EVALUATION OF FLOODING ON THE SECONDARY SCHOOL STUDENTS IN OGBA / EGBEMA / NDONI LOCAL GOVERNMENT AREA IN RIVERS STATE, NIGERIA

DR ERIC CHIKWERU AMADI (Senior Lecturer)

DEPARMENT OF EDUCATIONAL FOUNDATIONS, FACULTY OF TECHNICAL AND SCIENCE EDUCATION RIVERS STATE UNIVERSITY OF SCIENCE & TECHNOLOGY, PORT HARCOURT, NIGERIA

Abstract

This study evaluates the effects of flooding on the Secondary School Students in Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria, which occurred in October 2012. Data of this study were obtained from questionnaires, interview, personal observation, and newspaper report. A total of 90 respondents, drawn from residents in flood prone areas, were sampled for this study. Survey method was used in the analysis of data. The result of analysis showed that floods in Omoku occurred mostly at the event of rainfall intensity and amount and especially at rainy season but this particular flood occurred in October 2012 after the main rainy season (August/September). Factors other than rainfall identified to substantially influenced flooding in the study are: lack of good drainage network, dumping of wastes / refuse in drainage and water channels, topographic characteristics, overflowing of riverbanks, low infiltration due to high water table and degree of built up areas leading to increased runoffs, and climate changes. Despite the flood hazards, occupants in flood prone area have remained on the basis of no alternative, cultural ethnic affinity, schools, family home, place where students stayed used to flooding as the whole area suffered from flooding nature of occupation, and cheaper houses to rent, animals, and farm lands which will lead to hunger in the future in those affected areas, personal properties and public infrastructures also suffered all forms of flood damages. Flood mitigation measures also include river rechannelisation, raising school foundations, use of sand bags bridges and neighbor community efforts. Public enlightenment and necessary legislation and enforcement are recommended to checkmate activities aiding flooding.

Introduction: The account of the deluge in the Bible and similar traditional accounts are evidence that there always have been floods large enough to affect man's struggle to win a living from the earth. The early civilization that grew along the Nile, Tigris, Euphrates, Indus, and Hwang Llo (Yellow) rivers are examples of the development of civilizations in an environment where a river enforced community action for flood protection. Such an environment nurtured man and his crop but the river was also a source of disaster. Though these areas supported man and his crops but the rivers were source of disaster due to flooding. Floods are the most common and widespread of all the natural hazards. The consequences of floods are vast on the physical environment, economic and social well-being of the inhabitants of any affected area.

In China, the Hwang Llo has been the cause of repeated floods during 4,000 years continuous settlement. The land subject to flooding has an area of about 55,000 square miles (140,000 sq km), and it has been densely populated. Because of its devastating floods, the Hwang Llo is known as "China's Sorrow" (2297 B.C). Despite the repeated setbacks caused by the floods, however, the Chinese did not abandon their land. This generally was true of the other great early civilization that experienced river floods.

In many parts of the world, floods seem to be occurring activities, however, sometimes exacerbated its effects on the environment and the inhabitant. Human often causes disaster when they make environmentally unsound decision such as building in an area that is prone to flooding (urbanization) and by cutting down forests (deforestation) Bryant (2001). Floods occur when there is an inundation of an area which is not normally river, lake or sea, and when excess precipitation exceeds natural infiltration, evaporation, and possible transmission. Floods are generally regarded as extreme hydrological events, where there is excess of water which may have devastating effects. According to Ayoade (2008), floods in tropics are partly or wholly climatologically in nature, that is, they result from torrential rainfall. Also, human interference in the hydrological relationship within the watershed can cause flooding.

In Nigeria, the incident of floods is becoming a reoccurring decimal in most rural and urban areas leading to colossal loss of properties and lives. For example, cases of flood were recorded in llorin 2000 and 2011 Ogunpa in Ibadan. Also in 2012, unprecedented tragedy unfolded in the Niger Delta as her communities were swallowed by raging floods that brought untold hardship, anguish and sorrow to great population of delta inhabitants. As the surging floods spread into tributaries of the River Niger into many communities, many helpless poor people killing amid wide spread damaged houses, school building and other properties worth billions of naira. The situation was such that many where urging the Federal Government to declare a state of emergency in the devastated areas.

Floods often cause damage to homes, schools and business if they are in the natural flood plains of rivers. While riverine flood damage can be eliminated by morning away from rivers and other bodies of water, people have traditionally lived and worked by rivers because the land is usually flat and fertile and because rivers provide easy travel and access to commerce and industry. Some flood develops slowly, while others such as flash floods can develop in just a few minutes and without visible signs of rain. Additionally, floods can be local, impacting a neighborhood or community, or very large, affecting entire river basins.

