

Article

## Cairo's Contested Garbage: Sustainable Solid Waste Management and the Zabaleen's Right to the City

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**Abstract:** Over the decades, the *Zabaleen*, the traditional waste (garbage) collectors of Cairo, have created what is arguably one of the world's most efficient and sustainable resource-recovery and waste-recycling systems. Yet the continuation of this intricate relationship between community, environment and livelihood is jeopardized by the official privatization of municipal solid waste (MSW) services through contracts with technology-intensive multinational corporations which threatens the sustainability of the garbage collectors' communities by removing access to their chief economic asset, waste or garbage. The situation is exacerbated by an official policy of moving the *Zabaleen* and their MSW sorting, recovery, trading and recycling activities further out of the city, on the grounds that this will turn their neighbourhoods into cleaner and healthier living environments. The consumption of Cairo's sites of MSW collection and sorting open new socio-political spaces for conflict between multi-national companies and the *Zabaleen*'s traditional system. This is further indicated in the way Cairo's waste materials have been subjected to new claims and conflict, as they are seen as a 'commodity' by global capital entrepreneurs and multi-national corporations, and as a source of 'livelihood' by the disadvantaged and marginalised *Zabaleen* population.

**Keywords:** Cairo-Garbage; City-Zabaleen garbage; collectors-municipal solid waste management

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## 1. Introduction

Cairo's poor communities signify the growing socio-economic disparity since the 1970s open door economic liberalisation and the 1990s IMF's structural adjustment program. Typical example of these poverty belts is the Manshiet Nasser settlement and its 'Garbage City' located on Muqattam Mountain's lower plateau within Cairo's eastern fringes. The recent rockslide in Deweka district within the Manshiet Nasser settlement has brought garbage collectors (*Zabaleen*) to the attention of the official authorities who consequently renewed their demands for the *Zabaleen*'s resettlement away from the Muqattam area. In 1993 the 'Garbage City' was subjected to a similar rockslide. Such frequent rockslides might be attributed to various development construction activities occurring within Muqattam Mountain's upper plateau (Muqattam City is regarded an upper middle class residential district).

This paper explores conflicts over space within Garbage City in relation to the *Zabaleen*'s right to their inner city areas and their potential relocation to suburban new settlements, as a result of the privatization of Cairo's MSW management system. An empirical small area field survey was carried out within 'Garbage City', employing ethnographic techniques of open-ended interviews with primary stakeholder households (garbage collectors) [1]. Qualitative data and narratives were gathered during focus group discussions dealing with garbage collectors' attitudes towards the future of their settlements and their coping strategies under the threat of enforced eviction. Informal discussions were carried out with secondary stakeholder agencies (community based groups, local municipality, NGO agencies) concerning potential gentrification programmes and proposed relocation plans.

Various authors have noted the central, but unacknowledged role of informal waste collectors within MSW management systems. Accordingly, in order to achieve sustainability within waste management systems, the state should formally recognise the significant role played by waste collectors and other informal actors. Visser and Theron argued for the need to promote alternatives to private sector models whilst improving the conditions of those currently working in the informal waste management sector. Bjerkli and Nzeadibe indicated that the state's failure to acknowledge and engage with the informal waste collectors meant that interventions to transform the waste management system have unintended consequences and ultimately cannot succeed [2-4].

Rouse and Ali [5] discussed the sustainable livelihoods approach in relation to waste pickers (collectors), whose aspirations were ranked into four core concepts. Firstly, "vulnerability context" which is related to environmental conditions affecting waste collectors' activities. Secondly, "asset profiles" which consist of various forms of capital: human capital; social capital (waste pickers' relationships with dealers); physical capital (poor living conditions); and financial capital (low income levels). Thirdly, "transforming structures and processes" are related to government decisions on land which affect both waste pickers' livelihoods and the security of their homes especially when they have little access to structures such as the legal system. Fourthly, "livelihood strategies and outcomes".

Dias examined the developments in waste collection and recycling in Belo Horizonte City, in the south-east region of Brazil where the Municipal Administration has integrated waste pickers through Waste Pickers' associations. The Swabhimana Platform in Bangalore, India, launched in 1995, aimed to promote people's participation in the planning, development and management of Bangalore City [6]. Participants of the Platform included Resident Associations, NGOs, business organisations and civic

agencies like the Bangalore Development Authority and the Bangalore City Corporation (BCC). The platform advocated a sustainable waste management system which involved local community-based organisations, non-governmental organisations, whilst developing a land fill and sites for neighbourhood composting projects.

Closely relevant to the Zabaleen's case study is the Vincentian Missionaries' [7] development of a federation of scavengers (waste collectors/pickers) who live close to a major solid waste dump (Payatas) in Quezon City, the Philippines. The Foundation and other NGOs have supported scavengers and later facilitated a study tour to the Zabaleen waste management system in Cairo to allow a consideration of possible technology transfer. Relating the Payatas experience to the Zabaleen system paved the way for the formulation of a Payatas Environmental Development Programme which advocated an alternative waste management system to open dumping, involving setting up a community based materials recovery centre, harnessing the waste-picking and recycling skills of scavengers and micro-entrepreneurs, and further supplementing these skills with environmentally friendly technology for solid waste processing and composting. The materials recovery centre was not conceived as an industrial entity but as organized clusters of community based enterprises involved in solid waste recycling or product-enhancing activities. A successful savings and credit programme was initiated to fund micro-enterprises and social needs, including a housing programme. The Federation has also increased the scavengers' capacity to negotiate with local authorities and other government agencies.

