

POLICY ADVOCACY

THE SIMPLE ECONOMIC APPROACH TO MANAGING WASTE

Demand And Supply Approach



INSTITUTE FOR LIBERTY AND
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Solving the Filth and Waste Menace in Ghana

Are we effectively dealing with the waste problems in our economy? Why does it seem as though we are losing the fight against waste management? Is the Approach we are using the problem or the lack of resources? After several years, we have a lot to say about waste management but very little is actually done. No wonder the saying goes that “*After all is said and done, more is Always said than done*”. What could be the problem and how do we effectively deal with it?

Humans engage themselves in so many activities which generates wastes as by products, from Production to processing to consumption, many waste products are generated. We call it waste because they are unwanted or useless products. Waste is not something that can be ignored because no matter what we do, we would by all means generate some amount of it. Generating waste is usually not the main problem. The main problem is usually about how to do away with it since it has the potential to cause harm when not properly managed.

The Problem of waste management is a global one with various economies taking various strategies to resolve them. Ghana like any other country faces the same problem. The Streets and corners of the country are filled with waste, our markets and even homes. Waste management is apparent because it is one key way of fighting diseases and death caused by diseases. Diseases like cholera, typhoid, Malaria and so on can be drastically reduced by proper filth management. Again, it would save the economy several revenue since fighting filth takes a huge chunk of revenues allocated to district assemblies. Not to talk of the cost of importing drugs to treat diseases that are caused by filth. A healthy economy is a wealthy economy. If we strive as a nation for development, we cannot ignore the need to promote good health which hinges primarily on how we manage our waste.

Anthony Mensah, Director of Waste Management for the Accra Metropolitan Assembly (AMA) disclosed in 2017 while speaking on Eezy FM’s show, the city of Accra generates 3,000 metric tonnes of waste daily.

In Accra the capital Alone, about 2,800 metric tonnes of solid waste is generated each day. Out of these, an approximate of about 2,200 metric tonnes are collected leaving behind 600 metric tonnes. Even the ones that are collected are dump unto landfill sites. Aside these, about 80 - 100 cesspit emptiers discharge waste directly into the sea at Lavender (Cindy, 2014).



Communal bin in the capital of Accra

So many years down the line, we still have open defecation, Choked gutters, the burning of rubber and plastic products in the open and so on. Not to talk of medical waste, chemical waste and electronic waste. Some do not only affect our health but do grave damage to our environment.

Looking at the enormous harm waste can cause and the enormous benefit the economy stand to gain from proper waste management, one would ask why we failing in managing all these years? Who is to be blamed, who is responsible, who can actually resolv it, and what are the impediments and why haven't the impediments being removed? There are lots of questions one could ask. Some of the challenges according to Mrs. Cindy Badoe (Cindy, 2014), the deputy Director/Built environment at EPA, are:

1. Negative attitudes of the general public towards the environment in general;
2. Unplanned human settlement;
3. Poor planning for waste management programme;
4. Inadequate waste infrastructure;
5. Lack of political will to enforce bye laws on sanitation and building regulations by the MMDAs
6. Inadequate equipment and operational funds to support waste management activities;

If we know where the problem is coming from, one would ask why we have failed to do something about it. Are the solutions we are putting in place ineffective or need more time?

It appears to me, that the waste problem is much bigger than we anticipate and why would we spend so much money fighting waste when there are several other developmental issues to address. Obviously, we are failing in the fight against waste and we seem not to be ready to deal with it holistically. What seems to be happening is management of it so that they are within acceptable limits.

If our approach has failed us, why not look at other alternative approaches. This among others is the reason for this article.

Below is my candid opinion of the issue of waste management and what I believe should be done based on my application of Economic theory.

From economic perspective, two forces operate to ensure stable situation in various industries. It is these forces that create price and encourages or discourages production of goods and services. The forces of demand and supply.

Demand can be taken as the desire and acquisition of what one wants while supply is the provision of various goods and services. When we buy goods and services, economist caption it as demand and when we produce and distribute goods and services, it is captioned as supply.

Where Demand Exceeds Supply

Imagine a situation where you have enough money to buy products, and you are willing to buy them when you have access to them but do not get any to buy, well we would call that shortage. In economic terms, it would be referred to as having excess supply over demand. This situation usually leads to higher or increases in prices which serves as incentives to produce and supply that product. When there is demand for something and there is no supply of it, people are compelled to develop those things and that leads to innovation and creativity. For example, there is an outbreak of a disease, people want a solution and are willing to pay for it, scientist are compelled to conduct research and find a drug. That is innovation and creativity. By implication, when there is excess demand over Supply, it leads to positive change. It leads to innovation.

