

EDUCATIONAL INITIATIVES FOR COPING WITH CLIMATE CHANGE IN NIGERIA

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Abstract

For more than a decade now, climate change has remained a critical national and international concern. Most conferences on environment have been preoccupied with the issue of climate change much as the issues of Millennium Development Goals. Climate change which includes change in the patterns of temperature, precipitation, humidity and winds is seasonal changes over a long period of time, and has remained a major concern because of the fundamental role it plays in shaping the natural ecosystem, national economies, cultures and communities. It also affects the environment, human health, transportation, agriculture and availability of energy and water. Since climate change has far reaching implications for human existence and society, it becomes imperative to have society learn and understand it immeasurably. In this paper, therefore, attempt has been made to examine the angle of educational initiative as foundation for equipping the individuals, society and community with the knowledge, skills and attitudes in appreciating the challenges posed by climate change. Public and private participation in the educational initiative is critically examined as well with a view to identifying underlying challenges such partnership could pose towards the realization in maximizing the knowledge of climate change. The prospects of such partnership are also examined and suggestions made.

Every nation, in one epoch or the other is faced with one challenge or the other. The challenges range from political, social, cultural, economic to environmental. In most countries, these challenges run concurrently and remain unabated for long as is the case in most undeveloped countries of the world. African and in particular sub-Sahara Africa is glaring example where myriad of problems both natural and human made have continued to hinder development and growth. List of countries by Human Development Index released 4 November, 2010, ranks sub-Saharan Africa countries among low Human Development Countries. The HDI is a measure of life expectancy, literacy, education, and standards of living. It is also a measure of the impact of economic policies on quality of human life in Africa and elsewhere.

In Nigeria as the case is in most developing countries of the world in Africa, Asia and Latin America, the problems of underdevelopment and slow growth are being compounded by the challenges currently presented by climate change and environmental unsustainability.

Climate change has remained and has heightened the challenge of development in Nigeria today than ever before. The impact of climate change remains encompassing since effects are not selective and discriminatory. Its human implications make it universal phenomenon requiring comprehensive response as well. (O'Hare, Sweeney and Wilby, 2005, 354-5). The universality of the implications of climate

change makes it imperative for the Nigerian society to clearly understand what it is, its implications - economic, social, political, cultural and environmental for the society. It is also imperative to learn how the Nigerian society can cope with weather variabilities and assume greater role for itself. The issue of taking greater responsibility in responding to the challenges of climate change is an invitation to devise mechanisms and initiatives to cope with the situation which scientists have reported will continue as long as human activities on the environment are not streamlined.

The Problem

The challenges posed by climate change are probably not as visible as some problems such as unemployment, crime, health issues like HIV/AIDS or malaria and poverty which uninformed members of society know about. The menace of flooding, variation in weather - excessive sunshine or rainfall, drought, disappearance of certain species may still be in the superstition realm. This situation clearly indicates that society may be lacking in the knowledge and information on climate change and its rampaging impact.

Given the known effects and impact of climate change especially for human society, need is to gradually improve on the availability of, and access to information on climate change and related issues (O'Hare, Sweeney and Wilby, 2005:351). How the knowledge of climate change, and access to information can be enhanced to help people cope with its effects is a matter for devising appropriate initiatives.

This paper therefore sets out to address the issue of climate change and then x-ray the challenges it pose to the development of nation. It also will examine some educational initiatives and the critical role the public and private sectors have to play in mobilizing for improved response towards meeting the challenges of climate change.

Educational Initiatives for Coping With Climate...

What is Climate and What is Climate Change?

Climate

Climate is defined as the average or typical weather condition found in a given region over a long period of time. Thus the weather of a region as it is in southern Nigeria, can follow a definite pattern over a period of time. During the dry season, the weather may be dry and humid. This pattern may be this way for a long period of time.

What Then is Climate Change?

Climate change is described as change in average weather conditions. These include changes in patterns of temperature, precipitation, humidity, and winds over a long period of time. The change in world climate is said to have many implications for natural ecosystem which support living and human adaptation on planet earth. The earth climatic conditions which used to be regulated by 'greenhouse effect' is disrupted and this has affected the balance of the earth system. With the disruption in the earth system, scientific evidence shows retreating glaciers, rising sea level, shifting climatic zones, increasing desertification etc. These situations are thought of as having far reaching environmental, social and economic consequences.

