

RECYCLING LIVELIHOODS

Integration of the Informal Recycling Sector in Solid Waste Management in India



SNDT Womens' University

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Chintan Environmental Research
and Action Group

gtz | Partnerships for
Recycling Management

EXECUTIVE SUMMARY

Introduction

This study examines the nature of the informal sector in solid waste management (SWM) as it exists in India. In doing so it elaborates on the significant economic contribution of the informal sector vis a vis both its workers and with respect to the SWM system in general. The dynamics of the integration of waste pickers in SWM systems are documented and analysed through case studies of four cities. They provide evidence for the argument that best practices in India's SWM systems can only benefit from such integration while its (informal sector's) exclusion would fly in the face of economic rationality besides constituting a serious violation of distributive justice.

Chapter I: The Informal Sector in India

This chapter clarifies our understanding of the nature of the informal sector in general within the context of India's rapid urbanization. It compares formal and informal sectors of work and argues that the formal sector is inequitably privileged due to its greater visibility, among other factors. The disadvantage suffered by the informal sector is exacerbated by the political expediency that plagues systems of governance at all levels. The chapter explains the structure of the informal sector in SWM, and argues that within this structure, the waste picker though a major contributor, lies at the bottom of the pyramid as the most vulnerable, impoverished and underprivileged.

Chapter II: The Legal Framework and Its Evolution

This chapter reviews the evolution of all the laws, rules and regulations pertaining to solid waste management as they relate to the waste informal sector. The review is comprehensive in that it begins with the Constitution of India, working its way through other national level legislation, down to state level enactments ending up with local municipal, city specific laws and strategies. Salient features of the laws are set out and their implications examined in the context of this study. The documentation provides evidence of the recognition of the significant contribution of the informal sector in SWM and, especially in Pune (Maharashtra), indicates an evolving proactive legislative stand vis-à-vis the waste picker.

Chapter III: Overview of the Process of Organisation of Waste Pickers in India

This chapter documents the historical development of the process of organisation of waste pickers in India. It does this in the context of evolving solid waste management policy and practice at the government level. Admitting that the organisation of waste pickers in India has been at best sluggish despite the fact that there has been growing recognition of the informal role of waste pickers in solid waste management, the chapter analyses the possible causes for such a lag. The causes range from those that are endemic to the nature of the sector and its work to impediments arising from public perceptions, and the politics of urban local bodies. Events that have facilitated the organisation of waste pickers have also been equally emphasized.

Chapter IV: Integration of the Informal Waste Sector in Formal Solid Waste Management

Case studies are presented here of the cities of Mumbai and Pune in Western India, and of Delhi and Lucknow in North India. They describe and examine in detail the process of integration in each city through the efforts of various groups. Mumbai and Delhi emerge as pre-eminent locations with the former being the business/financial capital and the latter the political capital of the country. Pune is the one city in India which has achieved the most with

respect to organising waste pickers and integrating them into the formal SWM system. The case studies can be perceived as constituting a 'swot' exercise of the organising effort, as they document the strengths, weaknesses, opportunities and threats realised/encountered through the various initiatives.

Chapter V: Sustainability of Integration of the Informal Sector in Solid Waste Management

The earlier chapters build up to the crux of the study which is the issue of sustainability of the integration process. The various characteristics of the informal sector are explained in detail and the legal framework which has evolved towards a favourable proactive position has been documented in the chapter. The various issues that impact upon the integrating process have been delineated along with the detailed organising efforts of various groups. What remains is to argue the case for sustainability of the integration process. Because if integration is not sustainable then the informal sector in SWM is heading towards extinction, and the efforts of all will have been futile. This chapter is therefore crucial, and provides us with an in depth examination of the various factors that impact favourably or otherwise on the issue of sustainability. History provides invaluable lessons. Enabling conditions – visibility, voice, validity, and viability are all examined in detail against existing effort. The role of statutory legislation is focused upon and the attitudes and perceptions of the general public are addressed. All of these together help formulate arguments that make a strong case for sustainability.

Chapter VI: Conclusion and Recommendations

Taking off from the previous chapter the study concludes on a positive note, making twenty-three recommendations that are the logical consequence of all the analyses of the earlier chapters. These recommendations which do not require further labouring of argument for their justification, indicate the path to be followed by all the stakeholders (groups working with waste pickers, organs of governance, donor agencies, and citizens) in their efforts to realise the goal of full blown integration of the waste pickers into the socio- economic fabric of our Indian society

ANNEXURES

A number of Annexures are included to provide valuable but supplementary information so as not to overburden the text of the report. Besides listing the Terms of Reference for the study, they include profiles in tabular form of the many groups that are working with waste pickers, details of the various laws, enactments and rules pertaining to waste management, glossaries of terms from the local languages, a list of acronyms that appear in the study, lists of people interviewed in the course of developing the case studies, literature references etc.

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Poornima Chikarmane and Lakshmi Narayan
SNTD Women's University

Bharati Chaturvedi
Chintan

Table of Contents

Chapter I The Informal Sector in India	6
1.1. The informal economy	6
1.2. Government attitudes to the two sectors	7
1.3. Chronological description of the development of the informal sector in SWM in India	9
1.4. The Structure of the Recycling Sector	9
Chapter II The Legal Framework and its Evolution	14
2.1. The Constitution of India and Central Legislations	14
2.2 State Legislation	16
2.3 Municipal Laws	16
CHAPTER III Overview of the Processes of Organisation and Integration of Waste pickers in India	18
3.1 History of organising wastepickers	18
3.2 The dynamics of organising and integrating waste pickers into solid waste management	21
3.3 Reports of Commissions and Committees	27
Chapter IV Integration Of The Informal Waste Sector In Formal Solid Waste Management	34
4.1 Case Study of Mumbai	34
4.2 Case Study of Pune	43
4.3 Case Study of Delhi	58
4.4 Case Study of Lucknow	73
Chapter V Sustainability Of Integration Of The Informal Sector In Solid Waste Management	84
5.1 From the pages of history	84
5.2 Enabling conditions for integrating the waste informal sector	86
5.3 Legal Framework	87
5.4 Civil Society and Public Opinion	88
Chapter VI Conclusions and Recommendations	89
List of Acronyms and Abbreviations used in the report	91
Glossary of Terms	92
References	96
Annexure I Terms of Reference	100
Annexure II Relevant extracts from government orders and laws	102
Annexure IIIA Table I: Profile of organisations of waste pickers in India	109
Annexure IIIB Relevant extracts of reports of government commissions	114
Annexure IV Space for waste: extract from Chintan report	120
Annexure V History of civil society movements around SWM in Delhi	122
Annexure VI Details of specific KKPKP activities	123
Annexure VII Press coverage	126
Annexure VIII Table III: Analysis of decadal press coverage in Pune	128
Annexure IX Extended Producer Responsibility Extract from Chintan Report	129
Annexure X Table IV: Summary of Opinions of Waste pickers integrated by KKPKP	131

Chapter I The Informal Sector in India¹

Introduction

India is fast urbanizing, with approximately 50% of its population projected to live in urban conglomerations by 2030. If current trends are any indication, then it is likely that a significant number of these people will continue to work in the informal sector. As per the 2001 Census, Maharashtra received the largest number of migrants (7.9 million) by place of birth from other states and other countries, followed by Delhi (5.6 million) and West Bengal (5.5 million). In the 1991 Census, the corresponding number of migrants into Maharashtra was 4.3 million, Delhi 3.7 million and West Bengal 5.1 million, indicating a sharp rise in migration to these states over the decade.

Evidence from many parts of the developing world including India shows that the growth of cities is accompanied by the proliferation of slums. While it is an unintended consequence, it does reflect the failure of urban planning and management. According to the 2001 census, the proportion of the slum population among cities with million plus populations was as high as 54 per cent in Greater Mumbai, Common features among all such cities are that they are centres of manufacturing, commerce and finance offering employment and self employment opportunities to poor populations. The nature of employment however is largely casual and unprotected and in the informal economy.

1.1. The informal economy

Generally, the formal sector is used to describe wage employment of a permanent nature in industries, government, commercial and other large-scale enterprises. This is also variously referred to as the organised or protected or registered sector. Work situations in the official sector are structured, differentiated by tasks and hierarchies and recorded in official statistics. The conditions of work and the tenure and terms of employment are prescribed, regulated and protected by the law. These workers are the working elite, privileged and protected.

Myriad economic activities that do not meet the above criteria are thrust into the basket referred to as the informal sector. The diversity in the basket ranges from 'waged labour' at one end of the spectrum to what is called 'self-employment' at the other, Hart (1973) first invented the term 'informal sector'. Since these activities are difficult to enumerate they are ignored by the census and legal statutes do not regulate their working conditions.

There are two views with respect to the relationship between the 'informal' sector and the 'formal' sector.

1. The informal sector is seen as performing the function of a buffer zone and that the fastest possible expansion of the formal sector will raise the standard of living of the poor.
2. The International Labour Organisation (ILO) and the World Bank view the relationship as one of structural inequality. In their view, the flexibility, viability and adapted technology of viable activities are hamstrung by the favourable market conditions reinforced by political patronage and government protection that are available to the formal sector. They strongly advocate attunement and increased complementarity of the two sectors through ending discrimination against activities of the informal sector that are often seen

¹ Some portions of Chapter I are taken from Chikarmane, P., Deshpande, M., Narayan, L. Report on Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, International Labour Organisation, Geneva 2001

Some portions of Chapter I are taken from reports of Chintan

as an offence. They also see active stimulation through credit, skill upgradation, managerial know-how, marketing promotion to improve the competitiveness of labour intensive small-scale activities as a means to reduce structural disparities.

The gradations and levels and the complexities of the interrelationships between them are of critical importance in the informal sector. It would be ludicrous to believe that a wage labourer or a self-employed person at the lowest level has anything in common with a trader or owner of a small enterprise apart from the fact that both are considered to be part of the informal sector. The benefits of higher levels of production and efficiency do not necessarily percolate to the lowest levels because of the appropriation of surplus that takes place at the higher levels. The informal sector has been continuously expanding in developing countries like India. This part of the urban economy continues to offer opportunities to 'work in order to survive' to a large number of unskilled and semi-skilled migrants and those who though resident in the city for long are excluded from employment in the formal sector. Employment or work in the informal economy is usually in low-earning occupations in which the conditions of work are insecure.

Various points of view have been expressed regarding the role of the informal sector. These range from preserving the income generating potential of this segment of the macro-economy to bringing it into the fold of the formal sector and to provide protection to workers in this sector. These divergent views pose a dilemma at the policy level, viz., whether to promote the informal sector as the provider of employment and income or to seek to extend regulation and social protection to the sector and thereby reduce its capacity to provide jobs and income for an ever increasing unemployed population. The general approach of the ILO has been to find the 'optimal' trade-off between these two alternatives. By implication this means that the policies adopted should generate more jobs and higher incomes and that simultaneously, better conditions of work and protection should be provided to those employed in this sector.

Given the differences that exist in the nature of the informal sector between countries, the socio-ecological-political environment in which it operates and the heterogeneity within the informal sector itself, it is very difficult to formulate a single strategy in pursuit of the above objectives. One of the inputs required for strategy formulation is the knowledge of 'what' and 'how' with regard to the functioning of the informal sector at micro-locations in the macro-economy. A couple of such micro-studies have been carried out in India with respect to the informal domain within the formal system of solid waste management². The findings have revealed that the informal recycling economy in solid waste management:

- supplements the formal system and subsidises it in financial terms
- provides employment to a significant proportion of the population
- operates competitively and with high levels of efficiency
- operates profitably generating surplus
- links up with formal economy at some point in the recycling chain

1.2. Government attitudes to the two sectors

The focus of the Indian government is resolutely on the formal sector economy, and on improving the conditions of possibility of its growth. From a city administrator's point of view, this is understandable. The formal sector is seen as the repository of skills that constitute the city's stock of "human capital"; it is the site of foreign direct investment and innovation; it is the engine of entrepreneurship, productivity and employment growth; economic transactions in the formal sector are, for the most part, legal and hence taxable; corporate taxes are a source of revenue for the city; so are property taxes on business holdings and

² Chikarmane, P., Narayan, L. Study of the Economic Aspects of the Waste Informal Sector in Pune, *Kagad Kach Patra Kashtakari Panchayat under contract to WASTE/Skat, GTZ, 2006*

private real-estate investments by formal sector employees; the surging incomes of formal sector employees translates into demand for income-elastic³ goods that generate sales taxes, VAT, and income & employment in the urban retail sector. Formal sector employees channel income surpluses into savings and investment. In short, the formal sector commands privilege in urban policy and planning circles as the engine that drives production and consumption, and ensures the government its cash flow.

The informal economy, by contrast, is treated as a stepchild. It cannot be excised from the city, so it must be tolerated. City governments have an in-built prejudice against the informal sector. In the government's point of view, employers in the informal sector are difficult (sometimes impossible) to identify, and since most transactions within the informal sector occur via verbal arrangement and in cash, they are invisible in government accounts. They yield little or no tax revenues for government coffers. Furthermore, most workers in the informal economy are formally unskilled. They don't possess recognizable forms of "human capital". They tend to be poor, hence are thought to engage in income-inelastic forms of consumption that contribute little to the urban retail economy. They save little, and invest even less. The informal sector may underwrite petty rent seeking and corruption by city councillors, lower-level bureaucracy and police, but it does not generate direct tax income for the city. Most policy makers believe that informal sector activities exhibit low economic productivity and show scant evidence of economic entrepreneurship. Many workers and business owners in the informal sector reside in unauthorized settlements and slums and, (in the view of urban planners and municipal authorities), "free ride" on urban infrastructure such as electricity, water, roads, and sanitation services. The high incidence of non-payment for these services burdens the city's ability to adequately provide for the formal economy. But rarely do cities acknowledge that chronic undersupply of low-cost housing over several decades has contributed in profound ways to the proliferation of unauthorized dwellings, shanties and encroachments in urban areas. In short, an array of preconceptions about the informal economy – some partly true, others false – colour the views of urban policy makers and planners. Such preconceptions make it difficult to convince urban decision-makers of the profound economic value of informal sector activities such as waste picking and trade.

Regrettably, there are very few studies that analyze (far less measure) the multi-faceted contributions of the informal sector to city economies. Solomon Benjamin's work on Bangalore is an exception. Distinguishing between the "corporate" and "local" economies of Bangalore, he notes that it is the latter that forms the city's primary employment base. Benjamin's wider argument is that local economies (another name for informal sector) account for the bulk of livelihood generation in urban India; and their neglect within formal planning and governance structures is unwarranted in light of their sheer diversity and vitality.⁴

What needs to be reiterated here is not only the significant employment impact of urban informal sector economies, but also their dense inter-linkages with formal sector economies within cities. A vast range of production inputs and consumption goods utilized by the formal sector and its employees are manufactured by the informal sector: everything from electric cables and conductors to portable fans, paints, industrial solvents, household and office furniture, storage devices, automobile accessories, carpets, clothing items, leather goods,

³ Income elasticity of demand is used to assess how sensitive the demand for a good is to an income change. The higher the income elasticity, the more sensitive demand for a good is to income changes. Very high income elasticity suggests that when a consumer's income goes up, consumers will buy a great deal more of that good. A very low price elasticity implies just the opposite, that changes in a consumer's income has little influence on demand

⁴ Solomon Benjamin, "Governance, Economic Settings and Poverty in Bangalore," *Environment and Urbanization* 12 (1) (April 2000): 35-56.

and so on. The informal sector also provides a compendium of services that enable formal sector employees to enjoy their desired quality of life: the vegetable vendor, the cycle cart puller; the construction labourers; the plumber; the electrician; the domestic worker; and the waste picker, who goes door-to-door everyday to collect household garbage. In short, the wellbeing of the formal sector economy and its employees is highly dependent on goods and services provided by the informal sector. Equally though, the wellbeing of informal economies is positively correlated with the wellbeing of formal economies. A decline in the consumption power of the formal sector will negatively impact on the local informal sector. The two parts of the urban economy, although frequently (and unjustifiably) treated as discrete domains by urban policymakers and planners, exist in a relationship of interdependence.

1.3. Chronological description of the development of the informal sector in SWM in India

Historically solid waste management in India has been the obligatory responsibility of the municipal bodies or their equivalent, during the era when there were no municipal bodies. In the municipal bodies across the country, the conservancy staff that carried out solid waste collection and transport activities was primarily from the *Dalit*⁵ and other socially excluded communities. As also those who carried out any work related to garbage, carcass handling and human excreta.

There is not much historical literature on the informal sector in solid waste management in India. What does exist are snippets of information reported in different studies that have been culled out of other studies. The socio-economic survey of Pune done by Gadgil⁶ in 1937 mentions the presence of *Mahars* who traded in used oil tins in the second hand goods market or *Juna Bazar*. There is also a mention of paper manufacturing units located close to the *Juna Bazar* in an area known as Kadgdipura (paper settlement) even now. There are reported to have been waste paper collectors during the rule of the Peshwas in Pune in the 17 century.

In Delhi, there is historical evidence for the import of *Balmikis*, or low caste workers who were traditionally associated with waste and sanitation work. These *Balmikis* were imported into Delhi when there were inadequate numbers of them available for waste handling in the city. Many *Balmikis* also began to offer informal services for waste removal when their sanitation work was replaced by modernization.

1.4. The Structure of the Recycling Sector

The recycling sector is structured in the form of a pyramid, with the waste-pickers/scrap collectors at the base and the reprocessors perched at the apex. The waste-pickers engage in the “free” collection of scrap from municipal garbage bins and dumps. Marginally above them are the itinerant buyers who purchase small quantities of scrap from households. In Delhi, some traders also called *Thia walas*⁷ buy waste paper and electronic waste, typically from commercial establishments. Such traders work out of a fixed, open space where they sit and carry out their operations. Between the scrap collectors and the reprocessors are various

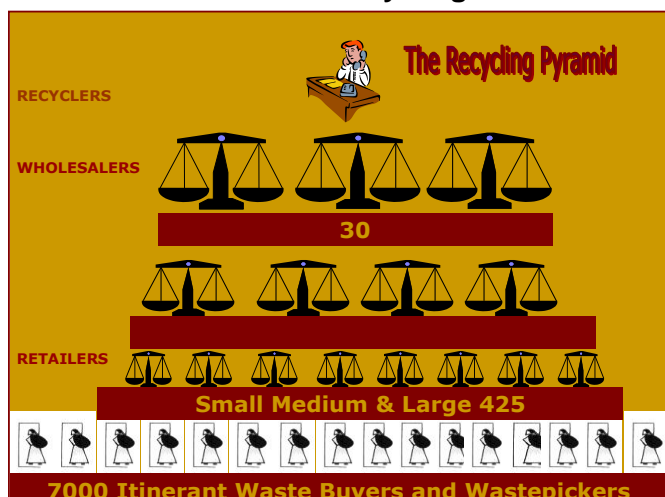
⁵ The term Dalit meaning oppressed was used by Dr Babasaheb Ambedkar (social reformer who struggled for the abolition of untouchability) for the collective of all the erstwhile untouchable castes. It has been imbued with political meaning ever since and will be used henceforth in this report.

⁶ Gadgil D.R. et al. Poona: A socio-economic survey. Part I: Economic. Poona, Gokhale Institute of Politics and Economics, 1945.

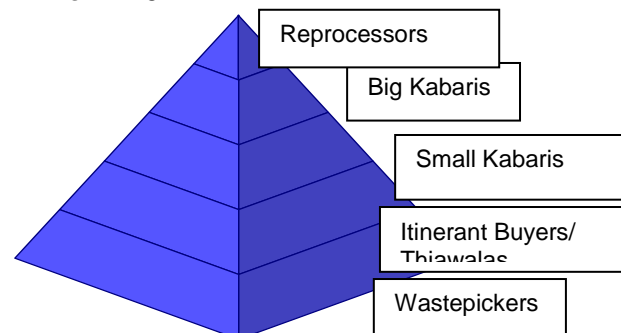
⁷ Thia walas buy waste paper and electronic waste, typically from commercial establishments. Such traders work out of a fixed, open space where they sit and carry out their operations.

levels of traders including retailers, stockists and wholesalers, most of whom are registered under the Shops and Establishments Act⁸.

Structure of the Waste Recycling Sector in Pune



Structure of Waste Recycling Sector in Delhi⁹ .0



1.4.1. Categories of Scrap Collectors¹⁰

Scrap collection is the first stage in the recycling sector. In India, it 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 that are provided by the municipalities for the disposal of garbage on the street, and from landfill sites where the collected garbage is transported and dumped. Itinerant buyers purchase small quantities of scrap from households, offices, shops and other small commercial establishments. Further there are two types of itinerant buyers differentiated on the basis of gender and their tools of trade. The women itinerant buyers for example carry baskets on their heads while the men use push carts to store the collected goods. All categories of scrap collectors rudimentarily sort and then sell the collected scrap commodities to retail scrap establishments by weight or unit.

A historical review of the commodities collected by scrap collectors in Pune¹¹ suggests that bones, rags and paper were among the first commodities to be collected. While the practice of collecting bones has steadily declined over the years, 20 % of scrap collectors reported to having collected bones sometime in their lives and 5 % continue to do so. The collection declined on account of the decline in demand following complaints about hygiene etc. In caste Hindu society there is a historical and cultural association between the *Mahars*¹² and *Matangs*¹³ and 'bones'. Members of both castes had rights to skin the hides of animal carcasses and eat carrion.

⁸ The Shops and Establishment Act is a state legislation act and each state has framed its own rules for the Act. The object of this Act is to provide statutory obligation and rights to employees and employers in the unauthorized sector of employment, i.e., shops and establishments. This Act is applicable to all persons employed in an establishment with or without wages, except the members of the employers' family.

⁹ Chintan Environmental Research and Action Group. Space for Waste, Pg 13. 2003.

¹⁰ Scrap refers paper, plastic, metal, glass and other recyclable waste commodities. The term

¹¹ Chikarmane,P, Deshpande.M, and Narayan.L, Report of Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, ILO, 2001

¹² The Mahar was entitled to carry all the dead bodies of animals, cows and buffaloes in his village, but was obliged to give the skin of the buffalo to its owner.

¹³ Mang (or Matang) was one of the 12 balutedars (village service providers), and his main job was to make the leather ropes from the skins of cattle and several other things like leather bag for fetching

The association of waste-picking with bones and paper that had to be collected from the streets and garbage led to the involvement of *Mahar* (including Neo-Buddhist¹⁴) and *Matang* women. Even when other scrap commodities became available they remained the only ones who would soil their hands. The occupation came to have a low status primarily because *Dalits* were involved and because of the filthy work environment. *Dalit* women also had fewer restrictions on mobility than women from the other castes. These factors precluded the involvement of even the very poor among the other castes and accounts for why the other *balutedar* castes (*kunbis*, the small agriculturists and those providing village services like oil pressers, gardeners, ironmongers, barbers, tailors and others) that migrated during the drought did not enter this occupation. It also accounts for the negligible presence of *Dalit* men in waste-picking and their higher presence in itinerant buying. Itinerant buying involves the use of capital and relatively better conditions of work and therefore has a marginally better status. Not many *Dalit* women were accepted as domestic help in caste Hindu society although they were employed in the homes of the Parsis, Muslims, Christians and the British. This meant that they had very little choice because they had no access to capital, no skills and no education. This supports the argument that if the sources of existence are under pressure, people fall back on familiar social mechanisms to promote their own interests (Bremen 1994). The fact that no other social category would start waste-picking would itself offer some measure of security and assurance of work to waste-pickers. Thus while entry into scrap collection appears to be 'closed' it has to do with the 'particularistic tendencies' (Bremen 1994) of the labour market, rather than extraneous entry barriers and the fencing off of the occupation by the existing workers.

Scrap collectors¹⁵ in Pune¹⁶ are most likely to be illiterate, landless, *Dalit* women migrants from the Marathwada region of Maharashtra state aged between 36 and 50 years who have been resident in the slums of Pune for at least two decades. The data show that fresh entry into scrap collection still continues albeit of the same social category. It however leads to increase in internal competition and pauperisation of existing workers and the displacement of the more vulnerable among them. The primary data support Bremen's theory of fragmentation of the labour market as a result of increasing competition among workers in the informal sector. Analysis of the data on participation of scrap collectors in allied occupations substantiates the above argument.

In North India, there are two distinct kinds of migrants who pick waste. One is rural workers who come to cities in search for work. Many are *Dalits*, which has a different connotation in North India. While it also reflects a low caste, there are no *Mahars* and other castes as seen in Maharashtra. Instead, various other persons, belonging to low castes and who are poor, undertake this work in cities and are also known as *Dalits*. In this case, it is primarily men who come to the city. The second category is that of migrants from Bangladesh, who work along with their families in this occupation. In Delhi, in the early 1990s, there were waste pickers from as far away as Salem, South India. These demographics have altered to primarily include only North and East Indians and alleged Bangladeshis. Almost all waste

water from the well for irrigating the land, thongs, whips used by the cultivator. He also acted as the village watchman. Though assimilated in the village from time immemorial, and participating in all the festivities and activities of the village, the Mangs were not entitled to any Haqs and were not regarded as Balichabhau i.e. Brother of Bali, the cultivator.

- Grant Duff, A History of the Maharattas, Oxford University Press, 1921 Vol.1

¹⁴ Neo-Buddhists are the Mahars who embraced Buddhism after the Dalit leader, Dr Babasaheb Ambedkar propagated that conversion to Buddhism was the only avenue open for the 'untouchables' to liberate themselves from the oppressive clutches of caste ridden Hindu society.

¹⁵ Scrap refers paper, plastic, metal, glass and other recyclable waste commodities

¹⁶ Chikarmane,P, Deshpande.M, and Narayan.L, Report of Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, ILO, 2001

pickers are under 45 years. Of the scrap dealers, 78% were found to be waste pickers who had accumulated some money and had some elementary education¹⁷.

1.4.2. Categories of Scrap Traders

The retail traders form the cutting edge level of the scrap trade. Most often they are located in slums with significant populations of scrap collectors. They have a direct relationship with the scrap collectors from whom they purchase scrap. Stocking and segregation is the first level of wholesale trade. Stockists are always also retail traders. Then there are the wholesale traders who specialise in certain commodities. Trade in commodities such as grain, agricultural produce, cotton and textiles, steel and non-ferrous metals, hardware and timber/wood is well established and markets exist for all these commodities. This is not so in the case of scrap.¹⁸ Trade in scrap is relatively invisible and unrecognised.

In Pune, there are no geographical areas designated as scrap markets. The traders are not part of associations like the Pune Merchants Chamber or the Mahratta Chamber of Commerce, Industries and Agriculture. The scrap trade is generally believed to have a very low status within the hierarchy of commodity trading, regardless of the profit potential. It has no respectability. One of the reasons is that scrap is collected from garbage and therefore considered 'dirty'. The retail trade involves daily interaction with people who are looked upon as 'low-caste, uncouth, foul mouthed, the scum of society'. Nonetheless, the trade operates with the active support and patronage of the political class.

In Delhi and Mumbai however, the picture is different. Mumbai and Delhi are major trading centres for many commodities including waste. Central Mumbai is locus of major recycling activities. The presence of a waste mafia in Mumbai is also alluded to. Mumbai is India's largest metropolis. Its financial prosperity fuelled by flourishing markets and booming businesses makes it fertile ground for criminal activity in every sector including waste collection and recycling. According to municipal sources, till the early 2000s, Delhi was the biggest plastic recycling hub in Asia. In the West of the city lies the biggest ferrous metal market. The North West includes the big plastic markets. Eastern Delhi is the electronic waste area. Central Delhi is the hub for old paper.¹⁹ The glass and paper traders have made associations that represent their interests. Unfortunately, they have not been able to garner official support at the highest levels for their work, but they have been able to find support amongst the lower level politicians. Some of them have been able to garner support with significant results.

1.4.3. Reprocessing²⁰

Processing and reprocessing industries that source scrap are usually in both the informal and the formal economy. Plastics, electronic waste, are typically in the informal sector while paper, cardboard, metals and glass are in the formal sector. A wide variety of enterprises utilise scrap commodities as raw material. In terms of size the range extends from small, registered enterprises in the case of plastic bags to medium size labour intensive small-scale industries for road scrap (waste paper) to the large modern automated multinational factories

¹⁷ Chaturvedi, B. In Khushwant Singh (ed) *City Improbable : An Anthology of Writings on Delhi. The Kingdom of Waste*. Viking, Penguin India. 2001.

Chintan, Study on Informal Recycling Sector of Delhi. 2001.

¹⁸ Maharashtra: State in Western India

¹⁹ Chaturvedi, B. In Khushwant Singh (ed) *City Improbable : An Anthology of Writings on Delhi. The Kingdom of Waste*. Viking, Penguin India. 2001 and Chintan Environmental Research and Action Group. *Space for Waste 2003. Delhi*

²⁰ Chikarmane,P, Deshpande.M, and Narayan.L, Report of Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, ILO, 2001

in the case of paper and glass. Many are located in industrial areas though not necessarily in industrial estates. All the enterprises utilise power, the most common form of power being electricity. Their capital investment varies from a few hundred € to several hundred thousand €. The production processes in the enterprises are automated to varying degrees. Manual processes are relatively higher in the processing of all kinds of plastic scrap whereas there is a high degree of automation in the processing of other commodities.

Conclusion

In this chapter we have examined the dimensions of the informal sector in general as well as with specific reference to the informal sector in waste. For the purposes of this study, the term “informal” refers to those who generally make a living from solid waste but are not formally in charge of providing the service i.e. having contracts with a municipality or being paid by it. Therefore, normally a cooperative working under a contract with the municipality should not be regarded as “informal” whereas a co-operative working without recognition of the official system is part of the informal sector. However, within this study and due to the fact that in the past various informal groups were transformed in formal ones, these groups (cooperatives or enterprises of various kinds) have been covered within the study.

Chapter II. The Legal Framework and its Evolution

Introduction

In this chapter we review all the laws, rules and regulations pertaining to solid waste management as they relate to the waste informal sector. The salient features of the laws are set out and the implications examined in the context of this study.

India has a federal structure with the Central Government at the helm followed by State Governments of the constituent states and institutions of local governance such as the Panchayats in rural areas and the Urban Local Bodies in urban areas. Urban Local Bodies according to their size may be Municipal Councils (small) or Municipal Corporations (large). The Constitution defines the jurisdiction of the governments at each level. Some matters pertain to what is called the concurrent list on which both the Centre and the State can legislate. The laws enacted by the Central Government are adopted by the States. Urban development is what is referred to as a State subject and the State government is at liberty to enact and amend laws on the subject within the broadly defined parameters of the Constitution and the laws enacted by the Central Government.

2.1. The Constitution of India and Central Legislations

The Constitution of India provides the overarching framework for solid waste management as well as environment protection. Article 243 (W) of the Constitution of India specifies the powers, authority and responsibility of the Municipalities. The Article provides for the State government to empower Municipalities to carry out the functions listed in the Twelfth Schedule of the Constitution. The functions that are relevant to the informal sector in solid waste management are Public health, sanitation conservancy and solid waste management (No.6) Urban forestry, protection of the environment and promotion of ecological aspects (No.8), Safeguarding the interests of weaker sections of society (No.9) Urban poverty alleviation (No.11)

Article 51(A) part 4A of the Indian Constitution has identified 'protection and improvement' of the environment as fundamental duty of citizens. Hence, the citizens must co-operate with the Urban Local Bodies to protect the environment. After a series of petitions filed by individuals and organizations, the Supreme Court rulings have included 'clean and green environment' in Article 21 (Protection of Life and Personal Liberty) of the Indian Constitution.

The present legislative framework is broadly contained in the Environment Protection Act, 1986; the Water Prevention and Control of Pollution Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. The Environment Protection Act of 1986 is the umbrella Act that pertains to the management of solid waste. Solid waste management including collection, transport and disposal was required to be carried out by the Municipalities under the respective Municipal Acts. There were no other rules and regulations prescribed till the Hon. Supreme Court of India issued directives to the Government regarding the framing of rules because citizens started approaching the courts for relief in these matters.

In the year 2000, the Municipal Solid Waste (Collection and Handling) Rules (henceforth referred to as MSW rules) under the above Act, came into effect. The rules not only acknowledge the importance of waste segregation and recycling, but also mandate that these must occur. They emphasize the importance of technology, monitoring, and conformance to standards in SWM. Recycling is described as the process of transforming segregated solid wastes into raw materials for producing new products, which may or may not be similar to original products. The legislation also allows for incineration and pelletization with or without energy recovery to be labelled as recycling. Despite the vital role of the informal sector in segregation and recycling of solid waste, the legislation is conspicuously silent on any mention of the informal sector.

The MSW Rules are not prescriptive but offer a range of non-hierarchical options that individual municipalities can choose from. Given the complexity of municipal decision making processes, the non-directiveness of the rules are both a boon and a bane. For example, the Rules urge segregation and recycling but fail to expressly acknowledge that the informal sector actors already undertake these activities in efficient and cost-effective ways. By allowing the use of technologies such as incineration, the Rules unwittingly promote the displacement of waste pickers and waste handlers in the informal sector, since incinerators compete with these workers for waste of high calorific value. Similarly, the emphasis on privatized door-to-door collection of household garbage is a double-edged sword: on the one hand, it provides a window of opportunity to waste pickers to become the private actors who undertake door-to-door collection; on the other hand, it allows for Municipalities to outsource this task to large corporate players, thereby displacing the waste pickers and exacerbating urban poverty and inequity. Ultimately, the Rules fail to connect Solid Waste Management policy to existing good practices such as segregation and recycling by informal sector actors.

Thereafter, the Government of India also brought out a slew of regulations²¹ on other types of waste such as plastics (particularly plastic bags) and hazardous waste like batteries. Some of these related to the import of plastic waste from other countries for processing in the recycling markets and industries in India. There was growing recognition in policy circles that informal sector actors were necessary to urban recycling, although it was grudging and failed to address the informal sector's own needs.

A Manual on Municipal Solid Waste Management, 2000²² was prepared by an Expert Committee constituted by the Ministry of Urban Development and Poverty Alleviation, Government of India, after considerable deliberation. While not a policy directive, it is the first document of its kind and has been extensively used by Urban Local Bodies across India. The manual focuses on operational issues. It recommends recovery, sorting and recycling of materials such as glass, paper and metal, for an economically and environmentally sustainable waste management system. In Section 10.7.7 titled Collection of Duly Segregated Recyclable and Non Biodegradable Waste from Households, it is specifically mentioned that waste pickers should be organised; recognised through issue of identity cards; provided bags and tools and allotted the work of door to door collection of waste through NGOs. The manual designates recycling as next only to waste reduction as a waste management option.

National Environment Policy passed in 2006²³ contains clauses pertaining to the informal sector that refer to: developing private-public partnerships on payments by users, cleaning

²¹ S.O.432(E), [16/5/2001] - The Batteries (Management and Handling) Rules, 2001
 Hazardous Wastes (Management and Handling) Amendment Rules, 2000
 S.O.705(E), [2/9/1999] - The Recycled Plastics Manufacture and Usage Rules, 1999
 S.O.698(E), [17/6/2003] - The Recycled Plastics Manufacture and Usage (Amendment) Rules, 2003
 Bio-Medical Waste (Management and Handling) (Amendment) Rules, 2003
 The Hazardous Wastes (Management and Handling) Rules, Draft (2007)
 Maharashtra Plastic Carry bags (Manufacture and Usage) Rules, 03 March 2006
 Attention is invited to Public Notice No.392 (PN)/92-97 dated 1.1.1997 according to which import of Plastic Waste/Scrap (except PET Bottle Waste/Scrap) and animal dung or animal excreta shall not, be permitted, except against a license.

²² Manual on Municipal Solid Waste Management published by Central Public Health & Environmental Engineering Organisation, Ministry of Urban Development, Government of India, 2000 <http://cpheeo.nic.in/>

²³ National Environment Policy, Government of India, 2006 <http://envfor.nic.in/nep/nep2006e.pdf>

up pre-existing toxic/hazardous waste dumps, strengthening capacities of local bodies for segregation recycling and giving legal recognition to informal sector systems.

2.2. State Legislation

Among the Indian states the Government of Maharashtra has been fairly responsive to the inclusion of waste pickers. This has largely been on account of the presence of mass organisation of waste pickers in Pune and Mumbai and other cities. State government resolutions are important decisions or government orders. Quite often they are executable instruments that stem from laws and regulations. In 1999²⁴ the Maharashtra Government issued an order to Municipalities directing them to issue identity cards to waste pickers. This was followed by another order in 2002²⁵ directing municipalities to allot the work of collecting waste from homes, shops and market places to organisations and cooperatives of waste pickers and to initiate such organisations where they did not exist.

The crisis caused by the Mumbai floods in 2005 spurred the Government of Maharashtra into passing the Maharashtra Non-biodegradable Garbage (Control) Ordinance, 2006²⁶ for regulating handling of non-biodegradable waste. The Ordinance was converted into an Act soon after. (See Annexure II.2 and II.3 for details) The first of its kind in India, this law relating to the collection, handling and disposal of non-biodegradable waste is explicit in setting out the responsibilities of various stakeholders including citizens. It acknowledges the value of recycling and waste pickers. The Rules framed to implement the Act provides for recycling sheds to be allotted to waste pickers.

Pursuant to the Act the Government of Maharashtra issued Government Order of 2006²⁷ framing an exhaustive Action Plan for the Implementation of the MSW Rules 2000 in municipalities. The plan favours not only integration of the informal sector but also sets out comprehensive guidelines for integrated solid waste management. Maharashtra State legislation is a particularly forward-looking policy in terms of creating an enabling environment for informal sector waste recyclers. Whether, it has been emulated by any other State till date, is not known.

2.3. Municipal Laws

Municipalities in India are subject to the different municipal laws under which they have been constituted. Mumbai and Pune for example have been constituted under the Mumbai Municipal Corporation Act, 1888 and the Bombay Provincial Municipal Corporation (BPMC) Act, 1949 respectively. The enactment of Central or State legislation in respect of matters within the purview of the urban local body does not automatically translate into implementation. The local body is required to frame its own rules for compliance and penalties for non-compliance. The ensuing gap between legal provisions, policy and practice is often the cause for delay and non-implementation. In respect of the functions of the Corporation, a distinction has been made between those that are Obligatory and those that are Discretionary. SWM is identified as obligatory duty. While the Acts and Rules passed by

²⁴ Government of Maharashtra, Water Supply and Sanitation Department, Government Resolution No. Ghakavya- 1099/ Pra Kra 314/ Papu-22 Dated: 6, April 1999

²⁵ Government of Maharashtra, Water Supply and Sanitation Department, Government Resolution No: Ghakavya 1001/ Pra. Kra 546/ Papu-22 Date:5 January, 2002 (see Annexure II.1 for details)

²⁶ Maharashtra Non-biodegradable Garbage (Control) Ordinance, 2006 (See Annexure II.2. for details)

Maharashtra Non-biodegradable Solid Wastes (proper and scientific collection, sorting and disposal in the areas of the municipal corporation) Rules 2006 (See Annexure II.3. for details)

²⁷ Government of Maharashtra, Urban Development Department, Resolution No. SWM 1006/CR53/UD-16 dated 25 October 2006 (See Annexure II.4. for details)

the Central and State governments apply to Municipalities they have to be adopted by the urban local body in order to be implemented.

