



Waste pickers collect scrap and recyclables in an industrial zone in Amman, Jordan on 11 April 2022. Photo Credit: Ameer Khalifeh

UNCOVERING THE POTENTIAL

The role of informal actors in solid waste management in Jordan

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Oxfam in Jordan

Salvaging resources from waste containers and landfills, waste pickers are the main suppliers to the recycling sector in Jordan, yet they often live in poverty and are exposed to multiple risks. The Jordanian government seeks to integrate waste pickers into formal waste management processes, but progress has been slow. Based on interviews with formal and informal actors in the waste sector, this study provides an overview of waste pickers' socioeconomic conditions and operations and explores pathways for their integration that could support the recycling sector's potential to create jobs, alleviate poverty and protect the environment.

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CONTENTS

Executive summary	3
1 Introduction: an overview of informal waste management in Jordan	5
2 Profile of waste pickers in Jordan.....	6
3 Waste picking: challenges and vulnerabilities.....	9
4 The question of integration	11
5 Conclusion	14

EXECUTIVE SUMMARY

Jordan's waste pickers are the foundation of the Kingdom's nascent recycling sector. Salvaging resources such as plastic, metal and cardboard from waste containers and dumpsites, they are the main supplier to the recycling industry in a context where there are few facilities for sorting waste and little separation of waste in homes or commercial settings.¹

Waste picking provides economic and environmental benefits. It facilitates the growth of recycling businesses and their expansion into new markets and provides low-cost materials for local industry.² It improves resource recovery and reduces the volume of waste buried in landfills, protecting the environment as well as easing the burden of waste disposal on local authorities.³

Yet waste pickers experience multiple vulnerabilities. Their incomes are low and precarious, and they often live below the poverty line. They face daily health and safety risks, often without protective equipment, and most have no health insurance or access to social protection. They are highly vulnerable to external shocks; over the past decade, global events, regional crises and volatile commodity prices have affected their incomes. Meanwhile, waste pickers are generally excluded from local and national planning that will have an impact on their futures.⁴

Jordan's National Municipal Solid Waste Management Strategy, approved by the government in 2015, calls for the integration of informal actors into the waste management sector. Such integration has the potential to increase waste pickers' incomes, provide social and labour protections and improve health and safety. It could facilitate economies of scale, improve the efficiency and logistics of waste collection and processing, and support access to better quality waste. In a modernizing sector, the integration of waste pickers could also shield them from displacement by technological solutions or recycling initiatives that might encroach on their access to waste.

As yet, work towards integration has been limited and led by donor agencies and non-government organizations. Data on the informal recycling sector in Jordan are limited, hindering effective policy making as well as the sector's growth.⁵ Oxfam commissioned research to contribute to bridging this gap, and to foster understanding of informal sector actors. This paper explores ways to support the integration of waste pickers into the formal waste management sector in Jordan. Based on interviews with actors from across the informal waste sector, including waste pickers, scrapyard dealers, brokers, factory owners and contractors, as well as representatives of local and central government authorities and donor agencies, it builds a socioeconomic profile of waste pickers and presents their vulnerabilities and perspectives on formalization.

The research found that waste pickers are mostly men and predominantly Jordanian, with limited participation of Syrian refugees. Most waste pickers had attended primary school but fewer than half finished secondary education. They tend to live in large households where they often are the sole provider. Most have been in the sector for more than five years, but previously worked in other jobs. Nearly all the waste pickers saw no benefit in their work, yet only a quarter said they would accept a different job if given an opportunity. The most common problems they face are related to health and injuries — nearly all had experienced skin conditions from handling waste.

Most waste pickers said they were open to formalization, primarily seeking income stability and a contract to protect their rights. Waste pickers identified increased income as their primary need, so this paper focuses on pathways to integration that could enable higher, more secure incomes. These include organising waste pickers into cooperatives; providing training and capacity building; establishing supportive infrastructure such as waste banks; expanding waste pickers' roles in the value chain; and increasing the affordability of social security contributions. As well as facilitating

higher incomes, these steps could improve working conditions and foster resilience to economic shocks.

Currently, just 7% of waste in Jordan is recycled,⁶ so the informal waste sector has broad scope for growth. This expansion could bring social, environmental and economic benefits; with support, the sector has potential to create jobs, alleviate poverty and inequality and protect the environment, providing a model of sustainable development.⁷ Informal actors have created a viable, growing industry, mostly without support and often for little reward. It is hoped this paper contributes to raising awareness of the informal sector's contributions; such recognition should be the foundation for integration and formalization.

