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RESEARCH ARTICLE

WASTE MANAGEMENT POLICY IMPLEMENTATION IN NIGERIA: A STUDY OF RIVERS STATE WASTE MANAGEMENT AGENCY

Okoli¹, Chiamaka Nkiruka¹, Egobueze², Anthony² and Briggs D.A²

1. Post Graduate Student, Department of Political Science, Faculty of Social Sciences, Rivers State University, Nkpolu - Oroworukwo, Port Harcourt, Nigeria.
2. Lecturer, Department of Political Science, Faculty of Social Sciences, Rivers State University, Nkpolu - Oroworukwo, Port Harcourt, Nigeria.

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Abstract

The Rivers State Waste Management Agency (RIWAMA) has come under criticisms from the residents of the State for the inability of the Agency to discharge its statutory obligations to the citizens, particularly, residents of the Port Harcourt metropolis. The study examined waste management policy implementation in Nigeria, with a study of the role of the Rivers State Waste Management Agency in perspectives. The study adopted secondary source of data collection and the Environmentally Responsible Behaviour (ERB) and Environmental Citizenship Model (ECM) as a theoretical framework. Also, content analysis was utilized as a method of data analysis. The study explored the effectiveness of the Rivers State Waste Management Agency in solid waste management. The study observed that there is a relationship between policy design and efficient management of the Agency, but noted that few institutional challenges like the inefficiency of vendors, poor public awareness and education, absence of a landfill amongst others hampered the attainment of some of the goals of the Agency and recommends administrative reforms that would include full commercialization of the Agency for wealth creation, better public awareness, establishment of a landfill, amongst others as a panacea for efficient waste management in the State.

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Introduction:-

The Vice President and Head of Network, Sustainable Development of the World Bank, Rachel Kyte as cited in Hoornweg & Bhada-Tata (2012) notes:

Currently, world cities generate about 1.3 billion tonnes of solid waste per year. This volume is expected to increase to 2.2 billion tonnes by 2025. Waste generation rates will more than double over the next twenty years in lower income countries. Globally, solid waste management costs will increase from today's annual \$205.4 billion to about \$375.5 billion in 2025.

The statement above from Kyte is a clarion call for concern by state's leaders and residents. It not only alarmed the world of the growing increase in municipal waste, but, exposed to the developing world, that waste management is a

Corresponding Author:- Okoli

Address:- Post Graduate Student, Department of Political Science, Faculty of Social Sciences, Rivers State University, Nkpolu - Oroworukwo, Port Harcourt, Nigeria.

major source of revenue in the new age. The management of solid waste has become a global issue that every government in the 21st Century has shown uncommon commitment to tackle, especially when making policies on public health and environment. In consonance with the foregoing, Kyte as cited by Hoornweg & Bhada-Tata (2012) again states: 'solid waste management is the one thing just about every city government provides for its residents. While service levels, environmental impacts and costs vary dramatically, solid waste management is arguably the most important municipal service and serves as a prerequisite for other municipal action.' Many states in the developing world, have seen less relevance to making materializing waste management as both a social service and commercial venture. In Nigeria, apart from Lagos State that has commercialized waste management and created institutions to support it, all other states still see waste management from the social service viewpoint, thus, rather than earn revenue for the State, the State spends high junks of her revenue on managing waste. This is indeed worrisome.

Waste management in any society to a large extent determines how healthy the citizens are, hence, it is the priority of leaders to ensure that the solid waste is properly disposed timely. This is premeditated on the fact that "as cities grow, wastes accumulate in the streets and water courses, posing acute health risks. This assertion is a reinforcement to the United Nations Environment Programme, (UNEP) (2015, p.2) report that "waste management is one of the essential utility services underpinning society in the 21st century, particularly in urban areas."

The Nigerian government is conscious of the essentiality of the environment and the necessity to preserve it. Thus, Section 20 of Chapter II of the 1999 Constitution of the Federal Republic of Nigeria (As Amended) that prescribes the fundamental objectives and directive principles of State policy states, inter alia: 'the State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria.' A critique of the above statement shows the importance the nation attached to environmental conservation and preservation. The government sees the environment as a directive policy which the State cannot afford to ignore. Furthermore, part II of the Fourth Schedule to the same Constitution dealt with how waste is to be treated and managed. Waste management is domiciled in the Concurrent Legislative List. The implication is that all the tiers of government – the Federal Government, the State as well as the Local Government Councils is bestowed with the power to legislate on the waste/environmental related issues. There are several legislations on Waste Management at the federal, state and local government level in Nigeria.

The Rivers State House of Assembly in 2014 passed the Waste Management Agency Bill into law, that was assented to by the Governor, Rt Hon. Chibuike Rotimi Amaechi. The Agency became a parastatal of the Ministry of Environment charged with the responsibility of enhancing the environment cleanliness of the State. The objective of the Law is "achieving positive and substantial change in living conditions as well as reducing diseases or health problems in the state" (See, RIWAMA LAW, No. 2, of 2014). Although, before the establishment of RIWAMA, the Rivers State Environmental Sanitation Authority (RSESA) was established in 1983 to "tackle municipal waste and other related issues", but due to the pitfalls in the discharge of its statutory responsibility, the law was repealed to suit present realities in waste management globally. However, the Rivers State Waste Management Agency has come under criticisms for inability to discharge its statutory obligation. The disparagement is emanating from the policy failure of the new agency. For instance, it is common nowadays to see the streets and major highways littered with solid waste and refuse heaps, particularly in the Port Harcourt metropolis. The odour that is discharged out of the refuse dumps are unbearable to the inhabitants, particularly to those residing close to the areas designated as a collection point for refuse by the RIWAMA. The littered refuse along the streets and major highways deface Port Harcourt as the garden city of Nigeria. This view correlated with Edozie (2018) when he noted that Port Harcourt was known as the garden city of Rivers State years back because of its neatness, tidy and serene environment.

