatives.<sup>104</sup>

Since 2012, 25 cooperatives within Buenos Aires have also been invited to join a framework for managing waste generated by large companies. Under this framework, the cooperative 'Reciclando Sueños' signed a contract with a major chemical company to collect and sort their recyclable waste. By contracting with the waste reclaimer cooperative, the chemical company increased its recycling rate from 7% to 28% and reduced its overall waste management costs by around 20%. Despite this positive example, there are very few cooperatives that have contracts with large companies through the framework.<sup>105</sup>

### 3.4 Brazil

Brazil is widely regarded as a progressive country in terms of incorporating waste reclaimers into policy and waste management systems.<sup>106</sup> Cooperatives have been included in national law and waste management systems for many years. The first cooperative was established in the 1980s. This was followed

---

<sup>99</sup> Parlamento del Uruguay (2022). XLIX Legislature, No. 1118 of 2022. Single Use Plastic Products. Shorthand Version of the Meeting Held On November 8, 2022. Available at: [link](#)

<sup>100</sup> Cappa, A., Bertellotti, A., Murad, M., Capana, J., Basilico, P., and Juergens-Grant, F. (2023). Efforts of Argentina's Informal Waste Pickers to Finance Decent Work and Social Protection through Extended Producer Responsibility Legislation. WIEGO Resource Document No 34: March 2023. Available at: [link](#)

<sup>101</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

<sup>102</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>103</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

<sup>104</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>105</sup> Gutberlet, J. and Carengo, S. (2020). Waste Pickers at the Heart of the Circular Economy: A Perspective of Inclusive Recycling from the Global South. Available at: [link](#)

<sup>106</sup> Dias, S. (2011). Overview of the Legal Framework for Inclusion of Informal Recyclers in Solid Waste Management in Brazil. WIEGO Urban Policies Briefing Note No.8. Available at: [link](#)

## Supplementary Report: Literature Review

by “inclusive recycling” in the 1990s, whereby cooperatives are service providers for recycling collections and sorting for some municipalities.<sup>107</sup> In 2006, Brazil implemented a decree giving cooperatives exclusive rights to recyclable material generated from federal buildings. The decree requires the cooperatives to provide its members with appropriate equipment and a share of the income from the sale of material.<sup>108</sup> As such, there are more than 1,600 cooperatives and organisation in Brazil, of which about 600 are responsible for collecting 90% of Brazil's recycled material.<sup>109</sup> However, since the management of municipal waste is the responsibility of municipalities, the inclusion of waste reclaimers into policy and waste management systems varies across the country.<sup>110</sup>

In 2010, Brazil's 'National Solid Waste Policy' was introduced. It requires cooperatives to be prioritised by municipalities for collecting and sorting recyclable packaging waste – referred to as “reverse logistics”. Although municipalities can procure waste services from cooperatives or other private companies, the procurement process is simplified if cooperatives are used. This incentivises the use of cooperatives.<sup>111</sup> Later, in 2015, over 3,500 packaging producers signed Brazil's 'Packaging Sector Agreement' with the government. The agreement sets out targets, such as reducing the amount of packaging waste sent to landfill by 45% by 2031. To achieve this, various recycling measures are being introduced, such as installing public recycling points, providing cooperatives with equipment and infrastructure, and paying cooperatives for material collected for recycling.<sup>112</sup> <sup>113</sup> It is believed that more than 300 cooperatives consisting of over 5,000 waste reclaimers benefit from the agreement.<sup>114</sup>

São Paulo incorporates waste reclaimers into its government-funded 'Bolsa Recycling' (“Recycling Fund”) programme. Of the 128 cooperatives in São Paulo, 58 cooperatives consisting of over 1,000 waste reclaimers participate in the programme. The programme involves waste reclaimers collecting and transporting recyclable materials to sorting facilities. The programme pays cooperatives based on the type and weight of collected material. According to law, at least 90% of the funds must be given to cooperative members, with up to 10% covering administration, management, equipment, and training costs.<sup>115</sup>

Whilst Brazil has included waste reclaimers into policy and waste management systems at local and national scales, there are limitations. For instance, whilst municipalities are incentivised to utilise cooperatives through simplified procurement processes, less than 10% of Brazil's municipalities do.<sup>116</sup> Municipalities can be reluctant to utilise cooperatives due to existing contracts with private companies.<sup>117</sup> Some municipalities also believe that cooperatives lack the required skills and capacity, and therefore hire private companies instead.<sup>118</sup> As for the 'Packaging Sector Agreement', there was limited input from cooperatives during its development, with producers deciding the fees paid to the cooperatives. These fees are considered inadequate for the services provided.<sup>119</sup> Large producers also negotiate fees with

