

**IMPACT OF LITERACY EDUCATION ON THE ATTITUDE OF
MARKET WOMEN TOWARDS ENVIRONMENTAL SANITATION IN
OREDO LOCAL GOVERNMENT AREA OF EDO STATE**

BY

EGBO PEACE OREVAOGHENE

EDU1001410

FACULTY OF EDUCATION

UNIVERSITY OF BENIN

BENIN CITY

DECEMBER, 2014.

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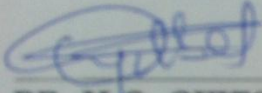
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**A PROJECT RESEARCH SUBMITTED TO THE FACULTY OF
EDUCATION, UNIVERSITY OF BENIN, BENIN CITY. IN
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF THE BACHELOR OF EDUCATION (B.SC) (ED) IN
ADULT EDUCATION PROFESSIONAL.**

DECEMBER, 2014.

APPROVAL

This project was carried out by Egbo Peace Orevaoghene of the Department of Adult and Non-formal Education, Faculty of Education, University of Benin, Benin City. In partial fulfillment of the requirement for the award of Bachelor of Education (B.Ed) under my supervision.

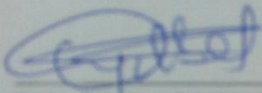
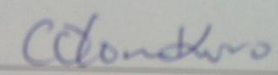
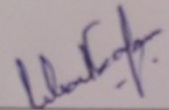


DR. M.O. OYITSO
(Project Supervisor)

Date: 5/8/24

CERTIFICATION

We the undersigned, certify that this research work was carried out by Egbo Peace Orevaoghene of the Department of Adult and Non-formal Education, Faculty of Education, University of Benin in Partial fulfillment of the ward of B.Sc (Ed.) Degree in Adult Education Professional

 _____ DR. M.O. OYITSO <i>(Project Supervisor)</i>	 _____ DR. (MRS.) C.O. OL.OMUKORO <i>(Project Co-Ordinator)</i>
Date: <u>15/12/14</u>	Date: <u>15/12/2014</u>
 _____ PROF. (MRS.) L.I. SALAMI <i>Dean, Faculty of Education</i>	
Date: <u>16/12/14</u>	

DEDICATION

This work is dedicated to the highest God, the Alpha and Omega, the lion of the tribe of Judah, for He is the source of all knowledge. Also to my Late Dad, Chief P.I.Egbo who sun set too early to experience life and to enjoy his children. And to my priceless and lovely Mum, Mrs. J. Egbo.

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I am sincerely grateful to God for all His grace and Mercy in my life since the day of my conception till today, and for giving me the opportunity of receiving University Education

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Finally, my sincere appreciation goes to my friends Olawale Sesun, Askakitikpe Omena, Prisca, Philomena, Faith, Nancy and the entire RCF family. I Love You All.

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ABSTRACT

The aim of this study was to investigate the impact of literacy education on the attitude of market women towards environmental sanitation in Oredo Government Area of Edo State with a view to ascertaining how literacy education affect the attitude of market women towards sanitation in Oredo Local Government Area.

During the course of this study, the concept of environmental sanitation, environmental education, relationship between sanitation, health and hygiene, the concept of literacy and environmental sanitation, the role of women in environment sanitation and what it entails, the role of Local Government in Environment Sanitation and efforts of Government towards Environment and Efforts of Government towards Environmental protection were also examined in the course of this study. In this wise, five research questions were formulated and tested in the course of the study. A questionnaire was designed and used for data collection. A total sample size of 100 respondents was used for the study. In the course of the study the following finding were made.

1. Market women have right attitude towards environmental sanitation in Oredo Local Government Area. Since both the educated and not highly educated participate in the monthly sanitation exercise
2. There is a positive effect of literacy education on the attitude of market women towards environmental sanitation in Oredo Local Government area. Since literates show more interest in environmental protection and preservation

3. Literacy education influence market women knowledge and practice of healthy living
4. There is a significant difference between the attitude of literate market women and illiterate market women towards environmental sanitation. Because literate women are more aware of environmental hazard and they avoid it
5. There are no adequate measures to achieve positive attitude of market women towards environment sanitation in Oredo Local Government Area, since there are no adequate punishment, for those who flaunt sanitation rules, no waste bin in the market for collecting refuse and no environmental sanitation programmes for market women

Based on the findings, it was recommended that the Federal, State and Local Government should provide literacy programmes for market women, there should also be a collection centre where wastes generated from the market is deposited and creation of awareness on sanitation issues and encourage them to develop the right skills and attitude towards solving identified environmental problems. The market women should be enlightened on the importance of environment sanitation and living in clean environment. Literacy education should be introduced at all level of education in Nigeria educational system.

CHAPTER ONE

INTRODUCTION

Background to the Study

The population of women traders in the Nigerian markets today far outweighs that of the men. It is sad to note that more than three quarters of the female traders are illiterate. Despite the fact that women constitute more than 80 per cent of food producers in the country, the high illiteracy level among them has made it mandatory to their door steps, so that they can become aware of the dangers posed by environmental pollution (Okukpon, 2008).

The urban cities are plagued by several social problems and as well as environmental problems and one of such problem plaguing urban centers is the problem of poor environmental sanitation. However, this problem is not peculiar to urban centers alone but is also prevalent in rural areas as well. The problems of environmental sanitation has been the concern of various

government or leaders at different stages or levels and for them to be able to achieve a good environmental sanitation or a clean environment, different mechanisms have been put into place, such as creation of awareness and mobilization. While a considerable level of success can be said to have been achieved in the urban centers, the same cannot be said of the rural areas due to so many reasons among which is the problem of literacy or illiteracy as the case may be.

Education for all (EFA) is a core strategy required of every country, particularly Nigeria, to lift her citizens out of the scourge of illiteracy. This can be fully achieved by giving young people and adults access to learning and educational opportunities. The UNESCO literacy day held on the 8th of September 2003, has it that over 860 million people above the age 15years are non literate in the world despite the fact that adult literacy over the last 20years has increased by 10 percent from 70% in 1980 to 80T in 2000 and this figure, a little fraction constitute the percentage of women.

Literacy level in Nigeria – Nigeria is the largest black nation in the world and the 7th richest in crude oil. Many scholars and analysis have described Nigeria as a potentially rich country with enough resources to attain a (100%) literacy level or rank among the highest literate countries in the world. But according to the UNESO report of April 2007, Nigeria ranked 142 positions out of 177 countries surveyed with 69.1 percentage literacy rate, coming after some African countries like Eritrea 99%, Gambia 99%, Zimbabwe 89.41%, Libya 84.4% and so on.

With a population of above over 140 million people in Nigeria, 69.18% literacy level is still far from acceptable with the enormous resources the country is endowed with. Conversely, illiteracy level is put at about 31% with primary school enrolment ratio put at 76.0 which is still low compared to some African countries like Zimbabwe with 19.0, Algeria 92.0, Cameroun 93.0 and Gabon 113.0 and so on (UNESCO 2007).

The problem of illiteracy in Nigeria is worse among women. According to the 2006 census figure, the percentage of literate women compare to their male counterpart is put at barely 31% which goes to show that illiteracy is paramount among the women folks. Many reasons or factors could be responsible for this. They include cultural cum socio-cultural factors. Some of the cultural beliefs that have militated against women in the past are that women are supposed to be home keepers. As a result of this, it is believed that the education of women will lead them to nowhere other than the kitchen. Some religious belief that excluded women from public functions is also part of the factors that have hindered women from attaining equal educational feet with the male folks in Nigeria.

The importance of the environment to man cannot be overemphasized, as a gift to mankind from God. It is good that man should take proper care of it, since it is the only habitat of man. The environment is divided into three, that is, the physical,

biological and social environment. If the environment is properly managed by man, it leads to a good health to man hence, the cleanliness of the environment should be the responsibility of every member of the society.

The problem of environmental sanitation can only be removed by literacy education. Due to this, the government of Nigeria introduced the universal basic education (UBE) through the Universal basic education commission (UBEC), the government of Nigeria intends to provide all Nigerians basic education from primary to junior secondary level. It means that, the citizens will have access to free and compulsory education for nine years (6 years in primary and 3 years in junior secondary). The government has also as part of her effort and initiative made compulsory the girl child education. This is geared towards attaining quality education. Also the introduction of the National Open University of Nigeria (NOUN) is other initiative by the government towards eradicating or reducing illiteracy in Nigeria (Efeare, 2008).

So many stakeholders are involved in the promotion of literacy namely, government establishments, nongovernmental organizations, community based organizations and private individuals who have the quest to eradicate illiteracy in Nigeria. Ojokheta (2007) stressed that many literacy centers have been established and more are still being established in many states of the federation through the activities of a government parastatal called the agency for adult and non formal education (ANNFE) as well as the National Mass Education Commission (NMEC).

The government of Nigeria through various laws has made efforts to inculcate a healthy environmental habit in the citizenry. For example, the federal environmental protection act of 1988 clearly defined what constitute the environment to include animals. It is important to state that environmental concern by the government date back beyond 1988 environmental protection act but to the colonial era. Thought here were no articulate or

comprehensive policy on the environment but there were specific declaration with regards to the environment.

