

Privatisation and the Informal Sector: Thinking locally, acting globally?

**Anne Scheinberg, WASTE, Advisers on Urban Environment and Development; also
Wageningen University and Research Centre, Environmental Policy Department**

Contact:

Contact name: Anne Scheinberg Organisation: WASTE, Advisers on Urban Environment and Development; Postal address: Nieuwe Haven 201, 2801 CW Gouda, the Netherlands; Telephone: +31 182 522-625; Facsimile+31 182 550-313 Email: ascheinberg@waste.nl

Executive Summary

Improving solid waste management (SWM) increasingly means privatising at least part of the service for many municipalities around the world. More and more city governments in low and middle-income countries opt for involving the international private sector in collection, disposal and treatment of solid waste. Privatisation is seen as important in the general process of modernising and improving urban waste management systems. But even when there is an existing private recycling, solid waste, or municipal cleaning sector that has both a social and commercial relationship to the municipality, this group of micro, small and medium-sized businesses is often passed over as potential private sector partners. At the same time, good, affordable and sustainable opportunities are missed for upgrading the services and improving the environment, by improving the status and performance of the existing national and local private sector, both formal and informal. Many privatisation efforts involving international companies have failed, exactly because the national private sector was ignored or simply because the privatisation arrangements were unaffordable for the local city governments. Specifically, possibilities to integrate the informal sector in solid waste with the modernisation process, and in recycling, are ignored.

Since 2003, WASTE has been involved in three international projects, funded respectively by the International Labour Organisation (ILO), German Technical Co-operation (GTZ) and the International Finance Corporation (IFC) that go into progressively more detail in investigating the relationship between to investigate the informal waste sector in low- and middle-income countries in Africa, Latin America, Asia, Central and Eastern Europe. These studies showed that orienting modernisation and privatisation efforts to include the informal sector in solid waste preserves thousands of jobs, generates and maintains income, and it provides much-needed input for the local recycling industry. But integration requires effort, and the informal sector participation needs to be sponsored and facilitated by intermediaries.

Introduction

Improving solid waste management (SWM) increasingly means privatising at least part of the service for many municipalities around the world. More and more city governments in low and middle-income countries opt for involving the international private sector in collection, disposal and treatment of solid waste. Privatisation is seen as important in the general process of modernising and improving urban waste management systems. But even when there is an existing private recycling, solid waste, or municipal cleaning sector that has both a social and commercial relationship to the municipality, this group of micro, small and medium-sized businesses is often passed over as potential private sector partners.

The pressure to modernise solid waste management systems in poor countries (as well as in the North) has increased greatly in the last 10 years. Improved solid waste management and modernised solid waste systems are a priority both for practical and symbolic reasons. In practical terms, solid waste problems degrade water supplies and air quality, emit greenhouse gases, create problems with neighbours, and depress willingness to invest in urban and economic development. David Wilson,

British professor and solid waste specialist, has summarised the symbolic side succinctly in saying “the level of solid waste management is a good indicator of the level of urban governance.” Or, translated to simple language: “no-one – and especially no investor – is likely to take the local government seriously when the streets are full of garbage.”

Geopolitical inequities in knowledge and access to financing reinforce the idea that rich countries have perfect waste management, through privatisation. So local authorities in poor and middle-income countries believe that multi-national companies can provide “scientific” waste management, that is, something that is clean and avoids disease, and that makes money for themselves and for the authorities. This ‘technological fantasy’ is complicated by experiences in the literature and study visits to Europe or North America which tend to focus on the successes in waste management, and to de-emphasize failures. As a result, local authorities enter these arrangements completely unprepared to understand that they are expected to pay the bill for a system whose capital and operating costs are orders of magnitude higher than those in their current system. It is hardly surprising that multi-national privatisations have a small chance of succeeding and even less chance of sustainability.