---

<sup>107</sup> Bouvier, M. and Dias, S. (2021). Waste Pickers in Brazil: A Statistical Profile. WIEGO Statistical Brief No.29. Available at: [link](#)

<sup>108</sup> Dias, S. (2011). Overview of the Legal Framework for Inclusion of Informal Recyclers in Solid Waste Management in Brazil. WIEGO Urban Policies Briefing Note No.8. Available at: [link](#)

<sup>109</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

<sup>110</sup> The Economist Intelligence Unit (2017). Progress and Challenges for Inclusive Recycling: An Assessment of 12 Latin American and Caribbean Cities. Available at: [link](#)

<sup>111</sup> Rutkowski, J. (2021). Reverse Logistics for Packaging – Brazil's EPR Model. Available at: [link](#)

<sup>112</sup> Dias, S. (2021). Extended Producers Responsibility and Inclusion: Brazil's Extended Producer Responsibility and its Interface with Waste Pickers. International Alliance of Waste Pickers. Available at: [link](#)

<sup>113</sup> Talbott, T.C., Chandran, P., Allen, C., Narayan, L. and Boampong, O. (2022). Extended producer responsibility (EPR) and waste pickers. Women in Informal Employment: Globalizing and Organizing (WIEGO) Technical Brief No. 15. Manchester, UK: WIEGO. Available at: [link](#)

<sup>114</sup> Rutkowski, J. (2021). Reverse Logistics for Packaging – Brazil's EPR Model. Available at: [link](#)

<sup>115</sup> Iglesias, J. (2022). Empowering Waste Pickers in Brazil: A Case Study of Reverse Logistics. International Journal of Business & Management Studies. Vol. 3, No. 8, pp20-24. Available at: [link](#)

<sup>116</sup> Rutkowski, J. (2021). Reverse Logistics for Packaging – Brazil's EPR Model. Available at: [link](#)

<sup>117</sup> Iglesias, J. (2022). Empowering Waste Pickers in Brazil: A Case Study of Reverse Logistics. International Journal of Business & Management Studies. Vol. 3, No. 8, pp20-24. Available at: [link](#)

<sup>118</sup> Gutberlet, J. and Carenzo, S. (2020). Waste Pickers at the Heart of the Circular Economy: A Perspective of Inclusive Recycling from the Global South. Available at: [link](#)

<sup>119</sup> Rutkowski, J. (2021). Reverse Logistics for Packaging – Brazil's EPR Model. Available at: [link](#)



cooperatives, further reducing them.<sup>120</sup> Finally, where waste reclaimers are utilised for waste collection and sorting contracts, it is limited to those that are registered with cooperatives. Since only 5% of waste reclaimers in Brazil are believed to be part of cooperatives,<sup>121</sup> there are many that are not involved in the programmes.<sup>122 123</sup>

## 3.5 Chile

EPR in Chile covers six product categories, including packaging. Similar to EPR legislation in other countries, producers are responsible for the full lifecycle of the products and packaging that they place on the market. Producers must meet certain collection and recycling targets and can meet their obligations individually or by joining a PRO. As part of the collection and recycling, producers and PROs must be contracted with an authorised waste management organisation, such as a private company, municipality, or a cooperative. Another requirement in Chile's EPR is for PROs to create a "PRO Inclusion Plan", which sets out the mechanisms that PROs will use to train, finance, and formalise waste reclaimers.<sup>124</sup>

Whilst EPR allows cooperatives the opportunity to bid for waste contracts with producers and PROs, there are strict infrastructural, technological, and health and safety requirements. These requirements are costly and challenging for cooperatives to achieve. Additionally, cooperatives must compete against private companies for contracts, who arguably will have the required capital and infrastructure to win contracts. Despite these limitations, cooperatives are collaborating to improve their ability to win contracts with producers. However, it has been suggested that just over 10% of Chile's 60,000 waste reclaimers work under contracts through EPR, limiting its success in terms of waste reclaimer inclusion.<sup>125</sup>