Human activities have been cited as having the potentials to cause climate change. It is expected that as human society adopt increasingly sophisticated and mechanized life styles, the impacts are usually directed at the environment. It is probably the linkage between human activities and climate change that necessitated United Nation Framework Convention on Climate Change definition in which climate change is described as;

“as change of climate which is attributed directly to human activities that alters the composition of the global atmosphere and which is in addition to natural' climate variability observed over comparable time period”.

Climate change may be natural occurrence. Given that some natural forcing in earth system could trigger variations in earth balance (O'Hare, Sweeney, and Wilby, 2005:161-8). Climate change has equally been linked to human activities on the environment. The burning of fossil fuels from oil and gas leading to the release of several kinds of gases into the earth atmosphere have been actively associated with climate change over time (O'Hare, Sweeney, and Wilby, 2005: 169-173).

What are the Effects of Climate Change?

The effects of climate change have been pictured as wide ranging. It includes;

- Rising sea level due to melting ice and expansion of warmer sea water which is threatening coastal communities, wetland and coral reefs.
- Heavier rainfall causing severe flooding in many regions

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- Ecosystem are changing thus causing mass movement of species to conducive habitats.
- Hurricanes, storm and winds have gathered more strength and frequency.
- More frequent heat waves in more regions of the world.
- Seawater is becoming mo" acidic. The direct impact is on marine lives (Gardiner, 2010, O'Hare, Sweeney and Wilby).

What Can be the Impact of Climate Change?

The impact of climate change remains to show how positive it is save for challenging mankind's capacities for adaptation. Otherwise, its impact has remained more negative on humans, animals, and plants. Since flood, droughts, extreme weather conditions such as heat, cold, storms have become more frequent. Intergovernmental Panel on Climate Change (IPCC) discovered that the following could be heavily impacted upon, namely:

- (a) Agriculture and food supplies, nomadic activities
- (b) Human health, disease and disease resistance.
- (c) Energy supply and availability
- (d) Transportation
- (e) Communication
- (f) Water supply and its availability
- (g) Migrational patterns of both humans, and animals
- (h) Productivity and availability of infrastructure,
- (i) Development pattern of nations.

The impacts have serious implications for the economy of any nation and directly present a challenge to sustainable development. WWF Global estimates that billions of dollars could be spent fighting the impacts of climate change in the world.

The impacts of climate change will further create some socio economic problems. Rising unemployment, poverty, hunger, disease, loss of productive lands, squalor, loss of housing, rising cost of communication and transportation are all viable consequences. The problems in turn have consequences for sustainable development and growth 'of society (London Climate Change Partnership, 2002).

In Nigeria as it is in other parts of the world, the challenge now more than before is a response to the vulnerability, impact and adaptation to climate change.

Response to Climate Change: Which Option?

Various nations respond to the challenges of climate change differently. Each nation might also choose various ways to do that. Responding to the challenges of climate change will vary according to areas of vulnerability and impact. For instance cut to energy supply due to physical destruction of energy facilities will elicit response for reconstruction. Shortage in food availability will cause government to mitigate that through importation of food.

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However, while mitigation and remediation are some chosen options of response to climate change, opinions say those are institutional mechanisms, employed by governments and establishments. It is argued that those options have limited participation by generality of society upon which climate change has not discriminated against (UNESCO, 2009:9).

Education Initiative for Coping with the Challenges of Climate Change

Besides direct impact mitigation and remediation, the option of availing the society with knowledge, information, ability, and skills to face the challenges of climate change is on the increase. The UNESCO International Seminar on Climate Change Education held in Paris between 27-29 July, 2009 actively canvassed the educational angle in addressing climate change and its numerous challenges. Somewhat this confirms the position of Nigeria in using education as tool in addressing national challenges. Subparagraph (b), (c) and (d) of the National Policy on Education state clearly goals of education that defines the position of Nigeria in circumstances like climate change. Thus education in Nigeria aims at

- (a) inculcating the right type of values and attitudes for the survival of the individual and the Nigeria society.
- (b) training the mind in understanding the world around.
- (c) acquisition of appropriate skills and development of mental, physical and social abilities and competencies as equipment for the individual to live and contribute to development of society. (FRN, 2004:7-8).

