



**Full circle: mapping circuits of informal labour and waste materials**

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Full circle documents the story of scrap collectors, as they move from one experience of dispossession to another in the sphere of informal scrap collection in the city of Pune. Much like the materials that they collect and despatch for recycling, each end is a new beginning. Many categories of workers have had to adapt to changes in the external environment during the last couple of decades. The authors attempt to map the circuits of labour and materials in scrap collection in relation to the changes in the external environment in the context of an evolving neo-liberal economy. They also dwell upon the collective responses of scrap collectors to perceived threats and challenges to their livelihoods. The processes of resistance and accommodation that lead to changes in the nature of work are not linear. The authors draw upon their experience of organising, strategizing struggles and researching informal waste workers and municipal solid waste management.

The paper relies upon the findings of several formal and informal, published and unpublished studies undertaken by the authors from 1991 and is divided into three sections. The first section sets the context with economist Kalyan Sanyal's explication of the informal economy. In the second section, we map the circuits of labour in the informal waste economy through the different constituents involved in the domestic solid waste and materials recycling value chain. Domestic waste constitutes the bulk of municipal solid waste. There have been several changes in municipal solid waste collection, transport and processing in the last fifteen years. The changes in the collection segment have the most implications for waste pickers. In section III the authors examine the changes and their variable impact on specific types of scrap collectors and the ways in which they confront, resist, innovate and adapt to these changes.

## Section I

### The informal waste economy

In this section we draw upon the work of economist Kalyan Sanyal in his work on post-colonial capitalism to examine the informal waste economy. Sanyal differentiates between the formal and informal economy on the basis of their core goals. Accumulation, he says, is the *raison d'etre* of the formal modern economy which he refers to as the accumulation economy. The other is the informal economy which he calls the need economy. For Sanyal the need economy is not a pre-capitalist transitional state on the verge of transforming into the modern formal economy. On the contrary he says, the need economy and the accumulation economy co-exist with the latter feeding off the former. Sanyal's conceptualisation of the need economy and the accumulation economy offer a more robust understanding and scope of the way they exist in relation to one and other in the waste sector, which is why we have chosen to use them.

The goal as it were of the need economy is subsistence, the meeting of consumption needs. Let us look at data from a 2001 study to see what it tells us about subsistence and consumption in the households of scrap collectors. The first set of findings set out below relate to the means of subsistence while the second set of findings relate to consumption.

Findings related to means of subsistence of scrap collector households

- Only 6 per cent of the working men were in formal employment
- 62 per cent adult working population was engaged in scrap collection.

- 81 per cent of the women were in scrap related work
- All the household income was derived from scrap collection in 40 per cent of the households

The data show that scrap related work was a major contributor to the household income of scrap collectors. Income came in on a daily or weekly basis for the scrap collector households depending upon the nature of informal employment of the members.

#### Findings related to consumption

- In the poorer households 80 per cent of the consumption expenditure was on food and fuel. Even in the relatively better off households, food and fuel accounted for 66 per cent of the expenditure.
- The poverty line is much contested in India, but just to use that as an indicator, the study found that 25 per cent of the households fell below the poverty line.

Clearly it was consumption needs rather than the desire for accumulation drives the work sphere in scrap collection (Chikarmane et al 2001).

The need economy Sanyal argues is a non - capitalist space. It is the space of the excluded, the space of the dispossessed. The space of those excluded in the very processes of development of the formal economy. Those who inhabit this space are not victims, although Sanyal does refer to them as victims of primitive accumulation, we prefer to say that they are survivors of the development process who carry out a variety of economic activities in order to subsist. The fact that they subsist does not mean that they generate no surplus, they in fact do but it is used to meet their consumption needs and ploughed back into their own economic endeavours. Scrap collectors are the survivors in this space of the dispossessed.

Scrap collectors in the Pune Urban Agglomeration trace their migration to the city to the great drought of 1972, which by all accounts was one of the most severe in the century. According to the documentation at the time, it was also an equaliser in that it did not affect only the landless, those dependent upon labour in the villages but also the landed that migrated along with their cattle. Although some districts such as Marathwada, were badly affected, not a single district was left untouched by the drought. The situation called for drastic measures and the Maharashtra government initiated what was later heralded as the first employment guarantee programme in the country. The state assured employment on demand for payment of wages through which public works were carried out. It was often the first option exercised by the fleeing rural population. "We picked up our stomachs and ran", was the way Rukmini Dolare chose to describe that situation. Agricultural wage labour (shetgadi) or bonded labour (salgadi) was the primary full time occupation of first generation migrants from the scrap collector households.

Recalling the period immediately after their migration, scrap collectors graphically describe how "we came to the city in hordes with nothing but the clothes on our backs and the hope of securing some work". Once in the city, the migrants did any kind of work that came their way. Construction work, cleaning work, even begging, and scrap collection. One type of work that was carried out even by earlier migrants was that of 'wade zadne'. 'Wade zadnare' were the

women who cleaned out courtyards in the old city in exchange for leftover food and scrap. They were not paid any wages. Domestic work was not an option on account of caste related purity pollution issues. Some experimented with construction work. Within the limited set of occupational choices they settled into scrap collection, pro-actively choosing it because of the relative flexibility, autonomy and better earnings it offered. Scrap had to be retrieved from garbage and it was the kind of stigmatized work that few, other than those from Dalit communities were willing to do. Competition was considerably less and family and kinship relationships, caste and gender mediated entry.

Coming to the subject at hand, the collection of scrap, that which society has discarded as having no value and bringing it back into the production process and making it into an economic endeavour lends itself to the conceptualisation of the need economy. The findings of the 2001 study also established that

- Almost all scrap collectors were Dalits.
- Three fourths were women of whom 92 per cent were illiterate.
- Fifty per cent reported having worked as wage labour prior to scrap collection.
- In comparison 50 per cent of the men were literate and had also worked in construction and other informal wage employments.

Scrap collectors in Pune therefore are typically more likely to be women from Dalit and other socially excluded communities; illiterate or semi-literate; without formally acquired skills; asset-less; without access to institutional credit; and main income earners. As a matter of fact it is not only the scrap materials that are discarded but the people that inhabit this ‘need’ space in the waste economy, are also socially excluded and the economically marginalised. (Chikarmane et al, 2000).

