



EMBRACING NOT DISPLACING:

INVOLVING THE INFORMAL SECTOR IN IMPROVED SOLID WASTE MANAGEMENT

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Abstract

Many hundreds of thousands of poor people in South Asia make a significant, but often unacknowledged, contribution towards handling the subcontinent's solid waste. Changes in legislation and solid waste management systems have the potential to harm, or enhance, the livelihoods of this group. Often changes result in harm. This paper is based on case studies from research with informal-sector waste workers in Bangladesh, India and Pakistan. It considers the nature of their contribution, the problems they face from being excluded from waste work, and the potential for integration into formal solid waste management systems.

1. Introduction

1.1 Solid waste management in South Asia

As volumes of waste produced increase, municipal budgets across South Asia for removing, transporting and disposing of waste are being stretched. This results in parts of some cities facing major solid waste problems.

New legislation is being introduced (most notably in India) which requires municipalities to manage waste more carefully, collect waste from individual households, ensure segregation and improve recycling and composting activities. Where legislation has not been introduced, the public are increasingly making demands for improved waste management. Municipalities are looking to find new models to deliver quality solid waste management services.

Meanwhile, the informal sector continues to work in collecting, sorting and recycling waste in Indian cities. These activities provide employment opportunities for hundreds of thousands of poor people. This paper views the existing informal sector workforce not as a barrier to improving and transforming solid waste management (SWM) services, but as an enabling factor and resource. It presents one possible model, namely outsourcing to Small Local Service Providers (SLSPs) as a vehicle to embrace, not displace a, informal sector workers.

1.2 The informal sector

Throughout South Asia, solid waste management and the livelihoods of the poor are closely related. In the 'formal sector', municipalities employ tens of thousands of sweepers, cleaners and drivers. Many of these employees are drawn from the urban poor though they often have permanent and secure contracts. Private sector contractors also employ a workforce. These often work at the local level, paid directly by householders or organisations. However, the majority of waste-related livelihoods exist within the 'informal sector'. These include waste pickers, waste collectors, *kabaris* (waste dealers) and so on. The vast majority of those working in the informal sector are poor, children as well as men and women.

Some examples of informal sector livelihoods are shown in Photographs 1-4.



Photograph 1: Waste dealer in Karachi



Photograph 2: Women sorting glass bottles in Nagpur, India



Photograph 3: Itinerant waste buyer in Nagpur, India



Photograph 4: Girls picking waste at Matuail, Dhaka, Bangladesh.

In Delhi alone, it is estimated that between 80,000 and 100,000 poor children, women and men work as informal sector waste handlers: door to door collectors and waste pickers, reprocessors and recyclers. Assuming each earns just Rs50 per day, their *daily* turnover as a workforce is an astonishing Rs 50 lakh (more than US\$100,000).

Informal sector activities save municipalities considerable funds because they divert many tons of waste which would otherwise require transportation and disposal.

Although informal sector waste workers are often uneducated, they do have skills both directly related to waste recycling as well as for locating markets and dealing with customers and householders. As such, they could be considered a ready-made and skilled workforce.

2. Improved solid waste management and the poor

Despite their significant contribution to urban solid waste management, informal sector workers enjoy little recognition, job security or social welfare safety nets. Changes and improvements to solid waste management are often made without proper consideration of the informal sector. This can have a range of harmful consequences, including:

- waste workers losing their access to recyclable materials, (often the basis of their income) leading to deepening poverty and increased vulnerability,
- the loss of the trusting relationship between the community and waste workers. This in turn could lead to lower willingness among households to cooperate in new waste management initiatives (for example to contribute user fees or provide segregated waste).
- the loss of important coping strategies and relationships for the poor, such as the relationship between waste picker and dealer. The dealer is often the main provider of loans to waste workers.
- introducing competition for waste, and increasing the chances of disruption of new services by displaced waste workers.

Experiences on the ground as well as some recorded in literature (e.g. Agarwal *et al* 2002 and Rouse 2004) indicate that only by understanding, acknowledging and, if possible, incorporating informal-sector activities into new ways of delivering improved SWM services will sustainable solutions be found. Ignoring the informal sector can result in unsustainable interventions, which means wasting time and money and ultimately not delivering the service as intended.

2.1 Working with waste pickers

Embracing the informal sector can bring about a win-win situation in which municipalities get a skilled workforce, and the poor retain and enhance their livelihoods. It can also be very important for the success of interventions. This is illustrated by Case Study 1.

2.2 Working against the informal sector

The informal sector is a powerful force in most urban centres across South Asia and is often an established and highly organized system. The introduction of formal systems that do not account for existing informal sector workers can result in loss of livelihoods and lead to problems for workers in the new system resulting from competition. Case Study 2 illustrates how important it can be to recognise the role and complexity of the informal sector in planning solid waste management initiatives.

