



Factsheet 08 | How can the informal sector get involved in the system?

This factsheet describes how informal waste operatives and enterprises can be integrated into waste collection, sorting and recycling systems for packaging as part of the EPR concept. It considers aspects such as the role formations of cooperatives can play, how to improve working conditions for informal waste pickers, how to increase their income, providing access to healthcare and welfare initiatives, and how to deal with informal middlemen who buy and sell packaging waste.

In low- and middle-income countries, separate collection, sorting and recycling of specific types of packaging waste is often carried out in the informal economy, in parallel to the official waste management system. The activities of the informal sector are driven by a combination of the market value of certain recyclable materials and the socio-economic conditions affecting some sections of the population. Over time, some form of informal waste management system covering the collection, sale and, to a more limited extent, the processing of recyclable materials has developed in virtually every city in the world. For the purposes of this factsheet, the term 'informal worker' refers to workers with no legal employment contracts, work/operating permits, access to health care or entitlements to social security, as well as those working in conditions that do not comply with health and safety and/or environmental standards.

A description of the informal sector

The waste management sector is labour-intensive, and the initial investment required to set up a business is low. Barriers to entry are perceived to be low, which is one reason why the industry is particularly attractive to people working informally to boost their incomes. In some parts of the world, all waste management work is done on an informal basis, and such informal systems are **very often the backbone of collection, separation, recycling and trade in low- and middle-income countries.**

It is difficult to describe the informal sector in general terms, as circumstances vary markedly between countries and are strongly influenced by specific local factors, such as seasonal fluctuations in the industry. In some parts of the world, such as in some regions of Brazil, the informal sector is highly organised and efficient, and provides a good living for the people who work



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in it. In contrast, in other countries informal workers in the waste industry earn barely more than \$2 a day.¹ Contamination of waste due to a lack of separation at source drives down the market value of waste collected, and end-consumer markets for the goods are often underdeveloped, too. Moreover, many governments and societies barely recognise the informal sector and the important contribution it makes to public and environmental health, leading to low social status and a lack of support for efforts to improve living and working conditions.



Figure 1: Informal work within waste management systems

Informal stakeholders operate at every step in the waste management chain, though they are most heavily involved in collection. Drawing clear boundaries as to where informal activity comes to an end and formal work begins is generally extremely difficult (see Figure 1).²

Many informal stakeholders in waste management systems collect recyclables from households or workplaces as waste pickers on the streets, at transfer stations and at dumpsites. They usually collect recyclable materials and sell them to middlemen– small businesses who store recyclables before selling them on to recycling companies. However, informal businesses operate at every stage of the recycling process.

Depending on the roles people fulfil along informal packaging waste value chains, **their working lives are often characterised by a lack of regular income, rudimentary equipment and harsh working conditions, little or no recognition of their work and a generally vulnerable position in the labour market.**

As the nature of the informal sector varies between countries, it is difficult to define general categories of workers within the informal waste management sector, but most systems incorporate at least some of the following groups:³

- **Recyclables collectors** are self-employed workers who use bags, small push-carts or small motorised vehicles to collect recyclable materials bought from households, generators of bulk waste or other establishments. They sell the material they collect to junk shops as a primary source of income.
- **Material pickers** pick up recyclable waste material on the streets or at landfill sites, rather than collecting it directly from the source. Picking waste material is very labour-intensive and dangerous, particularly on landfill sites, and landfill picking is illegal in many countries.
- **Professional and semi-professional informal companies** are usually well-equipped (perhaps with a motorcycle and trailer for collecting waste), highly knowledgeable about the industry and the waste cycle, and often take genuine pride in their work. These

¹ WIEGO (no date). Waste Pickers. <https://www.wiego.org/informal-economy/occupational-groups/waste-pickers>

² Kenya Plastic Action Plan (2019)

³ Triangulated from

- GA Circular (2020). Full Circle. Accelerating the Circular Economy for Post-Consumer PET Bottles in Southeast Asia
- Ocean Conservancy (2019). Plastics Policy Playbook
- GIZ (2015). Valuing Informal Integration. Inclusive Recycling in North Africa and Middle East.

companies act as informal middlemen who buy and sell packaging waste, and/or process it using certain recycling processes (see also Figure 1).

- **Casual or precarious informal workers** are often elderly people or people experiencing temporary hardship (for example, as a result of unemployment). They usually have simple equipment such as old prams or wheelbarrows.
- **Female waste pickers** are treated as a specific category of informal workers because their work is particularly precarious, and they are often equipped with nothing more than a pram, if they have any tools at all. They are often forced to work because their husbands are too ill or severely disabled to do so, and have little prospect of developing any sort of career.

