

Inclusive and sustainable waste governance:

Strengthening innovative linkages between local governments and waste picker organisations

Authors:

Jaán-Henrik Kain¹

Patrik Zapata²

María José Zapata Campos³



Enumeration by Redlacre. Photo: Redlacre.

¹Gothenburg Research Institute, School of Business, Economics and Law, University of Gothenburg, Sweden jaan-henrik.kain@gu.se

²School of Public Administration, University of Gothenburg, Sweden patrik.zapata@spa.gu.se

³Department of Business Administration & Gothenburg Research Institute, School of Business, Economics and Law, University of Gothenburg, Sweden mj.zapata@handels.gu.se

Introduction

Abstract

This policy brief focuses on how local governments can develop more inclusive, democratic and sustainable waste governance by partnering with, and strengthening the role of, grassroots waste picker organizations and networks. Informed by action-research in Argentina, Brazil, Kenya, Nicaragua, and Tanzania, it shows how waste picker organisations are resilient forms of organizing which have contributed towards environmental education, advocated for more sustainable waste management solutions and developed grassroots innovations that contribute to a clean and healthy environment, as well as to more inclusive economies and decent work.

Millions of waste pickers collect household waste daily in cities around the globe to earn a living. Through their everyday work, they develop new technical solutions and engage in novel ways of organisation and management. They induce innovative policies and governance arrangements through inventive forms of participatory co-production of environmental services. By so doing, these grassroots actors tackle several of the UN Sustainable Development Goals. They make a significant contribution to creating jobs and income among the poor (SDGs 1 and 8), to improving environmental conditions and health of low-income residents (SDGs 3 and 11), to decreasing the carbon footprint of cities (SDG 11), to reducing resource extraction by recovering resources from waste (SDG 12), and to shaping partnerships for sustainable development (SDG 17).

Waste pickers are increasingly forming different types of grassroots organisations, called waste picker organisations self-help groups, youth-groups, cooperatives, micro-enterprises or other forms of community-based organizations. Many of these have expanded their reach from the community to city-wide, regional and global scales, involving other waste pickers but also public, private and civil society organizations.

About ICLD

The Swedish International Centre for Local Democracy (ICLD) is part of the Swedish development cooperation. The mandate of the organization is to contribute to poverty alleviation by strengthening local governments.

THE GLOBAL GOALS





Cleaning the Nile perch skins, a by-product from the factory processed by women at Kambuta, Kenya. Photo: John Chweya

The purpose of this policy brief is to present the most relevant findings and policy implications of two action research projects examining the livelihood practices and grassroots innovations of waste picker organisations: Recycling Networks and Waste Governance. The projects are informed by the study of waste picker organisations in Buenos Aires, Dar Es Salaam, Kisumu, Managua, and São Paulo. They show how recycling movements, despite emerging from some of the most vulnerable urban collectives, have realized considerable achievements in local, national and global environmental governance by:

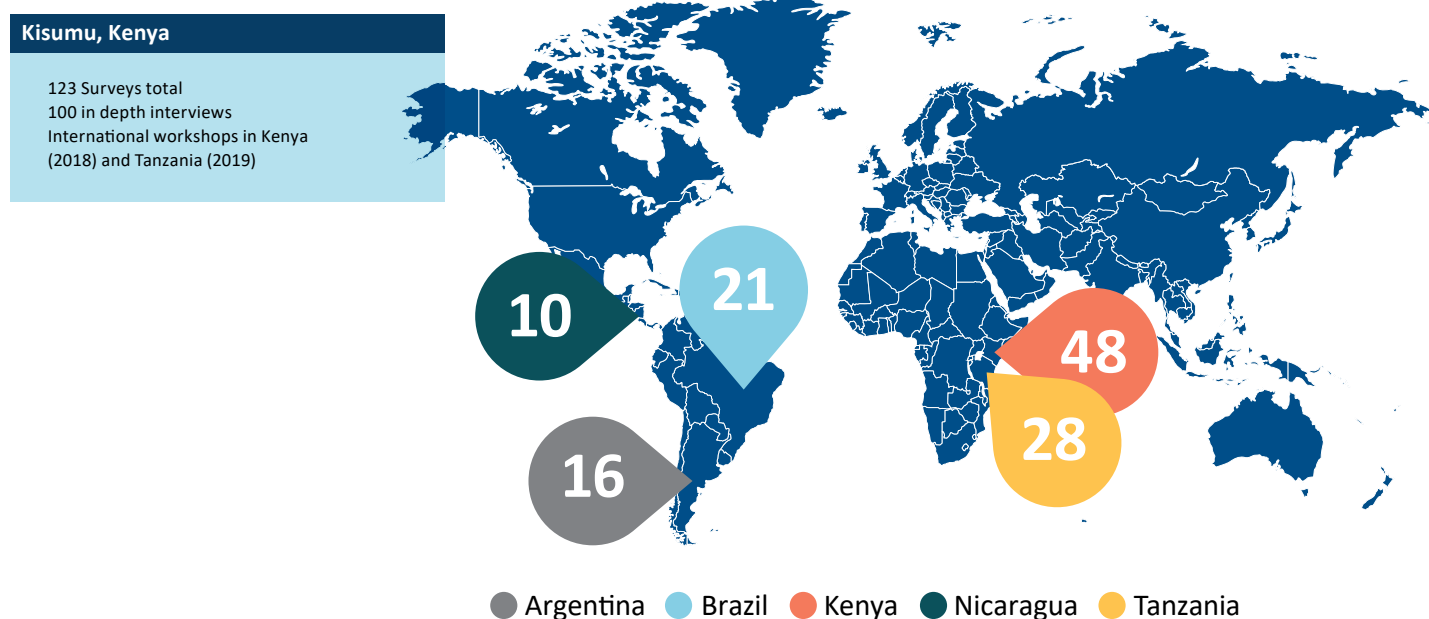
- resisting detrimental market-driven incineration practices and uncontrolled privatization of environmental services,
- campaigning for policies fighting climate change,
- contributing towards environmental education and advocated for more sustainable waste management solutions, and
- developing valuable circular economy innovations from below.

Learning from the emergent role of grassroots waste picker networks shows us how inclusive environmental governance can be built up through new forms of association that are more deeply democratic and green. They also provide new opportunities to rethink global and local challenges, such as those related to natural resource depletion, plastic pollution and the climate crisis.

Methodology

The study is informed by a survey conducted with 123 waste picker organisations in the involved countries. The survey examined the history and characteristics of the initiatives, their governance structures, funding and equipment situations, types of work conducted, characteristics of the workers and their working conditions, network relations, and the challenges and innovations of the organisations. The study also included 100 in-depth interviews with a selection of their members, as well as with key informants in local governments and other waste governance actors. At two international workshops held in Kenya (2018) and Tanzania (2019), the findings were analyzed and discussed by researchers and waste picker organisation representatives from Argentina, Brazil, Canada, Chile, Kenya, Nicaragua, Sweden and Tanzania, and also by Kenyan and Tanzanian municipal officers and politicians working with environmental and waste management. The purpose of these workshops was to co-create knowledge and to conceptualize solutions and policy recommendations.

123 WPOs were involved in the survey:



Results

The research results provide important insights on the nature of the innovations, networks, governance environments, alliances, peer-to-peer knowledge development and resilience of waste picker organisations. They provide an understanding of the different roles that local governments can play in supporting more inclusive, sustainable and efficient waste management.



Bags of ground expanded polystyrene,
Reciclando Sueños, Buenos Aires. Photo: Patrik Zapata

1. Grassroots innovations and policy frameworks

The work of waste pickers showcases sparks of hope, creativity and innovation. Operating in contexts of scarcity, they experiment with waste materials previously defined as non-recyclable, making valuable environmental contributions and creating new markets. These transformations require developing new technologies, such as the case of the Recycling Dreams Cooperative in Buenos Aires who developed technology to process previously discarded expanded polystyrene. This innovation is now part of waste management services provided to corporations, and is enabled by new waste regulation in the Buenos Aires metropolitan region, whereby waste picker organisations can provide certified environmental services to large waste generators. In Brazil, influenced by the National Waste Pickers Movement (MNCR), reverse logistics policies have been introduced that oblige companies to show the destination of their residues, which opens a new market segment for waste picker organisations. These examples show how **elaborated grassroots innovations can be scaled up to reach their full societal benefits when local governmental arrangements are introduced that sanction and support them.**