### Brief structure of the scrap market



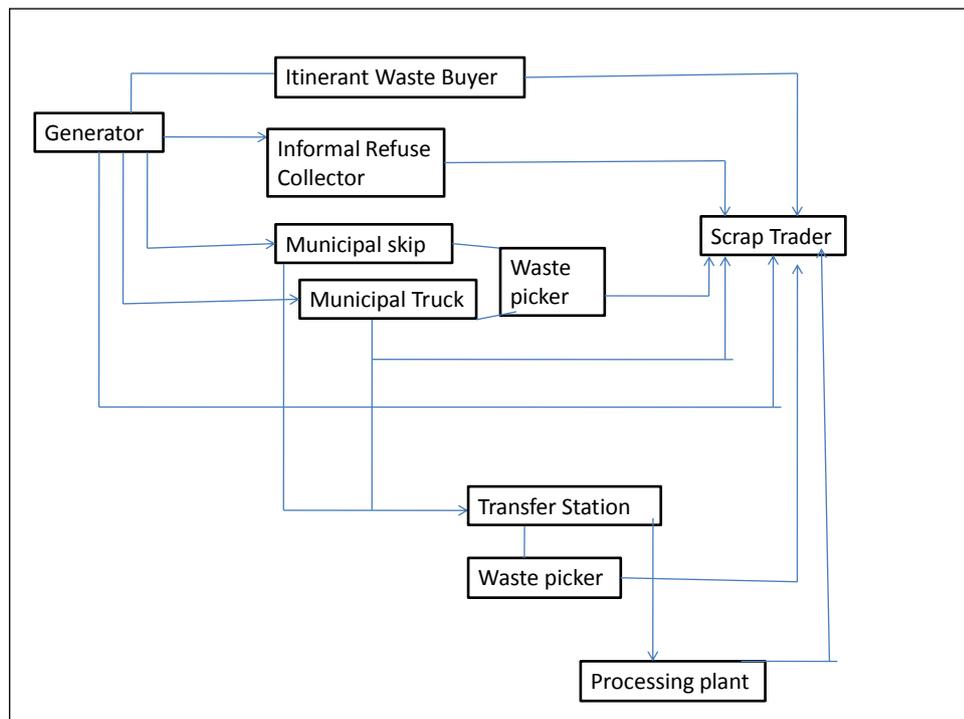
Chikarmane *et al* (2001) found that market driven scrap recycling in Pune was robust and incorporated materials recovery, trade and processing operations. The pyramidal scrap market structure consisted of sub-markets that operated at different levels of trading activity. Waste pickers were at the base of the pyramid followed by a layer of itinerant waste buyers. Waste pickers and itinerant waste buyers were the sellers in the retail sub-market. The sub-market at the middle level comprised buyers and sellers. Transactions were complex in this sub-market, with buyers and sellers changing places for different commodities. There was progressive commodity specialization towards the apex of the pyramid. Scrap materials transited to manufacturing industries through the higher levels of the pyramid. The market was informal and unregulated

although a number of individual dealers had the required mandatory registration for mercantile activity. The scrap dealers were not formally organised. Nor were they part of the Chambers of Commerce and Industries or market associations. They neither solicited nor received any government recognition or subsidy. The market was closely held together through an elaborate system of credit tied to the product market, caste and community, and kinship relationships and trust based transactions (Chikarmane *et al.* 2001: 148).

The municipal solid waste management system collects co-mingled waste and does not recover or handle scrap materials. The formal municipal solid waste system and the informal scrap materials value chain run parallel to each other for the most part. The points at which they intersect are typically those that are less regulated, and offer relatively easy access to high value scrap materials.

## Section II

### Circuits of informal labour in scrap materials collection



The journey of waste begins from the point at which unwanted items are discarded as waste by the consumer turned waste generator. The waste generator may be domestic, commercial, industrial, medical or institutional. The waste generators decide the destination of different items. They decide what they should give away, sell or discard, from among the items that they do not require anymore. They give away clothes and household goods such as toys, bicycles, electronic items to domestic staff and service providers. Commercially there is a traditional practice of exchange of used clothes for kitchen utensils and crockery. The vendors are usually women and locally referred to as 'bobarnis'. Waste generators usually sell items for which there is a market either to itinerant scrap buyers who come to the door or to scrap dealers in the neighbourhood. Items such as newspapers, bottles, used goods, ferrous metal and other metal scrap, bits of furniture, cartons are often sold.

As for the rest, it is disposed into the municipal waste stream. Like consumer behaviour on what to buy, waste generator behaviour in respect of what to give away, sell, donate or discard, is somewhat dependent upon the income group but also highly variable. As for the large generators of waste, sale of scrap is the most common method utilised. The types of waste are as varied as the generators, ranging from co-mingled domestic waste; recyclable waste; non - recyclable waste; organic waste; biomedical waste; construction and demolition waste; sanitary waste; garden waste and hazardous waste to name some and the value chains may vary.

For the purposes of this paper we will limit ourselves to circuits of labour in domestic scrap collection for two reasons. Firstly, there is numerical concentration of labour at the scrap collection end. Own account waste pickers and itinerant waste buyers comprised 76 per cent of the workers in the scrap market and generated 49 per cent of the income earned. The household was also the main source of scrap for 77 per cent of the male and 94 per cent of the female itinerant waste buyers. (Chikarmane et al, 2001). Secondly, domestic waste consists of waste from households, shops and offices and constitutes 70 per cent of the municipal solid waste stream (Presentation to Citizens Committee by Solid Waste Management Department, Pune Municipal Corporation, 2014). This clearly indicates that primary waste collection is an extremely vital part of the municipal solid waste and the recycling value chains; in fact the two significantly intersect in this space.

### ***Informal service providers***

Logically it is usually informal paid household workers, refuse collectors and housekeeping staff that have first access to discarded materials at household level. They are usually paid employees of the household or apartment blocks. Given their proximity, householders are known to pass on to them clothes and other used household goods, free of cost or at nominal rates. Informal workers also find it easy to access and skim the unsoiled and high value materials that households discard into the trash. They either retain the collected items and materials for their own use or sell them in the market to make some extra money. Scrap collection however, is not their main occupation. Likewise there are waste generators who choose to bypass itinerant waste buyers and sell some materials directly to scrap dealers. Materials are also skimmed and sold by salaried municipal employees to earn supplementary income. They either recover materials themselves or more commonly they permit itinerant waste pickers to sit in the municipal vehicles and claim a share of the earnings. There are no neat and fixed pathways in the unregulated informal waste markets. Since there is no legally enforceable authorisation or regulation on who can collect, buy or sell scrap, anyone and everyone can be a seller and buyer within a complex web of relationships. We do not consider householders or their service providers or municipal workers to be core constituents of the value chain even though they may recover and sell scrap. Scrap collection is not their main occupation and income from the sale of scrap materials does not constitute a significant proportion of their income. They handle limited quantities of materials. From this point on, we shall focus on itinerant waste buyers and waste pickers who we consider core constituents of the waste and scrap materials value chain.

