

**AWARENESS AND COMPLIANCE WITH ASWAMA'S RADIO CAMPAIGN AGAINST  
INDISCRIMINATE DISPOSAL OF SOLID WASTE AND NON-PAYMENT OF SANITATION  
LEVY AMONG AWKA AND ONITSHA RESIDENTS**

**ORITSETEMISAN OJABO**

**Student, Department of Mass Communication,  
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria**

**&**

**PROFESSOR IFEOMA DUNU**

**Lecturer, Department of Mass Communication  
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria**

**ABSTRACT**

*The indiscriminate disposal of solid waste, is one of the major waste problems in today's Anambra State. To eradicate this problem, Anambra State Waste Management Authority (ASWAMA) embarked on a radio campaign to sensitize Anambra residents, including Awka and Onitsha residents, on the need for proper solid waste disposal. This study, therefore, sought to ascertain the level of awareness of ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy among Awka and Onitsha residents, their level of compliance with the campaign and the major challenges they face while trying to comply with the campaign. In doing this, the researcher adopted the descriptive survey design. Using the 2024 projected population of Awka and Onitsha residents which is 890, 370 and the Taro Yamane formula, the researcher determined the samples (400) before conveniently selecting them for the study. The researcher administered 400 copies of a close-ended questionnaire to the selected 400 respondents and retrieved only 396 copies that were used for this study. In analyzing the data collected from the survey exercise, the researcher used frequency tables and simple percentages. From the study, the researcher found, among others, that the respondents do not comply with the selected campaign while their level of compliance with the campaign is low. Based on the findings that were made from this study, the researcher recommended, among others, that Awka and Onitsha residents should always comply with ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy for a clean and livable Anambra State to be seamlessly achieved.*

**INTRODUCTION**

Waste is an inevitable by-product of human activities and takes the form of solid, liquid and gas (Ikpe, Ndon & Etim, 2020). Waste, over the past years, has been defined and considered as matter that has no monetary or economic value and discarded or thrown away if it fails to meet its primary function (Aniekan & Ikechukwu, 2016). Recent advances in technology and a better understanding of materials have been applied in the reduce, reuse, and recycling process that adds both monetary and economic value to waste matter while simultaneously mitigating the adverse effects of unchecked waste in the environment (Igbinomwanhia, 2012; Ikpe, Owunna & Agho, 2019).

Nigeria, an African country, over the past two decades, has seen a rise in economic and social activities as a result of the continuously increasing population; this has led to the increase in the quantity of waste generated (Ikpe *et al.*, 2020). According to Ikpe, Imonitie & Ndon (2019), the solid waste generation is one of the most significant environmental challenges bedeviling Nigerian cities in recent times. The amount and type of waste generated, are directly proportional to the location and season (Nwaokobia, Ogboru & Okolie, 2013). Nigeria generates all types of waste while a large portion of the waste generated is indiscriminately disposed in the environment, even by waste collectors (Ikpe *et al.*, 2020).

Since Nigeria's poor waste management system has seen it expose her citizens to public health risks and environmental dilapidation, according to Ikpe *et al.*, (2020), it means that the implication of improper waste management can result in adverse risk conditions such as ground water contamination, air pollution, increase in insect vectors and diseases transmitted by them, poor environmental aesthetics, attraction of vermin and pests, breeding grounds for disease spreading vectors such as "mastomys natalensis" (responsible for Lassa fever), emission of Green House Gases (GHGs) such as methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) (Ikpe, Ebunilo & Okovido, 2018). For example, decomposition of organic waste matter in open dumpsite, releases poisonous gases such as hydrogen sulphide, ammonia, and offensive odour into the atmosphere; toxic leachate is also formed from the decomposition of open dumpsite waste (organic and inorganic) that mixes with water, polluting groundwater and surface water (Ikpe, Ndon & Adoh, 2019). The exposure of humans to waters contaminated by open waste dumping can lead to diseases like diarrhoea, cholera, skin diseases, malaria, tuberculosis, and cancer from the pathogens in the contaminant (Onwurah, Ougua & Otitoju, 2006 cited in Ikpe *et al.*, 2020; Samuel, Davou, Juliet & Ruth, 2016).

Awka, which is the capital of Anambra state, is being ravaged by waste management problem. Wastes are often indiscriminately dumped on open plots of land, gutters, and particularly along the streets in Awka (Onuoha, Ukah & Iheukwumere, 2023). In fact, waste management in Awka, according to them, has gained notoriety due to its visibility and general degradation of the environment. A good example is the situation along Eke Awka round about and Zik's Avenue road which leads to where wastes are scattered in gutters, streets corners and roadsides (Onuoha *et al.*, 2023).

In Onitsha, Obianeri (2022) observed that major drainage channels, have been blocked as a result of indiscriminate dumping of refuse by residents and traders in the areas. He stated that the refuse dumps in some cases, have encroached on the streets, blocking drainage, and defacing the aesthetic of the neighbourhoods.

The above cases of indiscriminate disposal of solid waste, can make things difficult for the Anambra State Waste Management Authority (ASWAMA) that only collects solid waste at designated places in Nigeria's Anambra State and also discourage residents of the State from actively and fully paying sanitation levies that are used to fund ASWAMA. To see that nothing hinders the proper management of solid wastes in Anambra State, the State's Waste Management Authority (ASWAMA) embarked on a radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. Since media campaigns such as that of ASWAMA are commonly used as interventions for creating awareness and dispatching information about various topical issues like indiscriminate disposal of solid waste that affect the society, this study, therefore, seeks to ascertain Awka and Onitsha residents' awareness of and compliance with ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy.

