



The Waste Experts: Enabling Conditions for Informal Sector Integration in Solid Waste Management

Lessons learned from Brazil, Egypt and India

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- Recycling livelihoods - Integration of the Informal Recycling Sector in Solid Waste Management in India (2008)
Authors: *SNDT Womens' University and Chintan Environmental Research & Action Group*
- The informal sector in waste recycling in Egypt (2008)
Authors: *CID Consulting, Cairo*
- Integration of the Informal Recycling Sector in Solid Waste Management in Brazil (2008)
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1. Introduction

In low and middle-income countries, the informal sector carries out a significant proportion of recycling activity in solid waste management (SWM). For the purposes of this study, the term ‘informal waste workers’ designates people who make a living from waste, but are not formally tasked with providing the service by the responsible authorities.



Several studies have shown that these informal recycling activities have positive effects on the environment, reduce the costs of waste management systems and provide income opportunities for large numbers of poor people. As waste management becomes modernised, privatisation and mechanisation of waste management services are common strategies, and the focus is often on efficient collection and disposal rather than on recovery and recycling of waste. Waste collection systems are often designed in a way that potentially denies the informal sector access to waste as a resource.

These positive effects of informal sector recyclers suggest that the informal sector should be explicitly factored into the design of waste management systems. It is therefore important to analyse the experience of informal sector intervention in waste management in different countries and

regions, in order to inform future planning and decision-making processes. The experience of informal sector intervention in waste management has been very diverse in different regional contexts. In some Asian and Latin American countries, informal waste workers have managed to establish organisations and networks that in some cases have become regular partners of municipal government and private enterprises.

The present study analyses the experience of three countries: Brazil, India and Egypt. It aims to determine the factors for successful informal sector integration in solid waste management systems. This success seems to depend on the capacities of the informal sector to organise and to influence public and political opinion, on the political will to integrate the informal sector and on the possibilities for collaboration with the formal private sector and other actors.

Various political, legal, cultural and social conditions determine the best possible approach to informal sector integration, and local, regional and national contexts must be taken into account. Comprehensive information on possible models of informal sector integration and relevant factors for consideration is provided for decision-makers involved in solid waste management, whether official authorities, non-governmental organisations (NGO) or private sector actors.

2. Why integrate the informal sector?

Advantages of informal sector integration for solid waste management

The official waste management system in many cities could not be managed without their myriad waste pickers, scrap collectors, traders and recyclers. Although not officially recognised, they often form the very basis of waste collection services, in many cases at no cost to local authorities, central governments or residents.

Organically grown informal sector activities are highly adaptable, flexible and able to respond quickly to demand-driven forces. Informal waste collectors and recyclers unrelentingly come up with adaptive strategies to access waste and circumvent barriers while at the same time integrating new systems as they emerge.

The integration of informal stakeholders increases the efficiency of the waste management system. Integrative and decentralised approaches offer advantages in economic, environmental and social terms and are thus seen as being the most sustainable future alternative in many cities.

Environmental advantages of informal sector integration

The informal sector achieves high recovery rates (up to 80%) because the ability to recycle is vital for the livelihoods of the people involved. Consequently a huge variety of recyclables is segregated and can be further processed in accordance with new demands and technological advancements in the recycling industries. A drop in recovery rates was witnessed in Egypt following private sector involvement in solid waste collection, indicating the important role of informal sector involvement for efficient recycling schemes.

By contributing significantly to the recovery of organic waste and non-organic materials that can be used as secondary raw materials or alternative fuel resources, the informal sector also contributes to the reduction of greenhouse gases and thus to the mitigation of climate change.

Economic advantages of informal sector integration

Although informal sector activities very often take place outside official and formal channels, unlicensed and untaxed, they nevertheless contribute significantly to the national economy. Scrap collectors are entrepreneurs who add value merely by collecting and then transforming waste into tradable commodities. New enterprises are formed, trading networks evolve, capital accumulation and investments take place and savings are made in terms of raw materials, transport and energy.



Furthermore, labour and employment generation occurs through informal sector integration. Activities supporting informal sector integration include facilitating credit, skills development and improvements in managerial know-how and marketing to enhance the competitiveness of labour-intensive small-scale activities.

Through these kinds of activities, formerly unskilled workers are educated, new jobs are created and structural disparities are reduced.

All these positive aspects cannot easily be quantified as they take effect at various levels within complex economic networks. Nevertheless, it is clear that the informal recycling economy in solid waste management financially supplements the formal system in many ways.



Social advantages of informal sector integration

Even though the income and living conditions of informal waste workers differ significantly according to their main activities, the majority of informal waste workers (dump and street waste pickers) constitute the lowest level of society. Working conditions are unimaginable and include permanent exposure to dangerous, toxic and contagious substances. Waste pickers are often bitten by dogs, subjected to harassment from officials, exploited by traders and have no legal protection. They live in inhuman and humiliating circumstances and generally lack of sanitary services, health care and social benefits. Child labour is the rule, not the exception, and life expectancy is low. Their task is carried out in the most dehumanising manner, with workers obliged to sort through putrefying garbage to

retrieve the scraps of paper and plastic that will earn them a living.

The departure point for informal sector integration was the endeavour to improve social inclusion and protection. This was initially and exclusively the work of civil rights activists, attempting to help the poorest of the poor.

The integration of the informal sector aims to utilise the entrepreneurial abilities of waste collectors to create business models that can be accommodated within present economic paradigms. Integrating informal sector workers has the potential to significantly improve their living conditions.

In addition, integration of the informal sector can also help to optimise solid waste management services for formerly underserved poor populations. This can contribute to better public hygiene and health conditions.

As will be shown in this study, various integration measures directly affect the basic needs of informal workers and their families and thus contribute to the establishment of dignified working and living conditions and to the loosening of social stratifications.

3. The history and current status of the activities of informal sector workers in solid waste management: three case studies

3.1 Egypt

History

The development of the informal waste management sector in Egypt goes back to the early 1940's, where oasis migrants in Cairo (*Waa-his*) started organising a collection service for household paper, which was then sold as fuel for public baths and local kitchens.

Later on, garbage collectors (Arabic: *Zabbaleen*) appeared in the city of Cairo. They lived in informal garbage villages on the edge of the city and provided residents with a daily door-to-door collection service. Transporting the collected waste to their settlements, they survived on the recycling of the organic fraction, which they fed to pigs and goats. As the *Waa-his* had acquired the traditional right to collect waste and to use it for their purposes, they continued to collect the monthly fees from the residents. Various agreements were formed between *Waa-his* and *Zabbaleen* regarding access to waste, the right to use it and the fees to be paid. All these activities were unofficial with no formal authority involvement.

Up to today the collection itself is the domain mainly of men and children; the task of manually sorting the garbage into separate piles of recyclables falls to the women and adolescent girls who do not accompany their fathers on the garbage route. Upper Egyptian cultural norms dictate that they stay in their neighborhoods in order not to jeopardise family honor.