Where Supply Exceeds Demand

On the other hand, imagine a situation where there are a lot of goods and service produced and you do not want them or do not have the revenue to acquire them. They would be termed as surplus and they drive prices down. From economic perspective, that would be called excess supply over demand. The extreme case is when the supply has no demand at all. That case is what I term waste; when people supply products that are not needed.

So waste from my perspective is anything produced directly or indirectly for which there is no demand. From my definition, Waste is much broader than filth. But for the purpose of this discourse, I would limit waste here to only domestic and industrial waste.

The reason we have waste is not because of what is involved in production, processing and consumption that leaves by products or maybe inefficiencies in any of these processes but rather the fact that those by-products have no equal matching demands. Any by-product that results from production, processing or consumption that has demand would not be a waste.

If Say's law "Supply creates its demand" was operating, there would not be anything like waste. However, as demonstrated by Menard Keynes in his book "The General Theory of Employment, Interest and Money" (1936). This law doesn't hold in most cases.

What this pre-supposes is that, unless conscious efforts are made to create demand, supply by itself would not be able to do so.

Waste and how it can be managed

With the background clearly elucidated, let us now consider how to deal with the waste menace. From my Economic Analysis and view, the most effective way to deal with waste is to create demand for them just like supply is created when there is excess demand (innovation). By doing so, what we create is business and employment.

Currently what we have in our economy is the government trying to manage the waste menace on their own. Every year, huge amounts of revenues are disbursed to the local assemblies to use part for waste management. Despite these, the impact is very minimal. On the other hand, I have witnessed scrap dealers go round communities and homes asking for scrap metals. I have also witness women and children going round picking sachet bags drop by people after consuming the water. You enter homes and they have these sachet bags piled in sacks for people (Private individuals) to buy them. Sachet water and scrap are all waste products. But ones they served as a means of generating revenue, no one had to go round looking for people to come and collect them. The people came themselves. In such a scenario, one would not worry about disposing of scraps or sachet water. The demand for such products would bring buyers to their homes and offices. With no government interference, the waste product (Sachet and Metal Scraps) no longer serve as waste but income generating avenues. I believe many of the waste produce in our homes and business centres could follow suit. The reason why sachet bags and metal scraps became an income generating

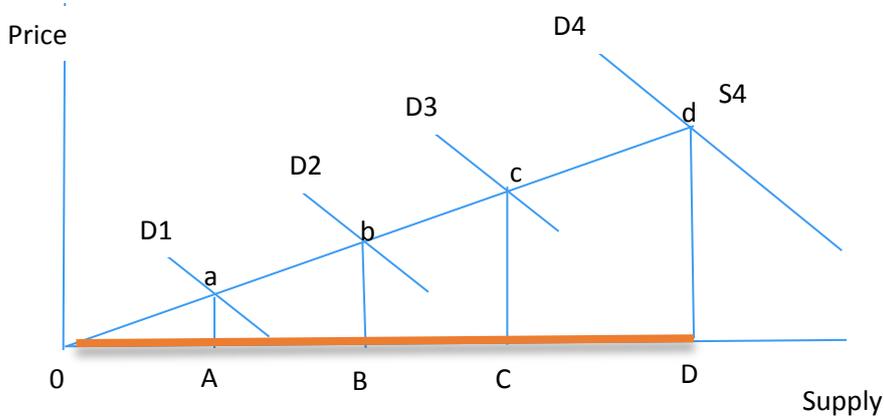
avenue is simply because there is a company somewhere who uses it as its raw materials. The iron rod producing companies need iron metal scraps and plastic recycle companies use the sachet bags.

Household waste are usually biodegradable ones and plastic products. With a manure producing company and plastic waste recycling plant who use these waste as raw materials, the demand for these waste would be created which would imply that revenue generating avenues have been created. This would compel individual to go into homes and business centers to buy these waste for onward sale to the companies. In such a scenario, the homes wouldn't have to worry about disposing of such waste and the government would have to waste money on managing such waste.

I know that not all waste can be re-used, but I believe that most of it can be re-used for producing other goods and services. What should be done is more research into what our waste can be used for and also helping to set up industries that would make use of these waste as raw materials. By doing this, we create demand for the product and hence there wouldn't be any longer waste materials.

Lately we hear of reports about sanitation officers who are to be employed by the government to monitor people and prevent them from not properly managing waste. ***This is extra cost to the government who is already spending so much to dispose of our waste.*** What is even sad is that such officers themselves may not be monitored and may end up either not doing what is required from them or liaising with those who generate filth, take bribes and let them continue to generate and mismanage waste. An already struggling economy with huge debts should look for a better alternative and the best from my perspective is ***creating demand for waste.*** Once waste is a revenue generating product, there would be no need to spend on waste collection and hiring sanitation officers. I believe when we have plastic recycling plants, Bio-gas generating plants, Compost manure firms, Artificial Coal generating firms just to mention a few, the average Ghanaian would have to worry about disposing of their waste since there is an already existing market.