Collection of packaging by the informal sector

Before the informal sector can be integrated into an EPR system, a thorough analysis is required to determine exactly which waste fractions are already being collected. Generally speaking, informal waste collectors tend to collect **any packaging and/or material with a positive market value (i.e. material that can generate income when sold)**. Collection by the informal sector also varies depending on the proximity of recycling facilities or other potential customers to whom the waste can be sold (e.g. waste banks, aggregators or brokers). If a specific price is paid for a given type of packaging (see table below), it is safe to assume that informal collectors will collect a considerable part of it. The following table shows which types of packaging and materials are most frequently collected in the informal sector:

Table 1: How various types of household waste are collected in the informal sector

Packaging type and material	Collected in the informal sector	Comments
PET bottles	Often	Usually have a positive market value, easy to collect, recycling/recovery systems often already established.
Packaging containing ferrous metals (like cans)	Often	Positive market value, with most waste being generated in industrial settings. Local recycling facilities usually in place.
Non-ferrous metal packaging (like cans)	Often	Positive market value, with most waste being generated in industrial settings. Can usually be recycled or marketed locally.
Paper	Often	Paper waste is collected primarily from industrial/commercial sources. Can usually be recycled or marketed locally.
HDPE (rigid plastics, such as bottles)	Sometimes	Sometimes carries a positive net market value depending on local recycling facilities.
PP/PS (rigid plastics, such as cups)	Sometimes	Sometimes carries a positive net market value depending on local recycling facilities.
LDPE (film)	Sometimes	There is sometimes a positive market value for mono-materials, though this market value is generally for industrial waste only and depends on local recycling facilities.

Packaging type and material	Collected in the informal sector	Comments
Liquid packaging board (TetraPak and similar)	Rarely	No positive market value as it is generally difficult to market and recycle locally. Collection can be incentivised if the producer pays for it to be collected (thus creating an artificial market).
Glass	Rarely	Market value strongly dependent on local recycling facilities. Collection is labour-intensive because glass is a dense material and heavy to carry.
PS	Not collected	Accounts for only a small proportion of household packaging waste, making collection labour-intensive and non-profitable.
Other PET packaging (e.g. trays)	Not collected	No positive market value, no established recycling process.
PVC	Not collected	Accounts for only a small proportion of household packaging waste, making collection labour-intensive and non-profitable. There are facilities in place for the collection and recycling of some non-packaging items, such as PVC pipes.
Composites (flexible and rigid) and other plastics	Not collected	No market value. Collection is labour-intensive (especially for flexible packaging) because it is light, meaning that very large quantities have to be collected to make collection viable.

The need for sustainable waste management

In high-income countries, the proportion of waste collected for recycling is rising in line with increasing GDP. However, studies indicate that this is not the case in many low- and middle-income countries. For PET bottles, for instance, data show that countries with lower GDPs generally have higher collected-for-recycling rates than countries with higher GDPs. One of the main reasons for this inverse correlation is reliance on the informal sector. As countries and cities develop, the average cost of living increases, and collecting and selling PET bottles in the informal sector ceases to be economically viable, forcing workers to move on to other trades and jobs. This in turn leads to a reduction in the number of workers in the informal waste management sector, which pushes down the collected-for-recycling rate. Unless this cycle is addressed, it can pose a real problem for the transition to sustainable waste management.⁴

Improving waste management and recycling is a crucial step for the development of low- and middle-income countries, and the expertise of stakeholders in the informal waste management sector will be key to achieving this aim, so it is very important that they are socially and economically integrated into the waste management industry. However, informal operators can only carry out waste management activities when the following conditions are met:

- Materials are easy to access.
- Transport and, if necessary, storage, are easy to arrange.
- There is a market for the materials they collect.
- There are buyers in their local areas.
- Collecting the materials can be expected to generate revenue.

⁴ GA Circular (2020). Full Circle. Accelerating the Circular Economy for Post-Consumer PET Bottles in Southeast Asia



Collecting waste in the informal, as opposed to the formal, economy, brings a high level of risk and uncertainty for those involved in collection, and severely limits the scope to establish a sustainable waste management system. In informal systems, items with no market value are not collected and continue to litter the environment; systems that concentrate on collecting marketable materials are not effective for disposing other types of waste. Therefore, a key requirement for a comprehensive waste collection system is to **shift the focus from collecting materials with a positive market value to providing a service to the population**, regardless of how much the waste is worth in financial terms.