With the appearance of plastic and metal in household waste, recovery facilities and trading networks for these materials emerged within the *Zabbaleen* settlements. As Cairo grew, so did

the numbers of waste collectors in the neighbourhoods. Nobody organised the system. It grew and evolved organically along with the city and as a result of the adaptability and ingenuity of the informal sector. No laws, ordinances or regulations existed to determine the sector or the service.

In the mid-eighties the *Cairo Cleansing and Beautification Authority* (CCBA) started organising the waste management system of the city and licences were given to collect residential waste from designated areas. Formal private sector companies were given a proper contractual basis for their services, while the *Zabbaleen* as informal sector household operators were left to collect the fees directly from their clients, exposing them to the risk of some residents paying the service fee with others choosing not to. Mostly illiterate, they had to rely on the *Waa-his* or other middlemen as intermediaries to assist them in obtaining licences and organising their small businesses.

Current structure of the informal waste sector

There is a sizeable informal recycling sector, thriving economically and extending across the entire country. It recovers, trades in, processes and re-manufactures plastic, scrap metal, paper, cardboard and bones. Specialised towns and centres for the recovery and trade of specific items developed in the municipal, industrial and commercial waste streams in all Egyptian towns and villages.

The waste collectors sort and recycle around 80-85% of the resources/waste they collect, making a living from recovering, recycling and trading recyclable materials.

They provide door-to-door services for a minimal fee paid by residents and at no cost to the government.

A diversified network of collecting and recycling activities has developed, concentrated in recycling neighbourhoods and integrated in a complex value chain and recycling industry. Besides the waste collectors, roamers buy, trade and exchange recyclable waste items. Waste pickers collect the waste by picking through dumps, landfills and street bins. Middlemen, intermediary buyers and wholesale merchants are also involved in this informal waste system and small enterprises operate with recycling machines, processing machines or maintenance equipment.



The recycling industries in the *Zabbaleen* settlements have developed extensive upstream and downstream links with other informal and formal markets throughout the country. In addition to collecting mixed household waste, they also purchase source segregated waste from commercial and institutional waste generators, as well as roamers, middlemen, etc. These are sold either as end products or as inputs for other manufacturing activities to large-scale industry and informal sector small enterprises. Trading and manufacturing networks have grown to cover the whole country from Alexandria to Aswan. The industry has spawned its own dealers, its own centres of production and recycling,

and its own business culture of credit, trade and finance.

After the privatisation of waste collection and disposal, international and local private enterprises became responsible for the collection, recycling and disposal of waste and the *Zabbaleen* lost access to their main source of income. They continue to intervene selectively, and in certain neighbourhoods where national companies have taken over responsibility for waste collection and sub-contract to *Zabbaleen*. But this collaboration remains very limited and irregular. Private enterprise attempts to engage informal sector workers as waste collectors in companies have not been very successful because the majority of workers leave after a short time. For the moment, it seems as if the privatisation of waste collection services has hindered informal sector integration in waste management in Egypt.

Organisational developments in the informal waste sector

The level of organisation in the informal waste sector is low and is restricted to an organically grown structure of power and exploitation. Some influential *Zabbaleen* obtain licenses for waste collection and let others work for them under poor conditions. The trade market is controlled by few middlemen, who make the largest profit.

A few NGO's have emerged in the informal waste sector in recent decades, promoting the interests of informal workers. The first was the *Association of Garbage Collectors for Community Development* (AGCCD) which was formed in 1983 and launched the first credit program for small and medium enterprise development to introduce recycling of non-organics in an informal neighborhood. The *Association for the Protection of the Environment* (APE), another non-profit, organised a girls' and women's community recycling enterprise based on source segregated cloth and paper. The *Spirit of Youth for Environmental*

Services (SoY) was established in 2004. SoY has made source segregation a primary objective of its mission and has mobilised young people to spread awareness of the practice in schools and community development associations.

Apart from a few NGO's, there are as yet no waste pickers' organisations or cooperatives representing the interests of the poor and voiceless. Internal patterns of organisation are limited to informal social networks and solidarity mechanisms.

3.2 India

History

Waste collection in India goes back to the 17th century, where bones, rags and paper were among the first commodities to be collected. Solid waste management was traditionally the responsibility of municipal bodies. Across the country, the workforce carrying out solid waste collection and transport activities consisted primarily of socially excluded communities on the margins of society.

The caste system in Indian society, which continues to exist, is a determining factor in the solid waste management system. Waste picking, along with any work related to garbage or the handling of carcasses and human excreta is traditionally bound to the lowest caste – the 'untouchables'. From the very beginning, women from these castes have been the only ones prepared to soil their hands and they therefore make up the majority of waste pickers. The men, on the other hand, are active in itinerant buying, with access to capital, relatively better work conditions and therefore marginally better status.

There is historical evidence of the immigration of low caste workers to Delhi during worker shortages to handle waste in the city. Many Bangladeshi migrants and their families have

also worked in the field of waste. Because of their involvement and because of the filthy work environment, the occupation of waste picking has traditionally been held in low esteem by the population and by political decision-makers. The fact that no other social category has been prepared to start waste picking, even in times of poverty and hardship, offered at least some degree of guaranteed job security to waste pickers.



Current structure of the informal waste sector

Nowadays large numbers of people are associated with waste management in India. Researchers estimate that about 1% of the urban population in India is active in the informal recycling sector.

The informal waste sector is socially stratified in a pyramid with scrap collectors (waste pickers and itinerant waste buyers) at the bottom and re-processors at the top. Various actors such as retailers, stockists and wholesalers occupy the strata in between. The majority of retailers are former waste pickers who have managed to assemble some capital and to take up another activity.

Scrap collection is the first stage in the recycling sector and is undertaken by two categories of workers: waste pickers and itinerant buyers.

Waste pickers retrieve paper, plastic, metal and glass scrap from garbage bins or receptacles provided by municipalities for the disposal of garbage on the street, and from landfill sites where collected garbage is transported and dumped. They rudimentarily sort and then sell the collected scrap commodities to retail scrap establishments by weight or unit. Itinerant buyers purchase small quantities of scrap from households, offices, shops and other small commercial establishments.



The retail traders form the top stratum of the scrap trade and are most often located in slums with significant populations of scrap collectors. They have a direct relationship with the scrap collectors from whom they purchase scrap.

Processing and reprocessing industries that source scrap usually exist in both the informal and the formal economy. Plastics and electronic waste are typically processed in the informal sector while paper, cardboard, metals and glass are handled by the formal sector.

There are currently 24 officially recognised waste picker organisations in India, with various levels of contractual and non-contractual relations to the formal authorities. They are formed as cooperatives or associations and are integrated in local source segregation schemes at different levels.

Their tasks vary from door-to-door garbage collection to the management of recycling centres and scrap trading.

Organisational developments in the informal waste sector

Since 1972, efforts have been made by local NGO's to organise the waste pickers, but the results do not yet extend across India. Due to the predominant role of women in waste picking, women's organisations were the first to cast light on waste pickers and their interests. These early approaches encouraged waste pickers to transfer to work less demeaning to their dignity and less hazardous to their health. The key activities were formation of cooperatives for contract cleaning and housekeeping, collection of waste paper from government offices and institutions and trade in waste paper.

