

Solid waste management under COVID-19: a case study of Uyo in Akwa Ibom State – Nigeria

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ABSTRACT

This research examined the performance of solid waste management bodies during COVID-19 pandemic in Uyo, Akwa Ibom State, Nigeria in the 2nd quarter of 2020. The researcher adopts doctrinal and observation methods of research. The research found that supervision by those in the top echelon could positively influence and motivate compliance with proper waste disposal. The deployment of resources and political will as well as sanctions where appropriate could lead to effective solid waste disposal. The paper assertively suggests that the state government needs to review solid waste management policy, law and regulations in the state in the direction of incorporating the in-built social benefit scheme. This approach would make solid waste generation collection and disposal truly commercial and a source of wealth to the domestic waste generators. This would contribute to the current effort to stem the rising tide of indiscriminate solid waste disposal in Uyo.

Keywords: COVID-19, Indiscriminate Solid Waste Disposal, Generators, Domestic Waste and Pandemic.

INTRODUCTION

Solid waste management has been defined as the process of collecting, treating and disposing of solid waste material that is discarded because it has served its purpose or is no longer useful (Nathanson, 2019).¹ This definition is a standard aspiration, expectation and/or systemic desire of environmentalists and most governments the world over. The aspiration or expectation or system of solid waste management is geared towards reduction of the presence and negative impacts of solid waste in the human environment. The practice and method of solid waste management in all communities in the world evolved through traditional to modern approaches.

Nevertheless, the practice and/or method of solid waste management in developed and developing countries differ due to the relative presence of factors such as technology finance, political will, requisite personnel and policy inclusiveness.

Critical environmental management model such as integrated waste management system (IWMS), which is traditionally designed to reduce, ease and recycle wastes of all classes has become inappropriate

¹Nathan, J. A. (2019). Solid Waste Management/Definition, Methods and Facts/Britannica.
www.britannica.com/technology. Retrieved on 3rd November, 2020.

in its application, content and capacity in solid waste management in the developing countries across the world. This is especially so during COVID-19 pandemic.

The majority of people in the developing countries are arguably predominately organic food consumers and the attendant waste stream therefore is essentially made up of food waste. This is unlike the situation in the developed countries where citizens and residents consume processed and packaged food with an attendant ageable waste stream. Besides, the probable result is that solid waste generation and management in developed countries is well coordinated and disposed from the point of generation to the point of disposal – a practice and/or method which has proved near impossible in the developing countries. What accounts for this is largely systemic failure of government policies and dearth of home-grown solid waste management governance structure and system.

The first index case of COVID-19 pandemic in Nigeria was officially announced on 29 February, 2020. The patient was an Italian national, who travelled from Europe to Nigeria via Lagos State airport. He tested positive of COVID-19, when he fell sick upon arrival in Nigeria (Kalu, 2020).²After the first index case, Nigeria has experienced 64,884 cases with 60,936 discharged cases and 1,163 deaths leaving 2,785 active cases on 14th November, 2020. The capacity of the country's healthcare infrastructure, finance and personnel to contend the dreaded coronavirus is at low ebb and this has really exposed the Nigerian State, as a country which has only endemic reactive and not proactive and good health governance systems. Paradoxically, in spite of the observable deficit in Nigeria's national healthcare system and in particular, in relation to COVID-19 outbreak, without adjudicating on the argument that Nigeria did not initially carry out adequate testing and contact tracing like her counterparts in Africa, Nigeria has relatively low number of cases of COVID-19 and deaths considering her population.³ It is of note that due to the fervent prayers and donations by well-meaning Nigerians and other donor agencies God mitigated the spread and incident of the coronavirus in Nigeria as compared to huge recorded cases in other countries in African and the super powers.⁴

The issue of a clean and healthy human environment became a fundamental objective and requirement for combating the COVID-19 pandemic in line with protocol of the World Health Organization (WHO). Curiously, WHO introduced three prone approaches to regulate the spread of COVID-19 pandemic to wit: Social distancing, washing of hands and wearing of face masks. However, the fourth component

²Kalu, B. (2020). COVID-19 in Nigeria: A Disease of Hunger. *The Lancet Respiratory Medicine*, Vol. 8, Issue 6. Retrieved on 3-11-2020.

³Coronavirus: What's happening to the numbers in Africa? – BBC News. www.bbc.com/news/world-africa- See also Odotola, A. (2020). COVID-1: Nigeria with second largest cases in Africa – WHO. nairametrics.com. Retrieved on 14-11-2020.

⁴*Ibid.* See also CovidFundTracka-AllDonations-Civic-Hive. civichive.org/covidtracka/donations. Retrieved on 15-11-2020.

which could sustain a clean and healthy human environment appears to have been a mere corollary to the so-called WHO's three global requirements thereof. Nevertheless, individual corporate bodies and governments have demonstrated and deployed policies, actions and programmes with which to fumigate and evacuate solid waste around public and private places in order to stem the rising or spike in the cases of COVID-19 pandemic.

Interestingly, the world has been made to believe that it is WHO that has the patent right over the three-prone methods deployed in regulating the spread of COVID-19 pandemic in the world today. This is far from it! The Bible is the repository of such ideas.⁵The solution to the pandemic is largely embedded in the same Bible and other religious books because the words of the Holy book are that it does not belong to man to rule himself because man has ruled himself to his injury. This eternal truth is premised on the fact that though man had been granted lease or the tenancy and power of attorney to manage both the natural and human environments for his benefit, man still has choices, with inherent consequences, to husband the natural resources responsibly, sustainably and/or disappointingly or destructively.

