



From informality to formality: Perspectives on the challenges of integrating solid waste management into the urban development and planning policy in Johannesburg, South Africa



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ABSTRACT

Informal waste recycling has become an important activity in the urban South Africa. In the city of Johannesburg for example, informal waste pickers have now become part of the waste management landscape and are involved in municipal waste collection, sorting and recycling of economically viable recyclable materials such as paper, Polyethylene Terephthalate (PET) and ferrous metals. Using empirical data collected through the tradition of participatory research, the findings suggest that waste pickers play a vital role in municipal solid waste management and make a significant contribution to the city's economic growth as well as environmental wellness. Despite their contribution, the findings also suggest that, the institutional and policy framework in Johannesburg has continued to not positively integrate the informal sector into the formal systems of solid waste. It is therefore, suggested in the paper that for the city of Johannesburg to effectively and efficiently manage solid waste, it is important that the city managers look for avenues through which they can integrate the two systems of solid waste practices prevalent in the city. The perspective has been analysed within the broader sustainability discourse.

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1. Introduction

Informal solid waste recycling is a survival strategy for the low-income urban residents who have found themselves vulnerable and squeezed on the side-lines due in part, to the process of rapid urbanisation and accompanied by serious economic stagnations being faced by many countries of the developing south (Simelane & Mohee, 2015; Chimuka & Ogola, 2015; Oguntoyinbo, 2012; Troschinertz and Mihelcic, 2009). Unable to cope with the pressure of a capitalist system that is based on individualism and that of

higher market demand and competitiveness, most of the urban poor residents in the developing world have resolved to operate informally in the sector of waste management and recycling for their survival. The South African Institute of Race Relations [SAIRR] (2013), and supported by the World Bank (2013), for example, makes reference to the higher demographic pressure observed in the cities of the developing world which have created a situation where urban authorities are unable to adequately provide services and need the aspirations of their residents in terms of delivering socio-economic amenities and facilities. The disadvantaged and marginalised groups of people now increasingly have to adapt to the pressure of the capitalist system. One of these strategies is resort to other forms of livelihood for survival, among which include informal solid waste management and recycling (Sentime, 2014; Simatele & Etambakonga, 2015).

The South African population has, over the last few years, experienced unprecedented growth which has had an impact on the country's urbanisation, waste production and management (see Department of Environmental Affairs, 2016). A survey by World Bank for example, revealed that about two-thirds of the population in South Africa resides in urban areas (South African Institute of Race Relations, 2013). In 1990, for example, an estimated 52% of

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people lived in urban areas and this increased to 62% in 2011 (South African Institute of Race Relations, 2013). This increase in the urban population, as observed by Samson (2010) has overwhelmed the capacity of city authorities to provide adequate and equitable waste management services (See also Ezeah, Fazakerley, & Roberts, 2013; Sentime, 2011; Simatele & Etambakonga, 2015). In many cities the rapid population growth has overwhelmed the capacity of municipal authorities to provide even basic services. Urbanisation directly contributes to waste generation, and unscientific waste handling causes health hazards and urban environment degradation. In many cities the rapid population growth has overwhelmed the capacity of municipal authorities to provide even basic services. Urbanisation directly contributes to waste generation, and unscientific waste handling causes health hazards and urban environment degradation.

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The deterioration in the solid waste infrastructure coupled with stagnations in the urban economy has further worsened the ability of urban managers to effectively manage solid waste (Katsiimeh, Burger, & Mol, 2013; Afon, 2012; Kubanza & Simatele, 2015). Karani and Jewasikiewitz (2007) and supported by Muzenda, Ntuli, and Pilusa (2012), for example, observe that although South African cities exhibit a good model for economic development and effective urban institutional framework, many of these cities are now struggling to provide effective systems for solid waste management. They are of the view that, “the increase in affluence [due to the increase in the African Middle class] has increased the amount of waste generated and has also led to more complex waste flows” (Muzenda et al., 2012, p. 151). In the context of this state of affairs, there is an urgent need to formulate and implement effective waste management strategies that will contribute to the development of an equitable municipal solid waste management system and strategy for urban South Africa (see Dlamini & Simatele, 2016).