In 1990 the *Project for the Empowerment of Waste pickers* of the Women's University in Pune in Western India started organising waste pickers around their work issues. Amongst other initiatives, the project issued identity cards to waste pickers and promoted source segregation of waste and its door-to-door collection by waste pickers.

In subsequent years waste picker organisations were formed in Delhi, Bangalore and other cities, based on the understanding that waste pickers have a customary right to recyclable scrap and asserting that waste pickers' livelihoods could best be protected and enhanced by promoting source segregation of waste and its door-to-door collection. All of the organisations underscored the value and the work of informal sector waste recyclers.

The projects had the following principal aims:

- to integrate waste pickers into community based, decentralised solid waste management;
- to promote the contribution of waste pickers to reductions in municipal waste handling costs, resource recovery, environment conservation, recycling and economic productivity;
- to improve work conditions and livelihoods rather than transferring waste pickers into other occupations.

Subsequent developments in the following years led to the formation of different waste management initiatives and included engaging in dialogue with waste generators to enable them to understand the relevance of involving waste pickers in emerging waste management initiatives.

As a result of their increasing involvement, a *National Alliance of Waste Pickers* was founded in 2005. The various organisational support efforts collectively led to high levels of integration of informal waste pickers into the solid waste management system in various cities. In Pune, for example, waste pickers have been authorised by the municipal government to provide household waste collection, providing them with direct access to recyclables.

3.3 Brazil

History

In Brazil, waste pickers traditionally collected organic material in order to feed animals. They lived in informal settlements all over the country, with shacks for homes, surviving by garbage picking and pig farming.

Waste recovery later evolved to include recyclable materials such as plastic waste, scrap metal etc. For decades this informal collection of

recycling materials has taken place in two main ways: 1) street waste picking activities by street dwellers using trash bags found on the curb or taken from offices and shops; and 2) waste picking at open dumps in major cities.

Due to the lack of storage space for their material and/or the lack of money to travel home after a working day, street waste pickers were forced to live in improvised cardboard shacks since they could not leave their material unguarded. Therefore, public space was simultaneously being used as a workplace and a home, causing many problems for urban cleansing. Being seen as people who 'dirtied the city' with their activity, treated as 'part of the rubbish', those working in the streets were frequently expelled from the curbs to beautify the city and their materials were often confiscated. However, waste pickers working at the open dumps were socially 'invisible' as their activity generally takes place out of sight on the periphery of the cities.



Current structure of the informal waste sector

There is extensive experience of waste pickers organising and establishing formal relationships with municipal and national governments. After an initial period of mutual mistrust and conflict, various functioning models of cooperation and partnership between waste picker organisations and formal authorities have evolved.

Meanwhile countless cooperatives have been founded nationwide, where waste pickers are formally organised and a strong network of multiple stakeholders has evolved, strengthening the voice of these informal recycling workers as economic actors in solid waste management.

This has resulted in the formation of municipal recycling scheme partnerships between many waste pickers' organisations and local governments. Relations are regulated with specifically designed contracts, covenants and arrangements, always according to local circumstances. In some cities, recycling is formally assigned to cooperatives of informal recyclers and recycling centres, often subsidised by the municipality and sometimes combined with public-private-partnerships. In other cases, support comes from federal agencies or international donors. Source segregation schemes have been initiated in some cities, either at household level (door-to-door) or with drop-off systems in public areas. The recyclables are collected by the municipality or by private contractors and transported to the waste pickers' recycling centres for further sorting, baling and commercialisation.



Cooperation between waste pickers' cooperatives or associations and municipalities, local governments and the private industry takes place at various levels, depending on the specific political and legal context.

In some cases waste pickers' cooperatives even make arrangements with big waste producers to collect the recyclable part of the waste.

In spite of the fact that waste pickers have organised into formalised cooperatives, there is still much to be done before these cooperatives represent protected employment for their associates. Waste picking in Brazil nowadays can therefore be seen as a kind of semi-formal activity.

Organisational developments in the informal waste sector

Brazil has a long history of social activism in social life. This, along with the strong influence of the Catholic Church on charity and care for the poor, might account for the development of highly-developed forms of organisation within the informal waste sector. In the 1970's, the Church (and its NGO's) implemented its first projects with street dwellers in the streets of the main Brazilian urban centres. Among the street dwellers, social agents identified a sub-group that carried out waste picking activities on a frequent basis and saw the potential for organisation.

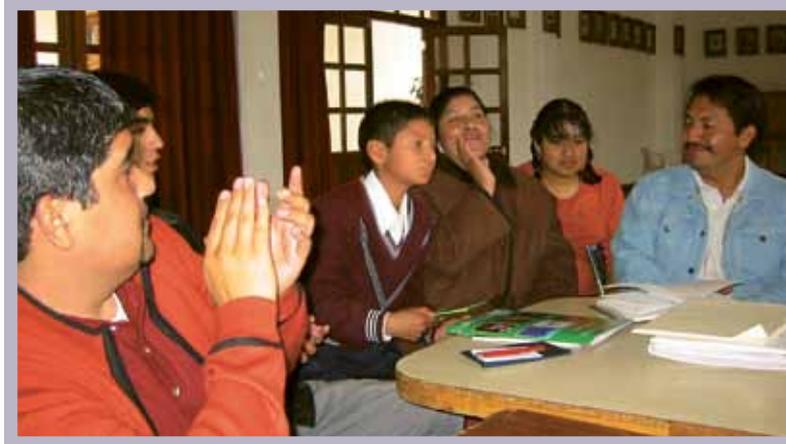
This eventually led to the formation and foundation of the first organisations of waste pickers during the 1980's (Porto Alegre, 1986; São Paulo, 1989) resulting from socio-pedagogical work carried out by Catholic Church organisations. In São Paulo the newly founded *Coopamare* became involved in the first ever partnership between waste pickers and local government, with the municipality providing many incentives that helped the cooperative's development.

In Belo Horizonte the *Waste Pickers' Association* (ASMARE) was founded in 1990. The main demands of the waste pickers at that time were for the right to work collecting recyclables in the city and for an appropriate place for sorting.

Along with the first official source segregation programs the City Government entered into a comprehensive partnership with ASMARE that not only provided the necessary incentive for its growth but also contributed to its local and national visibility.

This experience of partnership between a waste pickers' organisation and a municipality became a 'model' of the potential within the solid waste management field for the social inclusion of waste pickers in local government recycling programs and inspired many municipalities within the country.

In 1998, under UNICEF leadership, a national forum called *Waste & Citizenship* was launched with the aim of eradicating child labour at open dumps, recovering degraded disposal areas and developing sanitary landfills, as well as promoting partnerships between municipalities and waste pickers. This forum helped to give more visibility to the social and environmental importance of the work of the waste pickers and also brought existing cooperatives and associations into the spotlight. This visibility had a nationwide impact, inspiring other groups of waste pickers to get organised and creating a basis for social activism.



