

# Assessment of Solid Waste Management in IFE North Local Government Area, Osun State, Nigeria

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**Abstract-** This paper assessed the existing solid waste management in Ife North Local Government Area in Osun state, Nigeria. The study adopted Stratified random sampling as the research purposively divided the study population into three residential areas namely: Ipetumodu, Moro and Edunabon. A total of one hundred and twenty (120) respondents were sampled with the aid of a well-structured questionnaire. Descriptive statistics was majorly used to analyse data provided for the study. The descriptive statistics shows that house refuse/organic thrash has the largest source with 70.0% while hospital waste (90.2%) is least generated sources in this study area. 60.0% of the respondents agreed that agency was involved in the collection/disposal of solid wastes while 29.3% supported sanitary land fills disposal system. Majority (88.9%) of the respondents claimed that involvement of solid waste management result in considerable reduction in solid waste and 40.0% of the agency worker supported that landfills are unable to control leachate, 58.0% of the citizens in the study area are educated on waste disposal. The study concludes that assessment of solid waste management in the study area revealed house refuse, street garbage, farm waste and human waste are the most common waste in study area and that landfills are unable to control leachate. The study therefore recommends the need for monitoring and evaluation of the waste management process which would help to identify problematic areas thereby proffering necessary solutions.

**Index Terms-** Solid waste management, Assessment, Monitoring, Leachate, organic, disposal

## I. INTRODUCTION

Solid Waste Management has remained an intractable environmental problem in Nigeria. This problem has manifested in form of piles of indiscriminately disposed heaps of uncovered waste and illegal dumpsites along major roads and at street corners in cities and urban areas. It has compounded by the rapid urbanization and population growth which led to the generation of enormous quantities of solid waste which are often discarded by open dumping. Rushbroke (1999) describes open dumping of municipal solid waste as a primitive stage of waste disposal, practiced by three fourths of countries and territories round the world. Open dumps are the major causes of environmental degradation and public health concerns in many developing countries including Nigeria. These waste dumps may

contain a mixture of general waste and toxic, infectious or radioactive wastes and are susceptible to burning and exposure to scavengers. According to Babanawo (2006), waste generation is greatly influenced by geographic and physical factors. These factors include: geographic location, season of the year, the use of kitchen waste food grinders, waste collection frequency and the characteristics of the service area.

There are a number of major risks and impacts of the dumpsites on the environment. For instance, air pollution from open burning, due to emission of greenhouse gases such as methane and carbon dioxide; the air emissions and leachates generated as a result of decomposition of waste may contaminate air, surface and groundwater sources; fire hazards and explosions cause public health risks as well. The emission of greenhouse gases, rats and fly infestation and nuisance effects are among health and environmental impacts of poor solid waste management. Scattering of wastes by wind and scavenging by birds, animals and waste pickers creates aesthetic nuisance. Malodorous emanating due to the degradation of waste in the dumpsites has nuisance effect and decreases economic and social values in the locality. In many dumpsites, the waste is directly increasing global concern over public health impacts attributed to environmental pollution, in particular, the environmental quality and human health risks associated with the waste dumps.

The World Health Organization estimated that about a quarter of diseases facing mankind today occur to prolonged exposure to environmental pollution. Unfortunately, there seems to be no clear cut guidelines at the national or state levels on how to deal with these dumpsites in a sustainable manner, particularly in the developing countries where ironically the burden of environmental pollution seems to be highest. Land filling has been the most common method of solid waste disposal generated by different communities for many years (Komils *et al.*, 1999). Three types of landfills are an integral part of most solid waste systems. These are the open dump, the semi-controlled landfill, and the sanitary landfill. The majority of urban centers in the developing world (including Africa) use open dumping as their principal disposal method (Rushbrook, 1999). This presents a host of problems as the open dumps expose people, animals and the environment to serious risks. Most local authorities seem not to pay adequate attention to the dumps, because they do not know better systems and what happens there is out of their sights. It is important to operate them efficiently as possible so as to mitigate any health and environmental disasters that may result from the neglect of waste dumps.