The Greater Mumbai Cleanliness and Sanitation Bye-Laws passed by the Municipal General Body²⁸ in 2006 enforce waste segregation and allow for allotting dry waste sorting centres to registered cooperative societies of waste pickers or any other agents.

In February 2007, the Pune Municipal Corporation General Body Resolution No. 476²⁹ approved the formation of and support to the constitution of a central cooperative- that would integrate waste pickers into the door to door collection of solid waste. While the dynamics in respect of this decision will be described in the next chapter on integration, the salient features of the docket (unofficial translation) are spelt out in Annexure II.5. In 1995-96 the Pune Municipal Corporation had been the first municipality in the country to endorse the identity cards of waste pickers; later in 2002 it was again a pioneer in providing medical insurance cover to all registered waste pickers in the city and in 2007 the PMC once again made history by resolving to support an integration model outside the contracting framework. The General Body Resolution in Pune was preceded by a pilot to scale that drew legitimacy from authorisation given by the Municipal Commissioner using his powers under the BPMC Act.

Conclusion

In this chapter we have documented the statutes that provide the enabling framework for integrating the informal sector in solid waste management. For the most part the framework in India is enabling although not explicit for the most part, in making provisions for incorporating the informal sector in solid waste management. Among the States, Maharashtra, and among the Municipalities, the Pune Municipal Corporation, have been progressive and inclusive in their approach. In large measure, this has to do with the long standing large scale organisation of waste pickers in Pune and Mumbai backed by research and data to support integration. Existing laws often provide spaces in which initiatives for the informal sector can be taken. These become precedents which later can get codified into law.

²⁸ Greater Mumbai Cleanliness and Sanitation Bye-Laws were passed by the Municipal General Body in 2006 <http://www.mcgm.gov.in/irj/portal/anonymous/qlblaw>

²⁹ Please see Annexure II.5. for Unofficial translation of Pune Municipal Corporation General Body Resolution Number 476 dated 22 Feb 2007 for forming and supporting a cooperative of waste pickers

CHAPTER III Overview of the Processes of Organisation and Integration of Waste pickers in India

Introduction

This overview is presented in three parts. In the first segment we trace the history of organising waste pickers over a span of about 30 years, ending with their current state of organisation. In the second segment we will examine some of the dynamics that impact upon organising and integrating efforts. And since organisation has taken place in the context of events and changes in the external environment, the third segment presents these events and changes, highlighting the points at which there is convergence.

3.1. History of organising waste pickers

Self Employed Women's Association (SEWA)³⁰ first brought visibility to waste pickers through its publication the Paper Pickers of Ahmedabad. The early approaches to organisation of waste pickers (1972-1991) 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.

The Project for the Empowerment of Waste pickers of the SNDT Women's University in Pune in Western India started organising waste pickers around their work issues in the year 1990 as an off shoot of its adult education programme. The project issued identity cards to waste pickers; promoted source segregation of waste and its door to door collection by waste pickers amongst other activities. About the same time in Bangalore in South India WASTE WISE a project of Mythri Seva Samiti implemented community based, decentralized, solid waste management by neighbourhood resident groups with the integration of waste pickers. In Chennai, in South India Exnora employed slum youth termed "Street Beautifiers" to collect waste door to door and to keep specific vicinities clean. The costs were recovered from the Residents' Associations. The unemployed youth were not waste pickers. They started sorting and selling the recyclables, with the result that the waste pickers did not get any.

In 1991, the SNDT Project Team in a paper titled "Waste pickers' Access to Waste: The Threat of Privatisation"³¹ argued that the work done by waste pickers was socially relevant, environmentally beneficial and economically productive. It also argued that waste pickers had established a customary right to recyclable scrap similar to the way in which the customary rights of forest dwellers to minor forest produce were being considered. It asserted that waste pickers' livelihoods could be protected and upgraded best by promoting source segregation of waste and its door to door collection through waste pickers. In the field the first interventions were campaigning for source segregation of waste and its door to door collection by waste pickers with identity cards. The understanding that the future of the waste informal sector was intertwined with the future changes in solid waste management was informed by the field experience of the founder-activists while interacting with and organising waste pickers as part of a project. Door to door waste collection services started by private entrepreneurs competed with those provided by waste pickers who were no longer able to access recyclables. The ensuing realisation that mass organisation of waste

³⁰ Self Employed Women's Association SEWA, established in 1972 was the first trade union of self employed workers in the country. Today it has a membership base of over 900000 workers across India and has been accorded the status of a National Trade Union by the Labour Ministry, Government of India

³¹ Chikarmane, P and Narayan, L. Wastepickers' Access to Waste: The threat of privatisation paper presented at the National Conference of the Indian Association of Women's Studies at Bangalore, 1991

pickers across the city led to a series of processes and the formation of the Kagad Kach Patra Kashtakari Panchayat³² in 1993.

Right from the outset, the Kagad Kach Patra Kashtakari Panchayat (trade union of waste pickers hereafter referred to as KKPKP) focussed on the contribution of waste pickers to reduction in municipal waste handling costs; resource recovery; environment conservation; recycling and economic productivity. KKPKP argued that waste pickers were essentially recyclers, collecting and trading recyclable commodities, and not scavengers. Regulation of conditions of work and upgradation of livelihoods was the way forward rather than transfer into other occupations. This perspective is shared by the organizations that have subsequently organized waste pickers in India. Independently, organizations in Latin America share the same perspective and have followed the same trajectory. The Earth Summit at Rio in 1992 brought environmental concerns into the public arena and onto the agenda of governments across the world. Reduce, Reuse, Recycle became buzzwords in respect of waste.

Delhi's informal sector entered the limelight in the early 1990s due, in part, to a series of studies³³ about it that were widely disseminated. *A Tale of Trash* encompassed all the aspects of waste recycling and was based on primary field research in various neighbourhoods of Delhi. All the studies cited underscored the value and the work of informal sector waste recyclers. In Delhi, Srishti, registered in 1991, was the first organization in that city to start working with waste pickers in 1993. The work was related directly to improved livelihoods and they were organized to provide formal waste collection systems with large institutes and residential areas. The work included engaging in a dialogue with waste generators to enable them to understand the relevance of including waste-pickers in their emerging waste management initiatives.

3.1.1. Status of organisation of waste pickers

Existing studies indicate that about 1 per cent of the population is engaged in the waste informal sector in India³⁴. Numerically waste pickers in India possibly outnumber those in any single country in the world. India has a growing consumer base that generates increasing quantities of waste and robust recycling facilities that create a demand for recyclables. The interests of waste pickers and itinerant waste buyers are tied in with those of small and medium scrap processing enterprises and also many large industries that source scrap as raw material. The environmental consequences of unchecked dumping of waste are well known and documented. The economic prospects for the recycling sector therefore seem to be promising.

At the national level there has been growing recognition of the existence and value of recycling and the role of waste pickers in the recycling chain. There has also been

³² Kagad Kach Patra Kashtakari Panchayat (KKPKP) is probably the first sector specific organisation of waste pickers in India. It was registered in 1993 as a trade union of waste pickers and itinerant scrap buyers. For a detailed case study www.wiego.org

³³ Chaturvedi, B. *A Tale of Trash*, New Delhi, 1993

Galloway, N. *India's Waste Problems*. Development Alternatives, New Delhi. 993

Venkateshwaran, S. *The Wealth of Waste: Waste Pickers, Solid Waste and Urban Development*, Friedrich-Ebert Stiftung, New Delhi, 1994

³⁴ Bartone, C. *The Value in Wastes*. Decade Watch. 1988; September: 3-4.

Chikarmane, P., Deshpande, M., Narayan, L. *Report on Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune*, International Labour Organisation, Geneva 2001

Medina, M. *Informal Recycling and Collection of Solid Wastes in Developing Countries: Issues and Opportunities*. Tokyo: United Nations University / Institute of Advanced Studies Working Paper No. 24, 1997: 1-2.

acceptance of the need to drastically change the conditions of work by integrating them into solid waste management. The need to build linkages between the formal and informal stream and possible institutional ways of doing this has also been articulated.

The organisation of waste pickers is geographically not very extensive across India. There are 24 organisations of waste pickers or those that work with waste pickers in India. Most are NGOs registered as public trusts or societies. Many of them have also registered cooperatives so there are multiple entities of the same organisation. There are however some organisations that have reached a certain stage of organisational development, depth and scale in their work with waste pickers. SEWA and KKPKP are the oldest among the membership based organisations. Almost all the organisations work in Tier I (metros) and Tier II cities (million plus population).

All the 24 organisations are part of the National Alliance of Waste pickers in India. This is a loose non-institutionalised network that member organisations relate and respond to. It had its first meeting in 2005 and has since been meeting about twice a year. (Please refer Annexure III for Table I: Profile of Organisations of waste pickers and Organisations working with waste pickers in India). The Kagad Kach Patra Kashtakari Panchayat functions as the secretariat of the National Alliance. The latest initiative of the National Alliance was a National Consultation held in July 2008 to discuss the draft National Policy for Ensuring Decent Livelihoods in the Recycling Industry (A policy for inclusion and integration of the informal recycling sector/industry in the process of solid waste management). The draft policy has been prepared by a team of lawyers³⁵ after consultation with the National Alliance as part of a global project on laws for the informal sector.

SEWA and a few other organisations have established waste picker cooperatives that operate in specific pockets in their respective cities; likewise KKPKP (trade union of waste pickers) and the Pune Municipal Corporation have supported the setting up of SWaCH (solid waste collection and handling) a cooperative of 3000 members for waste collection and processing across Pune city; Nidan in Patna has set up a private limited company to take its waste collection work to scale; Chintan in New Delhi has scaled up to pick waste from the New Delhi Municipal Council. Infusion of human, material and technical resources will enable the large scale models to be tested and strengthened.

The existing efforts in the work with waste pickers in India can be broadly classified as follows.

- Organisation of waste pickers into trade union/cooperative/Self Help Groups/Associations
- Issue of photo-identity cards to waste pickers – in a few cities these have been endorsed by the municipalities
- Elimination of child labour in the sector and promotion of education among children of waste pickers and child waste pickers
- Increasing access to credit through self help groups and credit cooperatives
- Market based interventions such as cooperative scrap stores
- Interventions to integrate waste pickers into solid waste management in order to improve their conditions of work of waste pickers
- Increasing access to social protection such as life insurance and medical insurance

³⁵ Women in the Informal Economy Globalising and Organising, Harvard University www.wiego.org

- Research to establish and quantify the contribution of waste pickers to solid waste management
- Advocacy for all of the above.

3.2. The dynamics of organising and integrating waste pickers into solid waste management

The actual level of organisation of waste pickers on the ground has not kept pace with the favourable changes in the policy climate. The organisation of waste pickers in India has been at best sluggish despite the fact that there has been growing recognition of the informal role of waste pickers in solid waste management. Also the creation of demonstrable models of integration to scale has been very limited. Some of the dynamics are discussed below.

3.2.1. Challenges in organising workers in the informal economy

Organising workers in the informal economy is more difficult than organising workers in the formal economy. Generally the trade union and workers movement in India has been limited to the organisation of industrial and factory workers, those protected by laws, rules and regulations with some semblance of employer employee relationships. NGOs have also favoured vocational training, upgradation of skills, production and marketing of consumables while working in urban slum communities. Few have ventured into work with existing workers. Waste pickers are dispersed, argumentative and arrogant at times, street wise and street smart and willing to challenge and ask questions simply because they have nothing to lose being where they are. They are also willing to take risks, creative and entrepreneurial. In Pune the Kagad Kach Patra Kashtakari Panchayat has therefore used a very organic, participatory approach consistent with the lives and culture of waste pickers. This makes organising informal waste pickers more challenging than that of workers in the formal sector, who are much more secure and therefore fear losing their tangible security.

In Delhi in particular, the problem has not been as much of the above as that the waste pickers tend to be migrants who return to their villages during specific periods in the year. Therefore, all organizing and formal work has to take into account this demographic trend, which is very challenging, given the demands of formal service provision. To handle this, Chintan has ridden upon traditional ways to safeguard employment – such as placing a close relative to ensure that societal demands and modern accountability could fit into a single framework. Given the informal nature of work, the flexibility that many waste pickers enjoy, or need, and that some of them even do types of traditional ‘work’, organizing them becomes additionally challenging as there is no fixed routine within which to intervene and make time for organizing activities.

3.2.2. Waste picking not considered work

Waste picking is also not often considered ‘work’. It is considered to be scavenging. The trend towards defining it as ‘work’ and quantifying its economic nature and contribution to the economy came about only in the 1990s. Probably the first quantification study in India was commissioned by the International Labour Organisation and carried out by a team of researchers from KKP and SNDT Women’s University in Pune in 2000-2001. A similar study titled Recycling Responsibility³⁶ was subsequently carried out by Shristi in Delhi.

³⁶ Chowdhary, A. *et al* Recycling responsibility: Traditional systems and new challenges of urban solid waste in India, Shristi 2002

3.2.3. Social exclusion: the links between caste, gender and occupation

One very clear argument put forth by the *Dalit* movement (erstwhile untouchable castes) is that waste picking or any waste related occupation perpetuates the caste-occupation link prevalent in Indian society. Waste pickers in India belong almost exclusively to the most economically marginalised and socially excluded caste groups. That the link between caste and occupation is not incidental but an outcome of deeply entrenched beliefs and practices is clear from the fact that all poor do not gravitate towards waste picking despite the ease of entry and relatively higher earnings than domestic work for example. While the push factor of necessity does operate, the fact remains that the waste picker ‘chooses’ waste picking over a set of other informal occupational options, however constraining and limited they might be.

Organisation and improvement in conditions of work is often perceived as encouraging *Dalits* to continue in the same occupation, both in Maharashtra and in North India. Liking scavenging to carrying of night soil³⁷, the view expressed is that the ban against manual scavenging and the shift to latrines with water closets has meant an improvement in the conditions of work but has not resulted in any change in the social composition of the workers doing this work. Consequently, the proponents of this view believe that scrap collection should be eliminated.

The KKP KP came into existence with the slogan “*kachra amchya malkicha nahi kunachya bapacha*” (waste is ours, it does not belong to anybody’s father!). At the time some waste pickers had been displaced by a private entrepreneur who offered a door to door garbage collection service. In the early years the KKP KP slogan and effort was the target of criticism on the grounds that it was perpetuating caste linked occupations as explained above. Also disparagingly it was asked, “what are you asserting rights to? *Garbage?*” KKP KP has countered the criticism by arguing that changes in the conditions of work changes the image of the occupation itself. Collection of scrap for recycling is a legitimate productive activity and if it is carried out in conditions that safeguard the rights of workers then the profile of the occupation itself will change. This is already in evidence at the present stage of integration of waste pickers in Pune. As a consequence, in Pune there is growing evidence of members from other castes wanting to get into door to door collection work, which is perceived as having greater respectability and dignity because it is service provision.

According to municipal law waste is the property of the municipality, but only once it reaches the local dust bins, or *dhalaos*, owned by the municipality. Reaching waste there is the responsibility of the waste generators. Therefore, while door to door waste collection came up in this legal grey zone, waste picking was embroiled in the Acts. During any conflict, municipal officials discount the services of waste pickers and instead, remind them that they are being allowed to take away municipal property. Organizing around waste as a common property, and municipalities as custodians of public property has been a central pillar of organizing in Delhi by Chintan.

3.2.4. Invisibility to visibility and related issues

Waste pickers are relatively less ‘visible’ than many other workers in the informal economy because they do not necessarily come into contact with ordinary citizens. Their place of work is the garbage bin and the landfill, both of which are actively shunned by citizens. Since they are self employed, citizens are not formally linked to them and do not interact with them as they do with vendors. In the public eye they constitute a ‘nuisance’, are alleged to be nimble

³⁷ Carrying of night soil refers to the inhuman practice of lifting of human excreta from pit latrines (toilets) by people belonging to specific castes in India. The practice continues in many states of the country although it is banned by law.

fingered thieves, often seen to be messing up the place and perceived as dirty. Ordinary citizens on the other hand relate on a daily basis to domestic workers, hawkers and vendors and other service providers even though they live in the same slums.

The extremely dehumanising conditions in which waste-pickers carry out their work and their obvious vulnerability is powerful enough in itself, for the average thinking, reasonably conscious human being to feel a twinge of sympathy, concern and guilt. Waste-pickers have been called names, been discriminated against, victimised and abused but their horrific work situation is not one that a citizen (including bureaucrats, politicians, generators of garbage, even scrap traders) would feel comfortable about. There is therefore an element of sympathy among citizens and bureaucrats alike.

Integration however, brings the waste picker face to face with the citizen. The dynamics of the relationship change. The waste picker becomes accountable to the service user and the service user demands accountability. The free roaming waste picker has to come to terms with this. At the same time the service user has to acknowledge that the waste picker in her/his new role is not going to be a pushover. In Pune change in the stereotypical image of the waste picker as 'thief' is also taking place post integration. The value of agitations and protests along with favourable media support that led to significant reduction in police harassment over the years cannot be underestimated. However, the integrated waste picker in uniform with a push cart and identity card inspires a level of confidence among citizens that challenges the theft myth. Suman More for example says in the area where she has been working for the last two years, she is asked to enter the house and collect the garbage bin from the kitchens. This is a significant change in an area where residual conceptions of caste pollution still persist.

3.2.5. Living on the margins

Waste pickers are sometimes migrants who find it difficult to establish their citizenship rights. Citizenship in this case is not viewed narrowly in the country context but from the point of view of getting entitlements and political representation and voice. Decisions related to waste pickers and solid waste, are played out in the local arena and if they are not voters, their bargaining power is considerably reduced. This translates into very real vulnerability to loss of livelihood, displacement, eviction and insecurity. Some examples are cited below.

1. Push back policy!

From 2002 onwards, Chintan has observed a large number of official round-ups and raids on waste pickers' living areas, with intent to deport them. Home Ministry officials have informally offered the explanation that this is a logical move since illegal immigrants are poor and unskilled. Hence, it "is clear that they will do this kind of work." A police official responsible for Bangladeshi extradition in South Delhi stated that, "wherever you go, maid servants and waste pickers are all Bangladeshis. Because once one of them becomes a waste picker, all the others learn from him and become waste pickers." The media has also reinforced this bias on occasion by referring to waste pickers as Bangladeshis. Such bias plays out in policy making. The Mayor of Delhi, during a meeting in September 2007 with Chintan and our union members, asked if any of the people who would benefit from her policy of inclusion of the informal sector in solid waste plans were Bangladeshis. She said that she would not like to make plans or set aside resources for such persons. "Please make sure we don't end up with Bangladeshis in our work," she urged. Prior to that, in May 2007, during a large fire in a slum inhabited by waste pickers where Chintan worked, several young waste picker children and women were severely injured and some even killed. A high ranking politician visited the site and announced an ex-gratia payment to the families of the injured or dead. The amount she announced – Rs. 2,500 (\$60) – was a shockingly small sum for Delhi, particularly for this kind of compensation. When the Chintan team, which was present there, inquired why she was offering such a small amount, she responded with two reasons. Firstly, she said, Delhi

had a large number of accidents where she announced compensation and she wanted to stay within her budget. Secondly, she said, “Aren’t most waste pickers Bangladeshi anyway?” She indicated that it was unnecessary to spend any additional resources on such illegal persons. Therefore, in Delhi and large parts of North and East India, there is now a widespread perception equating waste pickers with illegal Bangladeshi migrants. The current anti-Bangladeshi sentiment among the public and among policymakers operates as a powerful cultural and political deterrent to the integration of waste pickers into urban policy. Policy makers are hesitant to be inclusive of a group that they perceive as largely illegal, robbing Indians of their jobs and usurping resources not intended for them.

2. Exclusionary Urban Renewal: the case of Delhi

A sweeping change washed over Delhi from the turn of the century, part of the stated effort by Delhi’s planners to transform it into ‘A World Class City.’ This vision required re-development of vast tracts of land, both for formal recreation and for building purposes. Although the several provisions of the various plans that were part of this larger vision will not be detailed, suffice to mention that the urban poor were severely short changed, despite their critical role in the city’s functioning. Coinciding with this was a hardening stand against slum dwellers and the informal sector amongst key political figures, a push that was led by the Supreme Court. Several other Public Interest Litigations have since resulted in demolitions of several scrap shops as part of a larger sealing of illegally created shops. Additionally, on various occasions junk shops in slums were banned on the grounds that they were polluting and responsible for spreading dirt.

Meanwhile, a cabinet minister also closed down the second hand goods market, popularly called the Sunday Bazaar and shifted it to a much smaller area, a few kilometers away, after a gap of several months. He did this because he wanted to convert the area where the Bazaar was held into a green zone. This bazaar was where 1100 registered and an estimated 2000 unregistered persons sold hundreds of repaired, recycled and dismantled items, some salvaged from trash and others bought and repaired. Several junk shop owners would keep aside their intact goods for re-sale in this market. It was the only trade market of its kind. It was allowed in a new area after 4 years, but lost both its vendors and clients substantially.

The demolition of slums has been the most visible policy direction in efforts to remake Delhi as a world city. In the last decade, various estimates suggest that of the 3.5 million people living in slums across Delhi, over one million has lost their homes due to slum demolition. According to the “Hazards Centre”, a Delhi-based consulting group for local communities, a significant number of demolition and eviction requests have been filed by citizens’ groups, particularly Residents’ Welfare Associations (RWAs), which do not wish to allow such slum clusters in their vicinity. These are typically in the form of Public Interest Litigations. Some concerns that they have cited include safety, visual pollution and environmental quality. Scrap shops and waste segregation activities have also been identified as undesirable by such groups in their interactions with municipal officials. Chintan’s ongoing work with wastepickers and waste dealers suggests that urban renewal policies have had a deleterious impact on their livelihood. A focus group discussion with waste dealers and waste pickers in the Nizamuddin Dargah area was instructive. The waste recycling activities, clustered around a series of junk shops, were demolished on the basis of a court order, after the Jangpura Residents’ Welfare Association filed a case in court. The impacts are as below :

The waste pickers say that instead of their customary two rounds of picking, they had to reduce picking to one *pheri*, (round/route) of wastepicking, compared to the typical two rounds they would take usually. This was because there was no space to store waste, since their slums were torn down. Hence, they were required to sort and sell waste the same day. Furthermore, since they did not have the older junk shops nearby, they were forced to sell

materials to at least two different dealers, each trading only in separate, mutually exclusive items, both at a considerable distance. The junk shops took advantage of their market monopoly and offered rates much lower than prevailing ones. Some of them complained that instead of the 150 rupees they earned previously, they were left with less than 80 consequently.

Subsequently, a sealing drive also closed down all junk dealers in the vicinity: In 2006, the Supreme Court asked the municipalities of Delhi to seal all commercial operations operating in residential areas, as they were in violation of the Master Plan 2021. Over 18,000 establishments including recycling establishments in the informal sector were closed down, a policy known as sealing the premises because officially, a lock with a government seal was to be used to indicate the action of closing down. Later, however, a list of 24 exempted establishments was created to cater to the needs of well-off residents. The list included ATMs, but not junk shops, recycling centers, etc. At the ground level, several junk shops have closed down permanently, unable to withstand a long period of closure without business.

3. Exclusionary slum redevelopment

In Pune, while for the most part there has been progressively increasing support for waste pickers, attempts to mobilise opinion against waste pickers and action against scrap traders are not unknown. A few years ago eviction action was initiated against scrap trade establishments by a Municipal Commissioner on the grounds that commercial establishments enjoyed no protection under slum laws. He contended that slum dwellers were protected because they lived there and he saw little reason why shops should be protected in the same manner. The scrap traders typically operate under the protection and patronage of the local municipal councillors. A protest march of scrap traders resulted in suspension of the eviction drive.

The news that scrap trade establishments will not be accommodated in slum rehabilitation undertaken by the Slum Rehabilitation Authority (SRA) has been doing the rounds over the last few years. The grounds being that they constitute a fire hazard. The matter has not come to a head because the rules of the SRA itself are ambiguous.

3.2.6 The role of the media

The media have a significant role to play in placing issues of waste pickers and solid waste management in the public arena. In India, media coverage of waste pickers prior to their organisation was either absent or limited to news reports about theft and pilferage in which the involvement of ragpickers was alleged. In cities where waste pickers have been organised the press have been sensitive to the problems of waste pickers and played some role in highlighting not only their conditions but their contribution to solid waste management. The coverage has generally been limited to cities where organisations of waste pickers exist. Although some news stories such as the medical insurance scheme and the struggle for a government scholarship for children of waste pickers in Pune did hit the national press. In the case of Delhi, the impact of contracting out waste management services on the livelihoods of waste pickers has been extensively covered among other things.

The KKPKP tabulated the press coverage of about 10 years in Pune (Presented in Table III Annexure VIII) for the purpose of this study and came up with interesting findings. Out of total 248 news items in the English and Regional language newspapers, the main focus of the articles was on segregation and contribution of waste pickers (60); social security for waste pickers and reports of the ILO³⁸ study (60) and integration of waste pickers in solid

³⁸ Chikarmane, P., Deshpande, M., Narayan, L. Report on Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, International Labour Organisation, Geneva 2001

waste management (69). Child labour and education accounted for another 29. For the most part the articles looked favourably upon waste pickers (168) and 39 were negative. The negative reports were during the turbulent period during which the General Body of the Pune Municipal Corporation rescinded its own resolution to support the cooperative of waste pickers. The resistance of a vocal but not representative citizens' organisation to integration was also played out in the media. The push towards integration brought in the element of public debate and possibly trial in the media, whereas prior to that the 'sympathy' factor was very much in evidence. This is inevitable in some ways because service provision brings in a set of terms from users as well as providers. What the press analysis definitely brought out was the significant contribution of the press in focussing on the contribution of waste pickers to resource recovery, environment conservation and solid waste management.

3.2.7 Role of the administration

The municipal, state and national administration has a critical role to play in the integration process. There are no norms and conventions in respect of the waste informal sector so it is a relatively new area of engagement for the administration. Much of what has happened with respect to processes leading up to integration has been the result of meaningful engagement with the administration. Coupled with the engagement is the systematic collection, collation of research data and findings that inform advocacy initiatives and provide justifiable arguments for integration. The argument for integrating waste pickers and others in the waste informal sector is located within a decentralised, efficient, accountable and environmentally and financially sustainable model of integrated solid waste management. Almost all organisations of waste pickers in India that are part of the national alliance operate with this position rather than a partisan position that takes into consideration only the interests of waste pickers.

In Vejalpur, Gujarat for example SEWA³⁹ was able to negotiate a collection contract but it was subjected to pressure when the area was integrated into the Ahmedabad municipality. Chintan in Delhi was able to argue for space for waste in the Delhi Master Plan 2021. Stree Mukti Sanghatna in Mumbai was able to forge links with the government scheme for self employment promotion. Likewise in Pune, the KKP KP was able to secure identity cards and recognition for waste pickers; space for scrap stores; medical insurance and integration with protection of rights to recyclables. In fact administrators once convinced of the contribution of the waste pickers and the others in the waste informal sector to solid waste management, carry that conviction through as they move within the channels bureaucracy from municipal to state, national levels and sometimes international levels. While it is often the higher level officers who are more receptive to new ideas, advocacy efforts need to engage with the administration both laterally and vertically because sometimes what is seen as one officer's baby is dropped by subsequent officers. Otherwise the sustainability of the initiative or intervention comes into question.

3.2.8 Role of the elected representatives

Integration models in order to get institutionalised have to pass the litmus test of political acceptance. Critical mass of organised waste pickers becomes an important factor along with advocacy and lobbying strategies. Unlike street vendors or auto rickshaw drivers who are already a political constituency in India, waste pickers are relatively invisible in the political arena. The same is not true of scrap traders who operate with the active support and patronage of political leaders. Numerically waste pickers are fewer in number than some of the other informal worker groups. In the metro cities they are heterogeneous with different regional and linguistic identities and the related dynamics. In Delhi for example, whether they constitute a political constituency or not is questioned by political leaders.

³⁹ SEWA is the Self Employed Women's Association a trade union of self employed workers

3.2.9 Growth of opportunistic organisations

Integration efforts tend to highlight the economic aspects of solid waste management. The wealth in waste is something that business enterprises and smaller NGOs are beginning to realise and explore. Although municipalities in India are getting into contracting and outsourcing arrangements, their ability to promote relatively transparent bidding processes and enforce contracts is not really very high.

The Federation of Commerce and Industry in India (FICCI) organised its national meet on the subject last year. The proposition of a revenue model that also has employment potential becomes very attractive for newer players including those with vested interests. The KKPKP has been in existence in Pune since 1993 during which time it was the only organisation of waste pickers. The moment the pilot demonstrated the feasibility of integration and there was a move towards institutionalisation, three other organisations came forward with similar proposals for door to door collection through urban poor. Janadhar faced it in Latur in Maharashtra state and SEWA is facing the same experience in Ahmedabad. While every effort needs to be made to ensure that existing waste pickers are first incorporated into the integration model, a protectionist approach in the case of workers is likely to be unsustainable because any informal manual worker who is willing to work with garbage for a living is likely to be among the poorest.

3.3.1. Reports of Commissions and Committees

1. National Commission on Self Employed Women and Women in the Informal Sector 1988

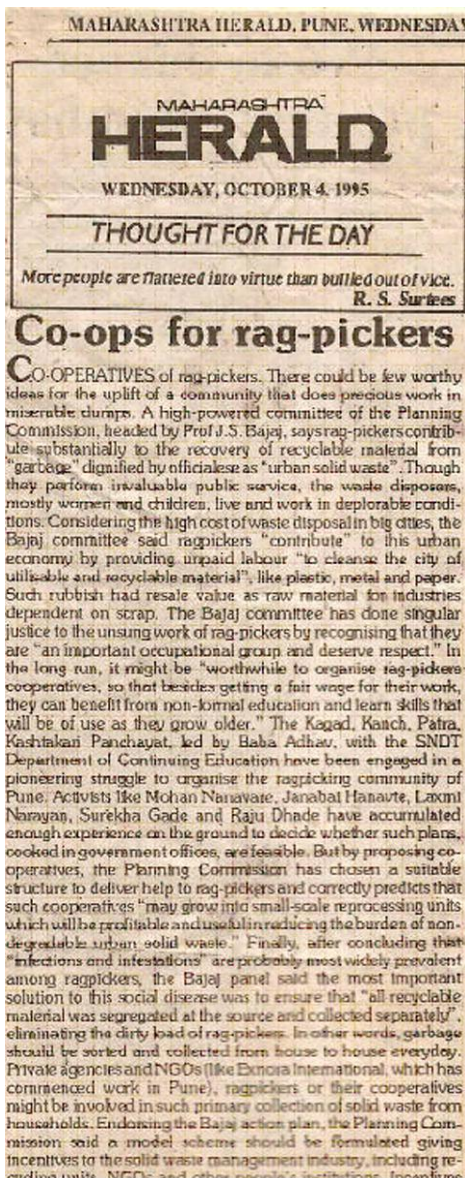
The report “Shramshakti”⁴⁰ (labour power), referring to the occupational group “Ragpickers working in the open elements and infected rubbish piles” recommended that

- 1) Alternative income-generation schemes and training should be provided
- 2) Effective medical facilities and protective equipments to be provided

Other than the above observation there was little reference to waste pickers in the Report. Relegated quite literally to the garbage heap, waste pickers and others in the waste collection and recycling economy are invisible in comparison with other workers in the informal economy and are consequently neglected not just by government interventions but also by NGOs⁴¹ and other development organizations.

⁴⁰ pp147. Shramshakti, Report of the National Commission on Self Employed Women and Women in the Informal Sector, Government of India 1988. The Commission chaired by Ms. Ela Bhatt was constituted by the Government of India in January 1987 to examine the status of women in the informal sector with reference to health, education, social status and employment; assess the impact of labour legislation; identify constraints in increasing productivity; examine the link between productive and reproductive roles of self employed women and to make recommendations regarding the removal of constraints to their integration in the national development process.

⁴¹ NGOs Non-government/Not-for-profit organisations



2. The Bajaj Committee Report 1995⁴²

In 1995 the Planning Commission of India constituted the High Powered Committee on Urban Solid Waste Management Chaired by Mr J.S. Bajaj. The inspiration was the Earth Summit and Agenda 21 where the interdependence of health, environment and sustainable development were articulated. The Bajaj Committee as it came to be called made a number of recommendations including waste segregation at source, primary collection of waste, levy of user charges, use of appropriate equipment and vehicles, focus on sanitary land filling and composting and encouraging private sector participation.

The Committee strongly advocated for the inclusion of the informal sector in solid waste management (see press coverage along side). The recommendations of the Committee are summarised in Annexure III)

3. Report on Solid Waste Management in Class I cities of India⁴³

At the national level it was the Public Interest Litigation⁴⁴ (PIL) filed by Ms Almitra Patel Convenor of the INTACH Waste Network and Another versus the Union of India that focused national attention on the issue of solid waste management for a period of time. It was this that brought waste pickers and the informal waste sector onto the national agenda, rather than the activities of organisations working with waste pickers.

The Hon. Supreme Court of India constituted an 8 member Expert Committee to study different aspects of Solid Waste Management across India and to make recommendations in respect of improvement. The

Committee was chaired by Mr Asim Burman, then Municipal Commissioner in the city of Kolkata.

SEWA (Ahmedabad), KKPKP (Pune) and Stree Mukti Sanghatna (Mumbai) and Srishti (Delhi) responded to the request of the Committee and sent recommendations in respect of source segregation of waste and integration of waste pickers in door to door collection of

⁴² Report of the High Power Committee: Urban Solid Waste Management in India, Planning Commission, Government of India, New Delhi 1995. Also referred to as the Bajaj Committee on account of its Chairman, Mr J.S. Bajaj
http://planningcommission.nic.in/reports/publications/pub95_hghpwr.pdf Please see Annexure III.1. for details.

⁴³ Report on Solid Waste Management in Class I cities of India of the Expert Committee on Solid Waste Management constituted by the hon. Supreme Court of India in Civil Writ Petition No. 888 of 1996 Almitra Patel and Another vs. Union of India. Mr A. Burman was the Chairman of the 8 member committee. Therefore also called the Burman Committee (Please see Annexure III.2. for details)

⁴⁴ Public Interest Litigation simply means litigation filed in a court of law for the protection of public interest. It is not defined in any statute or Act but has been interpreted by judges to consider the intent of the public at large

waste. A member of the Committee also visited Pune and interacted with the Organisation to seek information about ways of integrating the informal sector.

The recommendations of the Committee (summarised in Annexure III) were of two kinds, mandatory and discretionary. Although neither directly referred to nor recommended the integration of the informal sector the following relevant clauses did feature among them.

1. Mandatory recommendations for citizens:
 - a) Store organic food and bio-degradable waste at source in personal domestic bins
 - b) Segregate and store separately, recyclable waste, non bio-degradable waste, and domestic hazardous waste at source
2. Mandatory recommendations for Urban Bodies/State Governments:

Primary collection of waste from doorstep/community bins with or without community participation.

Pursuant to the recommendations of the Committee on Solid Waste Management for Class I cities, the Ministry of Urban Development and Poverty Alleviation constituted a Technical Advisory Group to identify proven technologies, provide technical assistance to Urban Local Bodies (ULBs), allocate funds earmarked for solid waste management in various ministries, develop Information-Education-Communication (IEC) material and promote capacity building of ULBs.

The Public Interest Litigations, particularly *Almitra Patel vs. The Union of India* led to the appointment of various government committees to study the sectoral dimensions of urbanization and SWM. Thus, one salutary effect of the PILs was to enhance the capacity of government to deal with waste management issues. The Central Pollution Control Board (CPCB), which was designated as the monitoring body in these cases, is an example of a government agency that was directly empowered by the PIL initiated reforms.

Another important outcome of *Almitra Patel vs. The Union of India* was that by December 2003 the Supreme Court expected that a system for door-to-door collection of segregated waste, composting of organic waste, and recycling of recyclable wastes was to be in place in all municipalities. This created an unprecedented opportunity for waste pickers with some degree of organization to directly access household garbage.

The recommendations of the Bajaj and Burman Committees and the subsequent directives of the Hon. Supreme Court to frame solid waste management rules marked a watershed in India's handling of solid waste. This by no means implies that the situation radically changed on the ground but rather that the wheels of change had been set in motion.

4. Report of the II National Labour Commission 2002⁴⁵

The II National Labour Commission Chaired by Mr Ravindra Verma was constituted by the Government of India in 1999. The Committee took special cognisance of waste pickers on a representation by the KKP KP which was invited to depose before the Commission and present the situation of waste pickers with recommendations and demands. (An extract from the Commission's Report is presented as Annexure III.3.). The Commission in its report stated that it "recognizes the useful role played by the scrap collectors both in helping recycling activities as well as in maintaining civic hygiene. It is, therefore, essential that they should be protected from insecurity of various forms. The measures that could be thought of in this regard are providing identity cards, receipts for transactions, minimum wages when they are employed by contractors or other employers, health facilities, creation of welfare

⁴⁵ The Report of the II National Labour Commission, Ministry of Labour, Government of India, 2002 (Please see section III for details) http://www.labour.nic.in/lcomm2/nlc_report.html

funds, prohibition of child labour from the activity and the likes. The commission fully endorses the suggestions made by the United Nations Development Programme (UNDP) and the International Labour Organisation (ILO), and the Kagad Kach Patra Kashtkari Panchayat of Pune. We recommend that besides the general recommendations we are making for protection and social security, municipal bodies should give thought to the questions we have raised, and make appropriate regulations and arrangements.” The Report of the Commission was submitted in 2002. The Commission also proposed a landmark umbrella legislation for workers in the unorganised sector for providing social security to such workers.

