Rag picking is a filthy, dangerous work, performed by millions of people across India and it is effectively the primary recycling system in India. (*Photo*: Altaf Qadri)

Small-Town Waste and Its Life-World
Social Indispensability and Social Exclusion

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Reviewed by Kaveri Gill

This chapter[1] is not about a single vulnerable group and not about waste-work in All-India or in metro-cities, but about the life-worlds of most vulnerable workers in the waste economy (WE) of a small town, one of India's 7400.[2] It is divided into two parts. In the first we explore the diversity of urban waste, the diversity of waste-work and processes of stigmatised disadvantage, discrimination, exclusion, expulsion and dehumanisation associated with vulnerable workers of both genders in this town. In the second we examine the informal practices of the local state, its non-policies for waste, its own practices of social exclusion. These point to the need to include institutional preconditions which enable policies, institutional hostility to policies which needs to be neutralised and policy analysis in intersecting fields. The evidence base for these arguments is field material gathered in 2015-16.

> 'Don't you understand? This is India!' (Pig Rearer using Vegetable Market Waste). 'Everywhere, SCs and STs get bad treatment… We revere our pigs but people don't revere us'

'People call us *kuppaikar* and ask us why you stoop so low as to gather plastic. Are you not ashamed? It is hunger that drives us to do this.' *Irular* Dump-yard Worker)

'As I dismantle heaps of thrown waste, people divide into three groups – one shouts rudely and sharply at me; one orders me to re-heap the waste and the third offers me some extra garbage from the house'. (Municipal Worker)

'We are not well educated. We know knowledge is power. We want the next generation to have more power' (Indian Railways Station Cleaner).

'Only the rich despise us and don't allow us into their houses' (Municipal Worker talking about Lavatories).

'Alcohol is a regular expense for women and men because of the smell and putrefaction. Many get addicted' (Medical Officer).

PART ONE

THE LIFE-WORLD OF WASTE-SCAPES

1. SCOPING WASTE

Before exploring the life-worlds of small-town waste workers, the special properties of waste need introducing. While IXR 2017 profiled manual scavengers, waste is a larger field – of which human waste is part. Waste is the unavoidable material by-product of human activity for which an economic use has not yet been found.[3] Its owners have renounced their prop-

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2   Denis and Gnanou 2011).

3   Gidwani reminds us that waste has other meanings – notably inefficiency in production and land not under private ownership (2013). These are outside the scope of this essay.

erty rights. However briefly, waste has zero value and, when costly to dispose of, it has negative value.[4] Some has potential as a raw material and gains value through 'urban mining' and sale for recovery, re-use or recycling.

Modern public space is where waste accumulates and is processed. In cities, waste is both socially and physically disposed of, or transmuted as raw materials, in ways which are complex and specific to time, place and society.[5] Although for example the recycling of plastic in Delhi is a sophisticated informal industry[6], many of the spaces and networks through which other waste gathers and travels on its journeys elsewhere are noticed and described as 'unwholesome', 'filthy', 'repellent', 'malevolent', 'unruly'.[7] Nouns like 'nightmare', 'chaos', 'disorganisation', 'impurity', and morally loaded phrases like a 'threat to public health', 'accumulation by contamination' and 'public bad' are applied to waste.[8] Waste encroaches on the cultural purity of domestic space. Outside, public space, stylised as 'the bazaar' is the stamping ground of the non-bourgeois citizenry, or non- or incomplete citizens – alternatively the sites of impure mixing of bearers of differentiated social status.[9] The generation and 'reconversion of the excretions of production' (Marx 1971), the transformations of its value and the placing of waste in the economy are also found to be 'fields of conflict' over physical matter[10] and over the wasted spatial sinks or dumps without which the conditions for the operation of the economy would be stifled[11]. Further, the ways waste is classified by international agencies, governments, scholars and waste workers

themselves are inconsistent and confusing.[12] Yet this character is a fundamental part of the social record of waste, affecting public policy, technology and disposal practices.

Waste is one of the fastest growing sectors of the Indian economy. India as a whole generates about 960 m tonnes of solid waste a year[13] roughly a third each from agriculture, industry and consumption – and one third of which is no less of a problem because it is inert[14]. India's 'peak waste' (the point beyond which gains in resource efficiency will exceed the growth- and obsolescence-driven expansion of waste and drive a decline in absolute waste generation) is predicted to lie approximately a century into the future.[15] Meanwhile the contribution of waste to the material balances of the economy is expected to do nothing but rise.[16] 'Cities are literally drowning in their own solid waste' (de Bercegol et al, 2017),

India's rising waste production is most apparent in towns and cities where it has doubled in 10 years and is expected to double again in the next 5-7.[17] Crude and poor data mean that contemporary estimates of urban solid waste vary between 36.5 m to

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4   Cave, 2013

5   Demaria and Schindler 2015, Gidwani and Reddy, 2011, Fernandez 2015. See White et al 2012 for debates about the importance of the informal economy to GHG emissions and Vergara et al 2015, for a worked-out example from industrial ecology.

6   Gill, 2012

7   Chakrabarty 1992, Gill 2010, Doron 2016

8   Chakrabarty 1992, Cave 2014, 2017, Demaria, 2010; Demaria and Schindler, 2015; Rodrigues 2009

9   Gidwani 2015, Rodrigues 2009, Doron and Raja, 2015, Doron and Jeffrey 2018, see also Whitson 2011 for Buenas Aires

10   Evans 2011, Gill, 2012, O'Brien 1999 a and b, Wath et al 2011,

11   Gidwani 2015

12   Liquid and solid (gaseous doesn't exist!), hazardous vs non-hazardous (BP's Sustainability Report 2014), (bio)toxicity (municipality), wet/dry (Municipality and its MSW); by origins (e.g.medical waste, meals hotels, streets); by significant (recyclable) materials (e.g.glass, paper, cardboard, plastic), by site (e.g. the Railways), by commodity (e.g. mother-boards, bottles), by types of degradability (e.g. edible (by animals), biodegradable, nonbiodegradable), by human versus non human waste, human and non-human disposal (animals, nature) and by the kind of exchange involved (gathering, barter, sharing, buying and selling, public expenditure, gifting for 2 hand re-use and sale (clothing) , recycling or disposal) – and a lot of abandoning .

13   CEE, 2014, p4

14   Inert waste is neither chemically nor biologically reactive and will not decompose. Examples of this are sand and concrete.

15   Hoornweg et al, 2013

16   World Bank research acknowledges the lack of comprehensive data for waste generation in India but while urban population growth from 2001 to 2011 is estimated by the Census at a factor of 1.09 , for the decade, between 1995 and 2005 the components of urban physical waste has grown by factors estimated at 15 (plastic and rubber) 2.3 (paper) 1.8 (glass) and 1.1 (biodegradables) (Zhu et al 2007).

17   http://paper.hindustantimes.com/epaper/viewer.aspx-?noredirect=true

48 m tonnes annually.[18] Estimates of waste recycling in India vary between 50 and 80%.[19] Of urban material deposits, only an estimated 23% of 'solid waste' and 15-30% of human waste are treated.[20]

The disposal of untreated waste – some toxic, some for dumping, some for re-use, some for recycling – is therefore indispensable to urban life. Without the constant vigilance and effort of waste workers, urban economies would grind to a halt and (whatever the other social effects of waste) society would be threatened by pollution and disease. Waste-work is a public service.

2. PROFILING SMALL TOWN WASTE – A BRIEF JUSTIFICATION

While most of our knowledge about waste accumulates from case studies sited in metros, this chapter is framed through a small town. Here we can map the waste sector in its entirety, integrating the production of waste with production from waste[21]; public sector activity with private activity; the profits of employers, wages to labour, and incomes from self-employment[22] (Table 1). Laying a pragmatic boundary around the built environment of the town, we may understand the ways waste is generated and handled throughout the urban economy: in industrial production, in distribution, in consumption, in the production of labour (human waste fits in here) and in the reproduction of society.

The town we studied is in South India, well developed and connected infrastructurally, with a census population of 70,000 but a real population of over a lakh, growing locally, migrating-in and spilling over its administrative boundaries.

In its rapidly expanding economy, we studied waste from the factory production of industrial liquor, rice, and clothing accessories; we studied waste in distribution from Indian Railways and the wholesale vegetable market. The most visible waste, from consumption, involved the Municipal Sanitation workforce (MSW) plus private specialist waste industries (dumping unrecyclable material but recycling paper, cardboard, plastic, glass and metals) and an army of unregistered self-employed gatherers searching and sifting for recyclables. Human waste occupied private septic tanking businesses; but half that of the town was also mixed with general consumption waste, including food-waste. Waste generated in the reproduction of society was profiled through that of the public and private medical systems and through the retailing of liquor (without which most of the workforce do not set out on, or recover from, their stints) which generates waste glass. Our evidence comes from 84 interviews. They focussed on work so there is less detail about life outside work.

In 2015-16, by the afternoon, every scrap of unoccupied land and verges, whatever their tenure, was littered with waste. Half of this cannot be recycled. Unable to check pervasive fiscal non-compliance, starved of resources[23], the town's municipal government is nevertheless the revenue unit responsible for public action. We interviewed a further 15 local government officials, 10 public activists in *Dalit* politics, party politics, legal activism and social movements about the management of waste and 6 prominent urban citizens. It is this total of 115 narratives that provides our evidence base.

