# **Jalna Municipal Council**

REPORT FOR DIALOGUE ON SOLUTIONS TO LOCAL PROBLEMS (RSLP) IN MUNICIPAL SOLID WASTE MANAGEMENT

SUBMITTED TO

THE URBAN INDIA REFORMS FACILITY

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THE RESOURCES AND LIVELIHOODS GROUP, PRAYAS, PUNE

2011

# TABLE OF CONTENTS Introduction ......3 1 SWM system: Problems and their Details ......5 2 2.1 Generation and Segregation of Waste.....5 2.2 Collection of Waste ......6 2.3 2.4 Treatment and Disposal of Waste......8

LIST OF TABLES	
Table 1 Staffing at the SW managing entity	11
Table 2 Funds disbursed and expenses incurred for SWM system in Jalna	12
Table 3 Consolidation of options possible to achieve desired results	17
Table 4 Strengths and weaknesses of local entities	18
Table 5 Feasibility Analysis of Reforms for the JMC (In prevailing conditions)	19
Table 6 Format for comparison of the DPR to the stipulated requirements	27
Table 7 Burning issues for the multi-stakeholder dialogue, thrown up by the analysis	29
Table 8 Action points for short term, on priority basis	31
ARREVIATIONS USED	

**DPR Detailed Project Report** 

GR Grievance redress

НН Household

**JMC** Jalna Municipal Council

MC Municipal Council/ Corporation

**MSW** Municipal Solid Waste

SW Solid Waste

**SWM** Solid Waste Management

ULB **Urban Local Body** 

# **ACKNOWLEDGEMENTS**

Preparation of this report would not have been possible without the cooperation and help extended by the Urban Development Department, Government of Maharashtra, who issued a blanket letter that enabled access to various sets of information and data related to municipal service provisioning in the town.

The Urban India Reforms Facility at the Tata Institute of Social Sciences, Mumbai, supported the study that went into preparation of this report by providing access to various essential resources. Without that, the preparation would not have attained the depth it may have.

At the core of the efforts in studying the service provisioning in the town and preparation of this report were the informants and other stakeholders of the municipal service sector in the town, who without a stint provided all the information sought for the study. A consolidated list of sources of information is included in the Annexure to this report. Heartfelt gratitude is hereby expressed for those names which may have inadvertently been excluded from the Annexure.

# 1 Introduction

India, like the other developing countries in the world, is experiencing a hyper-urban boom. Surveys carried out by various organizations related to this predict that nearly  $1/3^{rd}$  of India's burgeoning population would migrate to and settle down in the urban areas in the near future. This explosion exerts huge pressures on the delivery of the basic services in the urban areas, such as housing, water transport, and other basic infrastructure services. This trend already has outstripped the planned growth in capacity of many service delivery systems, which are already in a battered state.

To address this pressure of urbanization on the urban service provisioning, the Government of India started a big-budgeted scheme in the form of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in the year 2005. While a large part of the funds in JNNURM were allotted to the large cities, a separate scheme called Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) was designed for addressing the issues in the SMTs. Importantly, the JNNURM is not merely a scheme that provides funds, but it also introduced fundamental reforms in the financial and administrative governance of the state and of the local governments.

These urban reforms entail fundamental changes in the local and state level governance structures, which would cause far-reaching and irreversible impacts on the delivery of services. Restructuring also involves changes in the nature of accountability relationships between the citizens and the local governments. On one hand, reforms such as introduction of user-charges, and Private Sector Participation, indicate increasing the distance between ULBs and citizens; on the other hand, the reforms such as *Community Participation Law* and *Public Disclosure Law* offer some spaces for making local governance more transparent and accountable, provided that these spaces are offered adequately and used effectively.

Implementation of reforms requires funds at the level of ULBs, because reforms are closely linked with improving the services; such improvement being imperative at the ULB level. The overall improvement in delivery of urban services is rather a precondition for implementing the reforms. However, the allocation of funds amongst metros and small and medium towns (SMTs) show that while metros could obtain a large chunk of funds, the SMTs seemed to have not received a proportionate share. At the same time, the reforms were applicable to the SMTs as much as to the larger cities. Besides, the larger cities demonstrably possess a knowledge base and capacity of the administration that is much required for implementing the reforms. The SMTs, despite lacking this kind of knowledge base and capacity, operate under the same pressure for implementing the reforms. Similarly, extracting accountability is a great challenge which requires a knowledge-base among the civil society which is active and organized. SMTs, as in comparison with the metros also need attention in this respect. This stark difference between SMTs and Metros provided the basis for bringing the SMTs into focus under the project: "Building the foundations of Urban India Reforms Facility<sup>1</sup>".

This emphasized the need for giving a comprehensive response in terms of assessing the opportunities presented by the reforms regime, and also the threats that may entail the

<sup>&</sup>lt;sup>1</sup> For further information on the UIRF, please refer to the base note compendium here: <a href="http://tiss-uirf.org/downloads/bc.pdf">http://tiss-uirf.org/downloads/bc.pdf</a>

reforms. This involved three things: understanding the ground situation, envisaging the impact of the reforms on various sections of society (including the vulnerable sections), and facilitating discussions on local problems and the reforms. Preparation of this report, and of other such documents for the towns covered under this project, is a small beginning towards building such a relevant knowledge base for deliberations on the reforms.

The outputs of this study in the selected SMTs encompass two types of documents, viz. the Town Level Background Note (TLBN), and The Report for Discussion on Solutions to Local Problems (RSLP). The TLBN, as the name suggests, attempts to build a background to the study of of the town and the ULB. It is attempted by considering the development of the town as it is seen today, its social, economic and demographic fabric, and the other issues and the aspects of the development of the town. The TLBNs are available separately.

The other output of the study is this report; the RSLP. This report is prepared based on the information obtained from a number of sources. A number of site visits were carried out by the RSLP preparation team. These visits included interaction with all categories of the stakeholders of the system, in order to build a multi-dimensional picture of the sector under consideration. The other sources of information were: interaction with the ground level community, interviews with key informants, interviews with the municipal officials, and collection of data from the components of the system of provisioning of basic municipal services<sup>2</sup>.

This report does not intend to provide a one-stop or definitive solution to the problems in the town; however, the stakeholders of the basic municipal service provisioning expect efforts towards solving their problems. Keeping this in perspective, this report is titled and attempts to support a multi-stakeholder discussion towards solving the problems. The analysis towards seeking solutions while supporting a multi-stakeholder discussion also includes the strengths and weaknesses of the local system (including the town as such, the ULB, the local community, the CSOs, the local academic institutions, and the other stakeholder entities), and also the opportunities and the threats posed by the impending or the under-process reform- or project- initiatives at the ULB level.

