

Privatization of Solid Waste Management: Prospects and Challenges

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ABSTRACT

An important facing city managers in emerging nations is the management and development of environmentally sound garbage management methods. This results from issues with improper solid waste management that put people at risk for health concerns, emit greenhouse gases, and contaminate land, air, and water. Urban residents are threatened by these issues, which is likely to limit their ability to contribute to the economic growth of their cities. In order to create livable, productive, and ecologically friendly cities, it is crucial to implement efficient and effective solutions to the environmental issues caused by the urban crises. In particular, solid waste management is crucial.

Keywords: *Solid; Waste; Management, Public-Private Partnership.*

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I. INTRODUCTION

New strategies have emerged in response to this circumstance (i.e. solid waste management), ranging from those that entail stakeholder participation, community initiative, and private sector involvement as service providers. In order to ensure that cities are kept clean and livable, the primary goal of this study is to examine the opportunities and challenges associated with the privatization of solid waste management. It also aims to share knowledge in order to spark and inspire a process that will usher in public-private partnerships.

Cities and municipalities in developing countries are unable to keep up with the increasing rate at which solid waste is created, which results in improper management of the solid waste problems there. Most governments in developing nations are unable to provide effective trash management due to recent waves of urban expansion and rising waste generation (Ibáñez-Forés, Bovea et al. 2019).

This paper has revealed a variety of advantages and difficulties associated with privatizing solid waste management. These advantages and difficulties are broken down into the following categories: efficiency, cost-savings, prompt service delivery, access to funding and expansion, quality services, partnerships and community involvement, cleanliness and healthy environments, job creation and higher income, a focus on supervision by the public sector, new technologies and innovative techniques, and resource conservation and protection. Specifically, this paper focuses on two advantages which are job creation and higher income and new technologies and innovative techniques.

II. BACKGROUND

Given its effects on public health and the environment, solid waste management is a crucial issue that metropolitan areas need to pay close attention to. Even though there are worldwide waste challenges, developing and transitioning nations' solid waste management needs specific attention due to the prevalence of unsustainable methods. The main causes of the rising levels of waste creation in developing economies are issues like population expansion, the production and consumption of new goods, industrialization, and improving standards of living, habits, and lifestyles. As a result, there are negative effects on how well garbage disposal systems function, landfills quickly run out of space, and waste management services are subpar.

Because of this, the management of solid waste in developing nations still exhibits a number of inefficiencies, such as low collection coverage, irregular collection, pollution from uncontrolled waste, the dumping and burning of domestic waste, an uncoordinated private sector involvement, and the absence of a fundamental solid waste management infrastructure (Mmerek, Baldwin et al. 2016, Phonchi-Tshekiso,

Mmopelwa et al. 2020). Poor solid waste management results in significant health and environmental risks, including the possibility of bacterial infections, contaminated ground and surface waterways, and extremely polluted air (Alam and Ahmade 2013). Between 20 and 50 percent of municipal revenues are thought to be spent on solid waste management expenses (Wilson, Rodic et al. 2012).

As an alternative to the traditional public service delivery, many governments have so moved toward the privatization of municipal waste management services. (Post 1999) asserts that the privatization of solid waste collection requires both private sector engagement and a transfer of authority to the local government/city council. In certain nations, the private and governmental sectors collaborate to create a strategy and share responsibilities for delivering solid waste management services (Sukholthaman, Shirahada et al. 2017).

Governments around the world use a variety of strategies to privatize solid waste management services, including contracting, franchising, divesting, concessions, and open competition (Phonchi-Tshekiso, Mmopelwa et al. 2020). Contracting and franchising are the two most popular privatization techniques used in solid waste management, and their suitability for a system differs for solid waste collection, disposal, cleaning, and transportation services (NGUYEN).

III. LITERATURE REVIEW

At all scales - from local to global - inadequate solid waste management has an impact on the economy, the environment, and public health. At the local and urban levels, poor service has a detrimental effect on citizens' health in a number of ways: Uncontrolled waste burning can result in acute respiratory illnesses, uncollected waste encourages the growth of disease-carrying vectors, and clogged drains can cause flooding. Municipal and industrial wastes that are dumped carelessly have negative effects on groundwater, soil, water bodies, and the coastal and marine environment, which indirectly affects public health (Godfrey, Ahmed et al. 2019). Globally, the negative effects of solid waste are prioritized according to how much they contribute to climate change, greenhouse gas emissions, and plastic ocean pollution (Ritchie and Roser 2018), which harms marine life.