An example of government interest towards the environment was the 1999 constitution which provides a background for the enactment of environmental legislation and policy at all level. Section 20 of the 1999 constitution of the federal republic of Nigeria, states that “the state shall protect and improve the environment and safeguard the water, air, land, forest and wildlife of Nigeria”, hence the ministry of environmental at various levels of government.

Due to the effort of the government to ensure a clean environment, the then military government headed by General Muhammadu Buhari initiated the monthly environmental sanitation exercise. It was put in place to encourage or make sure every citizens keep their environment clean at least once every month usually every last Saturday of the month. According to Oduaran (1989) on such day which are observed throughout the country, nobody except those on essential services (duties) can use

their automobiles between the hours of 7.00am and 10.00am in the morning. Defaulters are usually indicted and made to pay fines which range from N50 to N200 depending on the nature of their offence within the stipulated period for the sanitation exercise. The seriousness attached to the national resolve to have a safe environment paid off as people came out to keep their surroundings clean, clear the bushes around residential quarters, cleaned up their toilet and drains as well as dispose of all solid wastes and refuse within their vicinities and also in the market areas. The exercise was mandatory for all citizens in Nigeria and it was pursued with zeal and vigour. But, at the commencement of the civilian administration in 1999, the National Environmental sanitation Day (NESD) was no longer observed at the national level. It was now left for states and local government to cater for their own environmental practices. The exercise was no longer mandatory. But individuals and groups who felt concerned about the deplorable state of the environment took the initiative and mobilized themselves for action (Okukpon, 2008).

As part of the effort by the government in ensuring a clean environment led to the employment of sanitary officers at both the state and local government levels. The sanitary officers goes round and inspect toilet facilities and other facilities like drainage in market places, homes as well as to ensure that people keep to good environmental habits. The government also provides waste disposal tanks in market places and other strategic location in the community and regular evacuation of refuse disposal tanks to refuse dump sites. They also encourage clearing and cleaning of drains to prevent flooding and to discourage the breeding of mosquitoes.

The importance of sanitation can be understood properly if one understands the health and economic implication of dirty environment and habit. The WHO has it that over 80% of diseases in most third world countries are caused by water borne diseases and dirty environment. And most of the time, our market areas are very dirty and the women attitude towards environmental

sanitation in market areas is very bad. Environmental literacy programmes mounted for the people will help to improve their basic understanding of environmental issues, their state of health and well being. In addition, Nigeria economy would be enhanced if the citizens become environmentally literate and show genuine concern about the environment. The amount of money spent annually in evacuating solid, industrial and other polluted elements would be diverted to funding education and health through sanitation has always been related to food safety, good sanitation also has a positive impact on other aspects of the product in the market such as appearance of the seller and the products, flavor, longer shelf life and overall acceptability of the product.

A person who is literate and has the interest of the environment at heart should be able to: show profound awareness of environmental problems, show that he has knowledge of how to solve environmental problems, like in a healthy environment devoid

of pollution and demonstrate and put into practice the knowledge and skills acquired to combat environmental degradation.

It is against this stated background above that this study will therefore find out the impact of literacy education on the attitude of market women towards environmental sanitation in Oredo local government area of Edo state.

Statement of the Problem

In recent decades, there has been increase in concern about sustainability of the environment and its ramification. The global concern about environmental protection for sustainability arose as a result of increasing environmental degradation. The concern about pollution and deterioration of environmental quality has been building momentum to various environmental movements. In bid of this, government inaugurates the environmental sanitation programme to be observed every Monday morning of the week in Benin City.

It is pertinent to say that, several studies have been carried out in the area of environmental policies to ensure environmental protection, factors inducing poor environment and so on, but much studies have not been conducted on the impact of literacy education on the attitude of market women towards environmental sanitation.

Therefore, this study seek to examine the impact of literacy education on the attitude of market women towards environmental sanitation programme observed every Monday morning in Oredo local government area in Edo state.

Purpose of the Study

The major objective of this study is to find out the impact of literacy education on the attitude of market women towards environmental sanitation in the respective shops and homes in Oredo local government area of Edo state. In this wise, this research will seek to achieve the following specific objectives:

1. To identify the attitude of market women towards environmental sanitation in Oredo local government area of Edo state.
2. To determine the impact of literacy education on the attitude of market women towards environmental sanitation in Oredo local government area of Edo state.
3. To identify the influence of literacy education on the market women's knowledge and practice of healthy living.
4. To find out the difference between the attitude of literate market women and illiterate market women towards environmental sanitation in Oredo local government area.
5. To reveal the measures put in place by government to achieve positive attitudes of market women towards environmental sanitation in Oredo local government area.

Research Questions

The following research questions are put forward to guide this study to which answers will be provided:

1. What is the attitude of market women towards environmental sanitation in Oredo local government area?
2. What are the impacts of literacy education on the attitude of market women towards environmental sanitation in Oredo local government area?
3. To what extent does literacy education influence the market women's knowledge and practice of healthy living?
4. What is the difference between the attitude of literate market women and illiterate market women towards environmental sanitation in Oredo local government area?
5. What are the measures put in place by government to achieve positive attitudes of market women towards environmental sanitation in Oredo local government area?

Significance of the Study

The major significance of the study is that the findings will provide useful information to all and sundry on the relationship between literacy and attitude of market women towards

environmental sanitation. As such it will therefore create more awareness on the benefit accruable from literacy education in relation to the development of positive attitude towards the preservation of natural environment through environmental sanitation programme.

Furthermore, the findings will enable government intensify effort towards provision of literacy education (both basic and functional) for market women to enable them take more active part in the cleanliness of the environment through participating in the environmental sanitation programmes.

Above all, this study will add to existing knowledge in the area of literacy education and environmental sanitation. It will also create a positive attitude on the market women towards environmental sanitation in Oredo local government area, thereby creating a clean market environment. It will also improve the general public basic understanding of environmental issues, their state of health and their well being, thereby making them to

participate fully in environmental sanitation programme of the state.

Scope and Delimitation of the Study

The study is to be carried out to primarily explore what impact literacy education has on the attitude of market women towards environmental sanitation in Oredo local government area of Edo state.

In investigating this, the market women in the local government area will constitute the population of the study from which the sample will be randomly selected. The following markets in the local government will therefore be used for the study.

- New Benin Market
- Oba Market
- Ekiosa market
- Oleya market

Definition of Terms

The following terms are defined to suit the purpose of this study:

Literacy: with regard to the study is used to mean the ability to read, write and understand the passage of information from mass media.

Literacy education: literacy education is a learning programme for acquiring skills, knowledge and attitude to make literate in the society.

Environment: it is the immediate surrounding. It consists of geographical impression of the surface area just around an individual.

Sanitation: is an act of providing healthy environment. It is also concerned with the keeping of one's environment clean.

Market: it is a place where people gather for selling and buying goods and commodities.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this study, the literature to be reviewed on the impact of literacy education on the attitude of market women towards environmental sanitation programs would be based on the following:

- Definition of environmental sanitation
- Environmental education
- Relationship between sanitation, health and hygiene
- The meaning of literacy
- Literacy and environmental sanitation
- The role of women in the environment
- Socio-economic benefit of sanitation
- The role of environmental sanitation and what it entails.
- The role of local government in environmental sanitation
- Efforts of government towards environmental protection.

Definition of Environmental Sanitation

The environment refers to the surrounding or all the conditions, circumstances and influences surrounding and affecting the development of an organism. On the other hand sanitation is the hygienic means of promoting health through prevention of human contact with the hazards of waste as well as the treatment and proper disposal of sewage waste water. Hazards can be physical, microbiological, biological or chemical agents of disease. Wastes that can cause health problems include human and animal feces, solid wastes, domestic wastewater (sewage, sullage, greywater) industrial wastes and agricultural wastes (Wikipedia 2014).

The World Health Organization states that:

“Sanitation generally refers to the provision of facilities and services for the safe disposal of human, urine and feces. Inadequate sanitation is a major cause of disease worldwide and improving sanitation is known to have a significant beneficial impact on health both in households and across communities. The

word “sanitation” also refers to maintenance of hygienic condition, through services such as garbage collection and wastewater disposal”.

Sanitation is the science and practice of effecting healthful and hygienic conditions through the use of measures such as drainage, ventilation and good water supply. From the above definition, we can simply say that environmental sanitation is the science that tries to show the principles and laws of beauty in art and nature (Webster’s unabridged dictionary). Environmental sanitation simply refers to cleaning the environment. Environmental sanitation is an often misconstrued subject matter. The average man on the street and even those in government circles in the country understands it as no more than the routine evacuation of collected municipal solid waste. So long as there is less observed heaps of refuse, i.e. Refuse is removed from the streets, the average individual feels satisfied with the state of the environment and those in governance may give themselves kudos

without recourse to other critical factors in the environment that might be infringing on the well being of the individual in the neighborhood or the society at large.