3. THE DIVERSIFIED URBAN WASTE-SCAPE

Tables 1 and 2 summarise the economic character of each circuit of waste, their distinctive spatiality, physical decomposition potentials and the diversity of their economic structures from the perspective of the workforce.

There is no hard and fast division between registered/formal and unregistered/informal waste-work.

18   IXR 2016 p 283, Joshi and Ahmed 2016. Limited data on urban solid waste is available from the Central Pollution Control Board (CPCB), New Delhi; National Engineering and Environmental Research Institute (NEERI), Nagpur; Central Institute of Plastics Engineering and Technology (CIPET), Chennai; and Federation of Indian Chambers of Commerce and Industry (FICCI, 2009), New Delhi

19   Gill 2010

20   Khazvini 2015, Bose and Saxena IXR2016 p283

21   Suryaprakash, 2014

22   Resource constraints prevented us from following the metabolic circuits of waste and production from waste outside the formal territorial boundary of the town. Important activity like the social relations of disposal of small-town construction/demolition waste, e-waste, re-processing industries and the waste from waste await further exploratory research.

23   Rs 4-5 crores for a population of 1 lakh

A few comparatively large firms and government agencies dominate the sector, but the latter are casualising their own labour and privatising/contractualising waste-work out to formal companies with casual or bonded labour forces. While consumption waste is the formal responsibility of the municipal government, a powerful combination of tax evasion, neoliberal ideology and new public management drives the contraction of its formal labour force and its replacement by 'contractualised' labour on casual contracts and much lower rates of pay. This process is being repeated in hospitals and on the railway. Now a casual or unregistered livelihood from waste-work cannot support the reproduction of the waste labour force *un*supplemented by income from other work.

Wage-labour forces operate alongside a multitude of self-employed workers (SEW). Wage labour's earnings range from Rs 25k/m with full work related rights (in the Municipality)[24] to Rs3k/m with none (from the dump-yard). Some self-employed waste gatherers are locked into debt relations of disguised wage-labour, while others are paupers, trapped in low incomes and excluded from tied credit both by default-risk and by lack of collateral, autonomy in self-employment is an aspiration of many. Whether dependent or not, the returns to self-employment and the balance between consumption and investment rarely allow profits and accumulation. Self-employment is found to persist and expands by multiplication of tiny units rather than accumulation.

Evidently private fortunes can be made from waste – as in the private apex scrap yard on the edge of town where some 300 labourers segregate 200 different raw materials for re-cycling and re-processing; or the private waste-collecting companies contracted to the municipality, the railway station and the public hospital; or the gunny and cement bag resizing company which has a monopoly over the means of collecting waste of everyone working on foot or with cycles. All the capital of these firms has currently come from outside the town.

Some of the wage-labour force is not among the most vulnerable, for example septic tanker-workers (family or regular labour), factory waste-work (on regular 'casual' contracts eligible), or liquor-waste labour (on ad hoc contracts but making multiples of their pay from black liquor and waste glass sales). Some poor workers are dependent but not vulnerable. Take for example the illiterate, long-term 'housekeeper' – the euphemism for waste-cleaners, usually women – in a private clinic. She has had a casual contract for two decades of 12 hour shifts with no weekly break but she gets discretionary benefits for her loyalty and willingness to help out (not confined to latrine–work and infectious swabs, but dispensing medicines whose labels she cannot read or in helping out in the operating theatre…).

Livelihoods in waste are gendered. India-wide, some 30% of women are estimated to participate actively in the paid workforce but female participation is declining,[25] a process variously attributed to patriarchal force or a standard of living paradox in which, when incomes rise, women are withdrawn from work in public places.[26] In the waste economy we studied the labour force is relatively female. Ninety five per cent of station cleaners, three quarters of public hospital cleaners, half of the labour in the private company subcontracted to the municipality, 40% of the apex scrapper's company and a third of the municipal sanitation workforce are women. Unregistered self-employed gatherers often work in male-female pairs (for protection). By contrast under 10% of collectors of vegetable waste and pig herders are women. And with one exception all the property is owned by men.

The labour force is also socially cosmopolitan, involving low castes, tribes, Muslims[27] and Christian workers. *Dalits* (SCs) and *Adivasis* (STs) are aggregate terms disguising differentiated low status groups. Together form 25% of India's population, but, although official figures are lacking, our field research suggests that they are 40% and 30% respectively of the formally employed MSW. For one registered livelihood there are between about 10-15 unregistered livelihoods. The unregistered workforce of waste is clearly dominated by *Dalits* and *Adivasis* (with OBC *Naickers* and *Nadars* owning businesses).

The poor and vulnerable, low caste and tribal workers on whose lives we focus are embedded in

24   This does not mean their work conditions are good – see Harriss-White 2017

25   Seetahul 2018

26   Anandhi 2017; Kapadia and Anandhi 2017

27   See Suryaprakash 2014 for a case study of Muslim animal-scrappers in Hyderabad.

private firms and indirectly in public sector units and/or are self-employed. Their economic relationships are almost always produced from multiple forms of exploitation by those profiting privately from the waste economy, by elements of the local state, as well as by wider social processes. Poverty and vulnerability are conditions of unregistered workers in private firms contracted to state agencies, on workers handling human waste mixed with consumption waste and self-employed gatherers in the vegetable market, the dump-yard, wedding halls and slaughter houses. Although we focus on the unregistered work of men and women with *Paraiyar* (SC) *Kattunaicker* and *Irular* (both STs) identities, we include narratives of formal MSW where they provide narratives of social exclusion processes, relations to the state and resistance to oppressive forces.

4. THE WORK EXPERIENCES OF DISADVANTAGED WASTE-WORKERS

The complexity of unregistered waste-work is sampled here through the material stuff of waste, through work-sites, through its toxicity and through its gendering.

Mixing human and consumption waste

Part of being human is to produce waste – prominent among which are urine, faeces and menstrual waste.[28] The abolition of 'manual scavenging' in the early 1990s brought about the abolition of public sector jobs reserved for female scavengers. The de-reservation and disinheriting of sanitation work now means these comparatively well-paid jobs depend on official patronage and discretionary power. The municipal labour force while ever more understaffed is ever more male. The disposal of 'wet waste' in which human waste is mixed with general consumption waste in open drains is now men's work.

Half the town's houses have septic tanks. But the SC and ST owners of the small fleets of septic tankers report that very few households void them regularly – they might be cleared once in a generation or when they break down. As the town has no facilities for the treatment of faecal sludge when it

28   Some 97% of menstruating women in a slum study used cloth and only 1% washed and re-used such cloth (Garg et al 2001).

is pumped out, it is dumped (bribing the police) in a nearby lake which it has toxified and in a seasonally dry, illegally quarried river bed. Meanwhile, human waste from the other 50% houses and almost all commercial buildings finds its way into open drains and urban gullies. Impossible to separate from consumption waste, its resting place is the dump-yard. 'Someone' contains the putrid mass by systematically setting fire to quarters of it week by week. While it is blamed on scheduled tribal *Irulars*, they clearly have no interest in increasing the danger of their work-environment.

Dump-yard work

Here is the lifeworld of an illiterate, male, scheduled tribe, Irular worker, aged about 40, interviewed on the dump-yard who does not distinguish work from living conditions. 'Our forefathers came here 50 years or more ago when it was nothing but forest and beautiful. We shared it with animals. The land was *poromboke* (government titled) and used for hunting and shooting. Gradually other people came here, took the land and built houses around us. Now we live in tents and shacks near the dump-yard, on the municipal fairground and here in pits on the hilltop. We have to scramble up steep rock to get home. Others have electricity and water but we don't. We have been temporary for at least three generations.

Our preferred work is vessels-cleaning, toilets and food-waste-clearing at wedding feasts in *kalyana mandapams* (wedding halls). For this, we may earn from Rs 175 to 300/day or Rs 250 m-350 per night plus tea and food plus tips from the 'wedding families'. A 2000-guest, "Rs 10 lakhs" wedding would be work for at least 7 of our families for three days or more. We also get plastic, glass and cardboard waste from wedding hall work. Contractors call us on our mobile phones for this work. But we are lucky to get it 4 days a month. We also collect leaves for garlands – oh, Rs 50-100/day. We do seasonal agricultural labour at harvests, brick kiln work and we do *bund* repairs. We used to fish but sand-mining in the river bed has ruined that.

'So our main work is searching and gathering waste on the dump-yard. But in the rainy season it is very slippery, we can't take children there and we also have to cut back on food. In other seasons, we work from 4 am to 2 pm

and then bathe in pools in the river bed. We have our own routes over the dump-yard – we're looking for useful plastic, polythene, paper, iron and other metals, boxes and bits of furniture. Others have already picked over this rubbish elsewhere. We are about 20 families – we are united and share our pickings to ensure equality. Other children, cows and pigs also work on the dump-yard. Sometimes the animals charge and it's dangerous. We also have to watch out for broken bottles, sharp things and other infectious waste from the theatre and medical wards. We find body parts from hospitals, corpses and even aborted babies. One woman was stuck in her leg by a needle, the wound went septic and pus flowed like a pump. Each week part of the dump is fired to level it, so the surface can be hot and dangerous. We get used to the smoke but not to the flies. Our buyer provides sacks. We bring the sacks up here from the dump-yard and sort and bag the finds. Then our boys take them by cycle cart down to the buyer who rents the carts out to us and buys waste from us alone. He gives clothes and a biryani for *Ponga*l. Everyone is indebted to him. As a family (two adults and 3 children) in a good month we might get Rs 5000.' 'The rice ration keeps us alive. The quality is so poor we sometime refuse but mostly we share ration rice. At least we get our half meals this way. Others say we are poor but strong because we eat rats and snails and don't eat vegetables.