There is no doubt that every responsive government ensures public health policy implementation of her citizens. This is based on the fact that a nation with healthy labour force will be productive and increase its gross national product. Nevertheless, "the management of municipal solid waste poses various challenges to many countries of the world at varying intensities (Akande and Olorunnisola, 2018, p.1)." For instance, in Rivers State, the case is even shoddier in the urban areas where there seem to be an overflow of wastes due to demographic realities and the phenomenon of rural-urban migration as the case of Port Harcourt Local Government Area (PHALGA), which is the capital of Rivers State. Sule, (2004, p. 10) stated that "human population and rural-urban migration has increased through urbanization, natural increase rate and industrialization, yet the service rendered is not sizeable enough to control the high level of solid waste generated in urban areas and these have contributed, to a large extent, to the

nuisance and the damaging effect of the urban environment”

Comparatively, the rate at which waste is being generated is about 70% vis-à-vis the total rate of its disposal which is 30% (Edu, 2003, p. 15). This is why it is essential to involve identified stakeholders during policy formulation, particularly the bills that boarders on public health during a public hearing of the legislative arm of Rivers State. Recognizing the role and involvement of stakeholders in policy formulation, Eneanya (2009, p.62) notedthat:

Formulators do not think only of problems and how to solve them, but whether it is feasible to get the course of action authorized. Decision or choices of policies require some authoritative ratification as an aspect of the principle of public accountability...so, strategic considerations are directed towards the legitimation process-building support for a proposed course of actions; maintaining support held previously; deciding where compromises can be made; calculating when and where making the strongest play and when and where to retreat; and controlling information flows to advantage.

Despite the staggering waste management policy implementation by Rivers State Waste Management Agency in Port Harcourt, the poor waste management is global and a bane to the development of any city, particularly in the Third World Countries. Besides, the diseases and toxic conditions inherent in and derived from waste products, the presence of waste degenerates and degrades the aesthetic value of a city. They harbour flies, fleas, mosquitoes, rats and other disease vectors, which result to Malaria, Filariasis, Yellow fever, among others are disturbing and embarrassing to visitors and residents. Ajie and Dienye (2014, p. 6) noted that even though efforts have been made by governmental, non-governmental agencies/organizations and other private sector/organizations to rid the environment of this vexed and depriving prejudicial act, yet the RIWAMA has not met its statutory obligations in terms of the timely evacuation of refuse and most times delay that leads to trafficking in the Port Harcourt city.

There is no doubt that the majority of these waste comes from domestic sources, and are characterized by household waste ranging from food waste, paper, polythene bags, textiles, wood, glass and plastics, yet there has not been enough public education on waste dumping in the Rivers State, with prejudice to Port Harcourt City. The indiscriminate disposal, improper management, and lack of maximizing the use of wastes in Port Harcourt City has been perceived to even worsen the state of human development in the city and its environs. Therefore, the study reviews the policy implementation of RIWAMA with a view of finding why refuse is littered all over Port Harcourt City.

Theoretical Framework:

Akintunde , (2017, p, 121) opined “theories are developed to explain, predict, and enhance the understanding of phenomena. Theories challenge and extend the frontiers of knowledge within the boundaries of critical bounding assumptions. Theories vary in their development on the basis of the concepts and methods employed and empirical test undertaken. The testability of a theory is one of its essential features.” The contributions of Akintunde and other writers of his kind explains the imperatives of a theory or theories to research. Consequently, this study adopted Environmentally Responsible Behaviour (ERB) and Environmental Citizenship Model (ECM) as the theoretical framework. The ERB theory was proposed by Hines, Hungerford and Tomera in 1987. Environmentally Responsible Behavior (ERB) is a specific term describing As noted by Akintunde (2017, p.123) “the Model of Responsible Environmental Behavior indicates that the following variables; intention to act, locus of control (an internalized sense of personal control over the events in one’s own life), attitudes, sense of personal responsibility, and knowledge suggested whether a person would adopt a behavior or not.” ERB is characterized by a combination of self interest and concern for other people, species, or ecosystems (Bamberg and Moser, 2007, pp. 17-20). It includes both general actions (talking with others about environmental issues; encouraging family and friends to behave in environmentally responsible ways) and specific actions (recycling; purchasing environmentally friendly & sustainable goods; conservation of energy by turning off lights and using alternate sources of energy, such as solar, hydro, or wind energy; and reduction in fossil fuel dependence by utilizing alternative means of transportation) (Thogersen, 2006, pp. 254-255; Vaske and Kobrin, 2007, P. 523).

The Environmental Citizenship Model (ECM) was proposed by Hungerford and Volk (1990). The Hungerford Volk Model arrays three stages of educational involvement ranging from first exposure (entry) to real involvement (empowerment), and then suggests that each stage has certain knowledge and attitude characteristics. In the Environmental Citizenship Model, Hungerford and Volk grouped the variables that influence whether a person takes

action in three categories

This theory is vitally important because of its potential to evolve a citizenry that is touched with the feelings of the environment, who will bear its burdens to the extent of possessing skills that can enable them to act in the interest of the environment.

