# The High Cost of Improper Waste Management and Poor Sanitation on Ghana's Economy

By

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#### Introduction

Waste management, which includes sorting for recycling, collection, transportation, and disposal or treatment of waste, has become central in the development agenda of many developing countries, and Ghana is no exception. Rapid population growth, urbanization, and inadequate urban planning, coupled with insufficient resources for waste management, have led to insanitary conditions, further worsened by inefficient municipal waste management. Shortage of landfills and the filling up of existing ones, low recycling rates and the poor regard for circular economy principles across the board, have placed sanitation and waste management on the front burner of economic development policy making. The growing concern over environmental degradation and sustainability has highlighted the importance of proper e-waste disposal and management, introducing a new dimension to waste management. Beyond municipal waste and e-waste, other hazardous and nonhazardous waste streams, including industrial, liquid, and medical waste, require careful management. While these challenges pose difficulties for development planning, they also present opportunities for innovative waste management solutions that can positively impact the economy if leveraged effectively. This, therefore, demands sustained allocation of significant national budget to waste management and sanitation improvement initiatives, especially in overcrowded cities and slum areas.

Available data show that global municipal solid waste alone is expected to grow from 2.1 billion tonnes in 2023 to 3.8 billion tonnes by 2050 (UNEP, 2024). This represents an increase of over 80% in less than three decades. The waste management industry can certainly take advantage of this. The waste management industry globally was valued at over \$1.4 trillion in 2024 and the value is expected to increase to \$2.4 trillion by the year 2033 – representing a 71% increase in value over the next decade<sup>1</sup>. The value could rise even more rapidly given

<sup>&</sup>lt;sup>1</sup> Waste Management Market Size | Industry Report, 2033

that globally, there are still about three billion people who lack access to basic waste services (WHO and UNICEF, 2025).

### Costs of poor waste management

Poor waste management in Ghana poses a significant public health threat, fueling outbreaks of sanitation-related diseases like cholera, as seen in the October 2024 outbreak. These public health crises lead to premature deaths and increased absenteeism, ultimately hurting productivity and economic production. When outbreaks occur, the government is forced to divert resources to contain them, covering costs like public education, emergency health centers, and treatment. Given resource scarcity, these are funds which could have been reallocated away from productive activities to contain the public health threat. Thus, productivity losses are incurred, economic production declines, funds are expended into containing outbreaks, while other critical areas are deprived of these funds. Besides, there is the risk of contamination of local water sources and soil, affecting agriculture and food security<sup>2</sup>. The effect on human health, if quantified, would be enormous.

Other costs such as the pollution of the environment, the accelerated rate of climate change (with its attendant implications on sectors such as agriculture and the livelihoods there) are yet to be accounted for, especially in developing countries. Globally, it has been estimated that indirect costs of waste in the year 2020 alone were valued at over 109 billion dollars (UNEP, 2024).

## Benefits of proper waste management services and the need for significant investment

Considering the costs of poor waste management and sanitation to the economy, there might be an economic justification for significant public investment in proper waste management services and sanitation. Investing in waste management could have positive implications on the entire value chain. Studies have shown, for instance, that municipal solid waste management systems globally contribute over \$200 billion economic benefits annually. However, how much of this accrues to developing countries is not clear. What is clear, is that these benefits would accrue to economies that invest in waste management systems, with potential for the benefits to be spread across the economy.

Investing in recycling, composting, and other recovery technology will have significant health benefits through value chain. *Health* benefits include the aversion of public health

<sup>&</sup>lt;sup>2</sup> Raphela et al., 2024

<sup>&</sup>lt;sup>3</sup> Zaman (2016)

crises such as disease outbreaks attributable to poor sanitation and improper waste management. The aversion of diseases will prevent the loss of productivity through sick days and premature death, contributing to an economic benefit. Saving family and related caretakers of sick family members' time would also be a big saving. A World Health Organization (WHO) study in 2012 calculated that for every US\$ 1.00 invested in sanitation, there was a return of US\$ 5.50. Should Ghana invest 1% of its GDP into sanitation i.e., \$883 million, this will translate into \$USD 4.86 billion benefits. This return would be reaped through lower health costs, higher productivity, and fewer premature deaths<sup>4</sup>. The improved health would yield savings to the government in respect of funds that would have been voted on to fight outbreaks of sanitation-related diseases such as cholera.