The indescribable hardship occasioned by flooding in the Rivers State and Omoku in particularly cannot be overemphasized. The effect was so devastating that most secondary schools in Omoku town were closed down for almost one full term. Even when the deluge abated most schools couldn't resumed because the damages done by the flooding affected these schools so badly that the environments (classrooms, administrative etc) were not conducive for learning and teaching process to take place. Thus, academic activities in these schools were brought into a complete shutdown. This deplorable situation may not have only affected the academic activities of the schools but also students' performance in subsequent examination as well as results in the school authority and government incurring extra cost for repair and building new infrastructural facilities. It is this situation that informs the need for this investigation of the effects of flooding in secondary schools in Omoku, Ogba/Egbema/Ndoni local Government Area of Rivers State.

Research Questions: The following research questions guided the study:

- 1. To what extent did the flood affect the staff?
- 2. To what extend did the flood affect the management of the school?

Design of the Study: The design used in this study is a survey design. This design is based on the premise that it is the best or most ideal method of investigating the effect of flooding on the secondary schools, people's opinion, attitude to which the study is all about.

Research Question 1: What extend did the Flood affect the staff?

Table 1: Respondents response in Relation to research question 1.

		Affected (Yes)		Not affected (No)		Undecided		Total	
S/N	Question Item	No.	%	No.	%	No.	%	No.	%
1	Has there been flood in your school since you joined	5	16.67	23	76.67	2	6.67	30	100
2	Were you happy at home during the period of the flooding	10	33.3	15	50	5	16.67	30	100
3	Did the flood destroy school property	28	93.33	2	6.67	0	0	30	100
4	Was the effect of the flood in your school very great	28	93.33	1	3.33	1	3.33	30	100
5	Did the flood affect your attitude towards work	10	33.33	12	40	8	26.67	30	100

From table 1, the following deductions are made: 16.67% of the staff agreed that there had been incidence of flood before; 76.67% disagreed while 6.67% were undecided. 33.33% of staff was happy at home while the flood lasted; 50% were not happy while 16.67% were undecided. 93.33% of staff claimed that flood destroyed school property; 6.67% disagreed while 0% was undecided. 93.33% of staff claimed that the effect of flood was great; 3.33% disagreed while 3.33% were undecided. 33.33% of staff claimed that the flood affected their attitude towards work; 40.00% disagreed while 26.67% were undecided.

Research Question 2: To What Extent did the Flood affect the Management of The School?

Table 2: Respondents response in Relation to research question 2.

		Affected (Yes)		Not affected (No)		Undecided		Total	
S/N	Question Item	No.	%	No.	%	No.	%	No.	%
1	Did all the employed staff in your school resume after the flood	20	66.67	4	13.33	6	20.00	30	100
2	Did all the students return after the flood	22	73.33	6	20.00	2	6.67	30	100
3	Did the flood destroy property in your school	28	93.32	1	3.33	1	3.33	30	100
4	Do you have any means of control the flood in your school		33.33	10	33.33	10	33.33	30	100
5	Did the flood affect the foundation of your school	28	93.33	1	3.33	1	3.33	30	100

From table 2, the following deductions are made: 66.67% said that staff resumed work after the flood; 13.33% did not agree while 20.00% were undecided. 73.33% claimed all the students returned after the flood. 20.00% refuted claim while 6.67% were undecided. 93.33% had their property destroyed; 3.33% said their property was not affected while 3.33% were undecided. 33.33% said they have

means of flood control; 33.33% said they do not have any control means while 33.33 were undecided. 93.33% had their school foundation affected; 3.33% were unaffected while 3.33 were undecided.

Discussion of Findings: Table 1 shows that the staff was not happy being at home as result of the flood as they were not paid for three months. It is also recorded in Table 2. by the management that the flood destroyed important documents in their school, and more over the flood affected the foundation of the school building. This probably could lead to the collapse of the building, and thus, will result in extra cost for the management in future if adequate measures are not taking to reinforce the school building foundation.

In conclusion, one would say that the flood that occurred in October 2012 in Rivers State and in particular Omoku, Onelga, had great effect on teaching and learning process on private schools. This greatly resulted in poor performance of students when they return after the flood subsided, and even management of such school incurred extra cost for repair of damages cause on the school facilities.

Summary of the Study: It is necessary to add that what affects management and staff affects student's performance hence the need for their opinion of the matter at hand.

Conclusion: This work has examined the evaluation of flooding on the secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria based on the investigations carried out on the works of other authorities in relation to this study, and on the findings of this study, the following conclusion are made:

- The salary of the staff was not paid during the period of the flood.
- The management lost important documents as a result of the result of the flooding.
- This study also shows that there are few ways of avoiding flooding.