3. Outsourcing to Small Local Service Providers

Small Local Service Providers (SLSPs) include:

- small formal businesses,
- informal sector entrepreneurs and groups,
- community-based organisations (CBOs) and resident welfare associations (RWAs), and
- non-governmental organisations (NGOs)

SLSPs are playing an increasing role in the provision of solid waste management services particularly in door-to-door collection, sweeping and recycling activities. They are being seen as an effective tool in decentralising municipal services, building accountability and improving the quality of services.

3.1 Does this form of outsourcing work?

There is a strong body of evidence suggesting that outsourcing to smaller service providers can improve the efficiency, coverage and sustainability of solid waste management services, as well as generate jobs for the poor. Benefits from outsourcing to SLSPs, include:

- Improvements in efficiency, quality of service and cost savings
- Using labour-intensive approaches. Labour-intensive approaches are often much better suited to low-income areas than technology-intensive alternatives.
- Partnerships with smaller organisations can be easier for municipalities to manage.
- Providing employment opportunities to the poor, and working with, rather than competing with, a powerful, skilled and highly-organized workforce.

Case Study 1: Jubilee Hills Exnora, Hyderabad, India

In response to the unhygienic neighbourhood conditions, the Jubilee Hills Exnora (JHE) Residents' Association initiated a door-to-door household waste collection system in 1997. By 1998 the association had purchased 8 cycle carts for neighbourhood waste collection, and was successfully collecting waste from around 850 households and 12 commercial properties. The municipality provided them with further resources, including 7 cycle carts, land for composting and shelter for the workers.

Benefits to waste pickers

Instead of recruiting waste collectors 'off the street', JHE offered jobs to the local waste pickers. The rationale was that because a new waste collection system could negatively impact the waste pickers by restricting their access to waste, they needed to be offered alternative employment. By employing them in the organised door-to-door collection system they could be assured of a regular income as well as retain access to the waste for recycling. The streets would also be free of their scattered waste because the employees could sort waste whilst collecting it.

17 young waste pickers were given formal employment as waste collectors by a community group called the Jubilee Hills Exnora (JHE) in Hyderabad. Before joining JHE the waste pickers never had a regular source of income and this made them vulnerable to ill-health or poor weather which affects their work. The employees now feel that, while the job has certainly made them much better off financially, they particularly enjoy much more stability and security.

The association provided them with identity cards, shoes and uniforms for their work. Vocational training has also been offered including driving and office skills, thus developing their future employability. They perceive that they now have a higher social status, and have formed supportive relationships with their employers. These factors have made them more confident in interacting with society compared to before when they 'felt like outcasts'. It has also legitimised their role in waste management.

Shiva Prasad is 16 years old and the youngest of the workers. He joined the organisation 18 months ago. He has a widowed mother who used to support him before he came down to Hyderabad 5 years ago to support himself. He is proud to be associated with JHE, as it has given him a sense of identity and a steady income. (ASCI 2003, Rouse 2004).

Improved sustainability

It is important to note that employing the waste pickers is likely to have contributed to the effectiveness and sustainability of the door-to-door collection system. If waste workers had not been employed, they would have been put in direct competition with the JHE collectors. In a bid to secure access to recyclable materials they may have sought access to waste in other ways or tried to disrupt the new collection system.

(Rouse 2004)

Case Study 2: Fighting the informal sector in Karachi, Pakistan

Jam Chakro is a large International Donor-funded landfill site in Karachi. When opened in 1996 it was intended to be carefully managed by the Karachi municipal authorities. However, within weeks of opening it was overtaken by informal-sector waste workers. They were mostly poor rural migrants seeking work. Their waste sorting and recycling work, which involved burning waste to liberate metals and glass, is responsible for serious environmental degradation and poor waste management (Photograph 5).