The World Health Organization defined environmental sanitation as the control of all factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival. Ojewale (2009) sees it as a "way of life, a quality of living that is expressed in the clean home, the clean farm, the clean business, the clean neighborhood and the clean community. Being a way of life, it must come from within the people. It is nourished by knowledge and growing as an obligation and as an ideal in human relation.

It has also been defined in the Business dictionary (2010) as "activities aimed at improving or maintaining the standard of basic environmental conditions affecting the well being of the people". These definitions suggest that environmental sanitation involves both behaviors and facilities which work together to form a hygienic

environment. That is, there must be essential facilities available for use, the correct understanding and positive attitude and indeed the application of the facilities correctly to attain the desired sanitation state. Ojewale (2008) describes environmental sanitation as a system with nature, society, process and device as its component.

The Federal Ministry of Environment (2005) defined environmental sanitation as “the principles and practice of effecting healthful and hygienic conditions in the environment to promote public health and welfare, improve quality of life, reduce poverty and ensure a sustainable environment. This definition indeed that of Ojewale are quite appropriate within the parlance of this discuss, as it sees environmental sanitation as improvement in hygienic conditions directed not only to the improvement of health and welfare but also the reduction in poverty and ensuring sustainable development. Ojewale vividly pointed at sanitation as a way of life, coming from within the people (society) and assisted by nature, process and devices.

Environmental sanitation refers to proper maintenance of trash and garbage to support a healthy environment. It is also a set of actions geared towards improving the quality of the environment and reducing the amount of disease. By doing so, the hope is that living conditions will improve and health problems will decrease.

Environmental Education

The issue of environment and its clear status cannot be separated. In the works of Imbabekhai (1998) he stated that environmental education involves the enlightenment on the prevention of environmental hazards and control procedures where they occur. This, he said includes inculcating good sanitation habits in the people. Environmental education is a process that allow individual to explore environmental issues, engage in problem solving and take action to improve the environment. As a result, individuals develop understanding of environmental issues and have the skills to make informed and responsible decision. The issue of awareness or what can be termed literacy is also issue of

utmost importance in environment and sanitation. On literacy, Adeodipe (1990) revealed that two types of literacy exists conventional and functional literacy. According to him, conventional literacy refers to the ability to read, write and computing skills. Functional literacy he said involves the acquisition of knowledge and skills which enable an individual to engage effectively in all the activities including environmental activities. Adedipe (1999) further stressed that environmental will concern acquisition of environmental awareness which involves developmental process and this take a life time experience. Environmental education is a process that instructs and moderates the individual to take wise decision geared towards the promotion of health and cleanliness of the environment.

The 1975 first worldwide conference of experts on environmental education held in Belgrade, Yugoslavia defined environmental education as:

A process of developing a citizenry who is knowledgeable about this environment, the interrelationships among the organisms within it and its environmental problems; possess the attitudes of concern for the preservation or conservation of the environment and possess the skills of inquiry, critical thinking and decision making and who is motivate dot act and solve upon these problems.

This means that environmental education is aimed at promoting the knowledge, skills and attitudes which would enable man to act upon environmental problems.

Rugumayo and Ibikunle-Johnson (1987) cited in Abang (1997), have further amplified the concept by taking environmental education to be an integrated process, which deals with man's interrelationship within natural and manmade surroundings. The definition given by Rugumayo and Ibikunle-Johnson emphasized that environmental education is aimed at developing a world population that is aware of and concerned about the environment

and its associated problems and which as the knowledge, skill, attitudes, motivation and commitment to work individually and collectively towards the solution of current problems and prevention of new ones.

Similarly, Kolo (1994) sees environmental education as concerned with the acquisition and use of component bodies of knowledge about man's relations and interaction with the changing physical and ecological compositions of the earth and the universe.

The scholars above gave their various definitions of the meaning of environmental education, the goal of environmental education could be located then in providing the awareness, concern and action that are needed for the protection and preservation of the environment. Environmental education is necessary for the general public to be aware of various environmental hazards or issues, so that they can prevent it.

Relationship between Sanitation, health and Hygiene

Sanitation is the hygienic means of promoting health through prevention of human contact with the hazards of wastes. The World Health Organization (WHO) states that: “sanitation generally refers to the safe disposal of human urine and faeces”. Inadequate sanitation is a major cause of disease worldwide and improving sanitation is known to have a significant beneficial impact on health both in households and across communities. The world “sanitation” also refers to the maintenance of hygiene conditions, through services such as garbage collection and wastewater disposal, food sanitation. The term “sanitation” can be applied to a specific aspect, concept, location or strategy, such as: improved sanitation, on site sanitation, food sanitation, ecological sanitation, environmental sanitation etc. ecological sanitation is an approach that tries to emulate nature through the recycling of nutrients and water from human and animal wastes in a hygienically safe manner. While environmental sanitation refers to man’s activities in the environment aimed at restoring the environment to a level it

will engender health and support life. It is the control of environmental factors that form links in disease transmission.

Health is the level of functional or metabolic efficiency of a living organism. In humans, it is the general condition of a person's mind and body, usually meaning to be free from illness, injury or pain (as in "good health" or "healthy") (Merriam Webster, 2011). The World health organization defined health in its broader sense in 1946 cited in Frank (2002) as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". Although this definition has been subject to controversy in particular as lacking operational value and because of the problem created by use of the word "complete", it remains the most enduring (Taylor, 2008). Business Dictionary defined health as a dynamic condition resulting from a body's constant adjustment and adaptation I response to stresses and changes in the environment for maintain an inner equilibrium called homeostasis. The term "health is also widely used in the context of

many types of non living organizations and their impacts for the benefits of humans such as in the sense of healthy communities, healthy cities or healthy environments. In addition to health care interventions and a person's surroundings, a number of other factors are known to influence the health status of individuals, including their background, lifestyle and economic, social conditions and spirituality, these are referred to as "determinants of health".

Hygiene, which comes from the name of Greek goddess of health, Hygiene, is a set of practices performed for the preservation of health. Hygiene is a condition or practice conducive to maintaining health and preventing disease, especially through cleanliness. Medical hygiene therefore includes a specific set of practices associated with this preservation of health. For example environmental cleaning, sterilization of equipment, hand hygiene, water and sanitization and safe disposal of medical waste. Hygiene is the practice of keeping yourself and your surroundings clean,

especially in order to prevent the spread of disease. Hygiene practices are employed as preventative measures to reduce the incidence and spreading of disease. In the manufacture of food, pharmaceutical, cosmetic and other products, good hygiene is a key part of quality assurance i.e. ensuring that the product complies with microbial specification appropriate to its use (Wikipedia 2014). The term cleanliness (or cleaning) and hygiene are often used interchangeably, which can cause confusion. In general, hygiene mostly means practices that prevent spread of disease causing organisms. Since cleaning process (e.g. hand washing) remove infectious microbes as well as dirt and soil, they are often the means to achieve hygiene. With the help of hygiene, the market environment is kept clean thereby preserving the sale of food from deadly organisms that are harmful to our health.

Sanitation, health and hygiene are terms that are critical to the individual. The consequence of poor sanitation or hygiene is grievous. As a result, adequate awareness or education must be

created. Poor sanitation promotes the spread of health problems like diarrhea, intestinal worms, bilharzias, and hepatitis and scrabbles (World Bank, 1995). In the World Health organization report, it is estimated that improved sanitation facilitates and practices could reduce health problems like diarrhea, malaria (especially in the topical region) among young children by more than one third (1/3) percent. Conversely, bad sanitation practice or habit pollutes the environment and threatens social and economic development as people have to stay at home from school, work and other activities that are beneficial because of illness (World Bank, 1995).

Consequent upon the above, Glewwe (1997) advocated for the need for training and educating to raise awareness and impact knowledge on how to improve sanitation in the society especially among the market women. According to him, the rural communities need to be educated on practice it. He stressed that the role of the media and other resource persons as well as the

relevant government agencies is important in order to achieve this. To him what constitute literacy with regards to sanitation is to be informed on the health, social economic implication of bad sanitation habit or on the benefits of maintaining a good sanitation habits.

In conclusion there is a good relationship between sanitation, health and hygiene because sanitation and hygiene are vis-à-vis. Hence a good sanitation and hygiene promote good health among individuals in the society or in market place.

The meaning of Literacy

There is no doubt that literacy has meant different meaning to d different people over the years. Literacy to a great extent is the pivot upon which any expected human social change revolves. For a state to have maximal achievements in her efforts to socialize and mobilize the citizens there must be literacy linkage (Aiyamenkhue R, 2008).

According to the advanced learner's dictionary of current English, literacy is described as an acquaintance with the alphabet and the ability to read and write. This simple view of literacy has some flaws, for it does not tell the level of competence, the individual should reach before he could be described as literate.

Literacy has been defined in numerous ways from different perspectives and with different intention in mind. Various definitions have been alluded to literacy by International organization concerned with literacy and submissions of scholars that have long been involved in literacy process. At first in the early 1950s, United Nations Educational Scientific and cultural Organization (UNESCO) defined literacy ability as a person who can understanding both read and write and can write a short simple statement on his everyday life. It was later changed in 1960s, UNESCO defines literacy as "the ability to read and write in the mother tongue".