At the same time, good, affordable and sustainable opportunities are missed for upgrading the services and improving the environment, by improving the status and performance of the existing national and local private sector, both formal and informal. Many privatisation efforts involving international companies have failed, exactly because the national private sector was ignored or simply because the privatisation arrangements were unaffordable for the local city governments. Specifically, possibilities to integrate the informal sector in solid waste with the modernisation process, and in recycling, are ignored.

Understanding the Informal Sector in Solid Waste: A Recent Enterprise

Until the 1990s, the informal sector in solid waste was the subject mostly of anthropological and sociological studies, for example, the pioneering work of Canadian sociologist Christine Furedy in Hyderabad, India; US economist Marguerite Robinson at the Harvard Institute for International Development in Jakarta; Sandra Cointreau-Levine at the World Bank, and the Mexican-American scholar Martin Medina in Mexico. In the second half of the 1990s this changed, and four European organisations, WASTE in the Netherlands, with Skat in Switzerland, GTZ in Germany, and ERM-UK in the UK began more or less in parallel to investigate the MSE (micro and small enterprise) recycling and solid waste sector in a systematic way, partly as a response to the growing international interest in recycling.

The solid waste and recycling informal sector has been documented to have existed since the earliest days of urbanisation and industrialisation in Europe and North America (Melosi, 1981). By the 1890s in North America, the solid waste informal sector was generally referred to as “rag pickers,” and consisted primarily of ambulant collectors, often the only providers of any kind of waste collection service. Anecdotal evidence suggests that rag picking, or waste picking as it is more usually called, has consistently provided work and income to socially excluded groups without access to the formal labour market. Internal or international migrants, specific ethnic or social groups, low castes, landless peasants, and others who come to the city seeking work have found that they could (relatively) easily enter the informal recycling sector, and, if they could survive the working conditions, earn a reasonable living for their families (ILO 2004).

At first, the focus of attention was on the social isolation and misery of the informal sector in solid waste, but gradually the focus has shifted to exploring and documenting the professional and technical identity of this sector, and even more recently, to their potential for contributing to sustainable, modern, locally appropriate waste management solutions. Waste picking has a universally low social status, but also some less than obvious advantages: it has ease of entry and exit; and it is a pure meritocracy, where talent, ambition and initiative can produce significant

financial rewards. Moreover, because of its relation to the global commodities market with its significant price fluctuations, recycling offers not only downside risks, but also significant upside benefits: and a good trader can create surpluses that allow a migration out of poverty and into the formal business sector.

Since 2003, WASTE has been involved in three international projects, funded respectively by the International Labour Organisation (ILO), German Technical Co-operation (GTZ) and the International Finance Corporation (IFC) that go into progressively more detail in investigating the relationship between to investigate the informal waste sector in low- and middle-income countries in Africa, Latin America, Asia, Central and Eastern Europe. These studies showed that orienting modernisation and privatisation efforts to include the informal sector in solid waste preserves thousands of jobs, generates and maintains income, and it provides much-needed input for the local recycling industry.

International Labour Organisation Thematic Evaluation: Eradication of Child Labour in Scavenging

The International Labour Organisation (ILO) has perhaps the most consistent history of working with this sector; ILO activities have a strong emphasis on job creation on the one hand, and eradication of child labour on the other. The ILO understands the potential of recycling to generate jobs for poor people, and has pursued recycling pro-actively, as a source of income generation in a number of countries in the last 15 years, especially in South Asia and East Africa. But a more consistent focus of the ILO has been eradication of child labour, and specifically, the participation of children in waste picking.

In 2003 the ILO commissioned a thematic evaluation of their sectoral activities in recycling, with a focus on evaluating the effectiveness of development approaches and interventions focused on alleviating poverty to eradicating child labour. Early in the investigation the team had an important insight: the development community has a tendency to treat waste pickers as a social problem rather than seeing them as economic actors in (or at the fringes of) the socio-technical solid waste and recycling system. Waste pickers thus become the ‘targets’ of development approaches focused on improving the conditions of scavengers and eradicating child labour (Furedy 1997).

The ILO thematic investigation suggests that this objectification of the solid waste informal sector has three different forms, or approaches: (1) the welfare-based approach, (2) the development-oriented approach and (3) the rights-based approach¹.