Provision of adequate sanitation and water facilities in urban areas is an important means of ensuring health and well-being of the people living in cities, as well as protection of the environment. Solid waste management has remained an intractable environmental sanitation problem in Nigeria. This problem has manifested in form of piles of indiscriminately disposed heaps of uncovered waste and illegal dumpsites along major roads and at street corners in cities and urban areas. This problem is compounded by the rapid urbanization and population growth without commensurate waste management facility which has led to generation of enormous quantities of solid waste which are often discarded by open dumping. In Nigeria, Waste disposal remains a contentious issue, and with no end in sight, refuse is dumped on roadways, pedestrian work ways or even dropped in drainages or streams and rivers. The situation is more alarming during the rainy season as water no longer flows freely along the gutters; it remains stagnant, creating the conditions for mosquito to breed and also the spread of vector borne diseases like malaria. The rapid rate of urbanization witnessed in most Nigeria cities contributed to high increase in waste generation which has outgrown the capacity to evacuate them. Onibokun and Kumuyi (1999) confirm that whenever urbanization gets out of control, it poses a big challenge to urban management and government, with waste management inclusive. The problem of urban waste management in Nigeria persists due to many factors which include the rapid rate of uncontrolled and unplanned urbanization of majority of our states. According to Onibokun and Kumuyi (1999) the government, at all levels have created various agencies to look into the problems associated with waste management practices but most of these agencies have been less functional. The local government, saddled with the responsibility of managing sewage and solid waste disposal (FGN, 1979) are often ill-equipped to perform due to inadequacy of funds. Private participation in waste management as also suffered a setback due to lack of manpower, funds and technical support.

Oyeniya (2011) assess Waste Management in Contemporary Nigeria: The Abuja Example. The research revealed that Nigeria's federal capital, rapid urbanization, rural-urban migration, little or no town planning efforts coupled with attitudinal irresponsibility, lack of political will, ineptitude and graft have independently and collectively created environmental challenge. As the study also found, that solid waste management has overwhelmed Nigerian government. He also notes that the spirited efforts to combat the problem, which began, from Abuja in 1999 under President Olusegun Obasanjo regime has since been relaxed under President Sheu Musa Yar'Adua, the then President of Nigeria. Similarly, Ezeah (2010) explores the Analysis of Barriers and success Factors Affecting the Adoption of Sustainable Management of Municipal Solid Waste (MSW) in Abuja, Nigeria. The data analysis of his research reveals that the main barriers to sustainable MSW management in the city include low public awareness/education on MSW management, obsolete and insufficient equipment and funding limitation. On the other hand, the most important success factor affecting sustainable MSW management in Abuja was found to be burgeoning city population which has a huge potential for uptake of recycled products. The research concludes that the factor affecting MSW management in Abuja is typical of many tropical urban environments. Fundamental shifts in current

practices towards waste prevention; driven by a structured public education programme in MSW management is recommended, so as to bring about a more sustainable management regime. In addition, Ayoola *et al* (2012) wrote on Assessment of Housing Sanitation and Waste Management Practices in the Residential Core Areas of Oshogbo, Osun State Nigeria. The paper examines sanitation and waste management practices in the residential areas of Osogbo city, with a view of improving housing supply and sanitation to meet the millennium development goals (MDGs) on water and sanitation. It investigates the core areas of Osogbo which consists of Oja-Oba, Ita Olookan and part of Ayetoro. They noted that good environmental condition and livability of these settlements are affected partly by inadequate of infrastructural facilities which is a major factor that determines the level of sanitation and that the government should ensure that existing laws and regulations guiding environmental sanitation and health be reviewed and also enforced with stiffer actions in order to make it more effective. More so, they recommended that in order to avoid or minimize waste dumps, some strategies such as more frequent collection of waste could be implemented, while continuous educational campaigns informing the disadvantages of a dirty area is also an important way of motivating people to keep the community clean and this may reduce the dumping problem.

