



Urban Solid Waste Management in Tanzania: Our Work, Our Health

By Constantine G. Simba & Cornel Jahari

Key Messages

- While the majority of waste workers report exposure to health risks, half of them have not received any training on how to protect themselves against health hazards and occupational risks.
- Solid waste workers seldom have medical insurance for use during sickness, do not have sick leaves, and have inadequate compensation in the event of work-related accidents, injuries, or sicknesses.
- Employers offers limited protective gears for solid waste workers.

Introduction

Solid waste management (SWM) is an essential public service involving collecting, treating, recycling, and disposing of discarded solid material because it has served its purpose or is no longer useful. The recent growth in urbanisation has heightened concerns about improved management of solid waste for enhanced public health and the environment. In Tanzania, the Environmental Management Act No. 20 of 2004 is the principal environmental legislation, which designates Local Government Authorities (LGAs) with mandates on SWM. Their duties include the disposal of solid waste from markets, businesses and institutions, storage of solid waste from industries, solid waste collection from households, waste transfer stations, and final disposal. SWM activities are often carried out through contracted private companies and sometimes informal group arrangements at hamlet and street levels.

While it is globally acknowledged that waste management is vital, its handling is associated with physical, chemical, and psychosocial hazards (Indhira et al., 2014). Solid waste workers in developing countries are at more risk than those in developed countries where direct manual waste handling is limited to enhance

efficiency and worker protection (Bleck & Wettberg, 2012). In developing countries, including Tanzania, waste is picked up from households, business areas, and industries and dumped at landfill sites (Agarwal et al., 2015). Literature documents that solid waste workers experience occupational health risks throughout the waste collection, management, and disposal depending on their equipment and the material they handle (Marahatta et al., 2018). Common health problems include respiratory symptoms, skin irritation, nose, eyes, gastrointestinal problems, fatigue, headache, allergies, musculoskeletal and injury (Marahatta et al., 2018).

This policy brief examines health and safety conditions in Tanzania's urban solid waste management practices. The analysis draws from a survey of 431 solid waste workers conducted in 2021 in Dar es Salaam, Mwanza, and Dodoma city councils.

Findings

Health and safety training in the workplace
Health and safety training in the workplace is a

crucial aspect of ensuring the well-being of employees. It involves educating employees about the potential hazards in their work environment and providing them with the knowledge and skills to prevent accidents, injuries, and illnesses. Five in ten (50%) workers reported not receiving any training from their employers that could protect them against health hazards and emergencies in an accident. Despite inadequate safety training, the survey revealed limited exposure to physical injury among the waste workers, as 66% of respondents did not experience any serious work-related accident or health hazards/sickness. Health and safety training in the workplace can reduce accidents and injuries, lower healthcare costs, improve employee morale and enhance overall productivity.

Risks in workplace

Solid waste management encompasses a wide range of activities, and occupational health risks occur at every step in the process. That is, from the point of collection, during transportation, and at the recycling or disposal sites. These risks can vary depending on their tasks and the types of waste they handle. In the same way, most solid waste workers (89%) correspondingly said their job exposes them to risks (dust, heavy smells, hazardous gas, smoke, chemicals, rotten bio-waste, medical/sanitary waste, and heavy lifting). This implies that employers must strengthen safety measures, provide appropriate training, and supply personal protective equipment (PPEs). Moreover, workers have to follow safety protocols, use PPE frequently and report any unsafe conditions to their supervisors.