Most people agree that basic waste management services are a public good. People cannot and should not be denied access to and use of this service (Banerjee and Sarkhel 2020). Although bad solid waste management affects both the rich and the poor, the immediate negative effects disproportionately affect the poor: those who go without services or who have trash dumped close to their homes run the risk of being exposed to pollutants and pathogens (Kaza, Yao et al. 2018, Kaza, Yao et al. 2018).

Governments are being urged by international initiatives and conventions to lessen negative global effect, while civil society is urging more local action to enhance services and the general cleanliness of cities. It has become more and more fashionable to move away from a linear end-use perspective and toward an understanding of resource and waste management. This model considers recycling, resource recovery, and waste prevention as elements of a circular or green economy. The adoption of a holistic strategy for solid waste management, which takes into account inclusion, financial sustainability, a foundation of strong institutions, and proactive policies, represents a second paradigm change (Abdulredha, Al Khaddar et al. 2018).

IV. DISCUSSION

As mentioned before that there are many challenges associated with solid waste management, it is also worth to state the numerous benefits of privatization of solid waste management. In the following sections we focus in specified benefits that are associated with most of the communities which are jobs creation and better income as well as new technologies and innovative techniques.

4.1 JOB CREATION AND BETTER INCOME

One of the fundamental duties of government is to create possibilities for a better life. But one of the largest societal issues today is unemployment, and developing nations are particularly heavily hit. Particularly for youngsters and uneducated people, local government has been offering certain jobs through municipal services like garbage management. The participation of the private sector, including informal groups, in waste management pays dividends in many respects, including delivering competitive recycling rates at lower costs, while increasing access to income, and securing jobs. However, due to numerous constraints, this sector is utterly failing, calling for its privatization to ensure habitable cities while providing jobs and better income for the average person (Bah and Artaria 2021). Better compensation and other incentives are provided by the public-private partnership sector, which not only keeps people motivated but also engaged in their work, etc. (Owusu-Sekyere 2019).

Beyond maintaining its viability as a business endeavor, private engagement in the form of public-private partnership in waste management helps combat unemployment, social marginalization, urban unrest, and spatial fragmentation linked to restrictive labor arrangements under the neoliberal economic restructuring (Owusu-Sekyere 2019). Public-private partnership is profitable in a variety of ways, including by generating

cash from garbage collection, disposal, and recycling that helps reduce poverty and by maintaining urban environmental quality (Halla and Majani 1999).

4.2 NEW TECHNOLOGIES AND INNOVATIVE TECHNIQUES

Innovation and cutting-edge technology are essential for providing services that are pertinent, accessible, and inexpensive. The public sector has faced significant challenges in achieving this because of a variety of issues, including funding and brain drain. Like with other industries, solid waste management requires such to meet escalating difficulties. Given the foregoing, privatizing solid waste management is a viable alternative. Privatization in waste management is essential for democratic governance via decentralization of services, ensuring efficient service provision, making the services accessible to low- and middle-income communities, being able to work with limited resources, and having access to new and modern technologies, including vehicles (Breukelman, Krikke et al. 2019).

Public-private partnerships are more open to utilizing cutting-edge methods and technologies than municipal services. Public involvement, integration, and adoption of difficult but novel technology applications are crucial for the success of trash management (McAllister 2015). In addition to raising employees' monthly salaries, privatization also improves garbage recycling and occupational safety (Oates, Sudmant et al. 2018). The recovery of precious materials from recycling activities, which may be used locally without losing hard cash or foreign money, as well as the provision of sustainable employment are only a few of the numerous ways that privatization benefits municipal council equally. Many reasons, including political independence, economic sanity, efficiency, dynamism, and innovation, promote privatizing waste management.

V. CONCLUSION

Cities facing challenges to domain and professionally accomplish the municipal environment if they are to preserve their status as centers of economic, cultural and civic movement. Privatization of solid waste management has several benefits that should be maintained as well as many challenges that has to be solved properly.

