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Note:
The views expressed in this report are entirely those of the authors. The International Labour Organisation does not necessarily subscribe to them.
This study is dedicated to the city’s first environmentalists, the wastepickers. Their faces do not appear on the cover pages of magazines; they do not read papers at conferences or win awards. These trappings are not material to their existence, how their claims to scrap are protected, ARE!
Expressions of gratitude

It is ten years since we first started our work with wastepickers and seven since the establishment of the Kagad Kach Patra Kashtakari Panchayat. Eventful years of highs and lows, joys and frustrations that have added meaning to our lives. Our immense gratitude to the scrap collectors for spending long hours answering endless questions knowing fully well that they would not derive any direct personal benefit from the exercise. Bursting into giggles at the incongruity of some of the questions relating to facilities at the workplace. The scrap traders for sharing the secrets of their trade saying all the while, "you've been in this for so many years. What can we hide from you?" And the reprocessors, curious but co-operative.

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This study is not merely an academic exercise. It is one more indictment of the inequities in our social and economic system and a tool in the struggle against injustice.

Poornima Chikarmane*  Medha Deshpande* Lakshmi Narayan*
“Indian society is like a mountain. With the very rich at the top, lush Alpine pastures where skilled workers in the biggest modern industries graze, a gradual slope down through smaller firms where pay and conditions are worse and the legal security of employment means less, a steep slope around the area where the Factories Act ceases to apply, a plateau where custom and the market give poorly paid organised workers some minimum security, then a long steep slope down through casual migrant labour and petty services to destitution. There are well-defined paths up and down those slopes, which are the easiest for some kinds of people”.

Holmstrom 1984
ABSTRACT

1.0 Introduction

The informal sector offers opportunities for survival to a large number of unskilled and semi-skilled migrants and those long resident in the city, excluded from employment in the formal sector. Work in this sector is usually insecure, low earning and carried out under appalling conditions.

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 to provide protection to workers in this sector.

These divergent views pose a dilemma at the policy level; whether to promote the informal sector as the provider of employment and incomes or to seek to extend regulation and social protection thereby reducing its capacity to provide jobs and incomes (ILO). The general approach of the ILO towards policy has been to find out the ‘optimal’ trade off between these two alternatives. This implies that the policies adopted should generate more jobs and higher incomes and simultaneously provide protection and better conditions of work to those employed in this sector.

Given the heterogeneity of the socio-eco-political environment across countries and within the informal sector itself, no single strategy can be adopted in pursuit of the above objectives. Micro studies in the informal sector are useful tools for strategy formulation.

The present study is an attempt to investigate the functioning of the recycling sector in the city of Pune in the state of Maharashtra. The recycling sector consisting of economic activities like scrap collection, scrap trade and reprocessing of scrap cut across informal and formal sectors of the urban economy. In terms of employment the scrap collectors are numerically the highest, albeit, the lowest earners working under appalling conditions. A detailed inquiry into the functioning of this sector is expected to suggest future interventions to upscale the income, improve the conditions of work and to provide protection to the disadvantaged class of the sector.

1.1 The Recycling Sector in Pune

The recycling sector in Pune is not a blank canvas. The Kagad Kach Patra Kashtakari Panchayat, the trade union of scrap collectors who are at the lowest end of the recycling sector (and probably the informal sector) has been operational for the past seven years. It has initiated several processes and programmes with support from the SNDT Women’s University. So far the interventions have been based on the expressed needs and concerns of scrap collectors and the insights developed during the years of interaction with them, rather than on formal research. The present study draws upon the experiential insights into the functioning and dynamics of scrap collection and to some extent the scrap trade. It seeks to systematically explore the relationships and dynamics between the horizontal and vertical constituents of the recycling sector.
2.0 Methodology

The study was undertaken between 1 February and 30 September 2000.

2.1 Project Objectives

1. An assessment of the socio-economic conditions of scrap collectors, reasons for entry, conditions of work and living.
2. An insight into the trade margins and work details at subsequent levels of exchange in the scrap trade, viz. retail scrap traders, wholesale scrap traders, reprocessors.
3. An understanding of the trade in a holistic manner in the context of the informal sector, to facilitate upward integration/mobility of the scrap collectors by identifying key variables-training and resources required for the same.
4. Examine the existing legislation, social security cover in order to explore the possibility of extending legislative protection to this group.
5. Identify intervention variables in order to improve the living and working conditions of scrap collectors.

The baseline data of 4594 registered scrap collectors available with the SNDT constituted the sample frame. Baseline data of 368 scrap traders was collected for the purpose of the study by SNDT. This constituted the sample frame of scrap traders. The method of stratified random sampling has been adopted for selection of the sample of scrap collectors as well as scrap traders. In the case of scrap collectors the strata are based on type of scrap collection and gender. In the case of scrap traders stratification has been done on the basis of level of trading activity and the type of commodities traded. The reprocessing enterprises have been selected on the basis of data provided by the scrap traders and other key informants among the traders.

The sample size of scrap collectors is 252 (5.5 per cent of the total number), that of the scrap traders is 72 (20 per cent of the total number). The recycling enterprises have been selected on the basis of data provided by the traders. Two enterprises for each scrap commodity, procuring scrap from Pune, located within a 300km radius have been included in the sample.

PRELIMINARY FINDINGS

3.0 The Structure of the Recycling Sector

The recycling sector is structured in the form of a pyramid, with the scrap collectors at the base and the reprocessors perched at the apex. At the bottom of the heap are the wastepickers who 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. Between the scrap collectors and the reprocessors are various levels of traders including retailers, stockists and wholesalers, most of who are registered under the Shops and Establishments Act. The crème de la crème among them are the Registered Dealers. The reprocessors are in a class by themselves.
The activity levels of this pyramid differ in terms of the factors mediating entry, socio-economic backgrounds, work conditions, market environment and levels of income. The preliminary findings of the study pertaining to these aspects are in order.

**SCRAP COLLECTORS**

4.0.0 Factors Structuring the Labour Market in Scrap Collection

The factors that structure the labour market are age, gender, religion, ethnicity and kinship (caste), geographical origin (migratory status), place of living (spatial distribution and locational specialisation) and education.

4.1 Types of Scrap Collectors

Scrap collection is the first stage in the recycling sector. It is undertaken by two categories of workers, the wastepickers and the itinerant buyers. Wastepickers 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. There are two types of itinerant buyers differentiated on the basis of gender and their tools of trade. All categories of scrap collectors rudimentarily sort and then sell the collected scrap commodities to retail scrap establishments by weight or unit.

4.1.1 Gender

The baseline data show that three fourths of the scrap collectors are women. Women outnumber men in wastepicking (92 per cent), the lower end of the segment. The converse is true in itinerant buying, where 64 per cent are men.

4.1.2 Age

Scrap collectors are most likely to be women, married, illiterate and between 19 and 50 years of age. There are likely to be more male itinerant buyers in the younger age group than in the middle age range. More wastepickers are likely to continue work after the age of 60 years as compared to itinerant buyers.

*Every fourth woman in the age group 19-35 years and every third woman in the age group 36-50 years is either widowed or deserted*

*One in every five, adult scrap collectors entered the occupation as a child, some even at the tender age of five.* Sixty per cent of those who started work as child wastepickers (less than 14 years) are girls whereas 40 per cent are boys. Almost 80 per cent of the boys shifted to itinerant buying when they became adult. Most of the girls continued to be wastepickers. The mean age of entry of those who entered as children is 9 years for girls and 10 years for boys respectively. Twenty per cent of the adult scrap collectors were adolescents at the time of their entry into the occupation. *Girls outnumbered boys in the ratio of 3:1 in this age group.* Further, all the boys who entered as adolescents are itinerant buyers, not a single one is a wastepicker. Gender is one of the determinants in the entry of child labourers in this occupation. *Wastepicking is the level of entry of child*
labour. The girls usually continue in wastepicking whereas the boys either shift to itinerant buying or other occupations, both considered more respectable than wastepicking.

The data show that 5 per cent of the children in the age group of 9-14 years in the households of scrap collectors are child labourers. Two thirds of them are engaged in wastepicking. The others are mostly engaged in domestic work. Child wastepickers constitute 3.2 per cent of the total population of scrap collectors. A Study of Child Wastepickers in Pune in 1995 (SNDT-UNICEF 1995) revealed that there were 616 children engaged in scrap collection at the time and that all child wastepickers belonged to households where at least one parent was engaged in scrap collection. The population of child wastepickers according to the present study is 143. This shows that there is a drop in the proportion of child labour in the sector (Please refer to the section on Status of Organisation for explanations).

4.1.3 Education
Gender and caste mediate the level of education among scrap collectors. **Nine in every ten female scrap collectors is illiterate as compared to five in every ten male scrap collectors.** While the literacy among male scrap collectors is comparable with scheduled caste males, scheduled caste women who are not scrap collectors are twice as likely to be literate. **Three fourths of the itinerant buyers who have attended school have not completed primary school.** The highest level of education among women is X pass and that among men is XII pass. There are fewer illiterates among the Neo-Buddhists and Muslims as compared to the Hindu Matangs. Every third Matang is illiterate as compared to only one of ten Neo-Buddhists

4.1.4 Religion and Caste
Scrap collectors are Hindus, Muslims or Neo-Buddhists. No one from the other religious denominations engages in this activity. Every fourth scrap collector is a Hindu distributed almost equally among the categories of scrap collectors. Muslims are mostly seen among pushcart itinerant buyers. One in every four wastepickers is a Neo-Buddhist.

Every scrap collector (99 per cent) is a Matang, Mahar or Neo-Buddhist, the three major castes among the Scheduled Castes of Maharashtra. The distribution of Matangs and Mahars (including Neo-Buddhists, the erstwhile Mahars) is almost equal among wastepickers. However, about 85 per cent of the itinerant buyers are Matangs.

4.1.5 Migration History
Almost all scrap collectors (98 per cent) in Pune belong to the state of Maharashtra. **Every second scrap collector is a first generation migrant.** The others are second or third generation migrants. One in every three belongs to Solapur district and the Marathwada region (Latur, Osmanabad or Beed districts) respectively. The Marathwada region used to be part of the Nizam’s territory in pre-independence India. Solapur and the above mentioned districts of Marathwada form a contiguous belt. There is a great deal of regional and cultural homogeneity among scrap collectors.

Every other scrap collector states drought to be the reason for migration. Poverty is the other significant reason. **The drought of 1972 marks a watershed in the migration of scrap collectors.** Forty per cent of the first generation migrants left their villages at the
time. There were two severe droughts in the Marathwada region of Maharashtra in 1966 and 1972. Majority of those who migrated more than 40 years ago are from the districts of Ahmednagar and Solapur. There has been almost no new migration in the last decade

The push factor in rural-urban migration accounts for the migration of scrap collectors. Only one in ten scrap collectors owns land in her native village and more than half do not even have a house in the village. Even those that do, have only ‘katcha’ houses. Most of those who own land are from Solapur and Ahmednagar districts. The primary full time occupation of three out of every four of the first generation migrants was agricultural wage labour (54 per cent) or bonded labour (15 per cent). Most of them migrated because the widespread drought made it impossible for them to get wage labour. The main reason for selection of Pune as the destination as opposed to any other city was the presence of relatives in the city. Upon their arrival in the city majority of the migrants either stayed with relatives in the city or squatted in public places irrespective of the period of migration.