3.3.2. National disasters and events

Radical changes were brought into the collection, storage and disposal of waste by the Surat Municipal Commissioner when an outbreak of plague in 1994 exposed the inadequacies in solid waste management. Privatisation and efficiency in garbage clearance became the buzzwords nationally after the clean up operations in Surat. The possibility of the spread of plague prompted the Municipal Commissioner for Delhi (MCD) to ban waste picking. The order was revoked only after a concerted campaign by the NGO Srishti, partnered by some waste pickers.

Mumbai, the commercial and financial capital of India, is located on the West Coast bordering the Arabian Sea. Mumbai is an island city comprising seven islands that have been bridged. On account of its geographical location and teeming population of 15 million it is subject to flooding during the monsoons which occurs from June to September each year. In July 2005 Mumbai was practically submerged during an unprecedented deluge that brought the city to a standstill. The Mumbai floods paved the way for enacting State level legislation pertaining to the collection, transport and disposal of urban solid waste in the state.

3.3.3. The informal sector and urban development plans

1. Jawaharlal Nehru Urban Renewal Mission⁴⁶ (JNNURM), 2005

The Jawaharlal Nehru Urban Renewal Mission was launched on December 3rd, 2005. The primary objective of the JNNURM is to create economically productive, efficient, equitable and responsive cities. The JNNURM is a tremendous opportunity to integrate the informal sector into the city's work via the route of formal infrastructure. Solid waste management features in the list of infrastructure projects for the Sub-Mission on Urban Infrastructure and Governance. The physical and social infrastructure missions can be leveraged for financing infrastructure for the informal recycling sector. The size of the projects that it can fund requires re-organization at the grassroots on a much larger scale, with groups that are large enough to work as an enterprise made up of several smaller enterprises. Currently, most initiatives in India that advocate on behalf of informal sector recyclers involve organizing no more than a few thousand waste pickers. The other concern has been to convince the government to design modular infrastructure for the JNNURM. In cities where there are no groups working with waste recyclers, it is critical to develop some capacity so that they not miss the proverbial bus.

During an interview for this report, a senior official mentioned, for instance, that the URM would be pleased to entertain infrastructure development proposals related to waste sorting centres, markets for waste vendors, spaces to store waste, etc. under its schemes. In Pune

⁴⁶ Jawaharlal Nehru Urban Renewal Mission is one of the flagship programmes of the Indian government. The Government of India seeks invest heavily in urban infrastructure besides housing and basic services for the poor over a period of 5 years.

the plan for constructing Recycling Centres with assistance from JNNURM has been prepared. Chintan was told that cities can still request for funds for activities that would consolidate and/or promote informal sector waste recycling.

Creating infrastructure by name for the informal recycling sector embeds the sector in the workings of the city and its everyday systems. It also legitimizes operators who function out of such formally created and approved structures. Moreover, it also belongs to the sector at large if it is created in their name. Hence, this policy is an important tool in integration. This, however, is based on the willingness and conviction of each municipality. Given that currently only a few cities such as Delhi and Pune mention waste pickers in their city development plans, this scheme remains under-used. While Pune has signed its first JNNURM project, Delhi is still in discussion about the nature of these projects, both regarding municipal and electronic waste. The remaining 61 cities have not publicly discussed any informal sector recycling initiatives.

2. Master Plan of Delhi 2021

City Master Plans have implications for informal sector waste recyclers and their livelihoods. Master Plans provide a roadmap for future developments in a city and determine land use for various purposes – for example, where schools, parks, retail areas, industrial zones, landfills, and various forms of housing will be sited. Previous Master Plans for Delhi (1961, 1981, and 2001) have been silent on the needs of the informal sector. The fourth Master Plan of Delhi for 2021 (MP2021) was to come out in 2004; however, the first draft was not released until 2005. The process of bringing out the Master Plan includes a draft in the three main languages of Delhi, accepting and responding to public objections and finalizing the plan. The most recent 2021 Master Plan once again fails to address the needs of the informal sector in any systematic manner. It however, at least mandates designated spaces within the city for the segregation, sorting and storage of recyclables.

The inclusion of space for waste came about as a result of consistent campaigning led by Chintan from 2002 urging the government to formally allocate space for waste activities such as sorting and storing. Many junk shops, for example, are demolished because of illegal use of land. Formal allocation of land would affirm the integration of the sector into the mainstream waste management of a city. Chintan carried out a year-long study to quantify the space requirement. Despite the campaign the first draft did not contain provisions for informal sector waste. The campaign was intensified in the second stage, and several presentations made to officials in the Delhi Development Authority, the agency that forges the Master Plan.

The final Master Plan 2021 did contain several provisions for space for waste although they are inadequate even to meet the needs for waste currently recycled by the informal sector. In the future, as Delhi's waste grows to the projected 21,000 M.T. per day, up from the current 7,000 M.T. per day, more space will be required for segregation and recycling. In that situation, the recycler will be forced to violate a key MPD 2021 provision out of sheer necessity. However, the *kabari* will remain legal in many cases in which case, recycling may get a respite. Nonetheless, it is a remarkable addition because it is the first time that such spaces have been provided at local levels.

There are still problems though because the Plan does not name the informal sector as the users of spaces designated for waste segregation and markets. The other concern regarding the MPD2021 is that in some cases, where it specifies waste, it does not explicitly associate this with the informal sector. Hence, it leaves open the possibility for designated spaces to be given over to private companies. The task now is to ensure that these are assigned to informal sector recyclers and not to private players. In conclusion, the MPD2021 has been an important instrument for the integration of the informal sector into mainstream activities.

(For details please refer Annexure VI)

3.3.4. Civil Society Organisations and Solid Waste

One of the most significant changes in metropolitan India in the 1990s was the appearance of civil society groups in the area of solid waste. These groups remained active for the remainder of the decade. Some remain active till date.

In Delhi, the range of organizations that focused on the issue of waste included Srishti (the earliest such organization), Vatavaran, Development Alternatives, Chintan, ACORD, and Toxics Link. Additionally, there was a range of Residents' Welfare Associations where individuals worked as advocates on this issue. With the exception of Srishti and Chintan, the latter hived off from the former, few other organizations worked on the informal recycling sector. While most groups focused on local level technology application and information dissemination, they were always open to and partnered with the idea of social inclusion. Indeed, most of the groups were informed of the issue and willing to include such informal sector players in their own local level projects. At this point, there was fuzzy distinction between waste pickers and other urban poor labour. This laid the foundation for a network of organizations that were supportive of each other well into the next decade. While several of these – Vatavaran, ACORD and Srishti – are now largely inactive, they were important to the public understanding of waste and in creating the earliest networks on solid waste recycling. Most of the work by these organizations was related to advocating with the municipality for locally managed solid waste solutions. For the municipality, this was also the first time that Delhi's own civil society had sought to address through its own capacity what was viewed as municipal inefficiency or under-functioning. Such groups, with their diversity and differing approaches, but also their tacit agreement about the importance of integrating informal sector recyclers, ensured that the informal sector was legitimized within the larger vision on solid waste management amongst NGOs, whether or not they worked on the issue. In other words, they helped create consensus on the issue of social inclusion within the earliest groups involved in waste. (Please refer Annexure VII) for details about each organisation). Newer groups, such as Bal Vikas Dhara (working with child labour and wastepickers in one community), Kachra Kamgar Union (Waste Workers Union), Harit Recycling Association (a Chintan Project to organize middlemen/junk dealers) have come into existence as well, as have many contractor led NGOs supplying waste picker based labour to private companies.

In Pune citizens' engagement in solid waste came about in 1995 through the invitation issued in the press by the then Municipal Commissioner. A Citizens Report on Solid Waste Management was prepared through a deliberative process. The activists of KKP KP were an integral part of the process and were inducted into the Citizens Apex Committee on Solid Waste Management that was constituted by the Pune Municipal Commissioner. The Report therefore reflects the contribution of the Informal Waste Sector and propagates an integrated approach to solid waste management. The role and significance of the Committee was influenced by the importance given to it by successive Municipal Commissioners and the limited perceptions of the citizen members who saw their role as holding individual officers accountable to citizens. Ignored by the political establishment and resented by the municipal administration, the Committee became non functional ten years later.

From about the year 2000 the dormant National Society for Clean Cities (NSCC), a civil society organisation became more active and encouraged the formation of Mohalla Committees (Neighbourhood Councils). Though not formal or representative bodies they have voice in the public arena and have been given various degrees of importance by successive Municipal Commissioners. The NSCC lobbied and advocated against municipal support to, and the handing over of, the work of door to door collection of garbage to the SWaCH cooperative of waste pickers as already mentioned in the section on the press.

However, environmental NGOs and other civil society organisations were involved in preparing the City Development Plan (CDP) for Pune in 2005-06, a pre-requisite for funding under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). The JNNURM is the flagship programme of the Government of India. Representatives of the KKP were part of the plan preparation and their inputs regarding the integration of the waste informal sector are reflected in the CDP (Please refer Annexure VIII for extracts from the Pune City Development Plan)

The involvement of civil society organisations in solid waste in Mumbai commenced much later than in Pune but has been similar in that it has been subject to the individual inclinations of Municipal Commissioners.

Several years ago the Municipal Corporation of Greater Mumbai (MCGM) promoted Advanced Locality Management (ALM) wherein neighbourhood groups together with the respective municipal Ward administration would focus on Zero Garbage. There are 584 ALM Street Committees. The focus is on reduction of waste, storage and disposal involving ragpickers for collection and disposal of dry waste and adoption of vermi-composting and composting for wet waste⁴⁷.

There is also the Slum Adoption Scheme (SAS) wherein local community based organisations (CBOs) are registered and provided a monthly honorarium of Rs.2500 per 1000 population for waste collection and cleaning of small *nallahs* and drains in identified slum pockets. The honorarium is reduced to Rs.1800 in the second year and to Rs.370 in the third year. The concept is to encourage the local community to own initiatives in planning and execution at the grass root level. The CBO is authorised and expected to collect Rs.10 per month per household in lieu of services provided. As of now the MCGM has registered 247 such CBOs covering 4.8 million of the slum population, and intends to cover 100 % by 2006-07⁴⁸.

Karmayog, an initiative in 2005-06 undertaken in Mumbai started as a web portal supporting NGO networking on different civic issues. Solid waste management was one of the issues taken up and the NGO Council floated by Karmayog (that had representation of waste pickers organisations) even signed a Memorandum of Understanding with the MCGM. The Municipal Solid Waste (Prohibition of Littering and Regulation of Segregation, Storage, Delivery & Collection) Rules 2006 were drafted by the NGO Council and notified in some manner by the Municipal Commissioner. However, the entire initiative including the rules collapsed with the change in the municipal administrators because it had not been approved by the Municipal General Body.

Conclusion

Although the organisation of waste pickers in India has been sluggish, there has been evidence of some change over the past decade or so. There has been an increase in the number of organisations. It is interesting that in certain cities organisations have displayed depth and longevity in their engagement with the sector and its issues. This knowledge has been repeatedly taken on board by high level organisations of the government including National Commissions constituted by the government of India.

⁴⁷ Mumbai City Development Plan, MCGM 2006

⁴⁸ Mumbai City Development Plan, MCGM 2006

Chapter IV Integration Of The Informal Waste Sector In Formal Solid Waste Management

Introduction

The term “integration” of the informal waste sector in formal solid waste management has several connotations. Firstly, it is used to describe a range of activities carried out by waste pickers (that may be different from the way they used to work) as part of the integration process. Secondly, it is used to describe a set of formal or informal arrangements that waste pickers themselves or organisations of waste pickers or organisations working with waste pickers have with their respective municipalities. Thirdly, it refers to a set of benefits that accrue to waste pickers by virtue of their being “integrated”. Henceforth when the term integration or integrated is used in this chapter, it refers to integration of the waste informal sector. For the purposes of this study all three constitute different elements of what is meant by the term “integration” as it continues to evolve.

Four case studies of cities where some form of integration of the waste informal sector has taken place are presented in this Chapter. The four cities are Mumbai and Pune in West India and Delhi and Lucknow in North India. All have valuable lessons in integration that would be useful to other cities. We selected Mumbai because it is a hustling, bustling, metropolis and representative of 6 large metro cities in the country. It has an active and flourishing waste informal sector in collection, trade and reprocessing. Besides it has three Non-government Organisations that have been operational for a considerable length of time in this sector. Pune is a medium size city, culturally similar to what is referred to as the rest of Maharashtra and representative of the 63 cities in the country with million plus populations. Pune also has a long history of organising waste pickers and significant integration experiences. We chose Delhi because of its importance as a percolation centre, from which ideas travel, it’s location as the capital, its regional importance as a centre for recycling, as well as its history of conflict and negotiation with the sector and an active civil society. Given prior knowledge about Delhi, Mumbai and Pune, it seemed useful to pick a city where there were less initiatives, knowledge and evaluate the reasons for this.

4.1. Case Study Of Mumbai

The whole range of meanings ascribed to the term integration of the informal sector in formal solid waste management in India is presented in the table below.

4.1.1 Background of Mumbai city

Mumbai often referred to as the *Urbs Prima in Indis*, is the commercial and financial capital of India. Capital of the State of Maharashtra, it lies on the West Coast of India. The responsibility for civic administration lies with the Municipal Corporation of Greater Mumbai (MCGM). Geographically the city is spread over 437.71 kms. The MCGM services the civic needs of a population of over 11.9 Million (Census of India 2001) people; population density of 27209 people per square km.; an annual budgetary outlay of ₹931.7 Million and approximately 123167 employees. The city is broken up into 24 administrative wards. The Mayor chairs the Political Office while the Municipal Commissioner is the Administrative and Executive Head. Besides, there are four additional Municipal Commissioners and one Deputy Municipal Commissioner.

4.1.2. Overview of the formal SWM scenario in Mumbai

The Mumbai Municipal Corporation Act (MMC) of 1888 applies to the Municipal Corporation of Greater Mumbai (henceforth referred to as MCGM), which prescribes the services to be delivered to citizens. The MCGM passed the Cleanliness and Sanitation by-laws only in

2006 in response to the Municipal Solid Waste Handling Rules of 2000 and the Maharashtra Non-biodegradable Garbage Control Act. (For pertinent details see Annexure III.8)

Mumbai the most populous city in the country is estimated to generate about 6500 Metric Tonnes of waste per day which is collected and transported to the four landfills in the city. Transportation of waste has for the most part been outsourced for many years and payment to the contractors is on the basis of tonnage. The MCGM operates three garbage transfer stations and the waste is disposed at three landfill sites owned by the municipality itself. It has on its rolls 28821 Sweeper loaders and 1592 Supervisory staff for SWM. Municipal Budget for SWM was €121061016 in 2007-08.

The SWM Department has also initiated many schemes such as Slum Adoption Scheme, Area Adoption Scheme, Advanced Locality Management and Local Area Citizens Group. These schemes are based on the Public Private Partnership (PPP) model, encouraging involvement of stakeholders such as citizens, industries and community based organisations.

4.1.3. Overview of informal sector of waste pickers in Mumbai

While no data exists on the number of waste pickers in Mumbai, realistic estimates peg the figure at about 30000. If itinerant waste buyers are included, the estimate increases to 45000. Mumbai houses a flourishing scrap trade as well as cottage recycling and reprocessing industries that have been in existence for many years.

4.1.4. Integration of the Informal Sector: Experience of Mumbai

4.1.4.1. Introduction to the Organisations of Waste pickers in Mumbai

There are three organisations of waste pickers in Mumbai, Aakar, Stree Mukti Sanghatna and Forum of Recyclers Communities and Environment. The features that are common to all three of them are listed below.

- registered Non-government Organisations (NGOs), the legal form being a Public Trust or a Society
- recognised by the MCGM for issuing identity cards to waste pickers
- promoted membership based organisations of waste pickers in the form of service cooperatives
- linked up with the SJSRY of the MCGM
- entered into contractual arrangements with the MCGM

In addition, Stree Mukti Sanghatna and FORCE have the following arrangements with the MCGM:

- Vehicle provided by the MCGM for collection of recyclables
- Space for running scrap shops

4.1.4.2. Elements of Integration

Baseline facts Mumbai: Particulars	
Number of organisations of waste pickers/ working with waste pickers	4*
Number of years of work with waste pickers	Aakar 5 FORCE 7 SMS 9
Scale of operation of waste pickers organisations	Each operates in a few wards
Numerical strength of waste pickers organisation	Aakar 378 FORCE 1200

	SMS 2000
Nature of Organisations' activities / initiatives leading to upgrading of work and facilities	Onetime/Discretionary/ Precedent/ Institutionalised/Legal entitlement
Registration and Issue/Endorsement of Identity Cards and authorisation to collect scrap thereby constituting them as workers	Recognition of NGO
Authorisation to provide door to door collection services	No formal authorisation
Institutionalised integration into door to door collection	No formal integration
Provision of safety equipment such as gloves, masks	No provision
Provision of uniforms/apron	No provision
Provision of space for sorting recyclables	Few provided
Provision of vehicles for collection of recyclables	Provided Discretionary
Provision of collection tools and equipment	No provision
Provision of space for scrap stores	Contractual
Provision of space for organic waste processing	Institutionalised
Provision of space for intermediate processing of recyclables	Temporary
Social security/welfare benefits	
Provision of health cards and free medical care in municipal hospitals	Discretionary
Provision of medical insurance cover	No provision
Provision of life insurance cover	No provision
Linkages to SJSRY government scheme ⁴⁹	Aakar, FORCE, SMS

Note to the table:

- The categories listed below refer to the levels of formality in the engagement
One time: one time
Discretionary: that which is dependent upon the goodwill of the municipal officer concerned
Precedent: that which has no official basis at the outset but becomes official thereafter
Institutionalised: that which is approved by due process (including resolutions, agreements, schemes and contracts) and is therefore routinely continued
Legal entitlement: that which has been codified into law
- * Although there are technically four organisations working with waste pickers in Mumbai. Only Forum of Recyclers Communities and Environment (FORCE), Stree Mukti Sanghatna (SMS) and Aakar were covered in the case study because in the case of the fourth organization, Apnalaya, waste pickers happen to be the beneficiaries of their services and they are not really organizing waste pickers in any sense of the term. Similarly, in Pune from 2005 three organisations of the urban poor have started some waste related activity such as collection or composting. They have not been covered in the case study because their members will become members of the SWaCH Coop.

⁴⁹ Swarna Jayanti Swayam Rozgar Yojana. A Government of India Scheme for promoting self employment. It has three distinct parts:

- Assistance to individual urban poor beneficiaries for setting up gainful self-employment ventures.
- Assistance to groups of urban poor women for setting up gainful self-employment ventures. This sub-scheme has been titled as "The Scheme for Development of Women and Children in the Urban Areas (DWCUA)".
- Training of beneficiaries, potential beneficiaries and other persons associated with the urban employment programme for upgradation and acquisition of vocational and entrepreneurial skills.

3. The activities/services listed in the above table refer to the arrangements with the respective municipality. Individual organisations may have insurance etc. for their respective members.

4.1.4.3. Process of Integration

Aakar started working with workers engaged in cleaning work in 1996. The focus of its work shifted to include waste pickers in 2002 because they believed that they were the most vulnerable in the urban areas. Aakar has 3792 members (not all waste pickers) who pay an annual fee of 68 euro cents towards their identity cards. 378 waste pickers have been issued identity cards. Aakar has 9 trustees, 5 of whom play an active role in the organisation and four staff. Geographically, Aakar's work is confined to the western suburbs of Mumbai in about 9 out of 24 municipal wards. Aakar organised the waste pickers at the Gorai landfill until its closure about 5 years ago. Thereafter it has contact with waste pickers at the Mulund landfill who have yet to be formally enrolled as members.

Mr Milind Arondekar Founder President of Aakar told us of a survey they conducted of 2500 rag pickers to understand their overall socio-economic status and their problems and needs. He believes that the results of the survey will project valuable information for the civic bodies to base their services and future strategy on waste management.

- Mumbai clean and green
- Waste management and providing solution to waste disposal and destruction
- Improve the social and economical status of rag picker women
- To make available government schemes by organizing and registering rag pickers societies.
- Overall development of the rag picker communities.

Aakar have organized 40 SHGs from among their members that have benefited under the SJRY⁵⁰. The SHGs meet once every month and a meeting of all waste picker members is organised once in three months. Aakar have also formed their own Service Cooperatives⁵¹ but have not as yet taken up any contracts through it. Aakar is a nodal agency for implementing the Janashree Bima Yojana⁵²

Stree Mukti Sanghatna is a very well known women's organisation in Maharashtra. Much of its early work was in the area of women's rights and cultural engagement towards that goal. Stree Mukti Sanghatna initiated work with waste pickers in 1999. Henceforth, in this case study, when the organisation SMS is referred to, it refers only to its work with waste pickers. Parisar Bhagini Vikas (PBV) is a cooperative of waste pickers promoted by SMS.

In the initial years SMS organised waste pickers at the Deonar landfill. The issues were complex, not least being the entrenched financial arrangements between municipal workers

⁵⁰ Swarnajayanti Shahari Rojgar Yojana (SJSRY) is the flagship programme of the Government of India for encouraging Self Help Groups (SHGs) and enterprise among urban slum dwellers. Loans for starting informal enterprises are given to the SHGs.

⁵¹ Cooperatives that are set up for providing services

⁵² Janashree Bima Yojana is a social insurance scheme of the Life Insurance Corporation of India. The objective of the scheme is to provide life insurance protection to the rural and urban poor persons below poverty line and marginally above the poverty line. The Nodal Agency for implementation is a State Government Department which is concerned with the welfare of any such vocation/occupation group/ Welfare Fund/ Society, Village Panchayat, NGO, Self-Help Group, etc. The premium under the scheme is €3.4 per annum per member. 50% of the premium i.e. €1.7 will be contributed by the member and/or Nodal Agency/State Government. Balance 50% will be borne by the Social Security Fund. The amounts payable by the insurer In the event of Death (other than by accident) of the member is €508; in the event of death/total permanent disability due to accident is €1271 and for Permanent partial disability, due to accident, the amount payable is €636.

at the landfill, vehicle drivers, municipal contractors and waste pickers for rights over the income from the sale of recyclable waste at the landfill. The issue of identity cards reduced the harassment of waste pickers somewhat but did not eliminate it.

SMSs engagement with organic waste processing dates back to the inception of its work with waste pickers consistent with its beliefs of “zero waste”. Organisers of waste pickers tend to veer towards exploring the scrap market, often overlooking the relevance of organic waste processing in the total integration schema. SMSs consistent work in this area has brought in this valuable facet into organising waste pickers.

Forum of Recyclers Communities and Environment (FORCE) started in the year 2000, has a fluctuating membership of about 1200 of whom about 700-800 renew their membership annually. Each member pays an annual membership fee of €1.5.

FORCE has promoted three cooperatives:

- a. Jai Force Sewa Sahkari Sanstha⁵³ has 35 members and works primarily on MCGM contracts
- b. Force Sewa Sahkari Sanstha⁵⁴ has 65-70 members and works on private corporate housekeeping and waste management contracts
- c. New Force Sewa Sahkari Sanstha⁵⁵ has 20 members. It is newly registered and still not very functional.

What is interesting about FORCE is that it claims to be completely market driven. According to the Founder, Poonam Huddar, neither its activities nor its staff have been supported by donor agencies. However, it was not possible to get a clear idea of the economics because those who gave the information were not very forthcoming. However, it certainly seems to be sustaining given the fact that it is able to manage large corporate contracts and pay the workers higher than minimum wages.

4.1.4.4. Status of Integration

1. Contractual arrangements with the MCGM

All the NGOs organising waste pickers in Mumbai have had contractual relationships with the MCGM for one or other activity. Their experiences with contracting have been none too positive. The nature of contractual arrangements with the MCGM include:

- (a) Deployment of NGO labourers for collection of garbage around collection Points
- (b) Door to door garbage collection in Dattak Vasti Yojana
- (c) Labour contracts
- (d) Organic waste processing contracts

According to Mr Arondekar, Aakar’s efforts to integrate waste pickers have primarily been through contract arrangements with the MCGM. The first experience was of a Composite Road Sweeping and Garbage Collection Contract along the lines of the “Hyderabad Pattern”⁵⁶ Aakar was awarded the composite tender for cleaning 18 km road and transporting solid waste collected through two of its groups of waste pickers. The work was carried out by 18 members and one supervisor, who were paid €51 and €68 respectively per

⁵³ Name of cooperative 1

⁵⁴ Name of cooperative 2

⁵⁵ Name of cooperative 3

⁵⁶ MCGM attempted to replicate what was called the “Hyderabad Pattern” (after a successful experiment in Hyderabad city) of awarding cleaning contracts to NGOs and community based organisations on fixed output for fixed remuneration norms. The rate contract was fixed and bids were called for the geographical area to be covered.

month. In the second experience Aakar was contracted to collect organic and non biodegradable garbage from generators in four vehicles provided by the MCGM.

According to him the relationship of the organisation with the MCGM has been fraught with problems. In the sweeping contract the organisation Aakar made huge losses on account of penalty deducted for performance related complaints against the workers and the demands for bribes from Municipal Officers. Typically the degree of enforcement of contract norms is directly proportional to the bribes paid by the contracted party. In the subsequent contract, the payments from the MCGM were never received on time as a result of which Aakar had to advance the amount from its own resources to cover costs. This is a fairly common hazard in municipal contracts. The workers were paid €1.7 per day while the supervisor was paid €2. The service is likely to be terminated in the near future by the MCGM.

Aakar implements the Slum Adoption Scheme of the MCGM for which it has organised local groups of cleaning workers for door to door collection of garbage. As per the norms of the scheme, the MCGM pays 10 €cents per household per month and collectors recover 16 €cents per household per month as user fees.

FORCE supplies labour to the MCGM through the tendering process. The labour rates are pre-fixed on the basis of minimum wages. Six labourers are provided in every compactor that is supposed to collect organic waste. Contracts are short term jobs of 69 days duration.

In the case of SMS, in 2000-01 the MCGM provided space at the landfill to Parisar Bhagini Vikas to establish a compost plant to process 5 metric tons of municipal solid waste per day. €1000 was also given by the MCGM towards mobilisation costs. Ten women ran it for two years and then stopped. The production was 500 kg of compost per day which was sold at €34 per tonne. The project made good profits but there were many problems. The production was disturbed during the rains. Material was also stolen, no rules were followed at the open dumping site and no one could control theft. The compost plant has since been closed.

The MCGM also gave space and constructed bio-methanation plants at 2 sites, Shatabdi hospital and Kattalkhana⁵⁷ which are run by the SMS. Garbage from hotels is supplied to the plant by the MCGM. The handling capacity of each is 5000 kg per day but each handles only 3000 kg per day employing 10 women, because the garbage supplied is inadequate. SMS offered to do the collection but the MCGM refused. SMS had calculations to show they could handle at a nominal rate of less than 1€cent per kilo if PBV collected the waste but this was not acceptable to the MCGM. Sorting sheds have also been given adjacent to the plants. An official contract has been entered into with the MCGM under which SMS has to be given a grant of €678 per month since 2004. The instalments from the MCGM came in regularly for 2 years after the plant was commissioned. Thereafter SMS has not been paid regularly by the MCGM. The SMS has been running the plants from its own resources.

2. Non-contractual arrangements with MCGM

(a) Provision of vehicles for collection of recyclables

SMS was provided six vehicles for door to door collection of recyclables in 2003-4 by MCGM. They were run entirely by the MCGM which provided the fuel and the drivers. About 50-75 waste pickers were involved in this work. The vehicles were used to collect waste which was then segregated at a common collection point. Wet waste was deposited in MCGM garbage containers and the recyclable waste was retained for sale by the waste pickers. The women and the material travelled in the vehicle because that is what they had been used to with the scrap trader. PBV managed the supervision of waste pickers and the recyclables, directly. There was no interference from the MCGM or sanitation staff with

⁵⁷ Kattalkhana: abbatoir

whom they enjoyed a peaceful relationship. There were occasional differences over timings, punctuality, and number of trips etc. but no major squabbles. In some wards women collected recyclables worth €340 per week in these vehicles. In a particular area of South Mumbai some waste pickers cornered all the benefits and did not allow PBV to interfere or to supervise. They even refused to give accurate figures. However, the other groups were quite cooperative. In the absence of a clear policy, the system is subject to the individual preferences of the official in charge of solid waste management. The facility was withdrawn some months ago but has been reinstated recently.

FORCE carries out door to door waste collection from about 800 buildings in H-West ward; 400 buildings in D ward, K-West ward and C ward. Citizens do not pay any user fee. The service is offered daily if citizens get convinced to give it to the waste pickers. Waste is supposed to be source segregated but it usually is not: Waste pickers transport the recyclables to the scrap store at their cost. A weekly collection service for recyclables in a vehicle provided by the MCGM is also carried out by FORCE.

(b) Permission to collect non recyclables from hospitals

About 35 women have been granted permission by the MCGM to collect non-bio-medical waste from hospitals. The scrap is sold directly to their own scrap dealers.

(c) Swarna Jayanti Shahri Rojgar Yojana

SMS has also systematically and effectively used the Swarna Jayanti Shahri Rojgar Yojana (SJSRY)⁵⁸ for integrating waste pickers. The structure through which the SJSRY is implemented is the Self-Help Group (SHG). All members of PBV are members of the SHGs and the groups are registered as savings groups under the scheme. There are totally 123 such groups with 10-12 members each. Each group received a one time grant of € 169 per group of which 50% was kept in the group. The money was not disbursed individually but loaned to the individual members at an interest rate of 2 % per month. The members need two guarantors for the loan. The balance of 50 % has been kept in the PBV fund and used for central purposes such as lending to groups at 1.5 % per month. Savings of €1 per month are to be deposited in a separate group account every month. The accounts for the Self Help Groups are maintained by PBV. PBV is working towards self sufficiency in 2 years. The difference in interest is used for administrative costs and distributed as dividend. So members get dividend from their own groups as well as from the central fund. The number of groups has been steadily increasing over the years. Meeting and training costs of €2 in the first year and €1.5 per person in subsequent years is also paid to PBV by the MCGM.

(d) Creation of dry-waste sorting centres managed by NGOs to accept the recyclable and E-waste in each ward

In the case of SMS, MCGM has provided constructed space for three scrap stores measuring between 500-800 square feet each under the SJSRY for the use of waste pickers. Two are very well constructed. Parisar Bhagini Vikas has been given permission to actually undertake construction of the scrap stores as well. There was no legal provision for the allocation of such spaces in 2004 at the time that they were given. It was done by a supportive Addl. Municipal Commissioner of the MCGM. It was only in 2006 that the Maharashtra Non Biodegradable Garbage Control Act provided for the provision of such spaces.

⁵⁸ Swarnajayanti Shahari Rojgar Yojana (SJSRY) is the flagship programme of the Government of India for encouraging Self Help Groups (SHGs) and enterprise among urban slum dwellers. Loans for starting informal enterprises are given to the SHGs.

About 10-25 women use the spaces in each ward. Some of them monopolise it. They get scrap in an MCGM vehicle acquired by Parisar Bhagini Vikas. They sort the scrap and a PBV supervises their work. The supervisory cost is borne with help of an external funding agency. One group does not even give proper accounts, but the others do. At another centre they bring their scrap in a vehicle, again given by the MCGM. They sort the scrap and a Parisar Bhagini⁵⁹ helps them sell it. The group covers the cost of the supervisor themselves through their earnings from the sale of scrap. PBV has given one group €1700 as capital because the group functions like an intermediary. The group buys recyclable scrap and then which is then resold to the PBV shop for a commission.

FORCE has also been provided space for running four scrap stores by the MCGM. One is operated and managed by FORCE and is utilised by about 25-30 waste pickers. The others have been given out and are being managed by waste pickers who pay a monthly sum of Rs.2500 to the organisation.

3. Non-MCGM linked integration endeavours

(a) Comprehensive garbage management contracts

Aakar have had difficulties in its other non-MCGM linked endeavours as well. In 2003-2004 an attempt to organise garbage collection in the market area as part of the Chakachak Mumbai (Sparkling Mumbai) campaign of the MCGM through recovery of monthly user fees of 16 €cents per household and €1.7 for shops from willing users did not take off because of opposition to user fees from the Municipal Councillor.

Bombay Dyeing a leading corporate house in Mumbai supported Aakar to organise collection of recyclables at the Bandra Bus Terminus. Aakar engaged 18 waste pickers and 2 supervisors for the job with the idea that after the initial period of support, the income generated from the sale of waste would sustain the activity. Aakar suffered a loss in this too because the entrenched traders engaged in this activity did not allow the work's smooth functioning.

Although SMS's two experiences of contractual arrangements for waste processing with the MCGM have had hiccups, it successfully runs bio-methanation plants for private parties such as canteens and other commercial establishments on a contractual basis. Likewise, SMS also undertakes composting of waste for residential and commercial premises. SMS undertakes comprehensive waste management contracts that include housekeeping services, door to door collection of waste and organic waste processing. The contracts are executed by waste pickers. Currently SMS is in the process of transferring all the contracts to PBV. Since 1999, SMS has integrated 403 waste pickers who service 9173 households across Mumbai.

FORCE has also taken up private waste management and housekeeping contracts for large corporate houses and housing complexes. Each contract involves sweeping, collection of waste internally with the help of hired vehicle, segregation of waste on site, composting, sale of dry recyclable waste and disposal of the non recyclable waste. FORCE retains 10 per cent of the value of each contract. Organic waste treatment is also part of these contracts and the organisation has tried different technological options. FORCE also provides consultancy services for composting of organic waste. It runs 17 composting sites where almost 2 metric tons of waste is composted daily.

Says Poonam Huddar founder of FORCE, an organic waste converter machine manufactured by Excel Industries was purchased by FORCE with a loan of Rs.5 lakhs from the ICICI Bank for processing 70-80 kgs. per day from 372 HH. The operating cost of the

⁵⁹ Parisar Bhagini: worker of Parisar Bhagini Vikas

machine is Rs.3/kg of organic waste. This includes the costs of water, electricity, culture, absorbent material (saw dust) and labour. This is a company-tested estimate and also confirmed by Force. Even if the MCGM provides the organic waste no one is willing to pay the operational costs due to which the machine is under utilized. It is used for merely 2 hours a day.

A bio-gas plant sponsored by Mahindra and Mahindra Industries was set up in a slum in Kandivili. The gas was used for the kitchen of a single family. It functioned well till it was handled by FORCE but ran into problems when the community started managing it.

(b) Collection of post-consumer waste

Tetra Pak is a multi-layered packaging product. Stung by early criticism that the packaging is not recyclable, Tetra Pak, a Swedish company, is going all out to establish its credentials as a responsible producer in respect of post consumer waste. The company has supported paper mills and plastic plants to develop technology for stripping the paper and plastic-aluminium into separate commodities. Initially, SMS was to supply 5 Metric Tons of post consumer Tetra Pak waste to paper mills for processing.

Tetra Pak has supported waste management initiatives in other countries such as in Latin America and South East Asia, utilizing the available informal sector, and has actively worked with industry groups to support public-private partnership in waste management. In India too, we would welcome working with other companies with the co-operative to minimize waste-to-landfill – this is after all in everybody's interest.”

Amit Deep Singh, Environment Director, Tetra Pak India and Cluster Environment Director South & South East Asia

The introduction of the School Milk Programme⁶⁰ a month ago by the MCGM has meant that SMS can supply 2 metric tons of Tetra Pak waste every day to the paper factory. The MCGM had invited 1200 members (1 per school) from the SJSRY groups to undertake collect of Tetra Pak waste. This was too much to handle because the collection system covered other scrap as well. The MCGM was ready to pay ₹85 per day per school and ₹17 per day for a vehicle to transport the material. PBV expressed willingness to undertake collection only from 350-400 schools in 8 wards. Aakar collects from 3 wards. As per the arrangement with the MCGM, PBV is to be paid for the collection service and to later distribute it to the members. Members have been unwilling to provide the collection service because the rates are perceived to be low. PBV pays an additional amount of ₹85 per person to go to school daily. As of now, PBV has been paying the collectors. The transport costs are also currently being paid by PBV on the understanding that the MCGM will reimburse the expenditure incurred. The record of the MCGM in these matters cannot be said to be exemplary as has been brought out in the case studies.

A PET bottle shredding unit managed by FORCE also operates in the same premises. The machinery was provided by Coca Cola Limited. The arrangement with Coke was that the company would coordinate with the MCGM to persuade big hotels to give the PET waste to FORCE for shredding. The link up between the hotels and FORCE did not materialise. Some big dealers supply material to the shredding unit but it is not enough to run the machine all day. Nonetheless, Founder Poonam Huddar says the PET shredding enterprise makes a profit.

⁶⁰ Government scheme in which children in government schools are given milk in Tetra Pak cartons as part of a nutrition programme

4.1.5. Opinions about integration

According to Ms Shanta Sable, President of Parisar Bhagini Vikas integration is always preferable from a waste pickers' perspective. They get a steady income, regular hours of work, two paid holidays a month and in some cases even a Provident Fund account to which they contributed. Each had personal savings of €136, apart from credit and other group savings. Additionally they get sick leave and are covered for insurance and health costs. Most women are unwilling to get back to waste picking, once they have tried this kind of work. They are happy with the new image that comes with this work. She however said that of late, women have been reluctant to get integrated because quantities of waste on the street are rising on account of globalisation. There is a trend of women wanting to go back into waste picking. She goes on to add though that the highest form of integration that waste pickers of SMS aspire to, is for employment with the MCGM. SMS has neither asked for it nor does it believe that it should be their demand.

We asked Ms Jyoti Mhapsekar, Founder of SMS and the brain and the spine of its waste picker's initiative, what how she looks at integration of the informal sector for Mumbai, India's largest city. Ms Mhapsekar pauses a moment and then says, "Mumbai is not an easy city to work in, the complex network of relationships between the MCGM, the contractors and various levels of functionaries are very difficult to unravel. Many decisions are individual driven. The service industry is highly competitive so breaking into that segment is also difficult. The situation is not as bleak as it seems though because Mumbai where every inch of space costs a million bucks has allocated space for waste much sooner than have other smaller cities, not to mention vehicles."