This report has been organized in analytically interlinked sections as follows:

- Problem articulation The problems being faced by various stakeholders of the basic service provision sector, along with the details of those such as the extent, impacts etc.
- Problem diagnosis and existing situation of the system the causal analysis of the problems is included in this section. It involves identification, detailing and systematic organization of the causes of the problems.
- Prescription Based on the analysis of the problems and causes, and the interaction
  with various stakeholders of the town's municipal service sector, this section builds upon
  the indication to course of action possible to be taken, to solve the problems.
- Action plan A multi-stakeholder dialogue (MSD) is proposed in this phase of the analysis, to consolidate a sort of action plan, enunciating the responsibilities of various

<sup>&</sup>lt;sup>2</sup> For further information on the methodology used for preparation of this report, please refer to the Toolsand-Resources Kit (TRK) here: http://tiss-uirf.org/index.php/trk.html

stakeholder entities in the town, along with the issues categorized according to their urgency or obviousness to be discussed.

On a broader level, this report is also expected to provide inputs to the city development plan under preparation by the JMC, through facilitation of participatory decision making regarding initiatives for the development of Jalna city.

# 2 SWM SYSTEM: PROBLEMS AND THEIR DETAILS

This section enunciates the SWM related problems and other details related to the problems, being faced by the residents and citizens of Jalna. Even though for the sake of surveys and interactions the residents or citizens have been considered, it is understood that the generally prevalent problems of the town's SWM system are such that they affect the floating population as well. The analysis and the assessment of options of solutions is therefore considered effective to that extent as well.

Resident surveys, discussions with the system staff, and information obtained from other informants formed the source of information related to:

- 1. Generation and Segregation at source of the waste,
- 2. Collection and Transport of waste,
- 3. Treatment, and
- 4. Recycling/recovery, and Disposal of waste.

The following sub-sections present details of the problems and the related study aspects.

# 2.1 GENERATION AND SEGREGATION OF WASTE

Interaction with residents and a reconnaissance of the situation of the SWM system in Jalna were used to understand various aspects including problems and their details, regarding the generation and source-segregation of waste in the town.

Most of the citizens did not perceive non-segregation of waste at source as a problem. This was the highlight of the assessment of problems and of their details, related to generation and segregation of waste. The Municipal Council apparently does not take efforts to enforce source segregation of waste either.

Even though it was apparent that the problems related to waste segregation arise from the local waste generation and segregation regime, lack of waste generation control was evident in terms of overflowing community bins in the areas, and reportedly absolutely necessary daily collection rounds in a number of areas where door to door collection is provided. In other words, if waste generation control would have been established, the collection system could have operated with loads less than apparent currently.

In most of the areas of Jalna, domestic waste (both recyclable and biodegradable) formed the largest constituent of waste, followed by commercial waste (waste in large quantities, plastic and vegetable remnants forming large components) and waste from the slaughterhouse.

Even technically, the fact that the other stages of the SWM system (treatment, recycling) suffer because of no segregation of waste at source, was an ignored one.

Summarily, the entire town of Jalna is understood to be facing problems viz. excessive generation of waste, and no segregation of waste at source.

# 2.2 COLLECTION OF WASTE

The issues and problems involved with waste generation and segregation, chiefly the lack of control over generation and of segregation enforcement, have significant implications on the immediately step following, that is, the collection of waste.

As observed through transect walks and interaction with the citizens and

residents, uncollected waste formed large heaps emanating foul smell, lying at open spaces, overflowing from community bins, clogging open drains in most parts of the city. Alleyways less used, outside corners of wall compounds, and areas adjacent to street vendors and small shops

were also found to be places where waste was dumped indiscriminately and lying unattended.

A number of individual interviews and also interviews with the staff members of the JMC were also carried out to understand the situation related to collection of solid waste in Jalna. A large inequity was reported and also observed across areas that faced the problems with waste collection. The areas with high income group residences were found to be comparatively cleaner, while the low income group areas were found to be filthy.

The practices used by the residents to cope with collection problems were those which aggravated the problems, i.e. dumping waste in open areas and in drains close by.

Typical symptoms of problems in waste collection included: waste lying unattended at open spaces and in drains, drains clogged due to unattended waste, ubiquitous foul smell, burning waste, waste lying along the roadsides, and waste taken out of the clogged drains getting into the drains again. The areas of the town especially reported to be suffering from these problems were reported and observed to be: Dukhinagar, around the slaughterhouse, old town areas, just outside Preetisudhaji Nagar, slum areas, drains and canals passing

श्री प्रीतिसुधानी तगर through residential areas, Indira Nagar, and Lalbag slums.

These problems were reported to affect all residents of the areas, since those infest the common areas like empty plots, roadsides and drains. It was also observed that the problems are observed chiefly in the densely populated areas where there are closely built houses, and that areas with wide open canals and drains passing through them attracted dumping of waste, giving rise to clogging and smell. The system

staff corroborated by reporting that densely populated areas with closely built houses are where these problems are observed to be the most serious.

The problems in waste collection give rise to many ill-effects, including: foul smell in the areas, reduced road area due to waste lying on the roadsides, fumes of the burning waste affecting residents of the areas,



and also school children, and flies and other pests dwell on the unattended waste, causing nuisance.

The strategies adopted by the residents to cope with the problems of waste collection included: cleaning the drains themselves, self-cleaning the parts of the road next to own houses, dumping waste in open drains and in open spaces in absence of collection and with overflowing community bins, covering of the drains from own funds to avoid waste getting into the drains, and using mosquito repellents and other insect repellents to ward off insects dwelling because of waste accumulation around residential areas. These coping strategies

result in wastage of money and efforts, wastage of time, and exposure to health hazards due to working in unhygienic atmosphere.

Urban water supply and the urban transportation sectors are also affected by problems related to collection of waste. Drinking water pipes run along the drains. Drain clogging causes water contamination through cracks of the pipes. This causes a slew of health problems. Road transport in many areas of the town is jeopardized due to reduced road space.

#### 2.3 TRANSPORTATION OF WASTE

Even though no set of respondents reported explicitly the problems with waste transportation, it is believed that waste spilling and foul smell caused while transportation of waste through and out of the city would be a major nuisance caused to the residents/citizens. The very fact that this was not reported as a problem is the highlight here.