### **Scrap Collectors**

As mentioned earlier scrap collectors are the largest labour group in the scrap market. Two thirds are waste pickers and a third is itinerant waste buyers. In the method of collection we choose to classify those that use small capital to transact with waste generators as micro-enterprise workers whom we refer to as Itinerant Waste Buyers. Itinerant Waste Pickers, on the other hand, are free roamers and access the scrap materials from the municipal skips and the streets, commercial and industrial areas, and the landfills and indeed any place where garbage accumulates or is dumped. The method of collection has a bearing on the type, the quantity and the quality of the scrap materials. Both categories of scrap collectors are sellers of scrap materials. In the Pune region, itinerant waste pickers are more likely to be women and itinerant waste buyers are more likely to be men. Itinerant waste buyers and itinerant waste pickers are not wage workers but own account workers and are distinguished from each other by the sites of collection and the method of collection.

### ***Itinerant Waste Buyers***

It has been mentioned earlier, that it is fairly common for waste generators to sell scrap that has market value either to itinerant waste buyers or directly to scrap dealers. Itinerant waste buyers transact scrap materials on site directly with waste generators at their convenience. They transact high market value materials such as corrugated board, LDPE, HDPE, PVC, ferrous and non - ferrous metals, milk bags, bottles and newspapers. Their access to scrap materials is determined by the willingness of the consumer turned waste generator to transact with them. Itinerant Waste Buyers are micro-entrepreneurs who begin with more than just their labour. They begin with capital that is borrowed from scrap dealers, informal credit markets or kinship networks to exchange it for scrap materials. Over two thirds of the itinerant waste buyers sourced the daily capital to buy scrap from their scrap dealers such that the credit market is effectively tied to the product market. Itinerant waste buyers are mobile, using either cycles or push carts to transport the collected scrap. While most use their own, a third lease the push carts and the weighing scales from the scrap dealers. The modus operandi is territorial. The itinerant waste buyer usually operates along a schedule of days and beats and has a fairly steady loyal clientele of waste generators from whom he/she buys scrap. IWBs call out to clients along the beat to announce their arrival. It is the most common means of soliciting business. The labour of itinerant waste buyers is expended in walking the streets; transporting the scrap to the market and in value addition activities. Value is added by sorting, cleaning, washing, breaking and grading of the collected materials which they sell in the market as secondary commodities for money (Chikarmane et al, 2001).

### ***Waste pickers***

Waste pickers collect discarded materials. They use their labour to recover scrap materials from waste. The original source of the scrap materials is the consumer who either retains the used goods for own use or exchanges it for money or discards it as having no value. Typically waste pickers have no direct access to the original source, the generator of waste. Itinerant waste pickers' access waste and recover recyclable materials from municipal skips, the streets, commercial pockets, industrial areas and the landfills. Since they recover recyclable materials from co-mingled waste, qualitatively the materials are more degraded and of lower value than those transacted by the itinerant waste buyers. Their work involves actual manual handling of

garbage so the conditions of work are also very poor. Our use of the term waste picker is intentional although the academic world often uses the terms scavengers. The use of the term waste picker has been endorsed at global waste pickers' fora whereas there has been strong condemnation and rejection of the term scavenger to identify this occupation. Recovery of recyclables from discards is itself value addition work. Waste pickers are also own account workers.

The materials that waste pickers recover include RS or road sweepings paper, white paper, coloured paper, corrugated board, assorted polythene bags, blow moulded plastic, injection moulded plastic, milk bags, cables, plastic footwear, PVC soles, ferrous metal, tin, beer bottles, alcohol bottles and assorted bottles and broken glass. Waste pickers add further value by sorting, cleaning, washing, breaking and grading of the collected materials which they sell in the market as secondary commodities for money. The modus operandi of waste pickers, like that of itinerant waste buyers is also territorial. Sorting of materials is usually carried out in the vicinity of the container or in shady spots along the roadside or outside the scrap traders premises. Their livelihood is contingent upon access to the sources of scrap materials.

### **Section III**

#### **Changes in primary collection over two decades and the response of labour**

Macro-economic factors, changes in the law, changes in the composition of waste, technological advances and changes in urban living have all contributed to the changes in the waste scenario. Liberalisation of the Indian economy accelerated during the decade of the nineties. Relatively higher rates of economic growth benefited some sections of the population. The corresponding increases in incomes and consumption, especially aspirational consumption also changed the contents and composition of waste. The role of the State in service provision has also been called into question. The structures and processes of urban governance in India have also made space for citizens to exert some influence. The changes cannot be attributed to a single factor but each of the changes individually and collectively have had differential impacts on specific types of scrap collectors. Depending upon the nature of the change, scrap collectors in Pune have had to confront and resist changes, innovate and adapt to the changes to retain their space and livelihoods in the scrap market. This section will focus on the changes in the waste management scenario, their implications for and impact upon waste pickers and their response to the changes.

#### **The closure of landfills in Pune, the effect upon waste pickers and their response**

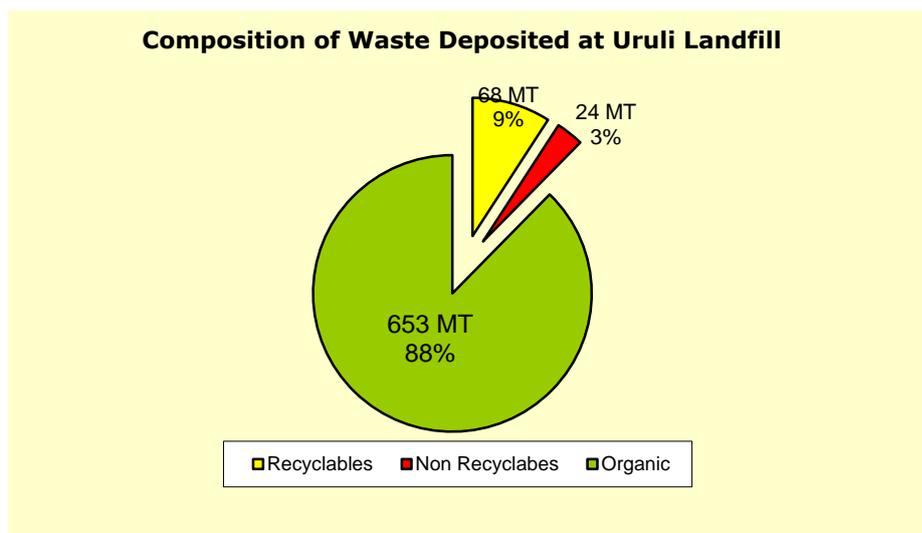
##### *Composition of landfill waste*

The landfill is the final destination of municipal solid waste all over India. Pune had one landfill at Kothrud from about the 1970s that functioned till it was closed in 2000. The other landfill at Uruli became functional sometime in the early nineties but it is the only one in use since 2000. Landfill is actually a euphemism for garbage dumping and levelling.