## 3.6 Colombia

After years of campaigning and legal action to protect their access to recyclable material, waste reclaimers in Colombia have been recognised and given protected status by the government. This follows attempts by municipalities to use private companies to manage municipal waste and give exclusive rights to the materials. This would reduce the availability of recyclables for waste reclaimers. In response to these attempts, Colombia's Constitutional Court ruled that municipalities must consult with cooperatives on proposed waste management contracts, guarantee waste reclaimers access to recyclables, and pay waste reclaimers the equivalent paid to private companies for the activities carried out. Waste reclaimers were also given protected status due to their vulnerability and positive impact to society and the environment.<sup>126 127</sup>

Due to the court rulings, waste reclaimers have been included in waste policies and some have been paid by municipalities for their work. In Bogotá, for instance, the municipality introduced a waste collection scheme for waste reclaimers in 2013. The scheme paid waste reclaimers for the collection of recyclable

---

<sup>120</sup> Talbott, T.C., Chandran, P., Allen, C., Narayan, L. and Boampong, O. (2022). Extended producer responsibility (EPR) and waste pickers. Women in Informal Employment: Globalizing and Organizing (WIEGO) Technical Brief No. 15. Manchester, UK: WIEGO. Available at: [link](#)

<sup>121</sup> Morais, J., Corder, G., Golev, A., Lawson, L. and Ali, S. (2022). Global review of human waste-picking and its contribution to poverty alleviation and a circular economy. Environmental Research Letters 17, 063002. Available at: [link](#)

<sup>122</sup> Rutkowski, J. (2021). Reverse Logistics for Packaging – Brazil's EPR Model. Available at: [link](#)

<sup>123</sup> Talbott, T.C., Chandran, P., Allen, C., Narayan, L. and Boampong, O. (2022). Extended producer responsibility (EPR) and waste pickers. Women in Informal Employment: Globalizing and Organizing (WIEGO) Technical Brief No. 15. Manchester, UK: WIEGO. Available at: [link](#)

<sup>124</sup> Bunemann, A., Brinkmann, J., Lohle, S., Neumann, R., and Jager, C. (2023). Factsheet 08: Just Transition and Recognition of the Informal Sector. Available at: [link](#)

<sup>125</sup> Talbott, T.C., Chandran, P., Allen, C., Narayan, L. and Boampong, O. (2022). Extended producer responsibility (EPR) and waste pickers. Women in Informal Employment: Globalizing and Organizing (WIEGO) Technical Brief No. 15. Manchester, UK: WIEGO. Available at: [link](#)

<sup>126</sup> Parra, F. (2020). 'The Struggle of Waste Pickers in Colombia: From being considered trash, to being recognised as workers', Anti-Trafficking Review, issue 15, 2020, pp. 122-136. Available at: [link](#)

<sup>127</sup> Parra, F. and Vanek, J. (2023). The Collection of Data on Waste Pickers in Colombia, 2012-2022. Available at: [link](#)

material, regardless of whether they were part of a cooperative. Waste reclaimers were also paid the same rate per kilogram as private companies. Waste reclaimers were paid roughly US\$0.03 (ZAR 0.54) per kilogram of recyclables weighed at one of 250 registered collection centres in Bogotá.<sup>128 129</sup> To participate, waste reclaimers had to participate in a census, work full-time as a waste reclaimer, obtain an identity card, and open a bank account. In doing so, they would join the payment scheme and their income in some cases doubled or even tripled compared with not being part of the scheme.<sup>130</sup> Between 2013 and 2015, 10,220 waste reclaimers participated in the scheme, earning a combined US\$29 million (ZAR 521 million).<sup>131</sup>

Despite the apparent benefits of the scheme in Bogotá, there have been various limitations and issues. Firstly, the scheme in Bogotá did not encourage waste reclaimers to become a member of a cooperative, since all waste reclaimers could participate in the scheme. This conflicts with Colombia's goal of supporting cooperatives and formalising the informal economy.<sup>132</sup> Waste reclaimers also explained that they had to pay fees and carry out additional work if they wished to secure work with the municipality, such as registering with the tax agency, invoicing, social security contributions, cleaning bins, and paying a contribution to grant them access to recyclables.<sup>133</sup> Secondly, recent changes to waste infrastructure in Bogotá has impacted the ability for waste reclaimers to collect and sort recyclable waste. Specifically, the municipality installed over 5,000 communal recycling containers across the region without educating the public on their use or consulting with waste reclaimers. As a result, residents have misused the containers and contaminated the bins, making it difficult for waste reclaimers to collect and sort the materials.<sup>134</sup> Finally, due to market competition rights in Colombia, private companies can bid for collection and recycling contracts with municipalities. If they win the contracts, large companies can access payments and incentives that were intended for cooperatives. This has resulted in cooperatives not being utilised by municipalities as intended,<sup>135</sup> and is considered a "regulatory loophole".<sup>136</sup>