In Osun state, where Ife is situated several attempts have been made to improve on proper solid waste management and sanitation in the State. These efforts consist of the mandatory sanitation which takes the last Saturdays of every month. Acquisition of the waste disposing vehicles by the government which will be going through the state to collect household waste, construction of boreholes by government, organizations and individuals, channelization of major rivers among others. Despite these efforts, the problem of waste management still exists. This poor waste management and sanitation has a lot of implications for sustainable urban development. However to be able to achieve the MDGs target that intends to halve the population of people without safe and basic sanitation in Africa, there is need for a better and richer understanding of existing waste management and sanitation services situation, especially in relative to rapid rate of urbanization witnessed in Sub-Sahara African countries.

The city of Ife is one of the cities which need to improve its waste management and sanitation infrastructure, since the existing ones are not environmentally friendly and does not provide its citizen with adequate services. Appropriate waste management plays an important role towards promoting a sustainable urban development within human settlements, with that in mind, and knowing that in most developing countries, the highest urban population growth rates occur in the low-income areas, Ife will require heavy investments in the installation of wastewater management systems both social and technical, to meet the MDGs, target for water and sanitation. Consequently, this paper seeks to assess the existing waste management and sanitation in Ife North Local Government Area (LGA), Osun State, Nigeria with the view to realizing MGDs safe water and sanitation target in 2015. The specific objectives however are to:

1. identify sources of solid waste in Ife North LGA;
2. examine the activities of solid waste management agencies in the LGA;

3. assess the effect of solid waste disposal in Ife North LGA;
4. determine the performance of Ife North LGA in solid waste management

## II. MATERIALS AND METHODS

**Study area:** Osun state is one of the six states that make up the South West geopolitical zone of Nigeria. It has interstate boundaries with Ondo State to the southeast, Kwara State to the north, Ekiti State to the northeast, Oyo State to the west, and Ogun State to the southwest. Its capital is Oshogbo. Ife North is a Local Government Area in Osun State, Nigeria. Its headquarters are in the town of Ipetumodu in the north. It has an area of 889km<sup>2</sup> and a population of 153,694. The following towns make up this LGA- Edunabon (1&2) Moro, Yakoyo, Ipetu (1&2) and Ashipa/Akinlalu.

**Sampling procedure and sample size:** The study population for this research was the waste generators (the residents, business and shop owners within Ife North LGA) and employees of relevant waste management agencies in the Local Government. The Ife north central LGA was divided into three areas (Ipetumodu, Moro and part of Edunabon) of residential development based on the pattern of city growth. In selecting the respondents, every third house was picked along each street or lane in the core. Two household heads were sampled in every house selected. This meant that twenty (20) houses were selected and forty (40) household heads were sampled in each residential area. Consequently, a total of one hundred and twenty (120) respondents were sampled. Besides, thirty (30) wastes management staff was also sampled. Also, Six (6) selected officers of relevant waste management agencies were interviewed. In sum, the sample size – this includes the respondents of the questionnaire, who are the residents of selected areas and the staff in the Department Environmental Sanitation and Waste management unit and the interviewees.

Stratified random sampling was adopted in this study as the research purposively divided the study population into three residential areas namely: Ipetumodu, Moro and Edunabon. Data were gathered from each of these stratified areas. The study areas were selected because they are central to the heart of Ife North LGA and have experienced expansion due to steady population increase in this semi-urban LGA. The questionnaires were administered to the residents who are the waste generators while the randomly selected workers of the waste management agencies were the interviewees, however, personal observation was carried out in the survey areas.

**Analytical procedure:** Descriptive statistics was majorly employed in analysing the data collected using frequencies and cross tabulation of variables. Tabular presentation, summation and percentages are the data presentation tools this adopted for analysis in this study. Percentages express the ratio of sets of data to a common base of 100.

