



UNIVERSITY OF CAPE COAST

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The Sanitation and Waste Management Conundrum in Ghana: The Case for High Level Prioritization and Fiscal Incentives

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Outline of Presentation

- Introduction
- The state of sanitation in Ghana
- State of waste management in Ghana
- Past experiences
- Present situation
- COVID-19, sanitation and the rainy season
- The need for high level prioritization
- The need for fiscal incentives
- Conclusion



- Inadequate access to environmental sanitation services has been implicated in a number of mortality and morbidity situations all over the world.
- Currently poor environmental sanitation is responsible for about 10% of the global burden of disease (UNICEF, 2016).
 - For example, globally, about 1.7 million people die every year from diarrhoeal diseases, mostly attributable to poor environmental sanitation (Prüss-Ustün et al, 2008; Halim & Haider 2017).
- In addition, poor environmental sanitation practices also pollute the air and water bodies such as the sea, lagoons and rivers;
 - thereby threatening environmental sustainability and sustainable livelihoods (Mathers et al 2006)

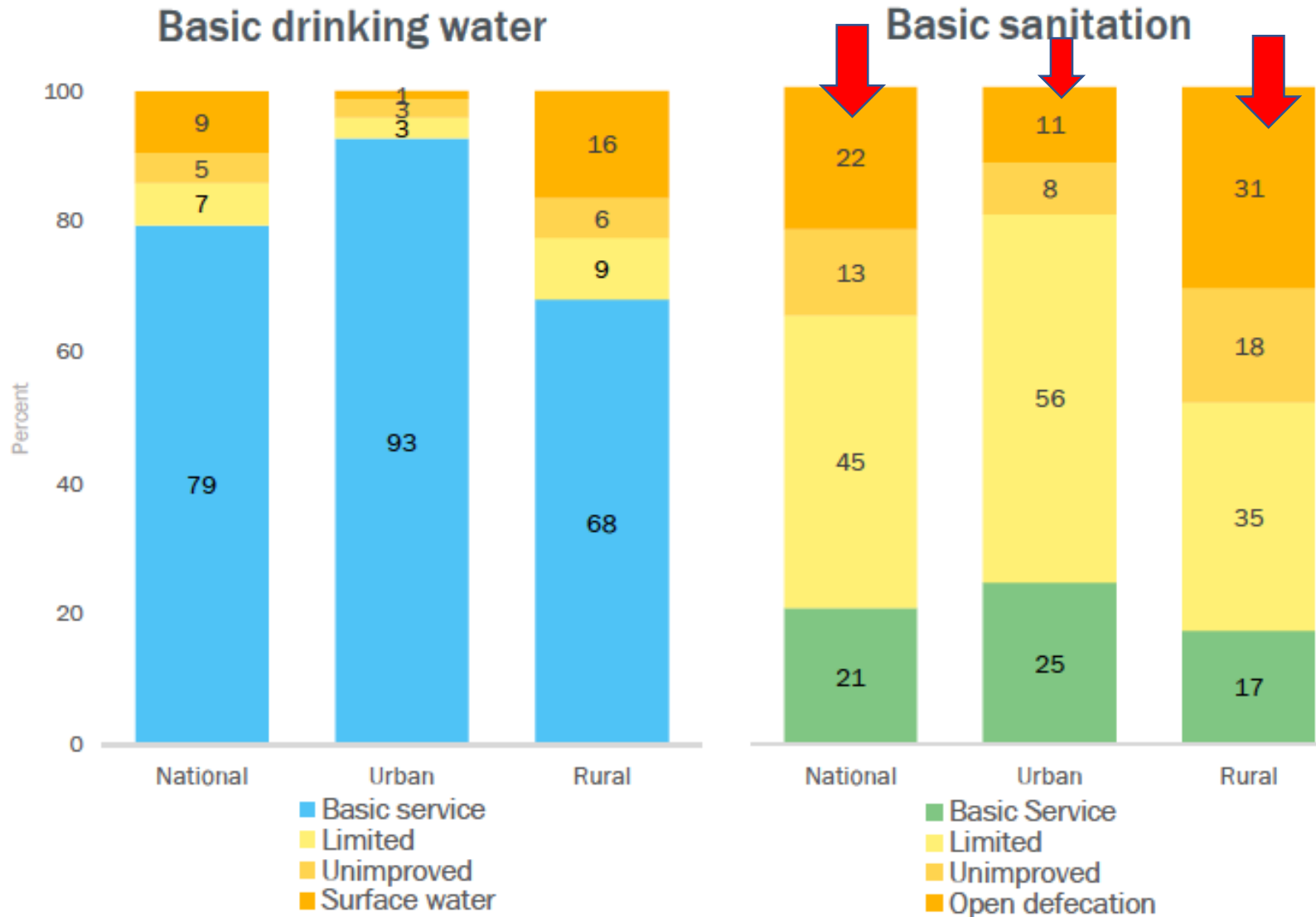


- Meanwhile, Ghana provides a useful case-study of the potential of decentralization in the delivery of a broad array of municipal services, including sanitation and waste management.
- Decentralization is relatively well established and that the principle of popular participation is clearly stated in constitutional and other legal provisions,