## 3.7 India

It is estimated that waste reclaimers recycle 54% of all recycled glass, 34-45% of all recycled plastic, and 28-50% of all recycled cardboard and paper in India.<sup>137</sup> Despite this, the income of waste reclaimers is often lower than minimum wage. There have therefore been recent attempts towards including the waste reclaimers into the formal waste management system. For instance, the 'Guidelines for Uniform Framework for Extended Producers Responsibility under Plastic Waste Management Rules 2016' incentivises recycling programs, such as improving the working conditions and incomes of waste reclaimers. The guidelines call for formalisation and further strengthening of informal economy.

SWaCH (Solid Waste Collection Handling) is India's first cooperative that provides waste collection and recycling services in Pune. The Pune Municipal Corporation authorises waste reclaimers registered with SWaCH to collect municipal waste from households and businesses. Additionally, waste reclaimers are

---

<sup>128</sup> Dias, S. (2016). Waste pickers and cities. *Environment and Urbanization*, 28(2), 375-390. Available at: [link](#)

<sup>129</sup> Parra, F. and Abizaid, F. (2022). Formalization as Public Service Providers: Achievements and Obstacles for Colombia's Waste Pickers. Available at: [link](#)

<sup>130</sup> Dias, S. (2016). Waste pickers and cities. *Environment and Urbanization*, 28(2), 375-390. Available at: [link](#)

<sup>131</sup> Parra, F. and Abizaid, F. (2022). Formalization as Public Service Providers: Achievements and Obstacles for Colombia's Waste Pickers. Available at: [link](#)

<sup>132</sup> Parra, F. and Abizaid, F. (2022). Formalization as Public Service Providers: Achievements and Obstacles for Colombia's Waste Pickers. Available at: [link](#)

<sup>133</sup> Tautiva, A. and Olaya, R. (2013). Executive Summary - Informal Economy Monitoring Study: Waste Pickers in Bogotá, Colombia. Available at: [link](#)

<sup>134</sup> Parra, F. (2019). In Colombia, a Global Model for Inclusive Recycling is Under Threat. Available at: [link](#)

<sup>135</sup> Parra, F. (2020). 'The Struggle of Waste Pickers in Colombia: From being considered trash, to being recognised as workers', *Anti-Trafficking Review*, issue 15, 2020, pp. 122-136. Available at: [link](#)

<sup>136</sup> Parra, F. and Abizaid, F. (2022). Formalization as Public Service Providers: Achievements and Obstacles for Colombia's Waste Pickers. Available at: [link](#)

<sup>137</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

issued with identification cards and health insurance.<sup>138</sup> <sup>139</sup> SWaCH collects recyclable waste from over 840,000 households, collecting almost 400,000 tonnes of waste per year.<sup>140</sup> Currently, SWaCH has over 3,000 members, all female. The waste reclaimers earn income from the service fees paid by households (about US\$1 (ZAR 18) per month) and they can sell the collected recyclables direct to local scrap dealers, further improving their income. In addition, SWaCH purchases low-value plastics and multi-layer packaging from waste reclaimer members at a fixed rate, which is subsidised by a major packaging producer. This incentivises waste reclaimers to collect the low-value materials for recycling and to divert it away from litter and landfill. This combination of household service fees, direct recyclable sales, and low-value material subsidies provides a more secure income for waste reclaimers. The identity cards also enable waste reclaimers to access various welfare services, such as interest-free loans and educational support for their children. Pune municipality also provides waste reclaimers with protective uniforms, footwear, and other equipment to improve their safety.<sup>141</sup>

The success of SWaCH has inspired national legislation to require all Indian cities to include waste reclaimers in the decision-making processes for waste management. While the Pune municipality covers administrative costs for SWaCH, provides various equipment, and supports health insurance, its costs are far lower than if it was contracted with a private company. Despite these benefits, some Indian municipalities have contracted private companies for waste management services, thereby excluding waste reclaimers and limiting their access to recyclables.<sup>142</sup>

## 4.0 Conclusion

This Supplementary Report has reviewed the literature regarding waste reclaimers in South Africa. It has provided a background to their important role in waste management, their vulnerabilities, and the way in which South Africa is including waste reclaimers into legislation and systems. Since this study is exploring the ways in which waste reclaimers could be designed into a potential mandatory DRS for single-use beverage containers in South Africa, this Supplementary Report reviewed the literature on waste reclaimers and their role in and impact from DRS, EPR for packaging, and other waste management systems in other countries.