4.1.6. The Contribution of the Mumbai integration experience

1. Government schemes have been used to the advantage of waste pickers in promoting integration into solid waste management
2. The earnings from integration must be attractive enough to divert waste pickers from the streets and the landfills into integration initiatives. Otherwise attrition rates in integration will be high.
3. Diversion of waste from landfills through small scale decentralised organic waste processing plants, be they bio-methanation or composting is a value added activity that organisations of waste pickers could look at by way of diversification.
4. Financial viability of activities needs to be rigorously ascertained to assess the feasibility of revenue earning enterprise models of integration
5. Tendering and Contracting arrangements with municipalities that require recurring financial transactions carry an element of risk. There is scope for strengthening/backstopping/supplementing the legal, financial, technical and managerial capabilities of organisations of waste pickers to negotiate this tricky area
6. Producers of packaging material that adds to the waste footprint in a city can be allies in promoting integration of the informal sector
7. Base materials and advocacy tools in the form of data, quantifying and tracking changes in waste quantities/ diversion of materials etc. need to be periodically generated through research

4.2. Case Study Of Pune

4.2.1 Background of the city

Pune with an estimated population of 3006036 is an emerging metropolis covering an area of 430 sq mt. The average household size is 4.5. The total area comprises the Municipalities of Pune and Pimpri Chinchwad and the Cantonment Boards of Dehu Road, Khadki and Pune.

The sectors that currently drive the economy in Pune are auto, auto components, forgings, mechanical components; food processing and service industries like Information Technology and IT enabled services. Pune boasts of a number of established large businesses in every segment. Phase I and Phase II of industrial estates developed by the Maharashtra Industrial Development Corporation are fully occupied and Phase III of the project is under development. Pune is also a major educational centre.

4.2.2. Overview of the formal sector⁶¹

The Bombay Provincial Municipal Corporations Act (BPMC) ⁶² of 1949 applies also to the Pune Municipal Corporation (henceforth referred to as PMC). The civic body is mandated by the Act to provide for public receptacles for garbage, transport of garbage and its final disposal in such manner that is not detrimental in the interests of public health. Citizens are required to deposit garbage in the receptacles provided by the Municipalities and placed in public areas. The Municipalities are also required to undertake sweeping of public areas such as roads, markets and other open spaces; cleaning of gutters, drains and the sewage channels; and fumigation.

The per capita waste generation in Pune is 326 gm per day and the total waste collected daily by the Pune Municipal Corporation (PMC) is in the range of 1000 metric tonnes per day. All waste is deposited at a single landfill site owned by the PMC on the eastern fringe of the city. The city spends €22 per tonne of solid waste for collection, transport and disposal. Solid waste management is handled by the Health Department which has total staff strength of about 3500 municipal workers for purpose.

The PMC manages the collection, transport and disposal of waste in the city. All formal collection is done by the Pune Municipal Corporation (PMC), and no private companies are subcontracted for collection services, other than for bio-medical waste collection. The PMC collects waste from households, commercial establishments and from roads. The municipality arranges formal transport of the solid waste management services, from waste generation to the transfer stations, and from the transfer stations to the landfill. There are nine transfer stations in the Pune of which two are not utilized because of resistance from citizens.

All the waste generated does not enter the municipal collection stream. The annual losses on account of dumping and burning are 17885 Metric Tonnes. Secondary collection of waste (collection from street containers) is the dominant mode of waste collection and accounts for 88 per cent of the waste collected. There is some material loss at the tertiary transfer stage due to moisture loss (20440) and recovery of recyclables by wastepickers at the transfer stations (2190) and so quantity despatched to the disposal site is 323025. However, after the formal sector 'finishes' handling it, there is additional retrieval of recyclables (12045) by the wastepickers at the landfill site, leaving behind 310980 MT. To this quantum is added the rejects from the wholesalers (11680), making the amount 322660. Hence the difference is actually due to the overlap of the formal and informal sector at the last stages of handling. What the PMC is left with at the point of disposal is only 59 per cent of the total waste generated.

⁶¹ For more details see Chikarmane, P., Narayan, L. Study of the Economic Aspects of the Waste Informal Sector in Pune, *Kagad Kach Patra Kashatakari Panchayat under contract to WASTE/Skat, GTZ*, 2006.

⁶² Bombay Provincial Municipal Corporations (BPMC) Act 1949

4.2.3. Overview of the Informal sector⁶³

The informal sector in Pune comprises itinerant waste buyers; door to door waste collectors (waste pickers who have been integrated); waste pickers including those at the landfills; retail and wholesale scrap traders; and informal recycling enterprises that do intermediate waste processing.

Socio-economic Profile of Collectors	Conditions of Work
<ul style="list-style-type: none"> ▪ almost exclusively scheduled castes (erstwhile untouchable castes) ▪ intra-state migrants from the drought prone districts of Maharashtra ▪ 90 per cent of the wastepickers are women and 81 per cent of the itinerant buyers are men ▪ half are under the age of 35 years ▪ 90 per cent of the women and 50 per cent of the men are illiterate ▪ 8 per cent of the women are sole income earners in their households ▪ 45 per cent of the women contribute more than 50 per cent to household income ▪ majority of the scrap collectors source domestic scrap ▪ 80 per cent of the wastepickers collect scrap from garbage bins and from the streets ▪ 75 per cent of scrap collectors walk for more than 5 hours to collect scrap ▪ majority work more than 8 hours per day ▪ 50 per cent started their work life in this sector ▪ majority see no alternative future for themselves outside this occupation 	<p style="text-align: center;">All Collectors</p> <ul style="list-style-type: none"> ▪ subject to harassment ▪ variable earnings ▪ no legislative protection ▪ no social security benefits ▪ subject to exploitation by traders
	<p style="text-align: center;">Street and Dump Pickers</p> <ul style="list-style-type: none"> ▪ manually handle garbage ▪ 30 per cent bitten by dogs ▪ shunned by citizens ▪ bullied by municipal workers ▪ prone to skin, gastro-intestinal and muskulo-skeletal ailments
	<p style="text-align: center;">Service based AWP's & IWBs</p> <ul style="list-style-type: none"> ▪ Relatively better conditions of work ▪ Better earnings
<p>(Source: Chikarmane, Deshpande and Narayan (2001) Study of Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune, ILO)</p>	

4.2.4. Integration of the Informal Sector: Experience of Pune

4.2.4.1. Organisation: Kagad Kach Patra Kashtakari Panchayat⁶⁴

Kagad Kach Patra Kashtakari Panchayat the trade union of self employed waste pickers and itinerant buyers in the Pune Urban Agglomeration⁶⁵, was established in 1993. The resolution

⁶³ For more details see Chikarmane, P., Narayan, L. Study of the Economic Aspects of the Waste Informal Sector in Pune, *Kagad Kach Patra Kashtakari Panchayat under contract to WASTE/Skat, GTZ*, 2006.

⁶⁴ Kagad Kach Patra Kashtakari Panchayat (KKPKP) Trade Union of Waste pickers and Itinerant Waste Buyers. For detailed case study www.wiego.org

to form a union was taken by 800 waste pickers at the first Convention of Waste Pickers and Itinerant Buyers held in the same year. At the time waste pickers were not recognised as ‘workers’ and the scrap collection activities carried out by them were not recognised as ‘work’. The trade union integrated and consolidated all classes and types of self-employed scrap collectors within its membership.

Identity cards had worked well in the SNTD project (mentioned in chapter III). Every member of the KKPKP filled out a registration form and was issued a photo-identity card thereby asserting his/her identity as a scrap collector. Incidentally, the members paid the cost of the card as well. The card was essentially a membership card and had no legal backing. Overnight waste pickers began to see themselves as workers, not scavengers. Harassment from the police and municipal workers progressively decreased.

4.2.4.2. Elements of integration

Baseline facts	Pune
Number of administrative wards ⁶⁶	14
Municipal Budget for SWM	
Estimated number of waste pickers	7000
Estimated number of scrap traders	500
Number of organisations of waste pickers/ working with waste pickers	1*
Number of years of work with waste pickers	KKPKP 15
Scale of operation of waste pickers organisations	KKPKP: Pune and Pimpri Chinchwad city
Numerical strength of waste pickers organisation	KKPKP 6400
Nature of Organisations’ activities / initiatives leading to upgrading of work and facilities	One time/Discretionary/ Precedent/ Institutionalised/Legal entitlement
Registration and Issue/Endorsement of Identity Cards and authorisation to collect scrap thereby constituting them as workers	Endorsement of individual cards issued by union by Municipality Precedent
Authorisation to provide door to door collection services	Formal authorisation given 2005-07
Institutionalised integration into door to door collection	SWaCH Coop approved by Municipal General Body in 2007 Institutionalised
Provision of safety equipment such as gloves, masks	Institutionalised
Provision of uniforms/apron	Institutionalised: PMC General Body Resolution in 2007
Provision of space for sorting recyclables	Institutionalised: PMC General Body Resolution in 2007
Provision of vehicles for collection of recyclables	Non motorised vehicles institutionalised: PMC General Body Resolution in 2007
Provision of collection tools and equipment	Institutionalised: PMC General Body Resolution in 2007
Provision of space for scrap stores	4 spaces provided

⁶⁵ Pune Urban Agglomeration comprises the Municipal Corporations of Pune and Pimpri Chinchwad and the Cantonment Boards of Dehu, Khadki and Pune

⁶⁶ The Municipal Area is geographically divided into administrative divisions called wards

	Precedent
Provision of space for organic waste processing	Not yet requested
Provision of space for intermediate processing of recyclables	Precedent
Social security/welfare benefits	
Provision of health cards and free medical care in municipal hospitals	Not Applicable
Provision of medical insurance cover	Institutionalised: PMC General Body Resolution in 2002
Provision of life insurance cover	Institutionalised: PMC General Body Resolution in 2007
Linkages to SJSRY government scheme ⁶⁷	None

4.2.4.3. The process of integration in chronological perspective

The process has been elaborated sequentially so that the evolution of integration is systematically represented. Only the integration related activities are presented here.

i. Recognition and identity cards 1995-96

The long struggle to get the identity cards endorsed by the Pune Municipal Corporation was substantiated by arguments about the contribution of waste pickers to reduction in municipal waste handling costs; resource recovery; environment conservation; recycling and economic productivity. The demand for recognition found 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 carrying it to the bureaucracy, politicians and the public at large.

The terms for the endorsement of identity cards by the Pune Municipal Corporation specified that the card holders were self employed waste pickers; it merely 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 the purposes of identification; the card was not transferable; children below the age of 18 years were prohibited from engaging in this work. Photo-identity cards endorsed by senior officials (designated by the Municipal Commissioners) were re-issued to all members. Although the PMC endorsed identity cards had no legal basis, KKKPKP members used it for various official work as follows:

- accepted by the lower courts as surety
- accepted by citizens as surety if the itinerant waste buyer did not have enough capital on hand to pay for the scrap
- accepted by police as proof of gainful occupation
- accepted by municipal workers and officials as “authorised to collect scrap”

⁶⁷ Swarna Jayanti Swayam Rozgar Yojana. A Government of India Scheme for promoting self employment. It has three distinct parts:

- (i) Assistance to individual urban poor beneficiaries for setting up gainful self-employment ventures.
- (ii) Assistance to groups of urban poor women for setting up gainful self-employment ventures. This sub-scheme has been titled as "The Scheme for Development of Women and Children in the Urban Areas (DWCUA)".
- (iii) Training of beneficiaries, potential beneficiaries and other persons associated with the urban employment programme for upgradation and acquisition of vocational and entrepreneurial skills.

ii. Study of child waste pickers in Pune 1995⁶⁸

The study enumerated 616 child waste pickers across the city.

Among the key findings were:

- all were children of waste pickers
- girls outnumbered boys
- most girls contributed their income to the family kitty while most boys spent their earnings
- 50 % of children had never been enrolled in school
- 50 % of those who had been enrolled in school had left before completion of primary school (class IV)

(Please refer Annexure VI for details)

There is a 75 per cent drop in the numbers of child waste pickers in Pune because of the KKPKPs efforts to actively discourage child labour in the sector and to promote education among children of waste pickers. Waste pickers have also been pro-active in changing this entrenched practice.

iii. Kashtachi Kamai (fruits of labour): A joint initiative of KKPKP and PCMC 1998

Started with working capital of €847 in 1998 in space provided gratis by the Pimpri Chinchwad Municipal Corporation, Kashtachi Kamai is no ordinary scrap store. Not subsidised by anyone it not only survives in the market but also delivers handsome returns to waste pickers it services. It is a fair trade shop managed by the high school educated daughter of a waste picker. The profit share constitutes between 8 and 10 percent of the annual earnings of each waste-picker (calculations based on the record of daily transactions) distributed annually. The amount is invested in long term interest earning securities by the waste pickers. Kashtachi Kamai is poised for replication with the respective Mayors and Municipal Commissioners of the Pune and Pimpri Chinchwad Municipal Corporations committed to provide space for four more of such shops in their respective jurisdictions.

iv. Report on Scrap Collectors, Traders and Recycling Enterprises in Pune 2001⁶⁹

Prior to this study the KKPKP had been wary of undertaking any formal research because of our members saying “how will it help us if we answer all those questions?” This study commissioned by the International Labour Organisation (ILO) presented the opportunity for the KKPKP to quantify the contribution of different actors at different levels in the waste informal sector. The study made recommendations in respect of recognising scrap collectors as 'unprotected manual workers'; provided some welfare benefits and life and medical insurance by the municipality; compelling scrap traders to issue receipts for all purchases from waste pickers and to pay a percentage of their surplus, based on the value of transactions, to scrap collectors; widespread and intensive campaigning among citizens about waste segregation; direct access to waste for waste pickers mandated by the local self-government; listing of waste picking as a hazardous Occupations in the schedule of the Child labour (Prohibition and Regulations) Act.

⁶⁸ Chikarmane. P, Phadnis,R., Narayan , L. Study of child waste pickers in Pune. UNICEF 1995 (unpublished)

⁶⁹ Chikarmane.P, Deshpande.M,Narayan.L. Report on Scrap Collectors, Traders and Recycling Enterprises in Pune. International Labour Organisation.Geneva 2001
http://www.ilo.org/dyn/infoecon/iebrowse.page?p_ieresource_id=445&p_lang=en Informal Economy Resource Database for abstract



v. Medical insurance coverage for waste pickers (2002)

Based on the findings of the ILO study KKP KP argued that while the financial benefits (savings in transportation costs) accrued to the municipalities, the costs (health costs) of contributing to municipal solid waste management were borne entirely by the waste-pickers labouring under abominable conditions of work, leading to higher levels of morbidity. The

argument was substantiated by the findings of studies that showed that waste-pickers suffered from occupation related musculo-skeletal problems, respiratory and gastro-intestinal ailments. Scrap collectors, particularly women, tended to ignore minor illnesses till they assumed dangerous proportions and became regular 'conditions'. Only a 5 percent sample of scrap collectors in Pune brought to light one incidence of Tuberculosis, 3 of occupation related accidents, 6 respiratory tract infections, 9 major injuries including falling from/into garbage bins, 1 eye infection and 36 cases of severe musculo-skeletal problems⁷⁰

In 2002-03 the Pune Municipal Corporation became the first municipality in the country to institutionalise the scheme for medical Insurance for all registered waste-pickers⁷¹ in its jurisdiction. The above arguments are detailed in the docket (prepared by the Municipal Commissioner) that was presented before the decision making bodies of the PMC. The payment of the annual premium to the New India Assurance Company was made part of the annual municipal budget. Hospitalisation costs of up to €85 are reimbursed by the insurance company. Claims are processed through KKP KP.

(Please refer Annexure IX for details)

We asked Dr. Nitin Kareer⁷² to comment on the medical insurance scheme for waste pickers, "I am glad that Pune was the first municipal corporation to provide medical insurance to waste pickers. The idea of an Urban Local Body (ULB) covering waste pickers under an insurance programme is both revolutionary and logical. A waste picker's work has health implications, so provision of basic health insurance is a must. The actual economic and environmental contribution made by waste pickers to formal Solid Waste Management in the city, are well established. The insurance scheme is thus a formal mechanism to recognise and endorse that contribution."

vi. Authorisation to undertake door to door collection of waste (2005-2007)⁷³

In 2005, the Pune Municipal Commissioner officially authorised KKP KP to organise door to door collection in the city and agreed to provide infrastructural support (equipment, space) and promote it through its administrative machinery as official policy. Ward Coordinators were appointed to campaign and liaise between citizens, the administration, the councillors and the waste pickers. In order to demonstrate this, KKP KP initiated "*Swachateche Varkari*"

⁷⁰ Chikarmane.P, Deshpande.M, Narayan.L. Report on Scrap Collectors, Traders and Recycling Enterprises in Pune. International Labour Organisation. Geneva 2001

⁷¹ Pune Municipal Corporation General Body Resolution instituting medical insurance cover for all registered waste pickers in its jurisdiction through the New India Assurance Company. Payment of premium to be made from the budget of the Health Department of the PMC. 2002

⁷² Dr. Nitin Kareer, I.A.S, Municipal Commissioner, Pune Municipal Corporation 2004-2007

⁷³ Letter no. mco 324 dated 1 January 2005

(harbingers of cleanliness) which was promoted as Pune's only eco-friendly doorstep garbage collection service offered through its members. KKPKP did not function as a contractor but promoted the service. Waste pickers retained the scrap for sale through the usual channels and deposited the organic garbage in the municipal container or the compost pit. Apartment blocks contracted the waste-pickers and paid them a user fee per apartment. The rates varied depending upon the location and the class of citizens living in that particular neighbourhood. Effectively they filled the gap between the generators of garbage and the neighbourhood garbage container.

This programme was looked upon as a pilot project for the integration of waste pickers. Beginning with two wards in 2005, the programme expanded systematically to pockets within the 14 administrative wards. Equipment for the most part was provided through the discretionary ward budgets of municipal councillors. The programme took root through the collaborative efforts of the campaigners, the administrative machinery, the elected councillors and KKPKP.

Many of the propositions that were put forth by KKPKP were tested and validated during this process. Some of them are listed below.

- Citizens, including those living in slums paid user fees for the door to door collection service
- The service providers were more accountable to the user if the user fee was directly collected from the user
- It was possible for waste pickers to become service providers and to follow service norms
- Door to door collection through waste pickers ensured higher levels of recovery of recyclables
- Door to door collection through waste pickers was low cost, labour intensive and less polluting in comparison with collection through motorised vehicles

By the end of 2006 almost 1200 waste pickers were integrated as service providers, covering over 150000 households and recovering user fees.

vii. Study of Solid Waste Generation and Collection in Pune (2006)⁷⁴

The AILSG commissioned a study on the Quantum and Characteristics of Garbage in Pune. This was awarded to KKPKP and conducted through the Waste Matters Team. The study not only demonstrated the high costs of the PMC formal waste collection and disposal system but also highlighted the inefficiencies of the same. It offered an opportunity to document the cost effectiveness of the integration model of doorstep collection done by the informal sector.

viii. Steering Committee on Solid Waste Management in Pune (2006)

The current phase focuses on the integration of wastepickers into solid waste management and the institutionalisation of the integration initiative in the form of a cooperative. The integration initiative cannot be viewed in isolation from the overall solid waste management practices and structure of the Pune Municipal Corporation or attitudes and awareness levels of citizens. The integration of waste pickers into door to door collection of waste is only the first step. It will have no impact (and questionable sustainability) if there are no visible changes in the cleanliness of the city and reduced pressure on the landfills.

⁷⁴ Chikarmane, P., Narayan, L Study of Solid Waste Generation and Collection in Pune 2006. Study carried out by KKPKP under contract to Solid Waste Management Cell, All India Institute of Local Self Government Mumbai

With a view to streamline and institutionalize the same and restructure the Solid Waste Management functions within the PMC, a Steering Committee was appointed by the Municipal Commissioner, with Waste Matters members as key constituents. The committee presented its report to the Municipal Commissioner. Some of the recommendations in respect of cooperative of waste pickers and designated sorting sites for waste pickers are already in the process of being implemented.

ix. Study of the Economic Aspects of the Waste Informal Sector (2006-2007)⁷⁵

The study of the Economic Aspects of the Waste Informal Sector was carried out under contract to WASTE/Skat. In the framework of the study, GTZ has quantified the contribution of the informal waste sector in terms of socio-economic and environmental impacts as well the costs for providing its services. The findings for Pune are summarised below.

- Waste pickers directly contribute to reduction in solid waste management costs, as well as environmental costs. For example, the informal waste sector in Pune effectively subsidises the formal waste sector to the extent of € 3004636 per annum in waste handling costs. It handles one third of the waste handled by the formal system.
- Recovery in the informal sector is 89 per cent as compared to the formal sector where no recovery takes place. The informal sector operates at lower costs than the formal system.
- In terms of financial costs, there are no revenues accruing to the formal system, while the informal system operates at a net benefit of € 9.300.082 per annum. The monetised environmental benefit on account of the informal system is higher than the environmental costs of the formal system.
- The use of non renewable energy resources in the informal system is minimal.
- The informal system engages twice as many workers as the formal system, 63 per cent of whom are fully dependent upon it for their livelihoods.
- The proportion of women workers in the informal sector is ten times that in the formal sector. The average earnings in the informal sector exceed the statutory minimum wage.
- The workers are already recognised and are entitled to certain benefits such as medical insurance because of the existing interventions in the informal sector.

x. SWaCH Cooperative of Waste pickers for door to door collection of waste 2007⁷⁶

Based on this experience, KKPKP lobbied the Pune Municipal Corporation for establishing a unique partnership in the form of a co-operative of waste pickers and other urban poor for providing doorstep garbage collection services across the city. The proposal was approved by the Standing Committee as well as the General Body. This is the first such instance in the country.

The SWaCH (Solid Waste Collection and Handling) Cooperative of wastepickers is conceived as a professionally managed service delivery organisation within the broad framework of developing models that are inclusive of the poor. It is conceived as a professionally managed social enterprise of the poor in the area of waste management that includes collection, resource recovery, scrap trading and waste processing. It is therefore an autonomous entity but functions will be financially supported by PMC for a period of five years during which it is supposed to explore revenue sources and become a revenue earning independent entity. The PMC is committed to support the management, equipment,

⁷⁵ For more details see Chikarmane, P., Narayan, L. Study of the Economic Aspects of the Waste Informal Sector in Pune, *Kagad Kach Patra Kashatakari Panchayat under contract to WASTE/Skat, GTZ, 2006.*

⁷⁶ See Annexure III.10 for Unofficial translation of Pune Municipal Corporation General Body Resolution Number 476 dated 22 Feb 2007 for forming and supporting a cooperative of waste pickers

infrastructure costs and some welfare costs during the start up phase. User fees are to be recovered from service users. The user fees and the income from the sale of recyclables will constitute the earnings of waste pickers. SWaCH formally came into existence in August 2007.

SWaCH had a turbulent birth. The formation of SWaCH and support from the PMC for a period of 5 years was approved by the municipal general body in February 2007. The members changed after elections and there were a few detractors in the new body which rescinded the approval granted by the General Body after the Cooperative was registered. The Municipal Commissioner had also changed due to the elections. However, the new Municipal Commissioner was also supportive of the proposed cooperative. He approached the state government to overrule the municipal body's resolution to rescind. Finally the state government restored the original resolution to support the Cooperative. Meanwhile hectic lobbying and advocacy was also done.

Waste pickers will comprise the majority membership of the cooperative. However, membership will also be open to:

- Non KKPKP waste pickers
- Doorstep collectors belonging to/members of other organisations
- Doorstep collectors who are not members of any organisation
- Urban poor desirous of undertaking doorstep collection work

Structurally, the governance arm of SWaCH comprises 14 waste pickers/ collectors, 2 representatives of the PMC and one representative of KKPKP. 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 such as citizens' education, management information systems, composting and bio-methanation etc.

Current status of SWaCH at a glance

- Coverage: presence in 127 out of 144 sub-units in all 14 administrative wards of the PMC
- 1500 waste pickers formally integrated and servicing 200000 households

4.2.5 Assessing the sustainability of the Pune model

From the case studies documented as part of this study, Pune is at an advanced level in the process of integration of waste pickers into solid waste management. The factors that contributed to the integration process in Pune have been analysed in this section because they have value for similar experiences elsewhere. Some have to do with strategy, some with opportunities that presented themselves, some with effective utilisation of windows of opportunity, some threats that were converted into opportunities and not least of all some just luck.

A. International and National Level Factors

1. Focus on the informal sector nationally and globally

In general there has been a great deal of attention focussed on the informal sector in India. Part of this has to do with the efficiency concerns that have dominated the post-globalisation post-liberalisation debate. The efficiency of the informal sector has been demonstrated time and again. At the same time there is tacit or open acknowledgement about the fact that the costs of this efficiency are borne quite often by the labourers. At one end of the spectrum in the informal sector there is true entrepreneurship and at another end is extreme

fragmentation of the labour market. Often - as in scrap collection - the fragmentation engenders exploitative relationships that are masked under the guise of entrepreneurship.

However, to bring the discussion back to the subject at hand, yes, scrap collectors are entrepreneurs adding value merely by collecting and then sorting waste into tradable commodities. At another level, they carry out their work in the most dehumanising manner, having quite literally to scrounge through putrefying garbage to retrieve the scraps of paper and plastic that will earn them a living. The integration of the informal sector looks to utilising the entrepreneurial abilities of scrap collectors to create business models that can be accommodated within present economic paradigms without compromising the interests of labour. This is the real challenge.

2. **JNNURM and CDP**

Many states in India have been urbanising at a rapid pace. The Government of India initiated a major urban renewal and reform programme called the Jawaharlal Nehru Urban Renewal Mission in cities with million plus populations. The programme is to be financed by the National, State and Local governments sharing the costs. The programme has two components, basic services for the urban poor and infrastructure development. The proposals to be submitted are required to have a pro-poor focus incorporating public transport, solid waste management, slum redevelopment, sewage treatment and other civic infrastructure. The preparation of a city development plan was a pre-condition to consideration of proposals. The Pune plan addresses the issue of solid waste management recommending the integration of the informal sector.

3. **Global and national concerns with global warming**

The growing concern with global warming and the contribution of landfills to Green House Gas emissions has also brought Solid Waste Management onto the national agenda. Landfill diversion through waste processing technologies is being supported by the Ministry of Non-Conventional Energy Resources of the Government of India. Although recycling of scrap paper, plastic, metal and glass contributes to less waste being disposed off in a landfill, this Ministry is also looking at Waste to Energy options such as pelletisation plants; Refuse Derived Fuel Plants; plasma; pyrolysis which may actually negatively impact the recycling industry.

4. **Clean development mechanism**

The CDM offers opportunities for the waste informal sector to benefit from carbon credits.

5. **Public interest litigations**

The influence of such litigation at the national level has been covered in Chapter II.

B. Local Level Factors

1. **Public interest litigations**

It is often the case that landfills are located on the periphery of cities when they become operational. Over the years the city grows almost to the perimeter of the landfill and citizens begin to object to the nuisance. This is exactly what happened to the PMC landfill at Paud Road over ten years ago. The citizens moved court which ruled that the use of the landfill should be discontinued. The farmers from the villages bordering the next landfill site at Uruli also moved court on the grounds that the leachate had destroyed their groundwater and plastic had ruined their fields. The fact that the PMC had endorsed the identity cards of waste pickers was cited by the PMC to establish that substantial recovery of recyclables did take place prior to dumping of waste at the landfill. The courts have nonetheless tightened the screws on the contravention of waste

management rules by the PMC. Having been forewarned by those experiences, farmers in other areas have been agitating against reservation of land for landfills in their areas. Diversion of waste from the landfills to the extent possible remains the only option available to municipalities.

2. **Research to inform advocacy**

The fact that KKPKP has been able not only to create a mass base for itself but also undertake research has been a decided advantage. The quantification of the contribution of the informal sector in economic terms is very valuable for advocacy. The ILO study about scrap collectors, recyclers and trading enterprises in Pune was followed by a study of solid waste generation and collection in Pune⁷⁷ city, which essentially looked at the formal SWM system. The study of the Informal aspects of the waste informal sector, in many ways brought the two on a common platform to analyse the costs and benefits of the baseline, subtraction and addition scenarios. The Tetra Pak study of waste reaching the landfill also indicates the quantity of recyclable scrap reaching the landfill. Significant advocacy initiatives such as the medical insurance cover for all registered waste pickers and support for the SWaCH cooperative for doorstep collection have been informed by the data generated through the ILO and WASTE⁷⁸ studies, respectively.

3. **Critical mass base**

The vertical and lateral organisation of waste pickers to city scale has provided the critical mass in terms of numbers and political strength. KKPKP has been able to leverage its mass base ability to engage with the administration and politicians to push the agenda of integrating the informal sector.

4. **Modalities of Engagement with the Municipality**

Since about 2004-05 KKPKP has made it a point to engage with the Pune Municipal Corporation on the issue of solid waste management. KKPKP has adopted the twin strategies of agitation and engagement as per the requirement of particular situations.

Municipal bodies are legal entities governed by laws and statutes that are prescriptive in terms of rules and procedures. They also have political and administrative structures that determine and implement policy. Due process requires that the integration process is approved by the administration as well the elected representatives. The image and credibility of the organisation (seeking integration) and its leadership have a significant role to play (at least initially) in influencing the process of decision making within the municipality.

While in the recent past, municipalities have been entering into arrangements with non-government organisations (NGOs), their scope has been limited to small pilot initiatives supported by officers within the respective municipal bodies. Frequently, these initiatives remain small models; they are unable to scale up or are terminated when the concerned officer is transferred. Municipalities because of the way they function require formal institutional forms in order to engage on a scale that is more than micro-level.

Government bodies have also created alternate institutional forms that can carry out specific tasks that are required to be carried out by government. These alternate institutional forms

⁷⁷ Chikarmane, P, Narayan, L. Study of Garbage Generation, P and Collection in Pune. All India Institute of Local Self Government. Mumbai 2006.

⁷⁸ Chikarmane, P., Narayan, L. Study of the Economic Aspects of the Waste Informal Sector in Pune, *Kagad Kach Patra Kashatakari Panchayat under contract to WASTE/Skat, GTZ, 2006.*

could be cooperatives, companies or societies. It is this precedent that was used in the Pune case where the Pune Municipal Corporation itself resolved to establish a cooperative for undertaking door to door collection of waste through waste pickers and other urban poor. The SWaCH Cooperative established thereafter is in the process of being given a Work Order by the Pune Municipal Corporation after which there will be a formal agreement.

Tender-based contracting is the form that municipal governments are familiar and comfortable with. Unfortunately, the contracting process in India is often not transparent which is why many development organisations are unable or unwilling to engage in the process. As we have seen in the Mumbai case studies, the organisations entering the contracting arenas have difficulties in negotiating them.

5. Large scale mechanisation

Like privatisation, mechanisation has a fatal attraction for municipal administrators and executives alike. As mentioned earlier in this report, decision making within the municipality is a complex process. Compactors, mechanical sweepers, wheelie bins, waste segregation equipment are marketed by vendors and purchased by municipalities with impunity in a system where few questions are asked. To cite an example, the Pune Municipal Corporation purchased a mechanical segregator consisting of sieves, a hopper and a conveyor belt for €169491 that did not function even for a week.

6. Aggressive marketing by vendors

Waste processing technologies from composting to bio-methanation to refuse derived fuel (RDF) and other waste to energy plants are being aggressively peddled by vendors. Often the municipal staff does not have the technical know how and capability to assess the technology or to even call in technical experts to evaluate the technology. MOUs are signed and vendors are under no pressure to deliver. KKPKP has studied such MOUs and concession agreements with the help of technical experts and submitted comments for the consideration of the decision makers.

7. Press

Right from the inception of the organisation of waste pickers the press has played a vital role in promoting the integration of waste pickers. KKPKP or issues related to waste pickers have been reported 248 times (168 in the regional language and 99 in the English language) in the newspapers since 1996. 168 articles have been overtly positive and 39 have been overtly negative. All the activities of KKPKP have been covered but the maximum coverage has been related to waste segregation and contribution of waste pickers; integration in solid waste management and social security for waste pickers. A more detailed analysis of the integration process through press coverage is presented in a Table in Annexure VIII along with press cuttings.

C. Organisation Level Factors

1. Homogeneity among waste pickers

Waste pickers in Pune are mostly *Dalits*, women and intra-state migrants. Regionally, linguistically, and caste-wise they are a relatively homogenous group. The relative homogeneity facilitated the process of organisation that is the precursor to integration. However, the proportion of men from other social configurations is higher among itinerant waste buyers. The organisation has emphasised 'worker' identity over the other identities. At the same time it has tried to be sensitive and responsive to the dynamics among its members. A few illustrations are given below.

- The presence of the *Matang* and *Nav Baudh* (formerly *Mahar*) *Dalits* is high in this occupation and the two castes do not engage in what is called "*roti-beti vyavahar*" (inter-

dining and inter-marriage) with each other. This has been exacerbated for historical reasons because Dr Babasaheb Ambedkar, the icon of the *Dalit* rights movement was seen to represent the *Mahars* even though he advocated for the rights of all 'untouchable' castes.

- KKKPKP initiated community wedding celebrations to counter the practice of child marriage at which marriages of couples from both the castes were solemnised for the first time.
- KKKPKP participates in public solidarity programmes organised to pre-empt outbreak of violence whenever there is possibility of trouble brewing on account of religious, linguistic or regional differences in other cities. Solidarity programmes in the city were organised during the anti-Muslim riots in the state of Gujarat and the recent anti-North Indian tirades.
- The entry of inter-state migrants among itinerant waste buyers who are seen to be affecting the business of the existing workers is also discussed in members' meetings. The new entrants into the occupation are encouraged to become members of the organisation.

Despite all this a certain undercurrent of tension continues to prevail on account of the above factors because of the external political milieu in which myriad identities are raised for political expediency.

2. Tracking changing trends

The situation is also changing and evidence of this has been coming to light over the past few years. The specific trends are given below.

▪ **Increase in the numbers of men**

Typically the sector almost exclusively comprised female waste pickers and itinerant waste buyers. The traditional itinerant waste buyers were also women referred to as '*dabbatliwalis*' (tins and bottle women) who carried baskets on their heads while the few men that were there were '*raddiwalas*' (used newspaper buyers) who moved on cycles or '*bhangarwalas*' who used push carts. The last few decades saw the increasing entry of men from the same castes as that of waste pickers, in itinerant waste buying. Gradually, specialisation set into this and there were "*pusthawallas*" (corrugated board collectors).

Until the late 1990s, waste picking was carried out almost exclusively by women. Gradually men started becoming more visible, particularly at night. They tied sacks to bicycles to increase their mobility and criss-crossed the city at night. In 2000, in the framework of the ILO study there was further evidence that women were being pushed out of itinerant waste buying and fresh entry was not taking place because the trading tactics of the men (use of push carts, weighing scales, higher prices) were too competitive.

After integration, there is an increase in the number of couples working in door to door collection; these men are shifting away from itinerant waste buying to door to door collection because of the regular hours and income and security of not having to compete with other waste buyers. A few of the men who have joined the integration model are also those who were doing no work and living off their wives' earnings prior to this.

Vartaman Shinde is a college educated youth who has taken to this occupation in the absence of other employment opportunities. A relatively new entrant to the occupation he says, he says he prefers to work at night because he can spend the daylight hours tending to his children. Otherwise he would have to leave early in the morning to get the best pickings and would not be able to ensure that his children go to school and remain

there. He gave up door to door collection after trying it for a month and feels integration does not suit him.

- **Increase in the number of inter-state migrants in itinerant waste buying**
Recent years have also witnessed the entry of itinerant waste buyers from other states of India. These inter-state migrants were originally found to be employed as workers in scrap shops. They almost specialise in baling, sorting, grading, loading and unloading activities in the scrap trade. Now they are visible in itinerant waste buying as well and tensions do exist between them and the existing workers.
- **Shift from particular castes to include other backward castes and entry of men after integration**
Typically waste picking has been the occupation of certain castes in Pune. There is some evidence of change in this area. Members of the non *Dalit* castes have been showing increasing willingness to enter into door to door collection. If the existing waste pickers who seek to be integrated are integrated and others then come in, it is a welcome change because it will change the caste occupation link in the sector.

3. Consolidation of organisational capabilities

References to each of the components of organisational capabilities have been made in the relevant sections of this report. Clear focus and multi-pronged strategies; mass base; ability to carry out research and delve into detail; ability to advocate with administrators and lobbying have been consolidated in pushing the agenda of integration of the informal sector. It has also enabled the Organisation to convert threats into opportunities. KKPKP has had perforce to engage with both the formal and informal systems in waste management to identify the possibilities of convergence. Some illustrations of how these contributed to the process in practice are outlined below:

- Sometime in 2004-05, the Pune Municipal Corporation entered into a Memorandum of Understanding (MoU) with Ecosmart, the environmental business subsidiary of Infrastructure Leasing and Finance Services (IL&FS), and the All India Institute of Local Self Government (AIIILSG) for setting up a composting facility for waste to energy processing facility comprising bio-gas and fuel pellets at the landfill. AIIILSG approached KKPKP for carrying out the waste generation and collection study for this purpose. The density figures that were found in the study enabled the Municipal administration to criticize the concession agreement specifying the required waste density and to put the project on hold.
- A small group (not representative but powerful) of citizen activists and municipal councillors extensively used the media to campaign against the municipal administration's proposal to establish a cooperative of waste pickers and other urban poor for door to door collection of waste even after it was passed by the municipal General Body. The vilification campaign by this group persisted for about 8 months and almost derailed the integration process. It was the successful pilot project for integration undertaken from 2005, the mass base and the cumulative administrative and political goodwill developed over the years that saved the integration project till it was finally institutionalised.

D. A view from below

This entire report is about the integration of the informal sector in waste management and would therefore be incomplete without an exposition of how waste pickers view the process. Focussed group discussions were conducted with 198 integrated waste pickers and itinerant waste buyers in 11 geographical areas of Pune to ascertain their views on integration. The broad findings are presented in Table IV in Annexure X. Waste pickers were happy with the

integration scenario for the most part. Regular and reduced hours of work and more leisure time were seen to be distinct advantages even by some women whose earnings had decreased post integration. Regular monthly income from user fees and daily income from sale of scrap was also seen as advantageous. The collectors servicing apartment blocks were more satisfied than those servicing individual tenements because the payment was *en bloc* in the first case. The expectation that PMC should pay a salary came up only in two units. Change in dress, appearance and greater respect in public were seen as distinct gains.

- We come at a specific time and go back home early. Previously we used to come at work early at 6 and were still working till 6. Now we come at 8 and go back home by 2.30. We go back and rest at home, says Azizbi who used to earlier go from Patil Estate to Janwadi to waste pick and now comes to Aundh for door step collection.
- Rebecca shares, I finish my work quite early. By 12 I am free and back home. I am also educated till X th. Earlier police would stop us and ask questions of where you are going with this sack. Generally people suspected because we were dressed also that way with unkempt hair. Now that does not happen we also come well dressed.
- Maina Naravde whose pre-integration income was higher at Rs.4500/- than her post integration income of Rs.1900/- but she still felt integration was better than roaming around in the sun the entire day and putting hands in mixed garbage.