# 2.4 TREATMENT AND DISPOSAL OF WASTE

This section summarizes the details of the problems related to treatment and disposal of municipal solid waste, observed by the study team in transect walks and reconnaissance surveys. The treatment and disposal components of the SWM system are dealt with in the same section because the treatment and disposal sites of Jalna's SWM system are the same.

Foul smell from the mound of untreated waste, and untreated waste dumped in the open space were observed to be the chief problems related to treatment and disposal of solid waste in Jalna. It was reported by the various officials working in the system, that the waste treatment plant was under construction, and was not operational at the time this study was carried out (May 2010). Samangaon, where the dump yard in reference is located, is where these problems were reported to exist.

The problems were not reported to affect any residents because of lack of residential establishment immediately around the waste dump yard. About 10 unorganized waste pickers were reportedly working at the open waste dump, exposed to severe health hazards, without any proper protective gear.

The highlight of this component of the report is that the problems associated with the lack of proper treatment and disposal of SW



from Jalna are mostly ignored, masked by the fact that there is no residential establishment around the open dump yard. This is perceived to be especially serious, because of not only that the problems exist in terms of environmental and social hazards caused, but also that they are going unnoticed because of the current lack of entities to suffer or raise voice against those.



On the other hand, the study team believes that the widely reported problems with open dumping, i.e. contamination of land, groundwater, and air, would exist for Jalna as well. In addition, it was also reported to the study team at the open dump yard that an unorganized ragpicker died because of health hazard which may have

been caused by the nature of their work dealing with the waste there.

#### 2.5 RECYCLING OF WASTE

It is reported that a large number of steel re-rolling mills exist in Jalna town. Most of these are situated within the MIDC premises. The recyclables are channeled to the re-rolling mills through semi- or un-organized means.

The problems related to these mills were reported to be chiefly related to the health and status of the workers, the facilities and payments provided to them, and the way the industries face the tax mechanisms.

The mills are also reported to cause environmental pollution, through emission of gases by burning fuel, and temperature increase caused by operation of their furnaces. No data was available on what the mills do with the waste they generate while operating.

On a micro level, the households in Jalna are reported to resort to unorganized scrap buyers with hand carts, to sell their recyclable waste. No concrete data was available on the earnings of such unorganized scrap buyers or dealers, though it was reported that such scrap dealing entities are located at many places of the city.

This section focused on the problems and the details such as the extent and effects of the problems, in Jalna related to the municipal SWM. The next section deals with the existing situation of the town's SWM system, a step towards the causal analysis of the problems.

# 3 EXISTING SWM SYSTEM SITUATION

The existing situation of the SWM system in the city may provide insights to why certain problems exist; in other words, the causes for the problems.

# 3.1 EXTENT AND EXISTENCE

The objective here is to bring out the inequity in service existence, based on the area distribution. This may be juxtaposed with the other extents of the problems, as seen in section 2, to further highlight the exclusion of residents from certain class/ caste/ region being excluded from the service provision mechanism.

It was widely reported and observed that the areas with low income groups inhabitation, in both the old and the new Jalna town were tremendously plagued by the problems related

to solid waste management service provision. The waste was reported to be lying unattended for months together in these areas, with little heed paid to the complaints made regarding the problem. Piles of garbage clogging drains right next to the single storied houses was a very normal sight, along with rampant foul smell with which the residents of the areas coped.

On the other hand, the areas with economically comparatively better placed inhabitants were reported to have a better service provision level. This was evident from the generally better level of cleanliness observed in such areas as Preetisudhaji Nagar.

#### 3.2 GRIEVANCE REDRESS MECHANISM

No data was available about grievance redress mechanism in the town. No residents were aware of whether there should be a dedicated grievance redress mechanism for waste management.

Additionally, the data collection from the MC itself revealed that there is no dedicated grievance redress mechanism for SWM related grievances.

This means, that in case the residents of Jalna need to lodge a complaint regarding the SWM system in the town, they would have to go to the health department and deal with the officials there. It is envisaged that these officials, possibly burdened with their regular work and also contingent work, may not be available to receive or respond to the complaints or grievances of the residents of the town.

# 3.3 STAFFING AT THE SWM ENTITIES IN JALNA

The following table summarizes the staffing existing at the various entities involved in municipal solid waste management at Jalna. The entire system was reported to be operated by the JMC, and hence no contractor-related data collection was applicable for preparation of this table.

Also, data validated by comparing across the sources (citizens, system staff and key informants) have been presented here.

No.	Level of staff	Strength	Vacancies as per the staffing pattern	Roles and functions of the staff
1.	Road sweepers and staff working on waste transport tractors under contractor mechanism	95		These workers work for both, the street sweeping and also on the tractors to transport waste from Jalna town to the dumping yard.
2.	Employees of the JMC working for cleaning the city	Approx. 300 (some pages missing from the document given by the JMC)	3	Work on ground

No.	Level of staff	Strength	Vacancies as per the staffing pattern	Roles and functions of the staff
3.	Supervisor	0	3	Scheduling and
4.	Sanitary inspector	3	9	monitoring of the work related to SWM on ground
5.	Mukadam	0	5	Overseeing the work being done on the ground
6.	Grievance redress officer	0	NA	
7.	Monitoring or penalizing officer	0	NA	No staff exists with these duties explicitly assigned
8.	Staff to monitor private participation in the sector	0	NA	· · · · · ·

Table 1 Staffing at the SW managing entity<sup>3</sup>

The above summary reveals that there is no grievance redress or private contract monitoring mechanism for the SWM system in Jalna, nor a provision has been made in the staffing pattern for the same.

Another important aspect is that there is a dearth of staff at the planning and monitoring level. The vacancies at the supervisor and *mukadam* levels reveal this issue.

# 3.4 TECHNICAL DETAILS4

The SWM system in Jalna comprises about 7 vehicles owned by the JMC, with a capacity of about 2 tons each, and 6 tractors (carrying capacity of 2 tons each), and 24 small tippers (carrying capacity of 0.4 tons each), amounting to a total capacity of about 36 tons per each trip of all the vehicles.

It is reported that each vehicle makes an average of 3 trips per day from the town to the dumping yard. This translates to a daily carrying capacity of about 108 tons, while the actual waste reported to be carried is about 60 tons.