1 INTRODUCTION: AN OVERVIEW OF INFORMAL WASTE MANAGEMENT IN JORDAN

Alongside Jordan's formal waste management sector, a dynamic informal sector has built and sustained viable value chains from waste, without support and often in precarious and vulnerable conditions. Informal actors include waste pickers, contractors who engage waste pickers for daily work at dumpsites, itinerant scrap collectors with trollies or trucks, scrap dealerships, waste brokers and semi-formal recycling plants.⁸ Waste pickers, often working alone, salvage recyclable materials, including paper, cardboard, plastic and metal, from municipal waste containers on streets and from dumpsites. They collect, sort and sell this waste to scrap dealers and waste brokers, who sell it on for processing and manufacturing in Jordan or for export. There is generally no recycling or separation of waste at the household level in Jordan, therefore waste pickers play a critical role in retrieving recyclable material from the waste stream and supplying the recycling sector, as well as diverting waste from landfills. Just 7% of waste in Jordan is recycled;⁹ of this, an estimated 70% is sourced by waste pickers.¹⁰

Broadly, informal actors focus on valorising waste, while formal actors dispose of waste, a public service predominantly managed by national and local authorities. Most informal waste management activities generate a net profit, while formal waste management activities are a net expense.¹¹ While informal actors generally receive no support from authorities, waste pickers lower the costs borne by authorities by reducing the volume of waste to be disposed of at landfills.¹² In Cairo, for example, it is estimated that waste pickers save local authorities €12m a year in waste collection costs alone.¹³ The informal and formal waste management sectors in Jordan are deeply entwined and intersect in multiple areas; interventions in one area affect other parts of the solid waste management system.¹⁴

More than 7,000 people work in the formal waste management sector in Jordan as waste collectors and street sweepers, employed by municipal authorities.¹⁵ The size of the informal sector is harder to establish; estimates for the number of waste pickers in Jordan vary from 6,000 to 7,000,¹⁶ up to 10,000.¹⁷ Since the outbreak of the Syria crisis in 2011, which drove hundreds of thousands of Syrians across the border into Jordan, Syrian refugees have entered the informal waste sector at different levels, which may have intensified competition.¹⁸ These include those residing in refugee camps, who are engaging in waste picking both inside and outside of camps.

Jordan's National Municipal Solid Waste Management Strategy, approved by the government in 2015, acknowledges the role of the informal sector in waste management and calls for the integration of informal actors. So far, work towards integration has been limited and led by donor agencies and non-government organizations (NGOs). There is a severe lack of data on the informal recycling sector in Jordan, which hinders effective policy making and the sector's growth.¹⁹ Oxfam commissioned a research study to contribute to bridging this gap, and to foster understanding of informal sector actors, their operations, needs, socioeconomic characteristics and perspectives on formalization. This paper presents the results of this research and explores potential pathways to formalization that could boost the sector's productivity, reduce vulnerabilities and alleviate poverty.

The research involved field visits to interview informal actors in seven governorates in Jordan: Irbid, Mafrq, Amman, Madaba, Zarqa, Balqa, Karak and Aqaba. These were selected to ensure national coverage. Researchers targeted population centres where higher numbers of waste pickers are

concentrated. Semi-structured interviews and questionnaires were conducted with informal sector actors, including 41 waste pickers, 14 scrapyards owners and waste brokers, 10 factory owners and four contractors for waste picking activities at dumpsites. Interviews were conducted with key informants from Jordanian government authorities and international organizations, including the Ministry of Social Development, Ministry of Local Administration and Ministry of Labour, the Social Security Cooperation, the United States Agency for International Development (USAID) and the International Labour Organization (ILO). Thirteen representatives of municipalities and Municipal Joint Service Councils were interviewed.

2 PROFILE OF WASTE PICKERS IN JORDAN

The informal waste sector is dominated by men, with women having limited involvement; 93% of the waste pickers interviewed for this study were men, as were all the waste brokers, contractors, scrapyards dealers and factory owners. This was in line with a previous study on the informal waste sector in Jordan in 2016, which found that around 90% of waste pickers were men.²⁰ However, these figures may under-represent women's participation in the sector. For this study, researchers approached waste pickers in public spaces, where they may have been less likely to reach women workers. Some women waste pickers seek to work less visibly to evade harassment, for example by avoiding main streets or working early in the morning.²¹ Women also perform less visible roles in the informal sector such as sorting waste, which is often done at home; according to a recent assessment, an estimated 300-600 women work informally as waste sorters in the capital Amman.²²

Most waste pickers interviewed were Jordanian, with 22% being Syrian refugees. This balance differed depending on the location; in landfill and disposal sites, most waste pickers were Syrian refugees, often from the Za'atari and Azraq refugee camps. All the scrapyards dealers and brokers interviewed were Jordanian. Nearly half of the waste pickers were 30-44 years old, and around one-third were 18-29 years old.