The study findings highlight the adverse effects of the privatization of MSW management systems and proposed eviction plans on the sustainability of the *Zabaleen's* associated recycling economy and urban settlement system. Behind the declared official rationalisation for such eviction proposals in terms of "improving the environment", there lies a wider but hidden agenda in terms of securing access to land for urban development projects and land speculation activities. This is mainly attributed to two factors. On the one hand, 'Garbage City' within Muqattam Mountain's lower plateau provides urban investment opportunities as a result of its geographical proximity to Cairo's historical quarters and its tourist-orientated urban rehabilitation projects. On the other hand, Muqattam City, located on the Mountain's upper plateau, represents both a powerful pressure group and an urban development model to the detriment of the garbage recyclers. This is noted in the proposed planning of a luxury residential gated community project (Uptown Cairo) by the Dubai-based Emaar property development company.

The paper proposes a stakeholder approach to the sustainable development of inner city poverty areas, whilst advocating radical policy action and collaborative planning for consolidating bottom-up urban governance. There is a need to strengthen the urban poor's capacity to negotiate with local authorities for security of land tenure and legal recognition of 'Garbage City'. Partnership between community based groups, NGOs, local authorities and planners would support the urban poor's sustainable initiatives to improve their housing standards and basic services and to develop small scale enterprises and affordable transport means.

## 2. Privatization of Cairo's MSW Management Systems

About 100 years ago, a group of migrants from the Dakhla oasis in the Egypt's western desert region settled in downtown Cairo. This group, known as the *wahiya* (singular: *wahi*), or people of the

oasis, assumed sole responsibility for the collection and disposal of Cairo's household waste. Initially working under contract, the *wahiya* paid the buildings' owners an initial sum, then collected monthly fees from the tenants. Later the *wahiya* collaborated with another group of migrants, the garbage collectors (*Zabaleen*), who came to Cairo in the 1930s and 1940s, from El Badary district in Assiut in Southern Egypt. They purchased the waste for use as fodder for pig farming. Since then, the *Zabaleen* community emerged as garbage collectors-recyclers settling in makeshift settlements at the western and northern fringes of Cairo metropolitan region. They maintained ties with their rural origins, preserving community organization by intermarrying and living in extended family situations [8]. Therefore there is a distinction between the *wahiya* and the garbage collectors (*Zabaleen* singular: *zabal*, also called *zarraba* singular: *zarrab*). The latter collect the garbage on donkey-pulled carts and pickup trucks accompanied by their children or siblings (Figure 1). Female and younger members of the family sort the garbage into up to 16 different types of trash, sorting out recyclables, including making use of the organic waste for feeding pigs. The role of obtaining organic waste for pig-rearing is perhaps more important for the *Zabaleen* than initially considered, since pig-meat is sold to big tourist facilities. In addition, the *Zabaleen* sell sorted secondary materials such as paper, tin, rags, glass plastic materials to middlemen. The *wahiya* retained control over the access and collection rights to the garbage, acting as middlemen between the *Zabaleen* and Cairo's households. The *Zabaleen*, typically, had no share in the monthly fees paid by those residents, whilst being obliged to pay the *wahiya* in order to gain access to the waste.

In 1989 an agreement between the *wahiya* and the *Zabaleen* resulted in the establishment of new mechanized companies of waste collection (Environmental Protection Company (EPC)). Groups of *Zabaleen* are contracted to collect and dispose of MSW by the *wahiya*. By the early 1990s the authorities introduced a new mechanization system to transport solid waste and with no governmental financial assistance being provided, the *Zabaleen* had to acquire capital to purchase trucks through personal cash savings, through selling remaining small plots of land or houses in their ancestral village, or through getting credit loans. Although the responsibilities for MSW have long been shared by the municipal sanitation service and the *Zabaleen*, the formation of the EPC established *wahiya* and *Zabaleen* as key participants in the local government's programme to upgrade MSW management in Cairo. The *wahiya* administer the system, market the company's services, collect household charges and supervise service deliveries [9].

Over the decades, the *Zabaleen* have created what is arguably one of the world's most efficient resource recovery and MSW recycling systems. Figure 1 shows the storage of bags of sorted materials ready for recycling as well as the increasingly upgraded buildings used for both residences and recycling businesses. Figure 2 illustrates the location of the *Zabaleen*'s main settlement between the Muqattam Hills and the long established informal settlement of Manshiet Nasser. It also demonstrates the relative proximity of 'Garbage City' to Cairo's business and administrative centres and to its historic cultural core in Islamic Cairo. Yet the continuation of this intricate relationship between community, environment, and livelihood is jeopardized by official municipalities' privatization plans of MSW services through contracting technology-intensive multinational corporations. Such a privatization approach threatens the socio-economic sustainability of the garbage collectors community as it fails to allow people to build incrementally on their technologically appropriate indigenous patterns of living. Because the authorities do not intend to compensate them for these

changes, the *Zabaleen* could lose access to their economic assets; waste garbage. This situation has led the authorities to pursue a policy of moving the *Zabaleen* activities further out of the city, claiming that this will turn *Zabaleen* neighborhoods into cleaner living environments while still allowing the MSW sorting, recovering, trading, and recycling to occur. But such relocation plans will increase the *Zabaleen*'s travelling distance and cost of services delivered to residential and commercial places, thus creating new risks for the sustainability of the *Zabaleen*'s foothold on trade and livelihood.

The paper investigates recently launched privatization plans for local MSW management in Cairo, focusing on local attitudes towards its adverse effects on the sustainability of the recycling economy and urban settlement system of the garbage collectors communities [1,10]. According to the official development strategy, the privatization of MSW services is regarded as fundamental to wider government plans for the rehabilitation of Medieval Cairo. The objectives of the rehabilitation programme tend to favour tourist-orientated projects, whilst ignoring the local population's interests [11], through the proposed removal of informal '*Zabaleen*' settlements on Muqattam mountain, and through the future evacuation of the nearby Eastern Cemetery's tomb dwellers and shanty town. buildings [12-14]. It could be argued that the privatization plan and eviction proposals are linked to the 1990s IMF Economic Reform and Structural Adjustment Program (ERSAP) which embraced the World bank's main economic strategies particularly free market enterprises, currency devaluation, privatization of state assets and public services, including waste management, reducing public spending and eradicating subsidies for low income consumers.

