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Full Length Research Paper

An assessment of the level of awareness of the effects of climate change among students of tertiary institutions in Jalingo Metropolis, Taraba State Nigeria

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Climate change has become one of the major global challenges of the 21st century. It has been observed that the developing countries of the world (Nigeria inclusive) will suffer most from the impacts of climate change. As the world battles with measures of finding lasting solution to the problem of climate change, this study examines the level of awareness of the problem among students of tertiary institutions in Jalingo Metropolis of Taraba state, Nigeria. A descriptive survey design using data collection instrument such as questionnaire was adopted. Two hundred and twenty five (225) students were drawn disproportionately from the tertiary institutions in Jalingo Metropolis. Structured questionnaire and focus group discussion were used in eliciting information from the student on their knowledge of climate change, effects of climate change on the individual and community and ways of reducing the effects of the problem. The frequency counts and item analysis method were used to analyse the data collected. The result of the findings shows that 18.2% of the students interviewed have never heard about climate change before. Of the 81.8% that have heard about climate change, 89% do not know what climate change is all about, its causes, effects, and possible adaptive or mitigative measures. This study recommends the need to establish climate change awareness club in the tertiary institutions in Jalingo metropolis of Taraba State and the nation at large so as to mobilize the students who are future leaders on the importance of bracing up to the challenges of climate change.

Key words: Assessment, awareness, climate change, student, tertiary institution.

INTRODUCTION

Africa is one of the most vulnerable continents to climate change impacts (IPCC, 1996) especially Nigeria given its southern location along the coast and northern boundaries with the drier Sahel. Africa is particularly vulnerable to the effects of climate change, due to its high dependence on rain-fed agriculture, widespread poverty and weak mitigation and response capacity (Igwebuike et al., 2009). This vulnerability is compounded by the socio-economic activities of the people. Africa's vulnerability to climate change and its inability to adapt to these changes may be devastating to the socio-economic life of the people. Human population in Nigeria is vulnerable to all kinds of problems unless it adapts or adjusts to actual impacts of climate change (Igwebuike et al., 2009). The impact of these adverse climate changes on the socio-economic life of the people is exacerbated by the lack of adapting strategies, which are increasingly limited due to the lack of institutional, economic and financial capacity to support such actions. Many people in Nigeria are not aware of the problems of climate change. Presently, the people in Jalingo Metropolis and Nigeria as a whole are experiencing one form of problem or the other that are related to climate change. Many suffer from flood disaster, late onset of rains and early cessation of rainfall, reoccurring incidence of drought, increasing temperature, reduce river flow, declining water table, lost of some plants and animal species and outbreak of some climate related diseases such as malaria, meningitis etc which affects their lives and livelihoods. The ignorance of the people especially as a result of the low literacy level in the state and country at large makes the people to engage in activities that contribute to the problem of climate change. A lot can be done at the individual, legislative (through government policies), and

technological levels (Igwebuike et al., 2009). Many personal adaptive steps can be taken to counteract the ill effects of climate change. There are many things we can do as preventive measures which include tree planting, increase in water intake during hot weather and reducing skin cancer risk by avoiding exposure among others. There is urgent need for a better understanding of the changing climate pattern and how they affect extreme weather events (Tompkins, 2003 cited in Mba, 2009). Enhancing knowledge of climate forcings is critical for improving projections of future climate change. Adequate knowledge and awareness of the effects of climate change will help make communities to join forces in reducing the vulnerability of societies to climate-related risks both now and in the future. Understanding the potential impacts of global environmental change on this sequence of interlocking elements is a first step in modelling what will happen when any one of them is changed as a result of possible global warming, and a prerequisite for defining appropriate societal responses. Identifying potential surprises and communicating them to the public and to policy makers may help build the resilience that is needed to anticipate and mitigate harmful effects of climate change in timely fashion. A sufficient political awareness of climate change issues is required to gather the support for action, within government, NGOs, private sector and the public at large. There are over five (5) million Nigerian youths pursuing tertiary education in different tertiary institutions within and outside the country that are but a neglected army for use in the climate change awareness crusade. They could in their turn, if properly enlightened, lead the youths that are not in school in the climate change awareness crusade. Hence to be able to adapt to the problem of climate change effectively, there is need to understand the level of the youths (tertiary institution students) knowledge and perception of climate change, especially, the causes, effects and possible adaptation and mitigation measures. This will help greatly in policy formulation and planning that are geared toward controlling the impact of climate change in the study area and the country as a whole.

This study examines the level of awareness of the problems of climate change among students of tertiary institutions in Jalingo Metropolis. The study is aimed at raising awareness, to educate and inspire young people, particularly the students to do something about climate change. It is also aimed at strengthening the capability of the government and civil society to deal with the problems related to climate change and to contribute to the formulation of policy and planning, aiming to promote and strengthen sustainable livelihood in the study area.