Some authors like Todaro have argued that casual, low paid occupations in the ‘informal’ sector are the first port of call for new migrants from rural to urban areas. Thereafter they secure more stable, secure and better paying jobs in the formal sector. The data refute this premise. Every other scrap collector has lived in the city for between two and three decades and 1 out of every 5 has been in the city for over three decades up to six decades. They continue to work in the lowest rung of the ‘informal’ sector. There is no change even across generations.

Scrap collectors do not out-migrate from the city for economic purposes. Despite the fact that they have no land, scrap collectors have close contact with their native villages. Less than a third never visit the native village.

4.1.6 Spatial Distribution and Locational Concentration of Scrap Collectors in Pune
There are 425 slum areas within the limits of the Pune Municipal Corporation. While there are scrap collectors in many slums, the data show relatively higher populations (38 per cent) of scrap collectors in three blocks of contiguous slums, namely Shivajinagar, Yerawada and Dandekar Pool. The occupational concentration is not incidental but is linked to the geographical area of residence of Dalit communities in the old Pune habitation and the historical growth of the city.

4.2.0 Characteristics of the Household
Every third household is woman headed. It is popularly believed that poor income households have large families and that causes and perpetuates their poverty. The data clearly challenge this premise. One in every two households has up to 5 members. The mean family size is 5.71 and is marginally higher than the average family size of 5 for Pune (Census of India 1991). In fact, more wastepickers’ households had fewer than five members as compared to those of itinerant buyers.

Kinship and family networks are very strong. Marriage is endogamous within the caste group and generally arranged by the family or relatives. Child marriage is norm among scrap collectors. Girls are generally married soon after the onset of menarche and the boys when they are a few years older. The data show that one in four households has a minor married child, usually a girl. The sample of 252 scrap collectors’ households has
52 minor married children, 91 per cent of who are girls. Over three fourth of the households are those of wastepickers belonging primarily to the Matang caste.

4.2.1 Cultural Oppression

Forty per cent of the first generation migrants had to perform oppressive culturally prescribed caste based services in their villages prior to their migration. Majority of those who had to perform such services were Mahars as compared to the Matangs and Neo-Buddhists (erstwhile Mahars). The difference in the caste oppression experienced by the Mahars can perhaps explain why they converted to Buddhism. Neo-Buddhists are the Mahars who embraced Buddhism after the revered Dalit leader, Dr Babasaheb Ambedkar propagated that conversion to Buddhism was the only avenue open to liberate Dalits from oppressive clutches of caste ridden Hindu society.

Caste compositions and the dynamics of caste vary from region to region. The data show that caste oppression of Mahars, Matangs and Neo-Buddhists was much higher in the districts of Solapur and Osmanabad as compared to the other districts.

4.2.2 Contemporary Caste Based Cultural Practices

Today one in every three, scrap collectors’ households has at least one member who is engaged in caste determined cultural roles. Three out of four Matang households follow the practice in comparison with only one out of four Mahar or Neo-Buddhist households. Surprisingly the number of Neo-Buddhist households is quite high.

The prevalence of such practices among scrap collectors is not significantly influenced by whether the first generation migrant did or did not have to perform caste related services prior to migration. Rather, it is mediated by caste, gender and geographical region of origin. One out of five scrap collectors themselves are involved in caste determined cultural practices, of which three fourths are Matangs. A majority of those involved are female. The most common cultural role is that called ‘jogwa magne’ and is performed by 9 out of every 10 women involved. The other cultural roles are ‘waghya’- ‘murali’, ‘pothraj’ and ‘aradhi’. Those who are from the district of Solapur, Latur, Osmanabad and Beed are more likely to be involved in caste determined roles.

4.3.0 Living conditions of Scrap Collectors

4.3.1 Housing

Almost half the scrap collectors do have photo-passes for the houses they live in, since they have been resident in the city for many years. In fact almost one in ten has acquired two houses, while another one in ten lives in rented accommodation. The houses are usually single room tenements of less than a 100 square feet and house on an average 6 to 10 members. They are usually semi-pucca structures made of corrugated tin that are retain heat in summer and leak in the monsoons and lack any ventilation. Ten per cent of scrap collectors live in undeclared slums where the municipal corporation provides absolutely no civic amenities.

The bathing area is usually a 2 feet square enclosure of sackcloth that is as likely to be inside the house as outside. A few scrap collectors do not have even such a defined bathing area.
4.3.2 Water

More than half the scrap collectors have their own water connection. Only 1 percent of those who do not have their own water connection need to walk more than 10 minutes to reach the water source. These are the same women who need to buy water by the tanker. One in four scrap collectors, faces a water shortage, particularly during the summer months.

4.3.3 Electricity

Most of the houses are electrified; half of them have their own private connection, the other half rent electricity for a single light bulb from their neighbours for Rs 50-100 per month.

Toilets

Like all slum dwellers, most scrap collectors use municipal public toilets. Those from undeclared new slum pockets are forced to defecate in the early morning or late night hours in open areas near the slum. Most of the slums that house scrap collectors are reasonably well lit. A few are also paved and have open constructed drainage channels.

4.4.0 Economic Background of Scrap Collectors

4.4.1 Per Capita Monthly Income

The mean monthly per capita income of scrap collector’s families is Rs. 646 that is fifty per cent higher than the present urban poverty line of Rs.419.19. The distribution of income within the sector is unequal. Out of total household income in the sector the bottom ten percent of the households account for barely three percent of the household income and the top ten percent of households account for twenty per cent. The mean monthly per capita income ranges between Rs.126 to Rs. 2233 and one in four scrap collector households, fall below the poverty line. The incidence of poverty is the highest (37 percent) among the male itinerant buyers because although they earn more the average household size is also higher.

Hardly any scrap collector manages to send any remittances to their folk in the villages due to the high cost of living and low incomes they earn. Only 5 percent send around Rs 200/- per month.

4.4.2 Asset Ownership

Many scrap collectors have electric fans and Black and White televisions in their houses. One fourth have tape recorders and another fourth bicycles. Less than one in hundred scrap collectors own mopeds, colour television sets or gas stoves. Only 5 percent of scrap collectors own goats or chickens, which almost never prove to be economic assets because they are rarely reared with a very serious intention to profit. The total cumulative value of such livestock per household never exceeds Rs 100/-.

Only 38 per cent of scrap collectors hold financial assets. Of these 65 per cent hold accounts in the scrap collectors credit cooperative where they save a regular Rs 50/- per month. Only one in ten is likely to save in a Bank.

Many save in a ‘Bhishi’, a locally created and managed kitty fund, where an average amount of Rs 250/- per month is put in equally by all members, each one drawing turns
to utilise the total amount. The ‘Bhishi’ and the scrap collector’s credit co-operative are the most popular saving facilities essentially because they offer low or interest free credit and easy access to savings.

4.4.3 Liabilities
Every other scrap collector prefers not to be ‘indebted’ to anyone and relies on small advances from scrap dealers or neighbours to tide over immediate needs and family crises.

However, the practice of making credit purchases particularly of consumer products like electric fans, vessels, sewing machines are quite prevalent. Savvy entrepreneurs, who make a hefty margin on the deals, sell these wares at the doorstep. Most products work out to 1.5 times the market cost and though the consumers are aware of this, the immediate availability of the item is a big temptation.

SCRAP TRADERS

5.0 Socio-economic Profile of Scrap Traders

5.1 Age and Gender
There is clear gender based segmentation in the scrap trade. Not a single wholesaler is a woman and four out of every five retailers and stockists are men. There are traders who manage the store who are as young as 19 years of age and as old as 70. Since stocking is always preceded by a few years of retail trade it stands to reason that retail traders are younger.

5.2 Education
Almost a third of the traders are illiterate. Since all stockists are also retailers, there are twice as many illiterate retailers in comparison with wholesalers. Almost half of those with some education have attended secondary school. Apart from this there is no significant difference in the educational levels of categories of traders.

5.3 Place of Origin
Three fourths of the scrap traders are natives of Maharashtra. Those from other states belong to Karnataka, Uttar Pradesh, Gujarat, Rajasthan and Andhra Pradesh. Retail traders are more likely to be natives of Maharashtra. Three out of five wholesalers belong to other states, mainly Karnataka and Gujarat. This is not surprising because there are no indigenous trading castes in Maharashtra. There is much similarity in the districts of origin of scrap collectors and retail traders. The wholesale traders are mostly from Pune or from outside the state. Four out of every five traders have been resident in the city for more than 20 years.

5.4 Characteristics of the Household
At the lower end of the trade are the retail traders, many of whom share the background of the scrap collectors. The socio-economic disparity between the scrap collectors and traders progressively increases with the higher levels of the trade. In fact, one out of every five retail traders’ immediate relatives such as spouse, sister or parent has engaged or continues to engage in scrap collection usually wastepicking. This is not the case with stockists or wholesale traders. On the other hand, about half the stockists and
wholesalers have family members who are scrap traders or reprocessors as compared with only one third of the retail traders.

Two thirds of the traders are married. About half of the scrap traders belong to households with between 6 and 10 members. Cutting across categories of scrap traders, household size is less than 5 members or 6 to 10 members. One out of four wholesalers and stockists live in joint families with households of more than 10 members.

5.5 Caste and Religion
There is a strong representation of the Muslim community in the scrap trade. Three out of five traders are Muslims. Hindus and Muslims are evenly distributed in stocking. However, over half the retailers and three fourths of the wholesalers belong to the Muslim community.

Half the traders belong to the scheduled castes, tribes or other backward castes. The presence of Dalit traders however is significantly higher in the retail trade while the representation of the upper castes is higher in stocking and the wholesale trade. Not a single wholesaler shares the caste group of the scrap collectors. There are no Matang, Mahar or Neo-Buddhist wholesalers.

The higher levels of the trade in glass, bhangar-patra, bottles, white record, kraft and plastic are dominated by traders from the merchant sub-groups/castes among the Muslim (Memon and Khoja) and the Hindu (Bhandari, Oswal, Sharma, Rathi) communities. A significant presence of the Muslim Tamboli community, originally 'pan' (betel leaf) merchants from rural Maharashtra is observed in the trade of kraft and white record.

The other non-agricultural trading groups such as Maniyar (bangle sellers), Mullani, Bagwan (fruit vendors), Pathan (warriors and moneylenders) and Khan, Sheikh, Patel (village bureaucrats) from the Muslim community are involved in the wholesale trade of RS and mixed mein. They also have a strong presence in the retail trade. The two most significant sub-groups among the Muslims in the retail trade are Sheikh (40 per cent) and Khan (17 per cent).

5.6 Living Conditions of Scrap Traders
Half of the traders live in slums. More retail traders live in slums as compared to stockists and wholesalers. In fact, over one third of the retail traders live in homes that are contiguous with the scrap store. Wholesalers and stockists are far more likely to live in flats, apartments or bungalows than retailers.

