



ASSESSMENT OF COMMUNITY AWARENESS AND PARTICIPATION TOWARDS ENVIRONMENTAL EDUCATION IN GOMBE METROPOLIS GOMBE STATE, NIGERIA

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ABSTRACT

This study attempts to assess community awareness and participation in environmental education in Gombe Metropolis, Gombe State Nigeria. The study used both primary and secondary sources of data. The primary data was generated from structured questionnaires administered and interviews while the secondary data was collected from published materials. The study area had projected population as about 391,869 people as at 2019. In view of that, stratified and cluster sampling techniques were employed to draw 250 respondents from the total population around the six major wards (Bolari, Pantami, Kumbiya-kumbiya, Jekadafari, Tudun-wada and Herwagana) in the study area. The findings of the study however, revealed that the level of environmental education and awareness among the people of the study area was moderate. The study further indicated that the people in study area exhibited some level of positive environmental attitudes such as use of dust-bin, waste disposal points, cleaning of culverts and drainages, etc. The study concluded that the overall people of the study area were aware of the environmental problems that exist in Gombe metropolis, but could not act positively. However, the major environmental problems highlighted by the respondents among others were, soil erosion, flooding, poor sanitation conditions deforestation, etc. The study finally recommended that efforts should be made by the government, NGOs and all other relevant stakeholders such as community/environmental health workers, community leaders, clerics, environmental marshals, etc in educating and enlightening communities about roles expected of them to play towards environmental awareness, protection, maintenance and conservation.

Keyword: Assessment, Community Awareness, Participation, Environmental Education, Gombe Metropolis

INTRODUCTION

Environmental Education is considered be a key used in creating environmental consciousness, awareness and environmental participation among communities and individuals in order to protect, preserve, and manage the environment so that it would be conducive for living. The scope of environmental education and awareness or environmental extension services covers all fields of environmental science, which includes the effects of man on environment. On the other hand, environmental awareness

in simple terms refers to the knowledge and understanding of facts and concepts related to environment and consequences of various environmental problems like pollution, population explosion, deforestation, ecological disruption, energy crises etc. Environment has become the concern of all academics, intellectuals, scientists, serious policy makers and government across the continents. Widespread and systematic concern for environmental issues has grown world over Emmanuel (2007) in Umar (2021).

To clearly understand environmental awareness, we must first understand the environmentalist movement. Environmentalism is an ideology that evokes the necessity and responsibility of humans to respect, protect, and preserve the natural world from its anthropogenic (caused by humans) afflictions. Wale (2004) in Umar (2021) added that, environmental awareness is an integral part of the success achieved by the environmentalists by teaching people that the physical environment is fragile and indispensable; therefore, we can begin to fix the problems that threaten it. The numerous environmental resources are available to promote environmental awareness; group learning (in or outside classrooms), informational and inspirational seminars, such as awakening dreamer programmes, and environmental books and brochures are just a few of the tools that can get people involved in promoting the environmentally friendly activities. Thus, environmental awareness is the ultimate driving force that stimulates knowledge on environmental matters. In view of that, the acknowledgements of the fact that a particular environmental problem exists entails more cognizant of the fact about the state of the environment. That is why the power behind the awareness can be categorized into three i.e. basic beliefs of a particular environmental problem, factual and scientific knowledge, and the commitment to solving those environmental problems Hansmann (2009) in Umar (2019).

Environmental participation can be defined as the involvement of the people in a community in projects to solve their own environmental problems. People cannot be forced to participate but should be given opportunity if possible. Environmental participation is essentially important especially in emergency sanitation programmes where people may be accustomed to their environment. Some of these emergency sanitations may include

clearing of drainage in order to avoid flash floods in a community, erosion control, tree planting campaign/exercise, etc (Abdulkareem, 2005 & Umar, 2021). Environmental participation is the point of action towards environmental protection. Effective participation process should be creative and flexible drawing on the wide array of approaches and methods. It should therefore encourage a creative and original approach in the use of participation techniques (Sarkar, 2011). Participation is a kind of dynamic activity that enables and encourages people to better play their function in developmental undertakings. In this process, any individual benefits from the right of participating in decision making related to his way of life. The arising question is to find out the factors influencing individuals' participation in environmental activities (Akabayashi, 2003).