But since there had been a change of content and functions of literacy in recent times, UNESCO gave a current definition of literacy as: a person is functionally literate when he can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculating for his own and for community development. On the other hand, a person is functionally illiterate when he cannot engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading and writing and calculation for his own and for community's development...

According to UNESCO, in the work of Imhabekhai (2009) categorized literacy into

- i. Level 1: Basic
- ii. Level II: Middle

iii. Level III: self learning.

The basic literacy level involves adults who have had no formal learning at all and those who had a little formal education but dropped out before they could acquire sufficient literacy skills for their day to day activities. The middle level involves adults who have completed the basic level or possess basic literacy skills and enrolled in the programmes to develop some abilities and proficiency in using reading, writing and numeracy skills. The self learning level consists of learners who have completed the middle level or can study independent and who are willing to use books and other materials in search of new knowledge.

Rogers defined (1994) literacy as “the degree to which an individual possess mastery over symbols in his written form or is able to encode and decode.

Treive (1997) equates literacy education with concretization within the context of literacy for cultural action. Nasutian (1991) emphasizes on the relevance of literacy education to the socio-

economic setting of the recipients literacy education is not just the process of learning the skills of reading, writing and arithmetic but a contribution to the liberation of man and his full development.

Literacy, according to the United States department of education (200&) is the ability to use printed and written information to function in the society to achieve one's goals and develop one's knowledge and potentials. In every society, literacy is a necessary skill in itself and one of the foundations of other life skills. It is also a catalyst for participation in social, cultural, political and economic activities for learning throughout life.

According to Anyanwu (1998), at a time when the application of science and the utilization of appropriate technology are making increasing demands on the ability of man to participate meaningfully in political, social and economic development, the great importance and relevance of literacy as a prerequisite to social and economic development remain an ever present phenomenon or policy. Regardless of the divergent view of scholars

on the relevance of literacy to development, various researchers have established a close correlation between illiteracy and underdevelopment (Omolewa, 1998, Adeola 1998, Duke 1997) for instance, Adeola (1998) established the relationship between illiteracy and poverty and other social ills such as ignorance, diseases and malnutrition indeed, illiteracy has often be counted as one of the accompaniment of poverty. Omolewa (1998) did not agree with it as he opined that illiteracy is in capable of providing a cure for poverty in a society, the illiterate were very intelligent and not necessarily poor.

It is necessary to look at the meaning of illiteracy, that is, the rationale behind the world literacy crusade. The moving spirit behind all literacy programmes and campaigns the world over is the determination to eradicate illiteracy in the land. Illiteracy refers to an individual or a person inability to read, write and compute with understanding. Nasutian (19720 cited I Aiyamenkhue (2008) commented that, illiteracy has been regarded as an enemy and evil

which keeps people in darkness, bound to their traditions and superstitions, it makes people resistant to change and new ideas and incapable for meeting the demands of their change environment and ever progressing world.

If literacy programme are carried out in all part of the world to eradicate illiteracy and all its vices, then it should not be conceived only as the ability to read, write and calculate alone, it should be seen as something more than that.

According to Moitra (1998) cited in Hector (2006) in his poem titled “why should we become literate” has shown that literacy cannot be taken as an end.

An excerpt of it runs thus:

“What kind of people are we?”

We are poor, very poor but we are not stupid.

That is why, despite our illiteracy, we still exist.

But we have to know why we should become literate.

They say that there are laws to protect and benefit us.

We don't know these laws.

We are in the darkwould literacy help us know these laws?

Would we know the laws that have changed the status of?

The women and the laws that protect the tribal amongst us?

We want a straight answer.”

The above clearly portray that the skills of literacy are important because they help to put the recipient in a position where they can understand their environment better than what they would have been.

In conclusion, it can be stated that literacy is intellectual equipment for the individual to enable him become not only literate, but to perform other tasks that are beneficial to him and the society in which he lives.

Literacy and Environmental Sanitation

Literacy and environmental sanitation cannot be separated because it deals with awareness and awareness creation. In order

to achieve a clean environment, there is the need for awareness creation. Literacy has an important role to play in environmental sanitation. The concept of literacy has generated a lot of concern from different scholars, but one thing that is common to the idea is the relativistic nature of literacy. The complexity of the term “literacy” has made it not to have a universally accepted definition. Despite complexities, the importance of literacy outweighs its complexities (Onuka, 2011).

Adiesu (1985) cited in Efeare (2008) in his explanation see literacy as a process of development in a person’s awareness which enables them to contribute to the development of the community. In relating this to the environment and its sanitation, he explains that literacy and awareness can be seen as producing a similar result while not limiting literacy to being lettered lone. He stressed that awareness creation can be of immense importance to providing good hygiene for members of a community. He expanded further that an illiterate person is one that lives in a state of primary

consciousness in ignorance. Therefore, literacy brings the illiterate out of such state and opens him to the global world.

Relating the concept of literacy to the problem of environmental sanitation among women, Rani & Rao (1995) stresses that literacy to a considerable extent does not have a direct relationship with sanitation except for participating purposes. Instead, he stressed that what is important is awareness creation and mobilization. For this to be possible, the use of language is prerequisite in order to get participation of the people. One problem associated with mobilization according to Rani & Rao (1995) is illiteracy, but he explained further that this can be overcome by the use of local language in passing information across the community.

It is quite difficult to differentiate between enlightenment, education or literacy but one vital instrument that can aid in the promotion of safe environment is enlightenment (Imhabekhai 1998). He further opined that environmental education involves enlightenment on the prevention of environmental health hazards

and the control procedures where they occur, and this includes the inculcation of good sanitation habits and to sensitize the populace or the community on the need to participate in sanitation exercise towards clean environment.

Most environmental control programmes are aimed at the protection of the environment being the only habitat of man. Hynes (1990) opines that the earth is being more populated than it was ten years ago. Because pollution is pervading the lives of Nigerians in ways that has not been seen, it has become necessary therefore that environmental education and practice be directed at maintain in the environment without destruction as well as the preservation of natural resources within it for the comfort of man. Hynes (1990) suggest that in order to have effective implementation of environmental education practices, the following features should be put in place:

1. Provision of educative materials

According to Hynes (19990), educative materials should be provided or publicized by body the print and electronic media designed to sensitize the public on sanitation and health related issues. The use of billboards, posters, and cartoon captions etc, is good examples as well as melodrama on both television and radio. The messages on posters or billboards should be simple enough to understand and catchy. Examples of such messages can include such like:

- Please do not litter
- Keep your surrounding clean
- Stay healthy in a clean environment
- A dirty environment leads to sickness
- Put your refuse in a dustbin
- Do not cut down trees
- Plant a tree today
- Always wash your hands with soap and water.

Billboards and posters with such caption should be placed in public places in both the cities and rural communities. This is aim at educating the people on the needs for environmental cleanliness. The education of the people against environmental pollution goes beyond the use of the media. Other means abound especially with regards to less literate and other informal groups can also be of immense importance (Sulton, 1999).

2. The use of community education centres

The need for environmental education is to give to the people the mechanism that will lead to improvement of the people's living standard and condition to this effect, the community education centre will play a vital role (Omoruyi, 1999). He revealed that most environmental degradation takes place in the rural communities which has made the community education a better option is to pursue the conservation or the preservation policy and this suggest that environmental education classes should be established in all the communities by using the town hall or the community centre to

reach all people living within a given community. He also asserted that it should be before all community members to enable them understand their environment and be familiar with environment problems particularly the sanitation problems confronting the community and work towards providing solutions. The teachings provided Omoruyi (1999) stresses what should be included in the social and economic lives of the people and how they can beautify their environment in the course of their pursuit of their economic activities.

3. The integration of environmental education into school curriculum

The integration of environmental education into the school curriculum is necessary to enable school pupils and students imbibe environmental consciousness (Omoruyi, 1991). This according to him should be done through research and developmental activities in schools whereby pupils and students are taught about the environment.

In addition to the above, according to the Belgrade charts on A global framework for environmental education (1975)n cited in eFearue (2008), the objectives of environmental education includes the following:

- i. Awareness: to help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and role in it.
- ii. Knowledge: to help individual and social groups acquire basic understanding of the total environment, its associated presence and role in it.
- iii. Attitude: to help individual and social groups acquire social values, strong feeling of concern for the participating in its protection and improvement.
- iv. Skills: to help individual and social groups acquire the skills for solving environmental problems.

- v. Evaluation ability: to help individual and social groups evaluate environmental measures and education problems in terms of ecological, political, social, aesthetic and educational factors.
- vi. Participation: to help individual and social groups develop a sense of responsibility and urgency regarding environmental problems to ensure appropriate action to solve those problems. Following the above, the guiding principles of environmental education according to the Belgrade charter are:
 - a. Environmental education should consider the environment in its totality. Natural and man-made ecological political, economic, technical, social, legislative, cultural and aesthetic.
 - b. Environmental education should be a continuous lifelong process both in school and out of school.
 - c. Environmental education should be interdisciplinary in its approach.
 - d. Environmental education should examine major environmental issues from a world point of view while paying due regards to regional or local differences.