Retail traders are more likely to come from families where the first generation migrants were agricultural labourers while a third of the stockists and wholesalers are from families where the first generation migrants were cultivators and petty businessmen respectively.
WORK: SCRAP COLLECTION

6.1.0 Entry into Scrap Collection and the Dynamics of Labour in the Occupation

Scrap collection ranks lowest in the hierarchy of occupations in the urban informal sector. Scrap collectors do not choose to enter this occupation because of ease of entry but are pushed into it by other factors. The fact that caste, gender and region of origin mediate entry into the occupation has already been mentioned. The authors argue that the evidence points the fact that there is labour market segmentation based on caste and gender even within the informal sector. And that there is tremendous heterogeneity in the informal sector.

Bremen has written that surprisingly little is known about the relationship between the informal sector and social stratification. It is often assumed that the formal sector is drawn from higher social strata with higher education. How this originates is usually left unanswered. The authors believe that it is important to examine the social dynamics of occupational entry. Some propositions are put forth for consideration.

A historical review of the commodities collected by scrap collectors and for which there was a market suggests that bone, rags and paper were among the first commodities to be collected. As a matter of fact one in every five of present day scrap collectors have collected bones at some time in their working lives and a few (5 per cent) continue to do so. The practice of collecting bones has steadily declined over the years. The association of wastepicking with bones and paper that had to be collected from the streets and garbage led to the involvement of Mahar (including Neo-Buddhist) and Matang women. Women from the migrant families of these castes ended up in the occupation of wastepicking in the city.

The fact that bones had to be collected and the filthy work environment precluded the involvement of even the very poor among the other castes. It also accounts for the negligible presence of Dalit men in wastepicking 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 occupational status. Scrap collection came to have a low status primarily because Dalits were involved and because of the filthy work environment. This supports the argument that 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 wastepicking would itself offer some measure of security and assurance of work to wastepickers. 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.

One in every two of the scrap collectors starts their work life in this same sector. They belong to families or communities where the bulk of the ‘unemployed’ population resort to scrap collection as a means of livelihood and invariably learn the ‘modus operandi’ by watching relatives and neighbours. More than a third have just no other choice of employment and this ‘self-employment’ is forever accessible. Twenty per cent enter because their families or the communities they live in offer the role models and ‘training’
they need. Only 10 per cent of the scrap collectors say that they had been ‘forced’ into
the occupation as children and therefore continue. Most have entered at their own
‘initiative’.

Around 35 per cent of scrap collectors enter this occupation after some wage labour in
the informal sector, that is not garbage related. Invariably these are the same persons
who have shifted to scrap collection because of the irregularity of availability of wage
labour, or because the rigorous timings of work are less suitable to them than the
‘flexibility’ that scrap collection offers.

Four out of every five, scrap collectors complain about the overall increase in the
number of scrap collectors due to which their access to scrap and proportionately their
earnings have reduced.

More numbers of male itinerant buyers are entering the trade in comparison with the
other categories. The least proportion of fresh entry is among the dabbabatiwalis. The
male itinerant buyers are in a relatively better position to capture a larger share of the pie.
They buy kraft, bhangar-patra and fuga-kadak that would otherwise reach the garbage
bin. They carry weighing scales that inspire confidence in their clients as opposed to the
dabbabatiwalis who do not have weighing scales. Their carrying capacity is higher
because of their pushcarts. Eighty four per cent of the dabbabatiwalis complain that the
increase in the number of itinerant buyers has affected their business. This clearly
establishes that there is increasing competition within categories as well as between the
different categories of scrap collectors.

The data show that fresh entry into scrap collection still continues albeit of the same
social category. It leads to 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.

6.2 Nature and Conditions of work

6.2.1 Working Days
One in every four of the scrap collectors works all seven days of the week. Around 50
per cent take a day off and the rest are not regular for health or other reasons. This pattern
is not different for categories of scrap collectors Itinerant buyers are less likely to take a
weekly off because most of the residents that they buy the scrap from are available on
holidays. So holidays actually mean more business for them

6.2.2 Timings and Hours of work
Wastepickers maintain the worst and the longest working hours with almost 10 per
cent leaving their homes before 6 in the morning and a third definitely before 8 am.
Some of those who leave so early are over 50 years of age. Many younger women
manage to leave for work only between 8 and 10 am in the morning because they
shoulder the additional responsibility of cooking and cleaning for their families. Despite
this, it is usually the women who leave earlier than the men. Likewise more women
return home only after 7 p.m. Although some claim they enter the occupation because of
time ‘flexibility’, half actually put in between 9 and 12 hours of work for 6 days a week. Hardly anyone works part-time and 50 per cent work an 8-hour day.

One in every five of the scrap collectors is forced to augment their earnings from scrap collection by doing some other work as well. Three fourths of them are female wastepickers. Almost half the wastepickers engaged in allied work are in the younger age group between the ages of 19 and 35 years. Of the wastepickers who have taken up allied work, two in three have done so only in the last five years.

The allied work continues to be garbage or scrap related for a third of the wastepickers. Another one third of those engaged in allied work are domestic workers. Domestic work though also in the ‘informal’ sector is a step up from wastepicking. This however, is not to be taken as any indication of ‘upward’ mobility because only 8 per cent of all female wastepickers also engage in domestic work. The other categories of scrap collectors engage in allied work that is casual and temporary.

Incomes in allied work are usually only as much as those from scrap collection. However, these are not regular and never manage to be a full-time, permanent substitute for scrap collection.

Two in every three, scrap collectors has to combine long, arduous working hours with domestic responsibilities. She returns after 9 hours of work to another couple of hours of cooking, cleaning and related household chores that she undertakes without the assistance of any labour saving equipment. Alternatively she wakes up a couple of hours before dawn to finish the housework before leaving for scrap collection.

Ten kms is the distance they need to cover daily, over and above the travelling for scrap collection. Walking at the work site for collecting scrap itself takes up 5 hours for more than three fourths of the scrap collectors.

Very few scrap collectors actually spend the whole night collecting scrap or sleep at the work sites in order that they can start really early in the morning. Nonetheless, many scrap collectors are branded as ‘thieves’ for their ‘overnight’ working hours.

6.2.3 Sites of scrap collection
Although 20 per cent of the scrap collectors do frequent industrial or commercial areas, the majority survive on ‘domestic scrap’ generated by households. Segregation of garbage and direct access to it, for wastepickers, would mean not only a significant improvement in the working conditions but also a reduction in the overall quantum of garbage reaching the municipal garbage bins.

6.2.4 Source of scrap and primary method of accessing scrap
Four in every five wastepickers collect scrap from the municipal garbage bins on the street. Itinerant Buyers usually frequent households and commercial establishments. Although industries, hotels and institutions generate large quantities of scrap it is rarely accessible to scrap collectors. Most industries sell the scrap directly to wholesale traders and reprocessors or burn it. Those who barter fruits and vegetables in exchange for scrap constitute 7 per cent of the total itinerant buyers, mostly dabbabatliwalis. This method is popular with child and rural populations because seasonal fruits and vegetables are not
easily available in rural areas. The itinerant buyers benefit because the villagers do not know the price of the exchange commodity.

6.2.5 Working capital

*Wastepickers are involved in the ‘free’ collection of scrap.* They need capital occasionally if they come across someone who wishes to sell a large quantity and therefore will not give it free of cost.

*Itinerant buyers generally operate with daily working capital of at least Rs.200 while the women in this category usually use up to Rs.100. Half the itinerant buyers use borrowed capital. More than two thirds of the itinerant buyers who use borrowed working capital, take it from the retail scrap traders at no interest, but with the credit market being tied to the product market. Many can actually calculate that the daily interest rate on working capital borrowed from the retail trader actually works out to 10 per cent per day! All the other lenders charge interest rates of between 10 and 200 per cent a month! The credit co-operative of scrap collectors has extended loans to 4 itinerant buyers for working capital at a monthly interest rate of 2 per cent*

6.2.6 Tools used for Scrap Collection

Most scrap collectors of all types own their limited ‘tools’ for scrap collection. Whereas *seventy five per cent of wastepickers use just a sack or two*, one in five use a make-do rake as well. *Most female itinerant buyers (94 per cent) operate with baskets (and/or sacks) and male itinerant buyers have a pushcart, weighing scales (and/or a sack).* Some of the latter category do not own pushcarts and rent them from the retail scrap trader for up to Rs.15 per day. Further, they are forced to sell their scrap to the same dealers from whom they rent the pushcart. Around 10 per cent of the male itinerant buyers use a bicycle with sacks tied around it instead. Although this increases their mobility it restricts their carrying capacity for scrap. They usually therefore deal in only limited commodities like milk bags and kraft. Likewise, 5 per cent of wastepickers collect only metal scrap off the roads using strong magnets, primarily in industrial areas where iron filings and dust are found on the road or mixed in the garbage bins outside the companies. They are called ‘kachwaalis’.*The data show that the total value of the tools owned by the wastepickers and female itinerant buyers is never more than Rs.50, whereas male itinerant buyers usually value their own tools at between Rs.750 and Rs1500.*

6.2.7 Sorting

*Most itinerant buyers (men and women) sort their scrap outside the trade establishment. Sorting of scrap is a necessary prerequisite to sale and adds value to their collection.* Such sorting involves twice the labour as they have to retie the sacks to transport it to the trader. Wastepickers have to be more discrete in choosing their sorting sites and many manage to negotiate for some space near the collection site itself. *Only half the wastepickers have the facility of sorting near the trade establishment itself, thus reducing the time spent.* The data show that the sorting site is chosen on the basis of convenience and availability of open space. Further analysis of the data establishes that only some traders in both Pune and Pimpri Chinchwad allow wastepickers to sort the scrap outside the establishment. Those that do permit it are located in Hadapsar, Nagar Road and Aundh where factors like space, traffic and complaints from middle class...
citizens are not very constraining. The likelihood of scrap collectors sorting scrap near the trade establishment is higher in these areas.

6.2.8 Transport of scrap to the trade establishment

*One in every two wastepickers walks to the trade establishment carrying the scrap on her head.* Those who carry heavier loads are usually the ones who hire transport. A few carry loads of over 75 kg on their heads and make repeated trips to the trade establishment to save transport costs.

Only a few traders located at Dandekar Pul, Kothrud and Shivajinagar observe the long established precedent of reimbursing 25-50 per cent of the transport costs to wastepickers. Wastepickers rather than bhangarwallas incur this expenditure because the latter transport the scrap on their pushcarts or bicycles. A lot of dabbabatiwalis are forced to bear transport costs because they sell their scrap in the bazaar (market) area more than 10 km away from their place of residence.

6.2.9 Amenities at the Work-Place

Although most scrap collectors do manage to get drinking water at the work sites, it usually accompanies tea or snacks that they have to buy. Toilets, even pay and use are rarely accessible to scrap collectors. This makes it particularly difficult for women. Women have shared various anecdotes about urinating inside the municipal garbage containers the sides of which are so high that people cannot look in!

One in a hundred scrap collectors says she has childcare facilities at the workplace (!), meaning thereby that her older daughter accompanies her to work to take care of the infant sibling.

Scrap collectors do not usually carry packed lunch to work because it is impossible to eat in the environs of an overflowing garbage bin. Men are even less likely to do so. One in ten works close to home and returns for lunch.

