



# **The Role Of Bauchi State Environmental Protection Agency Towards Achieving Sustainable Urban Solid Waste Management In Bauchi Metropolis**

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## **ABSTRACT**

The Bauchi State Environmental Protection Agency (BASEPA) is the government institution responsible urban solid waste management in Bauchi metropolis; it was established by edict No. 3 of 1997 and came into existence on 10th June, 1997. The aim of this study is to assess the Role of Bauchi State Environmental and Protection Agency (BASEPA) in Urban Solid Waste Management in Bauchi metropolis. A stratified random sampling technique was used for this research. The result revealed that the BASEPA is the only Government institution responsible for municipal Solid waste Management in Bauchi metropolis and its activities are regulated by edict No. 3 of 1997. The study established that the major constraint of the BASEPA is inadequate funding; other constraints include the multiplicity of divergent functions. The study also revealed that majority of respondents are satisfied with BASEPA solid waste management services and majority also blame BASEPA for the solid waste mismanagement in Bauchi metropolis. Therefore it is clear that BASEPA's current MSWM approach is satisfactory effective. From the result it can also be deduced that BASEPA's MSWM role in terms of addressing environmental issues in Bauchi metropolis with the highest mean score is perceived best by the respondents. Based on the findings, the study recommends an edict review, re- strategizing BASEPA's administrative and organisational arrangements, construction of modern landfills, public awareness campaign and introduction of other solid waste management techniques such as sorting, reuse and recycling.

**Keywords:** BASEPA, solid waste, management, sustainable development

## **1.0 INTRODUCTION**

Solid Waste Management (SWM) is important for protection of human health and the environment, particularly in various cities of developing countries. SWM which comprises waste reduction, reuse, recycle and disposal is to some extent rigorous and demanding both in terms of technology human resources as well as facilities and authoritative commitment. However, various legislations create an avenue for the establishment of various agencies and departments with mandate of ensuring environmental quality, in both urban and rural communities in Nigeria (Adewale, 2009).

Among such legislations established in Nigeria are Federal Environmental Protection Agency (FEPA) was established in 1988 under the decree No. 58 of 1988 and 59 (amended) of 1992. And in 1999 converted to Federal Ministry of Environment (FME), also the National Environmental Standards and Regulations Enforcement Agency (NESREA) by Nesrea Act of 2007, and other State Environmental Protection Agencies established in 1997 by the edict No. 3 of 1997. These agencies are primarily established to provide solutions to the environmental issues including SWM (Bilkisu, 2010).

The establishment of BASEPA traces its origin to the involvement of Nigeria in the global commitment to tackling the global environmental problems as typified in the "Earth Summit" held in June, 1992 in Rio de Janeiro, Brazil. In the said summit, world head of states and governments met to forge a common

approach in solving world environmental problems and achieving a global sustainable development. BASEPA was created so as to employ sound environmental management principles and practices and to initiate appropriate management programs, policies and legislations in partnership with relevant stakeholders (National and International) for sustainable development”.

## 2.0 LITERATURE REVIEW

The Municipal solid waste management process involves a range of activities which encompass: generation, collection and storage, transport, recycling, reclamation, reduction, sale of recovered resources, composting and disposal (Dawnarain, 2004). Personalities associated with municipal solid waste management A wide range of individuals, groups and organisations are concerned with Municipal Solid Waste Management as service users, service providers, intermediaries and/or regulators. Usman and Mohammed (2012) stated that solid waste management in Bauchi metropolis is handled by both formal and informal sectors; thus:

i) BASEPA: is responsible for monitoring and regulating the activities of the private companies as well as collection and disposing of heap of refuse, street sweeping, managing landfills/ dump sites, establishment of performance standards and enforcing waste management regulations.

ii) Cosmopolitan Cleaners: a private waste collection company is responsible for street cleaning and collection of waste dumps at the streets every day. The operation is usually along the dual carriage ways in the metropolis which consist of the high density areas. People dump their waste every morning at street and road sides.

Bilkisu (2010) studied the effectiveness of Bauchi State Environmental Protection Agency (BASEPA) in Municipal Solid Waste Management in Bauchi metropolis. The study revealed that BASEPA is the only Government institution responsible for municipal Solid waste Management in Bauchi metropolis, more than half of the respondents (57.9%) were not satisfied with BASEPA’s solid waste management services and most of the respondents also blame it for the poor solid waste management in the study area. The study established that the major constraint of the BASEPA is inadequate funding. Other constraints include the multiplicity of divergent functions. Based on the findings, the study recommends an edict review, re- strategizing BASEPA’s administrative and organizational arrangements, construction of modern landfills and introduction of other solid waste management techniques such as sorting and recycling.