To achieve the purpose of conducting this study, the researcher aimed to:

1. Ascertain the level of awareness of ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy among Awka and Onitsha residents.
2. Ascertain Awka and Onitsha residents' level of compliance with ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy.
3. Find out the major challenges faced by Onitsha and Awka residents while trying to comply with ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy.

## LITERATURE REVIEW

### Conceptual Review

#### Concept of Solid waste

Solid waste refers to substances or objects (garbage) arising from human or animal activities that are discarded, worthless, unwanted, defective, or of no value from a consumption or manufacturing process or that are required to be disposed of according to the provisions of a national law (Ayuba, 2005 cited in

Rawlings & Idehen, 2024). Generally, solid waste is generated from residential, commercial, institutional, and industrial activities (Nathanson, 2023) and may be handled in a variety of ways. Solid waste can be classified in a number of ways on the basis of sources, environmental risks, utility, and physical property (Rawlings & Idehen, 2024). On the basis of source, according to them, solid wastes are classified as: municipal solid wastes, industrial solid wastes, and agricultural solid wastes.

Around the world, waste generation rates are rising. In 2020, the world was estimated to generate 2.24 billion metric tons of solid waste, amounting to a footprint of 0.79 kilograms per person per day (World Bank, 2022). With rapid population growth and urbanization, annual waste generation is expected to increase by 73% from 2020 levels to 3.88 billion metric tons in 2050 (World Bank, 2022). Compared to those in developed countries, residents in developing countries like Nigeria, especially the urban poor are more severely impacted by unsustainably managed waste (Rawlings & Idehen, 2024). In low-income countries (Nigeria), over 90% of waste is often disposed of in unregulated dumps or openly burned. These practices create serious health, safety, and environmental consequences.

Unscientific disposal of solid waste causes an adverse impact on all components of the environment and human health (Jha, Sondhi & Pansare, 2003 cited in Rawlings & Idehen 2024; Sharholy, Ahmad, Mahmood & Trivedi, 2008 cited in Rawlings & Idehen, 2024; Sharme, Gupta & Ganguly, 2018). Dumping huge amounts of garbage drives biodegradable materials to decay and decompose under abnormal, uncontrolled, and unhygienic conditions. After a few days of decomposition, it becomes a breeding ground for different types of disease-causing insects as well as infectious organisms (Rawlings & Idehen, 2024). According to them, a foul smell is produced (an unpleasant odor), and it also damages the aesthetic value of the area. These conditions are worse when there is extreme temperature, which speeds up the rate of bacteria action on biodegradable materials. Commonly coupled with open dumping, is the waste open-burning practice, which leads to greenhouse gas emissions and negatively affects public health (Dos-Muchangos & Tokai, 2020). For instance, the emission of nitrous oxide (N<sub>2</sub>O) from the burning of solid waste, contributes directly to greenhouse gas emissions. This greenhouse gas has a high global warming potential. Also, the dioxins and poisonous gases produced from the burning of solid waste can cause various diseases, such as chronic disease, skin infections, cancer, etc (Rawlings & Idehen, 2024).

Contaminated animals are one of the major mediums through which pollutants deposited on land enter the human body (Medina, 2002 cited in Rawlings & Idehen, 2024; Abul, 2010 cited in Rawlings & Idehen, 2024). Dumpsites closer to residential areas are always feeding places for animals such as dogs and cats, as well as homes for rodents. These animals carry diseases with them to nearby homesteads (Ndukwe, Uzoegbu, Ndukwe & Agibe, 2019). Exposure to hazardous waste in dumpsites can affect human health, with children being the most vulnerable to these pollutants (Yongsi, Herrmann, Netu & Sietchiping, 2008 cited in Rawlings & Idehen, 2024; Olorunlana & Ogunade, 2022). Direct exposure can lead to diseases through chemical exposure, as the release of chemical waste into the environment, leads to chemical poisoning (Olorunlana & Ogunade, 2022). Disposal sites can also create health hazards for the neighborhood (Foday, Xiangbin & Quangyen, 2013 cited in Rawlings & Idehen, 2024; Olorunlana & Ogunade, 2022).

### **Concept of Media Campaign**

According to Dominick (2011), a campaign consists of a large number of advertisements, stressing the same major theme or appeal that appears in a number of media over a specified time. Media campaigns are widely used to expose high proportions of large population to messages through routine use of existing media such as television, radio and newspapers and have been employed to affect different behaviours in large populations (Eluke & Mbazie, 2022). Wakefield, Smith and Chapman (2010) state that it is the result of the powerful force in campaigns, that environmental communicators seek to harness to inform and change public opinion, but often, this power is quite difficult to be used effectively. “In some cultures, people are bombarded with over many advertising messages per day. What would make a message stand out among competition?” (Eluke & Mbazie, 2022). According to Sandman (2010), a team of creative people should work with content experts, putting into consideration the implications of the message while every element of the campaign should be pretested with the intended audience to avoid miscommunication.

There are many examples of media products that were distributed broadly before the organizers realize they are not communicating the desired message (Eluke & Mbazie, 2022). Evidently, according to them, campaigns can be of short period of time or of long duration. In the same vein, they might stand alone or be combined with other organized programmers like clinical health or institutional outreach or may complement policy change (Eluke & Mbazie, 2022).