However, the fruits of innovations do not always remain with the innovators. In the Kambuta fish market in Kisumu, hundreds of women have innovated on how to turn fish industry by-products into a variety of low-cost products targeting low-income customers' needs. As wealth began to accumulate through these innovations, local men started to place themselves as chairmen of the women groups and later as powerful intermediaries in collusion with the fish industries, skimming off a significant part of that wealth. The women ended up reduced to just providing labour instead of benefitting from their entrepreneurial and innovative skills. The Kambuta market showcases the importance of governmental support to protect and monitor the ownership and access of women groups to the innovations they have initiated and developed.

2. Waste picker organisation networks and the development of vital self-knowledge

Our studies also show how waste pickers are well organized, increasingly connecting with each other through city, regional and global waste picker organisations and networks. In the last decades, wider waste picker networks have been established in Latin America, for example the MNCR in Brazil, the Nicaraguan Waste Pickers Network (RedNica) and the Latin American and Caribbean Network of Waste Pickers (RedLacre). In East African countries, the young age of the waste picker organisations, their more precarious economic situation, and the absence of institutional support have so far hindered the creation of such broader networks. However, as a result of the activities and meetings facilitated by the Recycling Networks and Waste Governance projects, new local networks in Kisumu (e.g. Kisumu Waste Actors Network) and Dar es Salaam have been initiated and strengthened. The creation of an East African waste picker organisation is also under discussion.



Lamps of collected glass waste, Zanzibar, Tanzania.
Photo: Jaan-Henrik Kain

These grassroots networks, regardless of their sophistication and the scale at which they operate, have developed techniques for data collection linked to parameters for membership (e.g. regarding enumeration). However, this is also about generating self-knowledge, for example how they can and should characterize themselves, how to quantify and make visible the scope of activities developed by grassroots groups, or how to measure their exact environmental contribution in terms of saved CO2 emissions. By so doing, first, they develop fundamental knowledge in a field about which even local governments lack systematic data. Second, this self-knowledge is powerful scientific evidence to be used when negotiating environmental and waste management policies with local governments. And, third, through maintaining their own enumeration, waste picker organisations create more powerful networks with representation deeply embedded in their respective territories, for example within the city of Kisumu and its informal settlements, outside the dumpsites of the city of Managua, in the metropolitan region and the interior of the state of São Paulo, and on another scale level, across all Latin American and Caribbean countries. Through such data and networks, waste picker organisations are on their way to create a true participatory and green democracy; a vital bridge between local governments and informal communities in support of inclusive and sustainable environmental and economic policy making.

When collaborative alliances are created, the organisations continue struggling to preserve their autonomy from attempted co-option by large corporations, development agencies, local governments, states and environmental organizations.

3. Collaboration in open and diverse alliances

Waste picker organisations in all the studied settings engage in different types of collaborative alliances, at times with apparently opposed actors. One example is provided by RedNica. While some cooperative members were collaborating with the Nicaraguan Trade and Cooperatives Ministry to sell their recycled products at a trade fair for social entrepreneurs, the materials used to produce these items were collected illegally from the municipal landfill, where the police were persecuting the same waste pickers who participated in the fair. RedLacre also illustrates this strategy through its pragmatic participation in the Initiative for Inclusive Recycling together with large multinational corporations and international agencies who, at the same time, are also highly distrusted by waste pickers.

Hence, while some parts of the state/local government can persecute waste picker organisations, others can praise them for the same work. Also, when collaborative alliances are created, the organisations continue struggling to preserve their autonomy from attempted co-option by large corporations, development agencies, local governments, states and environmental organizations.