## III. RESULTS AND DISCUSSION

### Sources of Solid Waste in Ife North Local Government Area (LGA)

The sources of solid waste in Ife North LGA were presented in Table 1. It was observed that house refuse/organic thrash in large source was (70.0%) and small source was (18.0%) respectively, it shows that house refuse exists as a source of waste product in the LGA. Majority of the respondent responded that the house refuse is one of the solid waste product generated in the LGA and it is being managed by the agency. Considering the response on industrial wastes, large source was (28.2%) and small source was (59.0%) respectively. Therefore, it is apparent that industrial waste is of a small source in Ife North LGA. It was also recorded that respondents agrees that poultry dumps is generated in smaller quantity compared to house refuse/organic thrash. It can also be observed from Table 1 that Hospital waste (90.2%), Electronic Waste (75.7), Industrial waste (59%), Constructive waste (60.5%) and Poultry dump (56.8%) are generated by the respondent (waste generator) in smaller quantity compared to the other sources of solid waste management which are generated in larger quantity such as: House refuse (70%), Street garbage dumps (58.4%), Farm waste (54.2%) and Human waste (46.5%). The reason why house refuse, street garbage dumps, farm waste and human waste are in larger quantity compared to the other sources of solid waste is that Ife North LGA is a rural area and there is no availability of big companies and establishments and there are also more residential areas, small scale industries and sole-proprietorship outlets. Besides the citizens are also involved in agriculture either as subsistent or commercial farming and hence it is expected that farm waste/poultry dumps will be generated. Also lack of basic infrastructures such as toilet facilities and incinerators also contributes to the large source of human waste littering on the streets in Ife North LGA.

**Table 1**  
**Solid Waste Management in Ife North Local Government Area LGA**

Solid waste management in Ife North LGA was presented in Table 2. It was observed from the study that out of the whole respondents (100%), substantial number identifies that there is a waste collection point in their neighbourhood where agency collects and transfers their solid waste. This is deducible if we consider the total percentage (60.0%) of respondent that agreed to a very large extent and their response showed that agency was involved in the collection/disposal of solid wastes in LGA. Furthermore, on private enterprises involvement in waste collection and transportation, only 16.7% agrees that that private enterprises are involved in the disposal of solid waste in the community. On the contrary 75.0% disagrees on the fact that private enterprises involves in the collection and transportation of solid waste which is far below the average percentage. From this, it can be said that the private sector participation in solid waste collection, transportation and disposal may not have been adequately encouraged in the community which may partly hinge on the fact that either private sectors are granted with limited right to involve in waste management or there is inability on the part of the various communities in Ife North LGA to pay private waste collecting companies/agencies. Also, 30.6% of the waste generators identified that the local government has maintained a good solid waste collection and disposal system which should aid the activities of the unit-Water and Environmental Sanitation unit

(WES). While 61.2% on the other hand claim that the local government has not maintained a good solid waste collection and disposal system. It is then obvious that majority of the respondents (the waste management staff and the waste generators) do not support the fact that local government runs a pleasant system of waste collection. Similarly, the majority of the respondents supported that there are open dump waste collection/disposal system (63.6%), landfills waste collection/disposal system (29.8%) and sanitary landfills disposal system (29.3%). It can be concluded that the local government area manages an open dump waste collection system compared to all other management systems. Lastly, it was observed that (84.6%) of the respondents agreed that incinerator usage is the least common waste management while on the other hand (5.1%) supported the most common usage of incinerator as a waste management system in Ife North LGA. The reason behind this is that the local government did not provide enough incinerators for the local government and the few ones provided are not well managed by the community members. However, the respondents also identified other means of solid waste management in Ife North LGA. Other means identified and practised by the respondents are open burning, control tipping and efforts of the sanitary inspection officers among others.