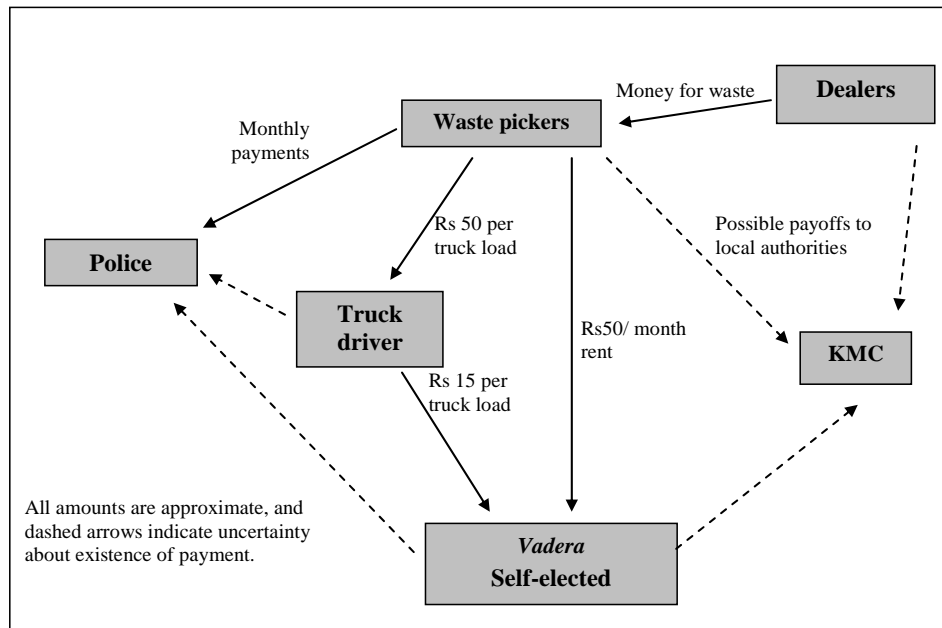
As many as 3000 men, women and children live and work at the landfill site. They are all poor and vulnerable to ill-health and exploitation. They rely on access to the waste and recyclable materials to make a living.

Nearby residents are being affected by the smoke, and wish to see an end to the burning. Local authorities are under pressure to manage the waste better and wish to see an end to the recycling activities. To date they have employed a number of tactics, including:

- Attempts to evict the waste workers. However, when bulldozers entered the site, the workers reportedly turned violent and prevented the bulldozers from proceeding.
- Extinguishing the fires. Attempts by the army and fire-brigade were met with strong opposition from the workers who threw rocks and drove the authorities back.
- Blocking access. Ditches were dug to prevent the dumping of waste on the specific areas used by waste workers. However, the workers were so desperate to access to waste, they filled in the ditches.

Prior to these interventions, little attempt had been made to understand the nature of the informal-sector. The will and force of the workers, as well as the complex symbiotic linkages with formal-sector institutions (as indicated by Figure 1) were underestimated. As a result, all attempts to date have been unsuccessful.

Figure 1: The complex payment linkages between livelihoods at Jam Chakro



This case study is included to illustrate the complexity of the informal sector, and how workers can disrupt changes in formal waste management systems if those changes jeopardise their livelihoods. At Jam Chakro workers state they have no alternative livelihood options, and some would argue from a humanitarian perspective that they should be allowed to continue to pick waste. On the other hand, they have illegally entered the site, and are causing serious environmental pollution.

Without passing any judgment as to whether or how these waste workers should be allowed to continue their recycling activities, it is clear that at least they need to be understood and considered in order to plan for sustainable change.

(Rouse 2006)



Photograph 5: Waste worker sifting through ash for recyclable material

Outsourcing to SLSPs is particularly appropriate for much of South Asia because of municipal resource shortages, the appropriateness of labour-intensive methods and the existing informal-sector activities.

Directly engaging the informal sector can bring its own specific problems. Many are rural migrants and their freedom and independence are important to them. Many of them may also have had negative experiences of formal employment in the past, such as bosses who abused or failed to pay them. Waste workers are often among the least-educated and most socially-alienated in society and may often be difficult to work with. This has serious implications on the success, as well as replicability and upscaling, of models of working with waste workers. There are, however, examples of where persevering in the face of these difficulties has paid off.

Persevering with waste workers in Hyderabad

The Jubilee Hills Exnora community organisation found the reality of employing waste pickers problematic. Most of the 16 to 25-year-olds came to Hyderabad to escape village life, and their independence is dear to them. The organisation faced many difficulties retaining and motivating the young men, but after perseverance the former waste pickers are settled and appreciative of the opportunities given to them, and are delivering a high-quality service.

(Rouse 2004)

3.2 Principles for pro-poor contracting

Contracting out solid waste management services in itself will not necessarily result in employment opportunities for the poor. However, careful tendering and contracting, and the provision of municipal support can help to maximise benefits to the poor.

Tendering must be accessible to SLSPs. For example, are the tender documents affordable, and could SLSPs meet the eligibility requirements? Some applicant groups may not even be literate. Given that literacy is not necessarily important for successfully operating solid waste management services, it may be necessary to support them in the tendering process.

Setting an appropriate contract term is also important for keeping the balance of competitiveness, stability and for avoiding monopolies. A contract length of around three years will often enable the contractor to cover costs and investments, whilst being short enough to promote competitiveness and thus promoting high-quality service. Where contractors are required to purchase expensive equipment or vehicles, longer contracts may be required.

Research suggests that a minimum of 6000 households is necessary to enable economies of scale to be made in administration, purchase of vehicles and recruitment of a labour force.