Municipal solid waste reaching the landfill is filtered by the manual recovery processes of waste pickers upstream. It is only residual waste that reaches the landfill on account of which the

quality of the recyclables is very low grade. KKPKP carried out a study of the composition of the waste actually reaching the Uruli landfill in 2008. Methodologically, the study involved manual segregation of the entire contents of the stratified randomly selected bulk refuse carriers carrying waste from specified sources from each municipal ward over a period of 15 days. The list of the materials that were segregated is presented in the chart below.

| <b>Table showing materials reaching landfills in municipal waste</b> |                          |                        |
|--|--------------------------|------------------------|
| <b>Recyclables</b>   | <b>Non Recyclables</b>   | <b>Organic</b>         |
| Tetrapak   | Non recyclable paper     | Food and kitchen waste |
| Plastic covers   | Sacks                    | Leaf litter            |
| LD plastic bags  | Battery                  | Minor garden trimmings |
| Milk bags  | Styrofoam                |                        |
| Blow moulded and injection plastic                                   | Rags                     |                        |
| PET bottles  | Rubber                   |                        |
| Plastic chappals/soles   | Diapers/sanitary napkins |                        |
| Road Scrap   | Debris                   |                        |
| White Record   |                          |                        |
| Corrugated Kraft   |                          |                        |
| Glass  |                          |                        |
| Denim  |                          |                        |
| Cable  |                          |                        |
| Iron   |                          |                        |
| Tin  |                          |                        |
| Non Ferrous metal  |                          |                        |
| Tyres  |                          |                        |
| Plastic sacks  |                          |                        |
| Heels  |                          |                        |
| Soles  |                          |                        |
| Newspaper  |                          |                        |



**Table showing composition of Uruli landfill waste 2008**

| Item                 | Proportion | Daily Weight in MT |
|----------------------|------------|--------------------|
| Tetrapak             | 0.02       | 0.14               |
| Plastic Covers       | 4.14       | 30.81              |
| Plastic items        | 0.74       | 2.55               |
| Paper                | 3.6        | 26.83              |
| Glass                | 0.53       | 3.97               |
| Ferrous Metal        | 0.04       | 0.31               |
| Non ferrous metal    | 0.04       | 0.3                |
| Non recyclable paper | 0.76       | 5.67               |
| Styrofoam            | 0.04       | 0.29               |
| Rags                 | 1.72       | 12.79              |
| Rubber               | 0.05       | 0.36               |
| Diapers              | 0.16       | 1.17               |
| Debris               | 0.47       | 3.5                |
| Organic              | 87.7       | 653.35             |

The data show that the proportion of scrap materials reaching the landfill was only 9 per cent in comparison with the estimates of 18 to 22 per cent for MSW composition.

#### *Landfill closure*

It is axiomatic that no one wants waste in their backyards and will make every effort to see that it is banished elsewhere. As cities grow, dense habitations start developing around landfills that may have been at some distance from the city. So it was in the case of the Kothrud landfill in Pune. The failure of a mechanical composting plant jointly promoted by the state government and the municipal body in the decade of 1980s and the closure of the Western Paques installed, garbage to electricity plant at the pilot stage itself meant that open dumping carried on at the

Kothrud landfill. The court ordered closure of the landfill in response to a public interest litigation filed by city residents against the Pune Municipal Corporation (Shantaram Keshav Javadekar vs Pune Municipal Corporation, Bombay High Court Judgement dated 11/1/ 2000). The residents' forum pitted against the State was a radical initiative at the time. It changed the dynamics of the relationships between the city residents and the municipal government, thereafter and there have been many instances of adversarial engagements between the city residents and the municipal government, since.

The second instance of official court ordered landfill closure is more recent when the National Green Tribunal prohibited open dumping of waste at the Uruli landfill from May 2015 after the failure and near closure of the waste processing plant run by Hanjer Biotech Energies. The residents in the villages around the Uruli landfill (where the waste came to be dumped post the Kothrud closure) were battling the Pune Municipal Corporation inside and outside the courts because their farmlands and agriculture based livelihoods had been destroyed by the landfill. Their blockade of municipal vehicles entering the landfill to prevent dumping has now become legend.

Landfill waste pickers' access to waste at Uruli was closed off long before the court ordered the closure of dumping. Entry was restricted after the Pune Municipal Corporation entered into a 30 year concession agreement with Hanjer Bio-tech Energies Pvt. Ltd. in 2009 so that it would be compliant in respect of rules and regulations regarding waste processing. All municipal vehicles carrying co-mingled solid waste were diverted to Hanjer and directly entered the facility which was walled and guarded. Hanjer claimed to have a special technology that would separate co-mingled waste and produce refuse derived fuel (RDF) and compost. The agreement was for setting up an Integrated MSW Processing and Treatment Facility including Operations and Maintenance on 20 acres of land demarcated within the Uruli landfill at the annual rate of Re.1 per square metre to initially process 500 tonnes of municipal solid waste per day (TPD) that was extendable to 1000 TPD. As per the agreement, the operator was to set up the facility at its cost and the PMC was to deliver the waste to the facility and pay an escalating tipping fee from a base of Rs.55 (US\$9) per tonne to the operator, from the fifth year onwards. The tipping fee has since been revised to Rs.300 (US\$5) per tonne to match that paid to the other operators. The plant was showcased for three years after which its inability to process the waste was exposed. The operator has since claimed that there is no market for the refuse derived fuel (RDF) that it was making. Its license to market compost was revoked after a civil society organisation of Pune residents established that the compost manufactured by the company had mercury in excess of 32 times the permissible limit. The plant has been virtually closed for over 18 months despite periodic attempts on the part of the PMC to infuse funds and bail it out by deputing municipal workers and officials to run it.