- Ghana has institutions, agencies and policies for environmental sanitation at all levels of government; from the central government down to the unit committees.
 - Ministry of Sanitation and Water Resources (MSWR)
 - Ministry of Local Gov't Rural Dev't and Env't (MLGRDE)
 - Metropolitan, Municipal and District Assemblies (MMDAs)
 - Environmental Protection Agency (EPA)
 - National Environmental Action Plan (1991)
 - Constitution of Ghana (1992)
 - Local Governance Act 936 (2016)
 - Environmental Sanitation Policy (2010)
 - Bye-laws of all MMDAs
- Yet the country is seriously grappling with environmental sanitation challenges.

State of sanitation in Ghana



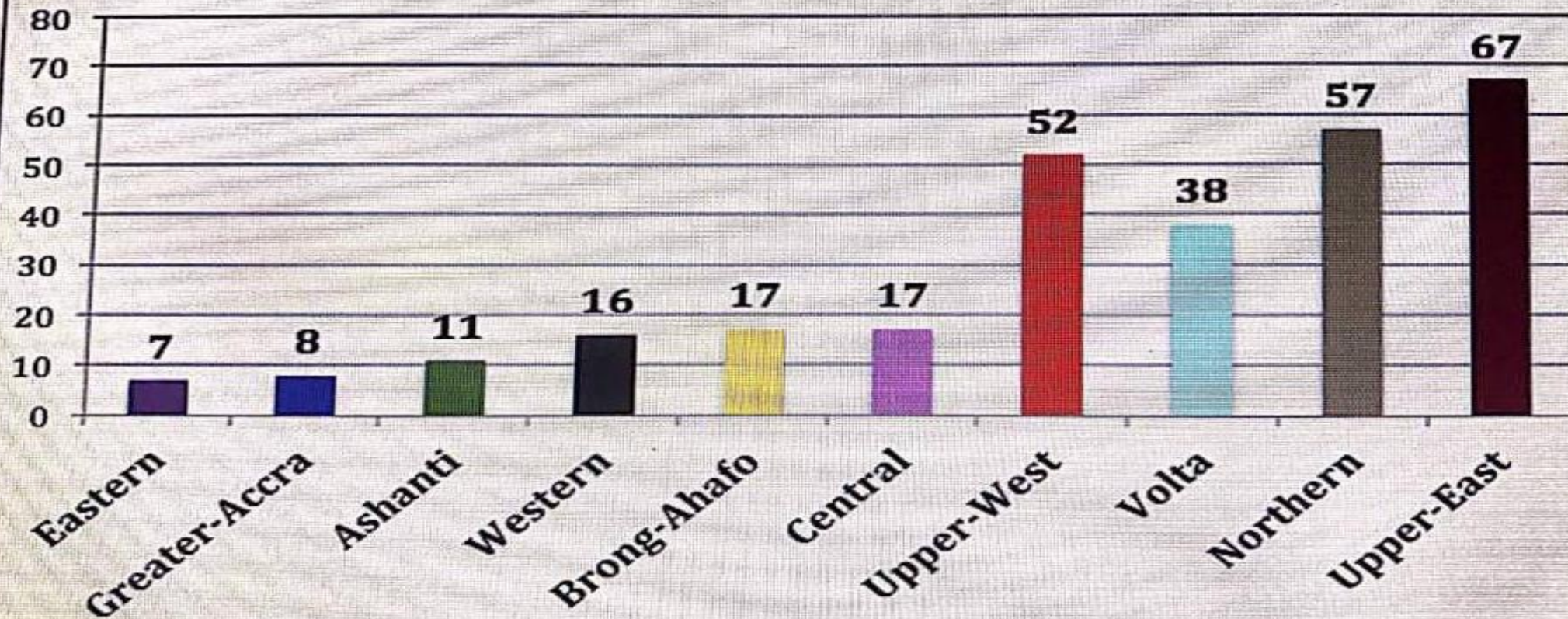
The MICS of 2018 presents a gloomier picture

