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## Between hype and veracity; privatization of municipal solid waste management and its impacts on the informal waste sector

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#### ABSTRACT

The informal waste recycling sector has been an indispensable but ironically invisible part of the waste management systems in developing countries as India, often completely disregarded and overlooked by decision makers and policy frameworks. The turn towards liberalization of economy since 1991 in India opened the doors for privatization of urban services and the waste sector found favor with private companies facilitated by the local governments. In joining the privatization bandwagon, the local governments aim to create an image of a progressive city demonstrated most visibly through apt management of municipal solid waste. Resultantly, the long important stakeholder, the informal sector has been sidelined and left to face the adverse impacts of privatization. There is hardly any recognition of its contributions or any attempt to integrate it within the formal waste management systems. The study investigates the impacts of privatization on the waste pickers in waste recycling operations. Highlighting the other dimension of waste collection and management in urban India the study focuses on the waste pickers and small time informal scrap dealers and this is done by taking the case study of Amritsar city, which is an important historic centre and a metropolitan city in the state of Punjab, India. The paper develops an analytical framework, drawing from literature review to analyze the impacts. In conclusion, it supports the case for involving informal waste sector towards achieving sustainable waste management in the city.

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#### 1. Introduction

The neo liberal macro-economic reforms have enabled a move towards a liberalized political economic environment while providing stimulus to urbanization and consumerism. One such by product of this trend is municipal solid waste, whose growth, albeit under the influence of liberalized economic development has been remarkable with countries grappling to deal with this onslaught. The astounding growth of municipal solid waste and its inept management has led international organizations like UN-Habitat, particularly in context of developing countries, to acknowledge that "solid waste management is a challenge, but it can easily become a crisis if ignored" (UN-Habitat, 2010, p. 11). The turn to liberalization in India since the 1990s has witnessed increasing involvement of the private sector in urban infrastructure service delivery including in municipal solid waste management operations. The logic of private sector participation in municipal solid waste services is based on the expectations of efficient performance and has therefore been adopted by several municipalities across the country.

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However, on the down side, facilitation of private sector in waste management has left the informal waste sector previously engaged in such ventures with an imminent threat of displacement and loss of livelihoods. The informal private sector has been a major stakeholder in urban India's solid waste management structures, though largely unrecognized and therefore considered illegal (Medina, 2007; Sembiring and Nitivattananon, 2010; Masood and Barlow, 2013; Velis et al., 2012). Collection of municipal solid waste by the informal sector is estimated to be at 15-20 percent and about 1.7 million urban poor work in informal waste management sector in India (Annepu, 2012, p. 1).

The informal waste managers can be described as significant stakeholders in the municipal solid waste management system as their presence allows for scrupulous sorting and recovery of recyclables that would otherwise end up in the unsanitary landfills<sup>1</sup> as

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<sup>&</sup>lt;sup>1</sup> As per the Indian Solid Waste Management Rules, 2016, a sanitary land fill refers to the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion. A majority of landfills in India are unsanitary and do not conform to the mentioned standards.

a wasted resource. Government strategies have till date been largely side lining the existence and the role of the informal waste sector in favor of private corporate solutions expressed in all its glitz through use of high end technology to manage a city's waste. By doing so, the local governments follow the line of the national policy of private sector facilitation while at the same time undertake an image makeover of the city to repackage it as an attractive investment destination within the realm of the prevailing macro-economic orthodoxy. However the traditional or rather customary stakeholders are largely excluded from these endeavours.

This study is an attempt to investigate the impacts of such an initiative in Amritsar city on the informal waste sector, the waste pickers and itinerant waste buyers in particular. The study relies on an analytical framework derived from review of literature on privatization in general and specifically in context of municipal solid waste management. The level of analysis aims to offer a deeper understanding of the social outcomes of privatization of municipal solid waste management services in the case study. Through the medium of this research the authors want to emphasize upon the inclusion of the informal sector within or outside the gamut of privatization as the case maybe, while framing policies for city level solid waste management.

The paper is arranged in three parts, the first provides an overview of privatization in generic and specific to municipal solid waste culminating with the development of an analytical framework. The second part examines the case study of Amritsar city looking at the impacts scenario and the third part provides a broad framework for involving the informal sector, stressing upon its inclusion into the formal city waste management operations.