Explaining further, they stated that it is common to hear people discussing and making reference to what they have heard over the radio, watched on television or read in the newspapers. This is because, according to them, the information given out by the mass media are usually for the consumption of the citizens of a particular society while the write ups in all facets of life are done to arouse the interest or curiosity of the citizens.

Mass media campaigns are aimed primarily to change knowledge, awareness and attitudes, contributing to the goal of changing behaviour (Eluke & Mbazie, 2022). For them, it is a tool for promoting public health and is being widely used to expose high proportions of large populations to message through routine uses of existing media, such as television, radio, newspapers etc. Expressing his view, Ihejirika (2011) cited in Eluke and Mbazie (2022) points out that no one medium alone can carry out the functions of media in society. He pointed out that they can be truly effective tools when they are adequately employed, effectively utilized and professionally managed.

“Nigeria and other developing countries today are marked by poverty and other challenges. Therefore, one of the elements that can help create conditions and accelerate development of these nations is the provision of information and knowledge which could be carried out through campaigns as people need information to make decisions and improve their situation” (Eluke & Mbazie, 2022, p. 59).

#### **Anambra State Waste Management Authority (ASWAMA)**

The extant legislation on waste management and related matters in Anambra State is the Anambra State Waste Management Authority (ASWAMA) Law 2015, which repeals the ASWAMA law 2011 (Ezeanokwasa, 2019). One reason for repealing the ASWAMA law 2011 was to enact in its stead a law that is in consonance with sustainable development in the field of waste management. This it did by introducing into the extant law ideas of waste treatment, processing and recycling which were absent in the 2011 law (Ezeanokwasa, 2019). It is a 54- section law, apparently grouped into 8 parts and with three schedules. It has only 6 parts and no parts 4 and 5 whereas the 2011 law has only 31 sections, two schedules and is not divided in parts (Ezeanokwasa, 2019).

Anambra State Waste Management Authority (ASWAMA) has a Board which is responsible for the day to day administration of the Authority and is composed of the Chairman who is appointed by the Governor and of other members appointed in accordance with the ASWAMA law, amongst whom is the Managing Director (ASWAMA Law, 2015, s. 14 (2)). The Managing Director is equally appointed by the Governor and is the Chief Executive Office of the Authority (ASWAMA Law, 2015, s. 9 (1)). He is responsible for the execution of the policies of the Authorities and for the day to day administration of the affairs of the Authority in accordance with the provision of the ASWAMA law (ASWAMA Law, 2015, s. 9 (2)). Incidentally this function of being in charge of the day to day running of the Authority, is shared with the Board. This is why it is submitted that making the Board and the Managing Director to be responsible for the day to day administration of the Authority, is conflictual as it creates the incongruous situation of two captains manning a ship (Ezeanokwasa, 2019). Day to day administration of a corporation normally falls on the shoulders of the Chief Executive Officer who, in this case, is the Managing Director (Ezeanokwasa, 2019).

Functions of the Authority are specified in section 6 of the ASWAMA law. Section 6(1) gives 26 functions of the authority which are numbered (a) to (z). They include to collect, remove, process, treat and safely dispose of domestic, hospital, commercial, institutional and industrial waste (6(1a)). The authority is also to recycle waste (6(1b)) and design blueprints for establishment of sewage disposal systems and clearing of sewage ((6(1c)). It is also the function of the Authority to advise and make recommendation to the State

Ministry of Environment for improvements in collection, removal, processing, treatment and safe disposal of wastes ((6(1d)). It belongs to the authority to clean streets ((6(1e)); and remove and dispose of carcass of dead animals from public places (6(1f)) together with monitoring the clearing, cleaning and maintenance of drainage facilities within the State (6(1g)) as well as designing, operating and maintaining waste disposal facilities (6(1h)). Also the authority has to prepare and update from time to time, master plans for waste collection and disposal in the cities, towns and villages within the State and the control of the resultant waste systems within the State (6(1i)). The functions equally include promoting, encouraging and fostering the maintenance of clean and healthy environment in the State (6(1j)) as well as removing and disposing of any vehicles abandoned or cannibalized on any highway (6(1k)). The Authority is authorized to control and supervise night soil services in respect of places where bucket or pit latrines are in use (6(1l)) and establish, maintain and clean public conveniences (6(1m)) together with carrying out inspection of each building and premises for the purpose of ensuring that sanitary conditions are maintained in such buildings and premises (6(1n)). It is also the duty of the Authority to apprehend any person selling goods or any articles of trade in places not authorized for that purpose and seizing all such good or articles of trade for eventual disposal in such manner as the Authority may deem fit (6(1o)). The Authority is equally authorized to develop and maintain open spaces (6(1p)) and make provisions for waste management services to State agencies, local governments, industries, business entities and private persons within the State by receiving waste at the Authority's facilities pursuant to agreements between the Authority and such other parties (6(1q)). It is also part of the functions of the Authority to control pests (6(1r)) and approve and monitor all waste disposal systems in the State (6(1s)) as well as issuing, renewing and revoking licenses of Private Waste Collectors (6(1t)). The Authority shall prescribe the sizes, shapes and makes of dustbins or refuse bins to be kept in residential buildings, hackney carriages and stage carriages (6(1u)) and provide necessary procedure to be followed in refuse disposal (6(1v)). The functions embrace providing, subject to such conditions as it deems fit, the location and use of private refuse disposal systems (6(1w)). In consultation with the Board, the Authority shall prepare long term plans in relation to its functions and duties (6(1x)). It shall also conduct research in relation to refuse collection and disposal systems (6(1y)) and do also such acts as appear to it to be required or convenient for the proper discharge of its functions under this law (6(1z)). These are very broad functions geared towards securing for the State, environmentally friendly waste management. Unlike the 2011 ASWAMA law which did not include in the functions of ASWAMA functions related to waste treatment, processing or recycling, the current 2015 extant legislation includes them. It did this based on its appreciation of the different kinds of wastes and the need to handle them in ways that are respondent to their characteristic features.

