

Better Health Through Improved Sanitation

Around 2.5 billion people in the world lack access to dignified sanitation services. In Ghana, coverage is abysmally low. Only 22% of the urban population have improved, non-shared facilities with shared toilets the most common service option in cities, accounting for over 60% of coverage. With rapid urbanization further complicating the issue, sanitation is a serious challenge for the country. Programs to improve the situation have been implemented, but no systematic scale-up has so far been projected to boost urban sanitation across the country.

Studies have confirmed strong links between sanitation and health. Poor sanitation contributes to several tropical diseases, under nutrition and diarrhea, a major public health threat and a leading cause of disease and mortality among children under five years. It also causes a loss of productivity due to time lost for work or spent taking care of loved ones, and queuing for public or compound toilets. Access to improved sanitation services is a key target in the UN Sustainable Development Goals, and low coverage, especially in urban settings, is considered a threat to achieving almost all other goals.



Ghana has made great social and economic advances in recent years, with impressive GDP growth and reduced poverty, but more remains to be done. With so many areas demanding the government's attention, how can decision-makers plan policies that will do the most good for every cedi spent of limited public resources? Ghana Priorities, a collaboration between the National Development Planning Commission and award-winning think tank Copenhagen Consensus, aims to answer this question by providing clear data on the most cost-effective initiatives for the country, from education to treating malaria. The 28 teams of economists that contributed to the project calculated not only the economic but also the social and environmental costs and benefits of public policies, to find the smartest ways to improve Ghanaians' lives.

To find effective solutions to Ghana's urban sanitation problem, Bismark Dwumfour-Asare from the University of Education in Winneba, independent consultant Bjorn Larsen, and Brad Wong from Copenhagen Consensus studied interventions that provide toilet subsidies for urban households. They focussed on both the impact of a subsidy alone and a subsidy with additional support to metropolitan, municipal and district assemblies for better enforcement of sanitation by-laws.

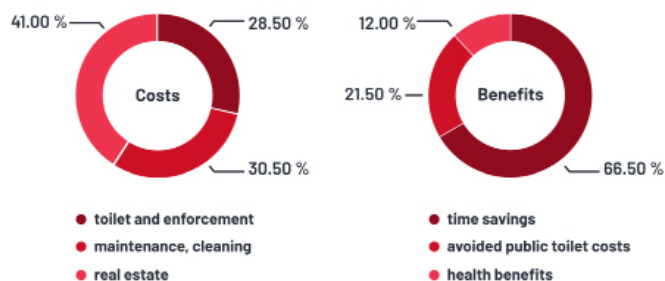
Both interventions target urban households and compounds practicing open defecation, using public toilets or sharing a toilet, with the interim goal of reaching a situation where no more than three households would share improved



sanitation facilities. The subsidy aimed at lessening the cost burden would be of approximately GH¢ 4000, equivalent to the cost of a bio-digester toilet. Extra enforcement would add an incentive for households and landlords to meet their obligation.

While enforcement makes the intervention more expensive, it also improves compliance and is more likely to have a larger effect on Ghana's urban sanitation situation. The cost of the subsidy with improved enforcement over a 20-year period was estimated by the researchers at GH¢ 16 billion assuming 75% of households targeted actually build a toilet. The government would only pay for about a quarter of this cost – about GH¢ 4 billion – whereas the vast majority of cost falls on households and landlords. This includes toilet cleaning and maintenance costs, and lost rental space worth GH¢ 5 billion and GH¢ 7 billion respectively. However, the value of benefits from the

Improving urban sanitation



Toilet subsidy without by-law enforcement



Toilet subsidy with improved by-law enforcement



Source: Authors paper assuming 8% discount rate, costs and benefits over 20 years



The researchers also studied providing only a subsidy equivalent to 100% of the toilet cost, without emphasis on enforcement of sanitation by laws. Existing enforcement regimes would continue without the intervention directly seeking any improvement, which means the uptake rate would be significantly lower.

The cost was estimated at approximately GH¢ 2billion in total, shared between the government, landlords and households, and the benefit at over GH¢ 11 billion. This intervention would generate social and economic benefits more than 5 times higher than the original investment, but at an average uptake rate of only 10% would do little to help resolve Ghana's critical urban sanitation problem.



intervention over the 20-year period is much higher, estimated at GH¢ 69billion. 416 lives could be saved and two million cases of disease avoided per year. But the largest benefits would come from increased productivity and cost savings from no longer having to use public toilets. Every cedi spent on this initiative would yield a benefit worth a little over 4 cedis.



High population densities and demand for rental room destined for living instead of toilets contribute to non-shared sanitation rates being so low in Ghanaian cities. However, these interventions could increase rental revenues for landlords, given that tenants would likely be willing to pay more for units with improved sanitation.

Overall, this study provides policymakers with data-backed options to improve urban sanitation, moving Ghana closer to achieving its development goals.

BCR SUMMARY TABLE

INTERVENTIONS	BENEFIT (GH¢ millions)	TOTAL COSTS OVER 20 YEARS (GH¢ millions)	BENEFIT-COST RATIO
Toilet subsidy provision (10% uptake)	11,384	2,190	5.2
Toilet subsidy provision with improved enforcement of sanitation by-laws (75% uptake)	69,061	16,344	4.2