'Yes, we also share a quarter bottle of brandy each day. Women and men drink.'

'People believe Irulars are dishonest and steal and are scared of leaving metal goods in our presence. But we are honest and our work involves trust and sharing. One bad case tarnishes us all….I am proud of my brickmaking skills. My son and I are honourable brick-makers but there is no work.'

Infectious waste

The waste generated by health institutions is mainly handled as general 'consumption' waste (e.g. food and human waste). The productive-therapeutic aspects of healthcare vary greatly in their generation of waste – operating theatres, maternity and labour wards and diagnostic labs generate most while paediatrics generates little. A small proportion of this waste is infectious or otherwise dangerous to health (needles and sharps; plastic syringes; blood transfusion, blood products and bloody waste; soiled cotton and cloth; drug bottles; saline and glucose bottles; body parts). It is termed medical waste and supposed to be strictly state-regulated in a separate system of segregation, collection, incineration and burial. While the medical waste of the public and larger private hospitals is recorded and segregated, that of the 40 or so smaller private hospitals and clinics is seg-

regated inside their compounds where it might be viewed by patients. However, once outside, it enters the system of general consumption waste and heads for the dump-yard.

While kit that is visible to patients – housekeepers' uniforms, gloves and masks – are usually provided, a Muslim woman housekeeper explained 'our own needs are rarely planned for by employers'. 'We sneak into the labour ward staff toilets'. With a 7 day week on 12 hour shifts, housekeeping is not compatible with family life or other work at home. Housekeepers cannot supplement their work with side jobs Earnings are around Rs 6,500/month, with a festival bonus of Rs 3,000, loans of up to a month's salary (deducted in instalments from pay) and provident fund contributions. But 'there is no retirement age. There is also no time for worship –I hide my religion….The hospital is my parent-home'.

Being a woman worker

The most historically stigmatised work, the disposal of human waste, is no longer reserved for women. It is now *Paraiyar* and *Kattunaicker* men who void septic tanks, or heave the undifferentiated 'wet waste' from open drains to dump-yard lorries. When male workers are seconded to other government departments, or off sick, women take over the modern form of manual scavenging, though none work underground.

Women's work is hard to combine with household reproductive work. Little to no provision is made in the open-air, public workplace for the biological and social needs of women. Women have to starve before work stints, or hold in their excreta, 'beg access' to private latrines, or – 'what an irony' – defecate on the verges. Their lack of access to sanitation often forces women to work short-shifts while menstruating, for which they report abuse from roadside households.

The private company deploys bonded migrant married couples in pairs on 8 hour shifts. Some women report having to take their children with them for lack of supervision. A woman paid to manage the one public latrine near the migrants' shacks said she minds workers' children for free 'but they are always running away' – clearly without access to nurseries or school. Women working for registered

private companies are paid 20% less (Rs 210 against Rs 240 for men)[29], while in the unregistered informal economy they are found to be paid about 40-60% less (Rs 100-150 against Rs 240-260 for men, sometimes with food and lodging).

While waste-work is not uniquely poorly paid or dangerous[30], the socially-constructed natural environment and the resources and substances handled by waste-workers are frequently hazardous. Disgust at its smell is another common condition of work. In complex irregular occupational portfolios, waste is the least preferred, rarely done by choice.

Entry is easy because waste is expanding so rapidly. Earnings are relatively low: self-employment and wage work yields men and women between Rs 3000-6000 per month. The urban minimum wage for the relevant state (Rs 180 per day) would generate Rs 4500 for 25 days (Rs 5400 for a no-rest month) so waste livelihoods hover above and below the minimum wage. The working day, however, is much longer than that for which this standard is calculated. The minimum wage is also not set to provision a family, so incomes in waste often require minimising the ratio of dependents to workers – which explains the appearance in the waste economy of labouring children and the aged. By contrast, the urban Poverty Line has been revised upwards on CMIE data by the Rangarajan Committee from the Tendulkar-Planning Commission's Rs 33 per day (Rs 990 per month) to Rs 47 per day (Rs 1400 per month).[31] By this yardstick, earnings are mostly in excess of the revised poverty line.

Even so, poverty commonly excludes many waste-workers from acquiring private goods (clothing, chappals, gloves, masks) that would protect them while, unregistered, they provide this essential public service. For people to reproduce at this level of income their basic needs have to be available and subsidised, which is not the case here. Waste workers remember having to beg for food in the past. However, in addition to food and shelter and time-con-

suming searches for fuel and water, private health, education and dowry costs are now well established to eat into the conventions of 'essential expenditure' of the lowest status and poorest labouring people.[32] The neediest people work in the town's waste economy and the neediest waste workers are the most imperfectly entitled to the social safety net. The public distribution system was frequently praised as a nutritional safety-net for waste-workers and its rations are often shared with those households without ration cards.

The reproduction of the unregistered waste-work force is threatened – not simply due to poverty but also by the impact of work conditions on their health and by stigmatising social treatment, which most people we interviewed denied to be social discrimination.[33]

5. PROCESSES AND EXPERIENCES OF SOCIAL EXCLUSION: DISCOURSE DISCRIMINATION, EXPULSION AND DEHUMANISATION

Social exclusion (SE) has been defined in several ways relevant to the world of waste. Originally it signified the processes by which people become pauperised and unprotected social misfits.[34] Now for the IXR, it is the 'condition of poverty, assetlessness, denial of decent and fair employment, discrimination based on gender, caste, religion, ethnicity, disability, occupation, stigmatising and debilitating ailments,' compromised resilience etc.[35]

SE is both process and outcome, resulting in turn from two intersecting kinds of disadvantage. First, ascribed disadvantage which is the outcome of status at birth – as faced by *Paraiyars* (a scheduled caste) and *Kattunaickkers* (a scheduled tribe) from which no amount of their limited upward mobility can remove the social taint.[36]

But second, it results from acquired disadvantage from the denial of access to the full dimen-

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29   Supervisors were reported by CITU leaders to skim as much as Rs 80 / day from the migrants' wages.

30   Construction , kiln-work and quarrying are obvious comparators (Talib 2010). More research is urgently needed on physical work conditions and health across the informal economy (Sabermatee et al 2015)

31   Jitendra, 2014

32   Cavalcante, 2015

33   Instead, workers blame their treatment on their lack of acquired characteristics such as education and wealth.

34   Saith et al 2007

35   Mander, 2014, Preface p2

36   Harriss-White and Rodrigo, 2016

sions of social, political and economic citizenship, in particular provided by public goods and services. Among researchers, there is no consensus on either the goods or their mode of delivery. While the UN lists effective rights to '(f)ood, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood'[37], India's RBI Governor in 2016 invoked access to 'education, nutrition, healthcare, finance, and markets'[38]. That markets can be public goods (non-rivalrous and non-excludable) is a product of neoliberal ideology – and only recently accepted. The IXR's expanded list of public goods adds electricity, resources, labour, law and justice. Here, public goods are clearly those goods which a political consensus has decided should be publicly provided.

The lack of what Amartya Sen (2001) terms capabilities to function consequent to failed access to the social life enabled by these public goods pertains to groups as well as to individuals. Do the many dimensions inter-relate in syndromes such that one could proxy for others? While unlikely for European conditions, it might be more likely for developing countries. Whether lack of a minimum set of public goods can constitute SE; whether flawed, rather than failed, collective access counts as SE,[39] whether social isolation can ever be individual when pertaining to a group, whether the fragmentation of social relations is both a necessary and a sufficient condition for SE, have all been debated and not resolved.[40] SE is also understood as a relative concept deviating from some kind of norm: 'excluded from ordinary living patterns, customs and activities' (Townsend 1979, p31 in Saith et al 2007). Where the majority are deprived in a hierarchical society like India's, the norm, the 'ordinary living patterns' from which the minority are excluded, may be perverse. There will even be multiple norms and multiple legal entitlements (as for APLs and BPLs).

Atkinson (1998) makes the significant point that exclusion is not confined to access to the state but refers to an act by an agent or agents, such as individuals, groups, institutions or markets, that have the power actively to exclude people from various spheres of life. And those excluded may also have been passively excluded from the start, especially in the unregistered, informal economy where citizenship is least developed. While work status and conditions (formal and informal) and citizenship rights to social protection ought to be independent of each other, field evidence shows that work status shapes effective rights.[41]

Here we use our case material to suggest the social exclusionary powers of discourse, stigma, discrimination, dehumanisation and expulsion.

Stylised discourse: our very concepts exclude.

In one basic respect the consuming 'public', producing waste in what in 2018 India's Environment Minister described as an 'unnatural way of living'[42], but one providing waste workers with their livelihoods, if they imagine waste at all, tends to converge with many academic and activist waste researchers who are aware of waste and committed to social justice. These experts and publics recognise waste workers through a distinctively politicised discourse that is at one and the same time homogenising and diverse – and which works to mask ignorance and to exclude alternative understandings.