These activities paved the way for the creation of a national movement, which began with the 'First National Congress of Brazilian Waste Pickers' held in 2001 and supported by various public, non-public, national and international organisations. In the wake of this, the '*Movimento Nacional de Catadores de Recicláveis – MNCR*' was created, sowing the seeds for interaction between waste pickers' movements across the continent and the formation of the first *Latin-American Congress of Waste Pickers* in 2003.

4. Success factors influencing the integration of the informal sector in solid waste management

When considering the success factors for informal sector integration in solid waste management systems, it is important to distinguish between internal factors enabling informal workers to be active in solid waste management over a long period and factors that further the sustainable integration of the informal sector in official solid waste management systems.

The primary characteristic of the informal sector is that even in a context unfavourable to their activity, informal waste pickers and recyclers

remain active in waste management as long as they earn an income from it, however small. But in a development approach that attempts to strengthen informal sector integration in solid waste management, the objectives being pursued are: 1) to improve the working and income conditions of informal sector actors and 2) to give them the longest-term perspective possible as waste management actors. This requires a minimum of official recognition and organisation of waste pickers. It does not mean however that the informal sector has to be fully formalised.

Enabling conditions for integrating the waste informal sector

Integrating the informal waste sector depends on many factors. The four major enabling conditions relevant for promoting the integration process are:

1. **VOICE** - The organisation of informal sector workers into membership-based bodies accountable to their members and the representation of these organisations in relevant policy-making institutions.

Organisation is a precondition to integration.

2. **VISIBILITY** - Official recognition of the economic contribution of informal sector workers, resulting from improved labour force and other economic statistics and from policy research.

The demand for integration has to be substantiated.

3. **VALIDITY** - Legal identity and formal recognition of informal sector workers and their membership-based organisations.

Integration has to be backed by political power.

4. **VIABILITY** - The commercial viability of the informal waste sector is the single most important reason informal waste enterprises continue to flourish under existing competitive market conditions.

Economic autonomy supports Integration.

4.1 Internal organisation and capacities of the informal sector

The capacity to structure their activity and comply with regular working hours enhances informal actors' potential to act as a contracting partner for municipal governments and formal enterprises.

In many places, informal sector workers in solid waste management are not part of a regularised business environment, but work autonomously, pursuing several parallel economic activities and are thus not regularly active in solid waste collection and recycling. In initiatives to fully integrate informal waste collectors into waste collection enterprises, the drop-out rate was high and waste pickers either lost their income opportunities or returned to individual waste picking activities in poor working conditions. Because of the unsteady nature of informal worker activity in waste management, these workers are sometimes perceived as unreliable service providers for waste collection services.

Informal sector workers can position themselves as regular service providers by organising themselves in cooperatives and other structures able to provide a regular collection service, independent of the workforce of individual informal sector workers. The use of near relatives as replacements for waste pickers who are irregular in their waste collection has been successful in India. This organisational ability and entrepreneurial capacity is important also in recycling activities, in order to establish regular business relations with the administration and clients in the manufacturing and export sectors. Cooperatives of waste pickers are most durable when they take into account the specific working habits and conditions of waste pickers but nevertheless create a minimally structured environment for reliable business partnership.

The entrepreneurial capacities of informal sector workers and organisations are an important factor in the sustainability of informal sector intervention.

In Egypt, the private sector has explicitly cited the lack of organisational structure of the informal sector as a reason for insufficient collaboration, pointing to the lack of interlocutors for the negotiation of arrangements. The informal sector organisations created in Egypt have been unable to fulfil this role because they are dominated by a small number of individuals and have not evolved into powerful advocacy organisations representing the interests of the informal sector.



By contrast, in India and especially in Brazil, influential waste pickers' organisations have evolved over the last three decades, resulting in some crucial advantages:

- A cooperative or association, as an officialised legal or semi-legal body, can act as recipient for contracts or covenants with the municipality and represents a form of security for any joint project or initiative;
- Waste picker organisations can be strategic actors, participating in committees, working groups and forums and thereby representing waste pickers' interests;

- As social activists, cooperatives can be involved in protests, social marches and other projects to raise public awareness.

Flexibility is an important asset offered by informal sector workers in solid waste management. Compared to formalised waste management

companies, they are able to adapt rapidly to changing waste management and market conditions. In this way, informal sector workers have different supply mechanisms (itinerant waste buyers purchase waste from households; informal waste collectors supply collection services in return for access to recoverable waste fractions;

The SWaCH Cooperative in Pune, India

The SWaCH (Solid Waste Collection and Handling) cooperative of waste pickers and other urban poor was established in 2007 to provide doorstep garbage collection services across the city of Pune. It was designed as a professionally managed service delivery organisation within the broad framework of developing models that are inclusive of the poor. SWaCH operates in the area of waste management that includes collection, resource recovery, scrap trading and waste processing. It is therefore an autonomous entity but its operations are being financially supported by Pune Municipality (PMC) for a period of five years, during which it is tasked with exploring revenue sources and becoming an independent income-generating entity. The PMC is committed to supporting the management, equipment, infrastructure costs and certain welfare costs during the start-up phase. User fees are to be recovered from service users. The user fees and income from the sale of recyclables will constitute the earnings of waste pickers.



Structurally, the governance arm of SWaCH comprises 14 waste pickers/collectors, 2 PMC representatives and 1 representative of the KKP KP cooperative. The management arm of SWaCH is headed by a Chief Executive Officer, supported by a team of staff for operations, administration and finance, marketing, customer care and relations, management, information systems and data management. Provision has also been made for technical consultants in areas including citizens' education, management information systems, composting and biomethanation.

Currently the SWaCH Cooperative is present in 127 out of 144 sub-units in all 14 administrative wards of the PMC. 1,500 waste pickers have been formally integrated and service 200,000 households.

waste pickers are active on the streets, at transfer stations and at final disposal sites). Having faced problems in their household waste collection activity, some informal recyclers' organisations have sought regular agreements with big waste producers such as supermarkets, where they collect recyclable waste.

In the same way, informal recyclers adapt to marketing options for recovered waste fractions and recycled products. In order to diversify marketing options and thus improve flexibility vis-à-vis the market, the development of pre-processing and recycling techniques is an important element in developing informal recyclers' activities.

The creation of self-confidence and trust between informal sector workers is a precondition for organisation in cooperatives or small enterprises, an important factor to establish regular relations with the local government and the private sector.

People working in the informal recycling sector often have a long history of exploitation and oppression. They have not learned to trust each other and organise in a common front, with common opinions and views for negotiation purposes and they are wary of being dominated. Consequently, only if there is trust among the persons involved and clear rules for the creation of cooperatives, for example, can the organisational structures be sustainable and equitable.

Furthermore, informal sector workers are at risk of being dependent on powerful collaborators in order to earn their income. Efforts to organise the informal sector must therefore be particularly careful with regard to attempts by the more powerful groups among the informal sector to abuse support or regulation efforts for their personal interests.