Sanitation is a neglected Siamese Twin of Water (Mariwah, 2018)



State of sanitation in Ghana

Open Defaecation Rates by Region



Source: 2017/2018 MICS



Small and large-scale open defecation



Discharge of faecal sludge at Kumasi, Ghana (photo: Linda Strande)

Source: Strande et al (2014)

- **Leaving no one behind?** Neglected areas for concern by **MMDAs**

- Many public places DO NOT have (decent or functional) sanitation and hygiene facilities:
 - 36% of public basic schools without toilets (UNICEF, 2017)
 - Churches (especially those in temporary facilities) without toilets
 - At best you can find a urinal
 - Drinking spots (pubs) without toilets
 - Police check points on our roads
 - Toll booths on our roads
 - Market places
 - Lorry stations
 - etc

- Waste management is one of the most visible failures of government and MMDAs in Ghana:
 - Open and choked drains
 - Flying plastics on the streets and on the beaches
 - Uncontrolled dumpsite
- Meanwhile, it is one of the worst sectors in terms of data.
 - No comprehensive nationally represented data on waste characterization and composition
 - It is even worst at the district or local level
- Is it a matter of priority or expertise?
 - Your guess is as good as mine
 - **For me, it is a matter of priority. We will come that later.**



- **Recent data on waste generation and collection in Ghana**
- The world generates 2.01 billion tonnes of municipal solid waste annually, but global waste is expected to grow to 3.40 billion tonnes by 2050 (World Bank, 2018):
 - Sub-Saharan Africa collects only 44 percent of waste as compared with at least 90 percent for Europe and Central Asia and North America.
 - It is estimated that by 2050, there will be more plastics in the ocean than fishes
- Conservatively, Ghana generates approximately 5 million tonnes of solid waste annually, including 1 million tonnes of plastic waste.
- However, it is loosely estimated that only about 60%-70% of solid waste is collected through door-to-door and municipal arrangements.
 - **What happens to the rest? Your guess is as good as mine.**



Method of rubbish disposal	All regions (2010)	Urban	Rural
Collected	14.4	22.1	4.6
Burned by household	10.7	10.2	11.4
Public dump (container)	23.8	38.7	4.9
Public dump (open space)	37.7	22.7	56.6
Dumped indiscriminately	9.1	3.1	16.7
Buried by household	3.3	2.3	4.6
Other	1.0	0.8	1.2
Total	100.0	100	100.0

Source: Ghana Statistical Service, 2013. 2010 Population and Housing Census: National Analytical Report. Accra, Ghana: GSS.



Uncollected solid waste in a market and on a beach in Ghana
Photo Credit: Simon Mariwah



Uncollected solid waste on the streets
Photo Credit: Ashim Morton

The “Dangers” are obvious

- Each gram of faeces in an open field contains:
 - 10 million viruses,
 - 1 million bacteria, and
 - 1000 parasite cysts
- Poor waste management contaminates water bodies (groundwater and surface water) directly and indirectly through run-off.
- Causing illness such cholera, diarrhoea, dysentery, trachoma, etc
- In Ghana, it is estimated that about 70-75% of OPD cases are related to poor environmental sanitation services.

First, the neglect of environmental sanitation has a long history.

- In the 1960s, environmental sanitation was not a big issue in parliamentary debates (Bohman, 2010);
 - but the link between water supply and health was more pronounced.
 - Because about **80%** of the cases reported to the hospitals at that time **were thought** to be caused by the **impurity of water**.
- With little concern for environmental sanitation, it was **wrongly conceived** that inadequate water supply was the only cause of the health problem.

- On the international front, we also observe consistent neglect of sanitation as an important companion of water.
 - Original MDGs (2000) did not include any sanitation targets (**only added in 2002 as an after thought**).
 - United Nations proclaimed annual World Water Day since 1993
 - Sanitation year was only in 2008, 15 years later.
- At a Conference on Water, held in Argentina in 1977, United Nations (UN) declared 1981–1990 as the International Drinking Water and Sanitation Decade with a target of improving access to “water and sanitation for all”.
 - However, water supply received most of the attention to the neglect of sanitation to the extent that at the end of the decade there were 300 million more people without access to sanitation than there was at the beginning of the decade (Black and Fawcett 2008).

- **Low investment in infrastructural development in the subsector:**
 - How many engineered landfill sites can the country boast of?
 - How many waste treatment plants can the country boast of?
 - How many recycling plants can the country boast of?
 - How many waste-to-energy plants can the country boast of?