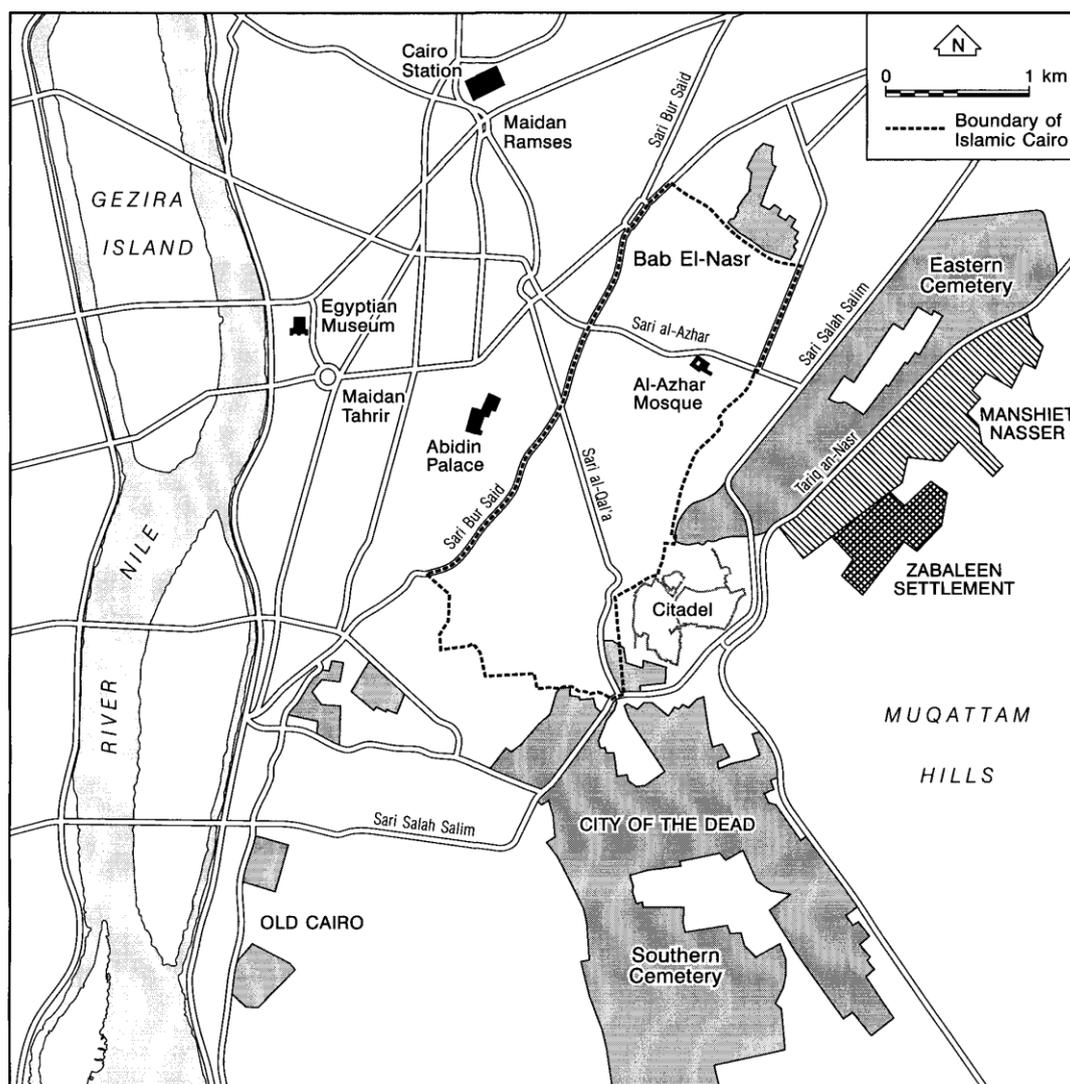
**Figure 1.** *Zabaleen* Garbage City.



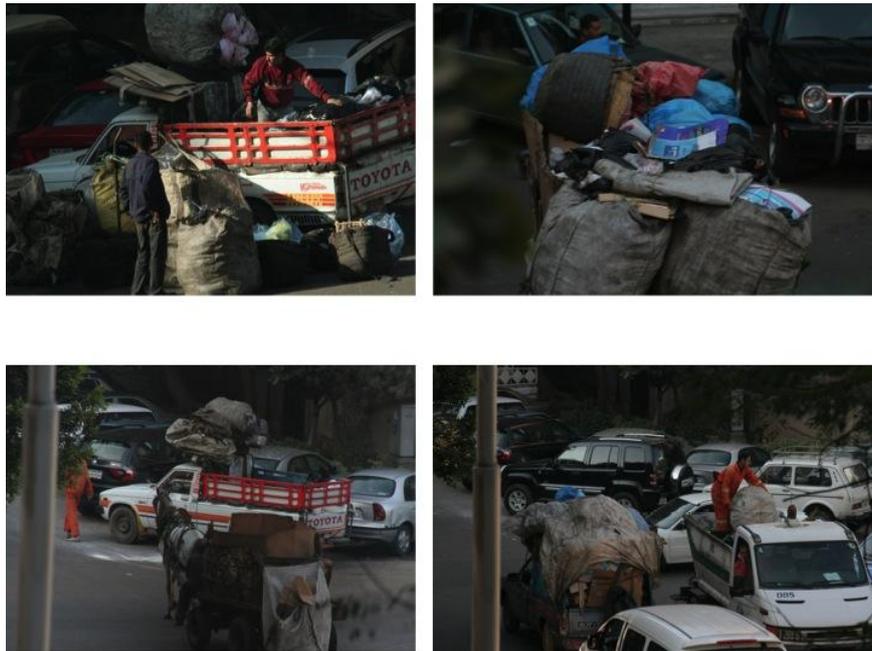
The findings emphasizes the significance of poverty alleviation initiatives in restructuring MSW collection and recycling industry development, whilst building local capacity through developing new

channels for cooperation and partnership between the garbage collectors' association (*Gammiya*), grass roots organizations, local authorities and multinational MSW management companies. In order to promote sustainable livelihoods and better opportunities for the urban poor the study emphasizes the need to draw on the sustainable flow of local resources within low-income *Zabaleen* districts, whilst seeking new means of supporting land acquisition and its development for improved housing standards, basic services and environmental quality.