Conclusion

The KKPKP experience Pune experience does have many of the ingredients that make for sustainability. Organisational base and credibility, length of existence and goodwill, legitimacy and financial support from the PMC during the start up phase and goodwill built during the experimental pilot. The threats however are lurking in the background, among them vested interests, lobbies of different groups, and big businesses waiting in the wings. SWaCH in the way that has been conceived is fundamentally sound and has the beginner's advantage. It now has to negotiate the market while keeping the social objectives in mind. We conclude with what the Urban Development Secretary, Government of Maharashtra has to say to the Municipal Commissioners in his state, "Waste pickers play a silent but important role in garbage disposal in our cities. Coming from the extremely impoverished strata of society, they work under hazardous conditions to earn a livelihood. Some municipal corporations have taken laudable and positive steps to encourage cooperatives of waste pickers, allot space for them to run sorting centres and introduce medical insurance for waste pickers. It will be worthwhile introducing some initiatives in your city also."

4.3. Case Study Of Delhi

4.3.1. Background of the city of Delhi

Delhi is the Capital of India. It has been a seat of power for various dynasties for several centuries. Delhi was also an important seat of power for the Mughals and later, the British in the early 20th century. Much of Delhi today continues to be stamped with remnants of British colonialism and policy, such as that of controlling vagrants, which impacts the informal sector's everyday work. Delhi is also stuck in a peculiar administrative niche. It is neither a state nor a union territory, the two typical administrative units that India is divided into. This creates serious problems, as different bodies are controlled by different agencies-state or central. This makes it difficult to pass policies or local orders, as there is a constant tension over jurisdiction and autonomy.

We chose Delhi for this case study because of its importance as a percolation centre, from

which ideas travel, it's location as the capital, its regional importance as a centre for recycling, as well as its history of conflict and negotiation with the sector and an active civil society.

4.3.2. Overview of formal solid waste management in Delhi

The population of Delhi is approximately 16 million. Delhi is administered by three municipalities—the New Delhi Municipal Council, the New Delhi Municipal Corporation and the Delhi Cantonment. In these three municipalities, a total of 7,000 M.T. of waste is generated everyday. Some guesstimates suggest that the figure is much higher,⁷⁹ but is handled informally.

Comparison of the 3 Municipalities ⁸⁰

S.No	Municipal Body	Waste Generation (currently) in tons	Projected for 2021	Number of Workers
1.	New Delhi Municipal Council	400	550	1800
2.	Municipal Corporation of Delhi	6300	15100	50000⁸¹
3	Delhi Cantonment Board	100	100	400

The Municipal Corporation of Delhi (MCD) is among the largest municipal bodies in the world, providing civic services to more than estimated population of 13.7 million citizens in the capital city, of India. It is next only to Tokyo in terms of area. Within its jurisdiction are some of the most densely populated areas in the world.

MCD has been providing services for collection, transporting, treating and disposing solid waste for the city. The generation rate is about 450 to 500 grams/person/day, which is almost five times the national average. The garbage generation in Delhi is likely to increase to 18,000 tonnes per day by the year 2021.

The New Delhi Municipal Council (NDMC) is smaller, but significant for making a dent in policy, as this is where policy makers live and experience the outcomes of various policies. It is one of the wealthier municipalities in India and directly under the Home Ministry. ⁸² In recent years, with the boom in land prices, many areas with prime real estate have experienced an unprecedented growth. The NDMC area lies in the heart of the boom. Therefore, several commercial areas have been revived or expanded here, leading to an increase in waste generation.

The total sweeping staff available with MCD and NDMC is in ratio of 1:216 persons and 1:326 persons respectively. This is above (better than) the prescribed norms of 1:500 in Central Public Health and Environmental Engineer Organization (CPHEEO) manual.⁸³

⁷⁹ This opinion has many takers. A popular guess is that Delhi generates approximately. 10,000 tons of waste informally disposed.

⁸⁰ Derived from http://www.ccsindia.org/ccsindia/pdf/Ch12_Solid%20Waste%20Management.pdf

⁸¹ There have been several occasions where the MCD has verbally declared and agreed that approximately. 50% of its workforce does not show up at work. Instead, as part of an elaborate chain of corruption, they are marked as present and share their salaries with those who assist them. Instead, they work at different and more lucrative jobs, earning another salary.

⁸² The Home Ministry is the Ministry for Security.

⁸³ [Http://www.ccsindia.org/ccsindia/pdf/Ch12_Solid%20Waste%20Management.pdf](http://www.ccsindia.org/ccsindia/pdf/Ch12_Solid%20Waste%20Management.pdf)

However, in reality, there is large-scale absenteeism amongst workers, especially in the MCD area. Therefore, services are unevenly distributed, with wealthier areas receiving more resources for waste handling.

All over India, SWM is the responsibility of the local government. Every municipality is constituted under a specific law. The Municipal Corporation of Delhi was constituted under the *Delhi Municipal Corporation Act, 1957*. This Act elaborates on various powers and functionalities of Delhi Municipal Corporation through various sections. This act has described in detail about sanitation and public health in Chapter XVII. Provision for daily cleansing of streets and removal of rubbish and filth (Section 35) polluted and obnoxious matter from general public latrines, urinals and cesspools (Section 355) which is the property of corporation (Section 351), can be stored in receptacles, depots and places specified by the commissioner (Section 352). It is the duty of owners and occupiers to collect and deposit rubbish, etc. of any premises in specified depots (Sec 353) and from factories and workshops (Section 356) a written permission from the commissioner is must. No rubbish will be allowed for more than 24 hours other than receptacle approved by the commissioners (Section 357).

Although there is no specific mention of the informal sector here, they have been banned from work in 1994 during the breakout of the plague, under a government order of the Commissioner, MCD for protecting public health. The ban was lifted after the plague was over and there was protest from civil society organizations.

The New Delhi Municipal Council was constituted under a similar act. The contents of these municipal laws are important because they have implications for the informal sector. In the case of Delhi, they actually render the informal sector in a gray area, because in fact, the waste is not municipal property till it reaches a formal disposal point. The waste pickers often operate before the disposal point and therefore, can demand legality for their work. Chintan has used this logic in its work on legal rights.

Although door- to- door waste collection has evolved in Delhi as a part of the traditional, caste-based sweeper system, it is now being undertaken by both organized waste pickers and by contractors. Many of these contractors are linked with municipal sweepers, who allegedly pay the sweepers a monthly sum to work. Moreover, often, the waste collectors pick the waste, which they are allowed to keep, but the monthly service fees is collected and pocketed by the municipal sweeper. These systems keep the waste picker out of the net of entrepreneurialism.

Privatization

Since 2005, however there has been a large shift towards privatization via large companies, mostly in the sector of waste collection from neighbourhood collection points and transportation to landfills. Four companies have been involved in this work. These are Delhi Waste Management (DWM), AG Enviro Infra projects, Ramkey and Metro Waste Handling Pvt Limited. All these are Indian companies, with DWM and AG Enviro created as consortiums. These were picked after an international bidding process and contracts. A total of 6 zones in the MCD and all of the NDMC area have been privatized. Their contract shows the following :

- Ownership and Control of Recyclable Wastes is with the private contractors(Article 5.15 of the Contract)
- Control and Rights over the Dhalao Space is also with these contractors

This has impacted the informal sector in the following manner:

1. Widespread Loss of Livelihoods

There is a widespread displacement of the waste pickers and junk-dealers in these zones. In R.K.Puram, a residential area where DWM is operational, a before and after contrast is useful:

S.No	Before	After
	Self employed waste pickers use waste to sustain themselves	Waste pickers have no further access to dry waste, hence loss of livelihoods
1.	Waste pickers share waste in dhalao as a community to earn as entrepreneurs	Only one waste picker get a lowly paid job as wage labourer
2.	Work is hazardous	Work continues as hazardous
3.	Waste pickers share dhalao space for segregating waste	Waste pickers no longer allowed to use dhalaos for segregation of waste they may find
4.	Junk dealers' livelihoods possible as waste pickers sell them waste	Junk dealers livelihoods severely jeopardized

The impact is bigger than it seems, given that 1% of Delhi's population, or over 150,000 persons depend directly on recycling for a livelihood. Privatization in the MCD area has resulted in appx. 50% of the waste pickers losing their jobs or seeing a reduction in income. Many went to nearby areas not privatized but then, impacted other workers earnings.

Prior to privatization, several waste pickers used both the territory and the space for earning a living. While some picked waste in the morning, others would sit in a bin for a fixed number of hours. The privatized system did away with this informal social sharing and instead kept one bin guide for the maintenance of the space. This resulted in fewer people earning from the same amount of waste. Worse still, because being a bin guide implies inflexible hours, most women are unable to try for this job, as they have to juggle household work with waste picking. Privatization in Delhi therefore negatively impacted women waste pickers in additional ways.

2. Poorer Segregation

Waste pickers segregate and pick up 15% to 59% of the waste, based on the area. In contrast, the private companies are required to segregate to much lower levels. In the 8th year, the contractor must only segregate up to 20% of the waste.

Another related problem of privatizing both materials and space is that when waste pickers engaged in door to door collection undertake their work, they do not have place to segregate their waste efficiently. Many of the waste pickers we spoke with complained that they were not allowed to throw in segregated waste in the privately managed dhalos or even segregate their own waste there. Consequently, they left low value recyclables in the waste. Many complained of having to travel a greater distance to throw waste from households. They were also beaten when they refused to comply.

Finally, the private contractors sell the waste directly to the recycling factories or the biggest dealers. As a result, many small junk dealers find themselves out of business.

3. Cost Savings at a Cost

There are significant transportation cost savings for the MCD. Our estimates are that the cost per truck to the company was only Euros 3 appx, which is significantly less than that of the MCD's Euros 10 or the NDMC's Euros 14. Greater efficiency and stricter monitoring is likely to be one cause for this significant drop, as are, possibly, different approaches to calculating the cost, which may hide some costs. A new World Bank study ⁸⁴suggests that this difference is an India wide phenomenon, and that the difference can be in the range of 20-40%. Comparing the costs of waste collection and transportation in 10 towns in the southern Indian state of Karnataka, the report shows the trend of cost reduction across the board. However, the Bank suggests that "One of the reasons for the relatively lower costs incurred by the contractor is quoted as differential wages, particularly when private contractors tend to pay lower than minimum wages to their sanitary workers." The government, on the other hand, cannot indulge in such practices and therefore would incur much higher costs for the same labour performed by the same number of workers.

Demands for Inclusion of the Informal Recycling Sector

A number of NGOs have been protesting against privatization and its impacts. Their main demands are as follows:

- **Renegotiate the Contract**

- Article 5.15, regarding sale/distribution of recyclable substances must be scrapped. All rights to dry, recyclable waste as listed in the list of 40 items in the contract must belong to the city's waste pickers as a matter of right.

- The contractor must not be given the rights over dhalaos, but be able to collect waste at fixed times from it. The dhalaos must be used by waste pickers to segregate waste in different ways

- Additional and large dhalaos, which are underused, must be allocated to junk dealers to carry out their business. A case- by- case decision must be undertaken in every single zone.

- As long as the contractor is paid on the basis of low segregation rates and total weight alone, there will be no incentive to work with the waste pickers. The contractor must be paid on the basis of segregated wet waste alone, as long as the contractor does not have the rights over the dry waste.

- **Recognize Groups of Waste pickers**

- Waste pickers in Delhi have already organized themselves directly and indirectly. Recognize them and allow them to handle waste till before the formal transportation level.

- Encourage waste transportation efforts by waste pickers and other BOP players by legalizing their forms of transportation

- **Recognize and Facilitate Junk Dealers**

Junk dealers' contribution to saving waste from landfills should be recognized. They must be given both space and licenses to operate in a formal manner.

⁸⁴ World Bank ; *Improving Management of Municipal Solid Waste in India : Overview and Challenges*. May 2006, Delhi

- **Actively use aspects of the contract**

The following articles should be followed in the spirit in which they were written. Instead of employing the informal sector collectors, the informal sector waste recyclers must be partnered in the manner indicated above.

- Article 5.19t :Endeavour to employ the informal Municipal Solid Waste collectors within the concession area to carry out the work of collection and segregation of MSW, in accordance with this agreement and applicable law.
- Article 6: MCD Obligations: Give all assistance to the concessionaire to employ the existing informal Municipal Solid Waste collectors including rag pickers and assist the concessionaire in solving issues arising from the redeployment and employment of such waste collectors by the concessionaire.

The contract shows that the signatories to the contract- the MCD and the private contractor-were aware of the sector but deliberately chose to ignore its needs.

Waste Management must contain a developmental and social component

All solid waste management policies must be examined from the lens of the Millennium Development Goals and poverty reduction. India has 700 million people who live under 2 dollars a day and 300 million under 1 dollar a day. Almost 4 out of 10 Indians are estimated to be poor⁸⁵. Unfortunately, privatization of waste in Delhi is threatening to force almost 150,000 persons in the city into dire poverty.

Formalization and Privatization of e-waste Recycling

A parallel more complex kind of privatization is also taking place, with useful outcomes. It is linked with the inflow of large, formal investments into electronic-waste recycling. Although it is clear that e-waste reprocessing is hazardous, many recyclers are merely dismantling the goods. It is feared that they will be left out of the picture unless policies are created to accommodate them. Currently, the Department of Environment has been calling for expressions of interest in various aspects of e-waste recycling. One pre-requisite is a tie up with the informal sector. The GTZ-ASEM programme has also been promoting formally organizing the e-waste recyclers so they can be a part of the supply chain for recycling factories.

Waste- to- Energy Conversion and Privatization

There are other kinds of privatization, which impacts informal sector recyclers. These are the privatization of landfills and waste to energy projects using thermal technologies⁸⁶.

The privatization of landfills will mean that waste pickers working there will not get access to waste. Already, landfills are amongst the worse areas for waste pickers to work. However, there is the possibility of creating conditions for waste pickers to safely pick out waste in an earmarked site and for other facilities for their safer, cleaner work as seen globally in bet practices.

⁸⁵ This is a poverty index commonly used, including by the World Bank.

⁸⁶ Thermal technologies refer to incineration, pelletization, and plasma arc technology.

In Delhi, the city is planning to install 3 waste to energy plants. These plants will generate 15 mega watts of energy. However, there are several problems. Firstly, the plants will be given free waste and almost free land. On top of that, it is likely they will receive subsidies between one and 1.5 crore. Since their energy will be at least twice as expensive as energy from other sources, they need an additional subsidy. Economically, it's a disaster. But here is the other side. Currently, almost 1% of Delhi's poor eke out a livelihood through recycling materials as paper and plastic. These are exactly the materials that will now fuel these waste to energy plants. So clearly, the government intends to subsidize the recyclers' competitors, pushing them out of work. Such a policy is making the poor poorer and takes away their livelihood by subsidizing their competitors at multiple levels?⁸⁷

Some of these plants are also vying for carbon credits, though this is not confirmed. Given their negative social impact, it is also important to press for only such projects being accepted that are not damaging to the poor.

4.3.3. Overview of the Informal Sector in SWM in Delhi

The informal sector in Delhi involved in recycling is estimated to be approximately 150,000 persons at least. These include the various categories described in the pyramid in the introduction. This report pays special attention to what Chintan describes as The Bottom of the Pyramid Recyclers, such as the waste pickers, itinerant buyers and the smallest junk dealers. Some numbers may be relevant here:

- Waste pickers pick up between 9 to 59% of the waste in Delhi. The 9 % is from low-income areas and the 59% is in highly commercial areas. Most of this does not enter the municipal collection stream
- On an average, a waste picker picks up between 60 to 64 kilos of waste daily.
- A waste picker on a tricycle/cycle rickshaw is likely to earn 33% more than those on foot or on a cycle. However, in many parts of Delhi, the tricycle/cycle rickshaw is banned.
- 82% of the waste picker women studied in a health study were found to be severely anaemic. This could be not only as a result of malnutrition, but also exposure to toxics, particularly heavy metals.
- Over 90% of the waste pickers are illiterate
- A junk dealer, the first point of sale, earns money on volume rather than on bulk.
- 78% of all junk dealers were waste pickers to begin with
- An average junk dealer has 7-9 clients/waste pickers, who sell to him. Very few junk dealers are women
- In Delhi, the sector enhances the value of a unit of plastic by 750% before it is even reprocessed

Delhi has the unique distinction of a changing demographics amongst the waste pickers, in the last decade. While there were several south Indians, as well as North Indians in this trade previously, it now includes Bangladeshis. Many of these are illegal immigrants, and their precarious condition has been described previously. What is particularly unique is that the police has identified waste pickers as almost surely Bangladeshis and routinely rounds them up for deportation. An outcome of this insecurity is that waste pickers also are unable to save, create assets or invest in long-term gains. Such insecurity disables their ability to grow sustainably.

⁸⁷ Summarized from Chaturvedi Bharati, *Earthwatch*. The Hindustan Times. July 28 2008.

Apart from this, the sheer heterogeneity of the informal sector in Delhi creates unique challenges. For example, it is difficult to organize people into a cooperative because they do not share many cultural ties and find it difficult to work with one another. In particular, the Bangladeshis and non-Bangladeshis, who live in the same slum and are members of Chintan, are unable to work as a cooperative sharing money. Non Bangladeshis feel that close business associations with Bangladeshis, always being deported, is risky and puts them in danger of being deported as well. Therefore, Chintan has worked with waste pickers in small groups that are part of an association.

In 2000, a Supreme Court judgment directed the government to close down all polluting industries. This resulted in the closure of various recycling units and, given the market glut, poor earnings for waste pickers and small scrap dealers for several months. More recently, in 2006 and continuing, there is a sealing drive that shuts down all commercial enterprises in residential areas, with 24 exceptions. Junk dealers are not on this list, although ATMs, which most urban Indians do not use, are listed. This too, has caused widespread hardship.

In Delhi, (as well as in Lucknow), there was a distinction between clean and dirty scrap dealers. This self-identification is based on the type of waste traded in. A clean waste dealer only buys metal, paper and cartons. He does not deal with soiled or damp waste, such as plastic bags. It was interesting to note how caste played a role in this case. Those who were clean dealers were either higher caste Hindus or Muslims in the business for a long time. The rest were poorer, less educated and of lower castes. None of the clean kabaris had been waste pickers previously.

4.3.4. Process of Integration in Delhi

There are two paths to integration, or mainstreaming. One is directly through work in SWM through inclusive livelihoods. The other is through enabling them to laws /policies that allow them to access better opportunities and incur less opportunity cost. Both these are detailed for the two cities.

1. Elements of Integration

	One time/Discretionary/ Precedent/ Institutionalised/Legal entitlement	
Initiatives	Delhi	Lucknow
Identity as Workers		
Registration and Issue/Endorsement of Identity Cards and authorisation to collect scrap	Institutionalized in parts of Delhi and recognized by police	None
Recognition of rights of recyclables	No	No
Upgrading livelihoods/ Changing conditions of work		
Authorisation to provide door to door collection services	In parts of Delhi	None
Integration into door to door collection	Yes, in parts, through contracts with Chintan	None
Provision of safety equipment such as gloves, masks	Ad Hoc, without consultation with	None

	waste pickers about their needs. See Note	
Improved facilities for carrying out work		
Provision of uniforms/apron	Yes	No
Provision of space for sorting recyclables	Few provided	No
Provision of vehicles for collection of recyclables	Provided Discretionary	No provision
Provision of collection tools and equipment	Procured by Chintan	Institutionalised
Provision of space for scrap stores	None on the ground, policy provides space	None
Provision of space for organic waste processing	Yes, in specific sites.	Yes, in specific cases
Provision of space for intermediate processing of recyclables	No	No. Procured on own steam
Social security/welfare benefits		
Provision of health cards and free medical care in municipal hospitals	In one municipality	No
Provision of medical insurance cover	No provision	No
Provision of life insurance cover	No provision	No provision
Linkages to SJSRY government scheme ⁸⁸	No. Migrants do not have papers/documents	No

Delhi :

Integrating the Informal Sector in Waste Management

These case studies were carried out in Delhi with interviews of different agencies, which included NGOs, consulting firms on waste management, partnership arrangements, resident welfare associations and waste pickers from both the formal and informal sector. Not all of them undertake grassroots projects, but their participation in the city’s waste policies is significant and therefore cannot be ignored. Moreover, we have tried to offer a range of perspectives in these case studies, not only describe grassroots’ initiatives.

Various non-governmental organizations involved in SWM

Sycom Projects – Consultants Private Limited

Sycom Projects Consultants Private Limited is a consulting firm with expertise on solid waste management through planning and direct implementation. They work in several states including Delhi, Uttar Pradesh, Haryana and Rajasthan. One of Sycom’s initiatives was to attempt a door-to-door collection in partnership with Dakshinpuri Resident Welfare Association, which is a low-income resettlement community. This could not take off due to non-availability of vehicles, which were supposed to be provided by the Municipal Corporation of Delhi and inadequate collection fees.

Mr. Pradeep Dadlani, Director of Sycom Projects, agrees that that the informal sector plays an important role in waste management, particularly in recyclable recovery. But he points out

that this role is evident only to organizations that are engaged with these issues. Integrating the informal sector in formal sector waste collection work is a challenge and cannot be done by NGOs alone. He says though there are examples of informal sector integration, they are too small and mostly supported by external funding. These integrations have not been formalized and institutionalized through a policy.

According to Mr. Dadlani, integration should begin with a policy framework so that municipalities and service providing agencies give preference to waste pickers while employing labour for waste collection particularly in to the door to door collection system. Sycom's own work of consulting with various cities has been careful to recommend this issue, thereby promoting it through policy and planning.

Centre for Environment Education (CEE)

The Centre for Environment Education (CEE) is a national institution engaged in developing programmes and material to increase awareness about the environment and sustainable development. CEE was established in 1984 as a Centre of Excellence in Environmental Education, supported by the Ministry of Environment and Forests (MoEF), Government of India.

CEE has implemented many projects in solid waste management in India but has no solid waste management project in Delhi. However, CEE has experience in working with the informal sector waste pickers in Namakkal in Tamilnadu and Bangalore, Kurg and few smaller towns in Karnataka. In these places, they organized the waste pickers and engaged other informal sector youth, training them for door-to-door collection, fixing a salary and giving them rights over recyclables.

To date, CEE works with nearly 80- 90 waste collectors, some of them former waste pickers. Depending upon experience and towns where they work, they are paid **18.13 to 30.22 Euros**. A supervisor is paid **37.77 to 45.33 Euros**. In all the towns they have promoted waste collection fee, which ranges from **0.15 to 0.37euroes**. All of these works has been done in partnership with the municipalities. Where local residents have allowed composting, CEE has been able to successfully do so.

During the interview, Dr. Shyamala Mani, National Program Coordinator of CEE, says that the informal sector has been playing a major role historically and they just cannot be ignored. But she also explains that in waste management there is not just the waste pickers who pick waste from streets, but also traditional private sweepers, waste collectors and other urban poor, hence the informal sector should not be construed just for the waste pickers alone. The definition of informal sector waste workers must include all and not just waste pickers. She further says that there is a gradual displacement of waste pickers where indiscriminate and insensitive privatization is taking place. The private contractors do not want to organize and train the waste pickers as this is seen as an additional work. Dr. Mani also says that NGOs alone may not be able to push for a policy for informal sector integration. It would need a proactive approach from the government under its poverty alleviation program and it would be worthwhile to create a National Urban Employment Scheme much like National Rural Employment Guarantee Scheme. With growing privatization, her concerns are that waste pickers' role will diminish and may also lead to lesser recovery of recyclables and promote waste to energy plants thus displacing waste pickers as well as creating havoc with environment.

Defence Colony Resident Welfare Association

The Defence Colony Resident Welfare Association (RWA) is one of the most affluent residents' organizations in Delhi.⁸⁹ In 2003, they decided to overhaul the waste management system. There are approximately 4000 houses, many of them housing at least 3 households, one on each floor. It has once won the best RWA award under the Bhagidari program of Government of Delhi.

Defence Colony is uniquely organized in that it is laid out on either side of a large storm water drain. On both sides of the drain are large masonry covered dumpsites. The association wanted to enable reduce the waste that was littered around these dumpsites and began its programme from there. It began by hiring 12 local waste pickers and other urban poor for door-to-door collection. Most of the organic waste was composted. Though the residents have been made aware of segregation only up to 10 to 15% people segregate their waste. The RWA has fixed 59 euro cents as waste collection fee from each household, which they directly collect. They also earn 68 euro cents to 1 euro per day from the sale of the recyclables. Beside these there are 6 to 7 waste pickers who have been given the right to visit the area and collect recyclable waste. Not all waste pickers can enter the colony without the permission of the RWA. There have been complaints to Chintan from waste pickers who have been turned out of this area despite having worked here for several years. This initiative, with its obvious merits, has therefore also become a gated community initiative with limited access for waste pickers. The NIMBY Syndrome (Not in My Backyard) is high here and the RWA faces the challenge of creating community assent for its work in common spaces. The RWA composts 1200 to 1500 kg of organic waste per day but sales are erratic. The waste picker who composts the waste is paid 40 Euros as a total monthly salary, which is less than the stipulated minimum wages of 58 Euros per month. The work takes place at peak hours so it is hard to find any other job. It is also exhausting work, and workers do not like to take up another job. None of the workers get any other social security benefits, but whenever they fall ill, they are given medical attention to a doctor free of cost. Anuradha Chaudhry, a key member of the RWA who looks after the project without any personal payment, says that it takes up a major part of her time. The learning's for the informal sector are that it is possible to take up private contracts in the city, despite privatization, with the requisite capacity and skills. The challenge is to enhance earnings, which even affluent areas are unable to pay due to inherent fiscal limitations. One possible solution is to fix minimum rates per household for such services, bridging the gap and helping the informal sector. The state government can best do this.

Chintan Environmental and Research Group

Chintan works in the National Capital Region of Delhi, which includes Delhi and 2 other states. Essentially, the organization was imagined then as an entity that wanted to work with waste related issues as an entry point into these core concerns: urban poverty, environmental sustainability and environmental justice. If Chintan then had a single concrete plan in mind, it was to work with waste recyclers to help recycling become a more formal and legally recognized enterprise. The understanding, built on previous work with these issues, was that policy and the public must understand and acknowledge the work of the waste recyclers. In Chintan's mind, recyclers referred not only to reprocessors who melted and pulped down the trash, but those whose labour ensured that the waste reached such factories. These were people who picked up waste and sorted it, the scrap dealers who regularly bought it, itinerant buyers who purchased high value scrap, and traders of all kinds. Chintan wanted its work to be in partnership with these recyclers, not just about them.

Chintan's ground work and research resulted in a Sunday morning meeting that was institutionalized, to create a partnership with the sector. Many of Chintan's hallmark work

⁸⁹ A Resident Welfare Association is an Association of Residents registered under the Societies' Act, and is expected to represent a registered enclave.

with the police, the masterplan and with children have not been part of the work initially envisioned. Rather, they have come out of such dialogues and demands of the sector itself.



Currently, the 4 operational programmes are related to a voice of their Own (mobilizing for rights and representation), No Child in Trash. Chintan services (livelihoods) and Environmental Health (work on toxics recycling, such as e-waste recycling), Each of these is linked to and supports the other with the objective of mainstreaming the informal recycling sector.

Chintan, in partnership with both the Municipal Corporation of Delhi (MCD) and the New Delhi Municipal Council (NDMC) has taken up the work of door-to-door collection (DTDC) in many parts of East and New Delhi. It has organized more than 2500 waste recyclers in the NDMC area and around 12000 in MCD area. While not all are directly engaged in formal work linked with Chintan, some of them are directly engaged on account of 4 Memorandums of Understanding (MOUs) that have been signed with the NDMC. In two MOUs, the NDMC has given Chintan few cycle rickshaws while in the other 2, Chintan and the waste pickers have combined their financial resources to procure such rickshaws. Besides this, the NDMC has facilitated better ease of work via its sanitary inspectors, has provided spaces for segregation, and has facilitated the waste pickers to access medical facilities and issued identity cards through Chintan. None of these initiatives have been created as funded projects but are based on sustainable enterprise models.

Working with Chintan, and partly funding the work, compelled the NDMC to look into institutional obstructions that involved them. The Medical Officer of Health (MOH), also responsible for waste management, was compelled to listen to the waste pickers' complaints, giving a new kind of legitimacy to the waste pickers, itinerant buyers and junk dealers. In just a few months, forced labour by municipal officials, bribes and verbal abuse were all substantially reduced.

Initially, on account of a legal reading of the Supreme Court guideline of DTDC, the NDMC forbade Chintan to collect service fees. Instead, it was expected to collect only the waste. However, this was not a financially viable enough model and therefore, the waste pickers appealed to the residents for a contribution towards a cup of tea each month. A 2008 study shows that from the average income has increased from 42-51 Euros per month to 90-97 Euros per month. This is on account of payments, legitimate work and savings of bribes usually paid, as well as access to cleaner waste at the doorstep. A door-to-door waste collector himself, who is paid by the contribution of the waste pickers themselves, monitors the project. The waste picker, Santraj Maurya, is seated in the Chintan office and trained by Chintan staff to monitor performance.

Santraj Maurya, himself a former waste picker from a backward caste, says that in a survey, the residents claim that after the formal DTDC has begun, not only has the cleanliness in the area increased, but people now dispose waste everyday, compared to the earlier situation, when some of the residents would dispose it only once in two or three days, as local dumping points (dalaos) are located far away. Some residents and local police claim that this system has also increased the security in the area, because it is now clear who is responsible for waste handling. As a part of this system, some traditional waste collectors, particularly women, were also re-trained and assimilated.

Additionally, other members of the informal recycling sector have also been integrated into the NDMC. Chintan has formal permission to train and enable itinerant waste buyers to carry out their work in the area, as long as they are with identity cards, uniforms/caps and registered with Chintan and the list provided to the NDMC. This has played a critical role in reducing the raids and confiscation of scrap. Using the same relationship, other informal sector recyclers, such as those who sit and purchase paper etc have also been informally allowed to work under the same conditions.

There has been a decline in the number of children who work as waste pickers in sites where waste pickers have been mainstreamed. The NDMC area is a good case in point. Almost 50% of the children who were part of Chintan's outreach are in schools, as part of Chintan's No Child in Trash Programme. Only one person still occasionally takes his son to work.

In the MCD areas where Chintan is also undertaking such work, the results are similar, though cooperation from the MCD is not formal or forthcoming. Currently, a group of waste pickers and Chintan are engaged in negotiations. However, even in relatively poor areas, waste pickers have been able to demonstrate financially sustainable integration via endorsement of the local residents.

In Delhi, even successful demonstration projects fail to understand the importance of integration. Chintan was part of the UNDP's initiative on urban poverty. It was selected along with a variety of other NGOs to show how waste handling could result in reduction of poverty. The work was in East Delhi, where the waste pickers lived in a lepers' colony and the residents in poorly serviced apartments. The waste pickers were trained in door-to-door waste collection, basic accounting and about waste in general. In all, over 15,000 houses were covered by small micro-enterprises. The groups not only ran the business, but opened their own junk shops, although the mass slum demolitions in these areas have jeopardized this initiative. Ironically, the project monitors from the National Institute of Urban Affairs expressed concern rather than pleasure when the waste pickers exceeded their targets. They suggested not mentioning it in the report. The government and the UNDP did not invest in learning from the projects to create policy making that would mainstream the informal sector, despite many attempts from NGOs.

Apart from municipalities, Chintan has been working with large, bulk waste generators. The tie up with them is to handle their waste as a single window system. Chintan currently picks up over 7 tons of waste from them per day and approximately 50 waste pickers are involved with these. The profits, not very large from here are used to supplement the No Child in Trash programme.

Another service is housekeeping, where waste pickers are trained to undertake both complex work and social skills. The single biggest challenge in this case is the contracting system. The contacting system is based on awarding contracts to the lowest bidder. There are no preconditions related to minimum wages, social security etc. Therefore, Chintan has often lost contracts, as the waste pickers do not find it viable to service a contract where they earn neither minimum wages nor social security. Unfortunately, after losing contracts,

several waste pickers also end up working at appalling wages in the hope of accessing more waste and an increase in payment in the future. It is essential that contracts for waste demand higher social responsibility and do not merely award contracts to the lowest bidder.

Chintan believes that sustainable livelihoods must be anchored in policy and the capacity of the sector to negotiate for its own inclusion. In order to do that, Chintan has organized waste recyclers into small groups, bound by geography, and federated centrally. They are organized through weekly or fortnightly meetings, and various advocacy activities. An independent network was created in 2000, called Rashtriya Safai Sewi Sangathan. (RSSS). The waste pickers to have recently changed this name to Kabari Sangharsh Samini (KSS) which now exists as a semi-autonomous organization with links to Chintan for administrative support. Informal sector recyclers run it, with facilitation from Chintan.

Chintan therefore has a strong advocacy arm where waste recyclers are predominant by their physical presence and their ideas that drive this work. Marches and protests have also been used effectively, with some as large as 16,000 persons.⁹⁰ These activities have been attracting widespread media support. Some of the successful outcomes have been as follows:

- The National Environment Policy 2006 includes the sector
- The Masterplan of Delhi 2021 allocates space for waste. However, it does not allow junk shops to operate everywhere.
- The Delhi Police issues an order and instates nodal officers in every district to deal with the concerns of waste pickers, (provided they are endorsed by Chintan)
- The New Delhi Municipal Council (NDMC) has not contracted door to door collection to large private agencies
- The NDMC endorses identity cards for waste pickers, even funding the first batch
- The NDMC also enables the sector to use its medical facilities and undertakes an orientation for its doctors.
- The NDMC has also acknowledged the itinerant buyers and allowed Chintan to organize them to stand out as recyclers, distinctly identifiable as such.
- Several private entities have now begun to seek waste pickers to handle their waste, instead of any contractor, modelled on Chintan's services to a few of them.
- A rise in the learning curve through disseminating information on global best practices. For example, in 2005, an international conference was held, with groups from South East Asia sharing their successes.

Apart from waste pickers, Chintan has also initiated a network of organizations working on waste issues to backstop the work of the waste pickers as well as to undertake joint advocacy.

Eco-wise

Eco-Wise Waste Management is a private company that provides waste collection and handling services. It operates in Delhi, New Okhla Industrial Development Authority (NOIDA) Agra and Jaipur. The company states that it is strongly committed to a foundation of financial strength, operating excellence and professionalism. Headquartered in NOIDA (New Okhla Industrial Development Authority) a satellite township of Delhi, where it started in April 2007, the Company's network of operations includes 15 collection operations, 2 transfer stations, 2 waste-to-compost plants and 5 recycling plants. These assets enable Eco-Wise to offer a full range of environmental services to nearly 150000 residential, industrial, municipal and commercial customers. It has nearly 170 workers employed in three cities. Not all these are

⁹⁰ This was in August 2006, when protesting about the draft Masterplan for Delhi 2021.

waste pickers and nor is this the goal of this company. Eco-Wise collects and treats 40 tons of waste on a daily basis. It claims that its operations have permanently shut down more than 15 roadside dumps in NOIDA. Eco-Wise is providing services in door-to-door collection and composting. They are currently doing DTDC in more than 20000 households. They collect 51euro cents from each household. The collected waste is taken to a leased agricultural land. The workers are not paid a salary, but their earnings are based on what they can sell each day to Eco-Wise. It is estimated that the maximum they can make is 85 Euros a month. Currently, Eco-Wise's energies are focused on pushing people to be more enthusiastic about sorting their garbage and using the recycling bins provided by Eco-Wise. Unfortunately, reports are that the residents have refused to hand over the recyclables and pay the service fees at the same time, because they claim that this amounts to 'double profits' on their waste. Eco-Wise has been remarkably successful as it is able to sell the compost to agricultural farms and tea gardens in Bengal and Assam at less than 1-euro cent per kg.

Eco-Wise claims it is a good employer, with rare labour-friendly policies, such as health benefits for workers, a free Sunday picnic lunch at the plant for their families, and a promise of free housing in the future. None of these could be verified, but are likely to be true.

Other Organizations:

More recent groups, such as Bal Vikas Dhara (working with child labour and waste pickers in a South Delhi community), KKPKP Delhi (it has just begun organizing waste pickers for rights), Harit Recycling Association (initiated as a Chintan project to organize medium and big waste dealers) have come into existence as well, as have many contractor led NGOs supplying waste picker based labour to private companies. Their results are yet to be assessed.

Apart from the NGOs and municipalities, there are other agencies that have tried to intervene in the world of waste pickers. The predominant amongst them is the Department of Environment and the Delhi Pollution Control Committee, Government of the National Capital Region of Delhi.

While the specific issues that attach to child waste pickers and Bangladeshis pose special problems of integration, there is reason for concern from an unexpected source: the technocratic orientation of the Department of Environment (DOE) of the Government of Delhi. DOE⁹¹ was included in this report because of its active role in solid waste management within the city. The team conducted an interview with the Secretary of the DOE, to clarify the institutional stance.

According to the Secretary, his central focus was to convert waste into "something useful." He remarked: "Currently, we are doing nothing useful with waste." He said that while waste pickers were useful, they "did not have any idea about what they were doing." This problem, according to him, could be solved if they were able to process their waste via new technologies that were capable of handling large amounts of waste. As such, he has been promoting a technology that converts plastics to nano-particles. He noted that waste pickers were important as suppliers because it was necessary to ensure that the private company operating the technology could access enough waste.

At present, the DOE has been promoting large waste handling companies that use new technologies, promoting the informal sector linkage for supply side needs.

⁹¹ DOE Department of Environment

A direct intervention is when waste pickers have been identified and provided 'health facilities and empowerment' through a scheme that includes distribution of gloves, caps, aprons (to avoid spoiling their clothes while working) and boots. They have also been given training on how to segregate waste. The problem with this is that it is one time, and inappropriate for the health needs in Delhi. The secretary did not consider more viable options.

Needless to add, while some wastepickers have accepted this, several waste pickers have declined the offer and have asked for more useful assistance. This included space, access to water on landfills and washing facilities. The secretary believes that there is no space for this in his department and such ideas belong at the municipal level. Chintan could not locate any wastepickers using these goodies regularly or even frequently. Instead, as one of them remarked, "If this was so useful to us, we would have looked for it in the waste dumps by now and used it on our own."

4.4. Case Study - Lucknow

4.4.1. Background of the city of Lucknow

Lucknow is the capital of Uttar Pradesh, one of the most populous states in India. The state has been politically very important in Independent India, because of the number of seats it sends to Parliament. Lucknow is known to be centre of North Indian cultural activity in the nineteenth century. It was also one of the centres of a struggle against British colonialism in 1857. After this, its administration was tightly controlled. Health and Sanitation were directly under the supervision of the British.