While 90% of waste pickers had finished primary school, just 44% finished their secondary education and only 5% had continued their education beyond secondary school. None of the Syrian refugees interviewed had received secondary education. Around one-third of waste brokers and scrapyards dealers had continued their education beyond secondary school. Reported education levels were lower among waste pickers than the general population. Nationally, enrolment in secondary education ranged between 62% and 79% from 2000 to 2019, compared with only 44% of the waste pickers interviewed.²³ Over the past two decades, secondary education enrolment in Jordan has been higher among girls than boys in the general population,²⁴ but none of the women waste pickers interviewed had attended secondary school. UNICEF has documented the multiple links between poverty and leaving education early.²⁵

Most waste pickers lived in large households where they were the sole provider; 74% said they lived in households with five or more people, and 32% with eight or more people, while the national average household size is 4.7 people.²⁶ Meanwhile, 71% were the sole providers for their households, while 90% said waste picking was their only occupation. Most waste pickers have been in the sector for many years; 83% have worked as waste pickers for more than five years, and 39% for more than 11 years. Most entered the sector before they were 30 years old, and half started waste picking under the age of 20. More than a quarter entered the sector as children, through their families or social circles.

More than two-thirds of the waste pickers interviewed had previously held different occupations, including as municipal workers, and in construction and farming. Their reasons for shifting to waste picking included insufficient income or lack of work. Waste pickers identified physical strength, resilience to difficult working conditions, and good negotiation skills as attributes that contribute to success in the sector. As the prices of recyclable waste constantly fluctuate, waste pickers must negotiate these when selling to brokers and dealers.

The informal actors interviewed for this study were divided on the impact of gender in the sector; 57% of waste pickers said gender influenced practices, describing differences in physical strength, types of waste collected and roles, with women more likely to work in sorting and to salvage lower-quality waste. Half the waste brokers and scrapyards dealers and one-third of the waste pickers said gender influenced success, citing perceived differences in negotiation skills and unequal access to material. Informal waste picking is a highly networked activity; in this male-dominated sector, women may be less able to penetrate or benefit from these networks.

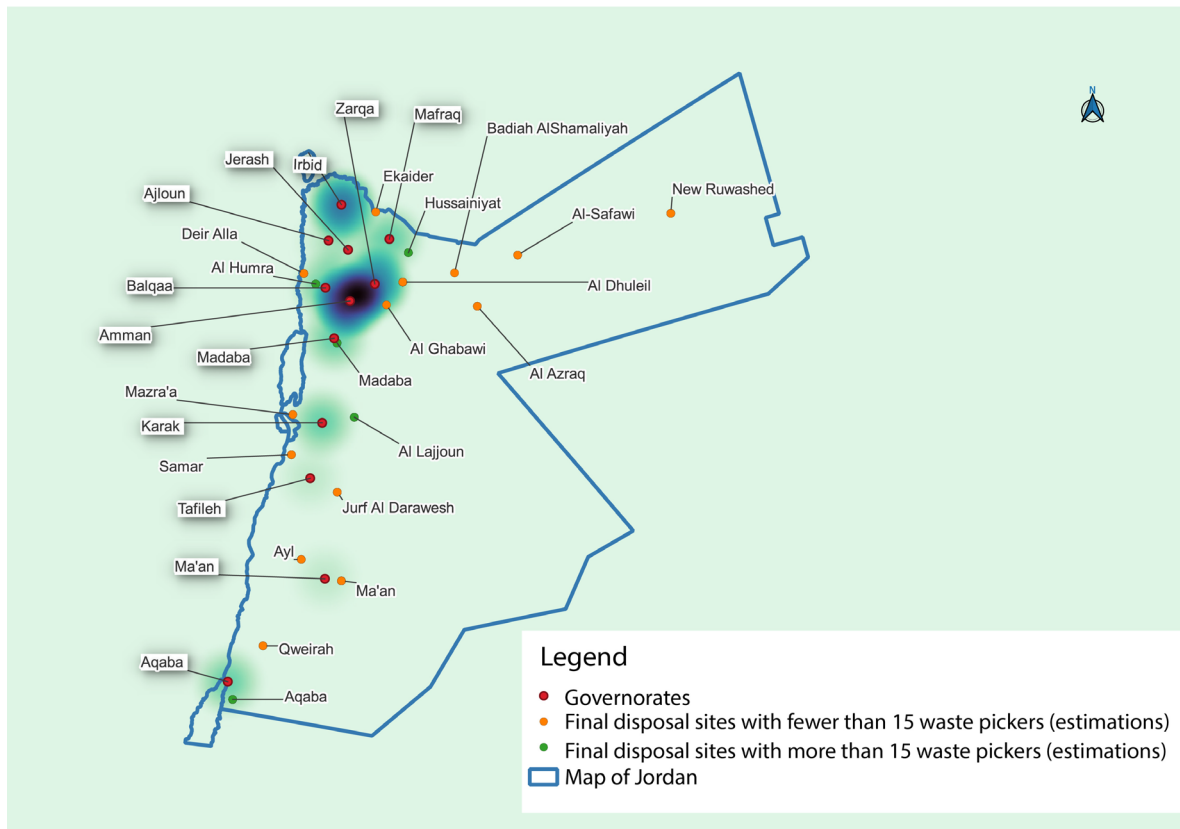
A gender analysis conducted for USAID found that the threat of gender-based violence and harassment can limit women's roles and success in the sector.²⁷ Women often work in the early morning or late at night and away from busy streets and commercial areas to avoid harassment, reducing their access to waste streams. Female-headed households may be among the most vulnerable; lacking the protection of male family members, they tend to work long distances from home to avoid scrutiny.²⁸ Women waste pickers were more likely to sell to male waste pickers, rather than directly to brokers or scrapyards, reducing their profit. Although they may not have access to childcare, women waste pickers risk arrest for child labour offences if their children accompany them at work.