4.2 Participation of NGO's in the integration process

The first steps in the bottom-up organisation of waste pickers have always been taken by NGO's. In India this has have mainly been women's activist associations, while in Brazil the Catholic Church (and its NGO's) have been the first to support the formation of waste picker organisations. This has led in both countries to the development of larger cooperatives and associations representing waste pickers' interests and giving them a voice. In Brazil these institutions backed the development process that ultimately resulted in the creation of the National Waste Pickers' Movement. In Egypt the main developments in strengthening the informal sector and supporting its self-organisation were also fostered by various NGO's.



NGO's often create crucial links between the formal and the informal private sector.

NGO's can provide technical expertise, financial and legal support and advisory services. Due to their humanitarian approach, they work without self-interest for the development of waste pickers and can therefore be trustworthy and accepted partners. They can reduce distrust between the formal and the informal sector and between

Fostering grass roots developments in the waste system through NGO's - An example from Egypt

The *Association for the Protection of the Environment* (APE) was registered in 1984, and started operating its first project - a composting plant - in 1987. The Rag Recycling Centre was launched in 1988 followed by a Paper Recycling Project and other initiatives. The NGO is governed by a nine-member all-volunteer board, which played an active role in project implementation for the first seven years. It has now trained a staff of 65 people from the neighborhood to manage projects.



While the urgency of living conditions of the people living in garbage neighborhoods drove APE's projects towards welfare development approaches, the NGO also simultaneously piloted certain critically important projects, which today represent the seeds of what might be an appropriate, efficient, culturally and locally responsive system for Cairo's waste system. This would include the informal sector, most notably source segregation of household waste into wet and dry. Although implementation of source segregation did not actually take place as a result of the pilot projects, valuable information was obtained regarding communities' reactions towards source segregation.

For women in garbage neighborhoods, A.P.E. established community-based Paper Recycling Enterprises. They receive paper which has been source segregated in offices, businesses and university campuses in various parts of Cairo. This is clean, unsoiled and ready to be turned into handmade craft paper.

Besides this, the Rag and Paper Recycling Centres designed and delivered further income-generating initiatives for adolescent girls and women in the informal sector. It focused on 1) lifelong learning skills to empower future mothers; 2) building capacity among girls and women involved in the manual sorting of municipal household waste in Cairo; 3) creating working conditions for the recovery and recycling of man-made waste with dignity; and 4) empowering adolescents and adults to participate, as literate adults, in community and society. These projects continue to create jobs and generate income for girls and women.

Individual cash contributions and expertise given on a voluntary basis helped establish the centres. Revenues from the recycling enterprise and capacity building for the management of these enterprises has helped them become fully self-sustaining.

socially excluded waste pickers and the general public and can thereby serve as arbitrators and process facilitators.

On the other hand, experience from Egypt shows that mere representation of waste pickers by NGO's might not be a sustainable solution for informal sector worker integration. In negotiations with multinationals responsible for waste management in the city of Cairo, the *Association of Garbage Collectors for Community Development* (AGCCD) acted as mediator and granted the right to distribute labor and concessions to routes to the same influential middlemen who had negotiated independently with the multinationals. The NGO became co-opted by powerful men in the neighborhood and no longer represented the interests of the poor and the voiceless. As a result, this incident led to a serious erosion of trust between the informal recyclers and their organisation.

4.3 Social acceptance of informal sector workers

Coming from the lowest social level, waste pickers in all cultures traditionally have a bad reputation. To promote the integration process, which can only proceed in step with public opinion, the widespread public idea of waste pickers as vagabonds and criminals must be changed into a perception of them as environmental agents and valued partners, acting together towards common goals.

Creating a more positive public and political attitude towards waste pickers through civil society campaigns promotes informal sector integration.

Experience shows how essential public debate can be for the integration process. Both in India and in Brazil, the development of informal sector integration has been accompanied by various measures attracting public attention, such as

protest marches, the public dedication of new projects or recycling centres and the celebration of newly formed partnerships.

This kind of public attention and respect acts in two ways. On the one hand, social recognition and acceptance of informal sector activities is stimulated and the integration process is thus facilitated. On the other hand, through belonging to a socially upgraded group the integrity and self-assertiveness of the waste pickers improves due to enhanced social acceptance, along with an increased willingness to adapt and become organised.

In India, as well as in Brazil, the media, as an important stakeholder in the system, has played a significant role in placing waste pickers and solid waste management issues in the public arena and thereby promoting the dissemination of information and informal sector integration.

Increased public attention changes the attitudes of politicians, officials (e.g. police officers) and the general public (through information campaigns in schools etc.) towards waste pickers. Changed attitudes contribute significantly to establishing support schemes and the formalisation of informal workers in waste management and professional informal sector recycling enterprises. This advocacy for the informal sector includes networking with financial institutions and other support agencies to present informal sector organisations as respectable business partners. As a result the frequent problem of insufficient capital for informal waste workers can be addressed.

4.4 Political will to integrate the informal sector

Political will to integrate the informal sector is one of the major factors defining the level of integration being reached. It is both a matter of national policy – of respective laws and regula-

tions – and a question of underlying attitudes towards informal sector activities in general. It is also determined by the willingness and creativity of local decision makers, using the space within existing regulations to create initiatives with the informal sector. These can establish precedents, which can later be codified into law. Experience, especially from India and Brazil, clearly shows that the constitution of adequate legal structures and the process of informal sector integration go hand in hand, each affecting the other.

The development of legal structures must occur alongside the development of social, organisational and technical structures.

The legal basis for informal sector integration into solid waste management is crucial to its implementation. The adaptation of laws, orders, regulations and bylaws at federal, state and municipal levels to the requirements of a successful integration process paves the way for further developments. In the process, various aspects have to be taken into account, the diverse stakeholders have to be addressed and existing framework conditions have to be acknowledged.

National Policy

Federal laws, orders and regulations have a strong influence on the integration process as they form the legal basis upon which local solutions are designed.

In India, for example, the legal framework is generally enabling in making provisions for incorporating the informal sector in solid waste management. The Indian experience also shows that the legal implementation of informal sector integration is a learning process.

The Municipal Solid Waste (Collection and Handling) Rules were issued in 2000 under a federal act. The rules not only acknowledged the importance of waste segregation and recycling,

but also made it obligatory. Yet despite the vital role of the informal sector in the segregation and recycling of solid waste, it was not mentioned in the legislation. Various problems occurred as a result. Waste pickers had to compete with incinerators for waste of high calorific value. Municipalities outsourced door-to-door collection to large corporate players, thereby displacing the waste pickers. Ultimately, the Rules failed to link solid waste management policy to existing good practices such as segregation and recycling by informal sector actors.

A few years later, in 2006, a national law mentioned the informal sector for the first time. The National Environment Policy contained clauses strengthening the capacity of local bodies for segregation recycling and giving legal recognition to informal sector systems.

In Brazil, due to the long history of waste pickers' organisations and their political recognition, various federal laws now explicitly mention the interests of waste pickers and thereby promote their integration in the official waste management system.