Your answer to these questions is the reflection of the low level of investment in waste management infrastructure in the country.

- **Inadequate political commitment** to environmental sanitation issues at both national and decentralised levels over the years.
 - With the creation of Water Resources Commission in 1996, sewerage and other environmental sanitation functions then resting with central agencies had to be transferred to District Assemblies, but Ghana Water Company stayed the same.
 - **The official explanation:** "to allow decentralised decision-making and community involvement",
 - **The hidden agenda:** to get rid of 'the unwanted' and to make the water sector attractive for private participation" since there has always been a **higher willingness to pay for water supply than for sanitation** (Bohman, 2010).

Present situation

- **The present situation is a reflection of several challenges in the sector as follows:**
 - Institutional dilemma
 - Inadequate financial commitment by MMDAs towards sanitation service
 - Weak enforcement of sanitation by-laws in most MMDAs
 - There is still a 'strong grip' of the central government



- Admittedly, the COVID-19 pandemic has contributed to the surge in solid waste generation in the country, resulting from
 - Increased use of disposable PPEs, disposable nose/face masks, tissue papers etc
 - Increased use of plastics from restaurants and fast food joints (take-out or take-way as we call it in Ghana)
- However, the capacity of waste collection companies in terms of finance, infrastructure, logistics etc remains the same, and in some instance even reduced during the pandemic.
- This poses serious challenges to the waste management institutions in terms of performance.



- With the coming of the rains, the impacts of poor waste management are likely to be more severe as run-offs will wash uncollected municipal solid wastes (sometimes mixed with faeces and hazardous wastes) into streams and rivers, thereby contaminating them, and compromising the health of those who depend directly on surface water for household use, and posing threats to aquatic lives.
- More importantly, the coming of the rains will most likely increase the rate of decomposition of uncollected solid waste in houses and on the streets, leading to pest and rodent infestations and offensive odours.



- In addition, rainy seasons tend to reduce waste collection and disposal **due to reduced turnaround times of waste collection trucks**, and frequent breakdown of collection trucks, as a result of poor road leading to the final disposal sites.
- For people without household toilets, the rainy season presents an additional challenge, especially in low-income, high-density urban areas, where the use of “flying toilets” (defecating into black polythene bags and throwing it on the streets or into gutters) is rampant, leading to increase in sanitation-related illnesses.



- One may argue that this unfortunate, or perhaps, unpleasant yearly ritual has always been with us for a long time, so why worry about it now?
- The fact is that COVID-19 spreads and kills faster when people have compromised immune system. Therefore, if incidence and prevalence of sanitation-related illnesses increase, it may further worsen the morbidity and mortality situation of COVID-19.



The Need for High Level Prioritization



We need to ask several questions





- First and foremost, there is an urgent need for the establishment of an efficient and effective mechanism to coordinate, harmonize and streamline the activities (and investments) of Ministries, Departments and Agencies (MDAs), Civil Society, NGOs and the Private Sector in the environmental sanitation sector.
- Although there is an Inter-Ministerial Committee on Sanitation, the current poorly coordinated activities and poor financial situation in the sanitation sector reflects the inability of the Committee to effectively deal with the challenge, perhaps due to differences in the priorities of the relevant MDAs.
- Therefore, the establishment of the proposed National Sanitation Authority may serve the coordinating purpose.



- Furthermore, the MSWR should invest in empirical research that will provide comprehensive data on the generation rates, compositions, storage, collection, transport, treatment and safe disposal of waste in the country.
 - The first step in any waste management planning is quality data.
 - Without quality data, we CANNOT measure progress, successes, failures, and challenges.
 - And more importantly, we CANNOT learn
 - This is a critical area that deserves the attention of government
 - And the MSWR should lead the process,
 - Again, the establishment of the National Sanitation Authority will be relevant in this regard.



- Moreover, MMDAs should invest in environmental sanitation through:
 - Capacity building for staff, especially EHOs
 - Partnership with private sector to turn waste into resources
 - **At least, each region should have a solid waste treatment plant**
 - Partnership with neighbouring MMDAs to build waste treatment, and recycling plants.
 - This requires huge investments beyond the capacity of most individual MMDAs.
 - So two or three neighbouring MMDAs and the private sector could come together to invest in such initiatives.
- **There is too much emphasis on landfill sites (disposal)**



- Also, it is necessary for sanitation by-laws of MMDAs to be strictly enforced.
- The first step is to review and gazette all by-laws of MMDAs to make them relevant to the current needs in the sector.
- The MSWR should facilitate and provide all MMDAs with technical support in drafting, reviewing and gazetting their by-laws.
 - Local Governance Act 936 has simplified the process
- The second step is for MMDAs to budget for enforcement activities and support capacity building of EHOs to effectively enforce the by-laws.
- Third, enforcement should be devoid of political and other interferences, so that sanitation offenders are taken through due processes of the law to serve as deterrent to others, and to instill confidence in the EHOs to deliver.