It is clear that most of the residents who were surveyed were not at all aware of the status of the SWM system of Jalna. Additionally, the collection mechanism and the transportation mechanism are observed to be the same in case of Jalna. That is, the same vehicle(s) that collect the household waste, also transport the waste away to the place where treatment/disposal of the waste is planned.

<sup>3</sup> As per information from the JMC's documentation, including the DPR for the SWM project

<sup>&</sup>lt;sup>4</sup> As per information from the JMC's documentation, including the DPR for the SWM project

#### 3.5 WORK SCHEDULE AND PRIORITY

No concrete data was observed to be recorded, regarding the work scheduling and prioritization for SWM system of the city. The issues observed on ground were however obviously indicators to this fact.

The literature available regarding scheduling and prioritization of SWM activities points to an important thing. It is that, the wet, decayable waste should be collected daily, while the dry, non-perishable waste can be collected less frequently. However, segregation of waste at its source is a basic pre-condition for such an arrangement to work. As segregation is not carried out at source in most of Jalna, such a mechanism to effectively utilize the capacity of the SWM system in the town may not be possible even as it is essential.

#### 3.6 FUNDS FOR THE SWM SYSTEM

The following table summarizes the funds disbursed to the JMC and the expenses incurred by the JMC towards the SWM system in the city.

Funds d	s disbursed yearly (Rs.)		Head of	Expenses incurred yearly		
2006-07	2007-08	2008-09	expense	2006-07	2007-08	2008-09*
13,527,770	61,62,500	1,50,00,000	Establishment	32856900	36437800	20740500
			Contingencies	137000	60000	40600
			Purchase & maintenance of SWM vehicles	387300	0	89000
			Fuel costs	2029600	1734000	1035000
			Tools purchase	182000	7500	119000
			Contractor payment for clearing waste	2782700	8825500	4239700
			Drain cleaning by appointing labour	2654700	6639900	3722800
			Uniform, hand gloves and boot purchase	672900	30000	350000
		34,690,270	Total	41703100	53734700	30336600
	Toble 2 Fee	ala diabawa a da a d	Total expenses over the 3 years			

Table 2 Funds disbursed and expenses incurred for SWM system in Jalna

Despite such substantial expenditure as about Rs. 125 million incurred over the past 3 years for the solid waste management system in Jalna, the study team observed and understood the myriad problems with the same. These problems have already been mentioned in this document earlier.

Another substantial issue observed here is the heavily overpowering expense side over the income side for the JMC. Even though this might be the case only for the SWM sector of the city, it remains to be seen whether the JMC is placed at all to be able to handle such large burden of expenses over its income, at least in the SWM sector. It also shows that the SWM sector of the JMC is not financially self-sufficient.

# 4 CAUSE ANALYSIS AND DETAILING

The diagnosis of problems was carried out by conducting interviews with key informants, i.e., with both—the municipal officials and also informants from other sections such as the cleaning workers, social activists—in addition to focus-group discussions with a group of the workers in the SWM system of Jalna. The documental records available with the JMC were also analyzed as part of assessing the causalities behind the problems observed with the town's SWM system.

# 4.1 LAPSES / GAPS IN THE DOCUMENTS

Apart from the expenses schedule included earlier, there was no explicit monitoring or record keeping reported at the JMC to the study team.

The DPR as a document dealing with the SWM has been assessed in a separate section involving the analysis of challenges in front of Jalna's SWM system.

#### 4.2 PROBLEM CAUSES AND THEIR DETAILS

Based on the study team's interaction with residents from select areas, system officials and other informants, the following cause structure for the problems was observed:

#### 1. Human resource related causes:

- a. Despite the provision to employ contractual staff and having about 300 worker staff with the JMC, lack of manpower was reported to be a major hindrance in maintaining even basic cleanliness in the town.
- b. Lack of training of the staff involved in the SWM system of the city is also reported to be a major contributor towards the problems in the city's SWM sector.
- c. The workers reported that the recommendations of the 6<sup>th</sup> pay commission had not yet been applied to the workers in Jalna. This proved to be a major deterrent for them to put in their best at work.
- d. Lack of opportunities to get recruited by the JMC due to the new staffing pattern was reported to be encouraging the workers to join contractual work force, wherein they are exploited and do not get treated well. This also translates to sub optimal work quality delivery.
- e. Fewer vacancies than candidates give rise to a rampant corrupt practice among the JMC system, as per some of the respondents.

#### 2. Administrative causes:

- a. The equipment to be supplied to the workers often gets delayed because of administrative bottlenecks.
- b. No planning is reported to be carried out for the work in SWM system of Jalna.
- c. The staff responsible for proper and timely execution of the work are often reported to be uninterested in carrying out their duties, for various reasons.
- d. The treatment plant has been caught in tremendous administrative delays since August 2008, resulting in lack of treatment on the waste generated in Jalna. The agreement signing was delayed, the work order was delayed, and the facility provision to the plant establishment has been delayed due to administrative reasons. One of these reasons was reportedly that one official of the JMC who was responsible for the SWM related initiatives was dragged into certain internal row, thereby hindering the overall work and delaying the processes. Furthermore, the grant funds from the state and central governments have been conditioned to be released only when the JMC puts in matching investments. Since the JMC does not have funds to match even a part of the assistance from the central or state levels, the rest of the assistance has been held up, severely affecting the progress of the treatment plant establishment.

# 3. Socio-political causes:

- a. It was reported that many influential and significant officials do not live in Jalna, thereby being disconnected from the city's problems. The elected representatives are also reported to be disconnected with the city's problems and more concerned with their own local agenda, often lying beyond the purview of the city.
- b. Majority of the population in Jalna strives to send their family members to either Mumbai, Pune or Aurangabad to work and have a better quality life there. This is reported to reduce the influence of the voting population on the local problems.
- c. Reportedly, the local elected representatives are supposed to have 'returned the favour' to their voters in either cash or kind, and hence there is a loss of accountability of them towards the city's populace.
- d. Due to the lack of revised pay scale to the workers, they are more likely to turn to informal lending ('saavkari'), thereby getting involved in high interest rates, and being compelled to do work apart from their daily duties to repay such costly debt. This is perceived as a major problem as well.
- e. Interaction in an electoral ward also revealed that the party politics being involved in local level MC elections hinders good work from happening, because of political interests involved.
- f. It was also reported that tendencies to hinder any good work happening, in terms of vandalism were strongly hindering any development initiative planned for the city, also including any SWM related steps.
- g. The residents of the city look at the governance mechanism as only something providing facilities, rather than participating with it in various initiatives. Religious

stronghold on the way of thinking also needs to be considered while going for any training or awareness initiatives.