- e. Environmental education should examine all development and growth from an environmental perspective.
- f. Environmental education should promote the value and necessity of local, national and international cooperation in the solution of environmental problems.

The Role of Women in the Environment

The environment around us forms the habitat for various organisms. Prominent among these habitats are the seas, fresh waters, land and air (Olapade, 1992). There have been several assaults on the Nigerian environment which must be checked if we are to have a pollution free nation. Kontagora 1998) stressed that irreparable damage has been done in many instances to the Nigerian environment through activities such as

- i. Land pollution i.e. indiscriminate dumping of solid waste on land
- ii. Blocking of drains and culverts which prevents free flow of water especially during raining season.

- iii. Killing of games for food and for sale, and
- iv. Discharge of all kinds of waste in our water. .

It is at this juncture, women play a significant role in environmental protection and preservation. Women have so many roles to play in the environment; they can either help in promoting a hygienic environment or contribute to its devaluation. Sanjran (2013) posited that, women are the inherent part of our society and cannot be neglected due to their less power and authority. He went further to say that, they are created as a companion for men and men have to make her walk with them in the course of life. Women play the role of a mother, a sister, a daughter and a wife. They play their role with great responsibilities in upbringing of a healthy solid society. The basic unit of society is a woman (Wikipedia, 2014). As a woman makes a family, family makes a home and home makes a society. So we should never think that a society would come into existence without the contribution of women. A healthy society doesn't automatically emerge on its own and stands firm but it

needs to emerged and for its emergence women play a pivotal role. Sanjran (2013) said that the very first and best school of a child is its mothers' lap. It's a woman who teaches how to behave, how to speak, how to deal with different classes of people and how to keep clean and healthy environment. These all, are the basic fundamentals of a good society and women are the main contributors in building up a strong society.

In our traditional society, women wake up early in the morning daily to sweep the compound. On the village market day, the y sweep from their various compounds to the main roads of the village where they meet other women who have equally swept from their own compounds to the main road. From the main road they sweep to the market square where all the women in the village would converge having swept the road from their various compounds through the network of roads in the village to the village market square. This is a way the women in the traditional

community keep the community clean. But not the same in the modern society. (Eli, 2000).

Women should be made to keep dustbin with a firm cover for collecting refuse generated from the home, since a lot of waste is generated at the home front either through preparation of food, cleaning and dusting or burning discarded objects to rid the home environment of junks. This will prevent diseases caused by flies and rodents. Environmental cleanliness should be seen as the responsibility of all Nigerians, particularly women. They should be persuaded to change their attitude towards the environment.

Aina (1997) posited that Nigeria is blessed with fruits and foodstuffs all the year round. There are different seasons for various fruits. She went further to say that, the natural environment is also burdened with pollutants and wastes that emanates from these foodstuffs and fruits. It's the responsibility of women to create the right attitude towards the environment, for example, when certain foodstuffs are in season like corn and

groundnuts, people both young and old boil, roast, fry and sell them and litter the entire environment with the corn husk/corn cob and groundnut peelings. The same thing is applicable to fruits especially banana, pawpaw and oranges. There is need to imbibe good sanitation habits in the minds of people especially the women should be emphasized through public enlightenment campaigns, through posters, radio and television jingles to drive home the ills and dangers of environmental pollution in Nigeria. We all know that without education, no development is possible. It is necessary for these women to be educated, so that they can develop a right attitude towards environmental sanitation and also inculcate the right type of attitude in their change. Brigham Young says, "You educate a man, you educate a man. You educate a woman, you educate a generation". So many has so many roles to play in different areas in keeping our environment cleans. And similarly, since women have been described as powerful agent of development oriented programmes (Oduaran, 1991), there is need for them to be empowered in terms of environmental education programmes and

provided with the needed human and material resources with which to tackle environmental problems and also find lasting solutions to these problems.

The population of women traders in Nigerian markets today far outweighs that of the men and Okukpon (2008) revealed that more than three quarter (3/4) of the market women are illiterates which is a militating factor against them and this makes it imperative for them to be exposed to environmental education to make them aware of the dangers posed by polluted or unhygienic environment. The first step she states is the creation of awareness among the women of the different environmental problems and to encourage them to develop the right skills and attitudes towards solving these environmental problems. Once this awareness have been created, she explains, the women should ensure that market environment where buying and selling takes place is kept clean at all times to prevent the spread of communicable diseases and the pollution of food items on display for sale. She further explains

market women should ensure that there is clean running tap water for use in the market, functional toilet should be put into effective use to prevent an epidemic outbreak, there should also be collection centre where waste generated from the market is deposited and promptly evacuated by the local government authorities in charge. The second step is that, the market women leader should participate effectively in the environmental protection practices by serving as mobilization agent to mobilize other women in the market as well as liaise with the state environmental protection agency on issues that affects the environment. And lastly, seminars and workshops should be organized for the market women in their local languages periodically to teach them environmental cleanliness, protection and preservation. In addition, she went further to say the women should be taught how to take appropriate measures to reduce the risk associated with environmental hazards.

In conclusion, women are central to the achievement and sustenance of environmental sanitation in our various communities. They played a central role in the past and should be made to continue to play that motherly caring role not for their families alone but for the environment where they live and work. Also Okukpon (2008) cautioned that any environmental protection practice that ignores the interest of women is unacceptable, therefore they must be involved in the fight against environmental problems.

Socio-economic benefits of sanitation

Sanitation is very vital for any nation and in order to live a world free from diseases, we must ask ourselves in a more collaborative and more sustained ways to frequently embark on general cleaning exercises in our houses, homes and our communities (Bekai 2013). Improved sanitation has positive impacts on economic growth and poverty reduction. According to a recent world health organisation study, every dollar spent on

improving sanitation generates an average economic benefit of \$7. The economic cost of inaction is astronomical. Without improving sanitation, none of the other Millennium development goals to which the world has committed itself, will be achieved.

One of the benefits of sanitation is that, it is aimed at improving or maintaining the standard of basic environmental condition affecting the well being of people. These conditions may include the following observations;

- i. Clean and safe water supply
- ii. Clean and safe ambient air
- iii. Efficient and safe animal, human and industrial waste
- iv. Protection food from biological and chemical contaminants
and
- v. Adequate housing in clean and safe surrounding which environmental experts referred to as environmental hygiene (Benkai 2013).

Sanitation also limits environmental contributors to the spread of disease, commercial food safety in facilities like restaurants and farms and hospitals safety (Andrew, 2012). This can also include isolation wells to prevent them from being contaminated securing water supplies from outside the community and developing a safe network of pipes to deliver water to residents. Andrew (2012) posited that, there is also an oft forgotten secondary benefit arising from sanitation. Simply through providing an organized collection and distribution system, this nutrients laden “waste’ can also be seen as resource rather than a problematic substance to be disposed of.

Other economic benefit of improved sanitation includes savings in health costs, increased life expectancy with reduced morbidity and child mortality, reduced sick leave and higher productivity, better learning capacities among school children and increased school attendance, national pride and improved tourism and reduced water treatment costs. Therefore, government plans to

facilitate improved service delivery by supporting communities in providing and using sustainable sanitation service must be intensified, improving household waste collection and disposal and educating the public about hygiene must be done collectively through environmental sanitation education (water aid, 2006).

More so, the Nigerian economy would be enhanced if the citizens become environmentally literate and show genuine concern about the environment. The amount of money spend annually in evacuating solid, industrial and other polluted elements would be diverted to funding education and health (Okukpon, 2008).

In conclusion, literacy s a catalyst for socio-economic and political transformation (Okukpon, 2008) in order words, the people of Nigeria or the market women should be transformed to become more committed and dedicated to the preservation and conservation of the environment. Literacy should empower the people to become active participants against environmental pollution practices.

The role of environmental sanitation and what it entails

According to Anyaoka and Eluwa (1991), sanitation is the process of effecting healthful and hygienic sanitary practices such as drainage, ventilation, good supply of water, efficient disposal of refuse, etc. the health of community members depends to a large extent on the sanitary conditions of the community. Poor sanitation results in diseases through contaminated food, water and environment. If a community or house is to provide a clean environment for the development of any community members, proper sanitation must be maintained.

Kadiri (1997), sanitation means system of the improvement of health and prevention of diseases. That means freedom from dirty and hygienic conditions. It also includes efficient disposal of sewages and waste.

According to Agbola (1988) cited in Nwaonicha (2006), reports environmental sanitation came into existence in a nationwide campaign as a result of sudden realization of the massive neglect of

the environment, pollution and general deterioration of the general environments in Nigeria. Environmental sanitation is one of the most serious problems plaguing rural and urban communities such communities are filthy fetid, prone to epidemic disease due to environmental neglect, non adherence of basic hygienic codes, inadequate sanitation system and poor enforcement or implementation of the few existing by laws.

Lukas and Gills (1990) described objectives of environmental sanitation as creating and maintain conditions in the environment that will promote health and prevent diseases. Man's external environment contains elements that are essential for life and for the maintenance of elements, which contain potential hazard. Man has a wide range of tolerance of environmental conditions because of his ability to adopt.

