

# Disaster Preparedness and Awareness Among School Educators and Administrators – A Study of Selected Secondary Schools in Ekiti – State, Nigeria

Oluwayemisi Irete Ogunleye<sup>1\*</sup> Idowu Oluwatosin Ogunleye<sup>2</sup>

1. Department of Geography and Planning Science, Ekiti State University, Ado Ekiti, Nigeria

2. Department of Chemistry, University of Ibadan, Ibadan, Nigeria

## Abstract

The research was centred on ascertaining the level of awareness and preparedness among school educators and administrators in some selected secondary schools in Ekiti state. A self-administered, well-designed questionnaire was prepared and distributed among 200 educators selected randomly from different public secondary schools in all the 16 Local Governments in Ekiti State. The results obtained from the analysis showed that the level of awareness and preparedness of school educators and administrators are still inadequate. Little or no provision was in place in schools in term of financial aids, provision of disaster equipment in schools. Besides, school administrators and educators lack adequate training and education on disaster preparedness. Hence, the government at all levels and non-governmental organizations had been encouraged to provide required disaster equipment, training, teachings, financial aids in schools since some of the schools could be prone to the risk. Finally, they are encouraged to respond adequately and immediately in emergencies.

**Keywords:** Disaster, Preparedness, Awareness, Educators, vulnerability

**DOI:** 10.7176/JEP/10-25-09

**Publication date:** September 30<sup>th</sup> 2019

## 1. Introduction

Schools are generally considered to be safe havens for millions of children, educators and school administrators. It should be the greatest socializing institutions after the family. Unfortunately, both educators and school administrators are greatly affected by disasters either through in-school violence, acts of terrorism, and as climate instability leads to more weather-related disasters such as floods, collapse of buildings, fires etc. The severity and magnitude of disaster differs depending on the level of preparedness and awareness of the school educators and administrators.

Disaster refers to an emergency and overwhelming events that involves the destruction including injury and loss of lives which is caused by natural hazards or human induced actions resulting in a significant change in circumstances over a relatively short time period. Typical examples are death, displacement, disease, and loss of crops, damage to physical and service infrastructure, depletion of natural and social capitals, institutional weakening and a general disruption of economic and social activity (Olorunfemi, et al, 2002; Mururi, 2014). There are numerous types of disasters: man made hazards (disasters) and natural hazards. Natural disasters are physical events that occur spontaneously in nature. They are principally the result of geophysical interactions between atmosphere, hydrosphere and lithosphere. These could be geophysical (earthquakes), hydrological (floods), meteorological (hurricanes), climatological (temperature extremes), or biological (viral epidemics). Man-made disasters are caused by the actions of human beings either directly or indirectly. They include chemical, biological, radiological, nuclear, and explosive terrorism, arson, riots, wildfires, armed conflicts, and infrastructure failures (Adam et al, 2016; Mururi, 2014). Sometimes, there are warnings of impending disasters that give people time to prepare and act before they strike, however, there are also many other types of disasters that give no warning in advance (Ashley, 2015).

According to Peace Corps (2001), the developing world will continue to be hardest hit by the cascading effects of human-driven climate change, environmental degradation, and population pressures. With the continual increase in world population and population density, more and more humans are being affected by these natural hazards every day (Ashley, 2015).

In Russia, the extreme winter weather turned into a disaster when it struck a society where 44 million people are living in poverty, one million children are homeless, and tuberculosis rates are skyrocketing. This insidious combination is throwing millions more into the path of potential disaster. Mostly, 96 percent of all deaths from natural disasters occur in developing countries because of lack of preparedness. One billion people are living in the world's unplanned shantytowns, and 40 of the 50 fastest growing cities are located in earthquake zones. Another 10 million people live under constant threat of floods (Peace Corps, 2001). Between 1998 and 2017, USA experienced climate-related and geophysical disasters that killed 1.3 million people and left a further 4.4 billion injured, homeless, displaced or in need of emergency assistance. While the majority of fatalities were due to geophysical events, mostly earthquakes and tsunamis, 91% of all disasters were caused by floods, storms,

droughts, heat waves and other extreme weather events (Centre for Research on the Epidemiology of Disaster, 2018).