THE SUPPLY AND DEMAND FOR WASTE



NOTE: please take note that the above is the writer's own presentation of his ideas and not an academically accepted theory or view.

From the diagram above, S4 represents the supply of waste. The total quantity being "D" metric tonnes. When there is no demand, only supply exist and hence has no price. There can be price only when demand comes in. This is represented by the orange line from zero(0) to point "D". This is waste. Supply without demand. Now assuming by some innovation, a new company is established that makes use of some of the waste, they demand some of the waste so then demand D1 comes into the picture. Because of these demand, the area bordered by points "0, A, a" would no longer be waste. Their demand would introduce price at which those waste would be bought or collected. If more waste is demanded, the demand curve would shift right-wards from D1, to D2, to D3 and Finally to D4. At D4, all the waste would be used and hence no more waste but any point before D4 would leave some amount of waste due to excess supply over demand. Hence to really, tackle the waste, one would have to introduce demand for it and in the quantities that would much its supply.

Who should be Responsible?

Who do we hold responsible for managing our waste, should it be the district assemblies, sanitation officers or the government? Should it be the private waste management company or who?. To answer such a question, let us first look at the current situation where government is the main agent managing waste. We realise that the government support is not yielding the results we intend to see. Continuing to depend on the state would not give us any different result.



Waste heaped up at the Kaneshie Market without owner

On Tuesday 20th March at the British Council, IMANI Ghana a policy Think Tank setup a panel discussion on waste management problems and the solutions or way forward. Among the panellist was the Representatives of the Environmental Service Providers Association (ESPA) a coalition of private waste managers in the Country. Listening to his story, it became clear that the ***private individual would be in the better position to tackle the waste menace since they view waste management as a business which runs to a make profit whereas the state see it as a social obligation.*** When waste management becomes a business, the drive to make money and earn a living is the driving force of their operations. It leaves very little room for inefficiencies and excuses. That drive compels them to go out in search for waste instead of sitting down and having it come to them.

The President of ESPA spoke about how he used the waste in his business. For instance, the plastic waste he collected was recycled and used for producing dustbins which were re-distributed to their clients. This effort is as a result of trying to cut down on cost which would only happen when private business runs to make profit.

If Human Excreta can be used by Bio-gas stations to generate biogas and make huge profits, they would be working hard to connect homes to their stations. They may even choose to lay pipes to various homes to transfer excreta and urea to their work stations. If after the gas is generated, the waste remaining can be made into manure which our farmers can buy at low cost for their farms, then human excreta which was initially a waste product would no longer be a waste.

If our plastic wastes are recycled and used for plastic chairs, tables etc. those by products would no longer be a waste. The recycle companies would buy them from individuals. We would not have any trouble thinking of how to dispose of our plastic waste since there could be individuals waiting patiently for collection and recycling.

The list is endless; Kitchen waste for manure, dirty water recycled and used to flush our water closets or for washing, iron scraps used for iron rods which is sold for construction and so on.

Applying Simple Economic principle to waste management can help drastically reduce the problem.

The Role of Government

Now that it is clear that the market forces of demand and supply should be allowed to clear waste in the economy and that the private sector should be the agents behind it, what role should the government play? In my opinion, the government should support the private sector in achieving its aim. By subsidizing the cost of their operations and creating the legal framework for them to operate freely. Where the cost of setting up the enterprise is much expensive, the government can partner the private sector, establish and later sell its holdings to the private company.

Again the government should support research into what waste generated can be used for. Research is the only way we can discover what usefulness our waste can have. It is the findings of these research that would encourage the private sector to go into such industries.

Not all waste can be re-used easily. Nuclear waste management would not be an ideal area for the private sector. In such situation the government should be the one to handle the management.

Conclusion

From the above, one thing is very clear, that we can have waste only when there is no demand for it. So long as there is demand for what we call waste, it would no longer be a waste. If excess demand over supply (Shortage) or demand without supply (non-existent product or service) leads to innovation to take advantage of the demand, then efforts can be made to create Demand for products that are supplied but have no demand (Waste). Once this is done through the private sector, most of our waste problems would be non-existent. The government can play the support role of subsidizing, helping to establish waste management enterprises and handling waste that cannot be re-used and hence providing incentives for the private sector to engage in its management. It can also fund various research into how waste can be put into good use by establishing Sanitation Research Institute and Management (SRIMO). We can save ourselves the stress and revenue if we try this approach to waste management.

We do not have a waste problem, what we have is a lack of demand problem.



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