**Table 2**  
**Effect of Solid Waste Disposal in Ife North Local Government Area (LGA)**

The effect of solid waste disposal in Ife North LGA is presented in Table 3. The Table contains questions that are intended to assess both the negative and the positive effects and outcomes of solid waste disposal in Ife North LGA. The majority (88.9%) of the respondents claimed that involvement of solid waste management results in considerable reduction in solid waste while 11.1% disagree to similar claim. It was also observed that 80% of respondents agreed, 11% disagreed and 8.9% were undecided on the fact whether waste management creates job opportunities for unemployed youths in the community. It shows that management of solid waste in Ife North LGA creates employment for youths in form of 'Meshara' (a local name for cart pusher) and also labour is being employed in the Water and Environmental Sanitation (WES) unit in Ife North LGA. Also, the respondent pointed out to the fact that management of solid waste has health implications for residents in terms of odorous smells/diseases/health problems in the neighbourhood posed from nearby waste dumpsites or as a result of inappropriate waste management, therefore 75.0% of the respondent agreed, 20.0% disagreed and 4.5% were undecided. The percentage that claimed that waste disposal has health implications for the resident was more. We can conclude that solid waste disposal in some cases if not properly managed affects the healthy living of the people. Another larger percentage of the solid waste agency workers also responded that the activities involved in collection and transfer of solid waste seem to have implications for the waste collectors. 62.2% agreed, 17.8% disagreed and 20.0% were undecided. Hence, the local government or its agencies are expected to provide adequate medical and preventive gadgets for the workers to encourage their efforts. Larger percentage also noted that inadequate waste disposal infrastructures in the LGA (57.9%) and poor environmental regulations (52.8%) are part of the

effects of solid waste disposal in Ife North LGA. It can be said then that inadequate waste disposal infrastructures in the LGA and poor environmental regulations can inhibit effective performance of the solid waste management activities and increase solid waste rather than its reduction. Finally, on the effect of solid waste in Ife North LGA, preponderance (40.0%) of the agency workers supported that landfills are unable to control leachate. Leachate is the liquid that has percolated through solid waste and has extracted, dissolved or suspended materials. In most landfills, leachate is composed of the liquid that has entered from external sources such as surface drainage, rainfall, groundwater, water from underground springs and the liquid produced from the decomposition of the waste. Its lack of control is detrimental because uncontrolled release of leachate may migrate down to underlying groundwater or to surface water. Health and environmental concerns associated with landfills are supposed to be managed through control of leachate but leachate is not controlled and managed in Ife North LGA. There are perhaps no measures to prevent leachate from percolating into the underground water take for instance lining the landfill at the construction stage.

**Table 3**  
**Performance of Ife North LGA in Solid Waste Management**

The residents who received the impact of the services rendered by the agency of solid waste management are in the best position to evaluate the success or failure of these services. The performance of Ife North LGA in solid waste management is presented in Table 4. This table comprises responses to some hypothetical questions intended to assess the performance of Ife North LGA in solid waste management. It can be observed that the only aspect that Ife North LGA has good performance is the education of the citizens on waste disposal (58.0%). In other areas of evaluation it was observed that the respondents noted that the local government organises expansion recycling programs (30.8%), prompt disposal of waste from dump sites (26.0%) and the provision of clothes and gloves for workers (29.5%). All others have been scored low by these citizens and this revealed bad performance by the waste management agency; no provision of waste bins (79.2%) agreed to that, no modern waste disposal method adopted (87.2%) agreed with this, the old maintenance systems have been neglected and no further efforts have been made to alleviate the situation (60%) agreed. In conclusion, it can be deduced that the performance of Ife North LGA in solid waste management is poor and inefficient.