The average monthly income reported by waste pickers interviewed for this research was 150–350 Jordanian dinars (JOD) (\$212–\$494); 52% earned between JOD 150–250 (\$212–\$353), and 22% earned between JOD 250–350 (\$353–\$494). Female waste pickers earned less than their male counterparts, and their income uniformly fell below Jordan's minimum wage of JOD 260 (\$367). Given that most waste pickers said they were the sole providers in their households and had no other sources of income, the reported incomes would place most of the workers and their households below the poverty line. Nearly all waste pickers said their incomes were insufficient; most said a sufficient monthly income would be in the range of JOD 350–500 (\$494–\$705). Waste pickers' incomes were mostly spent on food, electricity and water bills, and housing; when incomes declined, they reduced spending on food.

Data on waste pickers' incomes is scarce and inconsistent, with different studies finding salaries ranging between JOD 75 and JOD 500 (\$106 and \$705), with highest rates observed in Amman.²⁹ Across Jordan, low wages mean that working poor people are vulnerable to falling into poverty. A household survey in 2020,³⁰ conducted before the COVID-19 pandemic emerged in Jordan, found that more than one-third of Jordanian workers earned less than JOD 300 (\$423) a month, a finding consistent with earlier studies.³¹ Among Syrian workers, 78% earned less than JOD 300 (\$423) and the average monthly wage was around JOD 185 (\$261), falling to JOD 170 (\$240) during the pandemic.³²

Figures 1 and 2 visualize the informal solid waste management sector across Jordan, identifying the hotspots for waste pickers and the distribution of middlemen and scrapyards dealers.

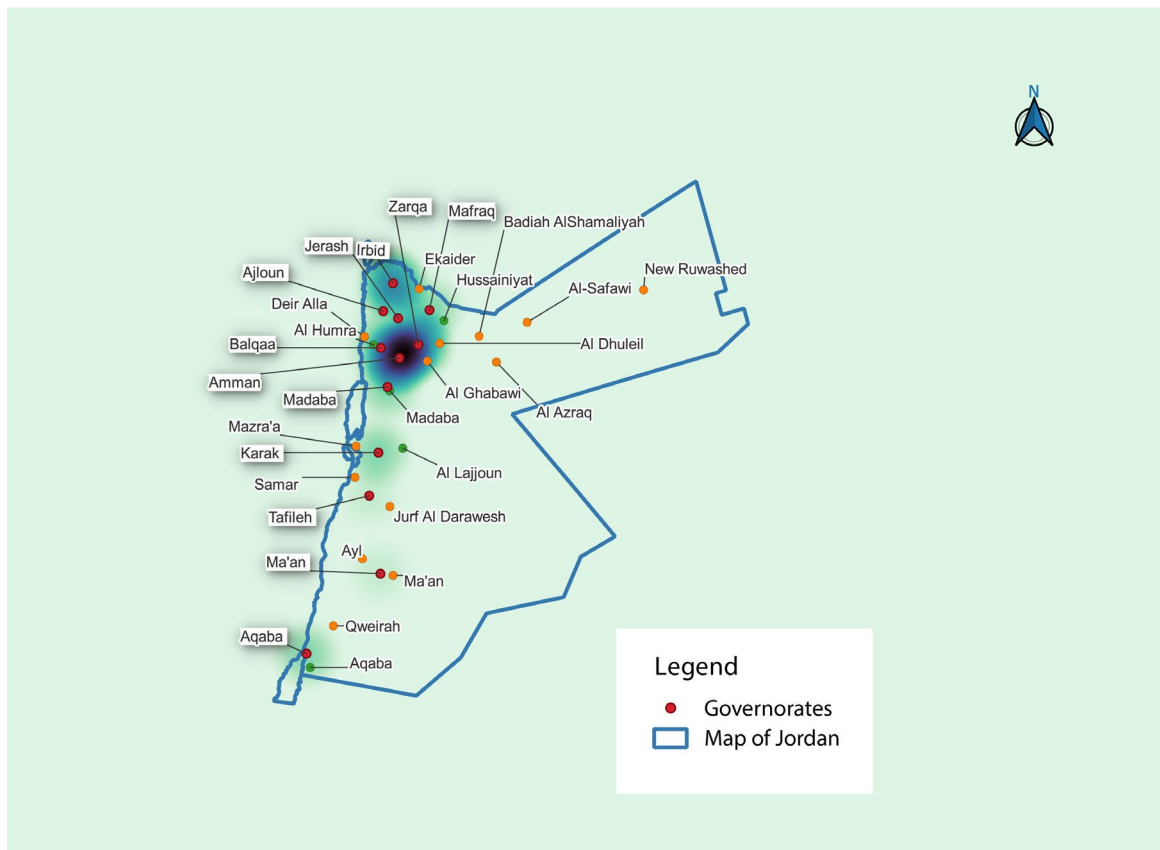
Figure 1 Heatmap showing national distribution of waste pickers



Source: Data collection and map generation by LDK Consultants.