Figure 1: Health safety training in the workplace

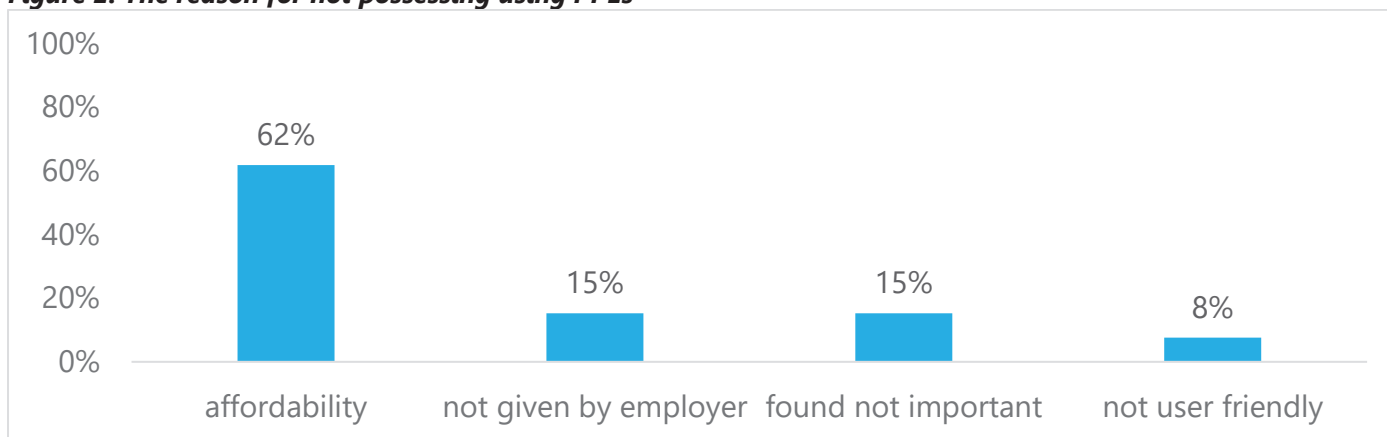


Ownership and use of personal protective equipment

Although PPEs cannot prevent exposure to various kinds of injury, its regular use by workers can minimise their chances of exposure to hazardous substances contained in solid waste. It is important to provide workers with PPEs, such as gloves, safety boots, and tools to sort waste and to ensure their use as protection against adverse outcomes of various risks. Waste company employers must make sufficient PPEs available to workers and frequently conduct a refresher training course on occupational safety and health hazards. About 64% of workers said they possess PPEs such as hand gloves, mouth masks, safety boots, overall dress, head shield, and eye goggles. However, of those who possess PPEs, about four in ten (43%) said they use them occasionally, while nearly six in ten (57%) use them daily at work.

Out of those who do not possess PPEs, about six people in ten (62%) claimed it was due to financial constraints; whereas about 15% do not use either because they don't find the importance or because their employers have not provided them. A minority (9%) said the protective tools are not user-friendly.

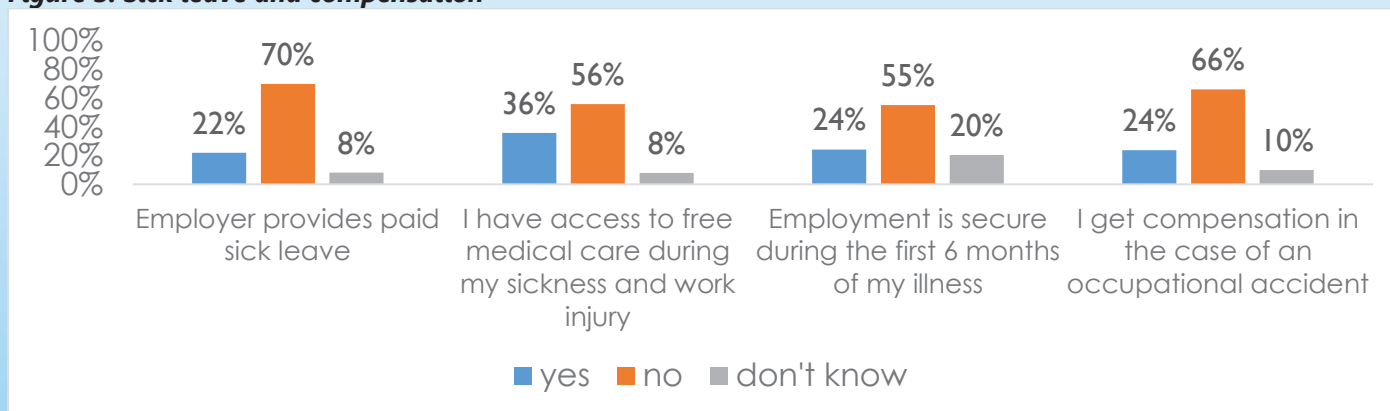
Figure 2: The reason for not possessing using PPEs



Sick leave and compensation for occupational illness

Solid waste workers are vulnerable to illness, injury, or accidents. Among the employees interviewed, seven in ten (70%) said their employer does not grant them paid sick leave. Further, about 56% do not have health insurance when needing medical care. At the same time, about 55% said their employment was not secured during their illness. In comparison, 66% said it is impossible to get adequate compensation in the case of an occupational accident/work injury or occupational disease.