**Figure 2.** Location of the Muqattam *Zabaleen* Settlement.



Recently the *Zabaleen* began losing their licenses as international MSW management companies started taking over Cairo's MSW collection routes, for annual contracts reaching US\$ 50 million. The *Zabaleen* represent the traditional school of recycling against the larger international MSW collection companies namely; FCC and Urbaser, Enser (Spanish), AMA (Italian), as well as the Egyptian Company for Garbage Collection (ECGC) and International Environmental Service (IES) who are starting to venture into Egypt to take advantage of a potentially profitable niche in the market (Figures 3 and 4).

**Figure 3.** Garbage Collector (Zabal).**Figure 4.** An Egyptian Waste Management Company (International Environmental Services (IES)).

More significantly, to improve living conditions for the people of Muqattam and neighbouring communities like Manshiet Nasser, the Cairo Governorate decided to move sections of the *Zabaleen* operations (garbage recycling procedures, animal rearing activities) 25 km away to a 50-feddan plot (1 feddan = 1.038 acres), in Cairo's eastern desert settlement of Katameya. The suggested resettlement site is the same location where other government plans have sought to relocate both activities and people from Medieval Cairo and from the eastern cemeteries [10].

Officials from the Cairo Cleaning and Beautification Authority (CCBA) regarded the *Zabaleen*'s indigenous methods of garbage collection as unhygienic, and were optimistic about the prospects of investors and businessmen establishing 10 to 12 new recycling facilities in Cairo's eastern fringes. While the *Zabaleen* had previously recycled some 80 percent of the MSW collected, foreign companies are required to recycle only 20 percent, with the remainder going into a new landfill. The *Zabaleen* would continue collecting garbage, but they would be working for foreign companies which would also be responsible for street sweeping and the placement of garbage bins. Officials at CCBA, however, seemed to be overlooking the fact that the large companies cannot collect from narrow streets as their mechanized equipment is too large. The companies require residents to take their garbage to central collection points, whereas the *Zabaleen* were able to collect MSW from individual houses even if they were located in narrow alleyways.

Yet despite the benefits promised under foreign management, and while company sources mention salaries ranging between LE 300 to LE 450 per month (US\$ 50–US\$ 75), some *Zabaleen* claim that the salaries on offer are actually closer to LE 150 per month (US\$ 25). Similar figures were given by one garbage collector and sorter with eight children who claimed to make LE 10 a day (US\$ 1.60) compared with the LE 5 a day (US\$ 0.80) offered by the foreign contractors. It appears that the companies realized that keeping the *Zabaleen* completely out of the system was not an option if they wanted to get the job of MSW disposal done. Instead foreign companies have started hiring the *Zabaleen* as subcontractors paying them LE 0.85 (US\$ 0.14) for each apartment from which they collect garbage. While this is less than their previous collection fee of LE 3 (US\$ 0.50) received from the *wahiya*, the new arrangement gives them access to garbage for recycling. However the *Zabaleen* claim that they make 90 per cent of their income from recycling the MSW rather than from the collection fee.

Local Cairene householders, while initially enthusiastic about environmental improvements within their neighbourhoods, following the restructuring of MSW management, were sceptical about the direct economic benefits they might gain from the privatization project. Instead they preferred to continue dealing directly with the garbage collectors, rejecting the government's plans to have them pay extra fees for services provided by multinational companies. Consequently, in spite of recent privatisation plans and official restrictions on their activities, the *Zabaleen* continue to collect MSW, alongside the operations of multinational companies and local municipalities, an indication of ongoing competition for Cairo's daily garbage. The *Zabaleen* work throughout the day in shifts as each group sorts out the garbage on site into piles of cardboards, glass, plastic for collection later on (via donkey carts, mini-cabs, small trucks, as well as on foot).

Respondents at the local NGO, *Community and Institutional Development (CID)*, expressed reservations about the impact of the privatization of MSW services on the Muqattam *Zabaleen* community and the role played by large international MSW collection companies. Members of CID are strong opponents of the decision to force the 27,000 Muqattam workers to relocate their recycling operations. While a leading member of CID appreciates the government's desire to keep the city clean, he admits the adverse social effects of the project:

“The *Zabaleen* are facing a real crisis. The authorities need to look at the effects their decision could have on local income, employment, economic growth, trade, manufacturing and environmental conditions. I would like to see the operations of the *Zabaleen* formalized and given a fair chance to use new recycling technologies. The idea of moving them to the desert and squeezing them further out of their trade is not right....These contracts are costing the city big money. Why not spend just 10 percent of such a budget to upgrade the *Zabaleen* system?”

Kamel [15] has suggested several options for integrating the *Zabaleen* into the international companies' contracts. Transfer stations could be established where a major proportion of the non-organic MSW could be recovered and directed to existing traders. The *Zabaleen* could continue to collect household MSW from high-income areas on a daily, door-to-door basis and then pass the residual waste on, after recycling, to the big companies. The *Zabaleen* could receive inorganic MSW from the companies as input to their recycling businesses and they could contract for selected waste, such as paper from print shops, directly from the generators of such waste. Small community-based composting facilities could be established. The *Zabaleen* could pool their financial assets such as trucks and workshops. Further their nationwide trading network in recycled MSW could be connected to the formal sector of the MSW economy. In such ways the traditional informal *Zabaleen* system could be integrated into the new privatized large-scale MSW collection system to the mutual benefit of both sides.