1. The welfare-based approach seeks to directly improve the living conditions of waste pickers by focusing on daily needs and welfare issues. It assumes that it is possible to introduce improvements in pickers’ condition without addressing the political and social forces that influence their position². Waste pickers and their children are seen as passive victims of society, not as entrepreneurs involved in a livelihood activity, and have only a social identity, not a professional one.
2. The development-oriented approach sees waste pickers and their children as poor people who lack (other) opportunities, in need of help and increased capacities that would facilitate an exit from picking. The development approach addresses position, and tends to support

¹ Parts of this section are adapted from Scheinberg and Anschütz 2007.

² The terms *condition* and *position* are borrowed from the literature of gender analysis. Changing a group’s *condition* means “fixing” a physical or social problem in the short term: providing food, shelter, or water, or prohibiting police harassment are examples of changes in condition. Changing the *position* of a social grouping refers to their ability to help themselves and be effective social and political actors. Usually positional changes occur over the longer term and have more to do with empowerment and so-called conscious-raising than with physical changes. Changing the position of women occurred in some scandinavian countries, for example, with the rule that at least 30% of parliament members had to be women, or changing the caste rules in India so that dalits

empowerment and gender equity interventions such as education, credit and income generation. The development approach shares the social framework and vision with the welfare approach, and although it addresses position to a certain extent, it ultimately gives little attention to pickers' status as informal sector recyclers working on solid waste. Also, it lacks recognition that an exit will deprive the family of the quite considerable income being generated in the existing situation³.

The rights-based approach addresses social, political and institutional aspects of waste picking and the reasons for entering it. Goals may include creating more political room for changing and strengthening pickers' position as a group in society, giving them a voice, making them visible, and stimulating their political participation. Typical approaches include supporting pickers to form unions or trade organizations and lobby for rights and social status. While the rights approach acknowledges waste pickers as political (in addition to social) actors, it usually underestimates the economic importance of picking to the waste pickers' families, and to the society.

None of these three approaches treats waste pickers as stakeholders in the waste management system (or even in their own lives). Most development interventions neither consult waste pickers regarding questions of priority, nor engage them in solving their problems (Furedy 1997; Simpson-Hebert et al. 2005). In Romania, this lack of consultation has consistently led to Roma waste pickers ignoring projects that would give them housing and schooling opportunities, and in the process creating much resentment in the non-Roma organizations doing the 'helping' (Stanev, Veraart and Popovici 2004).

Secondly, none of these approaches contextualizes pickers as economic and institutional actors already within the waste management system. This leads to an assumption that exit from this system will help, something the pickers themselves may or may not agree with.

Third, and perhaps most importantly, none of these three traditional approaches appreciates the dynamism of the modernisation process, with the result that they focus on changing the pickers and their family or social circumstances, facilitating exit, or in other ways "fixing" the pickers, rather than focusing on the potentials inherent in the system.

The general inadequacy of the first three approaches suggests the need for a "systems approach," located within the solid waste rather than the social sphere. This answers the need to analyse informal recycling and waste activities as legitimate economic activity within the waste management system. Rather than exit, such approaches seek to increase the bargaining power and legitimacy of waste pickers by first recognising, and then optimising and legitimising their waste management and recycling activity. Most importantly from the point of view of solid waste modernisation and privatisation, a systems orientation recognises the informal sector as legitimate and useful private actors in solid waste system improvement, and sees them part of the solution, rather than part of the problem.

Economic Aspects of the the Global Informal Sector in Solid Waste

In 2006, the German Technical Co-operation (GTZ) financed a study entitled: "Economic aspects of the the global informal sector in solid waste" which looked in detail at the relationships between formal and informal solid waste activities in six cities and countries, with populations ranging in size from 380.000 to 17 million:

- ◆ Cairo, Egypt
- ◆ Cluj-Napoca, Romania

³ Research in the 1990s in Latin America, Africa and Asia by WASTE in the UWEP programme indicates, on the contrary, that waste picking consistently provides income that is approximately three times the minimum wage or the wage for an equivalent of skills and experiences (Price, Rivas and Lardinois 1998).