In other African countries, only one country has currently implemented a mandatory DRS for single-use beverage containers – the Republic of the Seychelles. From the literature identified, waste reclaimers are not specifically designed into the DRS, so there are no specific requirements or mechanisms for waste reclaimers. However, they have adapted to the DRS by recovering and redeeming deposits from the relatively large proportion (50%) of DRS containers that are disposed of and littered by consumers. In doing so, DRS deposits contribute a lot to their income. Some of the other African countries reviewed have voluntary DRS for refillable glass bottles, voluntary EPR for packaging schemes, and/or product stewardship schemes. None of the voluntary DRS appear to design in waste reclaimers, and no impacts on or interactions with waste reclaimers were identified. As for voluntary EPR for packaging and product stewardship schemes, there are examples of waste reclaimers being offered fixed rates for certain packaging waste materials to increase recovery rates of certain packaging materials – such as the Collect-a-Can scheme for steel cans in Botswana, the Coca-Cola and Cleanico scheme for PET bottles in Botswana, and the Coca-Cola and PETCO scheme for PET bottles in Kenya.

---

<sup>138</sup> Dias, S. (2011). Overview of the Legal Framework for Inclusion of Informal Recyclers in Solid Waste Management in Brazil. WIEGO Urban Policies Briefing Note No.8. Available at: [link](#)

<sup>139</sup> Morais, J., Corder, G., Golev, A., Lawson, L. and Ali, S. (2022). Global review of human waste-picking and its contribution to poverty alleviation and a circular economy. *Environmental Research Letters* 17, 063002. Available at: [link](#)

<sup>140</sup> Gaia (2021). An Inclusive Recovery: The Social, Environmental, & Economic Benefits of Partnering with Informal Recyclers. Available at: [link](#)

<sup>141</sup> Anantakrishnan, L. (2021). Exploring Opportunities for Waste Pickers in EPR: SWaCH Cooperative's System for Multi-Layered Packaging. The Global Alliance of Waste Pickers and WIEGO. Available at: [link](#)

<sup>142</sup> Buch, R., Marseille, A., Williams, M., Aggarwal, R., and Sharma, A. (2021). From Waste Pickers to Producers: An Inclusive Circular Economy Solution through Development of Cooperatives in Waste Management. Available at: [link](#)

## Supplementary Report: Literature Review

As for countries outside of Africa, Ecuador's mandatory DRS and Uruguay's proposed mandatory DRS were not found to design in waste reclaimers. In fact, Ecuador's DRS prevented waste reclaimers from participating, as it required identification and taxpayer evidence in order to redeem deposits. The DRS had issues and did not adjust the deposit level by inflation over the years. These restrictions to participate and issues with financial structure are important learnings. As for Uruguay's proposed DRS, the design and impacts on waste reclaimers is currently unknown. In terms of EPR for packaging and inclusion of waste reclaimers in national and regional waste management programmes, there are examples of cooperatives being contracted by municipalities for the collection and sorting of municipal waste – such as the collection and sorting contracts with 12 cooperatives in Buenos Aires, Argentina, and the collection contract with a cooperative in Pune, India. For those in the cooperatives, the benefits can include a more secure and increased income compared with being an independent waste reclaimer, health insurance, access to loans, and access to training and equipment. Furthermore, high collection and recycling rates can be achieved whilst being more cost-effective than contracting private companies. However, most of the examples of waste reclaimer inclusion require waste reclaimers to be part of a cooperative in order to participate in the collection and sorting contracts and programmes. Due to the requirements of joining a cooperative (such as registration and paying fees), some of the examples highlighted a large proportion of waste reclaimers not participating in the programmes as it would limit their independence and flexibility. Additionally, not all municipalities utilise waste reclaimers and instead contract private companies, which can result in limited access to recyclables for waste reclaimers. As such, a key learning is that whilst certain programmes can effectively design in waste reclaimers to improve their livelihoods and increase collection and recycling rates, care must be taken to avoid creating barriers to participate. Such barriers can exclude a large proportion of waste reclaimers and limit the effectiveness of the programme.