Most relevant authorities prioritized SWM as a major effort in ensuring environmental wellbeing and aesthetics. A mandate is an official order or authority to carry out a policy or course of action, it is also known as a decree, edict, commission or injunction. Thus, the role of BASEPA with respect to MSWM in Bauchi metropolis is enshrined in the edict No. 3 of 1997. Under the said edict, BASEPA is the sole agency responsible for all matters relating to environmental protection, sanitation and environmental research and policy. As the custodian of the environment in the whole state, BASEPA is responsible for the management of solid waste in residential and commercial areas. However, according to the management of BASEPA, as revealed in the interview, the Abubakar Tafawa Balewa University and the state specialist hospital waste management responsibilities are not under the jurisdiction of BASEPA.

Section 10 of the edict deals with the powers of the agency, with respect to MSWM, subsection 5 states that, the agency can enter into agreement with any public or private organization and individuals to develop, utilize, coordinate and share environmental monitoring programmes and biological effects of various activities on the environment.

## 2.1 THE ROLE OF OTHER SERVICE PROVIDERS IN URBAN SOLID WASTE MANAGEMENT

### 2.1.1 Non-governmental organisations

Non-governmental organisations (NGOs) operate between the private and governmental realms. Originating outside of the communities in which they work, NGOs are motivated primarily by humanitarian and/or developmental concerns rather than an interest in service improvement for their own members. The self-creation of meaningful employment for members may also be a motivation for NGO

formation. NGOs may help increase the capacity of people or community groups to play an active role in local solid waste management by contributing to:

- people's awareness of waste management problems,
- organisational capacity and the formation of community-based organisations (CBO),
- channels of communication between CBO and government authorities,
- CBO's voice in municipal planning and implementation processes,
- technical know-how of locally active CBO, and
- Access to credit facilities.

#### *2.1.2 Local Government*

Local government authorities are generally responsible for the provision of solid waste collection and disposal services. They become the legal owner of waste once it is collected or put out for collection. Responsibility for waste management is usually specified in bylaws and regulations and may be derived, more generally, from policy goals regarding environmental health and protection. Besides their legal obligations, local governments are normally motivated by political interests. User satisfaction with provided services, approval of higher government authorities and financial viability of the operation are important criteria for successful solid waste management from the local government perspective.

#### *2.1.3 National Government:*

National governments are responsible for establishing the institutional and legal framework for MSWM and ensuring that local governments have the necessary authority, powers and capacities for effective solid waste management. In many countries, responsibility is delegated without adequate support to capacity building at the local government level. To assist local governments to execute their MSWM duties, national governments need to provide them with guidelines and/or capacity-building measures in the fields of administration, financial management, technical systems and environmental protection. In addition, national government intervention is often required to solve cross-jurisdictional issues between local government bodies, and to establish appropriate forms of association when as in most metropolitan areas effective waste management calls for the collaboration of several local bodies (Schuebeler, 1996).

#### *2.1.4 Private Sector Enterprises:*

The formal private sector includes a wide range of enterprise types, varying from informal micro-enterprises to large business establishments. As potential service suppliers, private enterprises are primarily interested in earning a return on their investment by selling waste, collection, transfer, treatment, recycling and/or disposal services. Operating in various forms of partnership with the public sector, they may provide capital, management and

#### *2.1.5 Informal Private Sector*

The informal private sector comprises unregistered, unregulated activities carried out by individuals, families, groups or small enterprises. The basic motivation is self-organised revenue generation; informal waste workers are often driven to work as waste collectors or scavengers by poverty and the absence of more attractive employment possibilities. In some cases, informal waste workers belong to religious, caste or ethnic minorities and social discrimination is a factor which obliges them to work under completely unhygienic conditions as waste collectors or sweepers. Their association with an activity which the public perceives to be filth-related tends, at the same time, to perpetuate discrimination against them. Informal waste workers usually live and work under extremely precarious conditions.