6.3 Contribution of Scrap Collectors to the Management of Urban Solid Waste

The mean weight of scrap collected daily by each wastepicker is 27 kg. The mean weight of scrap collected by each bhangarwalla and dabbabatiwali is 51 kg and 20 kg respectively. Wastepickers collect scrap exclusively from municipal garbage bins and there are 3014 registered wastepickers in the city. *The total quantum collected by wastepickers daily amounts to 81,378 kg or approximately 81 MT.* The local municipalities spend about Rs.300 per MT for garbage disposal. *Logically this means that the work done by the wastepickers actually saves the Pune and Pimpri Chinchwad Municipal Corporations the tidy sum of Rs.24,413 per day.* This amounts to a colossal Rs.8,910,891 per annum. It follows that *in effect each wastepicker contributes Rs.246 worth of unpaid labour to the local municipalities every month!*

*The total scrap collected by all categories of scrap collectors every day is 144.5 MT. The total saving to the municipalities on account of the work of all scrap collectors is Rs.15822750/- per annum.*

*Non-bio-degradable plastic constitutes 27 per cent of the total scrap collected. Considering this the positive environment related externalities generated by the work...*
of scrap collectors cannot be neglected. This substantiates the argument that scrap collection is socially useful economically productive work and needs to be protected.

6.3.1 Scrap commodities that are no longer collected
One in every ten wastepickers has stopped collecting items like khaki, chindhi and sacks because there are very few traders that buy them. Often these items are seen lying around the garbage bins uncollected. Some wastepickers have also stopped collecting items like glass and RS because they are low value items that are bulky and heavy. Also glass carries a high risk of injury.

6.4 Income from Scrap Collection
The mean daily income of wastepickers is Rs.60 per day. That of bhangarwallas and dababatiwalis is Rs.75 and Rs.49 respectively Collectively, this amounts to Rs.2, 84,728 per day.

The mean monthly earnings of the scrap collectors are around Rs. 1620 per month. Among these, the bhangarwallas earn the highest (Rs. 1950), followed by the scrap collectors (Rs. 1560). The lowest earnings in the group are of the dababatiwalis (Rs. 1300). A third of the wastepickers earn between Rs.1000 and 1500 per month. Around 25 per cent earn less than Rs.1000. A third of the male itinerant buyers earn up to Rs.1500 per month. However, the monthly income of the rest is more than Rs.1500. Dababatiwalis have a poorer deal with more than half of them earning less than Rs.1000 per month. Very few in this category earn over Rs.2000. The dispersion of earnings is the highest within dababatiwalis and the lowest within bhangarwallas.

6.4.1 Variation in the Earnings of Scrap Collectors
The main source of the difference in the earnings of the wastepickers and the bhangarwallas is the composition of the commodities sold. The low value commodities like road scrap, mixed mein and glass predominate the wastepickers’ sale basket. The bhangarwallas mainly sell bhangar, patra, kraft and fuga. All these are high value items. The traders offer higher prices to the bhangarwallas for reasons like better quality of the commodity and relatively larger quantum sold. The dababatiwalis earn less than the bhangarwallas due to the lower quantum of sale.

Seasonality is observed in the prices of road scrap and mixed mein that is likely to cause fluctuations in the earnings of the wastepickers.

6.4.2 Work Benefits
The practice of retail scrap traders giving a Diwali (festival) bonus to scrap collectors is quite prevalent. It is usually given in kind uniformly to all clients and rarely exceeds the value of Rs 250/-. This amounts to little more than 1 per cent of the total per capita mean annual income of scrap collectors. Although every other scrap collector receives such a bonus, many wastepickers from certain geographical areas complain that scrap dealers have ganged up and not given bonus for three consecutive years. This is particularly true of Dandekar Pul, Kothrud, Kashiwadi and Nagar Road.

Although every other scrap collector relies on scrap dealers for small need based advances, only one in five can expect larger loans or advances, assistance in death or support in work related conflicts.
Nonetheless one in two scrap collectors describes her relationship with the scrap dealer as business like, and almost one in three are essentially sympathetic to the retail scrap trader. Less than one in ten has a hostile relationship. These patterns seem to cut across slums and though scrap collectors vent their spleen against retail scrap traders in general, they readily offer disclaimers about their own scrap dealer.

6.5 Relationship among Scrap Collectors
Scrap collectors share a genuinely less hostile relationship with other scrap collectors despite the fact that there is acute competition for scrap. Although fights over access to garbage are not at all uncommon, they are speedily resolved and rarely breed any serious, long-term animosity. ‘Everyone has stomachs to feed’ was the most common response to queries about their ‘treatment’ of new entrants. More squabbling over garbage occurs in predominantly commercial areas and institutional areas where larger quantities and better quality scrap are available. One in ten confesses to abusive behaviour. They are largely sympathetic and sensitive to the reality of increasing poverty and lack of opportunities for gainful employment. This by no means implies that this is illustrative or indicative of the mechanism of ‘shared poverty’ that is propagated by those who subscribe to the belief of undiminished absorptive capacity in the lower regions of urban economics.

6.6 Harassment at Work
Only one in ten scrap collectors has faced direct harassment from police or municipal workers but most claim that this is because they are ultra careful not to incur the displeasure of either. Many wastepickers report that they even perform the duties of municipal staff by sweeping the area around bins and throwing garbage inside. They need to do this to maintain a working relationship with them and ensure unthreatened access to garbage.

An equal number complain of harassment by security personnel or other citizens. This usually takes the form of unwarranted suspicion, disrespect, denial of access to scrap and ‘talking down’. Since they do not have any major complaints against anyone they claim they do not really ‘need’ any help. Of those who have needed any assistance, most approach the trade union and then the scrap dealer with whom they interact daily. A few solicit support from other scrap collectors or neighbours.

6.7 Legislative Protection
There is no tenable employer-employee relationship between the scrap collector and the retail trader. Consequently, scrap collectors are not covered by any labour legislation that could entitle them to paid leave, maternity leave, minimum returns for labour, contributory provident fund, gratuity, insurance and medical benefits.

6.8 Organisational Status of Scrap Collectors
It is against the above backdrop that the Kagad Kach Patra Kashtakari Panchayat (association of scrap collectors) was registered in 1993. The SNDT Women’s University has supported the process of organisation and continues to do so through its Project for the Empowerment of Wastepickers. The interventions of the association (listed below) have been rooted in the felt needs of scrap collectors as vocalised by them. The association has adopted the twin strategies of struggle and the setting up of institutional
alternatives. There has been regular documentation of all the processes involved and baseline data too has been collected in the course of the organisation’s history. Formal research, usually action based, has been undertaken whenever the necessity arose.

_The data show that every scrap collector in Pune is aware about the existence of the trade union, though a third are not its official members._ Those who are members tend to participate more and more in the different programmes of the union, seeking more from it and simultaneously giving more to it. Active members are more likely to avert to the positive impact of unionisation on their work lives. A good number of those who are not members accept that they would have benefited had they participated more actively.

6.8.1 Establishing a Collective Identity
The association was registered as a trade union in order to establish the status of scrap collectors as ‘workers’. **4594 adult scrap collectors are registered with the association.**

6.8.2 Recognition by the Municipalities
The Pune and Pimpri Chinchwad Municipal Corporations have officially endorsed the photo-identity cards issued to scrap collectors (in recognition of their contribution) by the association. The endorsement authorises adult scrap collectors to collect recyclable scrap. Children under 18 years of age are not entitled to Identity Cards.

Following the Supreme Court directives on the disposal of hospital waste the PMC issued a notification regarding the segregation of hospital waste and its collection by authorised wastepickers. The responsibility for mutilation and disinfection of scrap (to prevent reuse and contamination) rests with the hospitals/doctors (generators of waste).

6.8.3 Campaign for Doorstep Collection of Segregated Garbage by Wastepickers (GRASP)
This is essentially a doorstep garbage collection service initiated many years ago. Each wastepicker is allotted 100 households that directly pay her a monthly service charge. The scheme now covers 30,000 households and commercial establishments, benefiting about 300 wastepickers. The Pune and Pimpri Chinchwad Municipalities have lent their support to the endeavour.

Today around 400 wastepickers have access to segregated garbage from residences, hospitals, commercial and academic institutions. In an intensive campaign to promote the same, large sacks with printed messages including the logo of a wastepicker, are being given/sold to such institutions. This encourages them to segregate garbage and simultaneously promotes the image of the wastepicker in the public eye.

6.8.4 Legislative Protection for Livelihoods
The association has been lobbying the government for extension of the Hamal Mathadi and other Unprotected Manual Workers (Regulation of Employment and Welfare) Act, 1969, to scrap collectors. The main difficulty is that scrap collectors do not have a legally tenable employer-worker relationship with the retail scrap traders.
6.8.5 Social Security and Credit Schemes Initiated by the Association

Insurance
The Scrap Collectors Association along with the Life Insurance Corporation of India operates a Group Insurance Scheme for its members. On payment of a nominal annual premium, members are insured against death and disability.

In the first year of operation 400 scrap collectors were insured. This year the number has increased to 650. More members are recognising the risks to life and health in this occupation and choosing to safeguard themselves.

Credit
The Kagad Kach Patra Nagri Sahakari Pat Sanstha, a savings linked credit co-operative has been functioning since 1997. Members are entitled to credit of up to three times the amount saved at an interest rate of 18 percent per annum. A surcharge of 6 percent per annum is levied towards a Social Security Fund.

Today the credit cooperative has a membership of 1300. More than 600 loans ranging from Rs 1000 to Rs 10,000 each have been disbursed. Repayment rates are high and the number of defaulters is less than 5%. Even here, the reasons for non-payment or delayed payment relate to absolute breakdown in the family system.

As membership to the credit cooperative increases a lot of women have started campaigning within their slums against the exploitative rates of interest levied by local moneylenders. A drive is being planned to recover valuables given in security for such loans.

This year the welfare fund of the cooperative (Rs 40,000), has been earmarked for educational incentives and to ensure insurance cover to all the members.

6.8.6 Access to Government Schemes

The Association assists members to avail of Government Schemes like the Sanjay Gandhi Niradhar Yojana and Kautumbik Suraksha Yojana.

A number of public programmes have been organised by the Association to educate its members about such schemes. Lok Adalats have also been used as an effective medium to expose government officials who have been corrupt or inefficient in the implementation of such schemes.

Simultaneously pressure is exerted on various Government bodies to recognise scrap collectors as a particularly vulnerable group and to include them as priority groups in certain schemes.

6.8.7 Interventions in the Scrap Trade

The association operates a co-operative scrap store in 1998 in space provided gratis by the Pimpri Chinchwad Municipal Corporation. It functions on a no-profit no-loss basis. The members selling at the store receive an annual bonus that has progressively increased from 5 to 10 per cent. In the second year of its operation the store has registered an overall profit of more than 100%. In the course of interaction with traders and reprocessors of scrap at the higher levels, for the purposes of the study, the rates for some
scrap items have gone up. Many reprocessors have expressed interest in collaborating directly with the Association as a “Registered Dealer.” The store also functions as a model to push for legislative protection for scrap collectors along the lines of the Mathadi Act.

6.8.8 Child Labour and Education
As early as 1995 the union took the position that the presence of child labour in the occupation is detrimental to the interests of the adult workers. And that compulsory education is the primary means to ensure that children do not start work.

The association has been actively involved in lobbying for better standards in municipal schools and is part of the Campaign against Child Labour. The association conducts annual enrolment drives at the start of the academic year and provides exercise books to children of members by raising donations.