Besides, investment in proper waste management services would create more job opportunities and reduce unemployment, consequently. Economic growth and innovation would emerge through investment in new technology for waste management with rippling effects on the economy. The tourism industry will benefit since cleaner cities attract more tourists. Ghana already has a leveraging factor in the tourism industry, and a cleaner city would add impetus to the country's tourism development agenda. Ultimately, government revenues would increase to provide funds for complementary development infrastructure, adding to the economic benefits of investment in waste management.

Investment in recycling, composting, and other recovery technology would promote the practice of circular economy principles and will have an environmental sustainability value. *Environmental* benefits such as better air quality and other soft benefits such as improved quality of life of residents that come with cleaner cities and functional urban spaces are valuable too. With better environmental indices, inflows of Foreign Direct Investment (FDI), particularly from environmentally conscious sources, will increase with cascading benefits for the economy.

## The fiscal regime

In Ghana, the pollution and sanitation levy exists to generate revenue partly to fund sanitation. In the year 2024, the government of Ghana realized GHS 551.5 million from the levy while an amount of GHS 586.4 million was projected to be received for the year 2025<sup>5</sup>. However, only GHS 18.3 million was budgeted as domestic fund allocation through the Ministry of Local Government, Chieftaincy and Religious Affairs for sanitation for the year

<sup>&</sup>lt;sup>4</sup> Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage; WHO study 2012

<sup>&</sup>lt;sup>5</sup> See Appendix 3B of 2025 Budget statement

2025. The budgeted amount is inadequate to cater to the sanitation needs of the country across all 261 metropolitan, municipal and district assemblies (MMDAs). While donor support has been instrumental in funding sanitation management in the recent past, an inward-looking approach is necessary to forestall a public health crisis especially given the recent decline in donor funding to the sector. The Ghana government, in the 2025 budget for instance indicated that the sanitation and pollution levy would be consolidated with the energy debt recovery levy and the energy sector recovery levy (delta fund) into a unified levy. The proceeds of which will be used to make up for shortfalls in the energy sector as well as to service debts, this might explain why the allocation to sanitation is only 3.2% of the projected receivables from the sanitation and pollution levy. Despite this decision, given the amount of revenue being collected from the sanitation and pollution levy, the funding needed for significant public investment in proper waste management services and sanitation may not be far-fetched. A strong political will to allocate much of the collected revenue from the pollution and sanitation levy towards investing in proper waste management and recovery services will likely yield benefits to the economy.

In conclusion, our preliminary findings from this study clearly points to significant funding gaps in Ghana's waste management sector. Donor funding is dwindling while the benefits of proper waste management are enormous. The cost of not doing anything to improve the quality of waste management in Ghana will have dire consequences on public health, tourism, investment and livelihoods. This study therefore calls on the government to allocate a significant proportion of the 2026 budget to the sanitation sub-sector and also ensure its judicious use to avoid a health crisis. Private sector actors should also be involved in using modern waste management practices to enhance the expected gains from the amounts to be invested.

#### References

Raphela, T., Manqele, N., Erasmus, M. (2024). The impact of improper waste disposal on human health and the environment: a case of Umgungundlovu District in KwaZulu Natal Province South Africa. Frontiers in Sustainability 5. https://doi.org/10.3389/ frsus.2024.1386047.

United Nations Environment Programme (2024). Global Waste Management Outlook 2024: Beyond an age of waste — Turning rubbish into a resource. Nairobi. https://wedocs.unep.org/20.500.11822/44939

World Health Organization and United Nations Children's Fund (2025). Essential services for quality care. Water, sanitation, hygiene, health care waste and electricity services in health care facilities: global progress report. Geneva: Licence: CC BY-NC-SA 3.0 IGO.

Zaman, A. U. (2016). A comprehensive study of the environmental and economic benefits of resource recovery from global waste management systems. *Journal of Cleaner Production* 124, 41 – 50.