Environmental sanitation includes:

1. Provision of safe and adequate water supply
2. Disposal of wastes
3. Provision of good housing
4. Air hygiene
5. Safeguarding of food.
6. Disinfections
7. Control of insect and other pests
8. Control of animals infected
9. Elimination of other hazards

Many of these problems in environmental sanitation are being taken care of by public health engineers, environmentalist, health officers, technician and environmental educationist.

The report environmental experts have influenced the development of policy on an educative material or environmental protection. For example, the Guardian (1994) suggested that a waste management policy to be compulsorily enforced by the

government and spearheaded products marketers and their customer has been recommended by environmental specialists friends of the environment (FOTE) and Nigeria environment society (NES) as an appropriate measure to control the whole spread of indiscriminate dumping of industrial effluents. These researchers have led to the development of educative materials which re published by the print media, posters designed and produced on why the environment must be kept clean. Messages of such posters are clear such “don’t litter its, an offence”. Apart from poster, use of print media, electronic media have to be useful to the community, learning resources in the education of people. This had been made more meaningful by the promulgation of national environmental sanitation day, which falls on the last Saturday of every month. Defaulters re usually indicted and fined rangers from between N1500 to N2000.

Guardian (1999) reported that a new federal ministry of environment was established. Alhaji Adamu, minister of environmental pronounced at a après conference the eleven year old Agency (FEPA) will be absorbed into the ministry. Dr Adamu and Dr Okopido, has proposed the creation of four agencies which he had proposed would emerge from FEPA including national agency for environmental technology compliance and enforcement.

Land management authority of Nigeria to manage erosion and land resources, national emergency management authority (NEMA) and national parks services, which will among other thing advice government on the development and preservation policy of the national park including the financial requirements for the implementation of environmental friendly programmes.

In 1984, the federal government of Nigeria launched the war against indiscipline (WAI) campaign on environmental sanitation and a task force was established to achieve its objectives. Environmental sanitation was directed against bad habits such as

spitting in public places, noise making, street trading, hawking of food and indiscriminate disposal of refuse.

It has been understood that the roles of environmental sanitation in maintaining and promoting the standard of living of people in the community include the human liberation through education/awareness and actively working to change one circumstance for better. It also includes the process of effecting healthful and hygienic conditions, ventilation and provision of basic disposal system.

Good sanitation exercise/programme contribute to the health of a family, thereby reducing to the barest minimum the attendance at out hospital and medical centers particularly during working hours as well as paying less hospital bills while poor sanitation spread diseases and lead to under development. The review also has identified the objective of environmental sanitation as the creation and maintenance of condition that will promote health and prevent diseases.

It has also been identified that environmental sanitation programme/exercise includes the provision of a safe and adequate infrastructure facilities and the elimination of filthy and hazardous environmental problems.

It is noted that lack of education/awareness and ignorance have contributed to environmental neglect, filthy and highly susceptible to diseases.

Role of Local Government in Environmental sanitation

Sanitation, health and hygiene promotion is a critical function of local government. This is the position of Nomfundo (1998). He comments that it is important that local government maximizes the benefit of new water supply systems and sanitation programme by promoting good health and hygiene practices in communities. This they do by:

- Involving the community in drawing up priorities for addressing health and hygiene issues

- Using participatory methodologies to put messages across.
- Ensuring that programmes created a demand for sanitation, especially, through water projects.
- Improving the understanding of sanitation options and the cost involved and finally
- Assist households to improve their own environment (literacy)

In this sense vein, Okukpon (2002) listed the following as local government responsibilities in environmental protection:

- Monitor and enforce environmental quantity standards and regulations as may be designated by FEPA.
- Set limits which are more stringent than the national standards, provided such limits are set on the basis of scientific evidence and with the endorsement of FEPA.
- Assessment of environmental conditions and trends in rural areas and identification of programmes and actions needed to reduce or avoid further environmental degradation and pollution.

- Application of national environmental assessment guidelines and procedures for all development policies and projects likely to have adverse environmental impact within the area.
- Development contingency plans and capabilities to respond quickly and effectively to environmental emergencies,
- Prepare periodic on the states of the environment in the states or communities for submission on the national council on the environment.
- Collect, analyze and distribute data relevant to environmental impact assessment, policy analysis and environmental monitoring within the local government as delegated by FEPA from time to time.

Efforts of Government towards Environmental protection

According to Karamanos (2001), environmental protection is a practice of protecting the natural environment on individual, organizational or governmental level, for the benefit of both the natural environment and humans. Due to the pressures of population and technology, the biophysical environment is being

degraded, sometimes permanently. This has been recognized and governments have begun planning restraints on activities that cause environmental degradation. Since the 1960s, activity of environmental movements has created awareness of the various environmental issues (Solomon, 2010).

Globally, according to Okukpon (2002), the world is faced with the reality of the effects of long years of environmental abuse which presents in unpredictable climate, coastal flooding abnormal rise in temperature and the depletion of the protection ozone layer. In the Nigerian context it is worthy to note that not everyone was conscious of the effects their collective action on the Nigerian environment. She went further to say, that, the government's strong contribution towards the issue of the environment was the establishment of a division named the environmental planning and protection division (EPPD), under the federal ministry of housing. And also academic institutions now offer courses, such as environmental studies, environment management and

environmental engineering that teach the history and methods of environment protection. Protection of the environment is needed due to various human activities. Waste production, air pollution and loss of biodiversity (resulting from the introduction of invasive species and species extinction) are some of the issues related to environmental protection.

The agency is saddle with the responsibility for the protection and development of the environment in general and environmental technology, including initiation of policy in relation to environmental research and technology and without prejudice to the generality of the foregoing, Inyang-abia (1999) states the duty of the agency as:

- a. Advice the federal government as national environmental policies and priorities and on scientific and technological activities affecting the environment.

- b. Prepare periodic master plans for the development of environmental science and technology and advise the government on the financial requirements for the implementation of such plans
- c. Promote cooperation in environmental science and technology with similar bodies in other countries and with international bodies connected with the protection of the environment.
- d. Cooperate with federal and state ministries, local government councils, statutory bodies and research agencies on matters and facilities relating to environmental protection and
- e. To carry out such other activities as are necessary or expedient for the discharge of the functions of the agency.

CHAPTER THREE

RESEARCH METHODOLOGY

The procedure adopted for gathering the data used in this study is presented in this chapter. They are as following

- Research design
- Population of the study
- Sample and sampling of procedure
- Instrumentation
- Validation of the instrument
- Reliability of the instrument
- Administration of the instrument
- Method of data analysis

Research design

In this study, the use of survey research design was adopted to find out the impact of literacy Education on the attitude of market women towards environmental sanitation in four

communities in oredo local government area of Edo state. This research design was used because conclusions reached are generalizable to a very large population.

Population of the study

The population of this study is the entire market women in oredo local government of Edo state. There is however no record of the specific member of market women in the local government area. But an estimate of 12,000 women is given.

Sample and sampling of procedure

From the estimated population of 12,000 market women, a sample size of 100 market women will be chosen. In order to ensure equal representation of the local government area, 25 samples was drawn each from the four communities that make up oredo local government area. The four sample centers are new Benin market, Oba market, Ekiosa market, and Oleya market.

A sample random sampling technique was employed. This is to ensure that every member of the population had an equal opportunity to be chosen to represent the entire population.

Instrumentation

The questionnaire was used as instrument of data collection and it is two point scale of “Yes” and “No”. The questionnaire was chosen because it could generate information for many respondents within short time and data analysis is easily computable. The questionnaire comprises two sections. Section A consists of personal information about the respondents such as marital status, Age and Education background. Section B contains 15 questions pertaining the viability of impact of literacy education on the attitude of market women towards environmental sanitation in oredo local government area of Edo state.

Validity of instrument

The instrument was subjected to validity through critical examination by the project supervisor by way of comments, remarks and suggestions further helped the improvement and quality of the final questionnaire

Reliability of instrument

The test and retest method was used to make the instrument reliable. The same test administered to some group on two different occasions. The result of the test shows that there was no significant difference between the two results.

Administration of the instrument

The instrument was administered to the respondents by the researcher and a research assistant. The questionnaires will be distributed to the randomly selected market women from the four market areas mentioned above. Each area was given 25 questionnaires and the questionnaires were collected by the research.

Method of Data Analysis

The data collected was presented in a tabular form and analyzed descriptively using sample percentages to analyze the impact of literacy attitude of market woman towards environmental sanitation in Oredo Local Government Area.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

This chapter presents the findings from the analysis of data obtained from the administration of questionnaire designed into two sections to find out the impact of literacy on Environmental sanitation among the market women in Oredo Local Government Area of Ed State.

A total of 100 respondents were used to cover four markets in four communities, in Oredo Local Government Area of Edo State.

The data collected are presented and analyzed below using table of simple percentages and frequency distribution.