### *Landfill pickers*

About 5 per cent of the total waste pickers in Pune worked at the landfills prior to their closure. Although the landfills belonged to the Pune Municipal Corporation, they were not walled and entry was unrestricted and the landfill was unregulated. Scrap dealers also set up their businesses at the landfills. The landfill pickers were mainly residents of the slums and the villages around the landfills. There were also other local landfill pickers who travelled to the landfills for scrap

collection (Chikarmane et al). The only exception was a migrant community of about 100 sorters from Malegaon that built shanties and settled in the landfill post 2005 to work. Malegaon is one of the biggest plastic processing zones in the Maharashtra state that draws migrant workers from underdeveloped regions of the country. Originally migrants from the state of Bihar, they had moved to Malegaon to work in waste recycling as sorters. They specialised in the sorting and grading of plastic scrap for which they were paid per truckload. After they moved to the Uruli landfill they not only collected plastic scrap but also sorted it, baled it and despatched it. They sent it directly to the processing units or to the next level of traders. These operations were disbanded after the closure of the landfill.

The physical conditions of work of waste pickers at landfill sites were, by far the worst in comparison even with those of itinerant waste pickers. The landscape was of barren land piled high with garbage as far as the eye could see and stray animals hungrily foraging through it. The overpowering stench of putrefying garbage lodged in the nostrils and clung to the body long after the waste pickers reached home. Waste pickers scrambled dangerously close to the tippers to get at the waste, as they disgorged vast quantities of waste. Some lost their lives as they came between the wheels of the compactors and excavators. Potable water, rest rooms, toilets, the basic entitlements of workers were hard won victories of the union.

#### *Landfill waste pickers response to landfill closure*

The waste pickers at the Kothrud landfill lost their livelihoods after its closure. KKPKP did not resist the closure. The union has never made out a case that waste pickers should continue to do their work in exactly the same way that they have been doing in municipal skips and landfills. Rather it has since inception, built up the case for the recognition of waste pickers as workers with the accompanying rights and entitlements and upgraded conditions of work in the decent work framework. For KKPKP it was a strategic choice to step up its campaign to integrate landfill waste pickers into providing front end waste collection services. The new apartments that had come up around the landfill were approached to hire waste pickers for door to door collection. The identity cards endorsed by the Pune Municipal Corporation also authorised the bearers to collect scrap. Waste pickers independently and collectively worked this to their advantage. The union mediated between the apartments and the waste pickers for fixing user fees and to resolve complaints, depending upon the need. This was the pre-cursor of what later was institutionalised as SWaCH. Supriya Bhadakwad was possibly the only one who managed the daily commute to the new landfill which was 25 kilometres each way and the 16 hour days. Some others took up housekeeping jobs and domestic work.

A decade later, in the changed external environment, the situation at Uruli panned out a little differently. The owner of the company never tires of telling people how landfill pickers sneered at his offer of jobs in the facility for daily wages and instead asked him to collect scrap at the landfill for which they would pay him three times the wage! That is quite conceivable because the waste pickers did not anticipate the enormity of the loss that they would sustain. During the initial phase of operations, they preferred to negotiate with the company staff to access the waste. Reality hit home as soon as the municipal trucks started bypassing the landfill completely. Some waste pickers offered to pay the company employees for access. Others bought the scrap from the company. Some even worked as labour on daily wages to earn, as well as to get ground

intelligence on what was happening on the inside. Some even tried to get back into agricultural labour on the neighbouring farms at wages that were one tenth of what they had earned as landfill pickers.

Anita had been working at the Uruli landfill for twelve years prior to its privatisation. Her daily collection of between 100-150 kg of recyclables per day would fetch her anything between US\$5 and 10. On good days it was even 15. After the Hanjer plant commenced operations, her pickings and earnings dropped dramatically. Initially she and her colleagues tried to work the system by paying factory staff to gain entry. Anita recalls that she paid the company to access scrap materials, even sometimes buying them. If they were able to get US\$ 1.2 for every kilogram of recyclables that they collected, they had to pay the company two thirds and retain one third the amount for their labour.

Others like her colleague Asha, were employed in the plant for a daily wage of US\$ 3 for ten hour workdays and none of the other statutory benefits due to contract workers. She had no rights over the recovered materials. Inside the premises she had to pick recyclables out of mounds of waste or off a fast moving conveyor belt. The own account worker had to make a choice between proletarianisation or dispossession.

Source: Documentation of testimonies (KKPKP 2011)

Resistance to the closing off of access to waste pickers played out at two levels, the tactical action by the members at the landfill and strategic action. KKPKP was part of several fact finding missions that documented the conditions within the plant. It also made common cause with local civic and global environmental organisations to build a case against incineration based waste processing technologies.

### **Private sector participation in primary waste collection, the effect upon waste pickers and their response**

#### ***Looking back***

Although privatisation of waste management as government policy made its entry around the turn of the century, waste pickers first confronted the entry of private enterprise in door to door waste collection way back in 1992. They mounted spirited resistance by doing a 'cling to the municipal skip' (*bin chipko*) agitation modelled along the lines of the hug the trees campaign against deforestation by the *chipko andolan*. The *bin chipko* andolan incorporated many sets of activities. Waste pickers on their part approached the vehicle driver to express solidarity with them, threatened to deflate the tyres, and appealed to the enterprise owner to start some other business. Waste pickers and activists engaged with the residents of the area, with the municipal administration and with the media to argue their case for protection of livelihoods. The argument against the entrepreneur was not that he was part of the private sector. After all the entire informal waste economy is very much the private sector. The formal municipal system does not do materials recovery or reprocessing of scrap. The argument was that having worked for so many years, waste pickers had established customary claims over scrap materials. Collectively they were successful in driving out the entrepreneur. The process soon led to the

formation of the Kagad Kach Patra Kashtakari Panchayat (trade union of paper, glass, tin collectors) at a Convention of 800 scrap collectors in 1993.

Although the birth of the union was proclaimed by the slogan ***“kachra amchyamalkicha nahi kunachya bapacha”*** (waste is ours, it belongs to nobody’s father), the issue of access to and control over waste did not surface again till waste processing was actually privatised almost a decade later. The threat that waste pickers would be dispossessed of their livelihoods was ever present and collectivisation into a workers organisation was a key response to counter privatisation. The union advanced the following arguments

- Waste pickers actually subsidise municipal solid waste management through their free labour. Waste pickers are worker agents of reverse logistics because they bring post-consumer scrap materials back into the production chain.
- Waste pickers divert recyclables into production and provide environmental services.
- Waste pickers compromise their own health and well-being for public good and should therefore have claims over resources and entitlements from municipal and other government budgets.