In application, the Hungerford-Volk Model identifies numerous variables required to be an environmentally literate citizen. Secondly, the model provides a basis for the classification and separation of environmental literacy variables according to their importance either as a major variable or a minor variable. Also, the model provides a framework/scale to identify the level of an individual in the literacy ladder, such that one can tell if a citizen is in the entry level.

Linking the environmentally responsible behavior (ERB) theory highlight its relevant in this study. This is because, ERB highpoints on how vital existing interactions between parameters influence a person's behavior rather than focusing on the singular impact of a single variable. In waste management processes, no single factor is responsible for current behaviors or sufficient to initiate behavior or cause behavior change. For instance, people pile up their waste materials in the middle of the streets in large cities like Port Harcourt, despite regulations from waste management authorities, prohibiting these acts. Many of these defaulters do so at odd hours when law enforcement agencies are not available, others are influenced to indiscriminately dump these waste materials because they see others doing so, yet some still find ways of decently disposing of their waste materials.

The Environmental Citizenship Model is also useful to the study because one popular environmental variable, for instance is solid waste. This theory could become applicable, such that whether it be purchase of goods or undertaking of services, one thing will be paramount in the minds of the citizens; sustainability of the environment. Similarly, when it comes to the generation, disposal and management of wastes; citizens will be more concerned with a sustainable manner of waste generation and management hinged on avoidance, reduction, reuse, and recycling.

Policy implementation:

Ijie (2018) argued that there are discrepancies in public policy formulation and implementation at different levels and organs of government. The author maintained that there are still indications that the Nigerian federal system will experience effective policy formulation and implementation, assessment, communication and feedback mechanism. However, the author identified various challenges that confront public policy implementation in Nigeria. They include a multiplicity of agencies involved in implementation, lack of coordination or communication, delay in implementation, and lack of political will. Other reasons why policy fails in the federal system of government using Nigeria as a case include ambiguous policy statement, overambitious policy goals, lack of appropriate technologies for implementation, problems of continuity and commitment to the policy, and corruption. The author concluded that public policy formulation and implementation in the federal system of government requires effective communication to facilitate public service delivery.

In their contribution, Dialoke, Ukah and Maduagwuna (2017) opined that that over the years in Nigeria, there have been robust and excellent policies formulated, however, the challenge is the ability to implement the policies holistically. Only insignificant numbers of policies are implemented. Hence, there is no noticeable development to show for it. Atelhe and Akande (2018) contended that the implementation of public policies has been impeded in different ways in Nigeria since 1960. The major challenge emanates from understanding what constitute public policies. This pitfall has led to inconsistency in the public policy formulation. Thus, Aminu, Tella and Mbaya (2012) examined the significance, problems and factors impelling public policy formulation and implementation in Nigeria. The authors further expounded on the policy reforms, determinants of policy issues, and features of effective public policy formulation and execution in Nigeria. The study unraveled that there are contradictions that have contributed to lack of full implementation of federalism in Nigeria based on the 1999 Constitution.

A review of the Rivers State Waste Management Agency Law No.2, of 2014

The law establishing the Rivers State Waste Management Agency was enacted to provide for the collection, treatment and disposal of waste in Rivers State in 2014. The objectives of the Agency was explicitly stated in the Part I of the law which include to; establish an Agency that will provide an effective regulatory framework for waste management; promote the implementation of a waste management policy, strategy and master plan as

may be developed and modified; regulate waste generation, cleaning, separation, storage, collection, processing, treatment, recycling and disposal of waste, and facilities used for waste management with the aim of ensuring a safe, healthy and sustainable environment; promote the provision of modern, efficient and affordable waste management services and facilities; ensure efficient waste management practices taking into account current technologies to protect the environment from pollution; encourage private investments in the provision of waste management services and facilities, and introduce innovative services and facilities in line with best waste management practices; ensure that all residents business, organizations institutions, agencies and departments of government have access to waste management services; and protect the rights and interests of service providers, facility operators and consumers of the services.

Part II of the law that established the Rivers State Waste Management Agency stated the establishment and membership of the Board of Directors Tenure of office/Removal from office; proceedings of the Board; disclosure of interest; functions of the Board; functions of the Agency; and the powers of the Agency. It is imperative to note that the Part II 4 (2) b & c of the law explicitly states that the Agency has “power to sue, to be sued in its corporate name”; and “is capable of acquiring and disposing of movable and immovable property for the effective implementation of its functions” respectively. The implication is that the Agency can be sued by citizens if it violates their cooperative objective vis a vis the Agency. Other aspect of the Part III of the law includes the establishment of the Board of Directors which shall consist of the non-executive Chairman; a representative of the Ministry of Environment not below the rank of a Director; a representative of each of the following associations who shall be nominated by his association. These associations include; the Nigerian Environmental Society; Waste Management Association of Nigeria; Environmental Health Officers of Nigeria; and Environmental Managers Association of Nigeria (EMAN), a representative of Association of Local Government of Nigeria (ALGON); four other persons experienced in Environmental Law, Environmental Health, Environmental Management, or Waste Management; and the Managing Director of the Agency.