These heatmaps are based on estimates formed from interviews with representatives of Joint Service Councils and municipalities, as well as scrapyards dealers and waste pickers. It is especially difficult to accurately estimate the number of waste pickers as they are mobile and their numbers fluctuate seasonally. The highest concentration of waste pickers was found to be in the central region of Jordan, mainly in Amman and Zarqa, with an estimated 5,000-6,000 waste pickers. This correlates with the population distribution in Jordan, as this area is home to more than half of its population. It also correlates with the concentration of industrial and economic activities in this region; Amman and Zarqa are the recycling centres for plastic, metal and cardboard. Waste pickers were also concentrated in the north, with 2,150-3,100 waste pickers, followed by the south, where around 700-1,400 waste pickers are active. Middlemen and scrapyards dealers are also concentrated in central Jordan, in Sahab, Al-Muwaqqar, Marka, Al-Qweismeh, and Ohud, which are part of an industrial cluster stretching from the east of Amman to the border of Zarqa governorate.

Figure 2 Heatmap showing national distribution of scrapyards dealers and middlemen

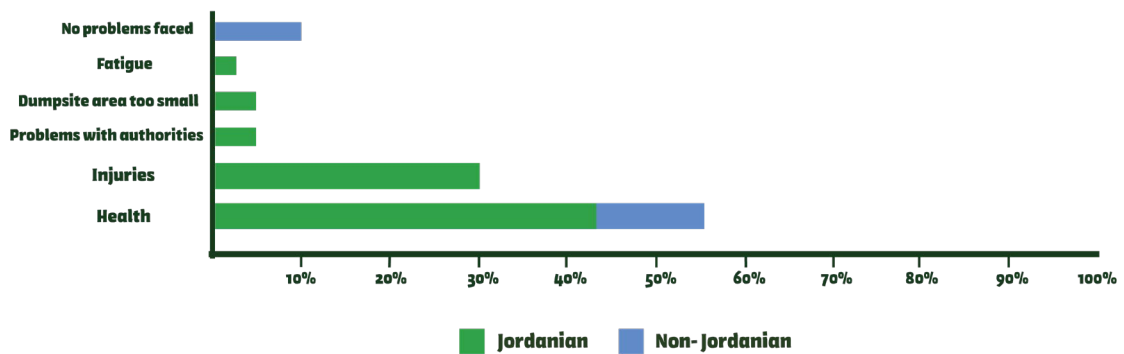


Source: Data collection and map generation by LDK Consultants.

3 WASTE PICKING: CHALLENGES AND VULNERABILITIES

The most common problems reported by waste pickers were related to health and injuries (Figures 3 and 4). Waste pickers are exposed to airborne dust, stray animals and rodents, and sharp materials such as metals and glass, as well as hazardous and unsanitary waste. Among waste pickers, 88% reported experiencing skin conditions such as cuts, rashes and irritations due to the work. Fewer than half of the waste pickers interviewed use personal protective equipment (PPE), increasing their risk of injury. Waste pickers said they did not use PPE due to the cost and because it restricts mobility. In some cases, waste pickers contracted to work in disposal sites were required to wear PPE by local authorities, but compliance was weak. Nearly all waste pickers said they had access to healthcare, either in national healthcare facilities for Jordanians or in refugee camps for Syrians. Those who could not access healthcare cited a lack of transport or distance to hospitals as the barriers to access.

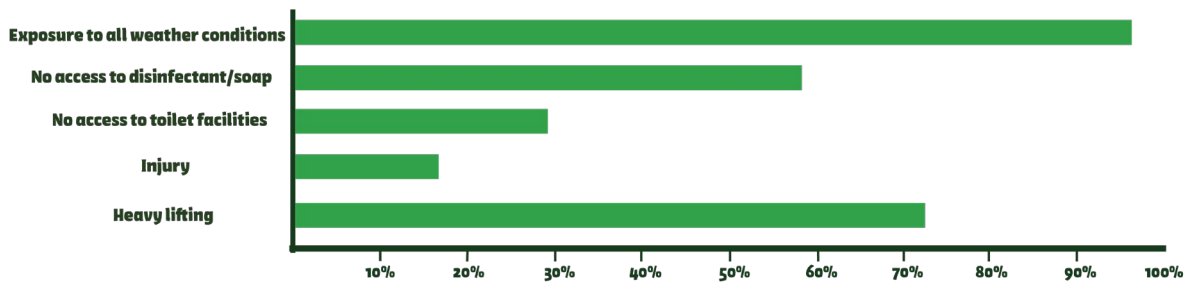
Figure 3 Problems reported by waste pickers



Source: Data collected by LDK Consultants

Social stigma and discrimination did not appear to be an issue for the waste pickers interviewed; 95% said they faced no stigma from friends or family, while 98% said they did not face discrimination and 95% said they had faced no problems with Jordanian authorities. However, some waste pickers approached by the researchers declined to participate in this study. Waste pickers who felt stigma or discrimination may have been less inclined to participate, which may have skewed the results on this issue.