- Moreover, government should support waste management companies in the country to ensure smooth operations of timely collection and disposal of solid wastes.
- First, Central government, as well as the MMDAs who owe private waste management companies, should, as a matter of urgency, settle them to ensure performance at optimal level.
 - **The recent closure of the three main landfill sites in Ghana is worrying in this critical time.**
- Second, MMDAs should improve the roads leading to the final disposal sites in order to reduce the rate at which waste collection trucks break down during the rainy season.
- In addition, the government should scale up monitoring of the waste management companies to ensure uninterrupted collection and transportation of wastes.



- Furthermore, the much-talked-about Sanitation Fund should be established to improve resource mobilization for sanitation service delivery.
- The Fund could also provide targeted support for the poor and vulnerable households. This will enhance government's commitment to the sanitation sector by ensuring long-term planning and financing, hence, the sustainability of sanitation interventions.
- Moreover, similar sanitation funds could be established by the MMDAs, if they are able to improve and diversify revenue mobilization to support sanitation.
 - For example, most house owners in urban areas and small towns rent out rooms or apartments to residents who pay huge sums of money, and that MMDAs could devise means of collecting income tax from these rental fees to boost their revenue.



The Need for Fiscal Incentives for Waste Management Companies



- Solid waste management in Ghana is dominated by the private sectors.
- Therefore, one should expect waste collection to be priced at a market competitive tariff.
- However, fees for waste collection are way below market price, because by law, the price is fixed by the MMDAs since they see waste collection as a provision of public service.
- This situation has plunged many waste contractors into dire financial challenges
- As a result, most private sector players are unable to accumulate adequate capital to re-invest into equipment replacement or into research and innovations.



- Meanwhile, sanitation service delivery requires appropriate machinery which are always imported.
- Currently, a compactor truck attract an import duty of 5% on the Cost Insurance and Freight (CIF) value of compactor.
- It also attracts NHIL levy (2.5%), GetFund Levy (2.5%), Special Import Levy (2%), ECOWAS Levy (0.5%), Exim Levy (0.75%), Processing fee (1%) and AU Levy (0.2%), which add up to 9.45% of the CIF value.
- In addition, the sector also pays Import VAT of 12.5% on top of these taxes.



- Currently the industry operates at a profit margin of 20% (From the existing data in the cost buildup of the various landfill sites) .
- However, this profit margin is reduced to 7.5% since they treat 12.5% of their revenue as output tax.
- In addition to that, the sector also absorbs the non-deductible combined 5% import NHIL/GetFund levies which further reduces their profit margin to 2.5%.
- **How do such companies accumulate enough capital to reinvest in waste collection trucks and other machinery as well as invest in Research and Development (R&D) to improvement waste management in the country?**



- Therefore the following fiscal incentives may suffice:
 - **A temporary tax waiver (Import duty, VAT, NHIL & GETFUND Levies and other taxes and levies) on all its imports on waste management trucks and other machines used for collecting waste;**
 - **Include the supply of machinery and parts of machinery specifically designed for the collection of waste as part of exempt supplies in the first schedule of the VAT Act (870); and**
 - **A tax waiver on payment of corporate income taxes on profits ploughed back into investment into plants and machinery for waste management.**



- In addition:
 - The setting of tariffs to be paid by clients of waste collection services should be done in consultation with the service providers, in order to come out with a competitive price for effective waste management services
 - It is about time consumers of waste management services paid economic prices
 - The setting of the tariff should also take into consideration the cost incurred by the service providers in collecting fees from their clients.
 - This is one major challenge for the service providers, since they have to hire personnel to perform this important function.



- Poor sanitation and waste management services present serious health and environmental problems to every society.
- The good news is that the problem is surmountable, and the government should be at the fore front of dealing with this menace.
- Therefore, as a matter of urgency, the government, through the MSWR, should prioritise sanitation and waste management issues in the country.
 - The private sector is already a leader in the provision of waste management services in Ghana, and that government should provide fiscal incentives to enable them perform and rid the country of filth in order to improve health and wellbeing of the people.



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Thank you for your attention