#### 2. Materials and methods

A research approach drawing largely from the qualitative domain informed this paper. The methodological procedure employed included a comprehensive review of thematic scholarly literature that helped to select the criteria and indicators for analvsis. This selection was critical to assume a direction for the conduct of thirty-two semi-structured interviews of the concerned stakeholders. The interview protocols were sufficiently elaborated while at the same time focused on extracting information related to the chosen criteria and indicator targeting the sustainability criteria in question. Prior to conducting the interview the researcher met or telephoned the potential interviewer to solicit his/her support and participation in the research. Sampling for the semistructured interviews was based upon purposive method, using expert, snowball and opportunist sampling methods wherein the researchers also applied their knowledge and contacts with the interviewees to elicit opinions and extract targeted information from the most reliable sources. Accordingly, the list of interviewees is presented in Table 1.

Application of direct observation methods were made to collect information related to the municipal solid waste management primarily to supplement and triangulate information emerging from semi-structured interviews. In addition, documentary and archival records in the form of newspaper reports, contract documents, demographic documents as the Census of India and municipal documents were also referred.

Data reduction and verification was enabled using the principles of constant comparison, theoretical saturation and triangulation. A descriptive and exploratory narrative is adopted towards constructing interpretations emerging from the research. The analysis rests on a framework of criteria and indicators (as detailed in Table 2) constructed from a methodological review of literature. The findings from each of the criteria have been described as well as represented visually using the radar diagram applying a perfor-

**Table 1** Schedule of interviews.

Interviewees	Number	In text reference
Amritsar Municipal Corporation		
Managerial staff	1	AMC managerial staff 1
Sanitary supervisors	3	AMC sanitary supervisor 1, 2.3
Sanitation union leaders	2	AMC union leader 1, 2
Sanitary workers	3	AMC sanitary worker 1, 2, 3
Private company (Antony Waste Handling Cell Private Limited)		
Managerial staff	2	PC managerial staff 1, 2
Sanitary workers	5	PC sanitary worker 1, 2, 3, 4, 5
Non-government organizations/community organizations		
Pollution control committee	2	NGO member 1,2
Bhaktanwala resident association	3	Bhaktanwala resident association member 1, 2, 3
Informal waste sector		
Waste pickers	6	Waste picker 1, 2, 3, 4, 5, 6
Itinerant waste buyer	2	Itinerant waste buyer 1, 2
Waste contracter	2	Waste contractor 1, 2
Other related stakeholders		
	1	Newspaper correspondent 1
Total	32	

AMC- Amritsar Municipal Corporation, PC- private company.

mance scale of 1 = low, 2 = medium, 3 = high wherein low implies adverse impact, medium indicates some negative impact and high indicates positive impact. Based upon the evidence emerging from the analysis and realizing the limitations of the study, the researcher applies the principles of subjective logic<sup>2</sup> (Jøsang, 2012) to assign the performance ranking to the criteria applied.

# 3. Privatization of municipal solid waste and its implications; an overview

An insight into the theoretical arguments advanced by proponents of private sector participation in delivery of urban services reveals a set of similar assumptions. These assumptions subscribe to the promise offered by the neo-liberalist ideology of efficient free markets to deliver better in comparison to the public sector institutional structures. According to Weizsacker et al. (2005, p. 11), privatization promotes greater efficiency and social welfare by creating incentives to allocate resources to their best possible uses. It is also seen as a mechanism to scale down rigid bureaucracy and cronyism in public sector by transferring property from public domain to the private sector. However research has also been equally univocal when it comes to addressing the ill impacts of privatization. Cordelli (2013, p. 67) mentions the concerns of researchers as Laborde (2011), Reich (2006) and Reinelt (1994) towards the consequences of privatization for distributive equity and equal citizenship rights given the risk of parochialism and the difficulty of applying public norms and standards of conducting assessment and accountability to private actors (Freeman, 2003, Minow, 2003, Metzger, 2003 in Cordelli (2013, p. 67)). Koppenjan and Enserink (2009, p. 291) mention that displacement of the existing informal institutions, the reduction of local job opportuni-

<sup>&</sup>lt;sup>2</sup> The principles of subjective logic entails that "a fundamental aspect of the human condition is that nobody can ever determine with absolute certainty whether a proposition about the world is true or false, or determine the probability of something with 100% certainty." Whenever the truth of a proposition is assessed, it is always done by an individual, and it cannot be considered to represent an objective belief holistically. This indicates the use of subjective logic to capture the perceptions of reality realizing the subjective world in which we live. Further, Jøsang (2012) argues that the advantage of subjective logic is that real world situations can be analyzed more realistically and the inadequacy of information can be taken explicitly into account during the analysis and expressed in the conclusion.

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