So What is Educational Initiatives?

The structure of education in Nigeria provides ready platform for initiating climate change education. The arrangement provides for basic education, secondary education, tertiary education, special education, teacher education, open and distance education (FRN, 2004). Each of these levels has curriculum and duration of study. Curriculum at each level could really be modified, expanded or adjusted to accommodate knowledge in the area of climate change.

Outside the formal structure of education need is to bring knowledge of climate change to the populations living in the rural communities, semi urban areas and the urban areas and cities. However, without curriculum or curricula, engaging these populations might as well be challenging. Some education initiatives are proposed, namely;

- (a) Environmental campaign
 - (b) Enlightenment programmes
 - (c) Town Hall meetings
 - (d) Talk shows
 - (e) Community seminars
 - (f) Stakeholders summits
 - (g) Focused group discussions
- (Egi Community Development Foundation, 2009: 16)

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These initiatives have certain challenges including the problems of;

- (a) Language barrier
- (b) Cultural barrier

- (c) Religious misinterpretation
- (d) Lack of time for programmes by peasants

Navigating Education Initiatives for Climate Change

Change, it is said, comes slowly. So the daunting task before everyone within the educational sector requiring to use education to address climate change, is how to bring about immediate review and then modification to the curricula. Most important is the issue of availability of knowledge and material needing to be injected into curriculum. The UNESCO International Seminar on Climate Change Education hinted on the following guidelines for education initiatives, thus;

- i. undertaking a review of existing educational policies and curricula, in order to initiate the development of guidelines to facilitate the inclusion of climate change issues into educational programmes, policies and curricula.
- ii. undertaking a comprehensive review and inventory of existing tools, material and practices in teaching and learning climate change.
- iii. addressing quality assurance and standard setting in climate change education.
- iv. developing ways for supporting a “community of practice” around climate change education
- v. enhancing networking and corporation for action on climate change education among all stakeholders, in particular through actively engaging communities and youth
- vi. enhancing action-research in social and human sciences, ethics and adaptable teaching materials to suit specific situations in relation to climate change issues
- vii. evolving an interdisciplinary approach towards climate change education

Education initiatives for climate change may stand to benefit substantial from the UNESCO guideline as it provide a gateway into the issues that promote climate change education. It shows that active collaboration of all in society is the only guarantee for a holistic approach to climate change education.

What Role Should the Public and Private Sectors Play in Education for Climate Change?

It is pertinent to clarify what public sector is. It is majorly perceived as that sector of the society in which the public is represented essentially by the government and its numerous agencies.

On the other hand, the private sector consists of individuals in their private establishment and still contributing services to the public.

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The two sectors are complimentary in their services for the good of society. However, the public service is usually responsible for the policies which govern and orders society.

Public Sector Role in Climate Change Education

Evidently public sector role in education is discharged by the federal and state ministries of education. They are charged with policies, plans and programmes. However, because of the specialty of climate and environmental issue, the Ministry of Education needs to collaborate with some ministry likely to have interest here. This includes Ministries of Health, Environment, Economic Planning, and Agriculture. The input from these sister ministries will enable the ministry of education to enunciate policies, plans and programmes likely to address the knowledge hub of climate change education (UNESCO, 2009 & FRN, 2004).

Aside policy, Plans and Programme, the public sector educational investment in climate change education will be responsible for addressing the issues of determining resources types, materials, curricula translated from policies and plans and tools necessary for achieving climate change education.

It is also imperative; the public sector representatives determine nature of climate change education in terms of democracy and access, empowerment and protection.

Another important issue the public sector must address as far as climate change education is concerned is to provide legislation on climate change education. It is also imperative for the public sector to initiate a framework that encourage and support private and Public Sectors Corporation in enhancing availability of climate change education in various regions of the country.

Private Sector's Role

The private sector is large and consists of NGOs, funding agencies, media, multinational corporations, manufacturing companies, service companies and external agencies. In most countries, this sector participates actively in most socio-cultural programmes beside their interests. The private sector in Nigeria has always been involved in promoting certain programmes e.g. the campaign against HIV/AIDS, Human Trafficking, Child Abuse, Cancer, Tuberculosis, violence, kidnap etc.