Many environmentalists such as Goulding (1990), Nwafor, (2006) Abdullahi & Umar (2021) echoed that, factors such as information/awareness, education, organization, as well as mutual understanding between individuals and organizations have been effective factors in public participation, particularly in environmental activities. Besides this, researches have also shown that individual characteristics, such as: sex, maturity, educational background, idea development, one's familiarity with participation, being alert of the prevailing problems, information concerning the precedent pertinent activities were some other important factors determining participation in environmental activities. Finally, many countries around the globe including Nigeria signed a lot of agreements regarding the safety of the environment, global warming, climate change, pollution control, etc with the view to improving the quality of the environment in the phase of the population pressure. In an attempt to increase people's

awareness and participation in issues regarding the environment, the government of Gombe State introduced a programme called “Gombe Goes Green” popularly known as “3G” in the year 2019. One of the broad aims of this programme is to embark upon aggressive afforestation and re-afforestation by planting about 2,000,000 trees every year across the State. The project seeks to combat land degradation, desertification, erosion, etc. As such, there is the need to further enlighten people in order to attach value to their immediate environment.

Study Area

Gombe Metropolis is located approximately at the centre of Gombe State. It lies between latitude $10^{\circ} 0' N$ and $10^{\circ} 20' N$ and on longitudes $11^{\circ} 1'$ and $11^{\circ} 19' E$. Gombe urban area is bounded by Kwami Local Government Area in the North and also almost surrounded by Akko Local Government Area in the South East and South West, Yamaltu Deba to the East. The study area is linked to other regions by roads like Gombe Biu, Maiduguri Road, Gombe to Bauchi Road, Gombe Yola road, Gombe -Patistiskum road and Gombe-Dukku road, See Figure 1. Gombe metropolis is divided into different residential quarters which include: Kumbiya-Kumbiya, Pantami, Jekadafari, Tudun Wada, Herwagana, Bolari, etc (Umar, 2013). The study area is projected to have a total population of 391,869 people as at the year 2019.

The study area is situated in the Sudan Savannah region of the country at the North-East of the River Benue and East of Yankari Game Reserve bordering with Adamawa, Bauchi, Borno, and Yobe states covering a total area of 20,256.5sq/km Figure 1. The

approximate altitude of Gombe ranges from 400-500m above mean sea level. Topography is mainly mountainous, undulating and hilly to the southeast and the open plains in the central Northeast, west and northwest (Umar, 2012).

MATERIALS AND METHODS

The study made use of both primary and secondary sources of data. The primary data were generated from the structured questionnaire administration and interview while Secondary or documentary data were collected from research findings other published materials which include textbooks, journals, internets and unpublished dissertations of similar study. Stratified and cluster sampling techniques were employed to select 250 respondents across the six wards (Kumbiya-Kumbiya, Pantami, Jekadafari, Tudun Wada, Herwagana, Bolari,) in the study area, in which forty-one instruments were administered. See Figure 1. However, only 235 copies of the questionnaire were retrieved.

In stratified sampling technique, the population (Gombe metropolis) was divided into wards, then each member of some randomly members was chosen. One of the advantages of the cluster sampling technique on the other hand is that only certain groups (mature members of the population irrespective of sex, occupation, education, etc) were selected from the entire members. This method required fewer resources for the sampling processes. The data collected was summarized in tables using descriptive statistics and then presented in bar graphs.