A good example is the establishment of a reverse logistic system, making the generator responsible for the destination of the product after the consumption, thus ensuring the return of recyclables to the productive chain. This leads to an increase in waste picker activity, as their participation in the reverse logistics system is mandatory. To this end, fiscal and financial incentives must be made available for recycling industries and for the development of regional programs in partnership with pickers' organisations, in addition to financial support for the structuring of these organisations.

Another example of the strong influence federal laws can have on local circumstances is the renewal of a law that established the national guidelines for basic sanitation in 2007. It makes

bidding unnecessary for the hiring of solid waste pickers, which means that picker associations and cooperatives can be directly hired by municipalities to perform selective collection and can thus be paid for the service rendered.

Political influence can be exerted at various levels. In countries with a federal structure, state laws can either enforce integration of informal sector workers or obstruct it.

In the state of Maharashtra in India for example, the presence of mass waste pickers' organisations in Pune, Mumbai and other cities resulted in state orders to municipalities, directing them to issue identity cards to waste pickers, to allot the work of collecting waste from homes, shops and market places to organisations and cooperatives of waste pickers and to launch such organisations where they did not exist. Municipal initiatives all over the state were greatly strengthened by this.

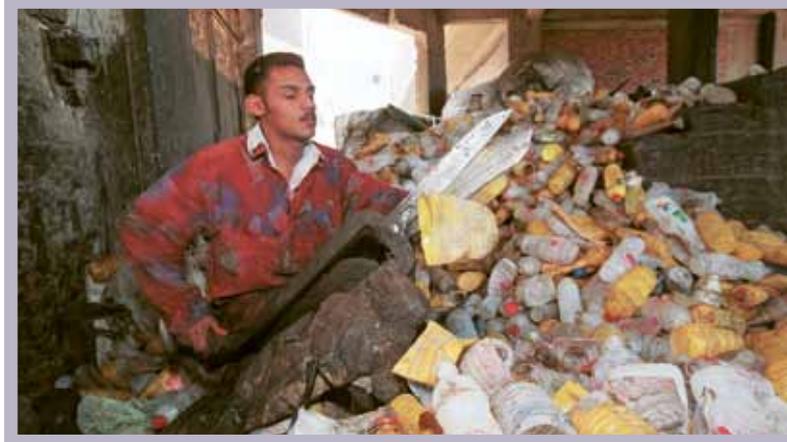
In Brazil, the federal district of Brasilia recognises organised waste pickers as the beneficiaries of the material generated in the state buildings. It determines the implementation of selective collection in all the administrative regions of the district and also dictates the destination of the materials to the waste pickers.

These examples highlight the potential for advocating informal sector integration, using different political approaches and from different angles.

The municipality as the body responsible for solid waste management services

In most cases municipalities are responsible for the management of solid waste management services. It is at local level that waste arises, waste pickers live and source segregation schemes have to be implemented. Political will to integrate the informal sector at municipal level involves both a commitment to accord minimal legal pro-

tection measures and a willingness to establish direct contractual or covenant relations with informal sector organisations.



In Egypt waste pickers are not yet fully organised in cooperatives (apart from in a few cases), so there is no official contractor to deal with at municipal level. Only small registered enterprises or middlemen can officially be contracted and thus act within the system. There are municipal laws regulating the treatment of informal settlements but not the integration of informal workers. Consequently formal relationships between municipalities and the informal recycling industry are very limited.

By contrast, Brazilian municipalities enable the drafting of contracts and covenants with waste picker cooperatives on a large scale, e.g. comprising entitlements to receive recyclables collected by the municipality, the rental of recycling centres and the provision of operational support. Municipal laws decree that the collection and sale of recyclable material should preferably be done by cooperatives or that collected material should preferably be destined for formally organised and registered waste picker groups. Others mention waste picker organisations, along with other institutions, as a priority for the establishment of partnerships and raise the possibility that revenue generated could be channelled to these very organisations. In general, this kind

The source segregation scheme of Santo André (Brazil)

Santo André is one of the municipalities making up the Metropolitan Region of São Paulo and has 650,000 inhabitants. In 1997, the municipality began to implement an integrated approach to solid waste management, and in 1999 introduced a source segregation scheme for the collection of plastic, paper, metal and glass.

The municipality took the lead and formed two waste pickers' cooperatives, along with a five-year incubation (training and capacity building courses, monitoring and follow up activities by advisors etc). Both cooperatives have around 100 members and are fully integrated in the municipal recycling scheme.



The scheme is based on a system of wet and dry collection. When it was started (1999), it covered 7% of the households and gradually reached 100% of households by 2000. Initially, it was a 3-2 system, i.e. collection of organic matter 3 times a week and twice for recyclables. Now the system adopted is 3-1-1, three collections of organic, a once-weekly door-to-door collection of recyclables and a once-weekly collection from drop-off containers: there are 593 points in the city chosen to be within a 300 m radius of each other (GPS technology is used to select sites).

Collection of recyclables is done by a private contractor taking the material to the two cooperatives for sorting and baling and further commercialisation. The source segregation scheme collects around 350-400 tons per month. The cooperatives each operate their own recycling centres, both in the area where the city's sanitary landfill is built.

Besides their involvement in the recycling scheme, some of the cooperative's members are responsible for collecting garbage (and recyclables) in the narrow streets of the city's shantytown. Refuse collected is taken to big containers from where it is picked up by a truck. The quality of recyclables coming from this scheme is significantly better as the cooperative's members work directly with the population being served, so that some environmental education is carried out on the spot as to improve source segregation.

of legislation suggests a formalisation of relationships between public cleansing agencies and waste pickers.

The establishment of direct contracts between informal sector organisations and local governments in Brazil has also been facilitated by a general trend towards re-democratising local governments and the clear commitment of state institutions to act as catalysts for social development. This approach includes the subsidies paid to informal sector recycling centres in Brazil, based on the concept of 'positive discrimination' towards a traditionally disadvantaged social group.

Many informal waste workers are immigrants or have never received official identity documents, and this personal insecurity is open to abuse by police or officials. Such harassment can be reduced by the provision of identity cards. In Pune, India, for example, this measure, conducted by the municipality, has facilitated the establishment of informal waste pickers as an accepted part of the waste management system. In Egypt on the contrary, complicated formalisation

procedures have initially been abused, subjecting informal recyclers to fines and bribes.

Legal protection measures for waste pickers (identity cards, land property rights etc.) facilitate the organisation and professionalisation of waste pickers' activities.

Lack of land ownership is an important problem for waste pickers in all countries. Many families working in waste recovery live on or near landfills and are always at risk of being evicted. In Cairo, various informal recycling settlements have been completely dismantled many times. Arrangements with the authorities on temporary or permanent rights to settle in a certain area can contribute significantly to improving the working and living conditions of the informal sector and regularising their recycling activities.

Although the professionalisation of informal sector recyclers is an important precondition for their successful integration in solid waste management systems, an approach that focuses

Problems with irregular middlemen and autonomous waste pickers

A phenomenon witnessed in many cities in Brazil was the increase in the numbers of autonomous waste pickers in later integration phases. After cooperative waste pickers were encouraged to leave the streets in order to work at the recycling centres, waste picking became an attractive option for the unemployed, driving more people to street waste picking and thereby affecting the cost recovery of the recycling programs.