Waste-to-biogas, a peer-to-peer knowledge exchange between Brazil and Kenya, Kisumu, Kenya.
Photo Patrik Zapata

4. Peer-to-peer knowledge exchange and development

Waste picker organisations' members interviewed expressed the need to improve their capacities in areas such as financial management or technological innovations; both through traditional training and peer-to-peer exchange activities. The Recycling Networks & Waste Governance projects are in themselves examples of the multi-stakeholder partnerships for sustainable development described above. Our action-research enabled meetings between waste pickers, researchers, community-based organizations, public officers and politicians and sparked peer to peer knowledge exchanges between waste picker organisations from the different countries. This led to activities of technology transfer between waste picker organisations in Latin American and East African countries for the design, fabrication and testing of several low-tech innovations developed by the organisations (a push cart, a manual press and a biogas plant), and adapted to local needs, and available materials and competences. We conclude that knowledge sharing and peer-to-peer technology transfer are successful for developing appropriate technology and low-cost solutions when grassroots organizations are given free space to research and innovate according to their contextual problems, assets and solutions.

5. Crisis and resilience

Our comparative study shows how waste picker organisations in Latin America engage with a higher diversity of clients, services and materials, and have developed stronger local, national and regional networks than similar organisations in East African countries. These differences are explained, first, by the widespread poverty that forces the most vulnerable groups in informal settlements in Kenya and Tanzania to operate with narrow market niches of recyclables (e.g. PET in bottle form, not pressed paper) that are controlled by very few buyers and generate small revenues and make them vulnerable. Second, Latin American waste picker organisations have received more support during their start up and also presently, have higher levels of legal recognition, and have operated generally in more favourable institutional and public policy contexts. Drawing on the Latin American experiences, our research provides evidence regarding the importance for local governments to also support the capacity of East African waste picker organisations to thrive, through more inclusive public policies.

During the COVID-19 pandemic, in the countries with more established networks, waste picker organisations have drawn on these to communicate with their members, to report about their situation, and to share critical knowledge regarding health prevention and economic reactivation measures. They have also mobilized support from their collaborative alliances with other actors. For example, in Brazil, the municipal Public Urban Cleaning Company in São Paulo provided financial aid for registered waste pickers. In Argentina, waste picker organizations were classified as essential service providers and therefore exempted from lockdown measures. This categorization also entailed their inclusion in state programs to access financial, health and sanitation support. At the local level, community-based organizations in the informal settlements of Kisumu, such as the Manyatta Residents Association, have mobilized help from external actors, for example to distribute hand sanitizers and provide access to drinking water.

Furthermore, waste picker organisations have developed strategies to confront the waste-to-incineration industry lobby, that has become more active during pandemic lockdowns, through the mobilization of supportive networks with universities, non-governmental organisations and other actors

A clean and healthy environment is the responsibility of the local authorities and they would benefit greatly from supporting waste picker organisations in assisting them to fulfil this mandate.

Policy recommendations

A clean and healthy environment is the responsibility of the local authorities and they would benefit greatly from supporting waste picker organisations in assisting them to fulfil this mandate. Support to these organisations should be seen by local governments as a matter of sound public investment in environmental management and innovation, at the same time counteracting stigmatization and labour exploitation by valuing the environmental services provided by waste pickers. In other words, strengthening grass-roots and the co-production of services and infrastructures also means strengthening the local government. Far from encouraging the retreat of the public sector, it builds capacities and structures in both civil society and local government, and makes governance more inclusive and democratic, provided it is carried out in a deliberate and careful manner.