- ◆ Lima, Peru
- ◆ Lusaka, Zambia
- ◆ Pune, India
- ◆ Quezon City (part of Metro Manila), the Philippines

This study investigates the structural relationships between the formal and informal waste sector. The main approach to doing this is the use of a process flow/materials balance analysis. Project partners in each of the six cities researched and diagrammed their waste systems, showing formal and informal sectors separately, and also identifying where they intersect and where materials pass from one to the other and back again. The process flow materials balance yields a visual representation of the entire waste system, which follows the tons through the system. The process flow-materials balance formed the basis for three sub-analyses, to better understand the informal sector in solid waste management.

1. An operations and cost analysis of each process step, yielding separate cost per ton for each part of the waste trajectory. For example, it is possible to see that informal sector collection of organics costs or waste picker extraction of recyclables much less than formal sector collection of the same stream. When the tons passing through that step are calculated, it is also possible to make comparative efficiency analyses, to see where the informal sector is actually being too efficient – at the cost of health and safety – and where the formal sector systems are over-capitalised for the amount of materials they actually handle.
2. A scenario analysis based on two hypothetical scenarios. The first looks at operational and cost impacts of a hypothetical situation where the informal sector disappears or loses access to the waste stream and their livelihoods, – such as was the case during the multi-national privatisation of waste management in Cairo in 2003. The second looks at operational and cost impacts of a hypothetical situation where the authorities, the formal and the informal sector work together to optimise and integrate activities which fall under the informal sector in order to promote modernisation.
3. A socio-economic impacts analysis looking at the contribution of the informal sector to the recycling industry and other aspects of the society; and
4. An environmental impacts analysis focusing on the greenhouse gas emissions associated with the different process steps, and using international carbon prices to monetise these impacts.

The study yielded a number of conclusions, some of which confirm “received wisdom,” others of which are more surprising. The conclusions about the solid waste informal sector include:

The Informal Sector in Solid Waste is a Global Phenomenon

1. There are active informal solid waste sectors in cities of widely varying demographic, socio-economic and geographic characteristics.
2. In spite of specific and measurable differences in the set-up and effectiveness of the formal solid waste systems in the six cities, and the degree to which these are modernised or privatised, there is a strong inter-relationship, and predictable division of labour, between the formal and informal sectors, which are intimately connected to each other

The informal sector in solid waste is truly the private recycling sector

3. The main field of activity of the solid waste informal sector is recycling and recovery of materials. This activity diverts a lot of materials from disposal, and supports livelihoods for thousands of poor people.
4. Informal sector activities are completely within the private sector. As such, they contribute to moderating the overall (public) costs of management of solid waste and recyclables at no or

negligible cost to local authorities; informal actors lower the quantities of wastes to be handled and reduce the cost burden to solid waste authorities.

5. In all six cities, the informal sector is the major force behind existing recycling efforts.
6. Informal recycling collection and processing frequently are more efficient and cost less than parallel processes in the formal sector.

The informal sector in solid waste is a positive economic force.

7. The solid waste informal sector recycling mobilizes significant economic resources to the benefit of sectors of society which would otherwise have no income
8. Informal sector recycling mobilizes significant economic resources to the benefit of sectors of society which would otherwise have no income. Total income earned by the informal waste sector from sales of recyclables in the cities under study ranged from € 0,5 million in Lusaka to € 56 million in Lima.

The informal sector in solid waste is good for the environment

9. The informal sector keeps large amounts of materials out of disposal, creating operational and environmental benefits to the cities. When the informal sector “goes away.” the amount of materials going to disposal increases.
10. Informal sector recycling and recovery activity is associated with significant environmental benefits in the cities, related to the avoidance of negative extraction impacts.