The Authority is given a wide range of powers in order to successfully discharge its functions. These powers are provided in section 7 and they are numbered (a) to (x). They include powers to employ such staff as it may consider necessary for the purpose of carrying out its functions under this law (7(1a)) as well as the power to determine the fees payable for issuance and renewal of licenses to Private Waste Collectors (7(1d)). They include also power to acquire any land for the purpose of planning, designing, transferring, managing, constructing, operating and maintaining waste disposal and processing facilities in accordance with the Land Use Act (7(1j)). The Authority can establish advisory bodies composed of administrative, technical or other experts in such environmental areas as the Authority may consider useful and appropriate to assist it in carrying out the purposes of this law (7(1t)). It also has the power to make with the approval of the Governor, other subsidiary legislations for the purposes of this law (7(1v)) and fix the Charges and Tariffs for collection and removal of wastes and refuse which may vary from area to area and make other direct charges on users for services rendered where such circumstances may arise (7(1w)).

Part III of the law is titled *Sanitation Obligations, Offences and Penalties* and it runs from section 11 to 29. The heading of this Part is somewhat misleading as it creates the impression that perhaps while the offences are backed up with sanctions, the obligations are not and so are mere moral obligations but the fact is that the law attaches sanctions to all the obligations, prohibition or offences in this Part. The only difference is that while some offences have sanctions attached to them particularly, all the others have penalties attached to them collectively. This collective penalty is provided in section 29 (Ezeanokwasa, 2019). Those that have penalties attached to them particularly, include having an undeveloped plot in a built up area that is not clean,

tidy and free from grown grasses (s. 16), and disposing of industrial, commercial, liquid waste, oil, grease and spent oil without first causing it to be treated or purified (s. 17). Amongst those that have their penalty collectively stipulated, are burning or causing to be burnt in any premises waste of any description (s. 12), dumping of waste in an unauthorized place (s. 13) and vehicle used for conveying waste not being covered in such a way that its content do not litter the highway or any road in the State (s.14). Section 29(1) states: “any person who contravenes any of the provisions of this law or any regulations made under this law for which no penalty is provided shall be liable on summary conviction to a fine of not less than N5,000.00 (five thousand Naira).” Section 29 (2) provides further: “where the offender is a company or firm other than a private waste collector, the company or firm shall be liable on summary conviction to a fine of N20,000.00 (Twenty thousand Naira).

### **Anambra State Waste Management Authority (ASWAMA’s) Radio Campaign against Indiscriminate Disposal of Solid Waste and Non-Payment of Sanitation Levy**

*Umu Anambra ooo!!!*

*Solution abiago na Anambra ooo!!!*

*ASWAMA bu nke anyi ooo!!!*

*Na ha biara maka obodo idi ocha!!!*

*Umunne m umunne m ndi ora Anambra bia, onye obula doonu solu nyenu aka ka anyi chezugo debe Anambra ocha, onye obula doo, ndi oma aaa!!!*

*Umunwanne m ndi Anambra, matanu na ukpana okpoko gburu, okwa nti chiri ya ooo!!!*

*O buru na I nuo pure water, tinye ya ebe a n’ ekpofu ahihia!!!*

*I rie banana, tinye ya ebe a n’ ekpofu ahihia!!!*

*I rie eba, tinye ya ebe a n’ ekpofu ahihia!!!*

*Anokwana na moto, ugboala na-agba agba, nuo pure water, tuputa ya n’ okporo uzo!!!*

*Umu Anambra, chikoo afifia gi, tinye ya na waterproof, kechie ya, buputie ebe ndi ASWAMA ga-ebulu ya, maka iji nyere ASWAMA aka ka fa n’ ebupu afifia maka aru ike gi.*

*Chete na obodo idi ocha, bu aru isi ike*

*Onye na-adi ocha, na-anodebe chukwu nso.*

*Adobazina afifia n’ okporouzo korota.*

*Kama doba ya n’ iru shop gi, ebe ASWAMA ga-abia buru ya.*

*Ikwuzia sanitation levy gi, obodo anyi bu Anambra a na-aga n’ iru.*

*O buru na imero nke a, goomenti ga-ejidekwa gi, kpee gi ikpe ma tuo gi nga.*

*Onye nu, ya kooro ibe ya.*

*ASWAMA bu nke anyi ooo!!!*

*Na ha biara maka obodo idi ocha!!!*

### **Empirical Review**

In their assessment of the environmental and health effects of solid waste disposal at Ikhueniro dumpsite in Ikhueniro community of Uhumwode Local Government Area, Benin City, Edo State, Nigeria, Rawlings and Idehen (2024) adopted a cross-sectional descriptive survey design. Out of the 420 copies of questionnaire which they administered to the residents of the area, they retrieved only 403 and used it for their study. They analyzed the data they collected using Statistical Package for the Social Sciences (SPSS) version 26.0 while results were presented using descriptive tables and bar charts. From this study, they found, among others, that both nearby and faraway residents of the area were affected by the location of the dumpsite closer to their settlements. Based on their findings, they recommended, among others, that operators of the dumpsite (Edo State Waste Management Board) should adopt alternative waste management options (eco-friendly options) and educate residents on them so that gradually the dumpsite can be closed. This study was conducted in Edo State while the current study was conducted in Anambra State.