Figure 4 Health risks identified by waste pickers



Source: Data collected by LDK Consultants

INCOME INSTABILITY AND EXTERNAL SHOCKS

Waste pickers are part of a global value chain and are highly vulnerable to external factors. The effects of global events, regional crises and volatile commodity prices reverberate in the work and incomes of waste pickers on Jordan’s streets and dumpsites.

The crisis in neighbouring Syria has had an impact on waste pickers in several ways. It severed a key trade route through Syria for recyclable materials to reach global markets, forcing exporters to use alternate routes via the port of Aqaba or Saudi Arabia. These entailed higher transport costs, especially for companies based in northern Jordan.³³ Glass recycling stopped in Jordan due to the conflict; glass could no longer be exported to furnaces in Lebanon via Syria, and alternatives were not profitable.³⁴ The influx of Syrian refugees to Jordan brought new workers and entrepreneurs to the sector, at different parts of the value chain, which may have increased competition.³⁵

Waste pickers are vulnerable to fluctuating global commodity prices. Historically, drops in oil prices have lowered the price of virgin plastic, in turn reducing demand for recycled plastic and reducing the prices waste pickers can command for salvaged plastic.³⁶ Conversely, rises in oil prices have driven demand for recycled plastic. In Jordan, changes to the export duty taxes for different types of recyclable waste have affected the viability of recovering some materials, particularly those primarily collected for export. In addition, increases in electricity prices in Jordan made local recycling plants less competitive. External factors such as these have transformed the value chains for recyclable waste over the past decade, affecting the types of materials waste pickers target and the prices they are paid for collected material.

The COVID-19 pandemic caused massive disruption to global supply chains and led to dramatic price fluctuations. Jordan introduced stringent measures to contain the spread of COVID-19, including closing national borders, prohibiting non-essential movement and imposing 24-hour curfews. As economic sectors shut down, unemployment surged, and thousands of families were plunged into poverty. Mobility restrictions were catastrophic for waste pickers. Ninety percent of the waste pickers interviewed for this study said their financial situation worsened during the pandemic; of these, 94% said their work had completely stopped, while the rest said they worked less or could not reach buyers.

Although the Jordanian government provided financial assistance to workers during the pandemic, informal workers were excluded from this; 98% of waste pickers interviewed were unable to access this assistance. While 85% used PPE during the pandemic, 43% said this was to avoid fines rather than for safety reasons. Many waste pickers said the pandemic had changed people's opinions about the sector; 56% said their families had new perspectives about the work, while 38% said their own perspectives had changed. This was overwhelmingly positive; of those who changed their views on waste picking, 92% newly understood the necessity of the work, while just 8% perceived it to be unprofitable and not worth pursuing.

While waste pickers have been dynamic and responsive to these external shocks,³⁷ the fluctuation in their incomes is a vulnerability, especially as most waste pickers interviewed for this study had no other source of income and were the sole providers for their households.

4 THE QUESTION OF INTEGRATION

Jordan's National Solid Waste Management Strategy, approved by the government in 2015, recognizes the role of the informal sector in waste recovery and calls for the integration of informal actors into formal recycling schemes. The contributions of waste pickers are also recognized in Jordan's Waste Sector Green Growth National Action Plan 2021–2025, which notes that informality, as well as fluctuating market prices, limit the sector's potential to reduce poverty.³⁸

The Green Growth National Action Plan calls for the establishment of infrastructure and regulations for informal waste pickers, asserting that a more formal recycling and material recovery system would help create decent jobs and improve the livelihoods of poor and marginalized workers. Yet, waste pickers have not been integrated by local government authorities or municipalities, and integration efforts have broadly been limited to donor-funded initiatives. Among the municipal representatives interviewed for this study, some recognized the sector's environmental contribution; one municipal mayor suggested that the term waste picker should be replaced with 'environmental sorting assistant'. Some municipal staff said they did not interfere in waste pickers' work because of their positive impact in extending the life of landfills. Notably, 92% of waste pickers saw no benefit in their work.

Currently there are no regulations or legislation governing the work of informal waste pickers. The absence of a legislative or regulatory framework for waste picking is a barrier for pathways to formalization, integration or even recognition of the sector.