More importantly, adult scrap collectors conduct drives with the help of the municipality and the police for confiscating the scrap collected by children. The provision of Identity cards to scrap collectors by the PMC and the PCMC has also been useful to convince scrap collectors about the need for eliminating child labour from this sector.

Discussions have been initiated with the Labour Department to undertake a drive against scrap traders who buy scrap from children. A concerted drive with the involvement of the Police department, PMC, Labour department and Education department is scheduled to increase pressures against child wastepicking.

Attempts at securing scrap collectors access to segregated scrap from institutions ensure that children do not continue to collect it through the bins.

The association has also been taking a position that certain facilities and supports to members will be withdrawn if their children continue to collect scrap.

6.8.9 Creating Platforms for Cultural Renewal
Child marriage among scrap collectors is very common. The association has not shied away from addressing this contentious cultural issue. The interventions include education of girl children, police action to prevent child marriages and the organisation of ‘community weddings’ or ‘mass weddings’. Since 1998 the association has been organising community weddings wherein several marriages of couples, who have reached the age of consent, are solemnised at a common venue, the expenses being shared equally among the families. The association subsidises the costs by raising donations from friends and well wishers.

7.0 Future Aspirations of Scrap Collectors
The union’s positive impact notwithstanding, most scrap collectors see no alternative future for themselves outside this occupation “What can we say. We have no option. We are satisfied in a manner of speaking. Will you give us other jobs?” are the most frequent responses to questions about their ‘job satisfaction’. Realistically speaking they recognise the total absence of options. “We will continue to collect scrap until we can walk no more” is the most common response to the question on how long they will
continue to do this work.

**WORK: THE SCRAP TRADE**

Trade in scrap is relatively invisible and unrecognised. 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’. Then retail trade involves daily interaction with people who are looked upon as ‘low-caste, uncouth, foul mouthed scum of society’.

**8.1 The Nature of the Scrap Trade Market**

*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. Sometimes they also supply working capital and the tools of the trade to itinerant buyers. The baseline data suggest that there is locational specialisation of the scrap trade establishments and scrap collectors in Pune. This is an outcome of the interrelatedness between the process of proliferation of trade establishments and entry into scrap collection, in various areas of the city.

Retail traders can be broadly classified according to the commodities traded.

1. **General retailers:** those who trade in all scrap commodities including ‘bundle items’ (commodities such as pushta, RS, mixed mein, WR) which are manually packed prior to sale

2. **Non-bundle retailers:** those who trade only in ‘non-bundle items’ (commodities such as fuga, kadak, bhangar, patra, glass and bottles)

*Stocking is the first level of wholesale trade.* Stockists are always also retail traders. Except for glass, the practice of stocking exists in the trade of all commodities. The presence of stockists is closely linked to the proliferation of small scrap shops in a particular geographical area. In order to ensure adequate supplies and retain their hold over the market, the older, established retail traders often start by distributing advances and/or lifting a few commodities from smaller retailers who face space and capital constraints. Stockists earn a trading margin on bulk purchases, over and above that from the retail activity. They specialise in specific commodities in order to reduce the competition among themselves. They are in a better position than retail traders to negotiate prices with the bigger wholesalers due to the larger quantity they trade. In turn the bigger wholesalers also give advances to stockists to ensure adequate supplies. The credit market is tied to the product market for those stockists who take advances from wholesalers. Large stockists of mixed mein and RS also supply the commodities directly to the reprocessors because the latter do not insist upon Registered Dealers. The classes of traders are therefore intersecting, except in the case of exclusive wholesalers.

*The wholesale trade (stocking and/or exclusive wholesale) is generally undertaken either for a single item or for a group of items that have a common market.* The single items are glass, RS and mixed mein. Whereas, bhangar-patra, different varieties of
bottles, corrugated board/kraft/pushta–white office record, fuga-kadak-cable-chappal and LD-milk bags form groups.

The large wholesalers for mixed mein and RS form a distinct category, in that they have no warehousing facilities or establishments. They deploy their capital for advances, purchase, loading and transport of scrap to the reprocessors for a trading margin.

*Registered Dealers exist in the trade of kraft, white record, glass, bottles, bhangar and patra.* They often, also procure better quality industrial and commercial scrap from bulk generators through the tendering process. This is mixed with the lower quality scrap purchased from retail traders. They have vast godowns, hired labour, equipment and machinery to process the scrap prior to supply of the commodities to reprocessors. They also encourage unregistered stockists and wholesalers to supply the reprocessors on their behalf for a trading margin, at no risk to themselves.

*There is variation among those in the wholesale trade in terms of the capacity to invest financial capital, own or borrowed that in turn determines the quantum of scrap they trade.*

As per the baseline data at present there are 368 trade establishments in Pune. Out of this 214 are retail traders, 68 are retailer cum stockists, 80 are wholesalers and 6 are traders combining reprocessing.

### 8.2 Features of the Scrap Trade Market

#### 8.2.1 Entry into the Scrap Trade and Dynamics of the Scrap Trade

The data show that prior to 1970, there was not much growth in the number of scrap traders. There was a sudden spurt in the number of scrap stores from 1986. *Three out of five scrap establishments started after 1986.* However a sharp decline of 50 per cent is seen after 1995 as compared to the previous five years. In fact almost *half the scrap stores were established in the decade between 1986 and 1995.* Newer establishments, however, failed to attract ‘regular’ clients of the older establishments. All the establishments, which have more than 25 scrap collectors selling to them, have been set up prior to 1990. Most of the recent establishments have less than 25 collectors.

*Very few wholesale traders existed prior to 1975.* RS is the only commodity to be traded in the wholesale market prior to 1965 although sixty per cent of those trading in RS started after 1981. The same proportion of traders started trading in kraft-white record and bhangar-patra between 1966 and 1980. All those trading in fuga-kadak and bottles started after 1981. The increase in trade in bottles can be explained by the increase in the consumption of bottled beverages and alcohol during the last two decades. New entrants in the last five years are only seen in glass, kraft, bhangar-patra and fuga-kadak. Trade in mixed mein and plastic is of more recent origin. It corresponds to the growth in the use of plastic.
8.2.2 Primary Reason for Entry into the Scrap Trade

As in scrap collection, caste and kinship networks seem to have played some role in entry into the trade. Four out of every five, scrap traders have entered the trade either because it is the family business or because they had prior exposure to the trade. It is significant that no wholesaler entered the trade for any other reason.

This clearly indicates the relatively ‘closed’ nature of the trade. One third of the retailers and half the wholesalers have an immediate relative such as a parent, brother or sister who is involved in the scrap trade or reprocessing. Two thirds of the retail traders have relatives in the retail segment as compared to three fourths of the wholesalers who have relatives in the higher segments of the trade and reprocessing. This finding substantiates the argument that entry at the lower level of the trade is relatively easier than at the higher levels. At lower levels it is more likely to be mediated by contact with scrap collectors or retail traders while at higher levels contact with wholesale traders or reprocessors assumes significance.

8.3 Occupational Mobility of the Scrap Traders

One in three traders had not worked prior to their entry into the scrap trade. Two thirds of them have entered because it is their family business and one third because of exposure to the trade independent of the family. Many traders have prior experience in or exposure to the trade. This establishes that entry into the scrap trade is contingent upon prior contact in the sector. Entry into the lower trade segment is relatively easier than at higher levels.

Only ten percent of the traders had been itinerant buyers, not even one trader had been a wastepicker. Upward mobility from scrap collection into the scrap trade is extremely limited. Even that is seen primarily in the retail segment.

8.4 Type of Scrap Trading Establishments

The ratio of retailers to wholesalers is 3:1 and one out of every four retailers is likely to also be a stockist. The only non-household establishment is the one operated by the Kagad Kach Patra Kashtakari Panchayat. There is equal representation of household establishments that are own account and those that hire labour. Retailers also doing stocking are twice as likely to hire labour than those doing only retail trade whereas many wholesale establishments dealing in commodities such as mixed mein and RS can function without hiring labour.

Almost all the retail and stocking establishments are registered under the Shops and Establishments Act and three fourths have valid licenses. One in four wholesale establishments are unregistered. This is because some of the wholesalers do not actually have ‘establishments’!

8.5 Ownership and Management of Scrap Trade Establishments

The ownership of all the establishments is wholly private. Eighty per cent are individual proprietorships and the rest are joint family partnerships. There is no significant difference in the ownership pattern across categories of traders. The only exception is the
KKPKP store.

**Management of scrap establishments is most likely to rest with the owners themselves.** Almost two thirds of the total establishments are singly owned and managed and one third are owned and managed by the larger joint family. Retail establishments are more likely to be singly owned and the practice of hiring managers is very limited even in the stocking and wholesale segment. The KKPKP store is the only retail establishment to have hired a manager.

### 8.6 Infrastructure and Equipment in Scrap Establishments

Other than space and weighing scales, the infrastructure and equipment requirements in scrap trading are very limited. Not even these exist for wholesale trade in certain commodities. **Almost all the establishments are located in slums.** Significantly, many ‘new’ and ‘old’ scrap shops have used similar means to ‘occupy’ or ‘encroach’ on municipal space. Even shops started in the 1990’s have done so without paying any costs.

Approximately one third of the establishments are ‘pucca’, ‘semi-pucca’ and ‘katcha’ structures respectively. Fewer wholesalers have ‘katcha’ structures in comparison with retailers and stockists. No stockists have premises of less than 100 sq.ft. And no wholesalers have premises of less than 200 sq.ft. **Given the small size of most establishments, most traders encroach upon roads and pavements during business hours.** Only one out of ten traders do not encroach on public space. Three fourths of those who do, use up to a 100 sq.ft.

Only one, in four establishments, has electricity. One fourth of the traders have no telephone facility. All of them are retailers because only they can carry on their business without a telephone. Consequently, three fourth of the stockists and wholesalers have their own telephone connection. About a third of the traders do not own any means of transport. There is not a single wholesaler among them because mobility is essential in wholesale trading. The most commonly owned vehicle is a two-wheeler. Not even one retailer owns a four- wheeler in comparison with one in three wholesalers.

The interior of scrap stores is generally very dark, dingy and stuffy because of storage of large quantities of scrap, particularly plastic because it emits heat. Ventilation is very poor.

A pair of weighing scales is the standard equipment in all the retail establishments. Those trading in RS and other manually packed goods also have wooden or fabricated metal packing frames. Many purchase the equipment in the second hand goods market. The total worth of the equipment in each retail establishment is less than Rs. 3000. The retail traders often provide pushcarts for scrap collection to itinerant buyers. The value of a new pushcart is about Rs. 2500.

A quarter of the traders estimate the value of their fixed assets (land, building and equipment) as nil. An equal number estimate it at more than Rs.1,00,000. **Only five per cent of the establishments are insured.** They are all wholesale establishments.
8.7 Harassment Experienced by Scrap Traders

*Retail scrap traders routinely face harassment from the police and municipal authorities. About 40 per cent of the traders report harassment from both these sources. One in every two non-bundle retailers complains of police harassment. Forty four per cent of the bundle retailers complain of municipal harassment. The sources of harassment vary according to the commodities traded.* The non-bundle traders are accused of fencing stolen goods while the bundle traders are harassed for encroachment.