This work adopts doctrinal, face to face interview and observation research methods and seeks to examine and determine the rate of solid waste generation, collection and disposal during COVID-19 pandemic relative to non-COVID-19 pandemic period involving the 1st and 2nd quarters of 2020, in Uyo Capital City, Akwa Ibom State, Nigeria. This is especially so, when the national and state governments lockdown the country in order to stem the spread of the novel coronavirus of Wuhan-China origin.⁶

Solid Waste Collection and Disposal under COVID-19 Pandemic in 2nd Quarter Of 2020 in Uyo, Akwa Ibom State, Nigeria

Akwa Ibom State is one of the six states in the South-South geopolitical zone in Nigeria. The state is endowed with abundant mineral resources, including enormous crude oil, which has remained the mainstay of Nigeria's foreign currency and economy. Uyo is the state capital of Akwa Ibom State. Uyo has a population estimate of 500,000 residents in 2016.

Solid waste collection and disposal in Uyo is reportedly based on established three (3) zones, namely: Zone "A" representing the high-income zone, Zone "B" representing the medium class and Zone "C" –the

⁵Exodus 30: 18 – 21 – Wash your hands and Leviticus 13: 4, 5 & 45 – Keep your distance, cover your mouth and avoid contact and anyone infested was to remain in quarantine from 7 to 14 days.

⁶Coronavirus: What's happening to the numbers in Africa? – BBC News. www.bbc.com/news/world-africa- See also Odotola, A. (2020). COVID-1: Nigeria with second largest cases in Africa - WHO.narrametrics.com. Retrieved on 14-11-2020. See also Wetsman, N. (2020). Everything You Need to Know About The Coronavirus. www.theverge.com. Retrieved on 15-11-2020.

low income zone.⁷ The 3 zones were further split into six zones for ease of refuse evacuation. Notably, the rate of solid waste generation in Zone “A” is usually low and the zone has solid waste mix characteristically composed of inorganic foodstuff wastes from processed and packaged foods and services. The solid waste generation in the medium zone “B” has a composition of organic and inorganic foodstuffs consumption and such waste generation is relatively higher than solid waste being generated in Zone “A”. In Zone “C”, the residents appear to reside on the fringes of the city of Uyo. The people in Zone “C” predominantly consume organic foods and nearly almost do not plan or regulate the amount or quantity of their foods preparation and consumption. From observation, this traditional practice often times than not usually lead to increased domestic waste generation by households in Uyo.

During COVID-19 pandemic and its attendant lockdown in the 2nd quarter of 2020 in Uyo, Akwa Ibom State, in particular and Nigeria in general, from transact and observation, the researcher found that the rate of domestic or green waste and inorganic waste grew astronomically around all the delineated zones in Uyo. Also, the residents in the zones dutifully dumped off their wastes both at approved and illegal dumpsites. The amount of controlled solid waste generation in the city of Uyo during the period under review spike by leaps and bounce due to the fact that residents were restricted to their residences. There was a timely announcement by the state government for the people to purchase enough foodstuffs for their use during the lockdown, as markets were equally locked down to prevent possible spread and transmission of the virus in the State.

The State Ministry of Environment and Mineral Resources in conjunction with the Akwa Ibom State Environmental and Waste Management Board, conscious of the need to stifle the spread and/or spike in the virus as highlighted by the Nigeria Centre for Disease Control (NCDC), increased its rate of domestic waste collection and disposal, which was put at 1,888 metric tons of waste generation, collection and disposal per day. This figure far outweighed the rate in the preceding 1st quarter in the same year. The City of Uyo and its environs from the commercial areas, mechanic workshops, markets to motor parks, which usually experienced indiscriminate solid waste disposal with its attendant pollution and stench wore clean and healthy looks and became foul odour free environment.

Concerned by Governor Emmanuel Udom’s commitment and resolve to fight the virus, the then Commissioner for Environment and Mineral Resources, Dr. Iniobong Essien and the Chairman of the Akwa Ibom State Environmental Protection and Waste Management Board, Obong Prince Ikim mobilised their staff and licensed waste collectors in the state to supervise the evacuation of refuse in all designated and

⁷Ukpong, I. E. (2011). Domestic solid waste management in a rapidly growing Nigerian City of Uyo. *Journal of Human Ecology* (Delhi, India), 36(3).

illegal dumpsites in Uyo. The licensed waste collectors had to increase both their fleet of vehicles and the turn-around time of waste evacuation, collection and disposal in Uyo in order to meet the new necessity.

DISCUSSION

Indeed, the renewed approach and vigour put into waste collection and disposal both by the State Waste Management Agencies and the licensed waste collectors during COVID-19 pandemic eloquently speaks to the fact where there is a will there is a way. This paradigm shift in waste management underscores the fact that doing things differently could sometimes bring about a different result, positively. This work has been limited by funding, dearth of literature on solid waste and inadequate data on the number or fleet of vehicles to be used and workers to be hired by the licensed waste collectors during periods like COVID-19 pandemic.

CONCLUSIONS

The research finds that indiscriminate waste disposal with its inherent health and legal implications on the environment and humans could be curtailed and/or mitigated through effective supervision by those in the top echelon of relevant authorities. The work discovers that indiscriminate disposal of waste is a direct consequence of lack of due enforcement of extant laws and regulations on waste control and management in the State. Also, the paper uncovers that dearth of political will by the local and state governments to deploy adequate resources in curbing and/or management of the environment generally, is part of the missing link in solid waste governance in the City of Uyo.

RECOMMENDATIONS

- i. There is a need to allocate adequate resources to solid waste collection, transportation and disposal in Uyo.
- ii. There is a need to review the policy on solid waste management from the point of generation through collection to disposal with clear emphasis on a built-in social benefit scheme for waste generators so as to make waste become a truly commercial venture and to create jobs.

CONFLICT OF INTEREST

There is no conflict of interest on the part of the researcher with the sources consulted in this work.

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