Lucknow was picked for what it tells us about the lack of integration and the challenges in a large city that has considerable resources at its command. Some of those working there also receive substantial funding for their work with wastepickers, and therefore, it seemed useful to evaluate the work in the light of this. Given prior knowledge about Delhi, Mumbai and Pune, it seemed useful to pick a city where there were less initiatives, knowledge and evaluate the reasons for this.

4.4.2 . Overview of the Formal system

The Lucknow Municipal Corporation was also formed under an Act in 1959. However, even before this, in the 19th century, Lucknow was focussed on the idea that 'The Streets Must be Clean.'⁹² During conversations with officials, it was clear that they were under duress even today to keep this expanding city clean.

Despite this pressure, there is little data available on Solid Waste in Lucknow, compared to other cities studies. Most of the data was gleaned from one or more interviews both with directly concerned officials or those who had recently been linked with the issue. Even more importantly, there was little data contributed by civil society to fill in any gaps.

As per the 2001 census, the population of Lucknow is 22,45,509 and the projected population in 2011 is 32,26,000. There are a significant number of slums – 634 in all. The city produces around 1500 MT garbage per day, of which 1100 is formally handled by 6000 safai karmcharies. The cost incurred is Rs. 165 per ton. The Nagpur-based National Environmental Engineering Research Institute (NEERI), which brought out a recent report on Lucknow's Solid Waste Management, points out that there is no landfill to dump waste. The report says that Lucknow dumps waste at various sites spread all over the city. There is no

⁹² Adapted from a chapter title of the same name in Oldenburg, Veena. *Making of Colonial Lucknow, 1856-1877, published by: Oxford University Press, USA, 1990*

sanitary landfill site according to the MSW Rules 2000 as laid down by the Ministry of Environment and Forests (MoEF).

At Gandhi Setu, the civic body had dumped about 5,287 cubic meters of MSW in 2,500 sq mts area between June 2007 and March, 2008.⁹³

Lucknow was one of the earliest cities to set up a waste to energy plant. The municipal corporation, Lucknow Nagar Nigam, partnered with Enkem India Ltd, a promoter, through a Special Purpose Vehicle called Asia Bio Energy (India) Ltd. (ABIL), to build a power generation-cum- bio-fertilizer plant on a Build-Own-Operate (BOO) basis. The project would generate 5.1 megawatts (MW) of electric power per day (after captive consumption of 0.5 MW) and about 75 tons per day (TPD) of organic manure by treating 300 TPD of waste. Unfortunately, this failed for several reasons, one of which was backward linkages for the waste required.⁹⁴

There was no available data on the informal recycling sector. Most officials told Chintan that this was the first time they had even thought of the waste recyclers. Our analysis of this is that the lack of data is not only because of municipal functioning but also, the lack of an active interest in waste handling at both the community level and policy level.

4.4.3. Overview of the Informal sector

There is almost no formal data available on the informal recycling sector in Lucknow generated in the last 3-5 years. In Lucknow, it was difficult to ascertain any figures for the informal sector. The study team therefore did a quick enumeration to arrive at a guesstimate. We believe that in all, no more than 6000 persons work as informal sector recyclers. Like in Delhi, we found that many were Muslims, from North India. However, there were also persons from Bangladesh. There was a surprising absence of women amongst the wastepickers we saw and in the slums we visited.

The main settlements of waste pickers and junk dealers are near the Tedhia Pul, Near Engineering College, and along the banks of the Gomti. There are around 500-600 slums, or shanty informal housing, of waste pickers here, and both official and unofficial guesstimates are that there are over 6000 BOP recyclers.

The structure seems to be very similar to that of Delhi, with one exception. There is no or very low levels of waste reprocessing, in Lucknow. Most of the waste is transported out for reprocessing to various parts of North India.

In 2004, Taru, a well-known consultancy, reported as follows on the informal sector in Lucknow:

“Lucknow city has a solid waste industry, which turns over Rs. 250 million per annum (1997). Accounting for 40 to 50 percent of the total waste generated in the city, this solid waste chain recycles paper, plastics, metals, bones and other urban wastes. In fact, the solid waste chain is an important functional complement to the formal municipal waste collection system.”

⁹³ Indian Express. “Solid Waste dumped by LMC may contaminate Gomti river, groundwater.” The Indian Express online, Friday. July 25th 2008.

⁹⁴ Kirti Devi and V. Satayanarayana (2001), “Financial Resources and Private Sector Participation in Solid Waste Management in India,” prepared for the Technology Advisory Group on Solid Waste Management set up by the Ministry of Urban Development and Poverty Alleviation, Government of India.

During the course of examination of issues resulting in a solid waste management Master Plan for the city, TARU undertook a separate study to understand the dynamics of the solid waste recycling chain. There are about 2,000 itinerant solid waste buyers who in turn, sell their collection to wholesale and specialized dealers. About 2,500 households are involved in foraging solid-waste dumps as rag-pickers. Men, women and children from these families can be commonly observed at the many solid waste dumps in the city, foraging for recycled materials. Some of these households are old residents and others have migrated from poor regions of East India. There is a complex method of recruiting such families, extending social and economic security and a credit system; in exchange for the captive services of these households. There are few options at present, acceptable to the local institutions and the society at large, which recognize the contribution of the solid waste recycling chain. It, however, remains an industry which turns over 100 tonnes of paper, 40 tonnes of glass, 30 tonnes of plastics, rubber and leather, and a huge amount of metal scrap and bones each day.⁹⁵

The Government of Uttar Pradesh and the Lucknow Municipality at present have no provisions for the involvement of informal sector actors like waste pickers in SWM – despite the documented cost, efficiency and equity advantages of the informal sector over private waste management firms. The U.P. Government has designated that garbage collection in Lucknow will be the responsibility of a state enterprise called Jal Nigam, with the Municipality operating in a primarily supervisory role. The Lucknow Municipality further envisions door-to-door collection, as an activity that will be undertaken by private parties. However, in a recent interview and later, in discussions with Chintan, Lucknow's Municipal Commissioner left open the possibility of door-to-door collection by waste pickers working in conjunction with an NGO.

For the purposes of the study, Chintan held focus discussions after sharing a range of information with the waste pickers and junk dealers.

The main issues that emerged were:

- Some of the waste pickers were aware of an NGO that works in the area and spontaneously commented on being disappointed that there was no way to organize for a 'better life' instead of only business.
- Bribery is rampant. Police personnel collect between 85-euro cents to 1.70 Euros- whenever they please. There is no fixed date or time for paying a fee to be allowed to work. Besides, local goons or mafia also collect Rs 2/-(approx. one quarter of a euro) per day per waste picker as they claim they have the contract for waste collection from the Municipality. If the waste pickers refuse to pay, both sets of people beat them up and threaten to stop their work.

4.4.4. Integration initiatives

In Lucknow, we made a reconnaissance of all the initiatives at the ground. Since there were only a few, and all of them were diverse, we decided to include all of them in this study

The wider observations about the grassroots initiatives were as follows:

- All the initiatives were unconnected with the Municipality or any government arms. They are small, local initiatives that are outside the Municipal radar.
- There is a distinct lack of inter-connectivity within local Lucknow groups.
- There is a very wide range of initiatives, from helping waste pickers' children to study, door-to-door waste collection with waste pickers as collectors to local zero

⁹⁵ <http://www.taru.org/search.htm>

waste initiatives. However, there is no single organization that is looking at organizing or helping integrate waste pickers, junk dealers or any other IS recycling groups. The rights perspective is largely absent, except in the case of children.

- There is a great deal of local level organization from amongst the citizens to act decisively on issues that are relevant to the city at large. Our discussions also revealed that some of the groups were looking forward to upgrading their skills to include more challenges.

The cases below detail the initiatives:

Muskan Jyoti

Muskan Jyoti began its work in 1994, founded by Mr. Mewa Lal. The core work of Muskan Jyoti (MJ) is solid waste management, undertaken largely via door-to-door waste collection. However, in this model, it is not only waste pickers who are picked up for work, but also anyone who is willing. Today, in the words of the founder Mewa Lal, “We don’t feel that the worker should be a waste picker only, all those who are needy should be employed in this work. We don’t specially look for waste pickers.” This was only to begin with.

About 7 years ago, MJ also worked with the local government, which gave it tractors, equipment and other assistance. However, the work was found to be unsatisfactory and the government decided to stop its partnership with MJ, followed by a legal battle. Muskan Jyoti’s systems have evolved not into highly tight ones but rather, decentralized ones. Currently, Mewa Lal states that Muskan Jyoti has been collecting door-to-door garbage from 150,000 households, built over the last 8 or so years. This has been done by slowly approaching more and more households, often in newly build areas, and start working there.

MJ does not directly supervise the households, but allows the waste collectors to pick up the waste and charge a service fees to the residents. There is no fixed service fees or receipts. It then collects a monthly sum from the waste collectors directly. The workers, many of whom are waste pickers, keep the recyclables and in some cases, they also keep some of the money. In this way, MJ has minimal supervision costs and optimal cost recovery. It does not have any other system for helping the waste pickers or other urban poor.

The economic model of MJ is threefold. First, the existing door-to-door collection pays approx 25,424 Euros monthly. There is no formal system to collect this money from ever household, as mentioned above. Mr. Mewa Lal explains this as a means to reduce costs and is a wise decision. Instead, the waste collectors simply pay a fixed amount to MJ each month based on the estimated collection. They also keep the recyclables. This means there is no supervision of quality or training for the collectors.

The second arm of the economic model is still unfolding. In the future, MJ plans to buy plastics from them and sell these to the recycler or even, reprocess it themselves.

Thirdly, MJ is now working as a waste service provider to various institutions with large campuses. Such institutions generate a large amount of waste and are required to manage it themselves. A few of them have been subcontracted to MJ. Mewa Lal himself directly supervises such contracts. The contracts are renewed annually on the basis of performance; two examples of such contracts are detailed below:

Lucknow University

In August 2006 Muskan Jyoti started their work (garbage collection and composting) in the Lucknow University campus, comprising 700 households and 8 large hostel based kitchens from which MJ collects approximately. between 2-3 tons of mixed waste per day. Between 1.5 and 2 tonnes of this waste can be used for composting. MJ, by the account of Mewa Lal, produced approx. 60-70 tons of compost every year, which the University uses for its internal use as it is a large estate. A section is sold to tea estates and farmers with orchards. In all, MJ has hired 11 workers in all, with one of them acting as supervisor. For all this work, the

University pays a fixed amount of 576 Euros per month to Muskan Jyoti. Though Muskan Jyoti asks for public partnership through an additional 42 euro cents as service fees from each household as well as the right to sell a part of the manure in the market, this has not been agreed upon when this report was finished.

HAL Complex

The contract with HAL is for both organic and inorganic waste. The specific work is to segregate the waste that is delivered to MJ at a site within the complex, and compost the organic fraction. The work also includes handling the recyclable waste, which is sold by MJ in the market, but MJ has to pay HAL Rs. 1, (a fraction of a euro cent) per kilo of plastic that they receive. It is likely that HAL would like to earn some money from its waste instead of only spending on disposing it. The quantity of plastic taken out to be sold is determined by the receipt of an agreed upon weighing platform. According to MJ, they collect almost 15-20 quintals of plastic every month. HAL pays MJ 429 Euros per month and MJ is currently trying to sell the compost in a weak market: Selling the compost is difficult. Although MJ sells all its waste to farmers and orchard owners nearby, it is unhappy with the price of Rs. 4 (less than half a euro cent) per kilo. However, by standards of Delhi, where the standard rate is Rs. 2 (less than one quarter of a euro cent) per kilo, this is an excellent selling price. To improve sales and increase the client base, MJ will be adding chemicals to this to make it even more lucrative to farmers.

A third arm supplements this model of MJ, which is to trade in plastics. MJ has bought a large tract of land where it is storing plastics. While it will trade in plastics initially, it intends to reprocess the plastic waste slowly. Asked about the role of the junk dealer in that scenario, MJ asserted that the junk dealers could trade in other waste and that they would have to compete. They see themselves cornering the market for plastic waste in the future.

The Future:

Despite such a large enterprise, on paper, MJ does not have 1800 plus employees as needed to run this structure. Discussions with Mewa Lal made it clear that they envision a business model that does not require micro-level supervision on a daily basis. Although he did not say so explicitly, both his past model (of franchising work to waste pickers) and his loose organizational structure, reinforce this idea.

The structure, envisioned in the future, also reinforces this. It is as follows:

For every 100, 000 population or 20000 households, the one time investment cost will be around 152542 Euros. This will include infrastructure (boundary wall of composting and segregation site, pits, which will cost approximately 25424-33898 Euros), 90 door-to-door workers, 8 supervisors and 1 project coordinator. The cost of setting this up and running it for 14 months will be 8475 Euros. After 14 months, this model becomes self-sustainable. After one year, it will be handed over to the group that is running it, maybe as an association, and Muskan Jyoti will take a royalty from this.

From the perspective of integration, this is a near miss. There is no space for the sector either in the modular costs (where costs of capacity building etc is not included) or in the District Committee. But nor is this the intention of MJ. Rather, it seeks to be a private player offering solid waste management services in a landscape of scarcity.

Municipal Interaction

Surprisingly, the Municipal Commissioner, during a discussion with the research team, stated that he had never heard about MJ. In fact, he said that he was not aware of any organization working on waste issues. Moreover, he expressed surprise that anyone could be working on such as large scale without permission from the Municipality to pick up the waste. However, MJ is keenly aware of this gap and has already planned on a committee

that is inclusive of the government. Interviews with other officials also suggest that there has been a great deal of tension between MJ and the officials in the past.

Integration of the informal sector

It is clear that the informal sector is not being integrated in the mainstream. Such integration is also not the focus of MJ. Instead, it is set up as a waste handling and management organization. The idea of integration of the informal sector is not part of his vision. During discussions about integration, he explained that his future plans will be enough to ensure this aspect, although this is not his primary focus.

Two main concerns emerge: One is the role of picking plastics and thereby eliminating small scrap dealers. The other is to engage with the IS via business. While this can be an effective tool to mainstream the sector, it is currently used only as a channel of business. How the shifts can even occur is not clear, since MJ is not set up as an organizing/mobilizing/right based group. However, it does allow for a model that can additionally integrate the IS with some through formalizing their work, signing contracts with groups of IS workers, and formally paying them on paper, giving them social security etc. Whether this takes place depends on the degree to which MJ's own business objective shifts.

Exnora Lucknow

Exnora is a voluntary organization working in many parts of India, and is a highly decentralized organization. In Lucknow, it is led by Prabha Chaturvedi, who works here as a volunteer full time. Exnora started its work with vermi-composting, with the help of the Council for Advancement of People's Action and Rural Technology (CAPART), a government body that gives grants for rural development. They were unable to sell the compost due to inadequate local demand and because compost was priced higher than other local fertilizers. They therefore decided not to expand operations.

In recent years, the work of Exnora appears to have substantially reduced, falling at the time of this study to only 75 households in the Paper Mill Colony. Here, waste collection and composting of green waste and household organics takes place. This has become a public campaign now. This work has broadened into a campaign to compost the green waste and keep parks in Lucknow clean.

Mrs. Chaturvedi, who is the chief functionary of this work, is not well acquainted with the recycler's chain. The researchers knew about Exnora Lucknow because of several calls they had received from them for assistance. They were in contact with Chintan because they emphasized that there is no organization in Lucknow, which works with these waste pickers in their all issues. However, her interest in the sector is mainly in waste pickers, whom she wants to train as composting specialists. In order to do this, she says that the government must recognize them as well and provide them with all the help that they need to be able to organize themselves for composting as a profitable venture. Like MJ, Exnora also has a problem of selling compost. However, they sell it at half the price of MJ, at Rs. 2 (about a quarter of a euro cent) per kilo.

Integration

There is little integration in the case of Exnora. Their work is too small to have an impact or serve as a model. However, Mrs. Chaturvedi has expressed awareness about this gap, but being the chief mover of the organization, she is bound by various limitations. Like MJ, she too does not view the issue as one of rights or of policy shifts in as much as being part of an expanded project. She, however, views herself as building the technical capacity of organized waste pickers for their betterment.

Policy and Government Responses

This research identified a range of officials to interview in-depth. We spoke to them to discuss their understanding of the informal sector in waste both as related to their current jobs and as related to their experience as administrators and policy makers in Uttar Pradesh. We also used the opportunity to work on projected scenarios with them to understand their perceptions on the informal sector. The list of people we interviewed and held discussions with is presented in Annex 1

The main trends for the city based on official interviews are discussed below:

1. There was very little knowledge and awareness about the informal sector.

Not even one official had spent any time to deliberate upon or think about the issue of waste pickers or the informal sector in solid waste management. As a result, every official was surprised to learn about our study with GTZ. Although we did not share many details with them in order to avoid biasing them, we did share our interest and knowledge with them later on. Many of them were not familiar with the term Informal Sector. However, all of them mentioned that they had seen the waste pickers and itinerant buyers. One official remarked, "Yes, I have seen them. If I am not wrong, they are really poor...they survive by selling scrap to someone...isn't that so?" Another remarked, "Aren't they all children? Should we not be banning them?"

2. There was a great deal of planning and several schemes for the poor in general. However, the informal recycling sector was inadvertently excluded because of the structure of these policies.

The administration was not found to be against the poor or indifferent to it despite the fact that their priorities were focused elsewhere. Rather, they had a repertoire of schemes to build the capacity of the poor. Sh. S.R. Lakha, Principal Secretary Urban Development, Lucknow (U.P.), pointed out many of the recent developments in the city.

Mr. Lakha in particular mentioned that while the informal recycling sector was not specifically included by name, their characteristics - homelessness, urban poor etc - would enable them to be able to access many upcoming facilities. Another official, Mr. Dig Vijay Singh, Joint Director, State Urban Development Agency (SUDA,) was quick to point out the range of programmes for the urban poor.

The research team asked him about the **Swarna Jayanti Shahari Rojgar Yojna (SJSRY)**, as it has been used by Organizations in other cities to help waste pickers. He mentioned that the urban poor identified by his department would be assisted as follows:

- Under this scheme we provide them training according to the area with material assistance. (Urban self-employment).
- The target for this year is 65000 persons. After the training, SUDA assists them with 847 Euros/- to start their own business. Of this amount 254 Euros is subsidy and 593 Euros is loan.
- Women's entrepreneurship is promoted by providing them with 1695 Euros, of which 25% is subsidy. Through the CDS (Community Development Schemes) these women form SHG groups and create their own model of business.

However, there was a flaw that excluded most waste pickers from even these. This is that most of the waste pickers are outsiders, i.e., not residents of Lucknow city. In order to get assistance from the local body under these schemes, it is compulsory that the individual must be a local resident of Lucknow, not a migrant.

One reason for this was that the SUDA was of the opinion that it was impossible for them to monitor and recover loans from non-residents. When this possibility was shared with the

waste recyclers some of them also mentioned that it was not worth setting up any business in their own villages as there was poor purchasing power. They were of the opinion that even if schemes were set up in their villages, they would not like to live there and set up any enterprises as they do not see a long term sustainable future in rural areas for themselves.

3. There are plans for waste handling but not for waste handlers.

Lack of data also results in exclusionary planning. An interview with Mr. S.K. Singh, Municipal Commissioner of Lucknow, offered some insights.

The Lucknow Municipality is considering a consolidated scheme of bio-machination or composting for 150 MT per day is being envisioned. This will include door-to-door waste collection by a private company. The recyclable waste will belong to the private company.

Mr. Singh did not seem to know of the NGOs on the ground, and it seemed they had not approached him frequently. For example, he had not heard of Muska Jyoti. It was clear that there was an “institutional black out”, and therefore, the current Municipal Commissioner was unable to learn from the institutional experience, even if it was not a happy one.

Even in cities like Delhi, the municipal officials have not invested in understanding the informal sector. However, the data has been generated by NGOs, researchers, and others, who have widely disseminated it. Similar civil society participation in the city’s working poor was not seen in Lucknow. To his credit, Mr. Singh was interested in the issue of inclusion. He asked if Chintan could provide him with a note on the issue for him to use as a starting point. Some SUDA officials also specifically suggested that they would like to see a set of action points on how to be inclusive of the informal recycling sector.

4.4.5. Assessing the sustainability of integration

What can we extrapolate from the case studies?

Delhi, a highly challenging city for the urban poor to find a voice, has shown a much greater degree of integration of the informal sector in SWM than Lucknow. Within Delhi, there are also marked differentiations, as elaborated above.

Some of the main challenges in Delhi are political, as in the case of alleged Bangladeshis. Others are related to Delhi as the centre of power in a society and country where the mind set is still deeply hierarchical, but the official aspirations are for a ‘world-class city.’ In this scenario, services whose value is not formally registered and accounted for are discounted. The informal recycling sector is a victim of this lack of acknowledgement of data, because their free services are not considered in the vision for such emerging cities. In both Delhi and Lucknow, ideas about their inclusion are propelled by their poverty, rather than their inherent value to the city. Such cities implicitly trust privatization via large capital investors, rather than enterprises driven by the poor or for their benefit.

Fortunately, as the case studies and results of various acts of advocacy show, there has been considerable success in Delhi, despite these challenges.

The case studies also demonstrate that there are diverse models of waste handling at the household level, all of which have the potential to ensure integration of wastepickers and other BOP recyclers into formal waste management systems. Their objectives range from inclusive SWM to better SWM to countering insufficient municipal services. Currently, some of these include waste pickers and some do not. However, all of them include the urban poor as workers, on uneven terms.

Some of the organizations interviewed as part of the study were unclear about the importance of specifically working with waste pickers for this purpose. In fact, in these cases, a waste picker in the loosest possible way was a euphemism for all urban poor who were willing to work with waste. Therefore, many of these projects allow the entry of other urban poor into this work. This clearly appears to have a deleterious impact on waste pickers who are not organized enough to defend their work. Several of them claim being displaced, but they are unable to articulate this to the private companies in a demonstrative way. It is therefore clear that this must be addressed through much more critical thinking and capacity building in diverse ways with residents associations and other players. While they are unlikely to organize the waste pickers, it would be useful if they were able to contact NGOs for such help. Such partnerships offer potential to bridge the stated capacity gap.

Most waste pickers are not integrated into the system by most such projects because of the absence of their own agency in their work. They are not able to negotiate for better job security and nor do they know much about the possible benefits they could accrue. Moreover, most are not organized either, further reducing their capacity to provide complete services instead of being only employed. Organizing the sector is therefore an important ingredient in mainstreaming.

The cases of Delhi and Lucknow indicate that waste generators are still not paying the true costs of waste handling, or even coming close to it. If they did, then cash flows would allow for minimum wages and a profit margin for sustainability, which organized workers can then make use of? It is also essential that municipal agencies fix prices and rates to ensure this, instead of depending on sales of recyclables to make up the gap.

While both Eco-wise and MJ sell their compost commercially, they remain exceptional in this.

Given that many projects find it difficult to sell compost, and that there is a municipal budget for it, they must also purchase compost from such projects, after determining that it meets not only environmental standards, but workers standards too. This offers markets for the skills that wastepickers can acquire, despite widespread illiteracy and also solves a burning waste concern.

A third observation is that apart from waste pickers, there is little attention to other BOP (Bottom of Pyramid) informal sector recyclers. Several itinerant buyers, small junk dealers and others have not been able to be mainstreamed, in part because of the lopsided interventions. This must be changed in favour of all BOP recyclers.

More generally, the entire informal recycling chain must be viewed as an un-fractured whole for sustainable change. Delhi's own drive against pollution sources and sealing has resulted in fracturing a thriving industry. Instead of cleaning up the industry, it has shifted to newer areas, polluting them once again. They could instead have been helped to shift to cleaner recycling and production, a strategy being tried out with e-waste recyclers.

There is also no space created for waste handling activities. Since this is now mandated in the Masterplan of Delhi 2021, it essential to implement it and mainstream the sector in it, if such projects are to result in mainstreaming the recycling sector in policies. This is under constant threat from damaging litigation and court judgments and by the possibility of the formal sector taking over the space earmarked for waste. There are no safeguards against this, except for a greater public appreciation for this work.

There is no doubt that the recyclers themselves need to be better organized to avail any opportunities. On the other hand, as the case of Delhi shows, a strong civil society movement remains essential. On one hand, in Delhi, there is widespread public hostility to

the recyclers and urban poor in general. However, the case studies showed that the diverse groups, with their shared idea that the BOP waste recyclers are important, have been able to create multiple pressure points for change. Moreover, given the networking between many of them, this voice is amplified. The case studies, with examples like BKMAM, also demonstrate the role of civil society networking and action. At another level, this has also begun via schools in Delhi, where children are taught about the role of the informal sector in waste recycling. The ripple effects of this is likely to be considerable, and already, several wastepicker-school children interactions have been very popular in driving home the central message. Although these actions have not been evaluated, they are likely to have created greater consensus on social inclusion at various levels.

Knowledge generation and dissemination, a third pillar of supporting livelihoods backstops all of this. Chintan's own studies have brought in international knowledge to the public and policy makers, while the media has been reporting in an engaged manner. CEE has organized many local trainings and Sycom has made critical inclusive design. Another organization not studied here, Toxics Link, which works primarily on chemical safety and hazards, has also played role in generating information and public awareness about waste and toxics in general.

An important question that remains is this: Why does Lucknow have such little understanding and action related to the informal sector?

There are several likely factors.

The most important is the absence of all advocacy. Civil society is weak, and there is therefore little public discussion about the issue. The fact that there are only 2 NGOs working on the issue of waste, with one of them like a local club, there is almost no capacity. There is little space for any scaled up model that is not dependant on donor inputs. This is in contrast to Delhi, where the diversity is clear and some organizations have approached livelihoods through the prism of rights and advocacy. While these models are slower, they are able to ensure that the informal sector is entrenched in solid waste as a legitimate player.

Lack of knowledge is a second factor. Despite the many opportunities to learn, there is no real understanding of the importance and value of the informal sector in policy circles. In fact, there was no clear assessment even with the government. It is therefore critical to begin a process of locally generated information related to the informal sector.

Informal discussions with a US-based funding agency that assists one of these organizations, in the context of the issue, also revealed that they considered waste pickers working as employees as one form of empowerment for the informal sector. Their representative, who is familiar with India, was clear that using grassroots initiatives as a means of demonstrating the importance of the sector was not important and advocacy itself was not their priority. They preferred that NGOs were mainstreamed, but that these did not have to be NGOs with a strong context of mobilization of waste pickers or groups of waste pickers themselves. Their focus was more on creating entrepreneurs out of NGOs. Could the limited ideas from donors, combined with limited available resources, have been on factor for the Lucknow scenario?

A third factor is linked with the history of Lucknow. Till two decades ago, Lucknow was a small, highly contained city. Historically, civic amenities and services were highly controlled by first the British, and later, the Indian Government. In fact, all aspects of governance have been under tight government control after Lucknow became a centre of a significant anti-British war in the late 19th century. Historic accounts used for this study point out the value ascribed to keeping the city clean was enormous, with the municipal functionary historically expected to keep a tight control over the city's waste handling. With an urban boom in the late 1980s, and as migration increased about a decade back, a whole new dimension of the informal sector came to be. However, the idea of decentralization, coupled with the

unfortunate experience with MJ, failed to take root in this historic context. This could be another reason for the disinclination to examine the participation of other unknown sectors.

In Delhi, the successes have been on account of a rich civil society with diverse approaches, strong local networks, the involvement of unconventional players, such as schools and the police, organized waste recyclers, a strong partnership in at least one municipality that acts also a demonstration model, information generation and dissemination and global networks. While inclusive programmes on the ground are essential, and policies to support these required, these factors were also seen to be vital, if mainstreaming is to be successful.

There are standards for products and technologies. There is a crying need to create a set of standards for waste handling systems at local and ward levels, including standards for informal sector inclusion.

Chapter V

Sustainability Of Integration Of The Informal Sector In Solid Waste Management

Introduction

What is the vision that drives us to seek sustainable integration of the waste informal sector? Foremost is the fact that it provides income and employment to large numbers of waste recyclers at different levels in the recycling business. Not to be underestimated is its value to resource recovery, reduction in solid waste handling and environmental costs. Having said this, the horrific conditions of work of the informal sector warrant the inclusion of a Decent Work Agenda for the Waste Informal Sector as part of the sustainability plan. Quite simply Decent Work according to the International Labour Organisation is work that allows us to

- Work in dignity
- Earn an income to feed our families
- Educate our children
- Have voice
- Work without discrimination
- Gives us safety and protection
- Provides better standard of living
- Enables us to retire in dignity

In this chapter, the sustainability of integration of the waste informal sector is examined against the backdrop of four canvases. The first is the historical context, for any discussion on the sustainability of the waste informal sector can only benefit from a glimpse into history. The second are the enabling conditions, which facilitate or retard, the integration process. The third is the framework of State laws, rules, procedures and processes that allow or disallow integration. The fourth is the public or citizens whose active acceptance or rejection of the integration is significant to its survival.

5.1. From the pages of history

Two or three centuries ago there was a flourishing informal recycling economy in the developed countries of United States of America and Europe. What happened to those businesses, because indeed they flourished much like any other business albeit with less respectability? Were they wiped out by government diktat? Did they cease to exist because profitability declined as a result of market forces? Were their tinkering low cost arrangements and donkey carts simply wiped out by the shiny new machines and vehicles in the rush and arrogance of modernisation? Was the aesthetics of waste management simply too repulsive for an upwardly mobile citizenry?

Some snippets from the press archives provide an uncanny *deja vu* experience.

As early as 1869, the lucidly and beautifully written **article “Our Ragpickers, How and where they live – the fag end of the dry goods business”**⁹⁶ describes the ragpickers (in the USA) as industrious businessmen and women who are in the “noble profession of saving what others waste.”

About their way of working it goes on to say about the waste picker, “No businessman is so absorbed in his occupation and so unconscious of the noise and the tumult of the great world around him.” Describing the living conditions in their enclaves it says, “Many of these abodes are very neat in appearance, and the family at home has a similar appearance to that of any respectable labourer man’s. Each has a certain space in the basement where

⁹⁶ New York Times November 21, 1869 Archives of the New York Times

they store their property and sort over the merchandise, gathered while out on their business trips.”

“On the street, the ragpickers are about the least respected and least regarded of the denizens of the City. At home they are respectable, independent, generally neat, and almost always intelligent. The numbers in the City is nearly 8000; their vocation is humble, but not altogether unimportant. Much paper-makers stock, and materials for knife handles, toothbrushes, etc., is rescued by them from utter destruction, and the amount saved in that way in the course of the year is enormous.” is what the article concludes with.

“**The Rag-pickers of Paris**”⁹⁷ published in 1879 describes them as “fortunate in this miserable population (referring to those living in a poor neighbourhood). They work for themselves and sort their own stuff. If in the sack there is anything of special value they get the profit of it. They need not sell to get a break-fast, they can wait. Some days they make as much as four francs for the family.”

Rag-pickers arrested⁹⁸ published in 1883 refers to ragpickers being fined \$5 for fishing through ash barrels and garbage for treasures with their hooks, as a result of the complaints received from householders about their conduct.

In **Bad for Rag-pickers**⁹⁹, the journalist notes that “The rag-pickers of Paris are in despair” because the Prefect has forbidden them from collecting waste and they are likely to protest.

Ragpickers must go. New sanitary regulations of Paris affect Army of 60,000 (June 15, 1913)¹⁰⁰ is the title of a news item. It refers to the revolt of 60000 *chiffonniers* or ragpickers of the “Syndicate of Working Ragpickers of Both Sexes in the Seine Department” against the authorities at the prospect of having their livelihood taken away on account of the new sanitary regulations of the City of Paris. It specifically mentions that they did not get any support from the 300,000 public who thought the health of the city was more important.

What lessons do we learn about the scope for the integration of waste pickers from these snippets.

1. There was recognition of the contribution of ragpickers and the scrap traders and recycling to the economy in the mid 1800s itself.
2. The collection and sale of recyclables is good business with good earnings.
3. Ragpickers have always been self employed and the nature of their work has been entrepreneurial.
4. The rest of society has always ignored them, treated them with scorn and disdain and considered them a nuisance. They have also always been subjected to different kinds of harassment.
5. Ragpickers were organised and did agitate to protect their livelihoods.
6. Ragpickers did change their method of working to undertake collection by carts.
7. The sector did not die out because of market conditions but was eliminated by government diktat.
8. The Sanitary Regulations in those countries did not make provision to accommodate the work that they were doing although it was considered valuable.
9. Public support is a determinant in sustainability of informal waste enterprises

⁹⁷ New York Times October 20, 1879 Archives of the New York Times

⁹⁸ New York Times December 19, 1883 Archives of the New York Times

⁹⁹ New York Times January 29, 1884 Archives of the New York Times

¹⁰⁰ New York Times June 15, 1913 Archives of the New York Times

If we juxtapose the above lessons with the case studies that are part of this document the similarities are striking. The challenge before us is to reconcile the aspirations of world class cities and the aspirations of the waste informal sector so as to create inclusive environmentally responsible world class cities.

5.2. Enabling conditions for integrating the waste informal sector

Cities aspiring to be world class need to be accountable to the needs of the working poor in the urban informal economy. This is especially so in the case of the workers in the waste informal sector who are concentrated in the segments of informal work with the highest risks. The higher numerical presence and greater vulnerability of women are emphasised in this context. The four enabling conditions that are relevant from the point of view of those promoting the interests of the waste informal sector are:

1. **Voice** - Organization of working poor, especially women, into membership-based organizations accountable to their members and representation of these organizations in relevant policy-making and rule-setting institutions.

Typically waste pickers operate individually or by family or in small groups. Their collectivisation in order to improve their collective bargaining ability is central to the integration process. The form of organisation - trade union, cooperative, or company may be subject to debate and deliberation. However, from the experiences in India and Latin America, their organisation has been a precondition to their integration.

2. **Visibility** - Official recognition of the economic contribution of working poor, especially women, through improved labour force and other economic statistics, as well as in policy research.

Studies that quantify the contribution of the waste informal sector to reduction in municipal waste handling costs, environmental costs, poverty alleviation, downstream employment generation, and health costs need to be undertaken to substantiate the demand for integration. In order to be sustainable integration models have to periodically establish statistically that the costs and the ensuing benefits are indeed worth supporting. For example, systematically monitoring the diversion of waste from the landfill would make a powerful argument for the continuation of informal waste enterprises.

3. **Validity** - Legal identity and recognition of working poor, especially women, and their membership-based organizations.

Several of the waste picker cooperatives in Latin America have developed successful business models. They have found that the ultimate test of the feasibility of these business ventures is political rather than technical. For instance, the waste pickers cooperative in Bogota has had to seek the assistance of activist judges and lawyers to find legal ways to address the political backlash (backed by political power) to their business venture. In Pune too the unanimous resolution to support the waste pickers' cooperative was unanimously rescinded until the State government intervened.

4. **Viability**- the viability of the waste informal sector has rarely been called into question. This is the single most important reason informal waste enterprises continue to flourish in existing market conditions, unless they are systematically wiped out.

Visibility (recognition of worth) and voice (organisation) are necessary but not sufficient conditions for promoting and sustaining the integration model. Validity and Viability are equally important.

All four exist in varying degrees in each of the case studies that are part of this report. However, full scale institutionalisation of the integration model has either not been attempted or has not been possible in every case.

There are already successful business models of integration among the cooperatives of waste pickers in Latin America. The SWaCH Coop in Pune is a similar social enterprise¹⁰¹ of waste pickers to enter and compete in the recycling industry and perhaps even to negotiate carbon credits. Social and community enterprises have business as well as social objectives.¹⁰² The sustainability of SWaCH Coop is still to be tested, but suffice it to say many of the elements that make for sustainability are present in this model.

5.3. Legal framework

The elimination of informal waste enterprises in the developed countries was largely due to the fact that the Sanitary Regulations did not take into account the presence of ragpickers and the junk dealers. The same cannot be said to be true in India. Although there is no explicit law regarding informal waste workers and enterprises, there is some amount of legal and policy support for integrating informal waste workers and enterprises. These have been discussed extensively in Chapter II. The state of Maharashtra is notable in this respect, where the Mumbai and Pune case studies have been carried out. The laws, rules, regulations and guidelines favouring the waste informal sector in Maharashtra lent strength to the integration model in Pune.

¹⁰¹ Three common characteristics of social enterprises as defined by Social Enterprise London are:

1. Enterprise orientation: They are directly involved in producing goods or providing services to a market. They seek to be viable trading organisations, with an operating surplus.
2. Social Aims: They have explicit social aims such as job creation, training or the provision of local services. They have ethical values including a commitment to local capacity building, and they are accountable to their members and the wider community for their social environmental and economic impact.
3. Social ownership: They are autonomous organisations with governance and ownership structures based on participation by stakeholder groups (users or clients, local community groups etc.) or by trustees. Profits are distributed as profit sharing to stakeholders or used for the benefit of the community.

¹⁰² Social enterprise is the generic term applied to organisations that are democratically run, owned in common and have social and commercial objectives. Social enterprise refers to a single organisation, and community enterprise refers to an umbrella organisation with multiple trading and social enterprise activities.

The original use of the term *social enterprise* was first developed by Freer Spreckley in a publication called *Social Audit – A Management Tool for Co-operative Working* published in 1981 by Beechwood College. In the original publication the term social enterprise was developed to describe an organisation that uses [Social Audit](#). Freer went on to describe a social enterprise as:

"An enterprise that is owned by those who work in it and/or reside in a given locality, is governed by registered social as well as commercial aims and objectives and run co-operatively may be termed a social enterprise. Traditionally, 'capital hires labour' with the overriding emphasis on making a 'profit' over and above any benefit either to the business itself or the workforce. Contrasted to this is the social enterprise where 'labour hires capital' with the emphasis on personal, environmental and social benefit."

5.4. Civil society and Public opinion

Practically every city in the developing world wants to metamorphose into a world class city. The change is most often at the cost of the working poor, among whom waste pickers and other informal recycling workers are counted. Concerns of safety, visual pollution and environmental quality in respect of the informal waste recycling sector are often cited by affluent influential citizenry and policy makers alike, to justify elimination of this sector.

The pressure on land and the necessity of diverting waste from landfills using either obsolete or untested technologies is an expedient choice for policy makers. Environmental concerns have been placed centre stage on the global agenda. The economic and environmental contribution of waste pickers and the informal waste economy in six cities including Pune have been quantified in a study supported by GTZ and carried out by WASTE. The carbon credit market has suddenly made the waste management business a choice destination for big business enterprises.