The Law has Nine Parts and Seventy two sections. Part 1 defines the objectives, principles, applications and scope of the Law. Part II establishes the Agency and Board. Section 5 (3) stated that ‘the Governor shall appoint its chairman and members of the Board, which hold a term of four years and might be reappointed for another four years.’ Section 8 outlines the functions of the Board which includes to: direct the preparation of, and approve, the medium and long term strategy plan for the Agency; consider and approve policies, guidelines, directives and standards on Waste management; approve the fees payable for the grant or renewal of licenses in this Law; approve tariffs payable for waste management services or facilities; approve the sealing off of any premises where this Law has been contravened; approve the rates, rentals and charges for the use of any facility of the Agency; approve the appointment of principal officers of the Agency; consider and approve the audited accounts of the Agency; and perform any other function for the effective implementation of this Law.

Part III of the law establishes the Staff of the Agency. The law gives the Governor the power to appoint a Managing Director of the Agency. The Managing Director is the Chief Accounting Officer of the Agency and responsible for the execution of the policies laid down by the Board; and administration of the Agency. The Agency is empowered by law to hire staff in a bid to achieve her policy thrust. Part IV of the law states the Financial and Reporting Provisions. Clause 18(1) stated that the Agency shall establish and maintain a fund to be approved by the Board into which shall be paid... an amount appropriated by the House of Assembly for the Agency; subventions; fees and charges for services rendered, use of its facilities or publications made by the Agency; all sums of money accruing to the Agency by way of gifts, grants- in-aid, testamentary disposition, endowment or contribution from any source; and proceeds from other assets that may accrue to the Agency. Clause 19. (1) also allow the “Agency to accept gifts of money, land or other property on the terms and conditions, if any, as may be specified by the person or entity making the gift.” However, the law stated it clear in clause 19(2) that the “Agency shall not accept a gift if the conditions attached are inconsistent with the functions of the Agency.” The law empowered the Agency through a written consent of the Governor and the approval of the House of Assembly, to borrow on terms and conditions as it may determine, money that may be required in the exercise of its functions.

The Part V of the law centred on licensing. Part V (24) of the law stated that “No person shall provide waste management services nor operate a waste management facility unless he is licensed to do so or exempted under regulations made by the Agency.” While clause 25 defined how the Agency shall grant such licenses, which include:1) The Agency shall grant a class or an individual license for the provision of waste

management services and operation of waste management facilities on terms and conditions as it may be determine based on the objectives and principles of this Law and subsection (3). 2) Where a person requires a specialized license or accreditation from a National or a regulatory body to provide a service or operate a facility as radioactive or explosive bunker, he shall prove to the Agency that he holds the relevant valid license before he is licensed. 3) The Agency shall, in determining the services or facilities that qualify for class or individual licenses shall ensure that previous holders of licenses, services or facilities at the date of the determination do not suffer any disadvantage except as permitted in this Law and its subsidiary legislation.

The law in No. 26 (1) empowers the Agency to determine and publish a regulation on its licensing processes specifying the person or class of persons who is eligible to apply for a license. In Section 26 (4) the law gives the Agency the power to provide terms and conditions with regard to waste management in accordance with relevant national statute, policies, regulations and laws as contained in the National Environmental Sanitation Policy, National Environmental Health Practice Regulations and Rivers State Environmental Protection Agency Law.

Part VIII is another vital aspect of the law that emphasized on how the Agency should punish offenders; thus, Section 56(1) stated that a person who contravenes Section 24 (1) commits an offense and is liable on conviction to a fine of not more than five times the initial fees for the relevant license or imprisonment for a term of 6 months or both; (2) Pursuant to subsection (J), the person shall forfeit to the Agency the property, facility or equipment used for the provision or operation of the unlicensed service or facility. While (3) Subject to Section 34 (4), a person who continues to provide services or operate a facility during the suspension, expiration, surrender or revocation of the license, commits an offense and has liable on conviction to the punishment provided in subsections (1) and (2). However, the punishment for offenders is limited to businessmen and corporate entities.

Part VIII (4) clearly defines the punishment for corporate entities that fails to provide the needed information required of them to the Agency such as providing information or document which he knows or has reason to know is false or misleading to the Agency. The corporate body commits an offense and is liable on conviction to a fine of N100,000.00 for an individual and N500,000.00 for a corporate body, or a term of imprisonment of 6 months or both.

Part VIII, Section 57 (1) explicitly defined what constitutes an offense of the Rivers State Waste management laws. According to Section 57 (1), the person who: litters or dump waste in a public place or open drain; spills or leaks waste in a public place or open drain; spills or leaks any volume of hazardous waste without putting in place adequate measures for its containment; conveys an uncovered or unsecured load of hazardous waste; burns public waste openly; or conveys an uncovered or unsecured load of waste which results to ill spillage; commits an offence and is liable on conviction. Having stated what constitutes individual offence(s), the law further spelt out the fines such as where the litter, dump, spill or leakage is less than 200 litres of waste (not being hazardous waste), the person is liable to a fine of N500,000.00 for a body corporate and N50,000.00 for an individual or a term of imprisonment of 6 months or both; where the litter, dump, spill or leakage is more than 200 litres but less than 2500 litres of waste (not being hazardous waste), the person is liable to a fine of N1,500,000.00 for a body corporate and N150,000.00 for an individual or a term of imprisonment of 1 year or both; or where the litter, dump, spill or leakage is more than 2500 litres of waste or hazardous waste of any volume, the person is liable to a fine of N5,000,000.00 for a body corporate or N500,000.00 for an individual or a term of imprisonment of 3 years or both.