Section A

Table 4.1: Showing Marital Status of Respondents

Marital status	Frequency (N)	Percentage %
Single	40	40
Married	49	49
Widow	11	11
Total	100	100

The above table shows that 40(40%) of the 100 sampled respondents are single. 49 (49) are married while 11(11%) are widowed. The table shows a dominance of married women in the market.

Table 4.2: Age Bracket of Respondents

Age bracket	Frequency (N)	Percentage %
18 – 25yrs	34	34
26-33yrs	37	37
34-40yrs	29	29
Total	100	100

In the table above 34 (34%) of the sample respondents are within the age bracket of 18 – 25yrs, 37 (37) are of the age bracket of 26 – 33yrs, while 29(29) are of the age bracket of 34 – 40 yrs. This shows that more of the market women are between the ages of 26 – 35 years

Table 4.3: Educational Status of Respondents

Educational status	Frequency (N)	Percentage %
No education	40	40
Primary six	28	28
Secondary school	22	22
Higher Education	10	10
Total	100	100

The table above shows that 40 (40%) of the sampled respondents do not have any form of education 28(28%) had primary six education, 22 (22%) had secondary form of education while only 10 (10%) had a higher education which include T.C II and computer training

Section B

Research Question one

What is the attitude of market women towards environmental sanitation in Oredo Local Government Area?

Table 4.4: Attitude of market women towards environmental sanitation in Oredo Local Government Area

S/N	Item	Respondents				
		Yes	%	No	%	Total
1	Do you normally participate in the sanitation exercise?	75	75%	25	25%	100
2	Apart from the normal monthly sanitation exercise do you clean where you sell in the market regularly?	77	77%	23	23%	100

The table indicated that 75 (75%) of the sampled respondents, participate in sanitation exercise while 25 (25%) indicates that, they do not participate in sanitation exercise. This table further shows that 77 (77%) of the sampled respondents, normally clean where they sell in the market regularly outside the normal monthly sanitation exercise, while 23 (23%) indicates that, they do not clean where they sell in the market regularly, outside the normally monthly sanitation exercise.

It shows that majority of the market women participate in the monthly sanitation exercise despite the fact that, the respondents are not highly educated

Research question two

What is the effect of literacy education on the attitude of market women towards environmental sanitation in Oredo Local Governmental Area?

Table 4.5: Effect of literacy education on the attitude of market women towards environmental sanitation in Oredo Local Government Area

S/N	Item	Respondents				
		Yes	%	No	%	Total
3	Do you think literacy education can enable market women to develop hygiene consciousness?	78	78%	22	22%	100
4	Do you think market women who are literate can abide by sanitation rules and regulations?	78	78%	22	22%	100
5	Does literacy education have a direct impact on sanitary habit among market women?	80	80%	20	20%	100

The table shows that 78 (78%) of the respondents agreed that literacy education can enable market women to develop hygiene consciousness, while 22 (22%), disagree with it. Also, 78 (78%) of the respondents agree that, market women who are literate, abide by sanitation rules and regulations, while 22 (22%) disagree with it.

This table further shows that 80 (80%) of the respondents agreed that, literacy education has a direct impact on sanitary habit among market women, while 20 (20%) disagree with it.

It therefore revealed that there is a positive effect of literacy education on the attitude of market women towards environmental sanitation in Oredo Local Government Area.

Research Question Three

Do literacy education influence market women's knowledge and practice of healthy living?

Table 4.6: Influence of literacy education on market women knowledge and practice of healthy living.

S/N	Item	Respondents				
		Yes	%	No	%	Total
6	Does literacy education influence market women's knowledge and practice of healthy living?	80	80%	20	20%	100
7	Do you think that those that are educated are neat people?	63	63%	37	37%	100
8	Do you believe that living or selling in a clean environment makes you live a longer and healthier life?	80	80%	20	20%	100
9	Do you believe that those that are not educated will not be able to play active role in environmental sanitation exercise?	64	64%	36	36%	100

This table shows that 80 (80%) of the respondents agreed that, literacy education influences market women's knowledge and practice of healthy living, while 20 (20%) disagreed with it. Also 63 (63%) of the respondents agreed that, educated people are neat, it is only 37 (37%) of the respondents that disagreed with it. 80 (80%) of the respondents believes that living or selling in a clean environment makes them live a longer and healthier lives, while 20 (20%) do not believe. It further shows that 64 (64) of the respondents believe that those that are not educated will not be able to play active role in environmental sanitation exercise, while 36 (36%) do not believe. It therefore revealed that literacy education to a large extent influence market women knowledge and practices of healthy living.

Research question four

What is the difference between the attitude of literate market women and illiterate market women towards environmental sanitation in Oredo Local Government Area?

Table 4.7: Difference between the attitude of literate market women and illiterate market women and illiterate market women towards environmental sanitation in Oredo Local Government Area

S/N	Item	Respondents				
		Yes	%	No	%	Total
9	Do you believe that those that are not educated will not be able to play active role in environmental sanitation exercise	64	64%	36	36%	100
10	Do you believe that those that are educated can play active role in environmental sanitation exercise?	75	75%	25	25%	100
11	Do you think that, those that are not educated are dirty people?	59	59%	41	41%	100

In the table above, 64 (64%) of the respondents believes that, those that are not educated will not be able to play active role in environmental sanitation exercise, while 36 (36) do not believe. Also, 75 (75%) of the respondents believe that those that are educated can play active role in environmental sanitation exercise, while 25 (25%) disbelieve. It further shows that 59 (59%) of the respondents agree that those that are not educated are dirty people, while 41 (41%) disagreed with it.

It revealed that, there is a significant difference between the attitude of literate market women and illiterate market women towards environmental sanitation in Oredo Local Government Area.

Research question five

What are the measures put in place to achieve positive attitude of market women towards environmental sanitation in Oredo Local Government Area.

Table 4.8: Measures put in place to achieve positive attitude of market women towards environmental sanitation in Oredo Local Government Area

S/N	Item	Respondents				
		Yes	%	No	%	Total
12	Are you aware of the monthly environmental sanitation excises?	78	78%	22	22%	100
13	Do environmental sanitation officers normally come to teach you people about environmental sanitation?	37	37%	63	63%	100
14	Are there waste bins in the market for collecting refuse?	45	45%	55	55%	100
15	Are there adequate punishments for those who flaunt sanitation rules?	50	50%	50	50%	100

This table above shows that 78 (78%) of the respondents are aware of the monthly environmental sanitation exercise, while 22 (22%) are not aware of the monthly environmental sanitation exercise. Also, 37% (37%) of the respondents agree that, environmental sanitation officer normally teaches them about environmental sanitation, while 63 (63%) of the respondents disagree with it. 45 (45%) of the sampled respondents said that, there are waste bins in the market for collecting refuse, while 55 (55%) of the sampled respondents, said that, there are no waste bins in the market place for collecting refuse. Lastly, this table further shows that, 50 (50%) of the sampled respondents agree that there are adequate punishments for those who flaunt sanitation rules, while 50(50%) of the sample respondents, disagree with it that is no adequate punishment for anyone who flaunts sanitation rules.

It therefore revealed here that, there are no adequate measures to achieve positive attitude of market women towards environmental sanitation in Oredo Local Government Area.

Discussion of Findings

The finding from this study showed that despite the fact that, majority of the respondents are not highly educated, they are highly knowledgeable and conscious of the monthly environmental sanitation, this can be seen in table 4.4 where 75 (75%) of the respondents participate in sanitation exercise. Also the market women as part of the sanitation consciousness engages in the regular cleaning of their selling places, as showed in the same table, where 77 (77%) of the respondents clean where they sell regularly. This showed that, the market women has positive attitude towards environmental sanitation. This study tallies with the view of Sanjran (2013) that women play a significant role in environmental protection and preservation by promoting a hygienic environment. Also Wikipedia (2014) say that, women play that role with great responsibilities in upbringing of a healthy solid society, because the basic unit of society is a woman. Aina (1997) posited that Nigeria is blessed with fruits and food stuffs all the year round and the

natural environment wastes that emanates from these foodstuffs and fruits. So it's the responsibility of women to create the right attitude towards the environment by participating in environmental sanitation exercise and also cleaning their environment regularly. Furthermore, the finding is in consonance with view of Okukpon (2008) which states that women are the hub of the homes in both rural and urban communities, therefore, they are regards as mother and builders of the home, also they are the first teacher of their children before they attain school age, so women imbibe the habit of keeping clean and healthy environment around the home as good examples for their children to emulate.

The study also revealed that, there is a positive effect of literacy education on the attitude of market women towards environmental sanitation, as it was indicated in table 4.5 above, where 78 (78%) of the respondents agree that literacy education can enable market women to develop hygiene consciousness. And 78 (76%) of the respondents also agree that market women who are

literate, abide by sanitation rules and regulations. Also 80 (80%) of the respondents agree that, literacy education has a direct impact on sanitary habit among market women. This finding tallies with the view of Adiesu (1985) cited in Efeareue (2008) that literacy education is a process of development in a person's awareness which enables them to contribute to the development of the community or environment, he further stressed that awareness creation can be of immense importance to providing good hygiene for members of a community. Onuka (2011) posited that literacy education and environmental sanitation cannot be separated because it deals with awareness and awareness creation in order to achieve a healthy clean environment, there is need for awareness creation. Also Aina (1997) posited that, it is necessary for these women to be educated, so that, they can develop a right attitude towards environmental sanitation.