**Table 4**  
**Summary**

This study was carried out to assess management of solid waste in Ife North LGA in Osun State, Nigeria. The study identified the sources of solid waste management in the study area. It was observed that household refuse/organic trash has the largest source with 70.0%. Also, street garbage dumps (58.4%), farm waste (54.2%) and human waste (46.5%) are other sources of solid waste in the LGA generated in large quantity. Hospital waste (90.2%), Electronic Waste (75.7%), industrial waste (59%), constructive waste (60.5%) and poultry dump (56.8%) are generated by the respondents in smaller quantity compared to the other sources of solid waste management which are generated in

larger quantity. Also, considering different solid waste management systems in the study area, 60.0% of respondent agreed that agency was involved in the collection/disposal of solid wastes, 16.7% agreed that that private enterprises are involved in the disposal of solid waste in the community, 30.6% of the respondents also maintained that the LGA has a good solid waste collection and disposal system. Similarly, the majority of the respondents supported that there are open dump waste collection/disposal system (63.6%), landfills waste collection/disposal system (29.8%) and sanitary land fills disposal system (29.3%). Considering the effect of solid waste disposal on the respondents in the study area it was observed that majority (88.9%) of the respondents claimed that involvement of solid waste management result in considerable reduction in solid waste, 80% of respondent agreed that waste management creates job opportunities for unemployed youths in the community, 75.0% of the respondent also claimed that waste disposal has health implication for the resident, 62.2% of the solid waste agency workers also responded that the activities involved in collection and transfer of solid waste seems to have implication for the waste collectors. Larger percentage also noted that inadequate waste disposal infrastructures in the LGA (57.9%), poor environmental regulations (52.8%) are part of the effects of solid waste disposal in the study area. Finally, (40.0%) of the agency worker supported that landfills are unable to control leachate. In terms of the performance of Ife North LGA in waste management it can be observed that the only aspect that the study area has good performance is the education of the citizens on waste disposal (58.0%).

#### IV. CONCLUSION

It can thus be concluded from the study that assessment of waste management in Ife North LGA revealed that house refuse, street garbage, farm waste and human waste are the most common waste in the study area. Alarming hospital waste generation in the area calls for a proactive attention and good management practice because of the nature of such waste –they are toxic and could be carcinogenic, mutagenic and neurotoxic. Leachates from such into water bodies should be mitigated to safe the public. Moreover it was also discovered that decomposed wastes are not effectively managed. Open dump waste disposal system and neighbourhood level collection point are the most effective and efficient method of solid waste management. The local government solid waste agency does not collect and transport waste promptly from dumping sites in their neighbourhood. This was due to inadequate modern means of waste collection. It was observed that the disposal of solid waste in the LGA is poor in spite the efforts of the solid waste agency. Also, the activities of solid waste management to a large extend results to a considerable reduction in waste disposal. Although there are very few waste disposal infrastructures in the LGA, they are not adequate. This prevents effective performance of the solid waste management activities. Leachate is not controlled and managed properly in the LGA. There are perhaps little or no measures to prevent leachate from percolating into the underground water. Landfills and waste disposal sites are not actually well managed in the LGA. Ife North Local Government waste management hardly has or provides recycling programmes.

#### In the light of the forgoing conclusions, the study therefore has the following recommendations

1. The need to assess underground and surface water quality around the so called landfills where human lives or that are nearer to residential areas is a necessity since the community mainly rely on landfills, this will go a long way to help both the individual and government regulate well digging and to what use water can be put in the area
2. There is need for the monitoring and evaluation of the waste management process, this would identify problematic areas and help in finding solutions
3. Government effort should be intensified in areas of awareness campaigns, provision of equipment and personnel in removing solid wastes as well as ensuring compliances with existing environmental laws.
4. Public awareness and attitudes to wastes can affect the population's willingness to participate and cooperate in adequate waste management practices. The population needs to be reminded time and again of the importance of environmental awareness and the health risks associated with poor waste management practices. Residents and dumpsite users should realize the importance of waste management services.
5. The local government needs to realize that open dumping remains the most viable option in solid waste disposal, due to its affordability. However, in its current forms of operation it is not sustainable and dumping should be regulated. There is an urgent need to improve the open dumping system. It may be necessary to upgrade it to semi controlled landfills to reduce infiltration of leachate to ground water. The waste should be covered with soil on a regular basis to prevent diseases, vectors, such as flies from getting to the waste. This would reduce the amount of odor that is released from dumpsites.
6. Resources recovery and recycling activities should be encouraged and supported by local authorities and companies who ultimately use the recovered materials. This will provide employment for the collectors/scavengers.
7. Environmental laws and regulations in Ife LGA should be enforced. Government should reinforce waste collection and disposal systems in every state while strengthening and enforcing the appropriate laws to prevent serious environmental disaster in Nigeria, priority should be given to waste management.