Recommendations: In order to avoid or minimize the disastrous consequences of the effects of flood, it is suggested that:

- State government should set up a committee to look into the affairs of the people affected by flood in Omuku Town.
- State government should create a canal that will enable water flow easily.
- Residence in flood prone areas should avoid dumping of refuse into the drainages and water ways.
- Federal Government should dredge the Orashi River.

BIBLIOGRAPHY

- Ade, C. A. (2012). Submerged Schools at Ebocha Omoku Ogba / Egbema / Ndoni Local Government Area of Rivers State. The Punch, October 23, 2012.
- Adeloye, A. and Rustum, R. (2011). Flooding and Influence of Urban Planning. Kogi State: Okpozogi.
- Agbede, I. O. and Akpen, G. D. (2008). *Bacteriological and Physico Chemical*. Benue State: Qualities of Groundwater in Makurdi Metropolis,
- Ayoade, W. (2008). The Relationship between the Watershed and the Hydrological events with Devastating effects and Human Interference Edu Local Government Area. Kwara State.
- Babatola, J. S. (2006). Recent Changes in Rainfall Patterns and its Implication for Flood Occurrence. Ogun State: Abeokuta,

- Barasimeye, C. (2012). Rivers State Government Blames Flooding on Dumping of Refuse in Drainages. The Tide, November 16.
- Burges, S. J. (2002). *Hydrologic Monitoring of the Seattle Ultra-Urban Storm water Management Programme*. Mexico City.
- Bryant, S. W. (2001). *Environmental Unsound Decision in Human Building in Flood Prone Areas*. Nigeria: Enugu State.
- Diagi, P. N. (2005). Extreme Rainfall and its Implication for Flood Frequency in Western Niger Delta. Bayelsa State.
- Dyhouse, G. (2003). Flood modeling using HECRAS (first edition). USA: Haestad Press, Waterbury.
- Encyclopedia Americana (2002). Grelier Incorporated USA Volume II.
- Fowler, H. J. and Kilsby, C. G. (2003). *Implications of Changes in Seasonal and Annual Extreme Rainfall*. Nigeria: Department of Geography and Environmental Management, University of Port Harcourt, Port Harcourt.
- Gobo, A. E. (2008). Relationship between Rainfall Trends and Flooding. Nigeria: Enugu State.
- Koukoulas, S. W. SR (2009). Integrated Analysis of Risk of Coastal Flooding and Cliff Erosion under Scenarios of Long Term Change.
- Levitan, M. (2009). Loss of Life Caused by the Flooding of New Orleans after Hurricane Katrina. Analysis of the Relationship between Flood Characteristics and Mortality. Risk Anal.
- Martinez del Pozo, JA (2006). Costal Flooding Hazard Related to Storms and Costal Evolution in Valdelagrana.
- Michael, J. A. (2007). Flooding and Coast of Sea Level Rise. Mexico City.
- Nwogu, S. (2012) Teacher, Pupils Groan as Kogi Flood Affects 54,000 Children. The Punch, October 5.
- Ocheri, M. and Okoke, E. (2001). Social Impact and People's Perception of Flooding in Makurdi Town, Nigeria.
- Odekule, T. O. (2001). The Magnitude–Frequency Characteristics of Rainfall in Ondo, South Western Nigeria. Ife Research Publication in Geography.
- Ojisua, P. (2012). Floods Submerge more Communities, thousands of houses, cars, farms and others destroyed. The Guardian, October 9.

- Ologunorisa, E. T. (2001). *An Assessment of Flood Risk in the Niger Delta*. Port Harcourt: Nigeria Department of Geography and Environmental Management, University of Port Harcourt,
- Ologunorisa, E. T. (2004). *Rainfall Flood Prediction in Niger Delta*. Nigeria: (Abstract), International Conference in Hydrology Science and Practice for the 21st Century, London, UK.
- Ologunorisa, E. T. and Diagi, P. N. (2005). Extreme Rainfall and its Implication for Flood Frequency in the Western Niger Delta. A Case Study of Warri, Nigerian Journal of Tropical Geography VolumeI.
- Onoja, S. B. and Adelakun, A. A. (2009). Water Borne Disease and their Implication to Economic Losses. Port Harcourt: Nigeria Department of Geography and Environmental Management, University of Port Harcourt,
- Powell, W. G. (2009). Identifying Land use / Land Cover (LULC) using National Agriculture Imagery Program (NAIP) Data as a Hydrologic Model Input for Local Plain Management.
- Ramsay, D. and Bell, R. (2008). Costal Hazard and Climate Change. Mexico City.
- Shang, J. (2009). Watershed Urbanization and Changing Flood Behaivour Across the Meuse in the Netherlands. Los Angeles Metropolitan Region.