In this local-global confrontation the possible contribution of a Private-Public Partnership (PPP) can be mooted. However one can wonder whether in Cairo the 'private' element of the PPP would include or exclude the *Zabaleen* or just the big private companies? [16]. Would the new situation merely be one in which the *Zabaleen* work as waged labourers for the international companies? This would represent dependency rather than partnership.

Closely relevant to the privatization plans and proposed eviction of the *Zabaleen* from the Muqattam area were recent measures imposed by the Ministry of Health during the swine flu pandemic in terms of getting rid of the *Zabaleen*'s pigs in the name of environmental and health precautions.

### **3. The Swine Flu Pandemic, Official Precautions and the Slaughtering of the *Zabaleen*'s Pigs**

The 2009 H1N1 'swine flu' pandemic fortunately proved not to be the disaster which had been predicted, except for those concerned with Mexico's tourist industry or with Cairo's MSW recycling. The *Zabaleen* MSW recyclers saw their main processor of organic waste, namely their herds of pigs, slaughtered by the Egyptian Government ostensibly on health grounds. Despite the general agreement that swine flu is not transmitted from pigs to humans, but rather directly from one person to another, the Egyptian Government ordered the slaughter of up to 300,000 pigs. Later a post-facto justification was made on the grounds that a combined bird flu and swine flu outbreak, following mutation, would have endangered Egypt's population.

The Egyptian Agricultural Ministry ordered the slaughter in April 2009 and, by doing so, imperilled the livelihood of about 70,000 *Zabaleen* families. The reported number of pigs slaughtered varies

from 190,000 to 300,000, with the higher figure being most frequently quoted. Governmental health officials declared that ‘It has been decided to immediately start slaughtering all the pigs in Egypt using the full capacity of the country’s slaughterhouses’, in response to the Swine Flu. The government regarded the plan of culling 300,000 pigs as a judicious precaution to calm fears of the imminent pandemic. Such a decision affected the livelihood of thousands of *Zabaleen* pig farmers across Egypt, as poor garbage collectors expressed their concerns that the slaughter is just the beginning, and the government is plotting to remove ‘Garbage city’ and relocate the *Zabaleen*.

Besides selling paper, plastic, and homemade handicrafts from recycled MSW, pigs are the main source of income for the *Zabaleen*. Hitherto, the *Zabaleen* claimed to collect 6,000 tons of MSW a day, of which 60% was food waste and organic garbage which their pigs consume. Every 6 months, the waste collectors sell adult pigs, 5 to 15 pigs to a trader for LE 7 per kilogram (US\$ 1.25 per kilogram). The trader then takes pigs to the slaughterhouses, where a kilogram is sold for LE 30–35 (US\$ 5–6.25). The waste collectors can earn around LE 450 (US\$ 80) per pig.

Such governmental action forced all pork processors and retail outlets to close. Bereft of their herds of pigs the *Zabaleen* stopped collecting organic waste, leaving piles of such garbage in streets and other public places. Thereafter rotting piles of food blighted the streets in middle-class neighbourhoods like Heliopolis as well as in poorer districts like Imbaba. The threat of swine flu was replaced by the threat of typhus. The FAO called Egypt’s action a mistake while Egyptian Coptic Christians complained that the slaughter represented religious bias by the Muslim majority. No Egyptian was reported as falling ill with swine flu before the slaughter; since then 891 cases were reported, with two deaths [17].

There were protest riots on the part of some *Zabaleen* in their district of Manshiet Nasser-Muqattam. Signs of malnutrition reportedly appeared amongst *Zabaleen* children as pig-meat had been a major source of protein for them. Whereas the authorities claimed that the slaughtering was humane, according to Islamic law, witnesses stated that much cruelty occurred but the outcry failed to stop the butchery. The reason for the slaughter of pigs changed over time as health officials worldwide claimed that the flu virus was not passed on directly by pigs. Now, the Government claims that the cull was no longer about the flu threat but was about belatedly cleaning up the *Zabaleen*’s crowded, filthy neighbourhood [18-21].

Government compensation of US\$10—\$50 per pig was paid but formerly meat processors would pay the *Zabaleen* producers \$200 per pig. The government has offered 250LE (US\$ 45) as compensation for an adult pig, LE 100 (US\$ 18) for a male pig, and LE 50 (US\$ 9) for a piglet. A month later the Minister of Agriculture decided to keep 1,000 pigs and breed them in specialized governmental farms near 15th of May City (an industrial area outside Cairo), to preserve the origins of Egyptian stock, while the pigs’ owners will be compensated financially. It is uncertain whether the *Zabaleen* will have an opportunity to begin pig breeding again.

As a result of slaughtering the pigs, many garbage collectors stopped collecting organic MSW. In addition, International Environmental Services (IES) suspended operations in Giza governorate for few months, from April 2009 until September 2009, as a result of a financial dispute with the Municipality. This has contributed to the piling up of MSW, with organic waste being a source of infectious diseases. Some garbage collectors have also abandoned the recycling business, because without pigs, the tedious

work of sorting through paper, cans and bottles is economically unfeasible. According to one garbage collector who lost his pigs,

“Now there’s nothing. I spend my time in cafes. The government paid me between LE 50 (US\$ 10) and LE 250 (US\$ 50) for each pig I lost, depending on its size, whilst meat processors would have given me as much as LE 1,000 (US\$ 200).”

The adverse effect of the slaughtering of the pigs on the Zabaleen’s livelihoods might be part of the ongoing gentrification of garbage city for land speculations and the taking over of their recycling economy by entrepreneurial businesses investing in Cairo’s contested garbage.

Again probably a post-facto justification, the Al-Ahram newspaper has suggested that a modern-day alternative to pig-rearing based on recycled MSW would be to convert organic waste into ethanol, as already occurs in Brazil, USA and Canada. Employing such a ‘biomass process’ one ton of raw unsorted MSW, with 75% organic composition, would yield about 50 gallons of ethanol, which could be used as an additive to gasoline to increase its octane composition and to lower pollution from vehicles. It is claimed that this would be price competitive as well as a recycling solution [22].