REFERENCES

- [1]. Abdulredha, M., R. Al Khaddar, P. Kot, D. Jordan and A. Abdulridha (2018). Benchmarking of the Current Solid Waste Management System in Karbala, Iraq, Using Wasteaware Benchmark Indicators. world environmental and water resources congress, ASCE American Society of Civil Engineers.
- [2]. Alam, P. and K. Ahmade (2013). "Impact of solid waste on health and the environment." *International Journal of Sustainable Development and Green Economics (IJSDEG)*2(1): 165-168.
- [3]. Bah, Y. M. and M. D. Artaria (2021). "Privatization of solid waste management: opportunities and challenges." *Indonesian Journal of Urban and Environmental Technology*4(2): 142-163.
- [4]. Banerjee, S. and P. Sarkhel (2020). "Municipal solid waste management, household and local government participation: a cross country analysis." *Journal of environmental planning and management*63(2): 210-235.
- [5]. Breukelman, H., H. Krikke and A. Löhr (2019). "Failing services on urban waste management in developing countries: A review on symptoms, diagnoses, and interventions." *Sustainability*11(24): 6977.
- [6]. Godfrey, L., M. T. Ahmed, K. G. Gebremedhin, J. H. Katima, S. Oelofse, O. Osibanjo, U. H. Richter and A. H. Yonli (2019). "Solid waste management in Africa: governance failure or development opportunity." *Regional Development in Africa*235.
- [7]. Halla, F. and B. Majani (1999). "Innovative ways for solid waste management in Dar-Es-Salaam: toward stakeholder partnerships." *Habitat International*23(3): 351-361.
- [8]. Ibáñez-Forés, V., M. D. Bovea, C. Coutinho-Nóbrega and H. R. de Medeiros (2019). "Assessing the social performance of municipal solid waste management systems in developing countries: Proposal of indicators and a case study." *Ecological indicators*98: 164-178.
- [9]. Kaza, S., L. Yao, P. Bhada-Tata and F. Van Woerden (2018). *What a waste 2.0. A global snapshot of solid waste management to 2050*. Washington, DC: International Bank for Reconstruction and Development/The World Bank.
- [10]. Kaza, S., L. Yao, P. Bhada-Tata and F. Van Woerden (2018). *What a waste 2.0: A global snapshot of solid waste management in 2050*. Washington, DC: World Bank Group.
- [11]. McAllister, J. (2015). "Factors influencing solid-waste management in the developing world."
- [12]. Mmereki, D., A. Baldwin and B. Li (2016). "A comparative analysis of solid waste management in developed, developing and lesser developed countries." *Environmental technology reviews*5(1): 120-141.
- [13]. NGUYEN, D. "Private Sector Participation in Solid Waste Management Services in Vietnam." *Marine Plastic Pollution and the Rule of Law*: 205.
- [14]. Oates, L., A. Sudmant, A. Gouldson and R. Gillard (2018). "Reduced waste and improved livelihoods for all: Lessons on waste management from Ahmedabad, India."
- [15]. Owusu-Sekyere, E. (2019). "Creative individuals, 'Kaya Bola' exceptionalism and sustainable development in twenty-first century Ghana." *Journal of Global Entrepreneurship Research*9(1): 1-17.
- [16]. Phonchi-Tshekiso, N. D., G. Mmopelwa and R. Chanda (2020). "From public to private solid waste management: Stakeholders' perspectives on private-public solid waste management in Lobatse, Botswana." *Chinese Journal of Population, Resources and Environment*18(1): 42-48.

- [17]. Post, J. (1999). "The problems and potentials of privatising solid waste management in Kumasi, Ghana." *Habitat International***23**(2): 201-215.
- [18]. Ritchie, H. and M. Roser (2018). "Plastic pollution." *Our World in Data*.
- [19]. Sukholthaman, P., K. Shirahada and A. Sharp (2017). "Toward effective multi-sector partnership: A case of municipal solid waste management service provision in Bangkok, Thailand." *Kasetsart Journal of Social Sciences***38**(3): 324-330.
- [20]. Wilson, D. C., L. Rodic, A. Scheinberg, C. A. Velis and G. Alabaster (2012). "Comparative analysis of solid waste management in 20 cities." *Waste management & research***30**(3): 237-254.