Part VIII No. 57 (2) defines the punishment for a person who litters or dumps waste from a vehicle and Part VIII No. 57 (3) defines the punishment for a person who urinates or defecates in a public place commits an offence and shall be liable on conviction to a fine of N10,000.00 or community service for 3 days or both. Furthermore, Part VIII No. 57 (4) defines the punishment for a person who dumps domestic waste in an unauthorized place, while Section 57 (5) of Part VIII defines the punishment for a person who discharges or causes to be discharged waste into a waterway, stream, canal, creek, pond, lake or river; or buries or causes to be buried waste in the State.

Section 58 of PART VIII prescribes a punishment for a person who fails to pay for waste management services received or for the use of a waste management facility, while Section 59 (1) PART VIII defines a punishment for a person who influences another person or a staff of the Agency to contravene this Law.

Having reviewed that law establishing Rivers State Waste Management Agency, other literature on the activities of

RIWAMA such as Nsirim, Ochonogor and Nwachukwu (2018) disclosed that the Rivers State Waste Management Agency has embarked on various approach, particularly communication strategies to create awareness to the public through the use of various means including traditional method of disseminating information, mobile application, social media platform among others in Port Harcourt and its environ, but to no avail. The authors buttressed that messages are well disseminated on waste disposal through electronic media, but these approaches proved abortive. The reasons deduced by the authors in their findings include that the contents of the communication strategies are inadequate to facilitate enough consciousness on waste management among the Port Harcourt inhabitants. The authors disagreed that the means of dissemination of messages were not aligned to Port Harcourt people. The authors maintained that from their findings, there is a significant correlation between communication strategies of RIWAMA and how the public understands the waste management practices. The authors concluded that RIWAMA should go beyond developing a strategy that is only anchored on waste disposal. But fashion out means to enhance public education, collaboration and involvement in the waste management of major stakeholders.

Obuah and Okon (2017) argued that the environmental communication strategies adopted by the RIWAMA in creating consciousness among the citizenry, which is considered an integral means of actualizing her core mandate had paid off. The authors disclosed these achievements were recorded through the use of electronic media such as the television and radio jingles. The authors revealed that the environmental campaign approach adopted by RIWAMA has downplayed the interpersonal communication networks. The study recommended prompt persecution of violators of the RIWAMA laws to serve as a deterrent to other potential violators.

Igoni & Harry (2017) argued that the major cause of the waste management crisis in Port Harcourt city was unavailability of funds and trust, particularly during the transition from one political dispensation to another. The authors cited the case of what happened between May and June 2015, a situation where the incoming government was uncertain of their political development. The authors disclosed that RIWAMA lacks the adequate infrastructure to effectively collect and dispose waste. The authors recommended an independent waste management body that is apolitical.

Ekine, Okechukwu and Gbaraneh (2018) revealed from the study carried out on waste management in Port Harcourt that most respondents are not aware of the extant policies guiding refuse management. The study disclosed that most respondents strongly agreed that the inability of RIWAMA to communicate her policies have resulted to poor communication, hence, it has minimized environmental awareness, which has become a major challenge to waste management in Port Harcourt. The study also unraveled that there is significant correlation between poor public awareness of policies on waste disposal. The study recommended establishing a monitoring team that will oversee or ensure that there is a total adherence to the regulations of RIWAMA.

A critique of the Rivers State Waste Management policy thrust and waste disposal.

The Rivers State Waste Management Agency's policy thrust is to make positive and considerable change in the living conditions as well as declining diseases or health challenges emanating from poor sanitary condition in Rivers State. However, from our findings, there are several factors that indicated that this statutory obligation has not been fully met. The capital of Rivers State, Port Harcourt and its environs is still experiencing abandonment or decomposed refuse at the dump site for days without evacuation by the RIWAMA contractors. The modus operandi adopted for waste evacuation is faulty; in fact, waste dumping and evacuation usually last sometime beyond twenty-four hours. Iyanda and Bello (2016, p.60) opined, in Nigeria and other developing countries, policy "implementation often turns out to be the graveyard of many policies. Large amount of energy and resources are spent on designing and preparing plans of all kinds with little or no thought given to the complex chains of reciprocal interactions and variables required and this can be seen usually in the wide gap between intentions and results." The sole aim of transforming from Rivers State Environmental Sanitation Authority (RSESA) to RIWAMA was not a mere nomenclature, but to improve and strengthen the Parastatal with powers to achieve greater sanitary condition of Rivers State, however, the opposite is the case. An evaluation of RIWAMA's activities reveals her poor implementation strategy in waste management.