Waste workers are conventionally stylised as 'rag-pickers', 'waste pickers', 'scavengers' and 'manual scavengers'. Meanwhile there exists a lexicon of regional linguistic terms generally referring to tools (sweeper), excrement (shit-carrier), dirt (dirt-dealer) and the contaminated rubbish associated with 'scavenging' (filth-men).[43] 'Scavenging' is further deconstructed using local names defined by precise jobs (hospital housekeeper, pig-men), legal status (Municipal sanitation worker), 'naming' by caste (and using the suffix '-an' not the respectful '-ar'), ethnicity and habitat (forest-trog, dog) and gender

37   See   http://www.un.org/en/universal-declaration-human-rights/

38   See   https://www.rbi.org.in/scripts/FS_Speeches.aspx-?Id=941&fn=2754

39   Saith et al 2007

40   Figueiredo and de Haan 1998.

41   Harriss-White 2010

42   See https://www.hindustantimes.com/analysis/why-india-is-taking-the-lead-for-a-clean-planet/story-F3FCtwEL-9HyUmeSvqPrUpO.html

43   IXR2016 p 302

(slut). As with the classification of kinds of waste, classifications of kinds of waste-worker generate problems of epistemological incoherence. But the 'scavenger' or 'waste-picker' is an over-simplification, masking the detail of actually lived social exclusion. We use waste worker here when referring to the sector; otherwise we use precise labels.

Stigma.

Stigma expresses strong feelings of disapproval and repulsion. Many of the labels discussed in the last paragraph are stigmatising. Throughout the world, the essential services of waste disposal, recovery and recycling are low in the status hierarchy and carry the meaning and stigma of dirt – and often of crime.[44] While waste is generally stigmatised, human waste is worst, mixed wet consumption waste is hardly better, while the door-to door collection of dry waste, like newspapers or plastic for re-cycling, carries far less stigma. It is for reasons of stigma that municipal engineers with responsibility for waste strive to keep social distance from the consumption waste workforce and are reluctant to consult the knowledgeable and experienced municipal workers about what they conceive as 'problems and solutions' involving waste. And while the majority of waste-workers are poor, livelihoods in waste may be stigmatised even when generating incomes and assets far above the poverty line. 'This is not a progressive occupation' said the owner of a fleet of septic tankers. 'And what with bribes, maintenance, forcing us to clean college tanks for free, and competition our profits are not going up. I'll make my next septic tanker from spare parts'. 'Yes because it's a dirty business. Dust and chicken shit. Even our women don't like us doing it' (Gunny re-sizer and wholesaler).

Social discrimination

Discrimination is one of Atkinson's acts of social exclusion. A widely used definition is of individuals with the same endowments (assets, entitlements, rights, skills, education, experience) command different tangible returns (income, development benefits, realized entitlements) and less tangible satisfaction (such as dignity and respect) as a result of

differences in social status-(due to caste, religion, gender, ethnicity, etc.).[45]

But this definition involves outcomes rather than processes. That these status differences mean different social status groups will never have had the same assets and capabilities including that of accessing the state, draws attention to relations of socialisation prior to work as well as in work. While discrimination can transcend social class, it is also a mechanism of class differentiation, one sited outside as well as inside production relations. The distinction between discrimination in outcome and 'indirect discrimination' in processes and relations of 'preparation', in socialisation and in work implies that while the former may be observed and measured by outsiders, the latter is found in lived experience.[46]

Experiences of social discrimination

The experiences and concepts of waste workers do not always fit our analytical categories or official state classifications. In fact the concept of discrimination (which may be measured and quantified)[47] does not accord neatly with the life-worlds of waste workers. We started in Tamil with *paahupaadu*. But waste-workers sometimes used the word *verupaadu*. This means 'difference', but its context always implied experiences of difference involving power relations adverse to the narrator. Another word conflated with discrimination in the narratives is 're-spect', *mariyaathai,* referring to meritorious status, to behaviour generating respect from others – and to the contexts of its absence: behaviour or comments by others which make the narrator feel shame or disgrace. Then in the minds of many narrators, discrimination is inseparable from the *dangers* they face at work. It is every bit as though the social-political and the natural environments are not separable but combine to discriminate against them. Untreated waste effluent from an industrial alcohol factory for instance has been piped to, and discharged onto, a dry river bed where it forms dark stagnant pools, percolates downwards and contaminates the local drinking water for Dalit hamlets and the irrigation

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44   Thompson 1979/2017

45   Prakash and Harriss-White, 2010

46   See Kapadia and Anandhi 2017 for examples of poor dalit women.

47   See the review in Thorat, 2015.

water pumped from wells for *Dalit* paddy production (*Paraiyar* Panchayat President). This dangerous liquid waste is felt to target Dalits and its siting is experienced as an investment in discrimination against them. At its most poignant, so deeply internalised and 'naturalised' is the social treatment of certain tribal waste-gatherers that they do not frame their experiences in terms of discrimination at all. 'We have our self-respect. We do not suffer their abuse'. This may mean that abuse is not directed at them, or that abuse directed at them may not be noticed, or that it may be noticed but is ignored. [48]

While the actions and practices we recorded may signify treatment consistent with the recipients' lacking dignity in the eyes of those practising discrimination, adverse difference or disrespect, the waste workers we interviewed do not lack personal dignity. Further, many spoke of specific kinds of affront to their dignity, such that dignity may be undermined in some respects while not in others.[49]

In interviews we therefore pieced narratives together by asking specific questions about work and non-work experiences. Much of this evidence comes from the least deprived MSWs – because they alone understand the extent to which their citizenship is compromised. Unregistered waste-workers endure far more exposure to the forces described here.

Workplace discrimination.

Despite physically dirty and smelly, often dangerous and disgusting, and oppressive work conditions, and despite self-selected discrimination in socialisation and preparation for work, the main finding was that (with the exception of *Irulars* discussed later) amongst workers at work little discrimination was reported. 'Not at all. Nowhere.' declared a liquor glass collector. It is difficult to generalise; for against this, even in the unionised MSW dominated by SCs and STs, a rare OBC 'is frequently allowed off work when we would never be. He gets privileges. I have to do his work then' *(Paraiyar* MSW). This is discrimination due to caste not work.

Where work involved contact with the rest of society there was more. At the station, the Health Inspector receives 'complaints about the SC Indian Railways cleaners touching the inside of the compartments'. In hospitals, housekeepers record abusive labelling as 'dirt dealers' and shit-workers, and sexual hazards and harassment at night that they attribute to their caste. The most discrimination is outside work.

Education

Education is taken seriously by waste-workers since it provides a route for the next generation to exit. Discrimination starts during socialisation at school when *Dalit* and *Adivasi* children are sat at the back of classes – even in private English medium schools. In suburban schools *Dalit* children are found to be prevented from eating with non-*Dalit* children or from using their plates.

Adivasi Kattunnaicker children are also reported to be prevented from access to higher education. The district sub-collectorate is accused of procrastinating in an arbitrary and punitive way over issuing ST certificates for at least a third of the pig-rearing households. 'Without these certificates we cannot get entry to Higher Education for our children. Our children will be stuck at 10th standard like their fathers' (Caste Association President).[50] Young people who manage to gain advanced vocational or post-graduate qualifications, find entry to highly prized public sector jobs fortified by 'disproportionately' high bribes.

Housing

The town is spatially segregated both by waste-work and by caste, adding support to Thorat et al's 2009 findings about residential segregation and ghetto-isation.[51] In many parts of town, '*Dalit* waste-workers are segregated and refused lodging' reported a comparatively well-paid MSW. The fabric of the Municipal *Dalit* colony is dilapidated

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48 In the same way, hemmed in by the opulent material culture of modernity but themselves living in shacks and plastic tents, they find it very difficult and unfamiliar to relate the notion of 'aspiration' to their own life-world.

49 We are grateful to Judith Heyer for clarifying these distinctions.

50 According to Dr G. Murugan, the Government of Tamil Nadu has introduced an on-line application system and a sanctioned limit to delays in scrutiny of applications (Pers. Comm. August 2015). This is politically unknown and technologically inaccessible to the people we interviewed.

51 Thorat et al 2015

with 'more defective water, electricity and drainage' (MSW) generating overspill of waste-workers to private housing where rent is a factor of 10 times greater. 'Though they clean the town, their own quarters are not as clean' (*Dalit* Rights Lawyer). But according to a MSW, 'municipal house plots for municipal sanitation workers are being used by others. It is not a problem of land, it is hostility.'

Kattunaickers have built their own neat, clean quarter on *poromboke* (common) land without title but complete with a temple. Lack of '*patta*' (title) explains their syphoning power from electricity lines, and the provision of water by a municipal tank not directly piped to houses (*Kattunaicker* Ward Councillor).

Use of public space

> 'Before the last decade we had to accept waste food from people – they would put it in plastic bags or leaves; they would give us dirty water in dirty mugs and set it down on the ground, not hand it to us. They would throw pots they served us in away'. 'I can remember at festival times when coins were dropped from a distance for us to pick up' (FMSWs).

> 'Trade union training has had an empowering effect. There are now no restrictions on our use of shops in town but in villages, groceries, tea stalls and barbers all refuse entry to *Dalits*' (MMSW).

> 'Now there are tiffin shops which serve us if we are well dressed and sober' (Scrapper). 'Sometimes at tea stalls, people pick a quarrel and caste is mentioned……' (Vegetable Market waste carrier).

> 'There is no discrimination on town buses but on rural ones, *Dalits* are asked to make way for caste people'.