Two-year contracts in Aurangabad

Solid waste management services in the City and Industrial Development Corporation (CIDCO) Zone of Aurangabad have been tendered out to private firms since 1976. Contracts for each of the ten zones are awarded to individual SLSPs for waste collection, sweeping and transportation to disposal. Private contractors, employing around 20 people each, may only take on contracts in one zone, so ten separate companies undertake solid waste management. The contracts last two years, and are said to be "long enough" to recoup investment. They are arranged in such a way that equipment such as tractors and trailers can be leased, not bought, which reduces capital outlays. Such an arrangement necessitates a mechanism for monitoring the use of tractors and trailers (for example, to ensure they are not being used for transporting building materials).

3.2.1 Protecting the workforce

It is widely accepted that it is important to eliminate the dangerous and demeaning work of waste picking from roadsides and bins, and to raise the status of waste workers. It is vital that outsourcing does not lead to exploitation and insecure, low-paid employment.

Although it may often be difficult to directly engage the informal sector through contracting, contracts can be written in such way as to ensure that contractors *employ* the poor (preferably those already involved in waste), and treat them fairly.

Contracts can be used to ensure that:

- workers are paid a reasonable wage (e.g. at least minimum wage). This is difficult to enforce. A line of communication could be established between employees and the contracting organisation to ensure that what is written in the contract is actually happening.
- existing workers who stand to be affected by changes to solid waste management are offered employment
- contractors employ 50 percent women in their workforce.

3.2.2 The importance of municipal support

Research and experience show that provision by the municipality of tricycles (for door-to-door collection) and land (for segregation and composting) to SLSPs is essential for the sustainable success of decentralised SWM systems. Employing the poor, who often have limited access to capital, makes this all the more important.

There are many practical ways in which municipalities can support contractors, including:

- liaising with householders to legitimise the new service providers, and promote participation and contributions;
- Clearing the backlog of waste prior to a new service provider starting;
- removing waste from transfer sites everyday, reliably. This is a very common problem and can easily result in failure of a new waste management system.
- providing/helping with the cost of equipment, such as cycle carts. Getting the contractor or employees to contribute towards the cost can give them a stake in caring for equipment and ensuring it is guarded against theft.
- providing land, for example for storage of recyclable materials and equipment, or composting;
- paying SLSPs promptly, in full and as agreed (many smaller contractors may not have sufficient cash reserves to withstand late payments);

- repairing and maintaining infrastructure, particularly transfer sites;
- dealing with any labour issues which may arise, particularly where areas were previously served by municipal employees.

3.3 Double benefits to the poor, and beyond

Not only can the poor derive jobs from collecting and processing solid waste, but also small service providers are often better equipped and more suited to serving low income areas and cities. This is partly because of established links within communities, as well as practical considerations. For example, smaller service providers tend to use more labour-intensive approaches and use carts and wheelbarrows for transporting waste. These are very well suited to the narrow streets of low income areas and slums which cannot be reached by the trucks or tractors often used by larger contractors.

Achieving decent solid waste management in low income areas is important for the poor as well as the wealthy. It is not possible to contain solid waste problems within a low-income area: waste blocks drains which can then backup in high-income areas, vectors such as rats and flies can travel between low and high-income areas, and the cleanliness of cities is increasingly recognised as being not just an effect, but a cause of economic development.

4. Summary

There is a need for a shift in the way informal-sector waste workers are viewed: from despising them as a nuisance to valuing them as a resource, and from treating them as insignificant to recognising them as important stakeholders in developing solid waste management.

Key recommendations:

- Understand the informal sector, quantify and cost its contribution to service delivery, and look at ways of legitimising and regulating entrepreneurial activities.
- When planning urban development projects, learn from existing service delivery mechanisms by informal-sector entrepreneurs and seek ways of working *with*, rather than *against*, existing individuals, businesses and structures.
- Remember that SLSPs have different requirements and skills from larger businesses. Design tendering and contract documents to account for this (i.e., keep them simple, accessible, in an appropriate language etc.) Consider ways to provide support for responding to tenders and business planning.
- Consider simple factors such as contract duration and scope, source of labour and payment of minimum wages to make contracts more attractive and accessible to SLSPs, more beneficial for the urban poor, and better for householders who receive SWM services.
- Acknowledge that urban infrastructure and services development will always impact the informal sector, and that both decision-makers and entrepreneurs may have to accept middle ground.

The informal sector forms a vital part of the 'urban services machine'. There is a need for champions of this message at all levels -- particularly at higher policy-forming levels – champions who believe in the rights of these numerous poor urban entrepreneurs, and are willing to acknowledge these rights.

Acknowledgements

This paper is based on the following publications:

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