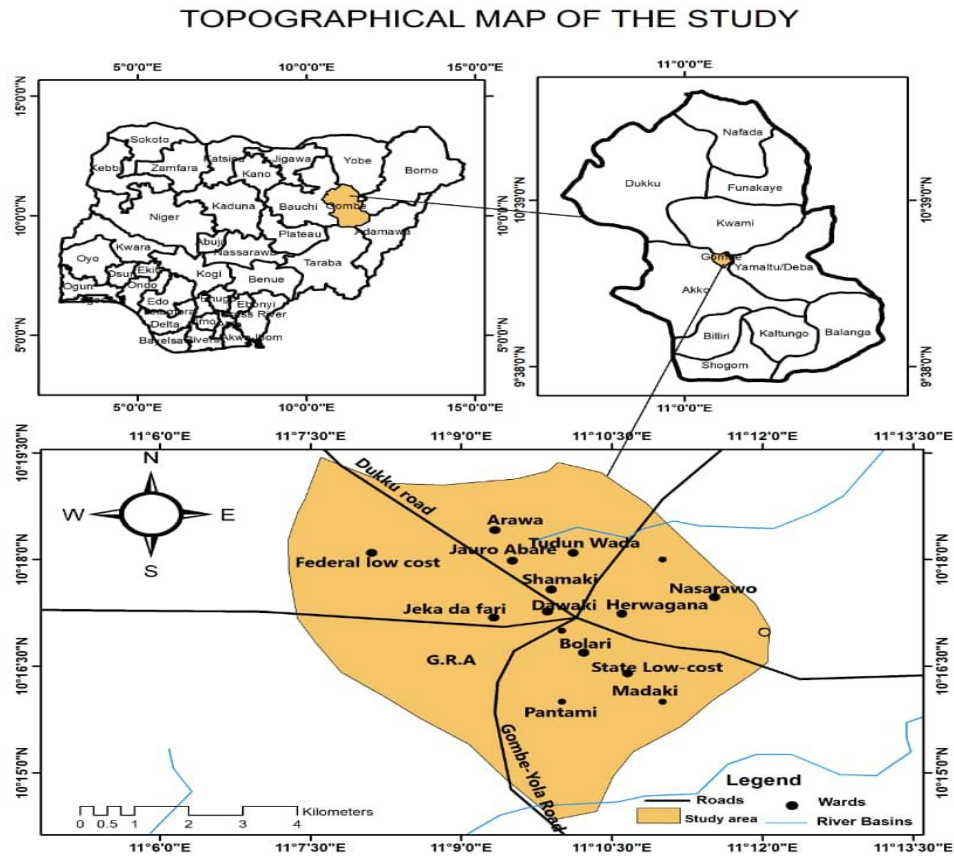


Figure 1: Map of Gombe State showing the Study Area.

Source: NCRS JOS

RESULTS AND DISCUSSION

Generally speaking, there are two types of environmental education, formal environmental education (learnt at school) and informal environmental education (learnt and obtained through radio, TV, community participation, etc) Abdullahi & Umar (2021). The result shows that most of the respondents attained primary level of education (28.3%), followed by those obtained non-formal education and adult literacy (21.7%), while (19.6%) attended secondary school. The last category it has the least value (8.7%) were those that attained tertiary level of education. This implies that majority of the respondents had low level of higher education. This could

further affect their attitudes towards the environment.

The study reveals that most of the respondents (38%) attained the basic sources of environmental knowledge through formal education. Meanwhile 34% claimed to have obtained environmental education (EE) from informal means of education. Similarly, 28% of the said that they had no any background knowledge on the environmental education. The implication of this is that, the more people are knowledgeable, the more they become more conscious about their environment and vice-versa (Table 1 and Figure 2).

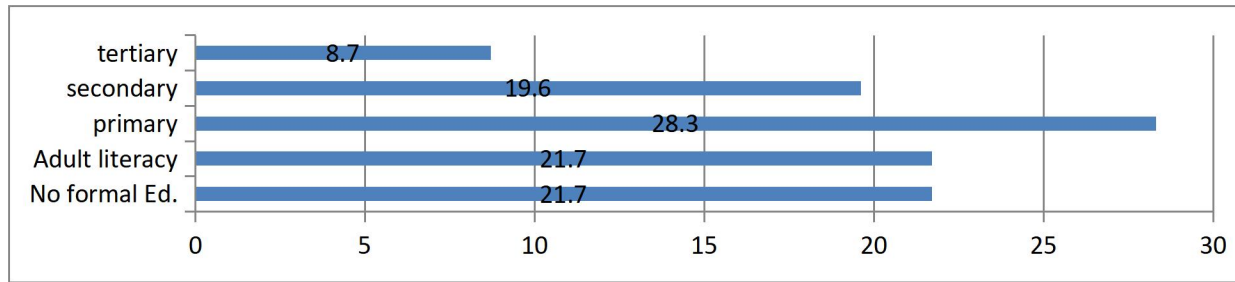


Figure 2: Educational Level of the Respondents

The result shows that 38% of the respondents had attained formal education, while those that obtained informal constituted 34%. However, those that selected ‘All of above’ and ‘None of Above’ were 20% and 8% respectively. (Table 1 and Figure 2). The

implication of this is that, the higher the level of education of the people in a particular community, the higher the level of their awareness and conscious to the environment. This study agreed with the findings of Jike (2004) Benny (2007) and Umar, (2021).