The study further showed that, literacy education to a large extent influences market women knowledge and practice of healthy

living as showed in the table 4.6 above, 80 (80) of the respondents attested that, literacy education influences market women's knowledge and practice of healthy living, 63 (63%) of the respondents agreed that, those that are educated are neat people and 80 (80%) of the respondents also believed that living or selling in a clean environment makes them live a longer and healthier lives. It is in line with this, that Glewue (1997) advocated for the need for training and educating to raise awareness and impact knowledge on how to improve sanitation in the society especially among the market women. According to him, the rural communities need to be educated on practice of good sanitation habits and how to practice it. According to the World Health Organization (WHO), inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant benefit impact on health both in households and across communities. Also, World Bank (1995) revealed that, the consequence of poor sanitation or hygiene is grievous, as a result, adequate awareness or education must be created, as poor sanitation promotes the spread of health problem

like diarrhea, intestinal worms, bilharzias and hepatitis and scabbles while good sanitation practice promotes healthy living, social and economic development as people will not live their school, work and other activities that are beneficial because of illness.

The study also showed that, there is a significant difference between the attitude of literate market women and illiterate market women towards environmental sanitation as indicated in table 4.7 above, 64 (64%) of the respondents believe that, those that are not educated will not be able to play active role in environmental sanitation exercise and 75 (75%) of the respondents also believed that, those that are educated can play active role in environmental sanitation exercise. This was in line with United Nations Educational scientific and cultural organization (UNESCO) when they said that, an illiterate person cannot engage in all those activities in which literacy is required for effective functioning of his group and community and also keeping his environment clean for a healthy living. Also according to the United states department of

education (2007), a literate person is able to use printed and written information to function in the society to achieve one's goal and development one's knowledge and potentials. They also went further to say that, in every society, literacy is a necessary skill in itself and one of the foundations of other life skills. It is also a catalyst for participation in social, cultural, political, environmental and economic activities for learning throughout life. This findings is further supported by the view of Nasutian (1972) cited in Aiyamenkhue (2008) which state that illiteracy keeps people in darkness and it makes people resistance to change and new idea and incapable of meeting the demands of their change environment and ever progressing world.

Finally, from this study, it was discovered that, there are no adequate measures to achieve positive attitude of market women towards environmental sanitation. Table 4.8 revealed this, although 78 (78%) of the respondents are aware of the monthly environmental sanitation exercise, some still default by either going

to the farm or engaged in other activities. It is only few of them that partake in the cleaning of their stores when it falls on their market days. Also 50 (50%) of the respondents, disagree to the fact that, there are adequate punishments for those who flaunt sanitation rules, 65 (65%) also disagree to the fact that, environmental officer normally comes to teach them about environment sanitation and lastly 55 (55%) of the respondents said that, there are no waste bins in the market for collecting refuse. This study tallies with Aina (1997) that, women should be educated, so that, they can develop a right attitude towards environmental sanitation and also inculcate the right type of attitude. Also since women have been described as powerful agents of development orientated programmes (Oduaru, 1991), there is need for them to be empowered in terms of environmental education programme and provided with the needed human and material resources with which to tackle environmental problems and also find lasting solutions to these problems. According to Okukpon (2002) women should be made to keep dustbin and also government should provide dustbin for women at

the market place with a firm cover for collecting refuse generated from market, since a lot of waste is generated at the market place either through buying, selling or burning discussed objects to rid the market environment of junks, this will prevent diseases. And lastly Okukpon said that, seminars and workshops should be organized for the market women in their local language periodically to teach them environmental cleanliness protection and preservation. This finding is further supported by the view of Nomfundo (1998) that, it's the responsibility of the Local Government to provide new water supply systems and sanitation programmes by promoting good health and hygiene practices in communities and also punish anyone that flaunt sanitation rules.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter consists of research summary, conclusion and recommendations. The purpose of this chapter therefore, is to acquaint the readers with the conclusion reached based on the study which was aimed at finding out the impact of literacy education on the attitude of market women towards environment sanitation in Oredo Local Government Area of Edo state.

Summary

This study examined the impact of literacy education on the attitude of market women towards environmental sanitation in Oredo Local Government Area of Edo State.

During the process of research, the researcher made use of questionnaire in collecting data by administering the questionnaire to some respondents. Data were analyzed by finding the total

number of respondents to the variable on which the analysis was based on simple percentage.

Findings of the Research

The data collected from questionnaires revealed the following:

1. That market women have right attitude towards environmental sanitation in Oredo Local Government Area
2. That literacy education affects the attitude of market women towards environmental sanitation in Oredo Local Government Area
3. That literacy education influences market women knowledge and practice of healthy living
4. That, there is a significant difference between the attitude of literate market women and illiterate market women towards environmental sanitation in Oredo Local Government Area
5. That, there are no adequate measures to achieve positive attitude of market women in Oredo Local Government Area

Conclusion

The following conclusion was drawn from the findings of the research work. Literacy education increases environmental consciousness in the people which is necessary for protecting the environment from degradation and also it improve the attitude of market women in Oredo Local Government Area towards environmental sanitation

Recommendation

Based on the recovery of the study, the following recommendations are put forward by the researchers;

1. Government particularly at the grass root level should be actively involved in creating awareness on sanitation issues and encourage them to develop the right skills and attitude towards solving identified environmental problems
2. Government should ensure that there is clean running tap water for use in the market

3. Toilets that are functioning should be put into effective use to prevent an epidemic outbreak
4. There should also be a collection centre where wastes generated from the market is deposited and promptly evacuated by the Local Government authorities in charge
5. A situation whereby women live with solid wastes that emit offensive odour in the market on a daily basis should be addressed promptly by the local and state government, so that the women can trade in a friendly and healthy environment which does not pose a threat to their healthy and lives

Similarly, the market women leaders should participate effectively in environmental protection practice by serving as mobilization agent. They should be able to mobilize other women in the market. Periodically, seminars and workshops should be organized for these women in their local language to teach them the health, social and economic benefits of should be taught how to

take appropriate measures to reduce the risks associated with environmental hazards.

Finally, there should be a monitoring unit comprising of the market women leaders, the State Environmental Protection Agency and the Local Government officials to assess the environmental situation in the markets from time to time.

Suggestion for further research

General data have emerged in this study, the researcher therefore recommended that more research should be carried out in the following areas:

1. The attitudes of women towards adult literacy programmes
2. The problems confronting environmental sanitation programme in the area
3. Approaches to environmental sanitation
4. The appraisal of the role of literacy in the socio-economic development of women

5. The impact of environmental sanitation programme in the economic status of women in Oredo Local Government Area Women's involvement in environmental education programmes.

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**DEPARTMENT OF ADULT AND NON-FORMAL EDUCATION
FACULTY OF EDUCATION
UNIVERSITY OF BENIN
BENIN CITY**

QUESTIONNAIRE

This questionnaire is aimed at collecting information for a research work. Please kindly assist by providing the needed information for this exercise, assuring you of the confidentiality of the information provided.

Please kindly tick (✓) appropriately from among the options provided in the boxes.

Section A: Personal Data

1. Marital Status: (a) Single () (b) Married () (c) Widow ()
2. Age bracket: (a) 18 – 25yrs () (b) 26 – 33yrs () (c) 34 – 40yrs ()
3. Educational background (a) No education () (b) Primary six () (c) Secondary school () (d) Higher Education ()

Section B: General Question

1. Do you normally participate in the sanitation exercise? (a) Yes () (b) No ()

2. Apart from the normal monthly sanitation exercise do you clean where you sell in the market regularly? (a) yes (), (b) No()
3. Do you think literacy education can enable market women to develop hygiene consciousness? (a) Yes (), (b) No ()
4. Do you think market women who are literate can abide by sanitation rules and regulations (a) Yes () (b) No ()
5. Do literacy education has a direct impact on sanitary habit among market women (a) Yes (), (b) No ()
6. Does literacy education influence market women's knowledge and practice of healthy living (a) Yes (), (b) No ()
7. Do you think that, those that are educated are neat people? (a) Yes (), (b) No ()
8. Do you believe that living or selling in a clean environment makes you live a longer and healthier life? (a) Yes () (b) No ()
9. Do you believe that those that are not educated will not be able to play active role in environmental sanitation exercise? (a) Yes (), (b) No ()
10. Do you believe that those that are educated can play active role in environmental sanitation exercise? (a) Yes (), (b) No ()
11. Do you think that, those that are not educated are dirty people? (a) Yes () (b) No ()

12. Are you aware of the monthly environmental sanitation exercise? (a) Yes (), (b) No ()
13. Do environmental sanitation officers normally comes to teach you people about environmental sanitation (a) yes (), (b) No ()
14. Are there waste bins in the market for collecting refuse? (a) Yes (), (b) No ()
15. Are there adequate punishments for those who flaunt sanitation rules? (a) Yes (), (b) No ()