- h. The residents and citizens of the city also reportedly seem to have an improper prioritization in terms of their needs and preferences. For example, the expenses of schooling a child were equated to the non-veg food expenses incurred by certain families.
- i. The voters have reportedly started feeling helpless about the local political system, as even change of local elected bodies does not seem to make a positive difference at all.
- j. It was reported that since a newly invented machinery component shot up the costs of the treatment plant, the officer involved in processing and passing the bill was trapped in the political dynamics and suspended. Such incidences are reported to deter well intended efforts and put off sincere individuals who really want to make a positive difference.

#### 4. Technical causes:

a. The door-to-door collection system for SWM does not cover slums, and the service thus remains limited to the better off areas in terms of wider roads and well to do residents.

# 5 SOLVING THE PROBLEMS - POSSIBLE DIRECTION

As mentioned earlier, this report is not intended to provide a set of one-stop or definite solutions to the problems in the SWM sector of Jalna. Instead, it aims to devise a way to consolidate and effectively use the views of various stakeholders of the sector; the document also attempts to devise a direction for the efforts to solve the problems. The following sections bring this out step by step.

# 5.1 OPTIONS ASSESSMENT

Based on the results desired by various stakeholders of Jalna city to improve its SWM scenario, the following set of options emerges, targeting the root causes of various problems in the SWM sector of the city.

The following table summarizes this:

Root causes to the problems in the SWM sector of Jaina	Desired results to solve the problems, targeting	Options for achieving these results
	these causes	
Financially unsustainable	Financial strengthening of	Improving property tax as a
SWM sector, too much	the JMC	revenue source
dependence on the assistance from state or centre		Implementing user charges mechanism for the SWM
		system, to make it sustainable and self sufficient
Lack of efficient manpower	Improvement of the	Contracting manpower as
management to ensure	collection efficiency in	and when required

Root causes to the problems in the SWM sector of Jaina	Desired results to solve the problems, targeting these causes	Options for achieving these results
optimal results for cleanliness of the city	Jalna through better management of manpower	Community based organizations participating in the collection mechanism on a long term basis
Lack of MSW treatment plant	Ensuring proper treatment of the MSW	Wait for the next tranche of the government grant to aid the plant establishment for both, MSW and BMW  Establishing distributed waste handling mechanism to reduce the burden on the town's waste management system
Lack of capacity of the local administration to make relevant decisions	Having adequately capable staff and office bearers in the JMC to manage the town	Contracting out the management tasks  Building capacity of the existing staff and also of the elected office bearers
Lack of strong civil society, or of sense of belonging at different strata of the society to be able to solve the problems of the city, also	Ensuring public participation to reduce corruption	Awareness building and establishment of participatory channels by the JMC  JMC appointing a CSO to
resulting in unchecked corruption and malpractices		manage the public participation component of the decision making process
No monitoring or compliance mechanism effective enough to ensure proper management of MSW in Jalna	Having strict regulations and monitoring mechanism implemented to ensure minimal	Establishment of a separate waste management regulatory cell by the JMC in association with the MPCB
	deviation from the prescribed norms for waste treatment	The trading community or other associative effort of the local civil society to establish a regular think tank to contact the MPCB with the status of waste management in the city
Improper planning initiatives, resulting in measures to manage SWM falling short of expectations	Ensuring all round planning, starting with proper development control regulations to dynamic local participation in the decision making process	Clear responsibility allocation and accountability establishment mechanism at the JMC through administrative reforms  Entrusting the waste regulatory cell with the

Root causes to the problems in the SWM sector of Jalna	Desired results to solve the problems, targeting these causes	Options for achieving these results
		additional charge of planning the sectoral operations in the city

Table 3 Consolidation of options possible to achieve desired results

It must be noted here that the abovementioned set of options is not the exhaustive or the only set of options that may exist. The purpose of this document is to enable a multi-stakeholder dialogue, which is also envisaged to most likely contribute to the option set. Alternatively, the abovementioned set of options can serve only as a starting point for the discussions or dialogues involving multiple stakeholders; and the dialogue or discussion can also substantially change the set of options.

# 5.2 Analysis of Strengths, Weaknesses, Opportunities and Threats

This section aims to identify:

- a. Strengths and weaknesses of Jalna as a ULB to be able to implement and carry out the solutions proposed or underway, and
- b. Opportunities and threats presented by the solutions already implemented/ in process of implementation.

The analysis presented here was carried out based on interaction with multiple stakeholders of Jalna's SWM system.

# 5.2.1 Strengths and weaknesses in terms of adopting the options for desired results

Keeping in perspective the set of options for desired results from the previous section, the strengths and weaknesses of the ULB are summarized in the following table. This attempt is made to bring out what could be the potential strong points to be leveraged for solving the problems; and what challenges may emerge because of the weaknesses of the JMC.

Aspect	Strengths		Weaknesses	
	Of the town or the JMC	Of the local civil society	Of the town or the JMC	Of the local civil society
Geographical	Gradually enhancing economy based on various trades and activities may be positively contributing to the financial position of the JMC	No data	Proximity and constraints and reported by the standard significant of the standisconnected with the and required solutions	keholders to be
Social	Relatively less dense population	Trading community with relatively stronger resources taking active interest in solving the	Lack of awareness populace resulting insensitivity towards th	

Aspect	Streng	gths	Weaknes	sses
		problems of the city		
Political	Direct connection of local political scenario with the state level political scene	Strong direct or indirect influence on the local politics through the trading community	Many of the peoples' representatives have alternate base in nearby big cities, isolating them from Jalna's problems	Civil society is often looked at as an instrument to further political and personal interests
Financial	An opportunity to present a well planned initiative to make a positive difference, for which the local populace will be ready to pay rational charges	Local civil society being led by the trading community with sufficient initial funding support to start off various initiatives	According to various sources, the JMC is home to a substantial volume of black money that may not be able to contribute to the development of the city due to various vested interests	
Administrative	Centralized working and decision making, making it easier to plan and execute initiatives	No data	Lack of willingness to improve or perform better	No data
Technical	No data	Ability to rope in technically sound entities	No capacity with the staff to make technically sound decisions	No data

Table 4 Strengths and weaknesses of local entities

# 5.2.2 Opportunities and threats from the reform initiatives

Table 5 details the opportunities or threats posed by the reforms initiatives, for Jalna's SWM sector. This is in attempt to discuss whether the reform measures intended or planned for Jalna are commensurate with the on-ground situation in the town.