There is broad room for improvement, strengthening, and integration of the informal sector in solid waste, to improve working conditions and secure livelihoods

Technical Assistance to Roma Collectors in Recycling and Access to Finance

In 2007 WASTE was invited to tender in the Recycling Linkages Programme of the International Finance Corporation (IFC) to design a programme for support to the Rroma informal sector in Serbia, Albania, Macedonia and Bosnia-Herzegovina. While these Balkan countries are quite different from “real” south countries in Africa and Asia, the GTZ study showed that the informal sector is quite similar in some aspects. Some of these similarities and differences are presented in Table 1.

Table 1. Similarities and Differences between the Global and Balkan Informal Sector

Parameter	Similarities between Balkan and global solid waste informal sector	Unique aspects of the Balkan solid waste informal sector
Most recycling in a pre-modern system is done by the informal sector	this is true for metals and paper, and in some places for glass or plastic, to the level of small junk shops	Relatively more of the recycling supply chain is in the formal sector, and the chain as a whole is shorter, than in South countries
The global informal sector recycles millions of tons, protecting the environment and supporting billions of people	This is generally true in the Balkans	Many people in the informal sector consider it seasonal work, rather than full-time work, and do not work all year
Informal sector workers usually earn at least twice the legal minimum wage in their countries	The Rroma informal sector earns more than it otherwise could	In the Balkans, this is not always more than the minimum wage per person, but it can be more than the minimum wage per family
There are many connections between the formal and informal recycling sector in all countries	Waste pickers do pick from landfills, thus taking materials from formal disposal, and the materials do end up in the formal recycling chain	Municipalities are generally outside of the recycling supply chain <i>at this point in time</i> . Also since the chains are shorter, there are fewer cross-overs
Formal and informal sector are often ‘natural partners’. But Socio-cultural biases often interfere with the efficiency of this economic partnership.	The private formal recycling sector understands and appreciates the role of the Roma as lowest end of the supply chain.	The social stigmatisation of Roma is so extreme that it inhibits formal actors seeing the value of more broad structural partnering
Materials pass back and forth	Materials from the informal	The recycling chain is shorter, and

between these sectors in the recycling chain.	sector in the Balkans to end up in the formal recycling sector	there are fewer tiers. The market is somewhat protected.
Informal sector activities have both positive and negative environmental impacts.	The handling of metals and batteries are the most environmentally problematic	The location of the dumpsites next to the Roma ghetto (<i>mahala</i>) is often seen as a negative environmental impact in itself.

Source: Elaborated by the authors on the basis of field work and the Recycling Chain Assessment

The IFC project has provided an opportunity to think directly about interventions and programmatic approaches to integrating the informal sector into the modernisation process, primarily through the process of micro-privatisation of both services, such as collection, and commodities trading of recyclables.

Opportunities for micro-privatisation during modernisation of waste management

As the title of this paper suggests, the sustainable modernisation of solid waste management in South countries and Eastern Europe and the Balkans depends on understanding the dynamics and practices of the informal sector and on integrating them into the changing situation in cities and towns. This is based both on understanding what happens in modernisation, and what happens to the condition and position of waste pickers when a waste management system actively enters the modernisation process.

The modernisation of waste management is primarily a process in the public sector – even in countries and cities where the public sector is weak or has a reduced role. Prior to modernisation, the entire focus of waste management is on *removal* of waste in order to keep the *city* clean. The physical system, and its financial, institutional, environmental, and other aspects, is oriented towards collecting the waste and moving it from the populated urban centres to *somewhere else*. A successful pre-modern waste management system – such as was the case in the Netherlands until the 1980s, Finland until the 1990s, and is still the situation in cities the Balkans, is based on 100% coverage of collection, that is, that every household and business has the ability to dispose of their waste at their door or nearby. In pre-modern systems in rural areas, there is usually some place for so-called “self-provisioning,” that is, households which don’t have service can arrange the removal themselves, taking the waste to a (relatively) nearby dumpsite or waste depot. Such depots remain part of the Dutch waste management system today, even in big cities. The dark underside of self-provisioning is illegal disposal, dumping the waste in ravines or rivers, or burying it or burning it behind or next to the household or the business.