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Tables

Table 1: Sources of solid waste in Ife North LGA

Sources of solid waste	Largest Source (%)	Smallest Source (%)	Not Really (%)	Total (%)
House refuse/Organic thrash	70.0	18.0	12.0	100.0
Industrial waste	28.2	59.0	12.8	100.0
Poultry dump/litter	31.9	56.8	11.4	100.0
Electronic Waste	10.8	75.7	13.5	100.0
Hospital/medical/garbage	4.8	90.2	5.0	100.0
Construction Waste	23.7	60.5	15.8	100.0
Human Waste	46.5	46.5	7.0	100.0
Organic/Farm Waste (vegetable materials)	54.2	35.4	10.4	100.0
Street Garbage Dumps	58.4	25.0	16.6	100.0

Source: Field Survey, 2014

Table 2: Solid Waste Management in Ife North LGA

Management of Solid Waste	Most Common Waste Management (%)	Least Common Waste Management (%)	Not Sure (%)	Total (%)
Neighbourhood Level Collection Point	60	30	10	100.0
Private Enterprise waste transportation and disposal	16.7	75.0	8.3	100.0

Local government Waste collection and Disposal	30.6	61.2	8.2	100.0
Landfills waste collection/disposal system	29.8	40.5	29.7	100.0
Open dump waste collection and disposal system	63.6	31.8	4.6	100.0
Sanitary land fills waste disposal system (waste allowed to decomposed)	29.3	58.5	12.2	100.0
There is incinerator in the local government used in waste management	5.1	84.6	10.3	100.0

Source: Field Survey, 2014.

**Table 3: Effect of Solid Waste Disposal in Ife North LGA**

Effect of Solid Waste Management	Total Agree	Total Disagree	Undecided	Total (%)
Health implication for residents	75.5	20.0	4.5	100.0
Employment generation for the unemployed youth	80	11.1	8.9	100.0
Air pollution for residents	65.7	21.1	13.2	100.0
health implication for waste collectors	62.2	17.8	20.0	100.0
It result in solid waste reduction	88.9	11.1	0.0	100.0
poor safe disposal infrastructure in the LGA	46.1	30.8	23.1	100.0
Inadequate waste disposal infrastructure in the LGA	57.9	26.3	15.8	100.0
Poor environmental regulations	52.8	30.6	16.6	100.0
Inability of landfills to control leachate	40.0	37.1	22.9	100.0

Source: Field Survey, 2014

**Table 4: Performance of Ife North in Solid Waste Management.**

	<b>Good Performance (%)</b>	<b>Bad Performance (%)</b>	<b>Indifferent (%)</b>	<b>Total (%)</b>
Rapid collection of waste from dump sites	26.0	60.0	14.0	100.0
Efficient and effective in solid waste disposal	14.0	60.0	26.0	100.0
Adequate management of disposal and landfill sites	18.4	73.5	8.2	100.0
Provision of waste collection bins	14.6	79.2	6.3	100.0
Provision of clothes and gloves for workers	29.5	63.6	6.8	100.0
Education of citizens of the LGA on waste disposal	58.0	34.0	8.0	100.0
Expansion of recycling programmes	30.8	56.4	12.8	100.0
Provides organized refuse collection	14.9	66.0	19.1	100.0
Modern means of waste collection	4.2	87.2	8.5	100.0

**Source: Field Survey, 2014.**