This latest serious threat to Cairo’s Zabaleen community only serves to compound earlier problems stemming from moves to bring in multi-national MSW contractors and from policies aiming to relocate MSW processing activities to remoter desert locations to the east of Cairo [1].

#### **4. Proposed Relocation of the *Zabaleen*’s Recycling Activities**

Fahmi and Sutton’s [1] study indicated that the residents most affected by the relocation plans, the *Zabaleen*, were either tenants or house owners. Their negative attitudes towards the government’s plans focused on the expected loss of their recycling economy and associated activities and on the threat of eviction and lack of security of tenure amongst house and *zeriba* owners. Most of them had no official documents to prove their ownership of buildings, and thus they faced possible eviction with minimal compensation. The issue of compensation was raised in terms of who would be eligible, with questions about whether there would be enough replacement housing, where it would be located and whether it would be accessible to employment and to such services as schools and health centres. A number of respondents expressed their anxiety:

“I will not work anymore if this happens. I won’t be able to afford to. If I am forced to move my work to the desert and leave my wife and daughters to work 20 km away from home, then I will stop collecting Cairo’s rubbish... My family earns about LE 500 (US\$ 83) a month, which is more than enough...But moving to Katameya will cost more in transportation...This has been our home for many years now. We have grown up, worked and raised families here.”

The government’s short term proposals for the relocation of the *Zabaleen* recycling activities will lead to the long term eviction of garbage collectors as they are forced, under economic hardship, to move from their homes in Muqattam, in which they have lived for decades. Such long term ‘imposed’ evictions within the *Zabaleen* settlement reflect the differences in political power within the society, where economic interests resort to the law or to municipal authorities who have the power to evict people supposedly ‘in the public good’. Conditions in the new sites are poor, without local

employment opportunities, and with few services. Despite their initial denials concerning the future eviction of the local community, interviews with key government officials revealed their justification for such settlement schemes as being attributed to ‘improving the environment’ and ‘providing the *Zabaleen* with safer and more sustainable settlements’. Such an authoritarian approach is more likely to result in the implementation of such plans with large-scale evictions together with a lack of dialogue with poor *Zabaleen* and their organizations.

Since the 1980s and 1990s major improvements in environmental quality within the *Zabaleen* settlement with respect to housing conditions, were mainly attributed to self-help initiatives and community resources. However inadequate infrastructural services, particularly water supply and sewerage system, were attributed to the allocation of limited budgets, with no institutional connection between the government’s sale of the land to squatter occupants and cost recovery for infrastructure development. Ironically, the government machinery set up to respond to the housing problems of the poor has in fact been used against them. This is so despite an earlier 1980s official policy, which sought to regularize (legalize) and upgrade *Zabaleen* areas.

There is a need to recognize the symbiosis between the domestic and productive activities of the *Zabaleen*, which can provide an understanding of the significance of the home for such households and which could lead to more sensitive and supportive policy responses. Closely related is the significance of housing on the *Zabaleen*’s micro-enterprise recycling activities. This situation is similar to rural models of production and consumption, with a strong emphasis on household subsistence, interlinked to kinship and social networks. The home for garbage collectors thereby becomes not merely a container of human life but an essential shelter for those life-sustaining productive activities as in rural areas, where home and workplace are frequently combined and intimately interrelated. Where the place of work is also the place of residence, group identities are reinforced, strengthened by residence patterns of clustering by kin and by place of origin.

Recently launched privatization plans and the relocation of recycling activities have contributed to jeopardizing peoples’ security of tenure and community investments in housing improvement. Official interventions are threatening to disrupt completely a MSW management recycling and recovery system which has provided the community with sustainable means of livelihood and has secured an adequate informal micro-enterprise economy within the settlement.

## 5. Garbage City’s Contested Spaces

Despite safety concerns about construction procedures within the Muqattam area since the 1993 rock collapse, another undeclared justification for evictions is ‘redevelopment’. This implies the use of the cleared land more intensively, so allowing developers to make very large profits redeveloping such sites, especially if they can avoid the cost of re-housing those evicted. Since the *Zabaleen* settlements lower the value of the surrounding land and its housing, and in a bid to ‘beautify’ Cairo and to maintain or enhance land values, developers may make large profits by doing nothing more than clearing the site and holding the empty land for property speculation. If *Zabaleen* settlements are judged to be illegal, even if they have been there for many decades, this is a convenient excuse to bulldoze them without compensation.

It can further be argued that the *Zabaleen* community is the victim of the Government's hidden agenda for the Muqattam district of Cairo. Behind the declared objectives of improving the *Zabaleens'* livelihoods and the settlement's environmental conditions, of upgrading MSW collection systems and of expanding the associated recycling industry lies a wider but hidden agenda involving the urban redevelopment of this part of the city. The development of vacant or vacated land by land speculators could follow the precedent of the Agha Khan organisation's development of the Al-Azhar Urban Park, opened in 2004, and the associated upgrading along the Ayyubid Wall fringing the eastern edge of Islamic Cairo (Darb al Ahmar district). Recent efforts at the gradual resettlement of the squatter tomb dwellers of the 'Cities of the Dead' [10] and the relocation of supposed obnoxious workshops from Islamic Cairo would seem to act as precursors of the relocation of the *Zabaleen* to Katameya. The geographical proximity of the *Zabaleens'* squatter settlement to the other Muqattam settlement up on the Muqattam plateau above, and overlooking what some regard as squalor, could well play a part. As an upper middle class residential district 'upper' Muqattam City represents both a powerful lobby and an urban development model to the detriment of the garbage recyclers. Figures 5 and 6 show the geographical proximity of the socially very distant residential developments on the Muqattam's Upper Plateau. Further encroachment on the *Zabaleen's* district is now coming from the new Cairo Financial Centre (Figure 7) near the Citadel (See Figure 2). Both developments suggest that real estate values in this area of Cairo are increasing and are attracting land speculators and developers.