Conceptual framework

This study is based on the concept of climate change awareness. Climate change awareness is the aggregate of knowledge, attitudes or beliefs held by the adult population in a community on climate change and global warming. Climate change is an emerging issue in developing countries, which are more concerned with poverty alleviation, job creation and food security among others. There is very little awareness on climate change in these developing countries. The low level of awareness about climate change among developing countries is an impediment in effective implementation of their common undifferentiated commitments to the convention on climate change and the protocol processes, particularly, the Clean Development Mechanism (CDM) (http://www.devalt.org/newsletter/sep- 03/of_1.htm). The first and foremost step in regard to education, training and public awareness is to develop a process nationally and regionally to prepare teaching materials to impart education, training and create public awareness. In UNEP survey in 2003, many respondents emphasised the importance of engaging youths in the long term campaign against climate change (UNEP, 2006). According to them, schools and organizations such as scouts can offer long term useful channels for reaching young people. Success in adapting to possible future climate change will depend on a better knowledge and awareness of what changes will occur where, and on prudent investments, made in timely fashion, in adaptation strategies.

MATERIALS AND METHODS

The descriptive survey design was used in this study as it was found to be most suitable in covering issues (Nachmias and Nachmias, 1997) relating to climate change awareness among students of tertiary institutions. Structured questionnaire was used as data collection instruments to elicit information from the students on their level of awareness of climate change, its causes, effects and mitigative/adaptive measures (Neuman, 2006). This is in line with UNEP (2006) observation that questionnaire survey can be used to gauge the opinions, capabilities and level of awareness of key stakeholders on climate change. Stratified random sampling was used to select 115 respondents in the College of Education, 65 in Taraba State University and 45 in Taraba State Polytechnic. A total of 225 interview schedule was administered in the selected institutions. The difference in the number of interview schedule administered in each of the institution is as a result of the disproportionate size of the student population. The administration of the interview schedule was randomly done to ensure that every student had equal chance of been selected. The frequency counts and item analysis method were used to analyse the data collected. The number and percentage of respondent's response was computed after which the respondent's response were tallied and a comparison was made of individual items of high and low response. Tables were used in data presentation.

RESULTS AND DISCUSSION

The result of the findings shows that 81.8% of the students interviewed have heard about the term climate change, while 18.2% have not heard about it (Table1).

Table 1. Have you ever heard about climate change?

S/NO	Respondent response	Frequency	Percentage
1	Yes	184	81.8
2	No	41	18.2
	Total	225	100

Source: Fieldwork (2010).

Table 2. What do you know about climate change?

S/NO	Respondent response	Frequency	Percentage
1	It is the weather condition	64	28.4
2	It is the change of weather at a particular time	31	13.8
3	No response	130	57.8
	Total	225	100

Source: Fieldwork (2010).

Table 3. Do you think the problem of climate change can be solved at all?

S/NO	Respondent response	Frequency	Percentage
1	Yes	74	32.9
2	No	135	60
3.	No response	16	7.1
	Total	225	100

Source: Fieldwork (2010).

When asked whether they know what climate change is all about, 74.7% of the students interviewed responded in affirmative, while 25.3% responded to the contrary. Also when asked what they know about climate change, 28.4% of the students responded that it has to do with the weather condition, 13.8% say it is the change in weather condition at a particular time, while 57.8% did not respond to this question (Table 2). Of the 81.8% that have heard about climate change, 39% do not know what climate change is all about, its causes, effects, and possible adaptive or mitigative measures.

The student do not associate some of the climate change related problems around them such as flooding, rising level of temperature, delay in onset and early cessation of rainfall to it. To many of the student, anything climate is a natural phenomena beyond human control and as such cannot be solved by man but by God. Hence, when asked whether they think the problem of climate change can be solved at all, 32.9% responded in affirmative, 60% responded negative, while 7.1% did not respond to this question (Table 3).

Many of the students could not help their ignorant but asked how human beings could control or influence the climate. This was clearly demonstrated by their response to the question that seek to know what they think an individual, government and International organization can do to solve the problem of climate change. Many of them gave different shades of opinion, while 73.3% of the student did not respond to this question (Table 4).

When asked whether they think the problem of climate change affects them, 71.6% responded positively, while 28.4% believed that the problem of climate change does not affect them in any way (Table 5).

About 60.9% of the respondent could not explain how the problem of climate change affects them. Of the remaining 39.1%, 11.1% believed that climate change causes ill health, 8.0% believed it causes air pollution, while 6.7% believed it affects human skin (Table 6).

DISCUSSION

Climate change awareness is a synthesis of the people's conception, interpretation and perception s of climate change related issues which affect their behaviour, and the quality of responses and reactions to the problems. The result of the findings shows a low level of awareness about climate change among the students of tertiary

Table 4. How do you think an individual can help to overcome the problem of climate change?

S/NO	Respondent response	Frequency	Percentage
1	By Prayer	4	1.8
2	By been religiously committed	3	1.3
3	Afforestation and enlightenment campaign	9	4.0
4	Be prepared to face it	11	4.9
5	Intensify research effort	15	6.7
6	Stop air pollution	18	8
7	No response	165	73.3
	Total	225	100

Source: Fieldwork (2010).

Table 5. Do you think the problem of climate change affects you as a person?