Informed by the results of this research, these are our policy recommendations for local governments to support the contribution of waste picker grassroots organisations:

- 1. Local knowledge.** Do not reinvent the wheel! When planning for waste management and other environmental services, take advantage of existing activities and waste picker organisations in the communities. For example, engage waste pickers in policy making through *community research* building on their own local knowledge. For example, it is easier for waste picker organisations than municipal officers or researchers to collect data among themselves, in informal settlements and on waste dumps. Make sure to actively involve the most vulnerable groups (e.g. women, youth, lower-income waste pickers) and not only the grassstops.
- 2. Training and education.** Waste picker organisations and networks are resilient forms of organizing with substantial locally-based knowledge about waste management. However, they need to be supported through *training* (e.g. internal governance, management challenges, equity, inclusion, technologies, accounting). Training in further democratization and transparency is fundamental to strengthen the representation and inclusion of these grassroots organizations, to avoid clientelism, corruption and inequalities, and evade the loss of their human capital and knowledge.
- 3. Facilities.** Given the low-income levels of many waste pickers and the high cost of facilities, facilitate *support* to waste picker organisations. This includes sharing of facilities in recycling centres or waste transfer stations in informal settlements (e.g. space for daily operations, equipment, workshop repair tools, recycling facilities, sanitation) as well as sharing human resources (e.g. accountants, occupational health advisors),



Limpiando fuerte waste picker cooperative at the city district recycling station run in collaboration with the City of Managua, Nicaragua. Photo: Patrik Zapata



Photo: Unsplash.com

Waste pickers work on the household level and can help educate household members towards clean material separation at the source.

4. **Separation at source.** Support selective collection systems with separation at the source, in collaboration with waste picker organisations and waste generators. Waste pickers work on the household level and can help educate household members towards clean material separation at the source. This will improve recycling rates, public health and cleanliness, as well as waste pickers income. It will also significantly reduce the amount of waste going to dump sites and landfills.
5. **Decentralized governance capacity.** Bring *governance structures closer to the communities* by strengthen the lowest tiers of local governments (e.g. improving professional staffing in these lower-tiers, and establishing frequent collaborative channels between government representatives, public officers and inhabitants). These low tiers of government act as boundary spanners, ensuring the reach and impact of grassroots innovations into local governments.
6. **Participatory and inclusive governance.** Involve waste picker organisations in *inclusive policy making and implementation*, for example, by establishing spaces of dialogue between waste pickers and the municipality, or by including the organisations in participatory budgeting processes. Develop *inclusive waste management policies and legal frameworks*, that acknowledge grassroots organizations as important waste actors and that support their innovations (e.g. allowing urban composting and farming, biogas production, repair and upgrading services, etc). Avoid, however, incineration technologies at least for non-hazardous fractions. There is evidence showing how incineration, beyond its potential negative environmental and health impacts, can affect negatively on recycling rates, and dispossess waste pickers from their livelihoods (de Acevedo et al., 2018).

With the support of local governments, grassroots innovations can be scaled up into inclusive value chains in the recycling industry.



International waste picker conference 2019, Dar es Salaam. Redlacre's Exequiel shaking hands with Tanzania's minister of environment. Photo: John Chweya

Questions for local governments

- What inclusive waste management practices and innovations (e.g. technological, social, managerial) do already exist in your city, and particularly in the informal settlements?
- How can different municipal departments support these already existing practices (e.g. specific training, facilities, etc) ?
- How can waste pickers be involved in collecting data on waste management challenges and achievements, e.g. in informal settlements and on waste dumps where they operate?
- Do waste pickers have access to waste collection e.g. in dumps/landfills, in informal settlements households, in industries and institutions? Are their rights recognized? How could the recognition of their rights be improved within the scope of the local government (e.g. providing license to operate, reserved procurements to grassroots organizations, etc.)?
- Are waste pickers paid for the environmental services they provide? How could this be improved?

- Inclusive circular economies and innovations.** Recognize, valorize, and sustain *grassroots innovation* sites as critically important environments for a transition towards a circular economy from below. With the support of local governments, grassroots innovations can be scaled up into inclusive value chains in the recycling industry. Protect innovations originating from vulnerable groups against exploitation by more powerful actors, and promote a *gendered approach* to counteract male appropriation at the expense of female innovators for example by providing training, infrastructure or legal support. Promote *appropriate technology innovations*, as they expand the scope of recycling streams and bring economic returns to low-income groups.
- Waste is a common resource.** Recognition of waste pickers' *rights to access waste* as a source of livelihood, a common good. This means that waste needs to be seen as being neither a state nor a market good.
- Co-production and co-management.** Work in institutionalised and consolidated *partnerships* with waste picker organisations for the co-production of household, business and industrial waste collection and recycling services. There are many successful examples of such partnerships for household waste collection and recycling, in managing recycling centers and transfer stations, and in finding more appropriate and safer forms of resource recovery than end-of-pipe recycling at landfills or waste dumps. The most vulnerable waste pickers forced to work inside landfills/dumps should be supported to transition to improved modes of waste picking. *Recognition* of the services waste pickers provide to local municipalities is essential to ensure that they are adequately enumerated and protected, as in some cities in Brazil (e.g. Santana de Paraiba) and Argentina (Buenos Aires), where local governments pay waste picker organisations for the environmental services they provide.