The risk exists of the waste recycling sector being overwhelmed by this onslaught like it was 200 years ago in the modernizing countries of Europe, North America and Australia. The obliteration of the efficient enterprising waste informal sector in those countries has had disastrous environmental consequences besides escalating the overall costs of waste management and recycling.

In conclusion

The value of the waste informal sector is indubitable. That it is poised on the threshold of change is also not in doubt. The external environment has opportunities as well as threats. The challenge lies in negotiating complexities of the change so as to convert the threats into opportunities. Each of the relevant areas have been analysed in this Chapter. The recommendations below are also framed in a similar manner.

Chapter VI Conclusion And Recommendations

6.1 Conclusion

Our argument is that the informal sector can deliver on environmental goals more effectively, efficiently, and equitably than exclusively private solutions. Urban poverty in countries like India has been exacerbated because policy makers have singularly failed to comprehend or invest in the entrepreneurialism of the poor. Indeed, most Indian policy makers intuitively mistrust the idea beyond the limited remit of self-help groups and co-operatives. This report suggests that if the poor are incentivized and enabled to augment their capacities and forms of work in a formal and legally protected way – in short, if they are integrated or mainstreamed – their wellbeing would improve, as would the wellbeing of society. While there are standards for composting and technologies, it is essential to create a set of standards for waste handling systems at local and ward levels, including standards for informal sector inclusion.

Needless to add, any policy-making process that is sympathetic to this objective should be participatory and inclusive – consulting informal workers and their organizations 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 enterprises that it is organized around.

The twin problems of rising petroleum prices and the pressures on land point us in two directions as far as the management of waste is concerned. Transport of waste over long distances and the dumping of it in a remote area are fast becoming untenable. Decentralised models of waste management incorporating the waste informal sector are probably the most sustainable alternatives.

6.2. Recommendations

6.2.1. Recommendations for organisations of waste pickers and traders

1. Transform the informal waste recycling sector to stay in the market.

The informal waste sector has to be buoyed up for an image makeover; assisted to provide professionalized and efficient waste collection services; encouraged to introduce value added services; convinced about the importance of service level benchmarks and monitoring; maintain work ethic and discipline; train waste pickers and itinerant buyers, sorters and graders; in an effort to transform the aesthetics of waste handling to address one of the biggest threats to sustainability. Sustainability of integration is also contingent upon public acceptance of the integration model.

2. Improve the skill sets of informal waste workers and managing the change process to convince them that it is in their interests to change

Waste pickers being self employed are not accustomed to conforming to rules and regulations. They will have to be convinced to change some aspects of their behaviour and practices in the integration process. Quite often free roaming or autonomous waste pickers will need to be convinced that it is in their own interests to change.

3. Enhance the capacity of organisations of informal waste workers to act proactively and respond speedily to change and challenge.

The spread of organisations of waste pickers is relatively recent and many of the organisations are in the nascent stages. The threats to the informal sector from big business and technology in the waste management sector are fairly high. The

incineration based technologies entering the country will compete for the waste currently collected by waste pickers and informal collectors. The capacity of organisations to counter the offensive of hostile businesses will have to be strengthened and they may not have the resources to do so.

4. Constitute a multidisciplinary Technical Support Group that helps with fund raising, activity planning, business modelling, strategic management, capacity building through accompaniment and handholding
A good way of backstopping the organisations of waste pickers would be to provide technical and other supports.

6.2.2. Recommendations for Municipal, State and National Governments

1. Recognise and incentivise the waste informal sector through excise, tax and other concessions
2. All urban local bodies could register all waste pickers, itinerant buyers and institute a tri-partite board comprising the municipality, scrap traders and waste pickers unions for providing contributory social security that includes a package of life-cum- medical insurance, maternity benefits and old age pension to this group
3. Create an unambiguous legal and policy framework for the integration of the waste informal sector
 - (a) Favour informal sector organisations in the contracting process by making the contractual terms relatively simple
 - (b) provide low interest loans to organisations of waste pickers seeking to bid for tenders and contracts
 - (c) Reserve waste collection and small scale processing for small and medium enterprises of informal waste collectors
4. Play the role of enabler and regulator for the informal sector in waste
5. Institute a system of tax and non-tax based incentives for recycling and use of recycled products which would go a long way in according priority to this important industry. Conversely, disincentivising wasteful use of resources. The application of the Polluter Pays Principle and Extended Producer Responsibility would also strengthen the sector.
6. Reserve land in Development Plans for decentralised processing of organic wastes using bio-methods such as bio-methanation and composting etc.
7. Reserve space for recycling sheds/ material recovery facilities/storage of recyclables/ intermediate processing
8. Reserve land and creating other infrastructure for scrap commodities markets
9. Constitute tri-partite boards with equal representation of waste pickers, traders and government officials that could perform a regulatory and welfare function
10. Enforce source segregation of waste in ways that protect the waste pickers' access to and control over recyclables
11. Bring out a National Policy on Integrating the Waste Informal Sector in Solid Waste Management

6.2.3. Recommendations for donor agencies and grant making bodies

1. Provide financial and non financial support to organisations of waste pickers and others in the waste informal sector
2. Advocate for the rights of waste pickers and informal waste workers at national and international fora
3. Invest in different models of organisation of the waste informal sector including social enterprises

6.2.4. Recommendations for waste generating corporate and business houses and industries

1. Engage with organisations of waste pickers and informal waste workers to collect, manage and process post consumer waste
2. Invest in social enterprises of waste pickers and informal waste workers by providing financial as well as non financial support

6.2.5. Recommendations for civil society organisations and citizens

1. Participate in waste management programmes
2. Follow rules and regulations
3. Support and promote decentralised waste handling systems

We make no claim that the above list of recommendations is anywhere near exhaustive. But a concerted, committed and consistent effort on the part of all of the above persons will undoubtedly ensure the achievement of the goal towards which we are striving.

List of Acronyms and Abbreviations used in the report

AILSG	All India Institute of Local Self Government
ALM	Advanced Locality Management
BKMAM	Bharatiya Kabadi Mazdur Sangh
BMC	Bombay Municipal Corporation
BOP	BOP (Bottom of Pyramid)
BPMC	Bombay Provincial Municipal Corporation
CAPART	Council for Advancement of Rural Technology
CBO	Community Based Organisation
CDM	Clean Development Mechanism
CDP	City Development Plan
CDS	City Development Strategy
CEE	Centre for Environment Education
CPCB	Central Pollution Control Board
DOE	Department of Environment
DTDC	Door To Door Collection
FORCE	Forum of Recyclers Communities and Environment
FRRO	Foreigners' Regional Registration Office
IEC	Information Education Communication
ILO	International Labour Organisation
INDUS	Enhanced Indo-US cooperation on Elimination of Child Labour
INTACH	Indian National Trust for Art and Cultural Heritage
IS	Informal Sector
IT	Information Technology
ITES	Information Technology Enabled Services
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KKPKP	Kagad, Kach, Patra Kashtakari Panchayat (Trade Union of waste pickers and itinerant waste buyers in Pune)
LACG	Local Area Citizens' Group
MCD	Municipal Corporation of Delhi
MCGM	Municipal Corporation of Greater Mumbai
MIS	Management Information System
MJ	Muskan Jyoti
MMC	Mumbai Municipal Corporation Act
MOEF	Ministry Of Environment and Forests
MOU	Memorandum Of Understanding
MPD	Master Plan Delhi
NCLP	National Child Labour Project
NDMC	New Delhi Municipal Council
NGO	Non Governmental Organisation
NSCC	National Society for Clean Cities
PBV	Parisar Bhagini Vikas
PCMC	Pimpri Chinchwad Municipal Corporation
PIL	Public Interest Litigation
PMC	Pune Municipal Corporation
PPF	Public Provident Fund
RWA	Residents' Welfare Association
SAS	Slum Adoption Scheme
SEWA	Self Employed Womens' Association
SHG	Self Help Groups
SJSRY	Suvarna Jayanti Swayam Rojgar Yojana

SMS	Stree Mutki Sanghatana
SNDT	Shrimati Nathibai Damodar Thackersey
SO	State Ordinance
SSA	Sarva Shiksha Abhiyan
SUDA	State Urban Development Agency
SWaCH	Solid Waste Collection and Handling
SWM	Solid Waste Management
UA	Urban Agglomeration
ULB	Urban Local Body
UNDP	United Nations' Development Plan
UNICEF	United Nations Children's Educational Fund
ToR	Terms of Reference
INR	Indian National Rupee

GLOSSARY OF TERMS

Aakar	Shape
balichabhau	Brother of Bali, the cultivator
Balutedars	Village service provider
bhagidari	Partnership
Bhangarwalas	Itinerant buyers with handcarts
Brahmanical	Believer in caste supremacy and
Chakachak	Sparkling
Chawl	Lower middle class settlement
Chintan	Contemplation
<i>dabbabatlivalis</i>	<i>(tins and bottle women)</i> who carried baskets on their heads
dalit	Dalit meaning oppressed was used by Dr Babasaheb Ambedkar (social reformer and leader of the "untouchables") for the collective of all the erstwhile untouchable castes. It has been imbued with political meaning ever since.
Dattak Vasti Yojana	Slum Adoption Scheme
Dhalao	Waste repository
haqs	Rights
Harit Recyclers' Association	Green Recyclers' Association
Itinerant waste buyer	Person who is mobile and buys small quantities of scrap from households/offices/ shops and other commercial establishments
Jai Force Sewa Sahkari Sanstha	Jai Force Cooperative (name of coop)
Jal Nigam	Water authority
Janashree Insurance	Janashree Bima Yojana is a social insurance scheme of the Life Insurance Corporation of India.
Jhuggies	slums
Juna bazaar	Second hand goods market
Kabari	A generic term used for small waste dealers, at the lowest level. Also used for itinerant buyer in popular Hindi. Derives from the word kabar, or low value dry waste.
<i>kachra amchya malkicha nahi kunachya bapacha</i>	waste is ours, it does not belong to anybody's father
Kachra Vechak Jan	Ragpickers Development Project

Samooch Vikas Prkalp	
Kadgdipura	paper settlement
Kagad Kach Patra Kashtakari Panchayat	Paper, Glass, Metal Workers' Association
karmayog	NGO in Mumbai
Kashtachi Kamai	Fruits of Labour
Kothi	Smallest geographical unit of municipal administration in Pune
kunbis	Small agriculturalist caste
Mahals	palaces
Mahars	Erstwhile untouchable caste
Mahila mandal	Women's group
Mahratta	Maharashtra
Mang	Erstwhile untouchable caste
mangwada	Habitation of the mangs
Mantralaya	secretariat
Matangs	Erstwhile untouchable caste
Mathadi Board	Headload Workers Statutory Board
Mehtar mahar	Erstwhile untouchable caste
Mixed mein	Plastic bags
Mohalla Committees	Neighbourhood councils
Muskan Jyoti	NGO working with waste pickers in Lucknow
Mythri Seva Samiti	NGO organizing waste pickers in Bangalore
Nallah	Rivulet
Nav baudh	Formerly mahaar
Parisar Bhagini Vikas	Environment sisters' development
parsis	Ethnic group of Iranian origin
Peshwas	Erstwhile ruling dynasty in Pune
<i>Pusthawallas</i>	corrugated board collectors
<i>Raddiwalas</i>	used newspaper buyers
Recycling centre	A covered area where designated waste pickers use as sorting and processing facility for recyclables. Also called recovery unit in some places. Equipments and infrastructure available varies from place to place
Roti beti vyavahar	Inter- dining and intermarriage
safai karmcharis.	Conservancy workers
Sarva Shikhsa Abhiyan	Education for All Campaign
Shatabdi	Centenary
Shramshakti	Labour power
Shrishti	Nature
Stree Mukti Sanghatana	Women's Liberation Organisation
SWaCH	Solid Waste Collection Handling
Swachateche Varkari	harbingers of cleanliness
Tedhia Pul	Crooked bridge
Thiawalas	Petty trader
Vatavaran	Environment
watan	Land entitlement
Waste picker/ragpicker/scrap collector	Person who retrieves/salvages recyclable scrap from waste for sale for recycling

People Interviewed in Mumbai and Pune

Respondent type	Number of persons interviewed/ names
Municipal Commissioner's and senior municipal officials	5
Municipal Councillors	80
College teachers	16
Formal sector union representatives	2
Informal sector union representatives	2
Political leaders	2
State level bureaucrats	2
Ward Medical Officers	1
Composting consultants	2
Press	27
Management consultant	1
Environmental activist	1
Residents Welfare Association	28
Labour Commissioner	2
Civil Society Activist	1
Waste pickers	198
Supervisors	13
Stree Mukti Sanghatana,	Jyoti Mhapsekar
FORCE,	Poonam Huddar
Aakar,	Milind Arondekar

Note: The list of those interviewed is too long and has been compiled into the above tabular form.

People Interviewed in Lucknow
Shri S.R.Lakha, Principal Secretary, Urban Development (Govt. of U.P),
Shri S.P. Misra, Special Secretary, Department of Urban Development Govt of Uttar Pradesh.
Rekha Gupta Director, Local Bodies, Govt. of Uttar Pradesh
Shri S.K. Singh Commissioner, Municipal Corporation, Lucknow
Shri Susheel Kumar, Director SUDA, Govt of Uttar Pradesh
Shri Digvijay Singh Joint Director, SUDA, Govt of Uttar Pradesh
Sri Mewa Lal, Muskan Jyoti
Ms. Pratibha Chaturvedi, Exnora Lucknow

People Interviewed in Delhi

Sh. Chandra Bhushan Kumar
Labour Commissioner

Amiya Chandra
Deputy Commissioner, Municipal Corporation of Delhi
Central Zone, Delhi

Dr. P.K. Mohanty
Joint Secretary & Mission Director
(JNNURM)

Mr. J. K. Dadoo
Chairman
Delhi Pollution Control Commission and Secretary, Department of Environment, Govt of
NCR, Delhi

Dr. P. K. Sharma
Medical officer of Health
New Delhi Municipal Council

Sarvinder Kohli
Naya Savera (Contractor)

Mrs Anuradha Chaudhry
Defense Colony Residents' Welfare Association (RWA)
New Delhi

Mr Anil Bansal
Program Manager
IPE Delhi

Shyamala Mani
Centre for Environment Education
New Delhi

Pradeep Dadlani

Sycom Consultancies
Delhi

Representatives from the Glass and Bottle Recyclers Association

Representatives from Paper Recyclers Association

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ANNEXURE I

Terms Of Reference

Introduction

“Promotion of concepts for pro-poor and environmentally friendly closed-loop approaches in solid waste management (SWM)” (work title: Recycling Partnerships; PN 03.2144.8) aims at stronger involvement of the informal sector in SWM.

Background information

In many low and middle income countries, collecting, sorting and recycling of wastes provides income to hundreds of thousands of people. They work on the streets, partly with own vehicles, transfer stations, separation plants or on dump sites. By doing so, they either work in place of those being responsible for this task (in most countries the municipalities), or they operate parallel to existing formal structures – be their activities accepted or not. Rarely these double-tracked activities happen without complications or frictions.

The integration of informal sector activities into formal SWM systems may be feasible in certain cases and stages of the SWM system. However, in many cases, their integration has been proofed very difficult or impossible. There are several reasons: a non-existing legal framework resulting in an unclear legal status of groups and enterprises, criminal and corrupt structures of the informal sector, poor technical standards and hazardous working conditions used by the informal sector, low level of education and technical know-how, cultural hindrances and a general prejudice against informal waste workers resulting in a bad perception of their activities.

In order to support and enrich the current debate with successful wide ranged integration processes it is intended to conduct studies of informal sector activities in SWM in selected countries. This requires collecting reliable data and its summing-up, with a focus on successful interventions undertaken to integrate informal sector activities into SWM. Knowing about the development of the informal sector within SWM in India, it is planned, that the experiences in this country should be considered as particularly enriching. The study aims to sum up the key factors, unexpected events, circumstances that lead to an increased involvement of the informal sector in SWM in India. It shall also give an outlook on further necessary steps and requirements.

In this context „informal“ refers to those who generally make a living from solid waste but are not formally in charge of providing the service, i.e. having contracts with a municipality or being paid by it. Therefore, normally a cooperative working under a contract with the municipality should not be regarded as “informal” whereas a co-operative working without recognition of the official system is part of the informal sector. But within this study and due to the fact that in the past various informal groups were transformed in formal ones, these groups (cooperatives) can be involved within the study.

Task

The task consists of further investigation of the following on national and regional level (in two regions):

1. Brief chronicle description of the development of the Informal Sector in SWM in India

2. Description of the integration process of the informal sector in formal SWM systems:
 - Outline of the key factors that contributed to the integration of the informal sector in SWM systems during the whole process
 - Outline of other unexpected factors, events or circumstances which are not directly related to SWM but as well contributed to the integration process
 - Outline in which way cultural factors had an impact (be it positive or negative) on the integration of the informal sector
 - Description of the current legal framework and its evolution
 - Description of the degree of formalization, including the phases undergone that led to the present degree
 - Presentation of successful and unsuccessful integration models (best and worst practice) which were implemented on local level and in which way successful models had an impact on the national level
 - Recommendations how the gap between the local initiatives and the activities of the government can be closed
3. Assessment of the sustainability of the results achieved so far regarding the integration of the informal sector
 - Identification of necessary strategies to promote and ensure the sustainability of the integration process
 - Identification of further external support that might be necessary
 - Outline in which way the integration process is being considered in the poverty reduction strategy of India
 - Description how the activities of local initiatives were bundled into a national association of the informal sector without abandoning their autonomy and which organizational structure this organisation received. Recommendations from these experiences for other countries.

The regions which will be selected should be typical for the country – places with special conditions should be avoided. The same restriction shall apply to the local examples.

ANNEXURE II

Relevant Extracts from Government Orders and Laws

II.1. A 2002 order by the Government of Maharashtra, Water Supply and Sanitation Department [*Government Circular No. Ghakavya 1001/ Pra. Kra 546/ Papu-22 Mantralaya, Mumbai: 5 January 2002*] states that:

- Unorganized rag pickers collecting waste in different parts of the city should be organized with the help of NGOs and should register a cooperative. The local self-government should take the initiative to get these cooperatives registered. Registered rag picker organizations should be allotted the work collecting waste in parts of the city/wards with the help of NGOs.
- While allotting waste collection work to these cooperatives, citizens should be informed of this method. Discussions should be held with people's representatives, eminent citizens, Mahila Mandals¹⁰³, and NGOs.
- Those rag pickers who have not registered in a cooperative can also be allowed, under exceptional circumstances, to collect waste on an individual basis after registering themselves with the proper authority.
- The civic authority should grant preference to cooperatives formed by rag pickers in the collection of dry waste.
- If the city has a waste processing unit, the waste collected by rag pickers should be used by it; but rag pickers should also have the freedom to sell it in the market. This will generate income to rag pickers and help improve their living standard.
- The civic authority/NGOs should issue identification cards to registered rag pickers. This will allow citizens to recognize registered pickers.
- The civic authority/NGO should allot a designated area, as per the situation, and assign registered rag pickers or their organizations the task of collecting waste from 250-300 homes.
- The task of collecting bio-medical waste and polluted/toxic waste should not be allotted to rag pickers. Civic authorities should make separate provisions for collecting these forms of waste, as well as for storing, disposing, and monitoring it effectively.

II.2. Maharashtra Non-biodegradable Garbage (Control) Ordinance, 2006¹⁰⁴

to prevent throwing or depositing non-biodegradable garbage in public drains, roads, wetland, wasteland, water bodies, places open to public view, to regulate the use of non-biodegradable material and for matters connected therewith or incidental thereto.

5. Provision for the replacement of receptacles and places for deposit of non-biodegradable and establishment of waste collection system

It shall be the duty of the local authority or any officer authorised by it, to –

- a) Place or provide or place in proper and convenient situation public receptacles, deports or places for temporary deposits or collection of bio-degradable garbage.
- b) Provide separate dustbins for temporary deposits of non-biodegradable garbage other than those kept and maintained for deposit of biodegradable garbage.
- c) Provide for the removal of contents of receptacles, deposit and of the accumulation at all places provided or appointed by it under clause (a); and

¹⁰³ Mahila Mandals: women's groups

¹⁰⁴ Extract from Maharashtra Non-biodegradable Garbage (Control) Ordinance, 2006

d) Arrange for recycling of the non-biodegradable garbage so collected.

6. Duty of owners and occupiers to collect and deposit non-biodegradable garbage, etc

It shall be the duty of owners and occupiers of every land and building to –

- i. Collect or to cause to be collected from their respective land and building the non-biodegradable garbage and to deposit, or cause to be deposited, in garbage receptacles, deposits or places provided for temporary deposits or collection of the non-biodegradable garbage by the local authority in the area;
- ii. Provide separate garbage receptacles, other than those kept and maintained for deposit of biodegradable garbage, of the type and in the manner specified by the local authority and the officers for collection therein of all the non-biodegradable waste from such land and building and to keep such receptacles or dustbins in good condition and repair;
- iii. Segregate and store the waste generated by them into a minimum of two receptacles one for biodegradable waste and other than non-biodegradable waste.

II.3. Maharashtra Non-biodegradable Solid Wastes (Proper and Scientific Collection, Sorting and Disposal in the areas of the municipal corporation) Rules 2006¹⁰⁵.

ENVIRONMENT DEPARTMENT, GOVERNMENT OF MAHARASHTRA
NOTIFICATION

3. Responsibility of Municipal corporations : (1) The municipal corporation shall within limits of the territorial area, be responsible for the implementation of the provision of these rules and for any infrastructure developed by for collection, sorting, segregation, transportation. Processing and disposal of non-biodegradable solid wastes

(2) The Municipal Corporation shall :

- i. with the help of any agency including non-government organisation and self help group set up non-biodegradable waste collection centres at various places in each ward depending upon the estimated quantum of waste generation in the area and the density of the population
- ii. carry out segregation of waste at every collection centre
- iii. permit the rag pickers to separate the waste and to take away non-biodegradable waste from such collection centres.
- iv. Provide enough space to deal with and enable category-wise sorting and segregation of waste;
- v. Provide appropriate arrangement to avoid mixing of non-biodegradable and biodegradable solid waste and receptacles placed for this purpose at public places;
- vi. Place a minimum of two separate receptacles of different colours for biodegradable and non-biodegradable garbage at public place to prevent mixing and spilling of the garbage at the public places and maintain uniform colour code system for the receptacles placed at the public places for this purpose;

¹⁰⁵ Extract from Maharashtra Non-biodegradable Solid Wastes (proper and scientific collection, sorting and disposal in the areas of the municipal corporation) Rules 2006



Recyclable waste sorting centre provided by the Pune Municipal Corporation

- vii. Use and provide proper vehicles for transportation of such garbage so as to avoid mixing of non-biodegradable and biodegradable waste during its transportation. Transportation vehicle shall also be covered appropriately to avoid the spillage of garbage on the roads during the transportation.
- viii. In consultation with State Pollution Control Board provide specially designed landfill site restricted to non-biodegradable inert waste and other wastes that are not suitable for recycling for any processing and that the land filling shall be carried out in proper and scientific manner.
- ix. Waste and debris excavated / removed from sewers, gutters and nallahs and total solid waste collected in a corporation area with respect to non-biodegradable waste. Item-wise categorisation / classification of such non-biodegradable waste shall also be carried out. Such analyses report shall be submitted to state government on or before the fifteenth day of the June every year.
- x. Comply with the time limit specified in schedule.

II.4. Action Plan for Effective Implementation of Municipal Solid Wastes (Management and Handling) Rules, 2000, Government of Maharashtra¹⁰⁶

22. One of the best options is to give contracts for door to door waste collection to NGO's or SHG's. This option is less expensive and can provide employment to the deprived section of urban population. For skills of rag pickers to segregate the waste can also be put to use. Instead of keeping them at the end of waste collection chain and obtaining recyclable things only from community bins or from the mixed garbage thrown on land fill sites, rag pickers should be given multiple contract to collect waste form door to door and take it to processing plants. In many cities, underprivileged sectors of the society such as rag pickers, women & youth groups are being involved for waste collection. Therefore NGO's, voluntary organizations and self helpgroups should be encouraged to form co- operative organizations of rag pickers women groups under Suvarna Hayanti Shahari Rojgar Yojna,. Following actions be taken:

- i) Loans form the bank and subsidy under SJSRY should be made available fir these groups.
- ii) Wearing Uniforms , carrying identity cards, assigning attractive designations (Swachhata Door) will help them gain status and dignity in the society.

Action point 5 : Encourage waste reduction

31. Decentralized waste processing and reduction of waste is today's need. Collection, transportation & at the land – filling of unlimited and consistently increasing amount of waste is not a viable either financially or environmentally, Therefore there is need to encourage citizens to reduce waste. The following actions be taken:

- (a) Encourage bulk waste generators to process their waste themselves through biogas or vermin – composting projects. Encourage residents' groups to set up small composting pits. Provide free technical guidance for vermin – composting, etc.
- (b) Levy reduce lesser services changes from generators who hands over only dry waste.
- (c) Set up purchase centers/ processing centers for dry waste.
- (d) Consider charging lesser property tax shops of kabariwalas,etc which buy recyclable items.

Charging fees for door to door waste collection.

- 24. Better results are obtained when houses have to pay a contractor for waste collection Residents ensure that service is provided daily & in a proper way. Municipal bodies need not inspect the daily record for workers presently. Therefore a contractor should be allowed to collect user charges directly from each house.
- 25. If contracts are given to self –help groups only for waste collection, then they can recover 1 €cent to 1.7 €cent per house per month. If the contract includes collection and transportation, they can be allowed to recover approximately 3.4 €cent per month per house. Municipal bodies can initially pay a part of this amount till the contractor can encourage citizens to pay the charges. The

¹⁰⁶ Action Plan for Effective Implementation of Municipal Solid Wastes (Management and Handling) Rules, 2000, Government of Maharashtra, Government Resolution No. SWM 1006/C.R.53/ U.D.16 dated 26 October 2006

Municipal bodies can subsequently reduce the direct payment gradually. This amount can be paid through 12th Finance Commission Grants. Under no circumstances payments should be made on the basis of attendance. It should be in accordance with the number of houses in the area of work.

26. A local committee comprising of representatives of local residents & selected Corporators can monitor the work of such an agency.

II.5. General Body Resolution No. 476, Pune Municipal Corporation¹⁰⁷

- 1) One central Cooperative will take responsibility for the door to door collection of waste in the entire city. This will lead to a uniform process and implementation of segregation and disposal of waste. This will also help in bringing about due control and coordination over the process. One representative of Pune Municipal Corporation and one representative of “Kagad, Kach, Patra Kashtakari Panchayat” will be represented on the proposed Cooperative.
- 2) This central proposed Cooperative will work autonomously and be a Cooperative of waste collectors.
- 3) Pune Municipal Corporation will guide this Cooperative but this Cooperative should be an independent organization. The employees or members of this Cooperative will not have any relation or employment ties with the Pune Municipal Corporation.
- 4) The proposed Cooperative will work in a decentralized manner with local citizen's groups and other non government organizations. The proposed Cooperative will directly collect the fee from the individual households or the establishments for the service provided by them and will be directly accountable to the local citizen's group for providing the service. This process will guarantee 100% segregation of waste in the Pune city and also a uniform system for collection of waste from every household, which will ultimately result in a clean city. Along with this it will help in providing an opportunity to the poor for self-employment and improve their health. This will result in reducing the waste transportation cost of the Pune Municipal Corporation.

Considering the above points the Pune Municipal Corporation issues the following guidelines for segregation, collection and disposal of waste:

- 1) The responsibility of the collecting the segregated waste and bringing it to the Municipal collection point should be assigned to the Cooperative of the waste collectors. All the individuals currently collecting waste should be involved in this Cooperative and the responsibility of waste should be given to them in the area they are already working in. In areas where there is work, but where there are no people already working, a public notice in a newspaper should be published inviting people interested in working on this project and then the people should be chosen from the applications received. People below the poverty line will be given priority. All these chosen people will be given membership to the Cooperative.
- 2) The Cooperative will operate in all the administrative municipal Ward Offices in the city. An advisory and coordination committee comprising of the local citizens' group, NGOs, Ward Medical Officer of Pune Municipal Corporation, Ward officer should be formed and this committee will provide help, coordination and guidance to the proposed Cooperative's branch working in that ward.
- 3) There will be one kothi team for each kothi, and there will be one supervisor for each kothi team. Every waste collecting couple will have responsibility for collecting segregated waste from 500 houses or small shops. To help and coordinate with the kothi

¹⁰⁷ Unofficial translation of Pune Municipal Corporation General Body Resolution Number 476 dated 22 Feb 2007 for forming and supporting a cooperative of waste pickers

team in the ward there will be local citizens' group, one representative of the medical and sanitation department and the local Corporator.

- 4) Considering the number of houses or geographical continuity of the houses every team should be given responsibility of 4000 houses. (Roughly area of one kothi).
- 5) The cooperative societies, establishments, apartments, chawls, lanes etc. getting involved in this project will be attached to one of the Kothi teams.
- 6) The management of the kothi team working in the area of the Ward office will be with the area coordinator of the proposed Cooperative.
- 7) The office of the Central Cooperative will look into the daily work of the Cooperative like: accounting, coordination, collecting information, government liasoning, solving the problems or addressing complaints of the citizens while working, training etc.
- 8) The citizens and commercial establishments should segregate the wet and dry waste (minus the recyclable waste) and give it separately.

The Organisation's work:

- 9) The segregated waste will be collected by one pair (two people) from 500 households.
- 10) The domestic biomedical and hazardous waste and commercial waste, should be collected by the proposed Cooperative for a higher fee. Citizens should responsibly dispose off such waste directly by themselves at a place predefined by the Pune Municipal Corporation.
- 11) The garden waste and the construction material or waste will not be collected by the proposed Cooperative. The Pune Municipal Corporation will collect this waste on a fixed day.
- 12) A sorting centre for segregation of recyclable waste and non recyclable waste, should be decided depending upon the geography and population of the city, but as far as possible the Pune Municipal Corporation should try to provide one center per Kothi.
- 13) The Pune Municipal Corporation will further collect the wet waste collected by the members of the proposed Cooperative by their own machinery from the decided place and at a decided time.
- 14) The waste from the offices and the shops will be collected by the proposed Cooperative and the residents will pay the Cooperative the prescribed fees for the services. But at places, where the number of shops and offices is more there the Cooperative should discuss with the establishment, the procedure of collecting waste as well as the related rules and price for collection of waste.
- 15) The bulk organic waste producers like hotels, wedding halls etc. are not included in the above-mentioned machinery. The Pune municipal Corporation will have an independent procedure for the same.
- 16) The cooperative housing society, citizen's group, proposed Cooperative etc coming under the same Ward office will enter into a contract, which will include the procedure of collecting waste and the amount to be charged for the same etc.
- 17) The responsibility of the citizens, waste collectors Cooperative and the Pune Municipal Corporation is well defined in this process, and if the work is not completed as per the responsibilities assigned, then the defaulter will be punished with fine. The citizens will be fined and reprimanded if the waste is not segregated, the Cooperative will be fined and reprimanded if the waste is not transported at the predefined place, and the officer of the Pune Municipal corporation will be fined and queried if the waste is not collected from a predefined place and transported to predefined place in 24 hours.
- 18) The Pune Municipal Corporation should provide the proposed Cooperative with handcart maintenance amount, uniform security gloves, insurance and other necessary things/ services.

- 19) The Cooperative will charge ₹cent 17 p.m per house for collection of segregated waste.
- 20) The waste collector will have rights to the recyclable waste and will retain the income earned from its sale.
- 21) The Pune Municipal Corporation will pay ₹cent 1 per month per slum household to the Cooperative and the Cooperative can charge ₹cent 1 per hut to the citizens in slum.
- 22) The success of the project depends upon the capabilities of the proposed Cooperative in handling the project and hence training should be given to the Cooperative for effectively handling the waste, segregation, reuse of waste etc at every level.
- 23) Various projects should be implemented from reuse of waste and vermiculture from wet waste should be initiated. Such projects can also provide opportunities for self-employment. Priority should be given to the poor people living below poverty line.
- 24) Pune Municipal Corporation is expected to assist the proposed Cooperative for the initial five years with training, to create awareness among citizens, to pay honorarium to the proposed machinery etc. for a period of five years after which this Cooperative will be self-sufficient.
- 25) For effective working of the Cooperative, guidance, to acquire support of the citizens for this project and proper coordination between the Pune Municipal Corporation and the proposed Cooperative a committee has been appointed.
- 26) If the work of the proposed Cooperative is not satisfactory, then the Pune Municipal Commissioner is authorized to terminate all its help provided to the Cooperative and find for an alternative to carry out the work. The Pune Municipal Commissioner should be authorized to take the necessary decision regarding the same.
- 27) The required funds will be allotted from the appropriate budget of the Solid Waste Management.

ANNEXURE III A

Table I: Profile of organisations of waste pickers or organisations working with waste pickers in India

Organisation	Year OF establishment	Type	Membership Numbers Integrated	Integrational Activities with Waste Informal Workers	Other Activities with Waste Informal Workers	Level of integration
Aakar	Trust 1997, Coop 2007	Society/Trust, Cooperatives	4000 members, 10 integrated	doorstep collection of waste, road sweeping	insurance, savings and credit	ULB given collection contracts,
All India Kabadi Majdur Mahasangh				doorstep collection of waste		
Apnalaya, Kachra Kamgar Sanghatana	Trust 1973, Wastepickers 1996	Society/Trust	360 members		Formal integration	not much
Bal Vikas Dhara		Society/Trust Cooperative		awareness generation, campaigning for integration, child labour	savings and credit	
CHINTAN	2000	Society/Trust	17000 members and 350 integrated	Doorstep collection, institutional and commercial areas waste, composting, recycling centre, public awareness, composting, research, advocacy.	Education with children, legal rights and policy education.	ULB given I cards, various contracts
CITU	2008	Trade Union	1000	awareness generation, campaigning for integration	savings and credit, insurance	

RECYCLING LIVELIHOODS

Forces	2000	Society/Trust	1200 members, integrated 100	doorstep collection of waste, composting, scrap shops, pet bottles shredding	education, training	ULB given scrap shops spaces, collection contracts
Hamal Panchayat				awareness generation, campaigning for integration,		
HARIT Recyclers Association	2004	Society/Trust	members 10,000, integrated 300	doorstep collection of waste, scrap shops, collection of tetrapak		State given safety equipment
Janadhar Seva bhavi Sanstha Janaseva Ghana Kachra Vyasthapan Sahakari Sanstha	Trust 1995, Coop 2003	Society/Trust Cooperative	Members 500, integrated 350	doorstep collection of waste, composting, scrap shops, bio fuels	savings and credit, education, vocational training, insurance	ULB given I cards, subcontracted cleaning contracts
Janvikas Kendra	Coop 2005	Society/Trust Trade Union Cooperative	700 women	Hotel waste collection, scrap shops, composting	insurance, savings and credit, labour, child	ULB given I cards, subcontracted cleaning contracts
Kachara Kamgar Union	2007	Trade Union		awareness generation		
Kagad, Kach, Patra Kamgaar Sanghatana		Formative stage		awareness generation		ULB given memorandum for I cards
KKPKP Sangli		Trade Union		awareness generation,		

RECYCLING LIVELIHOODS

LEARN - Kachra Patra Kamgaar Sanghatana	Trust 2000, TU ongoing	Society/Trust, trade Union	members 1000	research, documentation ongoing		
Lokvikas	Trus 1998, TU 2001, Coop 2008	Society/Trust Trade Union, Cooperative	Members 3500, integrated 100	doorstep collection, composting,	health awareness, insurance, savings and credit	ULB given collection contracts, sorting spaces, infrastructure-handcarts
Nari Pragati Mahila Mandal			62	Scrap shops		
Navsarjan Trust		Society/Trust		Scrap shops		
NIDAN	Trust 1996, Company 2008	Society/Trust, Company	Members 3000, integrated 400	doorstep collection, composting,	health awareness, insurance, savings and credit	ULB given collection contracts, place for sorting, money for infrastructure-equipment, composting contracts
CHF - Church of North India SSI	2008	Society/Trust	500			ULB to provide support for improving work conditions at landfill and in certain locations
SEWA	1972	Trade Cooperative Society/Trust Union Company	Membership 30000, integrated	doorstep collection, composting, contracts for cleaning, advocacy	education, awareness generation, insurance,	ULB given collection contracts

RECYCLING LIVELIHOODS

					savings and credit	
Stree Mukti Sanghatana	Trust 1985, Parisar Bhagini Vikas 2004	Society/Trust Cooperative	3500, integration 350	Scrap shops, compost, biogas, publications, research, publications	training, education, savings and credit, insurance	ULB given collection contracts, sorting spaces, compost contract, biogas contract
Waste Wise Trust	1987 Maitreyi, Waste wise2003	Society/Trust	integrated 400	doorstep collection, composting, contracts for cleaning, advocacy	education	ULB given compost contract, doorstep collection etc, all withdrawn now
Kagad, Kach, Patra Kashtakari Panchayat	TU 1993, Credit Coop 1996, Service Coop 2007	Trade Union/Credit Cooperative/Service Cooperative	Members 6000, integrated 1500	Doorstep waste collection-domestic, institutional,commercial. composting, recycling centre, cash for trash centres, public awareness, research, advocacy, housekeeping contracts	insurance, savings and child labour, education, training	ULB gives I cards, insurance cover, space for scrap shops, sorting sites, support for integration
TISS				research, publications		
Toxics Link				research, publications		
Toxics Link				research, publications		

RECYCLING LIVELIHOODS

CEE India		Society/Trust	waste issues-not with members- publications, documentation, research, hospital waste management facility		
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ANNEXURE III

Extracts of Government Reports, Laws pertaining to the informal sector in SWM

III.1. Summarised recommendations specific to the informal sector from the Report of the High Power Committee on Urban Solid Waste Management in India¹⁰⁸ Chaired by Mr J.S.Bajaj

With specific reference to the integration of the informal sector the report of the Committee stated

1. Communities living in the vicinity of the dumping site or disposal ground scavenge recyclable material for their livelihood. Rag pickers and waste collectors sell the assorted materials to middlemen buyers who often perform some simple sorting and cleaning. Middlemen buyers sell to wholesalers or big dealers and hence, back to primary industries.
2. In terms of the extent of the recycling process, India has set an example for developed countries. Paper, plastics, glass and textiles are also reprocessed leaving virtually no recyclable material in urban solid waste. Obviously, rag pickers are playing a pivotal role in this recycling system but the income of the scavengers actually depends on the middle-man buyers.
3. Ragpicking activity has come up spontaneously as the demand for the recycling of the waste emerged owing to high cost of raw materials. Waste recycling is to be encouraged and strengthened; the salvaged material is free of any material cost except the cost of collection.
4. The most important solution to the health hazards of rag pickers is to ensure that all recyclable material is segregated at source and collected separately. The rag pickers can assist the population by collecting all waste properly segregated in two bags/containers deposit organic waste in collection site and sell the recyclable waste. Attempts may also be made to ensure that they wear affordable protective gear such as plastic gloves, covered footwear. Improved waste collection and disposal practices in areas will substantially reduce health hazards to rag pickers.
5. Presently the informal sector of rag pickers is contributing substantially to the recovery of recyclable material from urban solid waste. However, rag pickers - mostly women and children - live under and work in extremely unhygienic conditions. It is essential to improve the present system of collecting and utilising the recyclable material. These rag-pickers could be organised by setting up cooperatives. These workers can then collect recyclable material right at the household level; incidentally, they could also collect at the same time organic waste material from the household and deposit at the roadside collection sites. This would get rag pickers the recognition that they are an essential link in urban solid waste collection and recycling system. This will also prevent health hazards associated with rag picking in garbage dumps and provide them better working conditions and possibly better economic returns.
6. As far as practicable, solid waste should be collected and transported from house to house every day¹⁰⁹. Private agencies/NGOs or their cooperatives may be involved in primary collection of solid waste from households/community bins.
7. Materials for recycling should be segregated at source. The present system of scavenging of recyclable matter from roadside dumps and disposal grounds by the informal sector of urban poor should be replaced by organised ward-level recovery

¹⁰⁸ Report of the High Power Committee: Urban Solid Waste Management in India, Planning Commission, Government of India, New Delhi 1995

¹⁰⁹ It is sometimes believed that collection from the doorstep is expensive. However, this calculation is based upon costs in the formal economy. In the case of the informal economy, where individuals or groups undertake the collection, it is viable because the income from the sale of recyclable waste supplements the user fees

centres for recyclable material connected with the transfer stations where primary collection carts transfer their collection to the transport vehicles. These recovery centres could be managed by cooperatives of rag pickers or by NGOs. Alternatively, the rag pickers could be employed by the Municipal Authorities for recovery of recyclable material.