Table 1: Sources of environmental knowledge and awareness in Gombe metropolis

Type	Formal Education	Informal Education	All of the above	None of the above	Total
Freq.	89.3	79.9	47.0	18.0	235
%	38.0	34.0	20.0	8.00	100

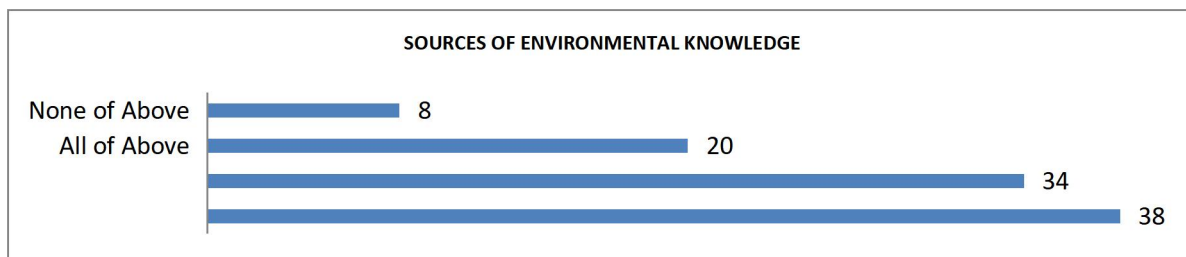


Figure 3: Sources of Environmental Knowledge in Gombe Metropolis

In trying to determine the major types of the environmental knowledge, the responses indicated that the greater percentage (28%) of the respondents considered pollution as the major environmental problem in the study

area, then soil erosion (24%), flooding (18%), poor sanitation condition (14%), deforestation (11.6 %) and lastly others (4.4%). (Table 3 and Figure 3).

Table 2: Types of Environmental Problems Identified in the Study Area

Type	Flooding	Poor sanitation	deforestation	Soil erosion	Pollution	Others
Freq.	42.0	32.9	27.3	56.4	65.8	10.3
%	18.0	14.0	11.6	24.0	28.0	4.4

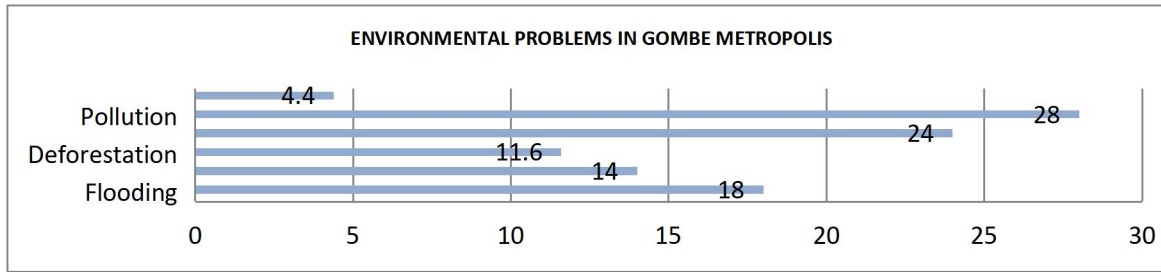


Figure 4: Types of Environmental Problems Identified in the Study Area

The distribution of the respondents' view based on what environmental management practices used in the area in order to conserve their immediate environment. The analysis shows that 38% were of the opinion that dumping of refuse in culverts should be avoided, while 34% considered good sanitation condition will be imperative in managing the environment. Similarly, 20% and 8% of the respondents emphasized soil erosion control and afforestation respectively

(Table 3 and Figure 4). In addition, the findings indicate that a greater number of the respondents (38%) were of the view that environment should be safeguarded by avoiding dumping of refuse in culverts and erosion control should be encouraged. However, the situation may vary outside the metropolis, where the issue of afforestation could be much needed in order to at least balance deforestation.