> 'There is no discrimination in hospital queues but we are not allowed treatment in the wards reserved for government servants, which is what we are' (MSWs).

Banks are vitally important to social reproduction as well as production and are still described as toxic sites of discrimination over and above the Catch-22 of lack of collateral. 'No bank will lend to us' (*Paraiyar* Ward Councillor).

> 'The banks are a big headache for us. They do not give loans for what we know we can do here – on *poromboke* (common) land – even renting *poromboke* land. We could do horticulture, fruit, aquaculture and pigs. The

bank staff are actively hostile. For new activities they ask for our experience. How can we have experience in new activities? It is impossible to get loans' (*Kattunaicker* Septic Tanker Owner).

MSWs have varied experiences of discrimination in setting up accounts, deposits and savings, or securing education or housing loans, the former easier than the latter. 'Loans from TADCO[52] may be granted at HQ and blocked by local branches. 'It is uncertain and laborious' (FMSW).

Access to public goods is flawed and remains discriminatory due to ascribed stigma which waste-workers do not disentangle from the stigma of waste-work. Individual discrimination exists alongside group-based discrimination and may be replacing it. While the prejudiced treatment of waste workers by waste generators in and outside work may indeed be due to the caste and tribal 'communities' into which waste workers were born, the way people bearing the brunt of caste/tribal stigma narrate their treatment strongly suggests it is due to other factors (such as poverty, illiteracy, dirt, language, gender)[53] among which they find it impossible to distinguish caste and ethnicity. So closely do they overlap that discrimination due to acquired characteristics may be a preferred and modern way of narrating the experience of discrimination that is due to ascribed caste/ethnicity.

We conclude that despite the small size of this case study there is no single or common experience of discrimination. Much occurs outside work.

Dehumanisation and social expulsion

Certain waste workers report not only being excluded from the public sphere but also not being regarded as human.

Being destitute

Destitution is one aspect of the experience of dehumanisation. A small segment of the unregistered waste work-force is trapped in a process of such destitution that the right to be dependent is forfeited – we met people who have eloped across caste; addicts of drugs and alcohol; victims of certain dis-

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52 Tamilnadu Harijan Development Corporation

53 Developed in Harriss-White and Rodrigo 2016

eases; criminals or victims of vendettas.[54] Consigned to a life of 'wandering', they are absorbed into waste-work. Indeed some we met 'wander in one place' and stick around on the margins for years – 'generations' in one case of verge-side rough-sleepers. Permanently transient, these people do not officially exist at all; they are socially expelled.

Not being human

> 'We are machines'. Here a FMSW refers to the inhuman physical drudgery of her work. 'I live two lives. I am human only outside work' (said a *Kattunaicker* gatherer). But the ST *Irular* waste collectors,[55] who may number 150-200, are distinguished by others among the *Dalit* and *Adivasi* waste workforce. 'We never talk to them' (FMSW – *Paraiyar*). 'We have no contact with them.' (*Kattunaicker* Association President – officially a fellow ST)

Irulars' work is segregated in time (before and after the MSW on the streets of the town) and in space (on the burning dumpyard after non-recycled waste reaches its resting place). They search for re-usable material discarded by other waste-gatherers. 'They are not really humans' (Female *Paraiyar* gatherer). 'We are treated like animals' (Self-employed dumpyard *Irular*). *Paraiyars* and workers from other scheduled tribes refer to them as 'beggars' and 'drunkards'. Of *Irulars*, we were told 'a dog is still a dog even if you bathe it.' There is a difference between feeling like a machine and being treated like – and made to feel like – an animal. While the former is due to oppressive work, the latter is due to extreme collective discrimination amounting to social expulsion.

Why *Irulars* as a group are thought by others not to be fully human is a question not easily answered. *Irulars* seem to have a unique permutation of attributes many of which are individually associated with other groups of *Dalits* or *Adivasis* or low-paid workers.[56] First their closeness to nature: their past association with rat and snake-catching – 'but I have never hunted rats' – their knowledge of the world they 'share with animals' as stewards, hunters

and fishermen; their still living in hilly forest habitats (after multiple evictions), or pushed to the tops of urbanised hills ('their' territory encroached upon by others) or squatting on municipal land – never with title.

Yet other castes and tribes encroach with impunity and it is the MSW not the *Irulars* that are ordered by citizens to dispose of dead animals in town. *Irulars* wash in water holes or tanks (for most have not been provided with water). Their combination of fluent oral expression but extensive lack of formal education (with few of their children in school even now) is unusual among local Dalits and Adivasis. Their living conditions are distinctively makeshift, consisting of shacks and tents roofed with thatch, plastic, political posters and shards of corrugated iron. 'We have been temporary for three generations'. The relative independence of their women, the routine consumption of alcohol by almost every adult, marks them out. But by themselves, none of these attributes is unique to them.

Whether as cause or as effect of their 'marginalised humanity' in the eyes of others, those who most need citizenship entitlements – ration cards and ST certificates – for access to basic utilities, education and employment are by far the least enfranchised as citizens.[57] Ignored and shunned by others in the waste economy, they are actively socially expelled by encroachers and are often treated with brutality by the state.[58]

Prejudiced treatment of animals as agents of waste and of the owners of animals:

> 'Our pigs are intelligent and we honour and worship them'. 'Our pigs are medicinal animals'. 'The irony is we revere them and keep them clean and other people fear them for their contamination.' 'We vaccinate our pigs, as it's done in Europe'. (*Kattunaicker* Pig Rearers)
>
> 'If you rear a cow you have to work like a cow' (Tamil proverb (Milk producer from food hall waste))

In this town, upwards of 500 livelihoods are generated from edible waste and its animal economy. As in agriculture, so in the waste economy people live

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54   Harriss-White, 2005.

55   Also known as *Kattukar* (forest people who migrated south from Andhra several centuries ago).

56   Charsley, 1997.

57   A situation far from confined to Irulas: see Ehrenrich, 2014

58   Harriss-White 2005

and work in close proximity to animals. But some are wild: rats and feral dogs which thrive on street-waste, feasting at weekends from discarded offal from meat and chicken markets and slaughterhouses.

Yet while people may be shunned, domesticated animals are treated with respect by those who rear them. Their 'agency' is expressed by separating edible from inedible matter. They feed on vegetable market waste and edible consumption waste and some of their animal waste streams back into general consumption waste.

Some 5% of the town eats pork. 'Pork is cooling in hot weather' said a pig rearer. The dumpyard is a foraging terrain for 250-300 pigs netting their owners Rs 150,000 a year, a grazing ground for milk cattle and a site for a few dozen goats on the look-out for used banana leaves. These animals wait to be collected at the end of the day by rearers who all have other daytime livelihoods. But animals are not necessarily respecters of property rights, roam the streets, graze and selectively process the waste clogging the town. 'Pigs are powerful animals and don't behave.' Hundreds of cows and goats also wander the verges, in groups belonging to their owners. All over town they are also stall-fed from urban food waste in units of 4-5 adult cows and a few goats. Pigs are fed on waste collected free from meals hotels, wedding halls and canteens. Fodder and feed are also commercialised from the waste bye-products of rice and dhal mills.

The management of cows and chicken is not a source of stigma. That of pigs is. Given the (irrational) public fear of swine flu[59] a 2015 municipal edict/notice sought to confine pigs to the compounds of the 70 or so remaining *Kattunaicker* and *Landar*[60] pig rearers. It banned pork from all retail stores. Pigs pose no risks to their rearers: 'our children play constantly with them'. Instead the dangers of pig-work are from 'increasing intolerance to pigs in citizens', social hostility (stoning) and theft (within the *Kattunaickers*, ignored by the Police). 'The theft of pigs you rear is very painful.' 'If those who attack and stone them kill our pigs and we don't remove the bodies, the Municipality gets very vengeful.' 'At pres-

ent the Municipality is on the rampage against us' (Pig Rearers). Abuse is hurled; pig rearers are intimidated; if they are not to abandon pigs and retreat to basket weaving or assembling hair-tresses, they are forced to migrate away from town. 'Animal agency' is essential to the waste economy and the *status* of the animal affects the social treatment of those who rear them.

PART TWO:

THE STATE AND POLICY

6. THE AMBIVALENT ROLE OF THE STATE AS AN INSTRUMENT OF SOCIAL EXCLUSION

In part one the state appeared in a multitude of agencies, mostly unable to regulate work directly but requiring and shaping work outside its direct regulative reach and conditioning the quality of life outside work. It has contradictory effects. In its efforts at inclusion, it is an instrument of liberation. In its passive actions resulting from revenue scarcities, and in active practices resulting from the denial of eligibility and contemptuous behaviour, the state is an instrument of exclusion.

As a formal provider of elite jobs in sanitation, the local state represents 'progress', as it does when providing 'life-lines' like ration rice for unregistered labour and emergency tents when severe weather destroys homes. Yet all waste workers experience the state as ambivalent and riddled with authority relations derived from private status.

The state is perceived by waste workers as an upper caste (UC) redoubt. Offices, schools and colleges are sited in UC parts of town. Portraits of Ambedkar are not displayed in offices despite a state government order. Waste-workers are used to 'rude and disrespectful treatment by officials'. Bureaucrats behave among themselves in ways felt to be discriminatory. For example: both a local tehsildar and his close subordinate are *Dalit*. When the *tehsildar* is out of station his lower staff eat food separately. 'If the

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59 'The rational fear would be of encephalitis' (Medical doctor, public hospital)

60 This caste moved from making false hair tresses to rearing pigs, a quarter century back.

subordinate staff are SC there will be open discrimination' (*Dalit* social worker).