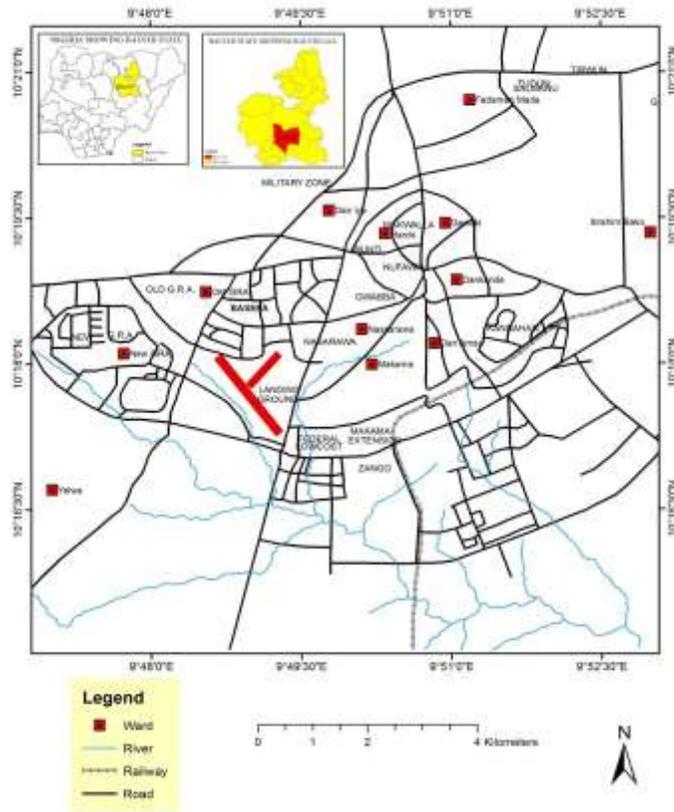
#### *2.1.6 External Support Agencies:*

Numerous bilateral and multilateral external support agencies (ESAs) are engaged in supporting MSWM in low-income countries. While some ESAs have acquired considerable expertise in the area of waste management, MSWM is often a component within a broader development programme aimed at improving urban management capacities and/or urban environmental protection (Schuebeler, 1996).

### **3.0 RESEARCH METHODOLOGY**

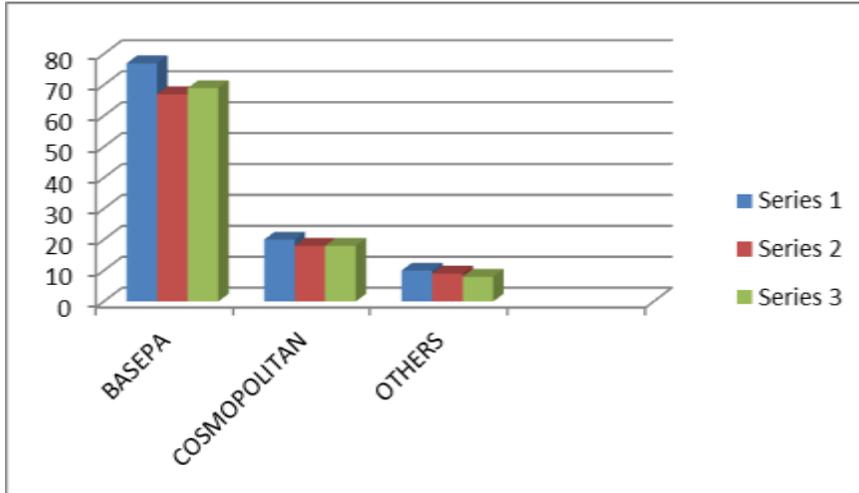
Quantitative method of research was adopted. Being the most proficient and accurate methods and acceptable globally. This was derived from primary and secondary sources. The primary data was generated using two sets of questionnaires which provided information on the status of BASEPA policy

implementation in the State. The sampling technique adopted was stratified random sampling. The secondary data was sourced from BASEPA, National Population Commission and NESREA, Bauchi state ministry of lands and survey, and the Bauchi State Urban Development Board. Literature materials on the other hand were sourced from books, journals, published and unpublished texts, documents, magazines conference articles, and the internet.