There is a consistent abandonment of refuse in the streets. Most times, these refuse stay for weeks without evacuation by the Agency's contractors. The residents who live close to where these refuse are dumped are exposed to various health challenges. Hashmi et al (2007) opined that due to bad governance which has also affected waste management agencies, little regard is shown to the well-being of the citizens; so the government would not provide infrastructures and services to keep the cities clean, healthy and safe, especially in developing countries. From our

finding, the delay in waste evacuating breed offensive odours, flies, rats, ants, beetles, among others. Insects often lay their eggs and breed maggots and worms. Hence, residents in the vicinity of the abandoned waste and other passerby are exposed to health challenges emanating from the dumps. According to Tamunobereton-ari and Omubo-Pepple (2012, p.47), “this effect is an epidemiological aspect of long time constant exposure to offensive odour caused by diffusion into the atmosphere of hydrogen-sulphide and organo-sulphur compounds associated with improper storage of waste and landfill; that is the reason why refuse collectors and landfill employees cannot smell the odours and neighbours can.” Lee and Jones-Lee (2007), contended that “airborne releases from hazardous chemical sites can have a significant adverse impact on the population within the sphere of influence of the site.” While Hirschfeld, Vesilind and Pas Hirschfeld (1992), opined that “the non-methane organic compounds in landfill gas contains toxic chemicals that could cause cancer.” The unclean refuse causes adverse health effects such as mucous membrane irritation, respiratory irritation, nausea, and stress. If an individual has a pre-existing health condition (e.g., allergies, respiratory illness), this additional health impacts could be significant.” Other scholars like Jarup (2001) had reported that “ children born to mothers living near landfills in England tend to have a higher rate of birth defects than the general population.”

There is also policy design gap which has impeded efficient waste management. Hudson, Hunter and Peckham (2019) argued that “faulty policy design can stem from many causes: a poor understanding of the problem; insufficient knowledge of the implementation context; unclear and even contradictory goals; poor quality evidence; and an absence of political backing.” The result of the study agrees with earlier studies conducted by Palczynski and Scotia (2002) and Ogwa (2002), who observed that the legislation on waste management is usually fragmented and has several acts relating to public health, local government and environmental protection acts; including clauses related to solid waste management; thereby, making it possible for such regulation to be enforced by different agencies with duplication of responsibilities and gaps in the regulatory provision which constrains the development of effective solid waste management system.

RIWAMA contractors have been identified as one of the major challenges of the Agency in achieving her policy thrust. This noncompliance to terms of contract with RIWAMA contractors propelled the Sole Administrator of RIWAMA, Bro. Felix Obuah to issue an ultimatum several times compelling them to abide by the terms of contracts. Several times, the Sole Administrator of the Agency had issued a 48-hour ultimatum to the service providers for their negligent in discharging their duties. For instance, Service Providers and Road Sweepers had several times received 48-hour ultimatum to keep their areas/zones clean or risk being sacked. Some of the service provider that had issues with the Agency were Picho Resources - Service Provider covering Elelenwo Road; Sidafeco Ventures Limited - Service Provider covering Mile One; Royal George Nigeria Ltd. - Service Provider covering East-West Road Behind Bori Camp; Gauf Nig. Ltd. - Service Provider covering Nkpo Village; Macpee Agencies Ltd” (Needam, 2019).

The ineffectiveness of the RIWAMA contractors has been attributed to several factors such as unskilled manpower, party patronage, inadequate enlightenment of the public on waste disposal, the absence of landfill among others. Apart from these obvious hindrances, one of the most important factors this study identified as affecting waste management in this part of the world is the ambiguity in the Nigerian environment law on the authority (i.e. State government or local council) vested with the responsibility of collecting and disposing of wastes in the states.

These findings offer support to previous studies on Solid Waste Management (SWM) conducted by Biyogue-Douti et al (2017) in which they showed in their findings that funding hampers the operation of municipal waste management. This also corroborates the findings of Sujauddin et al (2008) and that of Coffrey and Coad (2010), who also asserted in their findings that solid waste management (SWM) in developing countries is usually confronted with the challenge of poor or inadequate funding arising from poor budgetary allocation, corruption and mismanagement of funds.

Nevertheless, the study has shown that weak institutions have a positive relationship with policy enforcement. The result of the study agrees with earlier studies conducted by Biyogue-Douti et al (2017) that weak institution in developing countries, inefficient institutional arrangements affects urban waste management and environmental service delivery adversely. This is also in line with an earlier study by Ogwa (2012) that argued that clear roles are not given to agencies involved in environmental management. This argument also drew from the studies by Armah (1993) as he averred that no single agency is designated to coordinate the activities of waste sector agencies.

Conclusion:-

From our findings, it is clear that the sanitary condition of the State has been hampered because of the ineffectiveness of policy implementation of relevant laws by the RIWAMA. The delay in evacuation of waste by the RIWAMA's contractors have resulted to waste scavengers, not scattering the refuse at the dump site, but most of the times, the refuse is scattered by heavy wind, blocking the drainages when there is heavy downpour leading flooding and becoming an impediment to free movement of persons and vehicles. Due to the neglect of refuse disposal by RIWAMA contractors, dumping of refuse in the drainage, river channel, public space, vacant plots and river bank has become a practice and encouraged. Indeed, it is clear that the RIWAMA contractors have been noncompliance with contract terms leading to several warnings and termination of contracts. In some dump sites, refuse evacuation is broken down for days, hence, the refuse stays days without evacuation, thereby hampering the flow of traffic. The implication is that some of the trucks used for evacuation do not meet the requirement for road worthiness. Besides, some of the trucks are properly decent and clean enough to be used for evacuation. Therefore, there is a need for the refuse contractor to be consistent in evacuating the refuse to avoid likely illness that are associated with dumping exercise such as chest pain, malaria, cholera, diarrhea and irritation of skin. Although, the RWAMA Law did not specify the number of workers to be engaged by each contractor, and the wages to be paid to these workers. This has resulted to gaps in policy, leading to a shortage of manpower on one hand and unqualified and untrained persons being engaged by the vendors. Besides, some of the workers negate the basic health and safety rules during the process of evacuating the refuse. It is common to observe that the worker's heads are mostly uncovered with helmet and their mouth and nose are not covered with a mask most times they are on duty. The existence of policy design gap, weak institution, the Agency's poor management attitude and funding issues as shown by the study have significant impact on policy implementation and the realization of the goals of setting up the Agency. If policies are well designed; bringing into consideration certain elements that have the potentials of crippling its performance, then, it would fast-track the implementation and realization of the goals of such policy. Funding problem has made the Rivers State Waste Management Agency (RIWAMA) to fall short of building adequate infrastructure for waste management.