Law and Justice.

The law – the police, courts and their politicians – are dominated by UCs. The Tamil Nadu Police has become an arena of caste antagonism. '*Thevars* [61] have infiltrated the Police with no concept of the public interest… There are many *Dalit* police-women too – they are trained to be biased against SC women' (*Dalit* Lawyer).

Reservations.

The resulting complexity of the state's being both for and against *Dalit* and ST waste-workers may be seen in the Reservations policy. All municipal sanitation work had reserved status until the early 1990s when manual scavenging was formally abolished. With the abolition of reserved posts for scavengers went both the abolition of inherited jobs and the obligation of the local state to rectify through rehabilitation the historical injustice meted out to scavengers. MSW's children now have to compete through general reservations, where 'entrance to public service jobs is through examinations and *Dalits* are disproportionately unsuccessful. 'It's our experience that upper castes make sure *Dalit* reservations are not filled. Then if they are admitted, a *Dalit* may be happy with a reserved job but they are always the worst jobs and upper castes make sure *Dalits* are not promoted' (*Dalit* Rights Lawyer). Yet in other parts of the public sector ascribed status is yielding to acquired status. 'If a *Dalit* becomes a hospital doctor people will now say 'He's a *Dalit* boy but he's okay'' (ibid).

State-society nexus.

The full oppressive might of the local state is evident in a nexus involving factory owners, politicians, Pollution Control Board officials, (bribed) lawyers, scientists, and local government officials. This nexus ignored the non-compliance of a distillery with laws regulating industrial waste, the results of which were experienced as intensifying the discrimination against *Dalits* for they physically polluted and ruined agricultural land. A very long campaign led with eventual success by a *Dalit* Panchayat president involved non-response by the state, redundancies, denial of *patta*, personal and third party threats, offers of bribes, 'third party' refusal to implement the rural employment programme and last but not least arbitrary food penalties against vulnerable *Dalit* pensioners (Woman *Dalit* Panchayat President).

The state was widely reported to have 'a divide and rule' policy for SCs and STs. 'They are not empowering the lowest citizens. They have an active policy to prevent us from coming up. They may have plans and schemes but in practice they are against us' (*Dalit* Panther politician). The state is experienced as a complicated tangle of contradictory relationships with outcomes which are varied and specific, some of which exclude people whose low status derives from caste, ethnicity, gender and work in waste.[62] And as an *Ambedkar Pasarai* [63] worker commented, 'at least some of these forms of discrimination (as in the bank) are new, resulting from our success'…

Policy can never not negotiate this tangle.

7. POLICY – PROBLEMS OF BUREAUCRATIC ARCHITECTURE AND PRACTICES

> 'In politics we will have equality and in social and economic life we will have inequality' (B. R. Ambedkar).

The evidence here suggests however that, even in politics, the politics of access to public goods, appropriate technology, fair and enforceable state-regulation for waste, prevents equality and even reinforces marginalisation. Field research on policy processes reviewed by Fernandez (2012) shows how all state policies – called 'technologies of rule' – are embedded in and construed through specific contexts. Research on policy contexts shows that the preconditions for the possibility of policy are rarely considered; the analytical boundaries of the contexts of policy are not secure; and the portrayal of these contexts varies strikingly according to theoretical perspectives (from the genealogies and discourses of national plans to political economies at multiple scales and sites). From the perspective of waste, where the state is the formal repository of responsi-

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61   The AIADMK party chief and Chief Minister's companion is *Thevar*.

62   Corbridge et al, 2005.

63   A Dalit social action movement.

bility for management and governance, the effects of informal behaviour are found to dominate the sector.

Informalising policy and practice

The state acts informally when it contravenes or fails to enforce its own regulations. This may happen wherever non-state social forces penetrate the state and make it cede its power. Its scope to regulate society is then constrained, and forms of social authority seep complicitously into its bureaucratic nooks and crannies.

Inadequately reduced to 'corruption' and 'rent-seeking', the range of practices, exchanges and transactions recorded in the research literature on informality in policy-making and implementation invokes distinctive modes of policy practice.[64] These cannot be assumed away or ignored, not the least because it is well-established that they have the potential to turn beneficiaries into victims (Fernandez, 2012).

Just as informality long preceded its labelling,[65] so through informal practices the effectively de-regulated and informalised state long preceded its formal identification as such. Just as waste and waste-workers are both subject to many terms and meanings so the conceptualisation of the informalised state has proliferated: as its own 'shadow', as 'parallel' and 'meshed', as 'ambiguous', and a 'cascading structure of power', as 'legally pluralist', subject to 'geobribes' and 'jugaad', as a shifting and dynamic process and a manifestation of 'vernacular governance'.[66] Such a state is an ensemble of 'policies, laws and acts, processes and protocols, institutions, social, political and governmental actors and planning history' (Sundaresan, 2017, p21). Prakash (2017) finds that the state, while an arena for the new public management under which it regulates to serve the interests of capital, is also penetrated by allegiances owing their legitimacy to party politics, caste, religion and ethnicity. So he sees the state as informally 'hybridised' and both a giver and a seeker of rents.

As is abundantly evident for small-town waste, the conditions of unregulated, informal practices in the state are the object of a proliferation of terms. Words matter. It has to be queried whether the dynamic state of competition over neologisms reflects the exploration of *terra nova* or whether the originators of the new competing concepts and terms do not wish to communicate across their fields.

Far from chaotic, for Roy (2009) the informalised state has a class logic in which violations of formal laws by 'elites' are either ignored or legitimised by amnesties. She calls this process 'un-mapping'. This involves the re-notification and reallocation of land use categories, including spaces for waste, for the purposes of privatisation, beautification and the capture of rents.

By contrast, violations of laws in 'slums' threaten the legal sanctity of property and bourgeois aesthetics, and head for punishment: the destruction of property and the expulsion of 'waste people'.[67]

Small town architecture for waste governance and formal-informal practices.

Waste research at present contributes little material to 'theorise the actual practice of planning' and policy (Sundaresan, 2017). A focus on municipal government can situate practices and institutions which form the constitutive context for waste and are the informal preconditions for any future action. Local government in small towns is formally responsible for stocks and flows of waste [68] but public ownership is commonly confined to the dump-yard and its inadequate transport fleet and informal waste-work is de facto out of its control.

Despite its growth, the town of our case study is relatively small, low status and revenue-poor. Its local government bureaucracy is understaffed, suffering high turnover, doubling of duties, and poor motivation (evinced by short working hours, frequent absence and final-posting inertia).

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64   Champaka, 2015, Roy 2009, van Dijk, 2017

65   Karuna forthcoming

66   Roy ,2009, de Bercegol et al 2017, Prakash 2017; Sundaresan 2017, Van Dijk and Bhide 2016

67   Chaturvedi and Gidwani, 2010, Doron 2016, Gill 2010, Mc-Farlane 2012, Reddy 2013, Suryaprakash 2014. The process of political negotiation over (valuable) space for processing (temporarily or permanently valueless) waste by displaced waste-workers has been called 're-placement' by Whitson 2011, recalling Douglas ,1966.

68   Demaria and Schindler 2015

As a result, 'we (the municipal engineers) have no control over waste'. Responsibility is abandoned.

The practical ideas of engineers.

Local officials trained in engineering are conditioned to take orders, not imagine policy alternatives. They give priority to behaviour change – citizens need to segregate waste. They invoke projects for solid waste to be turned to briquettes and organic waste to biogas, the retrofitting of drains, the installation of septic tanks throughout the town, and 'automation' to rid themselves of the labour force. This unsystematic agenda would lock out the workforce.

The practical ideas of the workforce.

The 'unskilled' sanitation work-force, even the 'waste-labour aristocracy' paid by the municipality, is seldom mentioned and then as a management problem rather than a resource ('robotise their work') – let alone a human resource with social disadvantages, let alone a resource to be consulted. Never consulted by the Municipality which employs them, they are decisively excluded from policy processes.

Unionised MSW gave as their first priority a drive to reduce tax evasion, then public education leading to the provision of systemic infrastructure for segregation, the expansion of the workforce in line with official guidelines, the provision of protective equipment as mandated in law and the mechanisation of the most toxic and disgusting waste disposal tasks.

Neither group mentioned Swachch Bharat. While neither of these two class-based agendas has materialised, the suggestions of labour are more grounded in the physical and social insults and realities of the waste economy. If implemented they would reduce the danger of work conditions and raise the dignity and status of work. The engineers' agendas are alienated from the day to day realities of waste-work, from their own municipal labour-force and from the idea of social inclusion.

Waste is a low priority sector in complex bureaucratic job specifications held generally by engineers. Administrative boundaries do not accord with the town's spatial spread. Responsibility for networked infrastructure varies in its coverage of waste and new investments (needed to potentiate sewage treatment for instance) involve complex property rights in a range of jurisdictions. Budgets for capital costs for such infrastructure must be obtained from the state government and at its discretion. Meetings are often out-of-town at district or state capitals unfamiliar with the town. Multiple routes exist to block activity or shift responsibility.