Eighty-eight percent of waste pickers interviewed said they would be open to formalization; drivers for formalization were primarily income stability, mentioned by 74%, and having a contract to protect their rights, cited by 68%. Just 19% of respondents mentioned social security coverage and 13% cited better health and safety conditions as drivers for formalization; none mentioned better social inclusion or societal approval. For most waste pickers, the improvement of their livelihoods was primarily related to income levels; when asked what would improve their living and working conditions, most said higher revenue. It appears most waste pickers intend to remain in the sector. Although most said they saw no benefit or advantage to their work, only a quarter said they would accept another job if offered.

Globally, some studies have found that waste pickers are reluctant to formalize.³⁹ Waste picking offers income which can comfortably exceed the minimum wage, as well as autonomy and flexibility. It also functions as a safety net for some of the most vulnerable Jordanians. Some waste pickers have previously been imprisoned, and their criminal records exclude them from government employment and often also from private sector jobs.⁴⁰ Any integration efforts must be fully inclusive and not further marginalize this group.

While some waste pickers earn above the minimum wage, waste picking does not appear to offer a pathway out of poverty. Integration into the formal sector could reduce some of the vulnerabilities of the work and improve working conditions. It could also increase the amount of waste recovered by waste pickers, and thus their income levels.⁴¹ The low recycling rate in Jordan means there is a large capacity for growth in the sector, but its informality can be a barrier to reaching economies of scale.⁴² Greater integration could improve waste pickers' access to quality waste, transport and storage options and help generate growth.⁴³

The ILO has noted that the informal economy can constrain households from finding a route out of poverty.⁴⁴ Most informal workers lack social protection, increasing their vulnerabilities to risks; they are not recognized or registered, or protected under labour law, and cannot exercise their basic rights. For the ILO, transitioning informal workers out of informality and under the protection of the law is a key step toward decent work.⁴⁵

Meanwhile, in a changing sector, informal waste pickers are vulnerable to displacement by other actors, such as the private sector, or by technological solutions.⁴⁶ Recycling initiatives – whether by municipalities, NGOs or private companies – may undermine waste pickers' access to the resources their livelihoods depend on.⁴⁷ Waste pickers are generally excluded from planning and strategy development processes for waste management, although these may greatly affect their livelihoods. Globally, encroaching modernization has shrunk the space for informal recyclers to access waste materials, as rights to recyclables are assigned to the private sector without regard for the waste pickers who had previously claimed this waste.⁴⁸

PATHWAYS TO INTEGRATION

While the Jordanian government has committed to integrating waste pickers, it remains unclear how this will be achieved. Currently, there is no path to formalization for Jordanian waste pickers; the profession has no licenses or representative body and is not legally recognized. Syrian waste pickers are eligible for flexible work permits, introduced by the Government of Jordan in July 2021 for self-employed Syrians, which enable them to work formally. However, permit holders are required to pay monthly social security contributions of JOD 16 (\$23), an obstacle for many refugees.

Recruiting waste pickers into formal jobs in the public or private sectors would be a traditional approach to formalization.⁴⁹ However, Jordan has one of the highest unemployment rates in the region, there is a severe shortage of jobs, and a long waiting list for municipal employment, especially for low-skilled jobs such as waste collection.

The legal recognition of waste picking as an occupation is a critical step towards increasing integration and eventual formalization. Waste pickers' roles must be included in waste management laws. In Brazil, the creation in 2002 of an occupational classification for informal waste pickers provided a path for formalization, and also meant that data could be collected on the profession.⁵⁰ Waste pickers' inclusion in official statistics brought greater recognition and visibility, and also provided data to facilitate more effective, evidence-based policies.⁵¹

Globally, efforts to integrate waste pickers often have focused on establishing organizations such as collectives, cooperatives, associations or unions; millions of waste pickers have joined such organizations around the world.⁵² The potential of waste picker organizations is well documented; they have enabled waste pickers to achieve higher and more secure incomes, better working conditions, improved health and increased resilience to economic shocks.⁵³ By forming organizations, waste pickers can benefit from collective bargaining power and a unified voice, as well as better access to services and social protection.⁵⁴ Representative bodies for waste pickers can offer recognition for the profession, training and certification. They can also facilitate waste pickers' engagement with institutional actors on sectoral issues, policy and legislation.⁵⁵

A legally recognized representative body for waste pickers in Jordan could offer a pathway to integration and provide a number of benefits. It could be a platform for waste pickers to bid for municipal tenders, or to negotiate access to waste with municipalities and commercial waste generators. A representative body could also facilitate waste pickers to sell directly to industry, rather than middlemen and brokers, thus securing higher prices. It could issue licences to waste pickers as a form of recognition and formalization, and it could reflect the interests and perspectives of waste pickers in the formal sector. Crucially, such an organization could improve the labour rights of waste pickers and their incomes without sacrificing their autonomy and flexibility.