8. It is also possible that their intimate insights into the recycling trade make them the best suited to make optimal use of the recyclables and some day their cooperative units may grow into small scale reprocessing units which are profitable at the same time useful in reducing the burden of non-biodegradable urban solid waste.
9. The growing cities will have to evolve their mechanism to solve waste disposal in the near future. The mounting cost of raw material and for prevention of environmental degradation (only if one has the according law and it is monitored!), waste recycling is important and should be promoted at all levels. Considering these and the huge cost of the waste disposal in the city, which is increasing day by day, the ragpickers theoretically contribute to the urban economy by providing labour to cleanse the city of utilisable, recyclable material and provide material for several industries. In the light of these rag pickers become an important occupation group and deserve to be considered with respect and organised.
10. The major components of the Action Plan of Urban Solid Waste Management shall include establishment of rag pickers cooperatives in association with NGOs.

III.2. Summarised recommendations regarding the role of the informal sector from the Report on Solid Waste Management in Class I cities of India¹¹⁰

- Organize waste pickers to collect recyclables from shops and establishments.
- Explicitly acknowledged that informal sector waste pickers helped to reduce the burden of Urban Local Bodies (ULBs) by saving them several million rupees annually in collection, transport, and disposal costs, and reducing pressure on scarce landfill space.
- Noted that, at a minimum, ten per cent of waste produced in India could be reused or recycled.
- Urged that the recycling industry be promoted through incentives such as land allotment, supply of power, water on priority, tax holidays, and preferential purchase of recycled products by government and semi-governmental bodies.
- Instructed that strenuous efforts be undertaken to recover recyclable materials as inputs for the recycling industry. It lamented that segregation of waste at source was not seriously practiced, and that fifteen per cent of waste could be easily source-segregated for recycling.
- recommended allowing the informal sector to collect the following types of waste:
 - All types of paper and plastic
 - Cardboard and cartons
 - All types of containers, except those containing hazardous chemicals
 - Packaging
 - Glass
 - Metals

¹¹⁰ Report on Solid Waste Management in Class I cities of India of the Expert Committee on Solid Waste Management constituted by the hon. Supreme Court of India in Civil Writ Petition No. 888 of 1996 Almitra Patel and Another vs. Union of India. Mr A. Burman was the Chairman of the 8 member committee.

- Cassettes, computer disks, printer cartridges, and electronic parts
- Discarded clothing, furniture and equipment
- Rags, rubber, wood

III.3. Recommendations of Second National Labour Commission About Rag pickers¹¹¹

7.127

RAG PICKERS: Rag picking and other scrap collection are not a new phenomenon especially in industrial towns and metropolitan cities. They have a bearing on the urban economy. Many production enterprises depend upon the recycling of these wastes. Scrap collection is mostly done by women and children in a working environment that is most unhygienic. During the visit of our commission to various state capitals, a number of Non Governments Organizations brought up the plight these workers before us.

7.128

According to available estimates there are about 50 lakh scrap collectors in the country. The number is far greater if labourers in scrap establishments and re- processing units are included. Waste picking ranks lowest in the hierarchy of urban informal occupations, Illiterates, unskilled persons, illegal aliens and the poorest of the poor are pushed into this occupation, as they are unable to find any other kind of employment. Generally, there is no employer-employee relationship in this trade even though it is possible that some of the scrap picking activity is organized by contractors. Waste collectors are generally categorized as self-employed. Scrap collectors are not covered under the Shops and Establishments act as scrap traders do not provide any kind of receipts to them for the material they collect. No social security benefits are available to workers in this sector.

7.129

During our visit to Pune, the Kagad Kach Patra Kashtkari Panchayat, which is a trade union of scrap collectors, told us about the issues and problems that affect scrap collectors. There are about 5000 waste pickers and waste collectors in Pune who are registered with this trade union. There are over one lakh persons engaged in waste picking and other forms of scrap collection in the urban areas of the State of Maharashtra. The demands put before us by the union were:

- a) It must be mandatory for all municipalities to register waste-pickers and other scrap collectors, and to issue a photo-identity card to each such worker as has been done by the Pune and Pimpri Chinchwad Municipal Corporations. The card authorizes the bearer to collect scrap.
- b) Every scrap collector should be issued receipts for every transaction by the scrap traders for the scrap material supplied to them by the scrap collectors.
- c) Scrap collectors should be registered as unprotected manual workers under The Mathadi Board constituted under the Maharashtra Hamal Mathadi and other Unprotected Manual Workers (Regulation of Employment and Welfare) Act 1969. Similarly, it should be mandatory for all scrap traders and/or recycling enterprises to be registered under the same Act. It should be mandatory for the scrap traders and/or recycling enterprises to contribute the applicable levy towards the contributory provident fund, gratuity, paid leave, insurance and other statutory benefits as provided for under the Act.

¹¹¹ ¹¹¹ The Report of the II National Labour Commission, Ministry of Labour, Government of India, 2002. Page nos. 639 to 643

- d) In view of their contribution to the removal and reduction of solid waste, it should be mandatory for the municipalities to provide medical and life insurance cover to all authorized waste-pickers through the levy of a welfare cess from citizens.
- e) It should be mandatory for the municipalities to protect the livelihood of waste pickers and to consult with organizations of waste-pickers before initiating any scheme for the collection and disposal of urban solid waste.
- f) It should be mandatory for all municipalities to earmark green zones in each ward where waste-pickers can sit and sort their scrap.
- g) It should be mandatory for the municipalities to provide a rest room, drinking water, toilet and creche facilities at garbage dumping grounds/landfill sites.
- h) All registered scrap collectors should be listed as falling Below the Urban Poverty Line by the municipalities for the purposes of State social security schemes for the weaker sections.
- i) Scrap collectors should be entitled to the allotment of land reserved for housing Economically Weaker sections. (EWS).
- j) The import of plastic scrap should not be permitted, and there should be heavy anti-dumping duties in the case of other scrap commodities. Industries using local scrap, as raw material should be given excise and other tax concessions.
- k) Child labour should not be permitted in waste picking. Waste picking should be included in the schedule of prohibited hazardous occupations under the Child Labour (Prohibition and Regulation) Act, 1986.

7.130

A study of scrap collectors/ scrap traders and recycling enterprises in Pune has been conducted by the United Nations Development Programme and International Labour Organization. The main objectives of the study were to assess the socio-economic conditions of these workers, to identify the variables to improve their living and working conditions, and explore the possibilities of extending available legislation for their protection, etc.

7.131

The preliminary findings of the study say 'the recycling sector is structured in the form of a pyramid with the scrap collectors at the base and the processors at the apex. At the bottom of it are the waste pickers who are engaged in the free collection of scrap from municipal corporation bins. Marginally above them are those who purchase small quantities of scrap from households. Between the scrap collectors and the re-processors are various levels of traders including retailers, stockists and wholesalers, the activity level of this pyramid differs in terms of the factors mediating in their socio-economic background, working conditions, market environment and levels of income.

7.132

The study shows that about 92% of scrap collectors are women in the age group of 19 to 50. The mean age of entry of those who entered this occupation is 9-10 years. Girls outnumber boys. Most of them are first generation migrants. Ten percent of scrap collectors reside in slum areas where civic amenities are not available. The mean monthly per capita income of a scrap collectors family ranges between Rs.126 (€2.1) to Rs.2,233 (€39). One in four of these households falls below the poverty line. They normally work all the seven days of the week, with almost 10% leaving their homes at 6 in the morning. They are also victims of harassment from police or municipal officials.

7.133

The study made the following recommendations:

- a) Scrap collectors should be recognized as 'unprotected manual workers' who contribute to the economy and the environment in significant ways. All municipal corporations are assisted in their conservancy tasks by this large workforce. It is, therefore, essential that they enjoy the requisite status.
- b) There is also a direct economic gain to municipalities, in terms of reduction in their expenditure. This should translate into monetary compensation to the waste pickers. This could take one of the following forms.
 - Creating a corpus for a fund that could be used for the welfare of scrap collectors.
 - Offering them life and health insurance cover.
 - Recognizing the municipality as a part employer of scrap collectors and making necessary financial contribution to the Mathadi Board.
- c) It should be made compulsory to issue receipts to scrap collectors for each transaction. The large margins in the trade increase at each higher level. Scrap collectors do not have any share in this margin despite the significant contribution that their labour makes to it. This should be recognized by regulating the scrap trade. All traders should be made to pay a percentage of their surplus, based on the value of transactions, to scrap collectors. This could be regulated by appropriate legislation.
- d) The conditions of work of scrap collectors, particularly waste pickers are 'abominable.' Widespread and intensive campaigning should be undertaken to educate citizens about the advantages in segregation of garbage, and direct access to waste pickers should be mandated by the local self-government.
- e) Child labour in scrap collection is hazardous, and should be included in the schedule of Hazardous Occupations as listed in the Child labour (Prohibition and Regulations) Act. The withdrawal of children from this sector should be encouraged by offering parents incentives to educate their children. This could take form of sponsorships, scholarships or special hostels for them.
- f) In the absence of credit facilities, scrap collectors borrow money at usurious rates of interest from moneylenders. Formal, institutional channels of credit should open their doors to poor groups by promoting self-help groups and offering them loans at low rates of interest.

7.134

We have dealt elaborately with scrap picking in Pune because of the availability of information and the presence of a Union that has presented issues clearly before us, and also because we feel that the issues and problems in other big cities are similar.

7.135

The Commission recognizes the useful role played by the scrap collectors both in helping recycling activities as well as in maintaining civic hygiene. It is, therefore, essential that they should be protected from insecurity of various forms. The measures that could be thought of in this regard are providing identity cards, receipts for transactions, minimum wages when they are employed by contractors or other employers, health facilities, creation of welfare funds, prohibition of child labour from the activity and the likes. The commission fully endorses the suggestions made by the UNDP and the ILO, and the Kagad Kach Patra Kashtkari Panchayat of Pune. We recommend that besides the general recommendations we are making for protection and social security, municipal bodies should give thought to the questions we have raised, and make appropriate regulations and arrangements.

III.12. Extracts from Pune City Development Plan¹¹²

6.8.8. Reuse and Recycling

Rag picking and recycling activities are predominant in Pune, though they operate in an informal market. The Corporation with support from NGOs is promoting waste segregation at source and at disposal sites by using the services of over 4000 rag pickers.

6.8.4. Current Practices of Solid Waste Management¹¹³

The Health Department of the Municipal Corporation is responsible for the collection and disposal of solid waste of within the corporation's limits. Headed by a health officer, the Operations are; managed by sanitary inspectors, conservancy workers and about 2,048 sweepers. In addition to the PMC staff 4,208 rag pickers have been authorized to segregate waste at five of its 18 Ghantagadis. These rag pickers are registered and the service of rag pickers is organized by "Kagad Kach Patra Kashtakari Panchayat". PMC has no financial commitment in this regard . PMC is also exploring further to extend this service at all Ghantagadis. These rag pickers have been identification tags and have to wear uniforms purchased at their own cost.

The Solid waste management process may be classified into the following stages :

- Waste storage and segregation
- Primary and secondary collection
- Waste processing and disposal
- Reuse and recycling.

6.8.5. Waste Storage & Segregation

There is no organized practice of waste storage and segregation at source. As typical in most Indian cities, the waste is generally picked up by rag pickers or dumped. by the generators in local dustbins. PMC has adopted a decentralized pattern of solid waste segregation and disposal has been reduced considerably. Dry to such decentralize Dry waste is collection by the rag pickers and other NGO's for recycling. If rag pickers are allowed to cover all the areas, the waste to be disposed will reduce considerably.

¹¹² Extract from the City Development Plan for Pune 2006-2012, CRISIL Infrastructure Advisory and USAID FIRE (D)

¹¹³ PP 81-83 City Development Plan for Pune. CRISIL and USAID (FIRE D) 2006

ANNEXURE IV

Space required by various levels of the informal sector. (Source: Space for Waste. Report carried out by Chintan. 2004)

Category	Norm per 100,000 population	Guidelines
Waste pickers	215	Each waste picker handles 60 kg of waste per day and requires 60 sq ft of space near the <i>dhalao</i> for segregation
Other workers	90	Each worker requires 125 sq ft of space near the kabari godown for segregation as well as road space for transportation
Small kabaris	6	3000 sq ft has to be allotted in a shopping centre to each small kabari for segregation and storage of about 1500 kg of waste, and as shelter for workers.
Thiawalas	33	Thiawalas are located near markets and commercial centres and each thiawala collects waste from 150 shops and establishments daily
Big kabaris	1.5	The big kabaris need storage space of 60,000 sq ft for roughly 60,000 kg of waste which they collect weekly from the small kabaris

The specific details are summarized as follows:

- Spaces measuring around 200 square meters (per 8-10,000 population) are to be provided for segregation of different kinds of non-biodegradable waste.
- MP2021 notes the necessity of having at least two markets in each zone for all 12 zones of the Municipal Corporation of Delhi (MCD); “that is, recycling centres/kabari markets are to be developed by the MCD/DDA to reduce and reuse the recyclable portions of municipal garbage...a space of about 1000 square meters will be required.”¹¹⁴
- The table that follows summarizes other key provisions in MPD 2021:

¹¹⁴ From ‘Strategies for MPD 2021 for Solid Waste’, parts a and c, p.159.

RECYCLING LIVELIHOODS

	Sub-city Level	Community Level
Population	Approx. 500,000	Approx. 100,000
	Service Markets	
Area (in hectares)	6.0	0.2
Activities permitted	-	Kabari
	Informal Bazaar	
Area (in hectares)	5.0	0.1
Activities permitted	Kabari	Kabari



Chintan composting unit, Delhi

ANNEXURE V**Brief note on the history of civil society actions and movements in Delhi around solid waste and the informal sector.**

Delhi has had a history of at least 15 years of civil society action, research and debate on the issue of solid waste and the informal sector. Most of the work has been done by formal organizations, many of which no longer exist. It is worth noting that the work of each of these organizations was different, as indeed were their missions. Srishti had begun when a group of undergraduate students decided to formalize their organization. Its first work on solid waste was on the informal sector, resulting in the first study of its kind of the issue in India in 1994. Subsequently, its work focused on how the waste at the local level could be converted into employment opportunities for the sector. Some of the founders of Srishti were also interested in issues of toxics, and became part of a larger movement to link toxics with waste and human health. This informal movement coalesced in 1996 into an information dissemination group called Toxics Link, with 26 people and organizations coming together in Mumbai in 1996. A few years later, the Just Environmental Trust came to the front. Its program on waste and toxics was named Toxics Link, with the entire agenda of the network incorporated within it. This is an independent organization with its own agency.

Until 2006, Toxics Link did not focus on the informal sector in its work on toxics, but on policy to reduce toxics and better handle waste. Its report on community-level recycling documented some projects that worked with waste pickers, but its policy recommendations did not point to the need to be inclusive in any way. However, it did run the Alliance for Waste Management, where waste management practitioners were able to network and agglomerate around specific issues. It was a useful platform for diverse interest groups to meet. While Toxics Link still does not directly advocate for integration of the informal sector, it has been supportive of others' efforts and recognizes their importance.

Vatavaran, an offshoot of Srishti, focused on a diverse range of environmental issues, significantly urban greens, urban wildlife and waste. Its work on solid waste sought to create a zero waste area by re-using as many materials as possible. While waste pickers were not on its central agenda, the urban poor were usually employees of the organization. The principal contribution of Vatavaran has been to underscore the importance of public involvement through its community projects.

ACORD, on the other hand, works on a large number of issues, as a consulting agency. Solid waste is one of its portfolios, though it is not an active portfolio currently. Its work was mostly related to studies and feasibility reports in various parts of India, although it also undertook one project on the ground in Delhi in the mid-1990s. Despite not lasting on the ground, the project offered several lessons. Amongst the most important was the importance of local municipal involvement in strategic areas such as earmarking space for waste recycling activities and municipal ownership. In the last four years, ACORD has shifted from sectoral programs to pure capacity building, with subject specialists.

Development Alternatives adopted a completely different path from all of these organizations. It did not undertake solid waste projects at the grassroots, but concentrated on environmental awareness, with solid waste as part of its portfolio. Schools were always a focus, and this project has since expanded to several states under the CLEAN India program. Its work with appropriate technology is also noteworthy in that it uses waste materials such as cloth and ash to create paper, bricks etc.

Other groups, such as CEE, are mentioned in detail later. These organizations then set the tone of the urban debate on waste through their earliest experiments and advocacy.

ANNEXURE VI**Details of Specific KKPKP Activities****1. Study of child waste pickers in Pune (unpublished UNICEF) 1995¹¹⁵**

The study enumerated 616 child waste pickers across the city.

Among the key findings were:

- all were children of waste pickers
- girls outnumbered boys
- most girls contributed their income to the family kitty while most boys spent their earnings
- 50 % of children had never been enrolled in school
- 50 % of those who had been enrolled in school had left before completion of primary school (class IV)

The Representatives Council of the KKPKP resolved that the organisation would work to eliminate child labour in the sector and to improve educational levels among the children of waste pickers.

The non-formal education classes for out of school children (conducted by the SNDT Women's University from 1989-1996) were initially supplemented with and then replaced by, annual school enrolment drives. The enrolment drives were accompanied by close monitoring of the system to ensure that it did not push out these children. Procedural requirements like age certification that cost time, money and energy were done away with after negotiation and agitation (along with childrens' rights organisations) against the concerned government departments. In the early days, first generation learners were often sent back home for not being neatly dressed or for wearing torn clothes. They were the first to be shouted at and the last to receive the textbooks and uniforms from the Municipal school system. KKPKP focussed its efforts on sensitising the school system to these issues to prevent such drop-outs. Thereafter, children of waste-pickers were encouraged to continue in school by providing them token incentives like prizes and notebooks sourced from local philanthropic organisations. The independent introduction of a government scheme that provided 3 kg of rice per month for every child with 80 per cent attendance in municipal schools also helped. Destitute children and those from single parent families (unable to cope) are enrolled at residential educational institutions as required. The scholarship for the children of those engaged in unclean occupations that KKPKP successfully tapped from 1999-2003 also helped.

Certain deterrent measures were also concomitantly initiated. The identity card endorsed by the Municipalities carried the provision that children below the age of 18 years were prohibited from waste-picking. Now the campaign has reached the stage where groups of adult women confiscate the scrap collected by children in surprise checks on the street. The police and municipality have also assisted in this endeavour. Since 2001 waste-picking has been included among the hazardous occupations prohibited for children under the Child Labour (Prohibition and Regulation) Act, 1986.

115

2. Kashtachi Kamai (fruits of labour): A joint initiative of KKKPK and PCMC 1998

Retail scrap trade establishments are usually located in slums. No receipts are issued for transactions with scrap collectors and it is doubtful whether any taxes are paid. The wholesale scrap trade is closely held and controlled by the trading castes and communities. The scrap commodities' market is subject to seasonal price fluctuations and is also influenced by the imports of scrap from developed countries.

Kashtachi Kamai was started with the following objectives:

- To ensure better returns for labour for the waste-pickers
- To improve the bargaining capacity of waste-pickers
- To provide insights into the closely held scrap trade (data base for advocacy)
- To quantify the economic productivity and contribution of waste-pickers (data base for advocacy)
- To demonstrate that it is possible for the store (and by implication the scrap traders) to provide for contributory social security benefits (data base for advocacy)
- To demonstrate that it is possible to generate profits in the scrap trade using fair business practices.

Based on the learnings from three unsuccessful experiences at other locations, *Kashtachi Kamai* was started as an activity of the KKKPK in February 1998 with working capital of €847, provided by donors through the Project for the Empowerment of waste-pickers of the SNTD Women's University. Space was provided *gratis* by the Pimpri Chinchwad Municipal Corporation. The store has run as a profit making enterprise ever since, with no subsidies whatsoever. This is based on our strong conviction that economic enterprises have to be run without donor subsidies. The provision of free space does not constitute a subsidy because retail scrap traders occupy encroached spaces in slums. Payment is strictly cash and receipts are issued to the waste-pickers for every transaction. No children are permitted to sell scrap at the store. The purchase rates of scrap are periodically determined in consultation with the members. Accounts are presented annually. All the costs of labour and management are met through the income generated. A young woman whose educational level is class X manages the store. Her salary is comparable with that paid in similar enterprises. There are also two hired labourers paid at market rates. The three employees are entitled to a paid weekly holiday, paid leave and bonus. The monitoring costs of the enterprise are also reimbursed to the KKKPK from the net profits.

The 40 members who sell their collected scrap at the store everyday are provided with a cup of tea daily and are entitled to a share of the profits generated. The profit share constitutes between 8 and 10 percent of the annual earnings of each waste-picker (calculations based on the record of daily transactions) distributed annually. Half the amount is distributed as cash and the balance is deposited by members in PPF (Public Provident Fund) or Long Term Money Back Policies of the Life Insurance Corporation of India.

Over the years, *Kashtachi Kamai* has generated reserves of Rs.400000 which have been put aside for starting more such ventures. Although *Kashtachi Kamai* is a successful enterprise in all respects, it also raises several key issues that must be addressed. Firstly, it alters the relationship between the members who patronise the store and their own union from an equal relationship to a clientalist one. The members' perception of the exploitative relationship between scrap trader and themselves get transplanted onto the Union, which comes to be seen as the "employer"/"patron". Secondly, if the investment (money, time and effort) that is required to set up successful enterprises is taken to be the "cost" then the benefit accrues to only 40 members as compared with the total membership.

Meticulous records of the quantities of scrap traded, the loss in weights of material, quantity brought in by waste pickers and other relevant details were maintained to quantify the

contribution of waste pickers and substantiate the arguments listed at the beginning of this chapter.

Ten years later in 2008, the success of Kashtachi Kamai is poised for replication with the respective Mayors and Municipal Commissioners of the Pune and Pimpri Chinchwad Municipal Corporations committing to provide space for four more of such shops in their respective jurisdictions.

Table II showing Status of Medical Insurance of waste pickers in Pune

Indicators	2007	2006	2005	2004	2003
Total no. of insured	5411	4725	4207	3348	3707
Percentage of women		71.1%			69.1%
Total contributions from PMC	405520	363720	330680	254210	292140
Overall premium to claims amount ratio	-	73%	94%	107%	31%
Disbursal per claim	-	3408	3400	3200	3102
Claims incidence rate	-	2.6%	2.4%	2.77%	1.05%
Claims incidence by gender	-	87.3%	-	-	67.5%
Claim rejection rate	-	5.5%	9.9%	8.6%	25%
Amount received to amount spent ratio	-	0.61	0.67	0.50	0.72
Pending claims	-	40	None	None	None

ANNEXURE VII

PRESS CUTTINGS AND ANALYSIS OF PRESS COVERAGE



For a clean city, PMC moots ragpickers' cooperation

Civic body plans better garbage collection through them, will provide benefits

IE
4/1/06

EXPRESS NEWS SERVICE
OCTOBER 13

WITH the garbage segregation programme in the city struggling to pick pace, the Pune Municipal Corporation has hit upon the idea of forming an independent co-operative society of ragpickers for better co-ordination and accountability of garbage collection and segregation.

Municipal Commissioner Nitin Kareer has mooted a proposal to the Standing Committee where the PMC plans to assist the society for five years. In the first year, it would provide Rs 2.33 crore and from the second year it would grant Rs 1.64 crore.

The project aims at forming a comprehensive action plan for segregation of garbage. Ragpickers collect segregated garbage from thousands of houses



in the city either individually or through ragpickers' organisations. In several cases, there was no uniformity or accountability which the society, the civic administration hopes will bring about.

The civic administration has also proposed to provide an insurance cover of around Rs 30,000. The PMC would pay a premium of Rs 100 for every ragpicker per annum. Other benefits like better uniforms, gloves and equipment and handcuts would also be

provided. A system for segregation and collection of garbage would be introduced. There are approximately 124 civic health 'kothis'. Around 4,000 houses would be included under one kothi and two ragpickers would be assigned for every 500 houses to collect segregated garbage.

The residents would have to pay Rs 10 per month per house. Slum dwellers would have to pay only Rs 5. There will be an extra charge for collecting bio-medical, concrete and kitchen waste and action would be taken against ragpickers if they fail to collect the garbage.

The proposed society will have a committee at ward and zonal level comprising mohalla committees, citizens' forums, housing societies, NGOs and representatives of ragpickers. An advisory committee including mayor, municipal commissioner, leader of the House, leader of Opposition and health officer would review and guide the society's functioning.

THE TIMES OF INDIA

Seeha Sonawane

When Bhanu More, the son of a ragpicker, passed the SSC exams this year with 58 per cent, he was the first person in his family to go to school. This achievement symbolises the ongoing efforts undertaken by social workers at the Kagad Kach Patra Kashtakar Panchayat, an association of waste-pickers in the city.

Ten years ago, Saru Wagmare used to scavenge in public urinals and lift out the dirty garbage — her sole source of income — by scavenging the filthy bins frequented by stray dogs and pigs.

Though Saru is still a ragpicker, there's greater dignity in her work. No longer does she hang around public bins, she collects garbage door-to-door and sorts it out at a space allotted by the Pune Municipal Corporation (PMC) to segregate garbage.

Mangal Galkwad, another ragpicker who barely managed to earn Rs 800 per month, now earns Rs 3,000 through doorstep collection of garbage and sale of scrap. Her involvement with the panchayat has helped her attend literacy classes in the slums and she has also been able to buy a bigger home.

Sandha Nashikkar never attended school, but now both her children are studying in the PMC's Vidya Niketan schools, established for bright students.

Ignored and left to their fate by society at large, like began changing for the better for a large number of ragpickers after the panchayat was formed 14 years ago to bring greater dignity and support into their lives.

The work undertaken by the Panchayat has impacted the lives of more than 6,000 waste-pickers across Pune and Pimpri-Chinchwad.

Much credit for this goes to Purnima Chikarmane and Laxmi Narayan — lecturers at the SNDT Women's University.

While running adult education classes in Yerwada in 1990, Purnima and Laxmi observed that children in the area were picking garbage in extremely hazardous conditions and not attending schools. The lecturers realised that segregation of garbage as a source by citizens would offer waste-pickers better work conditions and would leave the children time to attend schools.

PICKING A BETTER LIFE

"We worked closely with the waste-pickers during the period and would accompany them to the bins to understand their problems. That is when we realised that waste-pickers need to be organised to strengthen their voice, as they were exploited and not recognised for the work they did," Chikarmane told TOI.

Guided by prominent social activist Babu Adkar, who had organised city porters through the path-breaking Hamal Panchayat, the Kagad Panchayat has since been working towards organising waste-pickers and improving their work conditions with the involvement of municipal corporations.

In fact, long before the PMC began trying to implement the Municipal Solid Waste Rules, 2000, which came into effect in January 2004, the KKPKP has been promoting garbage segregation techniques in the city.

Its work was taken note of by the Supreme Court, which in 1998 set up an expert committee on solid waste management and asked the KKPKP to send recommendations to the committee, which were incorporated in the final report.

Some years later, when the KKPKP secured



The work undertaken by the Kagad Kach Patra Kashtakar Panchayat has improved the lives of more than 6,000 waste-pickers across Pune and Pimpri-Chinchwad.

- THE NUMBERS**
- 1,000 tonnes waste generated in the city daily
 - 7,000 waste-pickers in the city
 - 6,300 registered with the KKPKP
 - 1,300 waste-pickers integrated in floor-to-door garbage collection
 - Two lakh households segregating wet and dry garbage currently
 - The ward that generates maximum garbage is Kasba Peth

- KKPKP INITIATIVES FOR WASTE-PICKERS**
- Savings-linked co-operative society
 - Group life insurance scheme
 - Group medical insurance scheme
 - Community wedding celebrations
 - Redressal of individual grievances
 - Scholarships and free distribution of notebooks for children



Activists of the Kagad Kach Patra Kashtakar Panchayat, Lakshmi Narayan (extreme right) and Purnima Chikarmane (fourth from right) hold a monthly meeting with waste-pickers to discuss their problems.

and endorse identity cards for waste-pickers, Chikarmane told TOI.

This transformed the stereotypical image of waste-pickers in their own eyes as well as that of the public.

To take things further, Laxmi Narayan would like Panchayats to become more proactive in garbage segregation. According to her, if garbage segregation techniques are implemented successfully by all households in the city it will make a big difference in the waste management system in the city. "Disposal of wet garbage at source is not taking place to a large extent," she said. The broad vision that the Panchayat is working towards is upliftment of the life of waste-pickers and their families; encouraging garbage segregation by cit-

ANNEXURE VIII

year	total no of articles	local	English	positive	negative	community marriage	segregation and contribution of wps	child labour and education	anti money lender	social security for wps ilo	street play	anti alcoholism	integration in swm	anti police-custody death
1996	3	3	0	3	0	1	1	1	0	0	0	0		
1991	2	0	2	2	0	0	2	0	0	0	0	0		
1992	1	0	1	1	0	0	1	0	0	0	0	0		
1995	6	3	3	6	0	0	5	1	0	0	0	0		
1997	7	3	4	7	0	0	2	6	0	0	0	0		
1998	1	0	1	1	0	0	1	0	0	0	0	0		
1999	7	3	4	7	0	3	3	0	1	0	0	0		
2000	12	11	1	12	0	0	0	2	0	10	0	0		
2001	34	20	14	34	0	2	6	0	1	16	6	3		
2002	15	9	6	15	0		4	1		2	2		6	
2003	4	1	3	4	0		2			1	1			
2004	6	2	4	6	0									6
2005	39	32	7	32	7		19						13	
2006	51	35	16	2	18		2	2		11			36	
2007	50	20	30	27	13		10	9		20			13	
2008	10	7	3	9	1		2	7					1	
total	248	149	99	168	39	6	60	29	2	60	9	3	69	6

TABLE III SHOWING ANAYSIS OF PRESS COVERAGE OF THE KKP KP AND WASTE PICKER ISSUES IN PUNE

ANNEXURE IX

Extended Producer Responsibility and the Informal Recycling Sector. (From CHINTAN ENVIRONMENTAL RESEARCH AND ACTION GROUP .Wasting Our Local Resources – The Need for Inclusive Waste Management Policy in India. 2007)

The health conditions of waste recyclers is a serious concern, but what can be done to address the matter?

Several solutions have been proposed that primarily focus on ways to protect workers from hazardous materials, such as providing protective clothing. One particularly promising avenue, **Extended Producer Responsibility (EPR)**, is an innovative approach that aims to cut off the problem at its source by decreasing the amount of hazardous materials that ever reach the waste recyclers' environment. Rather than working from the assumption that workers must inevitably encounter dangerous materials, EPR offers a proactive way to diminish the presence of such materials in the waste stream. This section introduces the general concept of EPR, its benefits, and some of the major forms of implementation.

The concept of EPR is that manufacturers are held responsible for the items they produce not only up to the time of sale but throughout the products' entire lifetime, rather than leaving governments or consumers to deal with disposal issues.³² This includes "upstream" impacts from the choice of product material and the production process, as well as "downstream" impacts from product use and disposal at end-of-life.³³ EPR entails multiple types of responsibility on the part of the producer: physical, economic/financial, environmental, and informative/social.³⁴ It closes the feedback loop of the production process because when manufacturers are held responsible for the impact of their products, they have a very strong incentive to produce cleaner and safer goods, from the input materials, to the production process, to end-of-life collection.³⁵ The concept has already been applied to a variety of items, including cars, electronics, beverage containers, and common household chemicals.

Several types of EPR strategies exist for the appropriate handling of both toxic and non-toxic products/materials; each type has potential for improving the health of waste recyclers in a different manner (it is interesting to note that of the many potential benefits of EPR, the health benefits seem to have been completely overlooked in the literature and are not usually included in discussions of EPR):

- **Material Use:** Toxic and hazardous materials can be phased out and replaced by safer alternatives, and non-recyclable materials can be replaced with ones that can be recycled. Decreasing the presence of toxic substances from the waste stream would reduce waste recyclers' exposure to dangerous materials and fumes.
- **Product Design:** To reduce the volume of waste, products can be made more durable to last longer and made easier to repair or upgrade rather than needing to be replaced entirely when they break down or become outdated. To reduce the risk to untrained, unprotected waste recyclers, products currently dismantled for the extraction of saleable components can be re-designed such that dismantling can either be done safely or is not necessary at all.
- **Take-Back:** Manufacturers can take physical or financial responsibility for products/packaging at their end of life so hazardous materials that are not phased out or redesigned "upstream" are at least collected and reused, recycled, or disposed of safely once they are "downstream." The pricing of product buy-back should be such that waste

recyclers are incentivized only to collect materials and sell them to a properly equipped recycler rather than attempting themselves to disassemble hazardous products for recyclable parts.

- **Source Segregation:** Hospitals and industries can segregate health-care waste and toxic materials from general waste for separate collection so that waste recyclers do not come into contact with dangerous substances. Households, businesses, and institutional buildings can segregate nonhazardous waste in separate bins or use transparent garbage bags to increase visibility of sharp glass and metal objects so that workers would incur fewer injuries and accidents during collection.³⁷

- **Consumer Notification:** Manufacturers might label their products to indicate the presence of hazardous materials as well as to indicate the particular disposal requirements and restrictions, including information on how to properly deposit the product for producer re-collection. Consumers can be granted access to reports on each producer's compliance with EPR regulations.³⁸ Producers might also devote a portion of their advertising budget to anti-litter or recycling education.³⁹ In addition to health, some of the other more commonly recognized benefits of EPR that strengthen the case for its promotion are worthy of mention:

- **Environmental improvement:** Decreasing the use of hazardous chemicals and materials is not only beneficial to the health of waste recyclers, but it decreases the pollution of air and water with toxins as well. Encouraging the reduction, reuse, and recycling of products and component materials also increases the efficiency of resource use, thereby decreasing the volume of waste and hence the need for landfills and incinerators.⁴⁰ Like health, environmental sustainability is another important factor of sustainable development and is in fact another Millennium Development Goal.⁴¹

- **Potential to generate jobs:** Through its encouragement of recycling, EPR could possibly create more jobs than traditional waste disposal technologies like incineration: Recycling programs are labour-intensive, especially when waste is sorted thoroughly by hand, thereby potentially generating many times the number of jobs per unit of waste as do incineration programs.⁴²

- **Potential to save money:** EPR may allow local governments, already facing budget problems, to spend less on waste management and more on other important programs; taxpayers as a whole might be relieved of the burden of paying for waste management as the cost is shifted to the user and producer; and even producers themselves could ultimately save money by using more efficient product design.⁴³ At the same time, careful EPR

schemes that take appropriate precautions to assure the health of waste pickers may necessitate a financial investment, but this burden must be shouldered as part of corporate social responsibility.

Corporate social responsibility is an important aspect of EPR. While every one of us, from citizens to consumers to governments, has to take some responsibility for our problems with waste, producers have an especially important part because they are most directly involved in the design and sale of the very products causing waste problems.⁴⁴ Many corporations have tried to address their social responsibilities by donating products or a portion of their proceeds to popular causes, such as cancer research or education. While indeed important causes, some would argue that such donations are only surface efforts to improve corporate image and actually distract from the producers' most important obligation, which is to make their products cleanly and safely. Rather than attempting to address issues beyond their purview, corporations need to start by diminishing their own negative impact directly caused by their production process or products. Once they have addressed this problem, efforts toward supporting

other important causes would be more appropriate. Apart from Corporate Social Responsibility, EPR in India will also require responsibility to be embedded in government agencies, such as municipalities and other urban local bodies. Their role could be one of facilitating appropriate EPR and public behaviour that strengthen this initiative.

ANNEXURE X

Table IV: Waste pickers opinions post integration by KKKPK in Pune

Positives	Negatives
Decrease in roaming in the sun	Lower earnings
Fixed and fewer hours of work	Often income is staggered because all citizens do not pay on the same day
More respect in public	Not enough houses so low earnings
More leisure time	Source segregation not done by citizens
Change in style of dressing and appearance	Cannot miss work
Relatively fixed income/Assured payment	No salary from Pune Municipal Corporation
Better than putting hands in mixed garbage all day	
Dual/higher income: monthly income from user fees and daily income from scrap sale	
Willingness to save	
Reduction in children picking	
More time for household	