Officials responsible for waste, mostly engineers by training, have no consensus about the definition and content of the town's waste and provide a wide range of estimates of its volume. Responsibility for waste is fragmented across four departments (revenue, public works, town planning and public health) plus field stations of the state/central government (such as PWD), making for bureaucratic silos and obstacles to communication. Bureaucratic ignorance is exacerbated by privatisation/contractualisation which has resulted in delayed financial flows, lack of co-ordination between private and public spheres and mutual suspicion.

Municipal revenue and expenditure create informal waste-work. It is not just that the official budget for waste management is squeezed by tax evasion (estimated as at least 50%) so that revenue rises far more slowly than do volumes of waste. It is also that the municipal budget for consumption waste is capped at 49%, hence requiring an unregistered waste economy at no direct cost to the state. Formal bureaucratic responsibilities create further incentives for informal activity and unregistered livelihoods in and outside the state. When vigilance forces are severely understaffed or have no transport as in the Pollution Control Board then regulative law cannot be enforced, supervision is ineffective and other forms of political and social authority keep order. When activity is uncoordinated, then informal gatekeepers enter to inform, mediate and allocate resources. When whistle blowing is known to be heavily penalised, rent creation and sharing is rife. Budgets for equipment and machinery can be topsliced, and the quality of equipment, the efficiency of its use declines, and its hazards increase.

Urban non-policy practices

In practice, the pervasive nature of informalised bureaucratic practices[69] and the absence of a coherent waste policy have allowed the following practices for waste to emerge:

- the part-privatisation of the workforce (common to all public institutions)
- plans for re-locating dumps (stalled),
- new crematorium and slaughter house (rarely used)
- plans for vermi-composting (at 'power-point' stage but unfunded)

Swachch Bharat was visible only as a poster at the station. This list may appear an arbitrary set of bureaucratic practices but it indicates the importance of the constitutive context for policy or for non-policy. The evident lack of conditions for the possibility of policy involves four political factors:

- i) neoliberal ideology operating at a high level above that of the municipality on which it is imposed;
- ii) criminally stressed revenue streams for public finance and a culture of non-compliance;
- iii) a countervailing politics of resistance to urban waste by local rural panchayats; and
- iv) powerful social preferences for technologies and for cultural practices of human death and animal killing that are outside the municipality's control.

The question 'what is to be done?' cannot currently be developed without factoring in these contextual conditions. Policy has to be consistent with them or these conditions have to be changed. Either way this case study indicates that the challenge posed by the political economy of a small town to the formulation and implementation of policy is a general one.

How are these challenges actually being met?

Political Mobilisation

The growing literature on achievements in the informal waste economy points to the importance of collective responses to *triggering events*: such as collective strikes and strategic public sleep-ins by waste-workers to secure insurance payments for the families of workers asphyxiated while unblocking sewers or killed during roadside work or cross-class protests at pollution and loss of livelihoods from waste incinerators, or from landfill.[70] But in this small town triggers from the waste economy are generally met by responses through caste.

Small-town self-organisation – social change and social action

To break down the persistent caste impregnation that is reinforced by waste-work, not only do work conditions need technological and social transformation, but the social cosmopolitanisation of waste-work also needs those *Dalits* and *Adivasis* who are at present trapped and immobilised in waste-work to be able to exit. We have evidence mainly for *Dalits*. For *Dalits,* Gorringe (2010) has suggested social solvents in the form of caste-neutral 'modern' jobs, education and migration. The escape from village culture to towns brings the promise of freedom from disgracing stigma and/or the possibility to reinvent origin myths. The significance of uniforms in sectors like waste are felt to lie in levelling status upwards and in anonymity.

Some *Dalit* waste-workers we interviewed agreed about the potential of migration, though experience may deviate from aspirations. They added 'self-employment' which they felt expressed a much desired independence. 'In this town *Dalits* have set up in auto-rickshaws, lorries, sand, vehicles maintenance and sales, chauffeuring, tourism, construction, beef and mutton' (said a *Dalit* social worker) plus fast-food and liquor (and septic-tankering which he forgot to mention). But these opportunities, empowering some *Dalits*, do not extend to *Dalits as waste-workers* and do not stand interpretation as resistance to the oppressive conditions of waste.

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69   See Roy 2009, Doron 2016 on rule by aesthetics

70   Demaria and Schindler 2015; de Bercegol and Gowda, 2016; Jagtap, nd.

Political mobilisation.

Stigma and social exclusion are also addressed piecemeal through political activism – through existing trades unions, political parties and social movements. The trade union that has organised waste-workers, CITU, deals with discrimination through redefining it as class oppression, and not as casteist stigma or as oppressive responses to individuals. It has mobilised targeted campaigns (eg about appropriate responses to humiliating modes of gifting food and used-clothing; for the end to harassment and for dignified treatment by officials and police; for resistance to the illegal overburdening of work-loads of MSWs). In a unique case the union secured survivor compensation by the municipality for an un-unionised, informal contract waste-worker killed by a waste-lorry.

Respect and dignified treatment at work is a necessary but insufficient condition for social inclusion. The union's work is constrained both by threats from the rampant privatisation of public services and by the state's evident inability to regulate or finance waste collection and disposal.

While *Dalits* join all mainstream parties, it is the *Dalit* Panther party that is devoted to solving caste tensions within and between *Dalits,* mainly outside work. Inter-caste marriages and drunken brawls are constant challenges – as is the mediation of episodes of discrimination in schools and colleges; crimes against *Dalit* property; and police beatings. 'Because the police is so biased against us we have to take law into own hands' said a *Dalit* Panther.

Dalit social movements such as Ambedkar Pasarai, are most active against caste violence. *Dalit* legal activism itself faces harassment from upper caste lawyers.

Caste associations focus on remedying poor access to public goods, protecting cross-caste marriages and property rights (though the poorest do not have property). The poorest tribal waste-workers act through kin and clan: negotiating work (routes and times of day, sharing the take, respecting the stowed waste-property of others etc.). They cannot access ST certificates and knew nothing of their tribe's po-

litical mobilisations nearby against police scapegoating and for women's empowerment.[71]

It is not that nothing has happened. In this town struggles for political empowerment results from and reinforces a wider politics of social identity. It is *not* a direct response to the specific problems of waste and waste-work. These are far from being met.

8. CONCLUSIONS

Waste is part of the ecological crisis, a serious development problem, one not managed solely by the state but marked by a displacement of regulative authority. We have examined the case of a small town, the lives of its waste-workers, and the informalised practices of its local state. Pervaded by irregular, informal practices, the informalised state is not sovereign, not separate from society, but an extension of it. [72]

This local-level framing improves understanding of the physical and cultural meanings of a sector, in this case waste. It demonstrates the effects of processes of physical and social exclusion that have been separated analytically and for policy purposes but which are not separated in lived experience. A non-metropolitan town is the relevant unit for Indian local government. It combines municipal government with out-stations of the state and central governments, where policy fields might be co-ordinated.

In this town, waste is a site of many processes of exclusion.

Physical exclusion.

Natural resources are public goods under rapid privatisation and degradation. Unbuilt-on land, minerals, soils, biomass, temperature, wind, rain and water have long been socially constructed. So too have society's waste-scapes which have developed as public bads. Sites of stench, dirt, pollution of both kinds (physical and ritual) and of oppressive work, unregistered or avoided by the rest of society, their harshness strikes waste-workers, just as it strikes

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71   See http://peoplesrights.in/english/?p=335

72   As in the general statement by Jean and John Comaroff, 2016

post-modern environmentalists, as nature's own – not-conscious – agency.[73]

Exclusion by and from the State.

The state reinforces the toxicity of the environment through its failure to regulate work conditions and discriminatory practices it selectively metes out to waste-labour outside work. These reduce workers' capabilities to protect themselves against danger, thereby reinforcing their social disadvantage and exclusion. With the formal power to improve, compensate and rehabilitate livelihoods in waste, the local state does the opposite: passively through ensuring incomplete information and poor work-force protection – and actively through practices which deny access to public goods and attack and destroy public-sector livelihoods.

Waste-workers fear regulation by this state. And the state needs waste-workers in economically and socially disadvantaged niches in the informal waste economy.

Work related exclusion.

Just as the actually existing state and society are intertwined, production and waste are inseparable; so are the formally regulated and informally unregistered economies. The latter is indispensable to the former, expanding, finely socially segmented and organised and integrated into the contracting formal public economy of waste. Unregistered waste workers, stylised as 'waste-pickers' or 'scavengers' are socially differentiated and their work is economically segmented.

Social Exclusion

Work status determines citizenship status and entitlements. Oppressive, dangerous environments, stigma, discrimination, disrespect and poverty are felt to overlap in the life-worlds of most unregistered waste-workers. Work conditions involving long and rugged shifts can and do exclude waste-workers from family life and leisure; some parents (are even forced to) exclude their children from the escape-hatch of school. While not claiming unique disadvantage,

Paraiyars and *Kattunaickers* working in waste report social abuse, neglect and discrimination in their access to the local state.

Social expulsion and dehumanisation

While unionised labour is sensitised to cross-gender pride and solidarity in their work, this does not extend to informal workers and even unionised workers feel them to be disgusting. Some waste-workers are capable of deliberately excluding and isolating others in and out of work. The latter, wandering migrants and certain tribal people, experience 'social expulsion' – even though the police have to tolerate their 'temporary-permanent' camps, knowing they contribute to the essential work of cleaning the town. Irulars in particular have been multiply evicted, live in primitive conditions, have poor entitlements and feel they are treated by others 'unlike human beings'.