*Very few establishments have been actually demolished by the municipality.* None have suffered losses on account of arson or vandalism. One in five has caught fire. The proportion of bundle establishments in this is higher because paper and mixed mein are relatively more inflammable.

8.8 Working Capital of Scrap Traders

One in ten scrap traders operates with daily working capital of more than Rs.1,00,000. About half utilise between Rs.1,000 and 3,000. No retail trader utilises working capital that exceeds Rs.5,000 per day. Most use between Rs.1,001 and 3,000. No stockist operates with less than a thousand rupees or more than Rs.25,000. Most stockists use between Rs.1,001 and 3,000. No wholesaler operates with less than Rs.3,000 and 40 per cent use more than Rs.1,00,000. Two thirds of the traders are self-financed. Half of those who use borrowed capital source it from other scrap traders, mostly wholesalers. Sixty per cent of the retail traders rely on wholesalers for finance. In this case *the credit market is tied to the product market.* Co-operative banks and other institutional lenders are the source of finance for a third of the traders. Only 20 per cent of the retail traders access institutional lenders as compared with 75 per cent of the wholesale traders. No stockist avails of institutional finance.

RS, mixed mein and glass are low value commodities as compared to kraft-white record, bhangar-patra, fuga and bottles. Trade in the latter requires higher working capital. Almost all those who have a working capital of more than Rs.1,00,000 trade these items. The maximum working capital outlay for mix mein, bhangar-patra and milk bags is Rs.50,000. Other factors that influence working capital requirements are weights of the commodities and generation or overall availability of the commodity in quantity. The availability of mixed mein, glass, bhangar and kraft is much more than the other commodities as will be seen later in the report. Fuga and other plastic are very light in weight but high in volume.

Consequently, 2 out of 3 wholesalers in fuga operate with capital of less than Rs.25,000. Certain scrap commodities are not considered to be creditworthy by formal banking institutions including co-operative banks. Those trading in RS, mixed mein and milk bags claim they are not able to access banking institutions and are forced to rely on their own capital or source it from within the trade. Only those who deal in plastic, kraft, bottles and glass have received institutional finance.
8.9 Labour in Scrap Trade Establishments

The number of labourers employed usually depends on the size of the establishment, the exception being the wholesale traders without establishments. Most retailers have 2-3 labourers. Some make do with only one. Wholesale establishments have up to 20 labourers performing a combination of tasks. There are no child labourers working as labourers in scrap establishments. Almost 90 per cent of the labourers in scrap establishments work for more than 8 hours per day and mostly up to 12 hours per day. The work is strenuous physical labour in a poorly ventilated cramped room, often only 200 sq. ft in size with no toilets or child-care facilities. Half do not even get drinking water.

Almost ninety per cent of the total labourers are male. The gender bias in the assignment of work is obvious with women having to perform monotonous jobs like sorting and pre-packing. Men on the other hand do a larger share of the management tasks as well as the heavy manual jobs. The gender disparity in the allocation of tasks logically carries on to wages. Only one in thirteen women earns a daily wage of over Rs.60 whereas two thirds of the men earn over Rs.60. The average daily wage for a male worker is Rs.80 with a half-paid weekly holiday while that for a female worker is Rs.40 with no paid holiday. The data show that the male workers are paid the minimum wage prescribed by the Shops and Establishments Act, whereas the female workers are not. The provisions of the Equal Remuneration Act are also not complied with. The Shop Act provides for weekly and other paid holidays. Only the male workers are given a weekly holiday that too with half-pay. No other paid holidays are given even if the worker has been employed continuously for more than 60 days as provided for in the Shop Act. Since even the most basic provisions related to wages and paid holidays are not complied with it is unlikely that those pertaining to Maternity Benefits and Workmen’s Compensation will be.

The conditions of work in the scrap establishments have already been described in the previous chapter. They do not meet with the requirements stipulated in the Shop Act.

Unpaid family labour constitutes more than a third of the labour force in scrap establishments. Four out of five of them are male, usually brothers or sons working in the same unit. They are involved in almost all tasks to do with the trade but mostly in overall management. Female labour is almost equally distributed between hired and family labour.

Every fourth labourer in the scrap establishments is from Maharashtra. Only 1 out of 10 labourers, mostly from Maharashtra, are entrusted with management related tasks. The only significant migrant group among labourers (17 per cent) is that of 'bhaiyas' from Uttar Pradesh. Although they are preferred because they are honest, hard working, regular and "vice-free", they are assigned manual work and are very rarely involved in management tasks. Labour from UP is preferred even though it is more expensive.
Admittedly the sector offers employment to a good number of workers, but they are rarely entrusted with management tasks. One reason is the "risk" of their upward mobility thereby increasing the competition because many retail traders themselves have graduated from being labourers in scrap store.

**8.10 Market Power in the Scrap Trade Market.**

The discussion in 8.1 highlights the heterogeneous nature of the scrap trade market. The market comprises trade establishments performing varying levels of trading activities. The competitive relations among each class, homogenous in terms of activity level, determine the market power. The ladder of level of trade activity where the class stands, determines the ability of the group to negotiate the terms of trade with higher and lower classes. There exists an element of non-price competition at all levels of trade like tying the sellers by way of giving advances.

At the lowest end is the market of retail trade where retail trade establishments are the buyers and scrap collectors are the sellers. The buyers’ side in this market segment consists of exclusive retail traders as well as retail traders combining retail trade with stocking and wholesale. The middle level market segment comprises retailers combining retail and higher level of trading activity as buyers, and the exclusive retail traders as sellers. However, the buying selling transactions are complex in this market segment. There exists a buyer seller relationship within the group of buyers. Hence, ideally this segment should further be divided accordingly. At the top level buying selling classes are mixed and the clear distinction between buyers and sellers is difficult.

All the segments in the scrap trade market are open segments. The traders in each segment also buy scrap from institutions in the formal sector.

The base line data reveal that the retail trade segment of the market is effectively competitive as there are relatively large numbers of traders (214) in this segment. No single retail trader has control over the buying price of scrap. The primary data substantiate the fact that traders use other means of competition such as tying the scrap collectors by giving them need based advances and providing working capital to itinerant buyers.

*The stockists and wholesalers have oligopsonistic powers.* The market power differs across commodities depending upon the number and size of traders in each commodity. *The data show that the market power is the highest in road scrap and the lowest in bhangar.* This is reflected in their ability to hold down the prices of bulk buying.

*The oligopsony power of the traders however does not imply that the prices are sticky upwards.* That the rise in the prices of scrap does get transmitted to the bottom end, albeit marginally and with a time lag and that the transmission of the decline in the price is however instantaneous and is to a greater extent, has been shared by the key informants in the scrap trade.

*The range in the purchase price is smaller than the range in the sale price for all commodities, at all levels of the trading activity.*
A few retail traders purchase certain commodities (beer bottles, quarter bottles, fuga and road scrap), at very low prices, but manage to sell them at the highest possible prices. In this case even if the quantities purchased are small, incomes are high.

8.11 Levels of Trading Margins in the Scrap Trade

During the period of data collection the average purchase price of RS and glass at the retail level has been within the range of Rs.0.90 to Rs.1.0 per kg. The average purchase price for mixed mein has been around Rs.2.02 per kg. The prices for 1 No. mein were Rs.3.70 per kg. The prices for white, kraft and patra ranged between Rs. 3.20 to 3.50 per kg. Bhangar and phuga were sold at Rs.5 and Rs.9 per kg., respectively. The prices offered for quarter and beer bottles were Rs. 0.65 and Rs.2.00 per piece. The stockists offer similar prices for retail purchases from scrap collectors but offer higher prices for bulk purchases from the retailers.

The commodity-wise trading margins for all trading classes worked out from baseline data and the average purchase prices of these commodities indicate that except for No 1 mein the trading margins are on the higher side for the low-value commodities like road scrap, mixed mein, glass and quarter. The trading margins for these commodities lie in the range of 27 per cent to 37 per cent. In the case of high value commodities like kraft, White, Bhangar, Patra and Phuga the trade margins are highest in white (26 per cent) followed by fuga (23 per cent). The commodity-wise order of the trade margins is similar for the retailers, stockists and the wholesalers. The margins are obviously the highest at the wholesale level.

The above analysis of the salient features of the scrap trade market provides useful insights into the functioning of this market. The most important point for the present study is the oligopsony power in the segment for higher levels of trading activity. This power diffuses the spread effects of the price change of the commodity from the top level to scrap collectors, and has implications for any proposed market interventions.

8.12 Daily Quantum Traded in Each Commodity

Two alternate estimates of volume traded are available. The first is the estimate from primary data and pertains to volume traded at retail level. These are the quantities collected by the scrap collectors. The second estimate is provided by the important traders in each commodity. Whereas the two estimates are similar in terms of total quantum traded the commodity-wise composition differs.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Traders’ Estimate</th>
<th>Survey Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed mein</td>
<td>25 MT</td>
<td>14 MT</td>
</tr>
<tr>
<td>1 No. Mein</td>
<td>05 MT</td>
<td>05 MT</td>
</tr>
<tr>
<td>RS</td>
<td>09 MT</td>
<td>13 MT</td>
</tr>
<tr>
<td>Glass</td>
<td>30 MT</td>
<td>19 MT</td>
</tr>
<tr>
<td>Bhangar</td>
<td>20 MT</td>
<td>21 MT</td>
</tr>
<tr>
<td>Patra</td>
<td>05 MT</td>
<td>14 MT</td>
</tr>
<tr>
<td>Kraft</td>
<td>50 MT</td>
<td>25 MT</td>
</tr>
<tr>
<td>White record</td>
<td>05 MT</td>
<td>11 MT</td>
</tr>
<tr>
<td>‘Plastic’</td>
<td>01 MT</td>
<td>15 MT</td>
</tr>
</tbody>
</table>
Milk Bags

<table>
<thead>
<tr>
<th></th>
<th>02 MT</th>
<th>03 MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (excludes bottles that are traded in units)</td>
<td>147 MT*</td>
<td>140 MT*</td>
</tr>
</tbody>
</table>

*figures have been rounded off

8.13 Traders’ Perception of Future Prospects of the Scrap Trade

The traders are equally distributed across those who believe the prospects of the trade are very bright, moderate and bad.

8.14 Expansion Plans of Scrap Traders

*Every second trader has no expansion plans.* Of those who have such plans, 39 per cent want to expand the existing business. Every third retailer has plans to enter the wholesale trade as compared to every third wholesaler who wants to diversify into other sectors. Forty per cent of the stockists have plans to start reprocessing. Unlike for scrap collectors, perhaps the scrap trade is a stepping-stone into other businesses for wholesalers.

8.15 Views on Forming an Association

*Almost three fourths of the scrap traders are inclined to organize.* More retailers are inclined to organise than the other categories of traders. Understandably the *wholesalers are the least inclined to organise.*

SECTORAL OVERVIEW

9.1 A Sectoral View of the Employment Generated in Scrap Collection and Trade

The estimated total employment in scrap trade in the city (own account and hired) is 6064. This constitutes a little less than one percent of the total employment in the city. *Of this 4594 (76 per cent) is in scrap collection, the lowest level of the activity.* Of the 1470 employed in trading, 914 (62 per cent) are hired labourers. The majority is male. Of these 40 percent are employed in the retail trade, 35 percent in the wholesale trade and 25 percent in the stockist segment.