Recommendations:-

The findings of this study lend credence to the following recommendations:

1. There should be institutional reforms that would commercialize the Agency to manage waste not only as a social service, but a commercial enterprise as is done in other climes like Lagos. While the Rivers State Government spends about Five Hundred Million in waste management, the Lagos State Government earns about the same sum in waste management. These are two metropolitan states in Nigeria with people of diverse backgrounds inhabiting the cities. Even in advanced states, waste evacuation is paid for by the citizens..
2. Given the enormous industrial activities that take place in the State that leads to environmental pollution and devastations, especially as a result of the oil led development, the need to construct a land field become imperative, this study, therefore, recommends that the State, Industry and Academia should coalesce to establish a land field in Rivers State, given the status of the State as the energy capital of Nigeria.
3. The study observed poor citizen education as one of the challenges confronting waste management. Households should be able to go into waste segregation before disposing to vendors. The need to regularly educate and enlighten the citizens on the dangers of plastic and other solid wastes is imperative; to achieve good environmental education, the RIWAMA should organize competitions with prizes awarded to the cleanest institutions, schools, organizations, markets, streets to name but a few. There should be regular jingles on radio and televisions, as well as the social media on the importance of environmental cleanliness. Campaigns should be mounted against the indiscriminate disposal of remains from sachet plastics and other solid waste on the streets and streams, this block the drains and enhance floodings and keeps the environment messed-up.
4. Some of the trucks or tool used in the refuse disposal by RIWAMA Vendors calls for concern because they lack road worthiness. Hence, RIWAMA should include as part of her policy that vendors must comply with the road worthiness test by Vehicle Inspection Officers (VIO). The need to protect the safety and health of the people from pollution is very imperative.
5. Inadequate and unprofessional staff was identified as part of the challenges of the RIWAMA and her Vendor, therefore, the RIWAMA is encouraged to set necessary parameters to enhance standardization of the Agency and her vendors to engender efficiency in waste management.
6. Political patronage of the ruling party in the state has been identified as part of the reason for policy failures. The process of selecting contractors should be devoid of politicization, rather based on competency and professionalism.

7. Constant updating of RIWAMA staff through training is required to ensure effectiveness and efficiency of the workers.
8. The State Government should set –up through a legislation an Environmental Trust Fund. The environment is every body's business, therefore, everybody should contribute to it. There should be robust collaboration between the state, industry and academy on Waste to Wealth and Scraps to Wealth. The Rivers State University should be challenged to undertake such studies.
9. Funding has been part of the pitfalls in implementing RIWAMA's policy thrusts, the State Government should release timely, the funds approved for the Agency in the State Appropriation Law. However, the State should institute serious oversight through the supervising Ministry to entrench fiscal regimes that entrench accountability.
10. Lastly, there is a strong constitutional ambiguity and a lacuna over whose responsibility waste management should be. Is it Local Government or the State Government? Section 20 and the Fourth Schedule to the 1999 Constitution of the Federal Republic of Nigeria (As, Amended) should be critically examined and amended in order to eliminate issues of unhealthy rivalries..