This shift to a service-orientated mindset needs to be accompanied by efforts to integrate workers in the informal sector into a formal, supervised waste management system, possibly including moves to formalise their work. To make sure the system is properly funded for the long-term, it is also important to measure and be aware of the management costs for all waste materials, including items that have no positive market value.

Integrating the informal sector into an EPR system

When an EPR works effectively, it encourages solid, long-term organisational structures and reliable funding. This in turn brings major benefits for workers and businesses working alongside it in the informal sector. Any good EPR system must be able to do the following:

- Ensure nationwide collection of all packaging.
- Develop infrastructure for sorting and recycling packaging.
- Material recycling and high-quality recovery.
- Dispose of any non-recoverable packaging in an environmentally sound manner.
- Document and monitor waste management activity.
- Fulfil the obligations assigned to it by market participants.
- Provide training, advice and information.
- Ensure materials can be easily identified.
- Ensure high standards of safety and welfare for workers in the EPR system.
- Make sure the management of financial flows is transparent and those responsible for doing so are held accountable.

Integrating informal workers as employees

'Typical' waste pickers work in the streets, on dumpsites and at landfill sites. Their main focus is gathering valuable materials according to the principle of 'cash for trash': anything that cannot be sold for a profit is left to pollute the environment. However, an EPR system has to ensure that all packaging is collected, including packaging with no market value or waste that is too light or difficult to collect to be economically viable (e.g. plastic bags, sachets, composite packaging).

Labour-intensive collection and sorting represent a great opportunity to integrate informal waste pickers into an EPR. The system operator (PRO) can help by offering attractive, formalised, terms and conditions, thus encouraging collectors who have been working informally to apply for jobs. The employment contracts can be made directly between the employee and the PRO, or between the employee and a company tasked with providing sorting and collection services to the PRO.



Photo 1: Sorting PET bottles in Accra, Ghana (© cyclos 2019)

In order to formalise the current position of workers in the informal sector and integrate them into an EPR system, they must be placed under a formal employment contract. Setting up co-operatives can help the informal sector to formalise its activities. Formalisation is often linked to restricting employees to set working hours. This can cause problems for some informal workers, especially women. With this in mind, it is important that moves to integrate informal workers should leave room for flexible solutions. The three key steps in the formalisation process are:

- Building trust and making sure workers are aware of how the system works and what will be expected of them.
- Providing professional training and legal advice.
- Signing formal employment contracts.

The table below demonstrates the potential benefits and disadvantages that come with integrating informal workers into the formal economy:

Table 2: Benefits of integrating informal workers into the formal economy

Informal sector	Formal employment
Irregular income	Earning regular income and paying tax
Insecure living standards	Better living standards
High risk of ill health	Lower risk of ill health
Vulnerable to unfair business practices	Fair, regulated business practices
Lack of access to social security systems	Access to social security systems
Very high degree of flexibility and independence	Less flexibility and independence

Integrating informal workers as business partners of independent/self-employed entrepreneurs

Professional and semi-professional waste management companies in the informal sector are generally very well informed about the market, recycling, recovery options, the key stakeholders within the recycling chain and the various processes associated with waste management. The skills of these informal companies can be invaluable when it comes to setting up a successful EPR system, and the system operator (PRO) should consider contracts with some of these companies. Alternatively, if the aim is to integrate these informal actors into the system via a formal contract,

the PRO and any co-contractors may agree to make companies in the informal sector formal members of the EPR scheme.

Where informal companies own their own facilities, it must be ascertained exactly what services they provide and what standards they comply with (or will be expected to comply with in the future). If these companies operate their own collection vehicles, it should be established whether they are roadworthy and how much waste they can transport. If, on the other hand, the companies have been operating purely as trading companies (perhaps with their own storage facilities), discussions should be held to clarify how they can contribute to the EPR system.

Independent/self-employed entrepreneurs may be able to play a role in areas including collection services, the provision of storage capacity, and sorting, marketing and/or recycling waste.



Photo 2: Waste delivery in Accra, Ghana (© cyclos 2019)

In order to include companies operating informally in an EPR system, their status has to be formalised. The first step in this process is getting the company to register with the system operator (PRO) and provide clear identifying information, including its address, a specific location, a nominated point of contact, an e-mail address and a detailed description of the services it provides. Other key steps include:

- Building trust, as well as providing information on the system and the types of services required.
- Providing professional supervision and legal advice.
- Concluding service agreements with business partners.

The table below illustrates the effects of involving participants (both individuals and companies) from the informal sector in recycling systems as formal business partners:

Table 3: Involving informal business as formal business partners.