Acknowledgements

The authors recognize the vital input of the waste pickers to the research, as without their knowledge and critical experience we could not have conducted this research. We would also like to acknowledge the funding agencies that supported the empirical research: the Swedish Research Council Vetenskapsrådet and the Social Sciences and Humanities Research Council of Canada. And from the Swedish International Centre for Local Democracy through the *Grassroots Initiatives for a More Inclusive Governance* project.

Formas Swedish Research Council for Sustainable Development

www.gu.se/en/research/grass-roots-for-sustainability

Further reading based on results from the research project

Azevedo, A. (2018), Carenzo, S., Goodluck, C., Gutberlet, J., Kain, J.H., Oloko, M., Pérez, J. Zapata, P., Zapata Campos, M.J. (2018), *Inclusive Waste Governance and Grassroots Innovations for Social Environmental and Economic Change*. University of Gothenburg: Gothenburg. www.gu.se/en/research/grassroots-for-sustainability

Carenzo, S. (2020) Contesting informality through innovation “from below”: epistemic and political challenges in a waste pickers cooperative from Buenos Aires (Argentina). *Tapuya: Latin American Science, Technology and Society* 3(1): 441-471

Charles, G. (2019) Sustainability of Social Enterprises Involved in Waste Collection and Recycling Activities: Lessons from Tanzania. *Journal of Social Entrepreneurship*, 1-19. On-line first.

Gutberlet, J. (2020) Grassroots waste pickers organizations addressing the UN sustainable development goals. *World Development* 138:105195.

Gutberlet, J. Carenzo, S., Kain, J.H., & de Azevedo, A.M.M. (2017) Waste picker organizations and their contribution to the circular economy: Two case studies from a global south perspective. *Resources* 6(4):52.

Kain, J.H., Oloko, M., Zapata, P., Zapata Campos, M.J. (2017) Co-production of Services in Informal Settlements: Waste management in Kisumu, Kenya. ICLD Research Report 11

Oloko (2019) International waste actors’ peer-to-peer waste technology exchange. University of Gothenburg. www.gu.se/en/research/grassroots-for-sustainability

Zapata Campos, M.J., Barinaga, E., Kain, J.H., Oloko, M., Zapata, P. (2019) Organising grass-roots initiatives for a more inclusive governance: Constructing the city from below. ICLD Research Report 15

Zapata Campos, M.J., Carenzo, S., Kain, J.H., Oloko, M., Pérez Reynosa, J., Zapata, P. (2020) Inclusive recycling movements: a green deep democracy from below. *Environment and Urbanization*. First on-line.

Full research team:

Adalberto Azevedo
ABC University Sao Palo/
Sebastián Carenzo
CONICET, Argentina
Goodluck Charles
University of Dar Es Salaam

Jutta Gutberlet
University of Victoria
Michael O Oloko
JOOUST University Kenya
Jessica Pérez Reynosa
UCA University Nicaragua
Jaan-Henrik Kain, Patrik Zapata,
Maria José Zapata Campos
University of Gothenburg

www.gu.se/en/research/grassroots-for-sustainability

The recommendations contained in this policy brief exclusively reflect those of its authors.

Contact details

Swedish International Centre for Local Democracy

Visiting address	Söderväg 1D, 621 58 Visby
Telephone	+46 498-29 91 00
E-mail	info@icld.se
Web	www.icld.se