The modernisation process changes the problematisation of waste to a focus on the *existence, character, and environmental impacts of waste*. The modernisation process may be driven by domestic developments, as was the case in Western Europe and North America in the 1980s, when clean water laws affected landfilling, and changed the cost structure of disposal. Or it may be a result of geopolitical shifts, such as the expansion of the European Union and the resulting globalisation of EU technical approaches and standards to the countries in the Balkans. Regardless of the source of the shift, once it begins the ideas about acceptable waste management approaches and practices change. In a modernising system, “good practice” must go beyond providing dumping-space for removal. The modernisation process expands the goals of waste management to include protecting the environment – specifically ground and surface waters – and conserving resources. This expanded focus ultimately leads to a recognition that it will be necessary both to reduce the quantity of waste and to mitigate the toxic effects of the more dangerous materials.

Prevention, recycling, and composting gain status in the modernisation process, becoming legitimate complementary activities in an expanding discourse on waste management. The result is an ‘integrated’ system including source separation, repair and reuse, collection, processing, composting, transfer, marketing, and land or thermal disposal of materials from waste. This becomes institutionalized in a management ‘hierarchy’, giving priority to waste prevention and

recovery, shifting the destination of materials away from land disposal to formal and informal reuse, recycling, and composting (Scheinberg 2003). The entire provisioning system thus becomes diversified and moves to rely on a mix of technologies and institutions, a *modernized mixture* (Spaargaren and van Vliet, 2002). In this system, the informal sector may become losers or winners. During modernisation, the legal status and formal ownership of the waste changes and formal participants gain privileged claims to materials.

Waste pickers become losers in modernisation when their access to waste is denied as a result of modernisation of the landfill, restricted gate access, or competition from formal recycling activities. When the modernisation process ignores pickers it risks disrupting their livelihoods and depriving them of their common property use of the waste stream. For example, a company managing one of the landfills in Bangkok, Thailand, ‘officially’ denied access to waste pickers, but allowed them in to continue picking under the condition that they sell only to that company, at even lower prices (Barkhof 2004); the situation of the traditional “Zabballeen” waste sector in Cairo became similar after 2003: they still serve the same households, but their rights and income are reduced (ILO 2004b; Aziz 2004). In Dar es Salaam, Tanzania, a large private waste collector holding concession to collect waste from downtown hotels threatened a women’s group that wanted to collect plastic bottles from one hotel, thereby causing the group to withdraw (Alodia Ishengoma 2003).

There are some cases where waste pickers have been winners in the modernisation process, and where they have achieved legitimacy and status as important stakeholders in the solid waste system. In Belo Horizonte, Brazil, the municipal authorities created a separate status for waste pickers as the managers of recycling depots, designating them as formal participants, and giving them improved access to materials. This created a high-profile recycling system that saved the city considerable amounts of money (ILO 2004a; Dias 2000). In Bangalore, India, an NGO (Mythri) has worked with a number of large commercial waste generators to create a system of contracts with women waste pickers. Each business generator contracts with one specific waste picker, giving her a service relationship and service fee (for cleaning and sweeping) and guaranteeing her a stream of high-value recyclables. In return, the business avoids costs that would otherwise be associated with the modernisation process (UWEP Programme Progress Reports 2003). The relatively well-organized Hungarian Roma community has been able to negotiate for continued access to waste materials after modernisation: Roma entrepreneurs (many of them women) in at least two cities, Győr and Debrecen, pay a concession fee for the right to scavenge the landfill (Scheinberg 2001). The small recyclers in Batangas Bay were supported to form a marketing co-operative, which gave them a base of operations, a collectivity capable of purchasing a truck, and, through these, access to more markets for more materials (UWEP Programme Progress Reports 2001).