Figure 3: Sick leave and compensation



Conclusion and recommendations

Although safety and health in the workplace are legal practices that employers should adhere to, several health risks have been associated with people employed in solid waste management. Violating workers’ health rights and access to medical care has been a major concern. In addition, some workers are not well informed of the consequences they could face later by failing to follow the appropriate measures to protect themselves. Many do not take serious

precautions when working in those hazardous solid waste collection areas, even when PPEs are made available.

The brief recommends the following: First, the ministries responsible for the environment and local government, together with non-state actors, ought to conduct regular health safety education programmes for the organisations and individuals dealing with solid waste management. Solid waste workers should be provided with relevant training at their initial engagement stage and throughout their working life while at working places. This could

be done weekly. Such training should include proper and mandatory use of PPEs.

Second, central and local governments should provide updated and context-informed guidelines and conduct regular inspections and enforcement measures such as fines and penalties for defaulting employers. Likewise, other stakeholders, including private sector companies and CBOs, should emphasise health and occupational safety measures more and comply with related regulations.

Third, the department responsible for labour and associated agencies such as the Workers' Compensation Fund (WCF) should conduct periodic audits and ensure that labour rights (health insurance, compensation, sick leave) are adhered to. Employers are to register employees in the responsible schemes and be active in paying the required contributions.

Reference

Agarwal, R., Chaudhary, M., & Singh, J. (2015). Waste Management Initiatives in India for Human Well Being. *European Scientific Journal, ESJ*, 7881(June), 1857–7881.
<https://ejournal.org/index.php/esj/article/view/5715>

Bleck, Daniela and Wettberg, W. (2012). Waste

collection in developing countries - Tackling occupational safety and health hazards at their source. *Waste Management*, 32(11), 2009–2017.

Indhira, K., Lakshmi, G., Vadivel, S., & Senthil, J. (2014). *Dimensions of health risks, health problems and livelihood conditions of municipality cleaning workers of Kumbakonam town: A perceptual study*. 5(4), 131–135.

Kirama, A., & Mayo, A. W. (2016). Challenges and prospects of private sector participation in solid waste management in Dar es Salaam City, Tanzania. *Habitat International*, 53, 195–205.

Marahatta, S. B., Katuwl, D., Adhikari, S., & Rijal, K. (2018). Knowledge on occupational health hazard and safety practices among the municipal solid waste handler. *Journal of Manmohan Memorial Institute of Health Sciences*, 3(1), 56–72.
<https://doi.org/10.3126/jmmihs.v3i1.19179>

Nyampundu, K., Mwegoha, W. J. S., & Millanzi, W. C. (2020). Sustainable solid waste management Measures in Tanzania: An exploratory descriptive case study among vendors at Majengo market in Dodoma City. *BMC Public Health*, 20(1), 1–16.
<https://doi.org/10.1186/s12889-020-08670-0>

REPOA Resource Centre

Our Resource Centre provides a good environment for literature research, quicker, easier access and use of knowledge and information. It has full internet connection for online library to support Master's & PhD candidates, researchers and academicians with free access to latest journals, books, reports, webcasts, etc.

Opening Hours

Tuesday to Thursday from 10:00am to 1:00pm, 2:00pm to 05:00pm.

Friday 10:00am - 01:00pm

The online library opens 24 hours.



REPOA HQs

157 Migombani/REPOA streets, Regent Estate, PO Box 33223,
Dar es Salaam, Tanzania.

Tel: +255 22 2722283 Cell: +255 75 409 1677 Fax +255 22
2705738

Website: <https://www.repoa.or.tz>

Email: repoa@repoa.or.tz

Branch Office

2nd Floor Kilimo Kwanza Building
41105 Makole East, Kisasa,
Dodoma, Tanzania