S/NO	Respondent response	Frequency	Percentage
1	Yes	161	71.6
2	No	64	28.4
	Total	225	100

Source: Fieldwork (2010).

Table 6. How does the problem of climate change affect you?

S/NO	Respondent response	Frequency	Percentage
1	Leads to hotness of the body	3	1.3
2	Causes ill health	25	11.1
3	Leads to changing of the environment	7	3.1
4	Excessive heating/high temperature	9	4.0
5	It reduces the amount of rainfall	11	4.9
6	It affects human skin	15	6.7
7	It causes pollution of the environment	18	8.0
8	No response	137	60.9
	Total	225	100

Source: Fieldwork (2010).

institution in Jalingo Metropolis. The low level of knowledge and awareness about the concept of climate change and its associated problems has a lot of implication on efforts aimed at adaptation and mitigation in the study area. Climate change awareness is a necessary ingredient for a successful implementation of climate change policy in the state and country in general.

A recent 'gap analysis' in Africa showed that while climate information does exist that could aid decision makers in making 'climate smart' decisions, but such information is seldom incorporated into decision making process. Improving climate services, raising awareness of climate change and providing information and evidence of its value to the populace and decision makers are essential to beginning to align development and climate change priorities, and building capacity on climate change adaptation (Ayers and Hug, 2008). In addition to generating climate information, awareness must be raised of the existence of this information and its relevance to decision makers.

Once climate change awareness and capacity start to grow, climate change can then start to be fully integrated into national, sectoral and local development plans, both to ensure that development is climate proofed, and adaptive capacity is maximized across sectors and scales. This should set the stage for the integration of climate change concerns at sectoral and local levels; given that ideally all sub-national development planning should tie in with national development priorities (Ayers and Hug, 2008). Every Nigerian has to be involved, from individuals, to communities, local government and the federal government (Igwebuike et al., 2009). The most

important is to educate the youths on the ill effect of climate change to Nigerian society and the importance of adapting to it.

Conclusion

The findings of this study clearly show that there is a low level of climate change awareness among students of tertiary institutions in the study area. It is therefore imperative we take the climate change awareness campaign to our tertiary institutions by encouraging the setting up of climate change awareness club. Such clubs can be challenged to identify and find solution to overcome the almost insurmountable problems of climate change adaptation and mitigation in their locality. This is expected to lead to widespread awareness campaigns, emphasizing on awareness of the adverse health disorders as a direct result of climate change and its other adverse impacts on socio-economic activities, and also the individual initiatives that can be taken up as well as what the country can do to adapt effectively and mitigate the impact of climate change (Indrani and Purba, 2010).

RECOMMENDATIONS

This study recommends the need to establish climate change awareness club in the tertiary institutions in Jalingo metropolis of Taraba State and the nation at large so as to mobilize the students who are future leaders on the importance of bracing up to the challenges of climate change. This will also help in building the necessary awareness and capacity at the local level in a participatory development processes. Participatory development processes have the potential to increase adaptive capacity by improving vulnerable people's access to decision-making processes and information. Secondly, National governments are encouraged to research and compile reports on climate change in a participatory manner, involving different groups of stakeholders, many of which are completely unaware of the potential impacts of climate change. These communications therefore have the potential to initiate the mainstreaming of climate change adaptation into development planning at the National, State and local levels.

REFERENCES

Ayers JM, Hug S (2008). Supporting Adaptation to Climate Change: What role for Official Development Assistance? A paper presented at DSA Annual Conference on Development's Invisible Hands: Development Futures in a Changing Climate' Held on 8th November 2008, Church House, Westminster, London.

Igwebuike MN, Odoh FC, Ezeugwu CI, Oparaku NE, Oparaku OU (2009). Vulnerability and Adaptation to Climate Change. In Anyadike RCN, Madu IA, Ajaero CK (Eds.) Conference Proceedings on Climate Change and the Nigerian Environment, 29th June – 3rd July, 2009, pp. 383-392.

IPCC (1996). Climate Change 1995. Impacts, Adaptation and Mitigation of climate change. Cambridge: Cambridge University Press.

Indrani RH, Purba HR (2010). Does awareness to climate change lead to behavioral change? Int. J. Climate Chang. Strategies and Mgt., Emerald Group Publishing Limited, 2(1): 6-22.

Mba LC (2009). Climate Change – Threat to Food Security in Nsukka Area of Enugu State, Nigeria. In Anyadike, R.C.N., Madu I.A. and Ajaero, C.K. (Eds.) Conference Proceedings on Climate Change and the Nigerian Environment, 29th June – 3rd July, 2009, pp. 155-172.

Nachmias C, Nachmias D (1997). Research Methods in the Social Sciences. (Artenete 2nd Edition) Without Statistics. London: St. Martins Press Inc.

Neuman WL (2006). Social Research Methods: quantitative and qualitative approaches. New Delhi: Pearson Education.

United Nation Environment Programme (UNEP) (2006). Raising Awareness of Climate Change: A Handbook for governmental focal points. United Nations Office, Nairobi.