Table 3: Types of environmental problems identified in the study area

Type	Avoiding dumping of refuse	Good sanitation condition	Soil erosion control	Afforestation	Others
Freq.	89.3	79.9	47.0	18.8	47
%	38.0	34.0	20.0	8.0	20

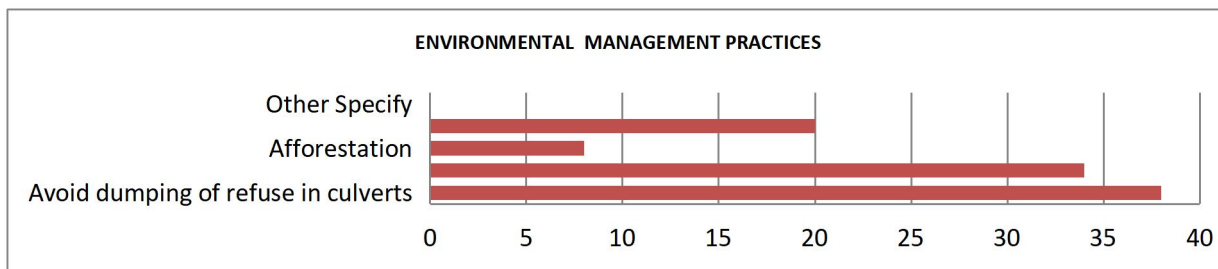


Figure 4: Environmental Management Practices Employed in Conserving the Environment

Summary

The paper assesses the community participation and awareness of environmental education in Gombe Metropolis, Gombe State, Nigeria. Stratified and cluster sampling techniques were employed in selecting 250 individuals from

various six wards in the study area. The findings of the study revealed that the level of environmental education among the people in Gombe Metropolis was moderate. Similarly, the findings of the study also revealed that the respondents had positive environmental attitudes and believed in relationship between environment and health. They also exhibited

lackadaisical behaviors towards the environmental management practices. This has actually affected peoples' participation in positive attitudes towards the environment.

CONCLUSION

This study concluded that most of the respondents in the study area (90%) were aware of the environmental problems that exist in Gombe Metropolis. The major environmental problems highlighted by the respondents were among other: soil erosion (20%), flooding (18%), poor sanitation condition (14%), and deforestation (11.6%). The study revealed that deforestation seemed to have the least value of 11.6%, this could be peculiar to the metropolis, while in the outside deforestation may likely going to be the major environmental threat. The study further concludes that in order to attain sustainability and environmental awareness, massive campaigns and enlightenment via (both print and non-prints) as well as seminars, conferences, workshops and town hall sensitization should be incorporated. However, non-formal environmental education should also be emphasized. Since environmental issues affect every segments of the society. Therefore collective efforts need to be put in place in alleviating those environmental challenges in the area. Based on the findings of this study the following recommendations were made:

- i. Efforts should be made by the governments at all levels towards educating and enlightening the communities about the roles expected of them to play in environmental protection, maintenance and conservation. This will go a long way in enhancing their participation in all sorts of environmental activities.
- ii. There should be political will in promoting sustainable alternative approaches of managing refuse. This will contribute in

enhancing the quality of the environment as well as income generation.

- iii. A strong link/cooperation between the community and local government authorities should also be encouraged for the purpose of enhancing community participation on environmental activities.
- iv. There should be active and empowered "ward environmental committees" for the purposes of enhancing participation at lower levels.
- v. Community waste management fund should be established for purposes of meeting some of the environmental management costs such as the provision of basic facilities for collection, storage and disposal of refuse.
- vi. More enlightenment through radio, television, environmental campaign groups, newspapers, magazine, and social media regarding participation in the maintenance, protection, and preservation of the environment with the view to shaping the behaviors and attitudes of the people in their living environments.
- vii. Punishment should be enforced by the government on the obnoxious environmental activities of some people in the forest and living environment which will help in minimizing the negative environmental attitudes and behaviors of the people.

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