KKPKP also articulated a paradigm shift in municipal solid waste management from centralised, technology driven, capital intensive methods to those that prioritised the waste hierarchy; decentralised processing and appropriate technology. These arguments translated into demands from waste pickers, many of which were accepted by the municipal bodies. Among those that were accepted were endorsement of identity cards with authorisation to collect scrap; payment of medical insurance premium and social security from the municipal budgets; and integration into door to door collection of waste.

### ***Looking forward***

Post 2000 saw a policy shift away from direct service provision by municipalities. Until then municipal governments were the main providers of waste management services in India. Unclean cities and the widespread disenchantment with the management of solid waste by municipalities prompted city residents to approach the courts for relief (Almitra Patel vs the Union of India, 1996). The notification of the Municipal Solid Waste Handling Rules under the Environment Protection Act, 1986 opened up the space for private sector participation in municipal solid waste management. The push to improve efficiency, reduce costs, increase customer satisfaction, and draw in private investment, waste management and management expertise and technology in urban basic service provision through the private sector also came from international financial institutions. The Pune region did not escape the winds of privatisation that swept across the country.

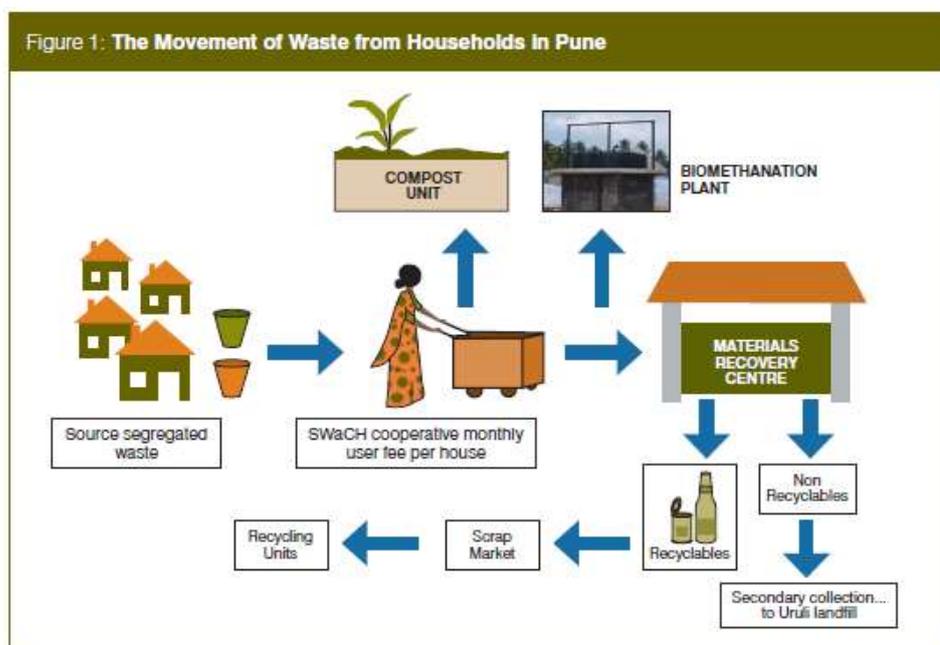
The enactment of Municipal Solid Waste Handling Rules in the year 2000 necessitated that municipal governments organise the door to door collection of waste. Prior to that, the obligatory responsibility of the municipalities extended only to secondary collection, transport and disposal of waste. Privatisation of this part of the solid waste management chain became very popular across the country. Door to door waste collection was accompanied by other

changes as well such as the reduction of municipal skips; and extensive use of compactors and enclosed vehicles; and the development of transfer stations.

If the closure and privatisation of landfills adversely affected the landfill pickers, the privatisation of door to door waste collection impacted the work of itinerant waste pickers. As in the case of the landfill, access to recyclable scrap was the key defining factor. KKPKP had long argued that access would improve if waste pickers were able to transition into primary service providers. It would bring them into direct contact with the source of waste which in turn would perhaps pave the way for maintaining the integrity of the organic, recyclable and non- recyclable waste streams. The changes in the Rules opened up the primary collection space for the integration of itinerant waste pickers. By the same logic their displacement was certain if they were not integrated. Employment by the municipal government or its contracted agents was one possible scenario. The other was the incorporation of an entity that aggregates own account waste pickers turned service providers. Both approaches are presented here.

### The SWaCH Coop and the Pune Municipal Corporation:

The SWaCH Coop represented the first stage in the alternative model of waste management that KKPKP advocated. It posited itinerant waste pickers as providers of front end waste management services that started with door to door waste collection and extended to *in situ* composting. From the perspective of waste pickers it was a pre-emptive tactical move to retain access to scrap materials (Sahni and Shankar, 2015). The whole picture prioritized the waste hierarchy; the polluter pays principle; decentralised organic waste processing; extended producer responsibility and people centred urban governance (Figure 1 below).



The primary collection model that incorporated waste pickers was conceptualised and promoted by KKPKP and accepted by the Pune Municipal Corporation as one that would meet the twin objectives of waste collection and decent work. The PMC would financially support the management costs, cost of worker welfare measures, safety gear, collection equipment and infrastructure and authorise the cooperative to recover user fees from service users. The SWaCH

cooperative would aggregate waste pickers and enable them to transition into own account front end service providers. The cooperative would also mediate between service providers and service users and between service providers and the municipal administration. The PMC would not pay the service providers either directly or through the cooperative. The service providers would recover user fees and retain the income from the sale of scrap materials.

SWaCH Cooperative, wholly owned by member waste pickers was legally constituted in 2007. The Pune Municipal Corporation and SWaCH, had a Memorandum of Understanding between 2008 and 2013. During the period of the MOU and thereafter 2300 SWaCH members have been servicing 400000 households, shops and offices in Pune. As per the terms of the MOU, the PMC was to provide office space; uniforms, raincoats, footwear and safety gear; collection equipment (push carts and buckets); recycling sheds for waste categorisation; subsidy for collection from slums; welfare benefits and operational costs of supervision, training and citizen outreach to SWaCH. According to the MOU, over a period of five years, the PMC was to spend Rs.206 per household by way of operational costs to SWaCH, against which it actually spent only Rs.98 per household. The MOU is currently in the renewal process with revision of some of the terms and conditions, based upon the experience of the first five years.