Urban animals are treated better.

While not exceptionalising India, it is a nation where many of the most excluded people working in waste are most essential to social reproduction. Future development needs to disprove this conclusion.

9. RECOMMENDATIONS: REALISTIC POLICY FOR THE REAL STATE

To make recommendations for policy one has to understand the state. This is what we have attempted to do in part two of this paper. Policies are arranged in labelled fields but, in implementation, policy fields intersect. All policies are implemented through the tangled relations of informality described here. Even though there is no coherent policy for waste, in this town, policy making would have to negotiate the incoherent practices of the existing bureaucracy. Three aspects of policy making need flagging.

Constitutive Contexts for Policy.

While there is a consensus in policy studies that context is important for all aspects of practice, there is no consensus about how context should be studied. Here we started with the physical and social attributes of waste and its workforce in a small town and the social processes of stigma, discrimination, exclusion and expulsion ensnaring the most vulnerable.

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73   Barua 2014

Small town bureaucratic architecture and practices ensure that these processes perpetuate a workforce not paid from public finance but providing a public service. Two further aspects of society, each far removed both conceptually, and in terms of policy fields, from each other and from the field of waste affect the constitutive context of waste. These are tax evasion (underfunding the town's revenue and imposed informality on waste disposal) and caste (as stigmatised occupational segregation and as a totalising social attitude too waste in the public sphere). We will have overlooked others because there is no hard and fast method to ensure that policies outside a given policy field but essential to the latter's functioning can be identified.

Preconditions and opposition.

Policy must be assumed to be conflictual and disruptive. Policies will not work as intended unless institutional preconditions are in place and opposition to them is neutralised. These institutions form part of the constitutive context for policy. Instead of invoking 'political will', preconditions and opposition need identifying. Inevitably this requires an engagement with other labelled policy fields.

To take an example of the need to anticipate opposition, the implementation of Swachh Bharat has been found to face poor quality law (restrictive definitions of eligibility, the absence of legally stipulated enabling conditions (e.g. water availability) and local discretion over exemptions). Male biases pervaded Implementation (e.g. rehab).[74] Fixing poor quality law and male bias are examples of policy preconditions, themselves requiring policies.

It found budgetary exclusions but it also found under-investment despite budgetary allocations, the diversion of loans to the ineligible, enforcement sloth, and evasive failures in policy implementation including failure to monitor and evaluate, and *lack of punishment for violations of law*.[75] These are established features of disciplinary/protective policy in India. They are forces which oppose policy as intended. They need fixing. [76]

The state is also blind to many forms of social authority to which it has conceded authority and which have to be negotiated in practice. At best, they are special policy fields (e.g. ICDS and SGSY to counter patriarchal oppression and neglect of tribal poverty). In the case of Swachh Bharat, no policy attention is paid to caste. 'Rehab' then simply reinforces caste divisions.[77]

Policy analysis, advocacy and recommendations need institutional preconditions and opposition to be identified and mainstreamed.

Policy intersectionality.

Waste and social inclusion are two substantially separate policy fields, while actual relations of work, discrimination and mobilisation are not bound by the classifications of the state. A new dimension of policy analysis needs developing which seeks to understand the intersections of policy discourse and actually existing policy practice for intersecting policies – in the case considered here, for work, environment, waste, identity and welfare/social protection and inclusion.

The small-town waste sector is overdetermined as a site for low castes. As Rodrigues observes (2009, p119), the management of waste is not simply a caste and cultural problem, it is a material and human problem. As a material problem it requires the development socially appropriate technological innovation systems. As a human problem, it requires transformations in social attitudes and in the practices of waste-generators. It is their social and cultural problem. As Bezwada Wilson indefatigably reminds us, waste policy has not addressed waste-generation as a caste-ist practice.[78] But this proves to be part of the constitutive context of waste. One extrapolation to recommend from a small-town case study is that to supplement what we have observed as the uneven forces of social evolution and political mobilisation, socialisation and schooling are sites to start the development of a different social consciousness about both waste and caste. These are residuals in our analysis. They need admission as further elements in the constitutive context of waste.

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74   IXR 2016 p307

75   IXR 2016 p 299

76   See Chhibber 2003; Fernandez 2012.

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77   Wilson and Singh 2016

78   See for example Singh 2013, Wilson and Singh, 2013, 2016

Attributes	Small Town Waste Economy: Circuits of Production of Waste							
	1.The production of labour: human and animal waste excretions	2.Waste Produced in Commodity Production	3.Waste Produced in Physical Circulation		4.Waste Produced from Consumption	5. Waste Produced in the Reproduction of Urban Society		
			In Transport: Labour and Freight (raw materials & commodities)	In Commodity Marketplaces		Hospitals: Public & private	Meals Hotels; Wedding Halls; Canteens	Liquor Shops
Typical sites	Everywhere: a. Public space: 1. on verges, spare /common land, alleys, gulleys; 2. 'enclosed' public lavatories; b. Private spaces (inside all buildings & adjacent to them)	Factories	Roads and railways	Market spaces, verge sides; clusters of shops	Throughout the town	Concentrated activity on sites dispersed through town	Dispersed urban sites; wedding halls clustered	Dispersed through town
Form	Solid & Liquid	Solid & Liquid	Solid & Liquid	Solid	Solid, Semi-liquid, mixed	Solid & Liquid	Solid & Liquid	Solid
Decompos it-ion potential	BD, hazardous to health on verges and open drains	1. NBD (S) Clothing accessories factory (plastic; metal) 2. BD (S) Rice Mill (broken/bad grain, bran, husk 3. BD (L) Industrial Alcohol (molasses sludge)	NBD; BD	NBD; BD	BD but mostly NBD	As for consumption waste but some hazardous eg 'biomedical', 'sharps', soiled/ disposables, plus food waste	BDG	NBD
Labour process	MSW (pub); subcontracted F pvt company I labour force (pvt); septic tanks and tankers I labour (pvt); I barbers (SE)	Organising factory waste for disposal: Some family, permanent (F/I) labour but mostly casual labour (I)	Pvt but I labour, I SE; collection, disposal (sorting & resale)	Direct recycling via cattle, collected for animal feed (child and I adult labour; dumping for pub/pvt I labour/ISE to collect	Gathering, sorting, selling and dumping 1. Irular SE in town, urban periphery, dump-yard; 2. I migrant rough-sleepers; 3. Gathering (collecting/ bulking) MSW; 4. Collecting and dumping Pvt F Contractor (collecting, bulking, sorting, sale) I Labour; 5. Trade: Re-cycling; Partially I Wholesaler hierarchy; 6. Re-processors; (barter / sale) ISE; 7. I Second-hand dealers	Human waste as for Labour (1); general/food waste as for Consumption waste (4); hazardous medical waste collected for incineration (F. pvt contractors) or segregating and dumping (ISE)	Dumping in street, taken as fodder for domestic livestock production (NB pigs produce meat, bristles, fat and animal therapies) via I domestic servants or I casual labour	I supplement to F labour
Examples in field research	Septic tanker businesses; MSW, IWE	Industrial alcohol Clothing accessories Rice Mills	Indian Railways	Vegetable Wholesale and retail markets	Dumped waste; re-use e.g. 'collectables', motorcycles, recycling: e.g. paper, plastic, polythene, card, glass, metals, cloth, consumer durables, cars and lorries	Housekeepers in government and private hospitals and clinics	Food waste I labour in meals hotels and wedding hall	Glass bottles trade

Source: author's fieldwork 2015, 2016

F: formal/ registered   I: informal/ unregistered   S: solid   L: Liquid   BD: biodegradable   NBD: non-biodegradable   Pub: public   pvt: private   SE: self-employed   MSW: municipal sanitation workers

TABLE 2: **Bussiness Models in the Waste Economy, 2015** (with indicative examples)

1.Public sector labour force

i) Large labour force (130+), full rights at work, union-ised (for example Municipal Sanitation Workers (MSW);

ii) small labour force (<5) – variable work rights – some permanently casualised (for example glass bottle recyclers in Government Liquor shops)

2.Private business

i) Registered joint family with 10-500 wage workers – local and migrant (for example scrap yards; medical waste; gunny bag depot)

ii) Registered private companies subcontracted to state (30-300 wage-workers) – local and migrant labour, no union, no work rights, with informal side jobs (for example urban consumption waste and municipal rubbish; hospital cleaning and security; railway sanitation)

3.Waste departments inside big companies

Unregistered specialised labour (3-40) to clean-up, segregate, pack – disproportionately *Dalit/Adivasi* (for example clothing accessories, industrial alcohol, paddy mill-ing, wedding halls, private hospitals, big meals hotels)

4. Own account enterprise

Unregistered family labour with 1-2 wage labourers and more or less tied suppliers (some with bikes/vans) (for example general waste wholesalers; second-hand goods; small scale septic tanker fleet owners)

5.Self-employed agent

Unregistered (for example in reprocessing; vehicle / two-wheeler scrap; glass bottle recycling)

6. Self-employed – barter

Unregistered with cart or scooter – (for example cloth exchanged for plastic kitchenware, iron waste exchanged for salt, dates, turmeric, onion and tomatoes)

7. Self-employed individual

Unregistered, gathering on foot, with bike or cycle cart (for example hundreds in general waste ('scavenging' before and after the MSW), scores on dump-yard; scores in veg-etable market; clearing up animal slaughter and meat and fish sales

Source: author's field survey, 2015