**Figure 5.** Muqattam City (Upper Plateau).

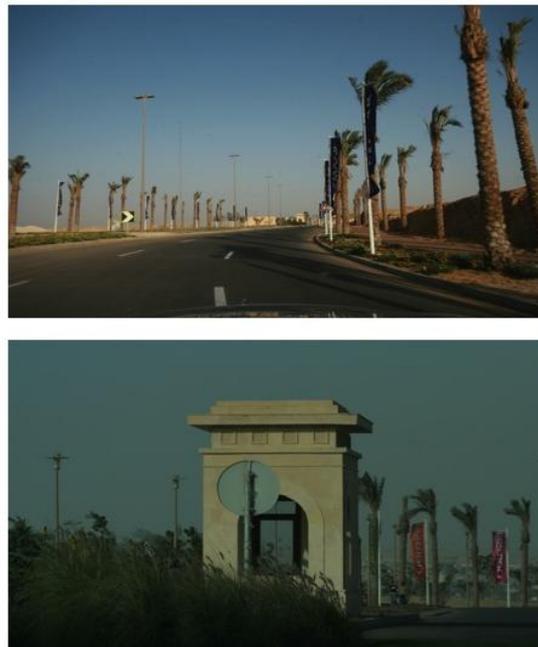


Recently Dubai-based property developer, Emaar Properties, has proposed building seven residential communities, including 25,000 apartments and villa compounds within its luxury real-estate project Uptown Cairo, located on the upper plateau of Muqattam. Phase One of the project, involves the construction of 400 housing units (with prices ranging from LE 690,000 (US\$ 120,000) for the smallest apartment) (Figure 6). The project will also include two five-star hotels, a golf club, shopping centres, restaurants, banking facilities, schools, clinics and office blocks.

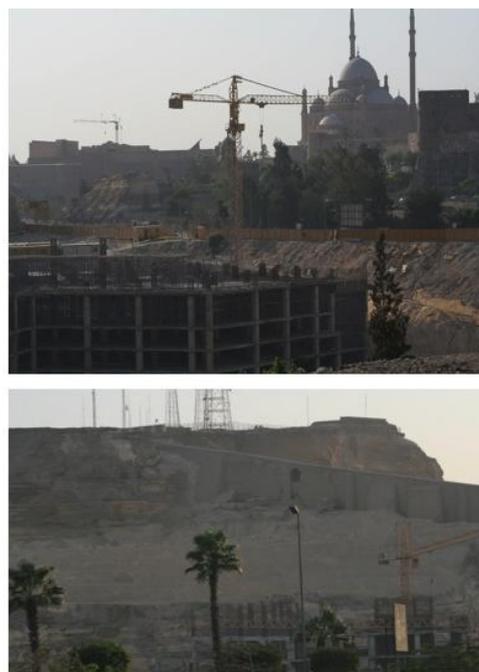
This is also related to ongoing construction work of "The New Cairo Financial Centre and the Office Park" (Muqattam Towers) at the foot of the Muqattam Plateau and opposite Salah El-Din's

Citadel which would transfer the financial centre (bank headquarters and the Stock Exchange) to Cairo's southern suburbs (Figure 7). Such a development could be related to the ongoing Autostrade urban development on desert land between Cairo's eastern suburbs and New Cairo City. This involves New Cairo Centre, a 700 feddan area which includes commercial, residential and tourism development, owned by the Carrefour hypermarket (Majid Al Futtaim of Dubai).

**Figure 6.** Uptown Residential Project (Muqattam's Upper Plateau).



**Figure 7.** Cairo Financial Centre (at the foot of Muqattam Plateau).



Further, the undefined and controversial status of the adjacent Manshiet Nasser settlement could threaten the *Zabaleen* settlement. This long established squatter settlement of Manshiet Nasser could extend to swallow up the *Zabaleen* settlement as an area to accommodate its population growth and land use intensification. Alternatively both settlements could be relocated and resettled as part of a wider social upgrading of this whole district to the south east of Central Cairo. It will not have escaped property developers that Manshiet Nasser and the Muqattam settlement are close to good road access (Autostrade) and, relative to many other higher class residential districts, are fairly central within Greater Cairo. If cleared of their present lower class residents, both these squatter uncontrolled settlements have immense urban development potential.

If this hidden agenda proves accurate, a future scenario could involve the accommodation of future urban growth within the Muqattam lower plateau through the depopulation of the *Zabaleen* community's area and its repopulation by residents formerly from Manshiet Nasser. There could then follow the gentrification of both the former *Zabaleen* settlement and the dynamic Manshiet Nasser district as urban land speculation links socially and morphologically the lower and upper Muqattam plateaux. Related to these developments could be some upward filtering of those elements of public housing found within the upper Muqattam plateau currently used for housing 1992 earthquake victims or as part of earlier youth housing projects.

These postulated developments are accompanied by anticipated population movements involving both residents and workshops of Old Cairo and tomb dwellers in its ancient cemeteries. Accordingly the *Zabaleen* seem destined to evacuation and resettlement in contrast to the government's declared objectives of merely improving the *Zabaleen* community's environmental conditions through the relocation of its MSW sorting activities and associated recycling and pig rearing.