# 5.2.3 Opportunities and threats from on-going and proposed initiatives – the project DPR

The Ministry of Urban Development, issued guidelines as to what should be contained in a project DPR, for solid waste management. Table 6 summarizes a comparison of the DPR for Jalna's SWM project, with these guidelines. The point to be noted here is that if the DPR does not meet the criteria set by the MoUD for its preparation, it is highly likely that the DPR may be ignoring or assuming things that may prove critical in the project design, implementation, and operation.

This is in addition to the fact that DPR preparation is usually an outsourced activity. If the DPR is not as per the specified norms, the fees paid for that outsourced preparation of the DPR may not be worth it.

Table 5 Feasibility Analysis of Reforms for the JMC (In prevailing conditions)

Reforms	Opportunities	Threats	Prerequisites to	Steps to mitigate
			ensure opportunities	the threats
1. Issue of Bonds by the ULB for raising funds	<ol> <li>Raising funds from the market would act as an additional source of funds for the ULB, and may aid ULB's contribution to the PPP and other initiatives requiring investments.</li> <li>Due to the inherent financial nature of fixed returns being payable on bonds, the funds raised through bonds carry an increased level of accountability to the stakeholders.</li> </ol>	The obligation to provide fixed returns on the bonds may result in a compulsive user charge mechanism to recover the O&M costs of the projects implemented by the ULB.	Building capacity of the ULB officials and staff to handle the required work for this	Well regulated user charge mechanism to ensure equity and transparency
2. Reforms introducing other sources of funds (Property Tax, User Charges for O&M cost recovery, and Rationalized Stamp Duty)	<ol> <li>The rationalization of property tax (PT) may reduce cases of property tax payment evasion,</li> <li>Establishment of accountability of the ULB to the residents through a clear relation between user charges and SWM system provision may boost revenues. A well regulated user charges mechanism is a key, though.</li> </ol>	linking of property tax with locality may raise issues related to equity of service provision in particular areas. For example, the level of basic service provision such as SWM, should ideally be uniform across all areas of a city; however, the difference in PT payments made by residents of different localities may result (informally at the political level in the ULB) in differences between the	Ensuring willingness of the staff and other mechanism to rationalize the system	Direct inclusion of high end technology (such as GIS) in property tax mechanism may mean upping the tax for many payers, necessitating a mechanism to ensure equity in property tax charging.

Reforms	Opportunities	Threats	Prerequisites to ensure opportunities	Steps to mitigate the threats
		level of service provision across different areas.		
3. Introduction of Double Entry (Accrual Based) Financial System	With the introduction of this, it may be more transparent and direct to assess the health and effectiveness of the SWM system and also the ULB.	It is reported that the JMC staff are averse to improving and bettering performance, including to additional workload. Having introduced a system that needs additional work may see adverse response from the system officials, resulting in ignorance to further more duties of them.	Such judging may require a higher level of knowledge of accounting as a field.	Proper capacity building and imparting a sense of belongingness to the JMC staff may help the case
5. Encouraging Public-Private Partnerships (PPPs)	1. Commercialization through privatization of municipal services such as SWM, may put burden of user charges on the users.	Mistreatment of labourers is a large threat observed and perceived by the labourers and also the organizations working for their welfare.	Entry level participatory regulation to ensure the service provision takes place in a transparent, accountable and equitable manner is a key.	Well laid out norms and contracts to ensure labourer welfare need to be established.
6. 74th Constitutional Amendment Act	Among other things, the ULB has been made totally responsible for SWM services by this act. This may result in a direct	Creation of local political interests based on such decentralization of decision	Awareness and capacity building of the community as	Capacity building of the civil society through as

Reforms	Opportunities	Threats	Prerequisites to ensure opportunities	Steps to mitigate the threats
	accountability of the locally selected government body to its residents, for service provision.	making	well as the ULB staff	participatory processes as possible, with well
7. Community Participation Law	<ol> <li>Better decision making (e.g. what kind of systems will perform better for particular areas) has been made possible through direct community participation, vis-à-vis the current closed-doors system.</li> <li>Through participation and inviting comments from the community stakeholders, the equity principle may find more space in the decision making process.</li> </ol>		1. Ensuring the information reaches all stakeholders of the system 2. Capacity and awareness building of citizens and staff members alike	laid out norms for the same, and well established accountability and responsibility mechanism
	3. Through community participation in decision making, the self accountability of the citizenry may be enhanced. (For example, if a decision is made to enforce source segregation of waste, if residents are a part of the decision made, they are more likely to comply) This may result in better system operation.			
9. City Planning as a function of the ULB	1. Advance planning for a suitable system of SWM, and the DCRs required for that as	Lack of public participation in the city planning function	Capacity building of the ULB officials	Ensuring participatory

Reforms	Opportunities	Threats	Prerequisites to ensure opportunities	Steps to mitigate the threats
	part of the city planning, may address the inequity- and inefficiency- related problems.	may result in gross flaws and inequities in the plans and the subsequent execution	is an essential aspect of this	planning processes
10. Introduction of E-governance (GIS/MIS)	<ol> <li>Enabling remote grievance registration without personal contact, vis-à-vis the current situation where residents hesitate/ are unable to visit the ULB themselves, may improve the resident feedback mechanism.</li> <li>Better monitoring of systems by higher-ups in the hierarchy may be possible.</li> </ol>	such a reform may translate in abolition of mechanism for grievance registration in person, thereby alienating the residents who do not have access to communication modes such as the internet.	Ensuring proper via-media are established to enable all the community components to be able to use such egovernance related aspects.	Widespread installation of the infrastructure required to implement the reform
11. Ensuring delivery of basic services	Ensuring SWM will also be covered as a basic service, and this may mean ensuring accountability through service provision to all residents, and also through a well functioning grievance redress mechanism, by the ULB.	NA	Capacity building of the ULB staff and officials	NA
12. Structural Reforms	Creation of cadres for class 2 and class 3 staff may address problems arising out of locally vested interests of staff such as those of health inspector, head of the health department, sanitary inspector etc.	Inclusion of staff from places away from Jalna may result in such staff members not having a real feel of the problems in the city.	Building willingness and capacity to handle change and also to be able to appreciate the need for such an initiative	Awareness building and sensitization of the staff who belong to places other than Jalna