The PMC reneged on its commitments to SWaCH. The most significant violations were those in respect of direct entitlements of SWaCH collectors. The collection equipment and safety gear were not provided as per the schedule on account of which the health and well-being of the workers was compromised. Raincoats for example were provided only in the third year. Waste pickers had to collect soggy organic waste in sacks because buckets were not provided in time. The waste pickers had to make do without push carts or spend on their repair because the municipal body neither replaced the carts nor carried out timely repairs. The subsidy component was not paid to the waste pickers who serviced slum households. The PMC did not pay out the amount allocated for health benefits for waste pickers and scholarships for their children. The monetised losses to SWaCH collectors are presented in the tables below. Note 1US\$=INR65

Table showing the collective losses to waste pickers on account of deficits in provision of equipment, safety gear and welfare benefits during the five year period of the MOU

- Loss to waste pickers on account of non-payment of welfare benefits INR 8,50,000
- Loss to waste pickers on account of non-payment of slum subsidy INR 50,16,000
- Net value of equipment not provided to SWaCH INR 46,700,000
- Loss to waste pickers on account of increased maintenance costs due to non-replacement of Collection equipment INR 13,800,000.

Cumulative loss to SWaCH waste pickers over the period of the MOU = INR 26,866,000

Table showing annual savings to PMC on account of SWaCH

- The PMC saves INR 72,200,000 in waste transport costs each year (90 MTPD diverted into recycling x 365 days x INR 2200 per tonne)
- Savings of INR 300,000,000 in door to door waste collection contracts (Rs.10000 minimum wage x 2300 workers x 12 months = 270,000,000 + minimum 10% overheads of service provider)
- Savings of INR 10000000 in tipping fees to waste processing operators

Total annual savings to PMC on account of SWaCH = INR 380,000,000

### *Response of SWaCH*

The PMC reneged on its commitments to provide entitlements to waste pickers and has yet to renew the agreement that lapsed in 2013. When these facts are juxtaposed with the fact that SWaCH members continue to service the city regardless, it raises the question of why this is so. On the one hand it could speak for the strength of the model's ability to survive in adverse conditions. On the other it could expose the vulnerability of waste pickers confronted with few employment options and choices. Reality is more nuanced than the either-or situation and we shall explore that in this part.

The study of waste pickers in Pune was carried out as part of an informal economy monitoring exercise in 2013 to identify the positive and negative forces affecting specific occupational groups in the informal economy. The methodology was hybrid in that it combined quantitative and qualitative tools administered to 5 per cent of the sample of waste pickers with proportionate representation of itinerant waste pickers, itinerant waste buyers and fixed collectors (SWaCH collectors who source scrap materials from fixed sources). The study found that SWaCH collectors had assured access to recyclables put out by waste generators. They perceived their transition from itinerant scrap collection to door to collection as having brought them many advantages. Among these were direct access to waste generators, recognition and authorisation to collect user fees as service providers; entitlements to collection equipment, safety gear and medical benefits. They worked fewer, more regular hours, enjoyed some autonomy to negotiate terms with service users and better access to drinking water, toilets and rest areas as compared with itinerant waste pickers. They felt threatened by the possible privatization of primary waste collection through private companies. Fifteen per cent of the survey respondents complained about competition from municipal workers for scrap materials was a major problem. Some also reported that contract workers on municipal vehicles refused to

accept segregated waste because they supplemented their wages from the sale of recyclable scrap. The Pune Municipal Corporation has doubled its door to door waste collection fleet over the past seven years. Free collection services provided by the municipality or by any other entity do pose a threat to the SWaCH model. The reduction of municipal skips was complementary to door to door collection of waste on account of which there has been significant reduction in the number of municipal skips. Itinerant waste pickers complained that they had to walk longer distances and had to spend more on the transport of scrap materials. Door to door collection also meant that there was less scrap being deposited in the municipal skips. There was intense competition among itinerant waste pickers and between SWaCH collectors and itinerant waste pickers. The Itinerant waste buyers were not really affected by door to door collection because they *purchased* recyclable materials directly from waste generators. The converse was however true. Itinerant waste buyers (men) had entered the collection space and become service providers to escape the intense competition in the buying segment (Chikarmane et al, 2014).

### **Contract employment in the Pimpri Chinchwad Municipal Corporation:**

#### *Door to door waste collection in Pimpri Chinchwad*

The Pimpri Chinchwad Municipal Corporation intention to emulate the SWaCH model took shape as a more hybrid form that incorporated futuristic ideas onto the core frame. We shall refer to it as V2SWaCH for the purposes of this paper. The proposed model sought to deploy motorised vehicles for door to door collection. SWaCH made space for the training and deployment of women drivers within the schema. The rest of the elements including the recovery of user fees were similar to those in the SWaCH Pune model. V2SWaCH started in half of the city as per the agreement and was to have been operational for five years during which it was to progressively cover the rest of the city. Less than two years later, the PCMC handed over the other half of the city to another operator on different terms. The new operator was to be paid on the tonnage collected. SWaCH did not object to the entry of another operator. The objection was to the different terms not only for the operators but also for the residents. The annual rate payable to SWaCH was on a reducing basis while that payable to the other operator was not only higher but also on an escalating basis. Residents in one part of the city would be serviced free of cost while those serviced by SWaCH would have to pay. SWaCH terminated the arrangement on the grounds that the terms were unfair to waste pickers as well as to service users. The waste pickers who had been integrated into the collection system had no guarantee that they would find a place in any new contracted system.

#### *Contracted waste pickers response to loss of employment and the struggle for minimum wages*

KKPKP took the issue to court for resolution. The Hon. Mumbai High Court directed the PCMC to ensure that its contractors would absorb the 300 waste pickers who had been part of V2SWaCH. Since November 2012 the municipal body indirectly employs about 300 waste pickers for door-to-door collection of waste. Each contractor is legally obliged to pay minimum wages to workers. The PCMC defaulted in its role as principal employer when it fixed consolidated monthly honorarium to be paid to the contractors towards every contracted worker. This honorarium of US\$3.25 per worker per day was expected to cover workers' wages, operations, equipment, insurance, service tax (where applicable), office expenses, overheads and

the contractors' profits. Workers were actually paid between US\$1.25 and US\$2 per day by the contractors. The total amount of the honorarium was less than the Minimum Wages prescribed for these workers (Sweepers and Scavengers) under the Minimum Wages Act, 1948 and the Maharashtra Minimum Wages Rules, 1963.

The workers were denied statutory entitlements, such as an eight hour workday, weekly offs, paid leave, bonus, gratuity, health care and provident fund contributions, and maternity benefits. The collective annual arrears of prescribed statutory wages (includes Minimum wages, PF & ESI contributions, leaves, bonus etc.) due to the workers was about US\$385000 per annum. The municipal body was directly implicated because it put out tender terms that precluded the possibility of minimum wage payments to workers.