9.2 A Sectoral View of Income Generated in Scrap Collection and Trade

The income generated (i.e. the value added which is equal to receipts minus trading expenditure), per month in Pune city in the scrap trade sector (during the reference period) is Rs.152.04 lakhs. *The annual contribution of this sector to the total income generated in Pune is Rs.1848.24 lakhs. Half of this contribution amounting to Rs.74.41 lakhs is the labour of scrap collectors.* However, because of their larger number, the income generated per scrap collector is the lowest. The remaining half of the income is generated in the retail and wholesale trade. This amounts to Rs.77.63 lakhs. Of this, the share of wholesale traders is 55 per cent, and that of the retail traders and stockists, 22.5 per cent each.
The monthly income generated per trade establishment ranges from Rs.7,812 at the retail trade level to Rs.54,086 at the wholesale level. The income generated per establishment increases in a non-linear manner with the level of trading activity. The average value added is three times higher for stockists than retail traders. The value added per wholesale establishment is one and a half times higher than that for the stockist.

9.3 A Sectoral View of Income Earned by Scrap Collectors and Traders

In the case of scrap collectors the income generated is equal to the income earned. The average earnings of the scrap collectors are around Rs. 1620 per month. Among these, the bhangarwalas earn the highest (Rs. 1950), followed by the scrap collectors (Rs. 1560). The lowest earnings in the group are of the dabbabatliwalis (Rs. 1300).

The income earned by all the traders (the difference between the income generated and the factor payments like wages, rent and interest) is Rs. 50.25 lakhs per month. The main component of the factor payment is the wage bill that is around 25 percent of the value added for all trading classes.

Half of the total income earned goes to the wholesale traders. The remaining half is distributed equally between the retail trade and the stockist. Average earnings per trade establishment per month range from Rs. 5645 to the retailers to Rs. 31569 to the wholesalers. Three out of every five wholesalers estimate the daily earnings of wholesalers to be between Rs.500 and Rs.1,000. This is not very far removed from the mean.

The gap between average earnings of traders declines successively with the level of trading activity. The average earnings at the retail trade level are three and half times that of the average earnings of the scrap collectors. The stockist, on an average earns three times more than the retailer. The average earnings of the wholesale traders are one and half times higher than the stockists.

The sole factor of production for wastepickers is labour. The total income earned by them is reward for their labour. The total share of the wage bill, which equals the sum of the wastepickers incomes and the wages of the labourers in the trading establishments, constitutes 44 percent of the total income generated in the sector. The itinerant buyers use working capital along with labour. The income earned by them is the sum of the reward for their labour and capital. The major share of this is, however, is the reward for their labour. If the income earned by the itinerant buyers is added to the wage bill the above percentage increases to 62.

9.4 Variation in the Earnings of Scrap Traders

The difference in the levels of earnings of the traders is primarily due to the trading margins, volume traded and composition of the commodities traded.
The trade margins (sale price minus purchase price) are higher but the volumes traded are lower per retail trade establishment, in comparison with that of the stockist. This holds true for all commodities. The reason for lower trade margins at the stockist level is that their average purchase price (composite of the retail purchase price and bulk purchase price from the traders) is higher.

At the wholesale trade level relatively larger volumes are traded and the margins are also higher.

9.4.1 Variation in Earnings within the Categories of Traders

The earnings of the scrap traders vary considerably in each category. Nearly three fourths of the retail traders earn less than the mean level of income of retail traders. The wholesalers and stockists who earn less than the average income are around 66 percent in each category.

This variability, at the retail level, is due to the difference in the size of operations and could also be due to the links of the bigger retail traders with the wholesalers, which result in higher trade margins.

At the wholesale level the variability is due to differences in the volume and type of commodities traded. The earnings are higher in commodities like bottles, bhangar, patra, Kraft and fuga and relatively lower in commodities like road scrap and mixed mein. The commodity specificity in the earnings is primarily a function of the dynamics of the market for that scrap commodity. Like other inputs the demand for scrap is a derived demand. Hence, dynamics in the scrap market are a derivative of the demand supply dynamics in the product market for the commodity that uses the scrap as input.

10.0 REPROCESSING ENTERPRISES

A wide variety of enterprises utilise scrap commodities as raw material. They differ in terms of the stage of production, size, location, technology and investment. Some of them produce basic raw materials like plastic shreds, granules required for the production of all types of plastic products, parts of industrial and electronic items, packaging material and consumer goods. Others, who vertically integrate the production process, use scrap to produce commodities like machine parts, glass and plastic containers and paper. The proportion of scrap to virgin raw material declines with the stage of production depending upon the nature of the commodity. In terms of size the range extends from small, registered enterprises in the case of mixed mein to medium size labour intensive small-scale industries for plastic and iron to the large modern automated multinational factories 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 thousands to several hundred crores of rupees.

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.
The daily scrap requirement in each enterprise ranges between 1 MT to 70 MT. This is procured entirely through traders, either registered dealers (RD) or unregistered dealers (URD). The quantum of utilisation of different scrap commodities is determined by the role played by scrap in the production process. Some enterprises utilise only scrap, in others it constitutes a proportion of the total raw material. All the enterprises producing basic raw materials like plastic granules or M.S. ingots use scrap exclusively. The same is true of enterprises producing end products like irrigation pipes and packing material like grey board. The enterprises producing industrial spare parts and consumer goods use a lower proportion of scrap. The main consideration in using scrap is that it often reduces costs and is therefore preferred unless cheaper or better quality substitutes are available. The trade off, however, is between the quality of the product and cost reduction. The procurement prices of scrap commodities vary from Rs.1800 per MT to Rs.7500 per MT depending on the quality of the commodity, transport costs and the terms of payment. The longest credit period is 90 days.

The absorption of labour in the enterprises varies from 15 in the smaller units to 800 in the larger units. The presence of migrant labour is a common feature in the iron industry. The proportion of male labour is much higher than that of female labour. Generally adult males are employed in mechanised production processes. Female labour is preferred in manual production activities. The terms of employment are relative to the size of the enterprise. Those covered by the Factories Act, 1948, offer more favourable employment terms. There is no child labour in any of the industries.

Products which use a large proportion of scrap as input, target low and middle segments of the market. The consumers of products span the low-end rural segment to the urban elite and other industries. The products are either sold directly to industry or to other consumers through distributors.

The macro economic environment in which the recycling industry has to function comprises the global environment, the market for products that are the forward linkage to industry and the industrial environment in neighbouring states. Many entrepreneurs have expressed constraints that they face due to volatility in the market for products using scrap as raw material. They also express concern about competition from imports and the more conducive environment for waste recycling industries in the neighbouring state of Gujarat. These industries are the forward linkages to the scrap collected by the scrap collectors. This fact should be born in mind while proposing any policy intervention in this sector.

**11.0 Draft Recommendations**

1. Scrap collectors should be recognised 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 work force. It is essential that they enjoy the above status that is endorsed by the municipalities.

2. There is also a direct economic gain to municipalities, in terms of reduction in their expenditure. This should translate into monetary compensation which could take one of the following forms
   - Creating a corpus towards the welfare of scrap collectors
Offering them Life and Health Insurance cover
Recognising the municipality as part employers of scrap collectors and making necessary financial contribution to the Mathadi Board.

3. Issue of receipts to scrap collectors for each transaction should be made compulsory. The large margins in the trade increase at each higher level. Scrap collectors do not have any share in this margin despite their significant labour contribution to it. This should be recognised by regulating the scrap trade. All traders should be made to pay a percentage of their surplus based on the value of the transaction to scrap collectors. This could be regulated by appropriate legislation.

4. The conditions of work of scrap collectors, particularly wastepickers are abominable. Widespread and intensive campaigning should be undertaken to educate citizens about the advantages in segregation of garbage. Segregation of garbage and direct access to wastepickers should be mandated by the local self-government.

5. 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 Regulation Act. The withdrawal of children from this sector should be encouraged, by offering parents incentives to educate their children. This could take the form of sponsorships, scholarships or special hostels for them.

6. 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.

12.0 Strategising Intervention: Some Debates

All research studies such as this should feed into policy. When interventions that pre-date the study already exist, the findings of the study would be expected to add to those interventions. The research study of the recycling sector substantiates the insights gained in the course of organising scrap collectors. It also adds new dimensions to the existing interventions being implemented by the Kagad, Kach, Patra Kashtakari Panchayat and the S.N.D.T. Women’s University. At this stage of the draft report the authors prefer to raise issues and table some of the dilemmas regarding possible interventions for discussion, rather than recommendations.

12.1 Recognition of scrap collectors as socially useful, economically productive and unprotected manual workers

The environmental and economical contribution of scrap collectors is clearly established and quantified by this study. As also their unpaid assistance to Municipalities, in dealing with the problem of urban solid waste. The logical outcome of this recognition should be the registration of scrap collectors as ‘unprotected manual workers’ and endorsement of their status by Municipalities. This has in fact been one of the recommendations of the Supreme Court Committee on Solid Waste Management. The Pune and Pimpri Chinchwad Municipal Corporations have already recognised scrap collectors in the city by endorsing the identity cards issued to them by the union. However, extending the
same scheme to other municipalities is not an easy task. Administrators of other local self-government bodies are anxious that such an act will open the door for larger demands by scrap collectors for absorption as conservancy staff in the municipalities. In the light of zero recruitment and downsizing of existing staff, they are reluctant to take even such a basic move as endorsement of identity cards to improve the status of scrap collectors.

12.2 Improvement in the Conditions of Work (GRASP)
The appalling conditions of work of scrap collectors, wastepickers in particular, generate much concern and sympathy. *Source segregation of garbage and doorstep collection by wastepickers is an alternative that assures them access to scrap without having to forage through putrefying garbage.* It offers them access to better quality scrap with fewer hours of work, as well as relatively more hygienic working conditions. Campaigning for garbage segregation has also been recommended by various committees. Such an intervention (GRASP) has been initiated in Pune since 1991.

The hidden risks of promoting compulsory source segregation of garbage are already becoming obvious to the Scrap Collectors’ Trade Union in Pune.

1. Ensuring complete source segregation of garbage necessarily means effecting a change in the long established garbage disposal practices of 25,00,000 citizens varying in age, culture, socio-economic status, education and language by convincing them about the benefits of such a programme. In order to succeed any such campaign has to be long-term, decentralised and mandated by the local self-government.

2. At another level, wastepickers themselves have to be convinced that segregation of garbage at source is useful. Citizens expect them to adhere to a strict work routine that they are not accustomed to. Wastepickers are used to less structured hours of work and take the day off whenever necessary. A strict work routine does not always seem attractive to them initially.

3. Payment of a service charge by citizens to wastepickers for daily doorstep collection of garbage, helps in regulating habits of both wastepickers and citizens. While it formalises the relationship between them, it also introduces the question of accountability. When the street wastepicker becomes a regular morning feature at the doorsteps of middle class citizens, their sympathy for her is gradually replaced by displeasure at her impunctuality or irregularity. It is not uncommon to hear citizens say “wastepickers take advantage of us although we are paying them well”.