## 6. Conclusions

The study has identified the need for local government's support for community initiatives to develop small-scale recycling enterprises and income-generating activities for the *Zabaleen* threatened with relocation. This could be done through mutual self-help, and through soft loans, subsidies and technical support to improve, rebuild or expand their new homes. In the case of the *Zabaleen*'s proposed eviction, there is a need to tackle problems in the new settlements of inadequate provision for water supply, sanitation and drainage. Any reorganization of the collection and disposal of MSW ought to be in partnership with the different stakeholders from relocatees to community leaders, NGOs, local authorities and other agencies. Local NGOs with a strong commitment to participation would tend to keep costs down whilst avoiding the reinforcement of patronage and thus creating less dependency amongst relocated local communities. There is a necessity for an overall strategy that sets the *Zabaleen* community within the general framework of an Egyptian economy unable to create sufficient jobs and to provide affordable housing for a large proportion of its population. Yet the dilemma of the *Zabaleen* community cannot be resolved without a transformation of the average Cairene's attitude towards these informal inhabitants.

The socio-economic profile of the *Zabaleen* approximates to that of the poorer quarters of Greater Cairo, whilst there still remains much social stigma attached to a Muqattam *Zabaleen* address. As with the image of tomb dwellers and residents of the nearby cemeteries of the Cities of the Dead, the

popular perception of the *Zabaleen* is still negative and pejorative. Therefore, both the uniqueness of the *Zabaleen* and their comparability with dynamic squatter settlements elsewhere should be appreciated before plans are implemented to move the community out into new desert locations. Such a drastic relocation of *Zabaleen* recycling activities and the consequent resettlement of people threatens to meet likely failure given the authorities' apparent misunderstanding of the complexity of this multifaceted society.

Despite suggestions made by some NGOs, such as the *Community and Institutional Development* (CID), that the *Zabaleen* could continue pig rearing whilst collecting MSW, sorting it, and then selling it to the international companies for recycling at facilities in Cairo's Eastern fringes, recent developments have demonstrated as unlikely this possibility of fruitful local-global partnership. Instead, the international companies favour training the *Zabaleen* as waged employees whilst allowing them also to search landfill sites for organic wastes for their pig rearing activities. As international expertise meets local practices, a situation of confrontation is more likely than partnership. As previously mentioned the *Association for the Protection of the Environment* (APE) organisation is more likely to act alongside both government agencies and the big companies in setting up and in administering new recycling activities at a local level with the *Zabaleen* garbage engaged as waged labourers.

The NGOs are likely to have a new role under these changed circumstances. The relocation of the sorting activities will disrupt the garbage collectors' economic sustainability particularly in pig rearing. Indeed the whole *Zabaleen* recycling industry is likely to modify its links with *wahiya* contractors and with local NGOs involved in the area since the 1980s. These include the APE's paper recycling and rug weaving activities involving female members of *Zabaleen* households and the Environment Quality International's (EQI) upgrading under the World Bank Programme and its establishment of small scale enterprises as part of the *Zabaleen's* Development Programme (ZDP). Whilst the *Zabaleen* are facing a dramatic and disruptive situation, the *wahiya* and these local NGOs can be expected to develop new mechanisms for cooperation with the international companies and with their recycling businesses relocated to Eastern Cairo's urban fringes.

These expectations of collaboration between the NGOs, the *wahiya* and the international companies are based on the APE's positive reaction to the privatisation plans and to the claimed possibility of improving the *Zabaleens'* livelihoods. Further support for this opinion comes from the EQI's reports on the *Zabaleens'* inability to shift from being dependent on the professional assistance provided by the World Bank and various foreign funding agencies since the launch of the 1980s upgrading programme. The EQI's reports also raise the question of the NGO's failure to empower the local *Zabaleen* through community initiatives since the 1980s. They have also failed to assist the *Zabaleen* in building channels of communication with Government agencies. Instead there have been conflicts with the *Gammiya* and with community leaders regarding recycling activities. The NGOs have not succeeded in creating any powerful grass-root lobbying to present the *Zabaleens'* case to public opinion as a mechanism to confront recent governmental privatisation plans. It would appear that their business interests now prevail over the NGO's earlier role of promoting the *Zabaleen* community.

Resettlement and relocation of recycling activities threaten the *Zabaleen* community's invested capital and extend their risk-taking and initiatives. The central failure of the government to provide adequate compensation to cover often upgraded dwellings and workshops contributes to the potential

traumatic impact of the privatisation and resettlement programme on the *Zabaleen* garbage collectors. The state appears to regard them as just another relocated community requiring a transit shelter scheme in a new location. Little thought has been given to socio-cultural and economic differences, which might well affect the *Zabaleens'* relationship with other relocated poor social groups and, more especially, with the affluent residents of gated communities already established at Katameya. The potential for conflict and disputes is high.

It could be suggested that this *Zabaleen* case study illustrates well the notion of the 'three pillars of sustainability'. While implemented for supposed health or environmental reasons the slaughter of the *Zabaleen's* pigs has greatly reduced the economic sustainability of their recycling activities. Furthermore, the proposed eviction of the *Zabaleen* community from the Muqattam area threatens their social sustainability and could detract from their increasingly upgraded settlement incorporating economic, residential and social service functions. The failure of the replacement of the MSW management by various private multinational companies to process a high percentage of the waste is leading to more landfill and consequently environmental problems. Further environmental and health threats emanate from the piling up of organic waste in some of Cairo's streets, waste formerly processed by the *Zabaleen's* pigs. Thus a seemingly more efficient policy of MSW privatization has weakened the pillars of sustainability of the *Zabaleen* community and in turn has adversely affected the wider Cairene community.

The clearing of the *Zabaleen* Muqattam settlement will bring to an end this strategic distributing station for Cairo's MSW as they sort out MSW for the NGO's recycling industry. The *Zabaleen* make use of organic wastes for pig breeding and composting and thereby provide pig-meat for Cairo's local and tourist consumption. This whole recycling system will be threatened by the lengthy travel distances from the proposed new settlements in Eastern Cairo. Faced with increased travel costs the poor garbage collectors may decide to abandon their sustainable traditional economic system and join Cairo's underemployed poor. Alternatively they might decide to return to their ancestral villages in Upper Egypt to seek work as landless temporary agricultural workers or they might seek to work for the international companies as waged labourers whilst settling in the Eastern settlements.

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