While investigating the effects of solid waste such as tires and its implication to environmental sustainability in Anambra State, Okpala and Achufusi (2024) adopted the descriptive survey design and administered copies of a 4-point Likert scale questionnaire to 500 residents, business people, transporters, schools and

hospitals in the State who they selected for the study using convenient/rationale stratified sampling technique. They analyzed the data they collected using mean and standard deviation. From their study, they found, among others, that waste tires when burnt, smoke from it, causes air pollution which may affect the environment. Based on their findings, they recommended, among others, that old tires should not be stored but should be disposed for recycling. This study focused on the effects of solid waste while the current study focused on radio campaign against the indiscriminate disposal of solid waste.

Examining the environmental challenges resulting from indiscriminate solid waste disposal in Akure South, Ondo State Nigeria, Aladejebi and Oladapo (2024) adopted the descriptive survey design and randomly selected 200 residents of the area for the study. They administered copies of structured and self-constructed 4-point Likert scale questionnaire to the respondents and analyzed their findings from the study using frequency counts and simple percentages. From this study, they found, among others, that less than 10% of Akure South residents dispose their waste properly using government-approved waste bins. Based on their findings, they recommended, among others, that more effort should be directed towards public enlightenment on dangers of inappropriate environmental waste disposal. This study was conducted in Ondo State while the current study was conducted in Anambra State.

In yet another study to examine the views of residents of Maiduguri metropolis on the implication of indiscriminate refuse disposal and its impact on human health, Zulum, Shettima, Ziaulhaque, Chandan and Malini (2020) employed the descriptive survey design and used questionnaires to generate data from 100 residents of the area. They used frequency tables and simple percentages to analyze the data they gathered. From this study, they found, among others, that landfill/open clumping, incineration, dustbins and river dumping are the common methods of waste disposal practiced in Maiduguri. Based on their findings, they recommended, among others, that refuse should be disposed and managed properly. This study focused on the residents of Maiduguri while the current study focused on the residents of Awka and Onitsha.

In their investigation of the perceived impact of indiscriminate dumping and management of solid waste on real estate values in Egbeda Local Government Area, Ibadan, Oyo State, Olagoke-Salami and Odunnaike (2019) adopted the descriptive survey design and administered 103 questionnaires to estate surveyors and valuers and residents of the area who they randomly selected for this study. They used frequency tables and simple percentages to analyze the data they collected. From this study, they found, among others, that indiscriminate dumping of solid waste and formation of dumpsites, has negative impact on the level of demand for real estate properties and their values. Based on their findings, they recommended, among others, that public enlightenment and awareness programmes should be carried out frequently by the Government through various media to sensitize the people on health implications and environmental dangers of improper dumping of solid waste. This study focused on the impact of indiscriminate dumping and management of solid waste while the current study focused on awareness and compliance with radio campaign against the indiscriminate disposal of solid waste.

### **Literature Gap**

The past researchers that were cited above only focused on the environmental and health effects and impacts of indiscriminate solid waste disposal in different parts of the country. Nonetheless, there appears to be little or no studies focusing specifically on Awareness and Compliance with ASWAMA's Radio Campaign against Indiscriminate Disposal of Solid Waste and Non-Payment of Sanitation Levy among Awka and Onitsha residents. This represents, in the opinion of the researcher, a knowledge gap which the current study filled.

## **THEORETICAL FRAMEWORK**

### **Theory of Planned Behaviour**

The theory of planned behaviour is based on Ajzen and Fishbein's theory of reasoned action, which they published in 1980 (Ajzen, 1991), and has since evolved into a fundamental model for understanding, predicting, and changing people's social behavior (Ajzen, 2012). It was in the process of redefining the theory of reasoned action theory, that Ajzen (1985) developed the theory of planned behavior.

The TPB’s main goal is to provide a comprehensive and accurate foundation for describing behavioural elements (Ajzen, 1991, 2012). The TPB assumes that people’s intentions predict their behaviour (Ajzen, 1991), whereas intention refers to how much effort a person plans to put in to carry out that behaviour in the future (Entrialgo & Iglesias, 2016). Intentions and behaviour, according to the TPB, are influenced by three major predictors (Ajzen, 1991). To be more specific, the three predictors that influence intentions, as per the TPB are: Attitude Towards Behaviour [ATB] (a person’s positive and negative assessments of various behaviours), Subjective Norms [SN] (the societal pressure on an individual to perform the behaviours from friends, family, coworkers, the media etc) and Perceived Behavioural Control [PBC] (a person’s skill and capability to perform a particular behavior) (Ajzen, 1991; 2012).

In relation to this study, Awka and Onitsha residents might have a positive or negative assessment of the recommended ways of properly disposing their solid wastes as recommended by Anambra State Waste Management Authority (ASWAMA) as a result of the pressure from the media (radio) which ASWAMA used for its campaign for them to do as it recommended. If they discover from their assessment that they are capable of properly disposing their solid wastes as recommended by ASWAMA, it could make them shun the indiscriminate disposal of solid wastes as recommended by ASWAMA.