Informal business	Formal business partners
Uncertain commercial basis for operations	Fixed service agreements
Uncertain marketing conditions	Reliable acceptance of recyclables
Uncertain situation for employees/workers	Better conditions for employees/workers
High operational risks	Reduced risks
Vulnerable to unfair business practices	Supervised business practices

Informal business	Formal business partners
Not paying tax (though they may be paying informal landlords or stakeholders in order to operate)	Paying tax
No obligations to report to public authorities	Required to report to public authorities (which they may find very time-consuming and cumbersome)
No obligation to provide access to healthcare and welfare benefits for workers/employees	Expected to provide access to healthcare and welfare benefits to individual workers/employees

Enterprises in the informal sector can be integrated into EPR systems as formal partners by a number of different routes. For example, they can be set up as NGO-supported micro enterprises, or as franchises of formal waste management companies, operating local collection centres and forming cooperatives and collectives.⁵

Cooperatives and collectives, in particular, have proven especially effective in integrating informal workers across a number of countries. Under this model, formally registered collectives and cooperatives of independent informal workers enter into formal agreements to manage waste on behalf of the local authorities on a contracted basis. Allowing waste pickers in cooperatives and collectives to participate in such activities enables them to influence decision-making and to operate from a position of strength in numbers. Organising informal workers as part of a formal system requires a high level of trust between all those involved.

Other lessons learned from integrating informal enterprises and formalising working conditions

Past experience with integrating informal enterprises into formal structures has highlighted a number of useful lessons.⁶ However, it is also important to take account of context-specific challenges that may arise when implementing and scaling up projects.

- Public authorities (both at national and local level) are crucial in supporting the integration of informal workers by providing social security and implementing waste-related legislation (including legislation not connected to EPR).
- Child labour is an accessible but unregulated opportunity for children to contribute to their families' incomes. Children often work as waste pickers in order to contribute to the family income or to support themselves independently, sacrificing their education, health and physical development. When addressing the issue of child labour, it is important to acknowledge the economic issues to which it is intimately connected, and to address the contextual and structural factors that influence children to work or prevent them from accessing education.
- Inclusion and empowerment of women should be prioritised. Women are still frequently excluded from formal labour as it is often still perceived as a male domain⁷.
- An effort should be made to raise public awareness of the work done by informal waste management workers and why it is important.

Integrating informal stakeholders into the legal framework of an EPR System

Informal recycling activities should be integrated into the EPR system in order to ensure the people involved in them are working as part of the EPR system and to remove any risk to their incomes.

⁵ Ocean Conservancy (2019). Plastics Policy Playbook
⁶ After Manning, C. (2020). Private sector partnerships with waste pickers
⁷ UNEP (2015). Global Waste Management Outlook.



With this in mind, their work should be carried out on the basis of the legal framework applicable to the mandatory EPR system concerned. In particular, the legal basis should outline how the informal sector can be involved in the EPR system, and what responsibilities the PRO shall assume in this regard.

In Chile, a legal framework for a mandatory EPR system has already been drawn up. The preliminary draft of the decree covering packaging passed through public consultation in 2019, and the final text will be issued for approval in 2020. Article 40 of this decree states that:

The waste pickers who are registered in the national register (RETC or PRTR) will be able to participate in waste management in order to achieve the objectives established in the Decree. For these purposes, they must be certified within the framework of the National System of Certification of Labour Competencies established in Law No. 20 267.

The Producer Responsibility Organisation must make the bidding rules under which they will conclude contracts for the collection and recovery services available to the waste pickers free of charge.

In addition, the PRO's Inclusion Plan (Article 13) must indicate the mechanisms and tools for training, financing and formalising informal workers with a view to enabling the full integration of waste pickers [...].⁸

Further reading

Basel Convention (2019). Draft guidance on how to address the environmentally sound management of wastes in the informal sector.

GIZ (2018). Creating Successful formal-informal Partnerships in the Indian E-waste Sector.

GIZ (2018). Inclusion of Informal Collectors into the Evolving Waste Management System in Serbia.

GIZ (2017). Building the Link: Leveraging Formal-Informal Partnerships in the Indian E-Waste Sector.

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Scheinberg, A., M. Simpson, Y. Gupt et al. (2010). Economic Aspects of the Informal Sector in Solid Waste Management.

⁸ Own translation from official German version. Original draft May 2020 (Spanish): <https://rechile.mma.gob.cl/wp-content/uploads/2020/05/68-Resolucion-379-propuesta-DS-REP-envases.pdf>.



Imprint

Published by:

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Credit design cover photo & figures: creative republic Frankfurt

Bonn, Germany 21 September 2020