A possible solution to this development would be to impose stricter rules on irregular intermediary recycling centres. Circumvention of middlemen is one of the main challenges to the sustainability of informal sector organisations, so that profits can be fully enhanced and utilised in favour of their members. This applies especially to those cities where waste pickers' organisations also organise networks for collective commercialisation and/or for processing of recyclables for value aggregation.

Identity cards for waste pickers in Pune (India)

In India the issue of identity cards for waste pickers was a striking landmark in the process of informal sector integration. It was initially pursued by the Municipal Corporation of Pune (PMC), where the first identity cards were endorsed in 1996.

The long struggle to reach this point was supported by arguments about the contribution of waste pickers to reductions in municipal waste handling costs, resource recovery, environment conservation, recycling and economic productivity. The demand for recognition found a voice at public demonstrations, protest marches and sit-in demonstrations at which thousands of women were present. The media rallied around, faithfully reporting every event and transmitting the message to the bureaucrats, politicians and the public at large.



The endorsement procedure was simple. Every member of the cooperative filled out a registration form and was issued a photo-identity card confirming his/her identity as a scrap collector. The members paid the cost of the card, which was essentially a membership card and had no legal backing.

The terms of their endorsement specified that the card holders were self-employed waste pickers and authorised them to collect scrap in the city, that the holders were not employees of the PMC and that the card was issued merely for identification purposes. The card was not transferable and children below the age of 18 years were prohibited from involvement. Although the PMC endorsed identity cards had no legal basis, cooperative members used them for various official purposes as follows:

- They were accepted by the lower courts as surety;
- They were accepted by citizens as surety if the itinerant waste buyer did not have enough capital on hand to pay for the scrap;
- They were accepted by police as proof of gainful occupation.

The endorsement of identity cards had an effect on various levels. Waste pickers began to see themselves as workers, not scavengers, increasing their sense of dignity and their self-assertiveness. Moreover, harassment from the police and municipal workers progressively decreased and waste pickers became much more socially accepted.

on income generation for poor groups should not only concentrate on small groups of actors organised in cooperatives or small enterprises.

Integration of the informal sector in recycling schemes has to maintain a balance between professionalisation (formalised organisational structures, efficient recycling techniques) and an open system that provides an income to large numbers of unskilled workers.

Support activities must bear in mind that a far greater number of people will continue to intervene in a non-organised manner and might even constitute competitors to newly organised informal sector actors in searching for recyclable materials (e.g. in Brazil). Establishing organised value chains and franchising systems with actors who are organised to a lesser or greater degree, might therefore constitute a solution to the problem that the whole waste recovery chain is difficult to control. The establishment of regulated prices for recyclable materials paid by recycling cooperatives would already constitute a significant improvement in income for actors that continue to work individually in waste recovery.

A waste management systems design that facilitates recycling (separate collection schemes, possibilities for recovery and transport of recyclables to informal sector recycling plants etc.) is important for the successful integration of the informal sector.

The waste management system foreseen by the municipality should include measures guaranteeing regular access to waste for recovery. These can either be created by informal sector groups themselves or by official government arrangements. There is no one exclusive way to do this.

In Egypt, informal sector workers traditionally assured access to waste by providing collection services to the households even if they used only a part of the collected waste. In the context of coexistence with municipal or private collection services, informal sector recyclers have developed various strategies to ensure such access.

One solution might be the introduction of separate collection schemes whereby the informal sector collects the recyclable fraction. But even when cooperatives carry out collection services, they cannot be sure that individual informal sector workers will not sort out valuable material before the collection teams pass by. Other options include arrangements whereby the private sector delivers the recyclable fraction to informal sector recycling centres (Brazil). Regulations decided by the municipality can support these arrangements with the private sector. Some cooperatives also arrange separate contracts with big waste producers such as supermarkets to ensure regular provision of recyclables.

4.5 Collaboration with the formal private sector

In the context of privatised waste collection services, there are many sources of potential conflict between the formal waste collection enterprises and the informal sector.

Seeking convergent interests/complementary action between formal sector enterprises and the informal sector can strengthen the position of informal sector recyclers.

If the informal sector also provides collection services, they might constitute business rivals for formal enterprises that will collaborate with municipal government to combat informal waste collection. But even if the informal sector does not provide collection services, competition with

Coalitions between waste pickers and multinationals to prevent brand name fraud

In Egypt, the trading of fraudulently packaged products has grown around numerous brand name containers. A thriving market for them has arisen owing to the revenue generated by selling them to fraudulent refillers. The trade in recovered brand name containers has become so organised and specialised that it has influenced the manner in which garbage collectors sort waste. Containers with intact labels and lids are sold to important middlemen living in the garbage collectors' neighbourhood and specialising in selling to the re-fillers/wholesalers, who in turn use outlets in popular markets to sell the fraudulently refilled items.



In 2003 the informal sector recyclers partnered up – through their *Spirit of Youth* (SoY) NGO - with the shampoo multinationals to beat the fraudulent market by operating as a buy back centre for empty containers before they left the garbage collectors' neighbourhood. Children who had been deprived of an education were enrolled in the buy back centre, which operated as a multigrade, non-formal school whose curriculum revolved around recycling and granulating the recovered empty containers. Reading, writing and arithmetic as well as computing were woven around the empty containers. Learners were paid for each container they delivered to the 'school' run by the *Spirit of Youth* NGO in their neighbourhood and the two multinationals involved each paid for containers of their own brand that the children had purchased from garbage collector neighbours in the area. Contracts were drawn up between the NGO and the multinational shampoo companies.

the formal sector may arise. If the formal sector is paid per ton disposed at the landfill or if it is itself involved in recycling activities, it will have an interest in collecting the largest possible quantity of waste and will try to prevent the informal sector from diverting waste from the waste stream. But there might also be points of common interest, where for example a privatisation contract between the municipality and the formal sector includes a quota for recycling the

collected waste and where the informal sector has the option of disposing of waste at its own recycling facilities. Where a formal enterprise is not paid according to the quantity disposed and is not interested in recycling, the interventions of the informal sector are also beneficial to formal collection enterprises because they reduce the quantity of waste to be transported and thus reduce transport costs.

Establishment of regular business relationships with recycling and productive industry improves income opportunities of informal sector workers.

In order to receive regular income from recyclables and recycled products, informal recyclers need not only to make arrangements with the formal waste collection sector, but also with their clients, the buyers of recyclables. This may

be the export sector that sells recyclables to companies abroad, but also local firms involved in recycling or productive industries using recyclables in their production. Often, these industries are interested in recyclables, but do not perceive the informal sector as a partner that can provide regular input in recyclables. If informal sector organisations manage to establish regular business relationships with these industries, they improve the stability of their income base.

5. Recommendations for informal sector integration in solid waste management

Given the differences between countries in the nature of the informal sector, the socio-ecological-political environment in which it operates and the heterogeneity within the sector itself, it is very difficult to formulate a general and transferable strategy for the pursuit of informal sector integration.