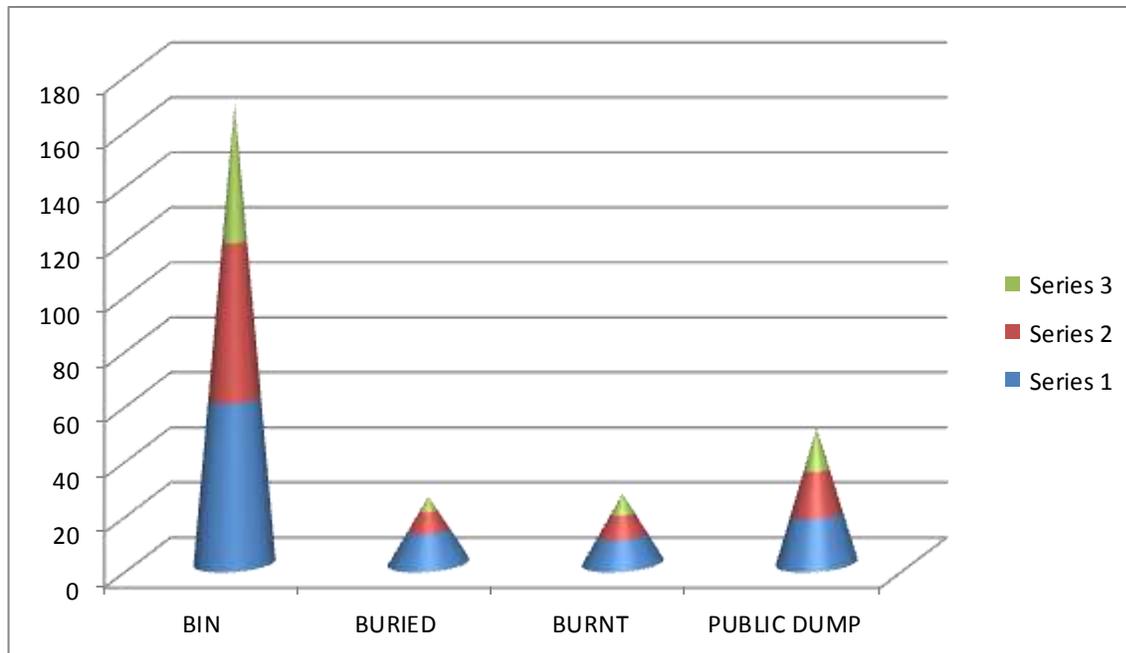
**Figure 3.1: Bauchi Metropolis Showing the Wards**  
 Source: Modified from Bauchi Street Guide Map (2003)

#### 4.0 DISCUSSION OF RESULTS



**Figure 4.1 Names of the government institution responsible for urban solid waste management**

Figure 4.1 indicates that 75% of the respondents answered the question correctly by stating BASEPA, 18% wrote Cosmopolitan Cleaners which is the popular private waste handling company in the study area 7% indicate others institutions responsible urban solid waste management. Overall, the result indicates that the majority of the respondents know there is an agency responsible for municipal solid waste management in the study area.



**Figure 4.2 Method of solid waste disposal in Bauchi metropolis**

Source: Field survey, 2017

The result indicates that most of the respondents dispose solid wastes in waste bins which are situated within the houses. This is the manner in which the law states that waste should be disposed. Sections 27 and 28 of the BASEPA edict states clearly that every owner or occupier of a tenement shall provide a dustbin outside the tenement to be used for disposing waste and no person shall burn or cause to be burnt or any tenement waste of any description.

According to Babanyara and Bogoro (2011), the need for individual on-site solid waste storage facilities in every household is important because, the waste dispose in open dumps and road side and open spaces in general are usually the ones that overflow and litter the place constituting nuisance to the public and jeopardising evacuation efforts. For instance, there were many reported cases of fire outbreaks caused by refuse burning within or near residential buildings. Also, according to Nshimirimana (2004), when household waste disposal practices are known, it would be easier to introduce measures to reduce the amount of waste generated by the affected community

## **5.0 CONCLUSION**

The findings of this study reveals that BASEPA is the sole government agency responsible for all matters relating to environmental protection, sanitation and environmental research in Bauchi metropolis and its mandate is enshrined in the edict No.3 of 1997. It can therefore be concluded that BASEPA's functions are multiple and divergent, also, the edict guiding municipal solid waste management in Bauchi metropolis is obsolete/outdated.

Finally, the findings revealed that majority of respondents cite inadequate funds as the major constraints to MSWM and a conclusion is made that inadequate funds is the ultimate hindrance to effective municipal solid waste management in Bauchi metropolis.

## **5.1 RECOMMENDATIONS**

Based on the findings of this research, the following are recommended;

- ❖ The edict guiding the conduct of BASEPA needs to be reviewed in order to strengthen its role especially with regards to urban solid waste management.
- ❖ Other management techniques like sorting, re use, recycling needs to be introduced by BASEPA if effective municipal solid waste management is to be achieved. This can be achieved in the short run by partnering with the Bauchi state waste recycling company in the area of recycling.
- ❖ Modern landfills should be constructed by the government so as to accommodate the increasing quantity of waste generated and checked the negative consequence of open dumping.
- ❖ Awareness campaigns should be undertaken regularly in order to sensitise the public on the need to properly manage their waste and the consequences of not doing so. This can be achieved through media jingles, seminars and workshops.

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