**METHODOLOGY**

The research design which the researcher adopted for this study is descriptive survey. Using the 2024 projected population of Awka and Onitsha residents (890, 370) and the Taro Yamane formula  $(N/1 + N(e)^2)$ , the researcher determined the samples (400) she studied and conveniently selected 200 Awka residents and 200 Onitsha residents for this study. The researcher administered valid and reliable copies of questionnaire to the respondents for data collection and analyzed the findings of this study using frequency tables and simple percentages.

**FINDINGS**

**Response Rate**

The researcher administered 400 copies of questionnaire to the respondents but not all them were recovered as shown in the table below.

**Table 1: Response Rate**

	<b>Frequency</b>	<b>Percentage</b>
Recovered	396	99
Not recovered	4	1
Total	400	100

Source: Researcher’s Field Survey, 2024

Table 1 shows the response rate of the respondents. It shows that out of the 400 questionnaires that were administered to the respondents, the researcher only recovered 99% of them and did not recover the remaining 1%.



**Demographic Data of the Respondents**

**Table 2: Demographic Characteristics of the Respondents**

Items	Frequency	Percentage
Age		
18-24	62	16
25-34	140	35
35 and above	194	49
Total	396	100
Gender		
Male	191	48
Female	205	52
Total	396	100
Marital Status		
Single	220	56
Married	162	41
Separated	9	2
Widowed	5	1
Total	396	100
Occupation		
Student	60	15
Trader	149	38
Civil servant	94	24
Artisan	44	11
Others	36	9
Unemployed	13	3
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 2 shows the demographic characteristics of the respondents. It shows that out of the 396 respondents that were studied, 16% of them are between the ages of 18 and 24, 35% of them are between 25 and 34 while the remaining 49% of the respondents are 35 years and above. The table also shows that out of the 396 respondents that were studied, 48% of them are male while the remaining 52% are female. 56% of the respondents are single, 41% are married, 2% are not with their spouses while the remaining 1% of the respondents are widows. Out of the 396 respondents that were studied, 15% of them are students, 38% of them are traders, 24% are civil servants, 11% are artisans, 9% of them have other occupations while the remaining 3% of the respondents are unemployed.

**Analysis of Data from the Research Questions**

**Research Question 1: What is the level of awareness of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy among Awka and Onitsha residents?**

**Table 3: Awka and Onitsha residents’ response as to whether or not they are aware of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Yes	389	98
No	7	2
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 3 shows the response of the respondents as to whether or not they are aware of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that

out of the 396 respondents that were studied, 98% of them are aware of the campaign while the remaining 2% of the respondents are not aware of the campaign. Based on this finding, the respondents are aware of the radio campaign.

**Table 4: Awka and Onitsha residents’ level of awareness of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Very high	118	30
High	271	68
Low	1	0
Very low	6	2
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 4 shows the respondents’ level of awareness of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that out of the 396 respondents that were studied, 30% of the respondents’ level of awareness of the campaign is very high, that of 68% of the respondents is high while that of the remaining 2% is very low. This finding, therefore, shows that the respondents are highly aware of the radio campaign.

**Research Question 2: What is Awka and Onitsha residents’ level of compliance with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy?**

**Table 5: Awka and Onitsha residents’ response as to whether or not they comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Yes	165	42
No	231	58
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 5 shows the response of the respondents as to whether or not they comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that out of the 396 respondents that were studied, 42% of them comply with the campaign while the remaining 58% of the respondents do not comply with the campaign. Based on this finding, the respondents do not comply with the radio campaign.

**Table 6: Awka and Onitsha residents’ level of compliance with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Very high	22	6
High	143	36
Low	222	56
Very low	9	2
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 6 shows the respondents’ level of compliance with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that out of the 396 respondents that were studied, the level of compliance of 6% of the respondents with the campaign is very high while that of 36% of the respondents is high. It also shows that out of the 396 respondents that were studied, the level of compliance of 56% of the respondents with the campaign is low while that of the remaining 2% is very low. This finding, therefore, shows that the respondents’ level of compliance with the radio campaign is low.

**Research Question 3: What are the major challenges faced by Awka and Onitsha residents while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy?**

**Table 7: Awka and Onitsha residents’ response as to whether or not they face challenges while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Yes	382	96
No	14	4
Total	396	100

**Source: Researcher’s Field Survey, 2024**

Table 7 shows the response of the respondents as to whether or not they face challenges while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that out of the 396 respondents that were studied, 96% of them face challenges while trying to comply with the campaign while the remaining 4% of the respondents do not face challenges while trying to comply with the campaign. Based on this finding, the respondents do face challenges while trying to comply with the radio campaign.

**Table 8: The major challenges faced by Awka and Onitsha residents while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy**

Items	Frequency	Percentage
Extortion from touts	20	5
Lack of money	87	22
Lack of adequate government waste disposal bins	139	35
High quantity of daily solid waste generation	136	34
No challenges	14	4
Total	396	100

**Source: Researcher’s Field Survey 2024**

Table 8 shows the challenges faced by the respondents while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. It shows that out of the 396 respondents that were studied, 5% of them are having the challenge of extortion from touts while trying to comply with the campaign while lack of money is the challenge 22% of the respondents are having. For 35% of the respondents, lack of adequate government waste disposal bins is the challenge they are having while it is the challenge of generating high quantity of solid waste daily that 34% of the respondents are having. The remaining 14% of the respondents, however, indicated that they do not face any challenge. This finding, therefore, shows that the major challenges faced by the respondents while trying to comply with the radio campaign are lack of adequate government waste disposal bins, the high quantity of solid waste they generate daily and lack of money.