On the other hand many recommendations mentioned here apply across the board, describing basic relationships and interdependencies in the waste management sector, irrespective of the cultural background.

Hence, a proper sector analysis, taking all relevant actors and circumstances at local, regional and national levels into consideration, is a vital prerequisite for any strategy development. It will require concerted, committed and consistent effort on all possible fronts to successfully implement informal sector integration into solid waste management.

This is an attempt to build upon the experience of India, Egypt and Brazil. Although this list of recommendations might not be exhaustive, it can at least be used as a starting point in the

journey towards a deeper understanding of this complex topic and its various implications.



Promoting pilot projects and personal involvement

In most countries the integration of the informal sector in solid waste management is a relatively new area for all stakeholders. In most cases there are no existing norms and conventions and sometimes not even any experience to draw on.

The starting point for informal sector integration has always been the implementation of

single pilot projects paving the way for further developments. Creating initial results, raising public attention, describing the field of opportunities – such practical results at local level can be a powerful inspiration to others. They can show that change is possible and value can be created in many ways and can thus act as catalysts for further integration efforts.

History shows that it is always people in key positions that make a difference: charismatic and strategic leaders provoking developments, overcoming bureaucratic hindrances and inspiring others. Politicians, union activists, NGO chairmen or private sector CEO's - proactive leadership is possible at all sectoral levels.



Documenting informal sector contribution to solid waste management

Studies that quantify the contribution of the informal waste sector to reductions in municipal waste handling costs, environmental costs, poverty alleviation, downstream employment generation and health costs need to be undertaken to support the demand for integration. In order to be sustainable, integration models must establish statistically that the costs and the ensuing benefits are worthwhile.

Creating public awareness

Public relations activity is important in improving public attitudes towards informal sector activities. In collaboration with the media, PR can highlight success stories and help to improve the reputation of waste picker organisations. Public awareness campaigns can accompany municipal source segregation schemes and the development of waste picker organisations.

Encouraging municipalities to actively pursue local informal sector integration

Municipalities play a critical role in the integration process as they are generally the official providers of waste management services. The creation of linkages between informal sector initiatives, municipal departments and decision makers and the alignment of their activities is therefore highly recommended.

Increased involvement from urban planners, waste management specialists, government officials, business development providers, technology innovators, social scientists, and the business sector is required to tackle the complex and interrelated aspects of urban management. Improved participatory city planning methods are a vital prerequisite for sustainable informal sector integration.

NGO's can be important players in the process of informal sector integration, acting as initiators, advocates and intermediates. NGO's can be supported in various ways, e.g. partnerships of all kinds, participation in official decision-making processes or formal acknowledgement of specific projects.

Specifically, municipalities can promote informal sector integration in various ways. They can:

- Recognise waste pickers as important actors in the recycling chain;
- Develop a functioning source segregation scheme;

- Recognise and provide incentives for the informal waste sector through excise, tax and other concessions;
- Constitute boards or forums with equal representation of waste pickers, traders and government officials;
- Register all waste pickers and itinerant buyers and find ways to provide contributory social security;
- Create a clear legal and policy framework for informal waste sector integration;
- Favour informal sector organisations in the contracting process by simplifying contractual terms;
- Provide low-interest loans to organisations of waste pickers seeking to bid for tenders and contracts;
- Reserve waste collection and small-scale processing for small and medium of informal waste collection enterprises;
- Reserve land in development plans for decentralised processing of organic wastes;
- Reserve space for recycling sheds, material recovery facilities, storage of recyclables, intermediate processing;
- Offer credit to assist in constructing safe, durable workshops;
- Provide access to markets (roads);
- Guarantee freedom from the arbitrary fines and penalties often imposed by local city councils and Environmental Monitoring Units;
- Provide technical support services in upgrading technology and industrial processes.

Supporting the self-organisation of waste pickers

Due to the nature of waste pickers as independent non-organised actors, mostly illiterate, unskilled and resistant towards any official or formal body it is necessary first to form a germ cells of few workers and to provide convincing

incentives for their participation. The advantages of organisation have to be clearly communicated, as well as the willingness of other stakeholders, especially official authorities, to get involved.

Waste pickers are self-employed entrepreneurs unaccustomed to conforming to rules and regulations. Therefore the transition from autonomous to group labour is always a significant challenge, combined with a resistance towards collective organisation. They will need convincing to change some aspects of their behaviour and practices during the integration process. Free roamers or autonomous waste pickers will quite often have to learn that it is in their own interests to change their behaviour. To achieve integration into newly formed structures, this necessary change process will have to be acknowledged and supported.

Providing capacity building support for waste picker organisations

In order to 'compete' in the solid waste management sector waste pickers have to become reliable service providers. Consulting in the field of capacity building is of great importance in improving the competitiveness of waste pickers' organisations and guiding them through the various challenges they will have to face during the formation process.

Capacity building can be useful in the following areas:

- Development of feasible and sustainable strategies;
- Improvement of managerial skills (business management, accounting, marketing, negotiation skills);
- Maintenance of work ethics and organisation/team work;
- Training in sorting, processing, recycling techniques and value added services;

- Formalisation requirements for waste worker organisations;
- Environmental and health aspects of waste management activities;
- Business support services linked to large scale formal recycling industries;
- Support for licensing businesses and compliance with user-friendly tax laws.

A good way of backstopping can be the formation of Multidisciplinary Technical Support Groups to help with fund raising, activity planning, business modeling, strategic management and capacity building through consulting, accompaniment and support.

Forming waste and citizen forums - participatory approaches

Waste and citizen forums provide a dialogue space for different sector stakeholders (e.g. different organisations of local governments, waste picker cooperatives, NGO's, representatives of autonomous waste pickers, private companies). Integrating the stakeholders and their actions can be a participatory way to create practical solid waste management solutions in the city and support systems to empower the waste pickers. A national waste and citizen forum can be helpful as a space for sharing, discussing challenges, developing standards and so forth.

Any policy-making process should be participatory and inclusive, integrating informal workers and their organisations into decision making and involving as many different stakeholders as possible. It should also allow for policies to be developed through negotiation between appropriate government departments and relevant stakeholders, based on a shared understanding of the economic importance of informal sector waste recycling and the chain of informal organisations and enterprises around which it is organised.

Promoting the participation of waste generating businesses and industries

There are many examples of waste generating bodies becoming involved with waste pickers' organisations and informal waste workers to collect, manage and process post-consumer waste. Companies are encouraged to invest in the social enterprises of waste pickers and informal waste workers by providing financial as well as non-financial support

Making informal sector integration a national policy

Official recognition and acknowledgement of waste pickers, their interests and their valuable contribution to waste management services within federal laws requires integration at political and social levels. It demonstrates national political will, thus affecting underlying habitual public attitudes and promoting necessary cultural change processes.

Furthermore, it is essential to create a set of national standards for waste handling systems at local and ward levels, including standards for informal sector inclusion. The catalytic effect of such measures has been clearly demonstrated by the experience of India and Brazil and underlines the importance of the formulation of national policy on informal sector integration in solid waste management.

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