Previous studies have found that most waste pickers in Jordan want to work under the umbrella of an organization.⁵⁶ However, restrictions on collective bargaining and trade union organizations in Jordan may limit the potential of this pathway; just 5% of workers in Jordan are organized. While the 2015 National Municipal Solid Waste Management Strategy proposes cooperatives as a path to integration for waste pickers, no steps have been taken towards establishing such bodies. While effective representation on a national scale may require a more conducive policy environment, lessons could be drawn from Jordan's agricultural sector, which has an active union.⁵⁷ Local-level organizations for waste pickers, established by civil society or international NGOs, could fit the Jordanian context.⁵⁸ A study conducted for USAID in 2021 found that waste pickers preferred to join an organization led by an NGO, that could facilitate communication with local authorities and commercial bodies.⁵⁹ One such participatory body was established by an international NGO for scrapyards in northern Jordan; however, this has not yet included waste pickers. To be successful, an organization for waste pickers must provide clear benefits and sustainable added value to incentivise workers to join and maintain membership, particularly as waste pickers may already be part of informal networks with extensive informal arrangements.

The Ministry of Environment's Green Growth National Action Plan calls for capacity building for waste pickers. Training can support waste pickers to improve their productivity, promote innovation and improve negotiation abilities.⁶⁰ USAID has conducted training for waste pickers in Amman, focusing on health and safety, waste and revenue stream forecasting, pricing, and relationship building among other topics.⁶¹ The training sought to improve waste pickers' technical knowledge and soft skills to help them engage in formal recycling schemes. On completion, waste pickers received a

certificate from the Greater Amman Municipality that has functioned as a form of recognition; waste pickers have used the certificate as a type of permit.⁶²

Supportive infrastructure can also be a tool for integration of informal actors. In its action plan, the Ministry of Environment notes the potential of waste banks to expand the recycling sector, if given policy and business support.⁶³ Waste banks are collection points where waste pickers and brokers can sell their recycled materials; if strategically placed, they can reduce the transport time and costs for waste pickers and brokers and increase their productivity.⁶⁴ Organising, training and providing supportive infrastructure could support waste pickers to expand their role in the value chain,⁶⁵ for example by processing the waste they collect and using it to manufacture new products.⁶⁶ This could be further supported by the provision of equipment.

Ultimately, sustainable access to social protection will require the enrolment of waste pickers in social security. While waste picking is not a legally recognized profession in Jordan, the Social Security Cooperation offers a voluntary programme open to all Jordanians that Jordanian waste pickers could subscribe to, although this offers limited benefits and does not provide full coverage. Syrian workers, including waste pickers, can access comprehensive social security by securing work permits. However, just 7% of waste pickers interviewed for this study were enrolled in social security. Nationally there are large gaps in social security coverage, with only around half of workers in Jordan covered by social security; among Syrian workers, 96% lack social security coverage.⁶⁷

Sixty-two percent of waste pickers interviewed said they were not enrolled in social security because the monthly contributions were too high. Integrating waste pickers into the formal sector could help raise their incomes and their ability to afford social security contributions. In the meantime, social security contributions could be subsidised for waste pickers, with these subsidies funded by other parts of the value chain. Alternatively, they could be funded by municipalities, given waste pickers' contribution to reducing municipal costs for waste collection and disposal. The ILO is piloting subsidized social security contributions in the agriculture sector, funded by donors; this aims to expand coverage among agricultural workers, which stands at just 3%.⁶⁸ Such subsidization, even if temporary, serves to introduce new workers to social security and raise awareness of its benefits.

5 CONCLUSION

The solid waste management sector in Jordan is undergoing a process of institutional and operational change. The National Municipal Solid Waste Management Strategy aims to transform the country's ageing solid waste management infrastructure, further strained by the influx of Syrian refugees, into an efficient solid waste management system that is environmentally, economically and socially sustainable. Jordan's informal solid waste sector must be included in this shift; such inclusion can facilitate more efficient recycling and waste recovery.

This paper has outlined potential pathways to recognize and integrate informal waste pickers, and to lay a foundation for formalization, in ways that can alleviate poverty and reduce inequality. Waste pickers are open to formalization, driven primarily by the need for more secure and higher incomes. Initial efforts should therefore focus on supporting waste pickers to increase their incomes, such as through training, establishing representative bodies and providing supportive infrastructure. Integration must consider the needs of women waste pickers and address the additional barriers they face in a highly male-dominated sector.

Low rates of recycling in Jordan demonstrate that the informal waste sector has much potential for growth. Integration can help facilitate economies of scale, improve the efficiency and logistics of waste collection and processing, and support access to better quality waste, thus providing social, environmental and economic benefits. Informal actors have created a viable, growing industry, often self-funded and without support; they must have key roles in planning and strategies for integration.

NOTES

¹ United Nations Development Programme. (2015) *Solid Waste Value Chain Analysis in Irbid and Mafrq – Jordan*. Retrieved 19 April 2022, from https://www.jo.undp.org/content/dam/jordan/docs/Publications/2016%20Documents/Jordan%20Waste%20Value%20Chain%20Report_FINAL.PDF

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