The itinerant own account waste pickers who were now contracted employees of the municipal body, launched a protracted struggle for payment of minimum wages and benefits in accordance with the law. KKKPKP systematically documented violations by the contractors, using information sourced under the Right to Information Act that enabled contracted waste pickers to claim statutory wages and benefits through the labour court. Peaceful street protests, collective bargaining with the municipal administration and engagement with the media complemented the legal action. These processes continue, but what really turned the tide in favour of workers and actually secured interim relief by way of back wages for the workers is the intervention of the political class.

#### *Issues for further exploration*

As always every shift throws up questions and this is doubly true given the complexity of the informal economy. Itinerant waste pickers in Pimpri Chinchwad entered the door to door collection space as own account workers in order to secure uninterrupted access to scrap materials. Their employment terms changed when they were contracted as wage workers for primary waste collection. They would ordinarily not work only for minimum wages. They do so because they informally recover scrap from the waste that they collect. They sort the scrap in their own time after they finish their wage labour and sell it in the market. It is the combination of wage work and access to scrap that makes it viable for waste pickers. In actual fact they are doing two kinds of work at different periods of time with distinct and separate revenue streams. There are those who will argue that the income from the scrap sale should be offset against the wage. KKKPKP argues that the contracted waste picker is paid the minimum wage for the work of waste collection as would any other worker in her place. She spends additional time to sort scrap to take to the market and the earnings from the sale of scrap constitute the payment for the labour that she spent in sorting and transporting materials to the market. So earnings from sale of scrap cannot be offset against wages due.

The second matter is that of equal pay for equal work. The contracted municipal workers would be well within their rights to argue that they should be paid full wages (not minimum wages) for carrying out the work of the municipal body.

The third issue is that contract workers' rights, especially the right to association and organisation are severely compromised because of their vulnerability to threats and intimidation from their employers.

## Fragmentation of scrap markets on account of macro-economic factors

### *Proliferation of itinerant waste buyers and scrap dealers*

Itinerant waste buyers look upon the market being flooded with itinerant waste buyers and scrap dealers far more so now than then they did some years ago. The *value* of the itinerant waste buyers own “trade knowledge” was perceived as eroding, with the increasing presence of scrap dealers at every nook and corner that encouraged waste generators to by-pass the itinerant waste buyer and sell directly to the dealer. Relative to waste pickers, itinerant waste buyers were acutely aware of the number of new scrap dealers. About a third of the respondents reported the opening of new buy-back centres during the previous year. Reported closure of such centres was negligible. Three fourths of the survey respondents anticipated that there would be more buy-back centres in the city at the same time next year.

A study carried out in 2000 (Chikarmane et al. 2001) had found 368 scrap traders, 50 per cent of which had been established in the decade between 1986 and 1995. Figures available from the Pune Municipal Corporation (2012) put the number of scrap dealers at 566, which means a 54 per cent increase during little over a decade as compared to a 23 per cent increase in the general population during the same period. This could be caused by changes in consumption that led to an increase in the quantity of recyclables, or a greater fragmentation at the cutting edge of the recyclable scrap market. (Chikarmane, 2014)

GIS mapping of scrap shops as part of an unpublished study (SWaCH, 2012) revealed that 4 per cent of the 566 scrap dealers in Pune city operated on the roadside with just a weighing scale and no other infrastructure utilising less than 50 square feet of space. The daily working capital of a third of such shops did not exceed Rs.1000 (US\$18).

“These small shops, the fellows who sit on the pavement with a weighing scale to buy waste, the ones springing up everywhere, they should be shut down. They are affecting the rates, bringing down our business. The citizens don’t realize they are being cheated on weight – they just see the higher rates offered and sell to those fellows. We lose out.” He continues, “First people used to say ‘take this away, take it free if you want, but just take it away.’ Now everyone wants to earn from selling waste. Everyone wants a piece of the pie. But the trade has to grow, so let the bigger shops, the main ones with licences remain, just take out all these small unregulated ones.”

Itinerant waste buyer, Focus Group Report 9

(Excerpt from Chikarmane et al (2014) Waste pickers in Pune, Informal Economy Monitoring Study, WIEGO)

The same study also documented reports of migrant scrap dealers with “captive” migrant labour sourced from their native villages and regions. The practice has been reported in Delhi (Gill, 2010), but the phenomenon is more recent in Pune. The scrap dealer reportedly provided the predominantly single seasonal male workers basic living accommodation and capital for itinerant waste buying during their stay in the city.

The decline of women itinerant waste buyers:

There has been a sharp decline in the numbers of women itinerant buyers during the last couple of decades and little new entry at this level. Locally referred to as dabbatliwalis (container and bottle women), they were ubiquitous till the seventies after which they ceded space to the men. The dabbatliwalis visually estimated the value of the scrap, paid for it in cash and transported it in baskets on their heads. Alternatively, they travelled to the mofussil areas around the city and bartered necessities like garlic and peanuts that were not easily accessible to villagers. Over time, Dabbatliwalis were unable to compete with the advanced business practices of the men who started using weighing scales and push carts. The men were able to secure customer confidence because of the weights and were able to transport larger quantities of scrap on their push carts. Being men they also had better access to credit markets and the scrap dealers were more ready to give men more advances and more competitive rates for the scrap materials.

## **Conclusion**

The need economy exists to enable its excluded and marginalised inhabitants to meet their consumption needs. Dispossession is an integral feature of the need economy just as expansion of the spheres of profit is integral to the accumulation economy. As we said at the beginning of the paper, dispossession is not an end state. It is the end of one state and the beginning of another because the imperatives of survival in the need economy demand the capacity to adapt, modify, innovate and challenge. It is within this framework of challenge and innovation that we have entered into the lives of the waste pickers who inhabit the informal waste economy. Waste pickers are not victims, they are survivors and irrespective of the outcome, it is the challenges that they have posed to the system that this paper has tried to bring out.

This paper sheds some light on the whole debate of informality and formality in labour markets. At one level, waste pickers have remained informal workers irrespective of how they have traversed the work space as itinerant waste collectors, itinerant scrap buyers, SWaCH collectors or contracted municipal employees. At another, their unionisation has enabled voice and visibility. SWaCH is actually an official mechanism for collective bargaining. There have been some significant material gains as well. The bottom line is that as workers they have remained within the sphere of informality either as itinerant waste collectors or buyers in the need economy or as contracted municipal employees within the accumulation economy.

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