In order to attain an operative and sustainable municipal solid waste management system, there is need to rethink the current model of municipal solid waste management in sub-Saharan African countries. The contemporary model has tended to ignore the activities of the informal actors despite the contribution they make to solid waste management within cities (Jerie & Tevera, 2014). In addition to this, informal waste management and recycling acts as a livelihood strategy to a considerable number of urban household (Sentime, 2011, 2014;; Samson, 2008). Sentime (2011) for example, is of the view that as many as 48% of the poor urban dwellers in the city of Johannesburg are now actively engaged in informal waste management and recycling and depend on this sector for their livelihoods and incomes.

Although many studies in municipal solid waste management and recycling have focussed on the challenges of waste management, little or no significant attention has been paid to understanding how informal waste pickers can potentially be integrated and incorporated into formal structures within municipal solid waste management. A study by Dlamini and Simatele (2016) revealed that local municipal authorities in the city of Johannesburg were sceptical about incorporating informal solid waste actors into formal systems. This is because they believed that there are number of unique socio-economic and political circumstances that may complicate the integration of the informal sector into contemporary and established systems of waste management (Dlamini and Simatele 2016). Such perceptions have thus; restricted and limited discussions on the contributions of waste pickers to boardroom conversations and no concerted efforts have

been made to mainstream these activities into official waste management strategies (Dlamini & Simatele, 2016). The lack of policy integration and ultimate neglect of this important sector in urban waste management has resulted in compromising the financial wellness and working conditions of the waste pickers.

In view of the above observations, this paper engaged with contemporary processes and mechanisms that account for the continued exclusion, marginalisation and non-integration of informal systems of solid waste management into formal structures in Johannesburg, South Africa. It is argued in the paper that in a bid to search for alternative, sustainable and more effective systems of waste management, it is important that urban managers in Johannesburg identify local solutions that match local needs and possibilities. One such novel idea is identifying avenues through which those that are engaged in recycling from the informal sector are supported and integrated into formal systems.

2. Contextualising municipal solid waste management in Sub-Saharan African cities

Many cities in Sub-Saharan African countries experience high rates of population growth due to increased processes of migration, urbanisation, industrialisation and modernisation (Nzeadible, 2009; Masocha, 2006; Kofoworola, 2007; Simelane & Mohee, 2015). The above processes have not only contributed in the increased numbers of urban residents, but also increased the generation of solid waste. These changes have unfortunately taken place in a context of rapid economic stagnation and deterioration coupled with weak institutional and policy frameworks. The lack of financial resources, as observed by Liyala (2011) and Simatele and Etambakonga (2015) have not only made it difficult for local authorities to effectively manage solid waste, but have prevented people from solving urban based problems and challenges. Kubanza and Simatele (2015) for example, are of the view that the available resources have to a large extent contributed to the deteriorations in the maintenance of roads, sewerage and water systems, infrastructure for waste management, all which are important elements in solid waste management.

As African cities continue to grow, Scheinberg (2012) and supported by Okot-Okumu (2015) argue that due to the declining economic situation of many of the African cities, the supply of basic infrastructure is dramatically deteriorating. The breakdown in the provision of public transport services and road maintenance for example, has negatively impacted refuse collection and recycling (Dlamini & Simatele, 2016). Increased deterioration in the national and local economies has resulted in increased informalisation of employment and settlement patterns, a combination that has led to the horizontal growth of urban areas (Henry, Yongsheng, & Jun, 2006; Mbuligwe & Kassenga, 2004). This contemporary growth pattern in most African cities has tended to spread and stretch existing services, facilities and infrastructure even more thinly (Samson, 2010; Simelane & Mohee, 2015). Tukahirwa and Lukooya (2015) are of the view that adequate socio-economic facilities and amenities in African cities which are essential to improving the lives of the poor and raising urban productivity are now extremely inadequate and deteriorating making it difficult for local authorities to manage urban processes.

The deleterious economy is having pronounced effects on all sub-sectors of the urban economy, particularly on the urban poor. Gumbo and Simelane (2015) observe that in most African cities, provision for the regular collection and disposal of household refuse is highly inadequate, especially in poor neighbourhoods. Within these cities, waste is dumped on open spaces and is hardly collected (Simelane & Mohee, 2015). In 2014 for example, only 15 per cent of solid waste was collected in Lusaka, 17 per cent in Dar es

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