Reforms	Opportunities	Threats	Prerequisites to ensure opportunities	Steps to mitigate the threats
13. Administrative reforms	1. Overall improvements in transparency and accountability may be achieved, possibly contributing to effective services provision.		Creating a willingness amongst the staff and office bearers in the Jalna MC to ensure the reforms actually achieve what they are designed to achieve.	
18. 25% earmarking of land for poor for housing (LIG/MIG)	1. Earmarking of land for housing of economically weaker sections may ensure identification of poor settlements, thereby possibly translating to avoidance of exclusion of such areas from SWM provision.	Misuse of such additionally available land is possible through malpractices	Creating awareness to ensure public participation and building of pressure on the city administration to ensure the implementation of the initiative	
19. Computerization of registration of land and property	1. A possibly simplified property registration mechanism through remote systems may ensure property identification, further resulting in avoidance of unregistered properties, improving tax collection and the overall financial health of the ULB.	NA	Capacity and awareness building	NA
21. Security of tenure	1. Illegal settlements, especially of the economically weaker sections, may be avoided as a result of this reform. Ensuring SWM service provision to those may thus	NA	Capacity and awareness building	NA

Reforms	Opportunities	Threats	Prerequisites to ensure opportunities	Steps to mitigate the threats
	be achieved.			
22. Bylaws for waste-water recycling	1. An improved drain management is an implicit prerequisite for this reform. Such improvement may aid the SWM service provision, through avoidance of dumping of waste in drains.	NA	Build administrative capabilities to be able to appreciate the technical linkages between the drain systems and SWM systems.	NA

It may be noted here that a further set of opportunities and threats may come up, while carrying out the multi-stakeholder dialogue as intended and indicated in this document.

The dialogue may also indicate many steps to enhance the opportunities or to mitigate the threats not captured within the scope of this document. This document, as mentioned earlier, serves as a starting point for the discussions and the multi-stakeholder dialogue.

Importance of the component	If the DPR contains the relevant aspects, what are the steps required to ensure their effectiveness?	If not**, steps needed to compensate for such shortcoming of the DPR
Compone	nts specified from CPHEEO manual	and JNNURM Guidelines
Popu	lation projections of the city over the	ne project life period
The amount of waste generated and hence the project capacity required depends directly on this	1	
Present condition	of the city, population and area cov	vered by the existing SWM system
The applicability of modifications/improvements suggested in the DPR would be based on this.	The on-ground situation needs to reflect clearly in the report, such as the length of road sweeping assigned to each road cleaning worker.	
	Justification/ need for the propose	d SWM project
Principle of accountability towards the stakeholders of the project is reflected in this component	1	
Soil characteristics, to	ppography, geology of the city; grou	undwater tables in different seasons,
Waste management components such as transportation, treatment and land filling		Environmental impact assessment of the project should be carried out, to assess what environmental components will

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<sup>\*\*</sup> The document by the title of DPR, with the study team does not contain this information

Importance of the component	If the DPR contains the relevant aspects, what are the steps required to ensure their effectiveness?	If not <sup>**</sup> , steps needed to compensate for such shortcoming of the DPR	
have direct and important connections with soil, groundwater etc resources.		have impacts from the project. These need to be assessed and taken corrective steps to protect.	
	Environmental Impact Asse	essment	
The project planning phase should consider the impacts the project will have on its surroundings, in both terms - environmental and social  Public consultation should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment study. The technical impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment should be carried out, on the properties of planning document, to build a primary base for the impact assessment should be carried out, on the properties of the properties of planning document, to build a primary base for the impact assessment should be carried out, on the properties of			
Report of field study covering the quantity as	nd quality of various types of waste existing SWM systen	es generated in the city, and the technical parameters of the	
Each type of waste requires dedicated management mechanism. The DPR must acknowledge this fact.	nanagement mechanism. The DPR must on ground situation has been		
		e alternative; justification of the mechanism and machinery of various waste management components	
accountability in the decision making process.  mechanism for treating Jalna's waste. Entry lev participation should be carried out to justify the meaning proposed in the DPR and ways to mitigate the		Private participation has been proposed in the composting mechanism for treating Jalna's waste. Entry level public participation should be carried out to justify the mechanism proposed in the DPR and ways to mitigate the possible concerns arising out of the implementation of the recommendations of the DPR.	
Benchmark-based justification for land requirement for treatment/ segregation facilities			

Importance of the component	If the DPR contains the relevant aspects, what are the steps required to ensure their effectiveness?	If not**, steps needed to compensate for such shortcoming of the DPR
Important as a part of mechanism to ensure accountability towards the land provision by state government for SWM projects.		Recycling should be considered as a significant aspect of waste treatment, and should be discussed in a consultative and participatory manner. This is especially important given the existence of recycling industry around Jalna.
Detailed plans for operation of the project	, treatment of leachate, public awa participation etc	reness measures, issues for capacity building, community
Apart from a competitive establishment of the project, sustainable operations and management of the project is an equally important thing. Well thought out decisions are needed to ensure that.	and measures proposed in the	
	Additional components to be	e assessed
Capturing of the actual situation in terms of informally transferred workers, on ground worker problems, on ground situation of community participation needs to be properly captured to ensure the effectiveness of the project.		A multi-stakeholder dialogue is a valid way to bring out these aspects and to attempt to work out possible solutions on the issues related to those.

Table 6 Format for comparison of the DPR to the stipulated requirements

# 6 CHARTER OF DEMANDS, WITH MULTI-STAKEHOLDER DIALOGUE

Based on the options for achieving the desired results, and on the opportunities and threats posed by the on-going or proposed project or reforms initiatives, a multi-stakeholder dialogue should be carried out. Such a dialogue would enable:

- a. Selection of the options actually to be implemented; these would include:
  - i. The options to solve the problems, starting with those enunciated in Table 3 or adding to those;
  - ii. The steps to be taken to ensure the recommendations in the project DPR are effective, including those mentioned in Table 6; and
  - iii. The steps to be taken to enhance the opportunities and mitigate the threats arising out of the initiatives intended to resolve the problems, as discussed in Table 5.
- b. Action plan with an agreed and accepted time frame for implementation; and
- c. Clear responsibility allocation to various entities that would participate in the option implementation. This would be based on the analysis of the strengths and weaknesses of various stakeholder entities, as summarized in Table 4.