## **DISCUSSION OF FINDINGS**

In this study, some findings were made. First of the findings is that Awka and Onitsha residents are highly aware of ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. This is an indication that the respondents do listen to radio and can afford it. For reaching the residents with its campaign, it also shows that ASWAMA made the right choice by choosing to use radio for the campaign and do understand and believe that “radio stations are usually open to promoting development-related issues and are useful for mobilizing the local community and promoting debate,

disseminating educational programmes and launching awareness-raising campaigns” (Olajide & Nwangi, 2022, p. 88).

Another finding that was made from this study, is that Awka and Onitsha residents’ level of compliance with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy is low. As it concerns the theory of planned behaviour, this finding shows that the residents do not perceive themselves as having the capacity (Perceived Behavioural Control [PBC] ) to comply with the campaign despite any assessment of the campaign (Attitude Towards Behaviour [ATB] ) they may have and the pressure from the media [radio] (Subjective Norms [SN] ) which was used for the campaign. This is not good for both the residents and Anambra State. It is not good for the residents because little or no compliance with the campaign can expose them and other people to different environmental and air pollutants that can make them sick and even kill them. It can also get them arrested and jailed by Anambra State Government as stipulated in the campaign. For Anambra State, the residents’ low compliance with the campaign, can dwarf the efforts of the State Government to make Anambra State a clean and habitable State. It can also give the State an unwanted image among other States of the federation and discourage local and foreign investors from investing in the State. As a people that want all-round development of Anambra State, Awka and Onitsha residents should make it a point of duty to fully and always comply with the campaign so that a clean and livable Anambra State can be fully achieved as it is not enough to be highly aware of the campaign. It was finally found from this study that Awka and Onitsha residents do face some major challenges while trying to comply with ASWAMA’s radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy and these major challenges are lack of adequate government waste disposal bins, the high quantity of solid waste they generate daily and lack of money. While the residents has a duty to fully and always comply with the campaign, Anambra State government should encourage them to do it by providing adequate disposal waste bins in different parts of the State and more of the bins in areas that generate high quantity of solid waste daily. Because of how difficult things are in the country at the moment as a result of the tough but necessary policies of the Federal Government, Anambra State Government should extend the sanitation levy payment period to an agreed date by both the residents and the Government for the residents to be able to get the levies and pay. If these are not done, the challenges will persist while ASWAMA and Anambra State Government will continue to record low compliance with ASWAMA’s campaign.

## CONCLUSION

The indiscriminate disposal of solid waste in Awka and Onitsha which are Anambra State’s capital city and one of its commercial cities, respectively, is threatening to reduce the aesthetic value of both areas and making them unsafe for healthy living for its residents and people from other places. This is what ASWAMA’s campaign seeks to prevent while the residents who are highly aware of the campaign do not highly comply with it because of the challenges they are having while trying to do so. For things to change for the better in terms of solid waste disposal in Anambra State, the residents of Awka and Onitsha must always be seen complying the campaign while Anambra State Government encourages them by eradicating the challenges that are preventing them from complying with the campaign.

## RECOMMENDATIONS

Based on the findings of this study, the researcher recommends that:

1. Awka and Onitsha residents should always comply with ASWAMA’s campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy. This is for a clean and livable Anambra State to be seamlessly achieved.
2. Anambra State Government should provide adequate waste disposal bins and recruit and adequately fund more waste disposal collectors that will help to cover every part of Anambra State. This is for proper and timely solid waste disposal and collection to always be done in Anambra State and to make residents of the State see reasons to always pay their sanitation levies.