Conclusion: The Informal Sector as Potential Privatisation Partners

The informal sector is not perfect, and even when they work efficiently, it is often at the cost of health and the environment. A course of action to include waste pickers will require support to them directly, and the creation of buffering or intermediary institutions. Some approaches include:

1. Training and capacity building to pickers in primarily four areas:
 - a. professionalisation: improved numeracy, ability to analyse own costs, understand the implications of business registration; pay taxes, make and comply with contracts, and the like.
 - b. access to information and innovation: learning to use internet and other resources to market more strategically; networking; understanding how to enter new market niches
 - c. access to micro and meso-level finance, loans, working capital
 - d. legal issues, and other basic social and institutional capital
2. Training and capacity building and coaching for others in the enabling environment, with a main focus on intermediaries and leaders in the community. These “others” influence the informal sector from their positions of authority in the enabling environment and include:

- a. formal and informal leaders of waste picker or recycler associations or unions
 - b. political and business leaders who have “graduated” from the informal sector
 - c. teachers in schools or remedial programmes
 - d. formal and informal leaders of NGOs and CBOs involved with environment and the sector
3. Facilitating, strengthening, and connecting intermediate and support structures. Consultation in the field suggests that there is a need for intermediary structures to facilitate integration of the informal sector with municipal modernisation. A special function within such collective action is the **provision of a secondary materials marketing expert** to work for and with the informal sector to strengthen their market reach and access.
 4. Creating institutional capital and ownership in the enabling environment, primarily by strengthening institutional and social capital for recycling. This includes support regional collectivities, unions, or Trade Associations that register pickers and small junk shops, give them id cards and access to health care, and organise on their behalf. It may also include facilitating the creation of sectoral platforms in solid waste and recycling, such as COPIDUC in Bamako, Mali or Swabhimana, in Bangalore, India (UWEP 2004)
 5. Facilitating access to finance, primarily credit: classic micro-credit, with loans up to about €5.000, for waste pickers, and a different type of credit, called by WASTE a Waste Ventures approach, for amounts from €5.000 to €30.000 (in some countries €50.000) for small junk shops, ambulant traders, informal service providers, and others.

With these as the basis for a support approach, the basis is laid for micro-privatisation, which is a win-win situation. Working, health, and safety conditions in the informal waste sector can be improved while providing reasonably priced, sustainable waste management and recycling services.

Acknowledgements

The author acknowledges the support of the International Labour Organisation, German Technical Co-operation (GTZ) and the International Finance Corporation (IFC) for contracting the projects mentioned. In addition, the author acknowledges the contribution of local partner organisations in all three studies, without whose contributions and deep local knowledge it would not have been possible to do the work.

References

- Aziz, H. (2004), ‘Improving the Livelihood of Child Waste Pickers: Experiences with the “Zabballeen” in Cairo, Egypt’, *An Evaluative Field Study*, Gouda, The Netherlands: WASTE.
- Barhop, M. (2004), ‘Reducing Child Labour in Waste Picking: An Evaluative Report on Two Cases in Thailand’, Field study for ILO 2004b.
- Chambers, R. (1997), *Whose Reality Counts, Putting the First Last*, UK: Intermediate Technology Publications.
- Dias, S.M., (2000), ‘Integrating Waste Pickers for Sustainable Recycling’, Paper delivered at the Manila Meeting of the Collaborative Working Group (CWG) on Planning for Sustainable and Integrated Solid Waste Management, Manila, 2000.
- Eerd, M. van (1996), ‘The Occupational Health Aspects of Waste Collection and Recycling: A Survey of the Literature’, *UWEP Working Document 4, Part I*, Gouda, The Netherlands: WASTE.
- German Technical Co-operation (GTZ) (2007): *Economic Aspects of the Informal Sector in Solid Waste*. Report, GTZ, Eschborn, Germany.
- ILO. (2004), *Addressing the Exploitation of Children in Scavenging: a Thematic Evaluation of Action on Child Labour*. A global synthesis report for the ILO by WASTE, Gouda, the Netherlands. ILO, Geneva, Switzerland.