However, very little has been heard about the private sector concerning climate change campaign. It is therefore pertinent at this stage to spell out the role the private sector needs to play in climate change education in Nigeria. The private sector could play the following role;

- (1) contribute input into policy, plans and programmes of climate change education.
- ~~(2) promote school programmes aimed at enhancing climate change education.~~
- (3) provide sponsorship for teachers needing to specialize in climate change education.
- (4) donate or create chairs of climate change education in faculties of universities
- (5) sponsor youth conferences and seminars on climate change.
- (6) sponsor extension education aimed at climate change.
- (7) sponsor vigorous climate and environmental campaign aimed at sensitizing the public on the need for green communities.
- (8) provide funds for school programmes aimed at restoring the environment.
- (9) mount programmes aimed at understanding issues of vulnerability, impacts and adaptability.
- (10) sponsor programme of environmental protection.
- (11) seek active collaboration with the public sector.

Conclusion

Climate change has remained a prominent agenda today for virtually all nations of the world. The havoc wrecked on some continents especially Asia and America has taught the world to accept that climate change has fatal effects on human beings, animals, plants and the environment. Therefore, attention is being paid to vulnerability, impacts and adaptation. To reduce the vulnerability, impact and increase adaptation, it has become imperative for society through education to acquire knowledge, skills, and capacities to tackle climate change effects. In the process, the public and private sectors are being actively mobilized through defining their roles in climate change education.

Suggestions

1. Education Trust Fund be encouraged to spend at least 5% of its fund on Climate Change Education
2. Review of National Policy on Education. Curriculum and programmes to include Climate Change Education.
3. Private firms to fund Research on climate change in schools within their environs.
4. The private sector should sponsor training programmes for green community.
5. Encourage the full development, recognition, and utilization of indigenous peoples' culture, traditional knowledge and spiritual wisdom in the protection of their environment and welfare as part of school curriculum.
6. Promote the study of science subjects that are naturally linked to the environment.
7. Teach climate change in local language to demonstrate that it is an issue in the locality.

8. Climate change conferences and seminars for schools, colleges and universities should be organised by the private sector in collaboration with the public sector.
9. ~~Climate change education should focus on vulnerability, impacts, and adaptation.~~
Educational Initiatives for Coping With Climate
10. Create partnership for organizations with similar skills, knowledge, and vision that promote climate change education.
11. There should be legislation to enforce the teaching of climate change education in all schools.
12. Climate change education should educate all students in all fields about the relationships among human activities, climate, public and ecosystem health, and appropriate civic and professional actions.

References

Federal Republic of Nigeria (2004). *National Policy on Education* Lagos: NERDC Press.

Nmom, O. C. (2002). *Issues in development*. Port Harcourt; Pearl Publishers.

O'Hare, G. Sweeney, J. & Wilby, R. (2005) *Weather, climate and climate change: Human perspectives*. London: Pearson Prentice Hall.

UNESCO International Seminar on Climate Change Education Impact on Education 27-29 July 2009 at UNESCO Paris.

<http://www.un.org> Climate Change and Development. 19/10/2010.

<http://www.climatechoices.org.uk> /pages. 19/10/2010

www.unesco.org/mab/doc/icc/2c 20/10/2010

www.ettiz.ch/media/detail Potential Impacts of Climate Change Consequences (Vol. 1. No. 2) 14/11/10.

www.panda.org /:/problems The Impacts that climate change brings. 16/11/2010.

<http://www.ukcip.org.uk/> UK Climate Impacts Programme. 15/11/2010.

www.NigeriaClimateChange.org- Climate Issue in Nigeria 10/10/2010.

(http://en.wikipedia.org/wiki/List_of_countries_by_HDI 18/11/10)

www.weatherquestions.com What Climate Change is. 18/11/10)

(www.nrcan.gc.ca Green house effects. 18/11/10)

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www.climatechangepartnership.org.UK (London Climate Change Partnership, 2002).

(Egi Community Development Foundation, 2009: 16) Community Education Initiative, Port Harcourt.