3. Future studies should be conducted on the perception of ASWAMA's radio campaign against indiscriminate disposal of solid waste and non-payment of sanitation levy among Anambra residents.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhi & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11039). Heidelberg: Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, pp. 179-211.
- Ajzen, I. (2012). The theory of planned behaviour. In P.A.M. Lange, A.W. Kruglanski, & E.T. Higgins (Eds.), *Handbook of Theories of Social Psychology*, pp. 438-459, Sage.
- Aladejebi, D.T., & Oladapo, S.O. (2024). Environmental challenges resulting from indiscriminate solid waste disposal in Akure metropolis, Ondo State, Nigeria. *ISRG Journal of Arts, Humanities and Social Sciences*, II(V), 158-162.
- Aniekan, I., & Ikechukwu, O. (2016). Review of municipal solid waste management technologies and its practices in China and Germany. *International journal of technology enhancements and emerging engineering research*, 4(5), 1-7.
- Dominick, J.R. (2011). *The dynamics of mass communication: Media in the digital age*. The McGraw Hill Company.
- Dos-Muchangos, L.S., & Tokai, A. (2020). Greenhouse gas emission analysis of upgrading from an open dump to a semi-aerobic landfill in Mozambique – The case of Hulene dumpsite. *Scientific African*, 10, 1-2.
- Eluke, V.E., & Mbazie, S.C.J. (2022). Awareness, knowledge and attitude of Southeast residents on the abuse of methamphetamine hydrochloride drugs. *IMSU Journal of Communication Studies*, 6 (1).
- Entrialgo, M., & Iglesias, V.V. (2016). The moderating role of entrepreneurship education on the antecedents of entrepreneurial intention. *International Entrepreneurship and Management Journal*, 12, 1209-1232.
- Ezeanokwasa, J. (2019). Anambra State Waste Management Authority Law: An environmental protection law begging for proper enforcement. *Infraction Rules for Courts of Limited Jurisdiction*, 1(1), 32-41
- Gani, O. I., & Okojie, O. H. (2013). Environmental audit of a refuse dump site in the Niger Delta region of Nigeria. *Journal of public health and epidemiology*, 5(2), 59-65.
- Igbinomwanhia, D.I. (2012). Characterization of commercial solid waste in Benin metropolis, Nigeria. *Journal of emerging trends in engineering and applied sciences*, 3(5), 834-838.
- Ikpe, A.E., Egunilo, P.O., & Okovido, J. (2018). Geotechnical evaluation of bentonite clay for municipal solid waste landfill lining membrane. *Applied journal of environmental engineering science*, 4(3), 337-351.
- Ikpe, A., Imonitie, D.I., & Ndon, A.I.E. (2019). Investigation of the energy (biogas) derivation from anaerobic digestion of food waste products. *Akademik platform mühendislik ve Fen bilimleri dergisi*, 7(2), 332-340.
- Ikpe, A.E., Ndon, A.E., & Adoh, A.U. (2019). Modelling and simulation of high density polyethylene liner installation in engineered landfill for optimum performance. *Journal of applied sciences and environmental management*, 23(3), 449-456.
- Ikpe, A.E., Ndon, A.E., & Etim, P.J. (2020). Assessment of the waste management system and its implication in Benin city metropolis, Nigeria. *Journal of Applied Research on Industrial Engineering*, 7(1), 79-91.
- Ikpe, A.E., Owunna, I.B., & Agho, N. (2019). Physiochemical analysis of municipal solid waste leachate from open dumpsites in Benin City metropolis. *Journal of applied sciences & environmental management*, 23(1).
- Nathanson, J.A. (2023). *Solid waste management*. Retrieved on November 15, 2024 from <https://www.britannica.com/technology/solid-waste-management/Solid-waste-collection>

- Ndukwe, V.A., Uzoegbu, M.U., Ndukwe, O.S., & Agibe, A.N. (2019). Environmental and health impact of solid waste disposal in Umuahia and environs, Southeast, Nigeria. *Journal of Applied Sciences and Environmental Management*, 23(9), 1615-1620.
- Nwaokobia, K., Ogboru, R.O., & Okolie, P.L. (2013). Solid waste management: efficient approach towards sustainable development in Nigeria. *Greener journal of environmental management and public safety*, 7(2), 035-042.
- Obianeri, I. (2022). *Refuse dumps take over Anambra roads, residents fear epidemic breakout*. Retrieved on November 15, 2024 from <https://www.google.com/amp/s/punchng.com/refuse-dumps-take-over-anambra-roads-residents-fear-epidemic-breakout/%3famp>
- Okpala, C.C., & Achufusi, J.N. (2024). Indiscriminate disposal of solid waste such as tires: Implications to environmental sustainability in Anambra State. *Interdisciplinary Research Journal of Modernization in Engineering Technology and Science*, 484-492.
- Olagoke-Salami, S.O., & Odunnaike, J.S. (2019). Perceived impact of indiscriminate dumping and management of solid waste on real estate values in Egbeda Local Government, Ibadan. *Ilaro Journal of Environmental Research & Development*, 3(1), 94-101.
- Olajide, I.F., & Nwangi, O. (2022). The role of media in communication development. *Global Journal of Education, Humanities and Management Sciences*, 4(2), 84-93.
- Olorunlana, F.A., & Ogunade, A.O. (2022). Impact of indiscriminate solid waste disposal on human health in Akungba-Akoko, Ondo State, Nigeria. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 62(2), 468-478.
- Onuoha, D.C., Ukah, C., & Iheukwumere, S.O. (2023). Evaluation of the challenges of effective solid waste management in Awka, Anambra State. *Tropical Built Environment Journal*, 9(3), 364-371.
- Rawlings, A., & Idehen, G. (2024). Assessment of the environmental and health effects of solid waste disposal at Ikhueniro dumpsite in Ikhueniro community of Uhunmwode Local Government Area, Benin city, Edo State, Nigeria. *Journal of Engineering Research*, 29(2), 1-13.
- Samuel M.M., Davou D.D., Juliet D.D., & Ruth A.N. (2016). Environmental hazards of continued solid waste generation and poor disposal in municipal areas of Nigeria. *Journal of geography, environment and earth science international*, 6(3), 1-10.
- Sandman, P.M. (2010). *Responding to community outrage: Strategies for effective risk communication*. America: American Industrial Hygiene Association.
- Sharme, A., Gupta, A.K., & Ganguly, R. (2018). Impact of open dumping of municipal solid waste on soil properties in Mountainous Region. *Journal of Rock Mechanics and Geotechnical Engineering*, 10(4), 725-739
- Wakefield, M., Smith, K.C., & Chapman, S. (2010). Framing of Australian newspaper coverage of a second-hand smoke injury claim: Lessons for media advocacy. *Critical Public Health*, 15(1), 53-63.
- World Bank (2022). *Solid waste management, brief*. Retrieved on November 15, 2024 from <https://www.worldbank.org/en/topic/urbandevelopment/brief/solid-waste-management>
- Zulum, U., Shettima, M.K., Ziaulhaque, A.A., Chandan, V., & Malini, P.S. (2020). Indiscriminate refuse disposal and its implication on public health in Maiduguri metropolis. *International Journal of Sciences & Applied Research*, 7(2), 17-25.