- ILO. (2004a), *Addressing the Exploitation of Children in Scavenging in Latin America: a Thematic Evaluation of Action on Child Labour*. A synthesis report on Latin America for the ILO by IPES, Lima, Péru. ILO, Geneva, Switzerland.
- IJgosse, J., Anschutz, J. and Scheinberg, A. (2004), 'Putting Integrated Sustainable Waste Management into Practice: Using the ISWM Assessment Methodology as Applied in the UWEP Plus Programme (2001–2003)', Gouda, The Netherlands: WASTE.
- Furedy, C. (1997), 'Reflections on Some Dilemmas Concerning Waste Pickers and Waste Recovery', *Source Book for UWEP Policy Meeting 1997 (Revised April 1999)*, Gouda, The Netherlands: WASTE.
- Lardinois, I. and Christine, F. (1999), *Separation at Source*, Gouda, The Netherlands: WASTE.
- Marchand, R. (1998), *Marketing of Solid Waste Services in Bauan, The Philippines*, Gouda, The Netherlands: UWEP/WASTE.
- Medina, M. (1997), 'Informal Recycling and Collection of Solid Wastes in Developing Countries: Issues and Opportunities', *UNU/IAS Working Paper No. 24*, Tokyo, Japan: The United Nations University/Institute of Advanced Studies.
- Melosi, M. (1981), *Garbage in the Cities, Refuse, Reform and Environment, 1880–1980*, College Station, Texas: Texas A&M Press.
- Mitrovic, Aleksandra, and Gradimir Zajic (1998), "Social Position of the Roma in Serbia." in *The Roma In Serbia*; Council for Human Rights of the Centre for Anti-War Action, Belgrade, Republic of Serbia and Montenegro, pp. 9-68.
- Mol, A.P.J. and David Sonnenfeld. (2000), 'Introduction' in Mol and Sonnenfeld (eds.), *Ecological Modernisation Around the World*, London and Portland, Oregon: Frank Cass Publishers, pp. 3–17.
- Price, R., and Lardinois, I. (eds.) (1998), *Micro and Small Enterprises, The Case of Latin America*, Gouda, The Netherlands: WASTE.
- Rosario, A. (2004), 'Reduction of Child Labour in the Waste Picking Sector, India: Review and Findings of an Evaluative Field Study in Bangalore and Kolkata', www.ilo.org/childlabour.
- Sawiris, Y.L. (2000), 'Pilot Project for Integrated Solid Waste Management', Paper presented at the World Bank Conference on Municipal Solid Waste Management in the MENA Region, 10–12 April 2000, Cairo, Egypt.
- Scheinberg, A. and Justine Anschutz (2007), "Slim pickin's: Supporting waste pickers in the ecological modernization of urban waste management systems". *International Journal of Technology Management and Sustainable Development*, Volume 5, number 3, pp 257-270.
- Scheinberg, A. (2003), 'The Proof of the Pudding: Urban Recycling in North America as a Process of Ecological Modernisation,' *Environmental Politics*, 12:4.
- Scheinberg, A. (1999), 'Worse Before it gets Better', *Warmer Bulletin* Number 68, September 1999, pp. 18-20
- Scheinberg, A., and IJgosse, J. (2004), 'Waste Management in the Netherlands', *Report Prepared for UNITRABALHO, Recife, Brazil*, Gouda, The Netherlands: WASTE.
- Simpson-Hebert, M., Aleksandra, Mitrovic., Gradimir Zajic. and Milos Petrovic. (2005), *A Paper Life*, UK: WEDC, Loughborough University.
- Spaargaren, G. and van Vliet, B. (2000), 'Lifestyles, Consumption and the Environment: The Ecological Modernisation of Domestic Consumption', *Environmental Politics*, 9: 1, pp. 50–77.
- Stanev, N., Veraart, R. and Popovici, C. (2004), 'Thematic Evaluation on Projects Related to Addressing the Issue of Child Labour in Waste Picking', Cluj–Napoca and Baia Mare, Romania.
- UWEP (Urban Waste Expertise Programme) (2004), Progress Reports of the UWEP Programme.