4. If 100 % segregation of garbage does become a reality, the wastepickers’ claim, to segregated “dry” recyclable waste will need to be protected. No one but a poor Matang, Buddha or Mahar woman will go into garbage foraging through garden cuttings and sanitary napkins to retrieve scraps of paper and plastic from dal, rice, hair. However, segregated recyclable waste is an attractive source of income to the Maratha domestic help/ watchman/ gardener and maybe even the Brahmin housewife.

12.3 Regulating Entry into Scrap Collection
Access to scrap is the most frequently voiced problem of all scrap collectors. “Every other person takes a sack and becomes a wastepicker” they complain. In the context of limited generation of garbage and the consequent access to scrap, limiting the number of entrants or at least restricting entry seems to be a necessary alternative. Municipal corporations would also require a specific number if they are to endorse the status of scrap collectors.

This raises ethical issues about the justification for such a move. In most occupations/professions, the older players are threatened by competition from new entrants. That does not prevent fresh entry. In the case of engineers, doctors, lawyers and rickshaw drivers entry is automatically regulated to some extent because of the entry level requirements and costs, limited absorption capacity of the educational institutes or licences issued by the State or the availability of jobs in the labour market.

Restricting entry could also be seen to reinforce the caste-occupation link that exists in the occupation. All scrap collectors are Matangs, Mahar or Neo- Buddhists. By precluding entry of newcomers (who theoretically at least could belong to the upper castes), the caste-occupation link will continue to persist. Attempts in the initial years to organise scrap collectors in Pune, were thwarted by political groups claiming that such an intervention reinforces caste linkages.

12.4 Legislative Protection for Scrap Collectors

Scrap collectors are forced to continue working till their last days due to the complete absence of labour legislation ensuring them any future benefits like old age pension or Provident Fund. Any proposed legislation can fall within the realm of ‘welfare’ (Welfare Cess Act) or ‘worker rights’ (Mathadi Act). Ideologically most Trade Unions would opt for the latter.

As it is interpreted today, the Mathadi Act applies to those occupations where there is some employer-employee relationship. Scrap collectors on the other hand are considered to be ‘self-employed’.

The act would require registration of both scrap traders and scrap collectors. The former would be made liable to pay P.P.F., Gratuity and Bonus to the latter from the surplus generated. They would also have to pay Income Tax and Sales Tax to the government. Eventually the smaller retail units, out of economic logic, will be forced to give way to larger, more viable ones, to ensure profitability and reduction in other infrastructure costs. In effect, the lowest layer in the retail scrap trade, one step up from the scrap collectors, or the petty bourgeoisie of the trade as they are called (Bremen 1994) will be wiped out. If this does happen, it will be accompanied by the risk that if fewer retail traders buy directly from scrap collectors they will eventually form a lobby against scrap collectors. Logistically, the process of lobbying with scrap traders itself could initially provide them a platform to rally around and organise against the scrap collectors. Experiences in the struggle against scrap traders have shown such platforms to be very effectively exploited by traders. Those who are uncertain of the risks and benefits in coming together for common interests, easily recognise the advantage in lobbying against a common enemy.
12.5 Market Intervention in the Trade

The study highlights the economic contribution made by scrap collectors and the increasing margins at higher levels of the trade. Lobbying for labour legislation to ensure proportionate returns for scrap collectors is a long-term intervention that may not pay immediate dividends.

A trade co-operative to take over the retail trade seems a logical, viable and challenging alternative. It may be the quickest way to ensure uniform and standard rates for scrap and old age benefits to scrap collectors. With the co-operation from the municipal corporations, such an enterprise could become a collaborative effort. Direct supply to reprocessors would translate into higher profits to scrap collectors or better rates for scrap.

Scrap reprocessing enterprises however, are often small-scale units. Some of them function seasonally and they sometimes service a lower market segment. They are subject to manipulation by larger industries and market forces. In plastic reprocessing they compete with large MNCs offering raw material substitutes for a larger industry. Large-scale generators of scrap themselves usually undertake metal processing.

The overall risks of investment are rather high even if profit margins are commensurate. For an entire co-operative structure to take over the trade and “improve” the margin for 5000 odd scrap collectors is no mean task.

12.6 Health Care

Private health care is prohibitively expensive and a single illness episode per person costs an average of Rs.500/- for treatment (diagnosis and medication). Public hospitals are not popular for the following reasons.

♦ Doubts about the quality of care provided
♦ Cost of travel to government facilities located far away from the place of residence
♦ Unsuitable timings and the consequent loss of the day’s earnings
♦ Costs of medication and treatment that are no longer provided free

Access to private health care through the support and free services of socially committed medical doctors, is one of the alternatives that has been explored.

This raises some issues

- It is not a simple task to co-ordinate decentralised services to enable maximum outreach. Just setting up the initial infrastructure for the same has significant financial implications. On the other hand, there is almost no guarantee of the long-term continuity of such an intervention because it is dependent on volunteers.

- There is a dearth of committed doctors, who are willing to give of their time and services, regularly and continuously, for no direct gain to themselves. Additionally such doctors are required to be “rational”, in the context of the
increasing phenomenon of irrational drug prescription and unnecessary medication.

- The costs of medication and further treatment requiring hospitalisation or surgery are prohibitive. Effective, decentralised mechanisms to disburse medicines produced by non-profit, voluntary bodies such as “Locost” are almost non-existent.

- The larger implications relate to the limited outreach of such an intervention even if it is presumed that all scrap collectors are covered. Scrap collectors constitute one rung of the informal sector, albeit the lowest. All informal sector workers, in fact all the poor should be ensured access to quality, free/subsidised health care. The State is clearly the best contender for provision of the same. It has the largest existing decentralised network and infrastructure. Strengthening the outreach of the State facilities with increased budgetary allocations would be the best option. However this requires political advocacy and is not an immediate, practical intervention.

12.7 Education

The illiteracy levels of scrap collectors, particularly women wastepickers, are dismally low. Their children are irregular in formal school for several reasons. The quality of education in municipal schools is believed to be poor. Besides, children are invaluable assets in the home and at the work place as child carers. Both these factors work against the parents’ commitment to educate their children. The limited opportunities available to educated youth in the community is however the strongest disincentive. “At least if our children are illiterate, they will survive by collecting scrap. If they are educated, they think it is below their dignity to do so and prefer to be unemployed than to accept any work!” is a common response of many scrap collectors.

Non-formal education as an alternative, has more or less been completely rejected as a long-term alternative by NGOs. First, having two parallel systems of education automatically isolate the “lower” stream and its members. Second, the costs of running an effective, decentralised, need based and non-formal programme, can be quite high. NFE serves as a useful bridge between illiteracy and the formal education system. Ultimately, the formal system needs to be more need based and vocational universally.

However, as in the case of health, it is the responsibility of the State to ensure universalisation of elementary education. Myron Weiner emphasises the need to change the attitudes of academicians and policy makers for universal primary education to succeed.

The other, more important, issue is that of providing employment to such first generation educated youth. Their overall lack of exposure affects their performance and automatically constitutes a barrier to their entry into formal employment. Further, the time taken by first generation formal sector employees to adjust to the system is rarely acceptable to the higher, more educated staff within the system. Irregularity and impunctuality on account of family and kin related reasons are not tolerated. For the families of informal sector workers, the only real existing support system is that of
family, kin and other informal sector workers. Severing them is not an option that they wish to exercise. It can be presumed for the sake of argument that their work habits will “improve” and “worker productivity” will be at its peak. Given the present economic scenario, the more relevant question today is “where are the jobs in the formal sector?”
<table>
<thead>
<tr>
<th></th>
<th>Glossary of Terms</th>
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<tbody>
<tr>
<td>1</td>
<td>Ambabai Female Hindu deity of Maharashtra</td>
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<tr>
<td>2</td>
<td>Anna Indian Currency not in use currently</td>
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<tr>
<td>3</td>
<td>Aradhi Caste related cultural role of Maharashtra</td>
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<td>4</td>
<td>Aranya Forest</td>
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<td>5</td>
<td>Babul Deciduous tree</td>
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<td>6</td>
<td>Bagwan Muslim sect in India</td>
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<td>7</td>
<td>Balutedar Artisan/provider of village service in rural Maharashtra</td>
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<td>8</td>
<td>Bazaar Market</td>
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<td>9</td>
<td>Beer Beer bottles of 750ml</td>
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<td>10</td>
<td>Bhaiya Term used to refer to male native of Uttar Pradesh</td>
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<td>11</td>
<td>Bhakri Bread made with millet</td>
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<td>12</td>
<td>Bhandari Trading caste of Maharashtra</td>
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<td>13</td>
<td>Bhanger Ferrous metal</td>
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<td>14</td>
<td>Bhangarwalla Male itinerant buyer</td>
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<td>15</td>
<td>Bhangi Backward caste of Maharashtra</td>
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<td>16</td>
<td>Bhishi Locally managed kitty fund</td>
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<td>17</td>
<td>Cable PVC pipes</td>
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<td>18</td>
<td>Chambar Caste of Maharashtra</td>
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<td>19</td>
<td>Chappal A kind of PVC</td>
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<td>20</td>
<td>Chawl Lower middle class Tenement</td>
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<td>21</td>
<td>Chindhi Cotton rags</td>
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<td>22</td>
<td>Dabbabatliwali Female itinerant buyer</td>
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<td>23</td>
<td>Dal Pulse</td>
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<td>24</td>
<td>Dalit Term used by Dr Ambedkar for oppressed classes</td>
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<td>25</td>
<td>Dhor Trading caste of Maharashtra</td>
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<tr>
<td>26</td>
<td>Dhoti Traditional attire of menfolk in Maharashtra (ankle length cloth draped around the waist )</td>
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<td>27</td>
<td>Diwali Major Hindu festival</td>
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<td>28</td>
<td>Doodh thaili Milk pouches made of plastic</td>
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<td>29</td>
<td>Dushkal Drought</td>
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<td>30</td>
<td>Dussera Major Hindu festival</td>
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<td>31</td>
<td>Gummy bag Bags made with jute</td>
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<td>32</td>
<td>Half Alcohol bottles of 500 ml</td>
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<td>33</td>
<td>Hamal Headloader</td>
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<td>34</td>
<td>Haq Entitlements</td>
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<td>35</td>
<td>Jain Trading caste of Maharashtra</td>
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<td>36</td>
<td>Jogthun Caste related cultural role of Maharashtra</td>
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<td>37</td>
<td>Jogwa magne Caste related cultural role of Maharashtra</td>
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<td>38</td>
<td>Jowar Cereal</td>
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<td>Juna Old</td>
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<td>Kach Glass</td>
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<td>41</td>
<td>Kachwaali Wastepickers who collect metal scrap with a magnet</td>
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<td>42</td>
<td>Kadak Injection moulded plastic</td>
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<td>43</td>
<td>Kagad Paper</td>
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<td>44</td>
<td>Kagdipura Paper settlement</td>
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<td>45</td>
<td>Karanja Deciduous tree</td>
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<td>46</td>
<td>Kashtrakari Manual labourer</td>
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<td>47</td>
<td>Khaki Brown colour cotton drill cloth</td>
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<td>48</td>
<td>Khan Muslim sect in India</td>
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<td>49</td>
<td>Khoja Muslim sect in India</td>
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<td>50</td>
<td>Kraft Corrugated paper</td>
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<td>51</td>
<td>Kumkum Vermillion</td>
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