References:-

1. Ajie, U. E., & Dienne, A. (2014, June 21). Spatial data analysis of solid waste management system in Port Harcourt metropolis after 100 years of its existence. FIG Congress 2014 Engaging the Challenges – Enhancing the Relevance, 3-6.
2. Akande, M.O., & Olorunnisola, A.O. (2018). Potentials of briquetting as a waste management option for handling market generated vegetable waste in Port Harcourt, Nigeria. recycling. Retrieved December 20, 2019 from: <https://www.mdpi.com/2313-4321/3/2/11>
3. Akintunde, E. A (2017). Theories and Concepts for Human Behavior in Environmental Preservation. Journal of Environmental Science and Public Health **doi:** 10.26502/JESPH.012, Vol. 1, Issue 1, p.122 -123.
4. Aminu, A. A., Tella, C. M., & Mbaya, P. Y. (2012). Public policy formulation and implementation in Nigeria. Public Policy and Administration Research, 2(5),57-62.
5. Armah, N.A. (1993). Waste management: The future of our cities. Ghana Academy of Arts and Sciences, 28, 78-83.
6. Atelhe, G. A., & Akande, B.A. (2018). The challenges of implementing public policies in Nigeria: Strategies for effective development in the educational sector. Journal of Humanities and Social Sciences, 23(6), 1-5.
7. Bamberg, S., & Moser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis and psycho-social determinants of pro-environmental behavior. Journal of Environmental Psychology, 27, 14-25.
8. Biyogue-Douti, N., Abanyie, S., & Ampofo, S. (2017). Solid waste management challenges in urban areas of Ghana: A case study of Bawku municipality. International Journal of Geoscience, 08, 494-513.
9. Coffey, M., & Coad, A. (2010). Collection of municipal solid waste in developing countries. .Malta: UN-HABITAT.
10. Dialoke, I., Ukah, F. O., & Maduagwuna, I. V. (2017). Policy formulation and implementation gap in Nigeria: The bane of underdevelopment. International Journal of Capacity Building in Education and Management, 6, 3(2).
11. Edozie, V. (2018, November 27). How Port Harcourt went from garden to garbage city. Daily Trust. Retrieved December 20, 2019 from: <https://www.dailytrust.com.ng/how-port-harcourt-went-from-garden-to-garbage-city.html>.
12. Edu, N. (2003). Environmental waste and management. Calabar, Nigeria: Ushie printers and publishing.
13. Egonmwan, J.A. (2004). Public policy analysis: Concepts and application. Benin, Nigeria: Resyin Publishing.
14. Ekine, D.I., Okechukwu, O., & Gbaraneh, G. F. (2018). Environmental refuse disposal management policies on municipal solid waste in Port Harcourt metropolis, Rivers State. Journal of Environmental Science, Toxicology and Food Technology , 12(7),78-82.
15. Elliott, P., Briggs, D., Morris, S., De Hoogh, C., Hurt, C., Jensen, T., Maitland, I., Richardson, S., Wakefield, J., & Jarup, L. (2001). Risk of adverse birth outcomes in population living near landfill sites. British Medical Journal, 323, 363-368.
16. Eneanya, A.N. (2009). Policy research, analysis and effective policy making in Nigeria. Lagos, Nigeria: Concept Publications Limited.
17. Hashmi, H. N., Malik N. E., & Shah, N. S. (2007). Solid waste management in Peshawar. Sarhad University International Journal of Basic and Applied Science, 1, 999-1006.
18. Hirschfeld, S., Vesilind, P. A., & Pas, E. I. (1992). Assessing the true cost of landfill. Waste Management &

- Research. 10(6) 471-484.
19. Hudson, B., Hunter, D., & Peckham, S. (2019). Policy failure and the policy-implementation gap: can policy support programs help? *Policy Design and Practice*, 2(1), 1-14.
 20. Hungerford, H. R., & Volk, T. L. (1990). Changing learner behavior through environmental education. *The Journal of Environmental Education*, 21, 8-21.
 21. Igoni, A. H., & Harry, S. K. (2017). Environmental crises in government controlled municipal solid waste management in Rivers State, Nigeria. *Journal of Environment and Earth Science*, 7(3), 38-42.
 22. Ijie, B. A. (2018, October). Policy development and implementation in Nigeria federal system. *International Institute of Tropical Agriculture*, 170-191.
 23. Iyanda, K.A., & Bello, S. D. (2016). Problems and challenges of policy implementation for national development. *Research on Humanities and Social Science*. 6(15), 60-65.
 24. Lee, G. F., & Jones-Lee, A. (2007, January 4). Comments on the CIWMB staff efforts to gain assured post closure funding for landfills for as long as the wastes in the landfill are a threat to public health and the environment. Retrieved from www.gfredlee.com/Landfills/CIWMBPostCloseFund.pdf
 25. Needam, J. (2019, April 15). Rivers State Waste Management Agency, RIWAMA, sacks service provider, issues 48-hours ultimatum to others. *The Nigerian Voice*. Retrieved from <https://www.thenigerianvoice.com/news/277370/rivers-state-waste-management-agency-riwama-sacks-service.html>
 26. Obuah, P.F., & Okon, G.B. (2017). Environmental communication strategies of the Rivers State waste management agency (RIWAMA): Implications for sustainable waste management in Nigeria. *International Journal of Development and Sustainability*, 6(11), 1541-1555.
 27. Ogwa, H., Yoshihara, A., & Hiroto, T. (2002). Risk factors for periodontal disease progression among elderly people. *Journal of Clinical Periodontology*, 29 (7), 594-603.
 28. Palczynski, R.J., & Scotia, W.N. (2002). Study on solid waste management options for Africa. Côte d'Ivoire: African Development Bank (ADB).
 29. Sujuddin, M., Huda, M.S., & Rafiqul Hoque, A.T.M. (2008) Household solid waste characteristics and management in Chittagong, Bangladesh. *Journal of Waste Management*, 28, 1688-1695.
 30. Sule, O. I . (2004): Solid and fecal waste disposal urban development planning framework :The Nigeria experience. Nigeria: Thumbprint Int'l Company.
 31. Tamunobereton-ari, I., Omubo-Pepple, V. B., & Igbani, G. N. (2012). Solid waste management approach In Port Harcourt municipality, Rivers State, Nigeria: The effects on public health and the environment. *Asian Journal of Science and Technology*, 4 (12), 042-054.
 32. Thøgersen, J. (2006). Norms for environmentally responsible behaviour: An extended taxonomy. *Journal of Environmental Psychology*, 26(4), 247-261.
 33. United Nations Environment Programme, (UNEP). (2015). *Global waste management outlook*. Austria: United Nations Environment Programme Publishers.
 34. Vaske, J. J., & Donnelly, M. P. (1999). A value-attitude-behavior model predicting wildland preservation voting intentions. *Society & Natural Resources*, 12 (6), 523-537.