In the meanwhile, the following section summarizes the burning issues that need to be taken up for the MSD on a priority basis.

#### 6.1 BURNING ISSUES FOR THE MSD

The following table summarizes the burning issues that have been observed, and need elaborate discussion during the MSD on a priority basis.

No.	Issue	Source
1.	A total of over Rs. 1 crore has been spent on solid waste management over last three years. Was this expenditure justified?	The budget documents, recording the expenses incurred on the SWM system in Jalna.
2.	Why has the treatment plant taken more than 2 years just to have an approval? The construction of the plant has not started yet, and the costs of the plant have been going up because of inflation and escalation. This has serious implications on the viability of the plant.	The approval process for the plant establishment is reported to have gotten stuck.
3.	If there is such a shortage of staff in the SWM system, especially collection, why is there informal and illicit transfer of workers from the SWM department to other departments of the JMC?	The actual number of workers working for collection was observed to be less than those on the payroll. Informal worker transfers between departments was reported to be an issue.

No.	Issue	Source
4.	Why is contract labour employed when the effective expenditure on the labour is more than the direct wages to each labour? Why cannot the JMC give direct contract employment to individual SWM workers?	It was reported that about 95 contractual workers are employed by the JMC through contractor on the vehicles for collection and transportation of waste. The contractor is observed to be charging substantial amount, while exploiting the workers. An alternate mechanism needs to be established wherein this additional fund utilization is not necessary, at the same time ensuring worker welfare.
5.	Why is there no measure proposed to control the amount of waste dumped by the residents, into Jalna's SWM system? Why are there no quantified and strict recycling directives to be adhered to by Jalna's residents?	No document or system inputs analyzed by the study team has ever dealt with waste generation control as a mechanism to ease the load from the SWM system in Jalna. Especially in light of the lack of efficient disposal mechanism, this measure should have been included on a priority basis in the documentation.

Table 7 Burning issues for the multi-stakeholder dialogue, thrown up by the analysis

Apart from these burning issues, there are a few action points that need to be taken up on a priority basis. The next section summarizes these.

# 6.2 ACTION POINTS ON A PRIORITY BASIS

The following table summarizes the action points that may need to be taken up in the short term, on a near-immediate basis. This may be subject to the discussion in the MSD. Such discussion may result in alteration, revision, modification or refinement of the points mentioned here.

It may be noted that these points arise from the analysis of the current situation and the reforms, along with the general standing of the JMC, carried out by the study team.

No.	Action point	Brief details	Reforms that support the initiative
1.	Devising a clear community participation and transparency mechanism in the form of either regular interactions, or a continuously available grievance redress counter	, , , , , , , , , , , , , , , , , , ,	Community Participation Law, Public Disclosure Law

No.	Action point	Action point Brief details	
	at the JMC		support the initiative
2.	Preparation of an indicative regulation to ensure financial and technical sustainability of the SWM system	For an instance, the waste generators could be charged based on the amount and quality of waste they generate.  To enhance the tendency to segregate waste at source, incentives could be given to the waste generators who segregate their waste.  The charges mechanism could either be slab-based such as in case of water connections, or on the basis of amount of waste generated.	Publication of consumption standards, as a part of the reforms translates directly to specifying how much waste could be generated by each waste generator.  Additionally, this initiative could be clubbed with the design of user charge scheme, according to the corresponding reform.
3.	Capacity building of the JMC officials and office bearers to be able to appreciate the technical and on-ground issues involved	A mechanism to impart capabilities to the administration and also the elected public representatives, to be able to critically assess project and reforms initiatives. This is essential to ensure the correct types of alternatives for problem solving are taken up by the JMC.	Administrative and Structural reforms are the reforms that include capacity building of the city managers as a component.
4.	Participatory and regulatory initiative to reduce the burden on Jalna's solid waste management system, through generation control	A drive should be taken up to reduce the burden on the city's SWM system.  Community sensitization through a massive awareness campaign should be launched by the JMC, with the available staff.  This should include using the existing media reporter base, holding informal meetings across the town, and issuing informal guidelines on distributed composting of household waste.  For the bulk waste generators, the distributed waste treatment initiative should be especially pressed forward for.  The equity issues in this (e.g. for generators who do not have direct access to adequate land for treating	None of the reforms considers waste reduction as a way out from SWM system issues.

No.	Action point	Brief details	Reforms that support the initiative
		waste) need to be resolved by a participatory process.  Clear responsibility and authority allocation to the community and other willing entities should be carried out, with definite time line design.	
5.	Prioritization of the collection mechanism, irrespective of bullying and political influence, through widespread participation and accountability through interfacing between the JMC and the residents	Such situation could be achieved through a widespread campaign taken up by the JMC to establish a transparent and accountable mechanism for waste collection, along with an effective grievance	

Table 8 Action points for short term, on priority basis

# 7 CLOSURE

The findings of this study show that different stakeholders have different perceptions about solid waste management system in Jalna. Irrespective of the different ideological positions they subscribe to, their perceptions and beliefs pertaining to the status and issues in the SWM, as well as about its causal analysis, reveal a complex picture. Importantly, many of these issues are neither in the purview of the ULB nor that any individual stakeholder is capable to handle the issues, further highlighting the need for framing policies for participatory decision making. Considering that, this report attempted at staging the perceptions and views of the stakeholders involved, to the extent possible at one place. It was also learnt over the data collection exercise that such an approach was taken by few, if not none, earlier initiatives to resolve the issues in the municipal service provisioning sector. Thus, the report aims to construct a grouted foundation, in order to provide contents for deliberations for seeking prudent first-step solutions towards better service provisioning in the solid waste management sector in the town.

# **ANNEXURE - CONSOLIDATED LIST OF SOURCES OF INFORMATION**

- 1. Prof Sanjay Lakade
- 2. Mr Bhaskar Ambekar
- 3. Mr Bhagwan Kale
- 4. Ms Renuka Bhawsar
- 5. Mr Rawsaheb Dawale
- 6. Mr Manoj Deshmukh
- 7. Mr Laxman Raut
- 8. Mr Vaijinath Londhe
- 9. Prof Muralidhar Golhar
- 10. Mr Suraj Kesapurikar
- 11. Mr B Y Kulkarni
- 12. Dr Laxmikant Shinde
- 13. Mr Sanjay Rakh
- 14. Mr Kumar Deshpande
- 15. Mr Sunanda Tidake
- 16. Mr A Sawant
- 17. Ms Rasana Dehadikar