There are cases of disaster incidents in secondary schools worldwide. Only that it differs in magnitude from one country to another. According to Geneviene (2018), in the United Kingdom, half of secondary schools surveyed had experienced a fire serious enough to call fire and rescue services. UNESCO (2014), opined that children are particularly vulnerable to disasters, and schools are often not able to keep them safe. More than 50 per cent of those affected by disasters worldwide are children. Hence, the study area is not spared as it is prone to both natural and man-made disasters. Rainstorm hazards blew off the roofs, pulled down many school buildings especially in the past five years. It was recorded globally that, many school buildings are highly vulnerable to significant damage or collapse.

Disaster incidents in secondary schools have been happening worldwide and no country is spared from this problem. Nevertheless, the magnitude and severity differ from one country to another. This is attributed to the fact that the level of disaster awareness and preparedness differ in the United Kingdom (UK) one of the developed countries, several disaster incidences have been experienced in schools. According to a survey conducted by Arson Control Forum in 2006, nearly half of all secondary schools surveyed had experienced a fire serious enough to call fire and rescue services. Fortunately, the government had created awareness to school children through providing fire safety education and given advice on fire risk prevention.

Disaster incidents in secondary schools have been happening worldwide and no country is spared from this problem. Nevertheless, the magnitude and severity differ from one country to another. This is attributed to the fact that the level of disaster awareness and preparedness differ from places.

Disaster preparedness and awareness go a long way in reducing the impact of natural crisis on education as well as reducing disaster losses is a fundamental goal for most governments. According to Joshi (2014), school teachers must be aware of disasters and its consequences to tackle the disasters at school. There is need to enhance knowledge, skill and values to reduce the impact of disasters on the education sector. To build in a culture of safety and resilience at all levels in the education sector, there is a need to carry out a large number of initiatives.

Disaster preparedness are activities and measures undertaken in advance to ensure effective response to the impact of hazards, including the insurance of timely and effective early warnings, temporary evacuation of people and property from threatened locations. Everyone should be prepared to handle disaster safely and effectively. Administrators, teachers, staff, student and parents can work together to promote and maintain school-wide safety and minimize the effects of emergencies and other dangerous situations (Accredited schools 2019).

### **1.1 Description and geographical location of the study area**

The study area, Ekiti state is in Southwest region of Nigeria, declared a state on 1st October 1996. The State is mainly an upland zone, rising over 250 meters above sea level. It lies on an area underlain by metamorphic rock. It is generally an undulating part of the country with a characteristic landscape that consists of old plains broken by step-sided out-crops that may occur singularly or in groups or ridges. The State enjoys tropical climate of two distinct seasons of the wet (April-October) and dry (November-March) seasons. Temperature ranges between 21°C and 28°C with high humidity. Because of the favourable climatic conditions, the land enjoys savannah vegetation. Wikipedia (2019).

The State is located within Latitudes 70151 and 8051 North of the Equator and within Longitudes 40451 and 50451 East of the Greenwich Meridian. The State lies South of Kwara and Kogi States as well as East of Osun State. It is bounded in the East and South by Ondo State and was carved out of the old Ondo State on October 1st 1996. It comprises of sixteen (16) Local Government( Ogundele et al, 2013). Indeed, education is the most viable industry of the people of Ekiti State, hence the people are in the forefront of educational development with about 141 public secondary schools apart from the school established to cater for specific purposes like special school for the disabled.

Owing to the geographical location and the misuse of nature, the state faces lots of disasters such as floods, fires, building collapse, rainstorms, erosion and the like. To prevent the huge destructions and to become a disaster resistant community, educators, administrators and policy makers can play a pivotal role too. The research was done to determine the level of disaster preparedness and awareness among educators who are key players in creating awareness among students and to give recommendations for effective disaster preparedness based on the research findings.

### **1.2 Aims and Objectives of the study**

This study aims at assessing the level of Disaster preparedness and awareness among school Educators and administrators- A study of selected secondary schools in Ekiti-State.

This aim will be achieved through the followings objectives:

- evaluating the depth of school disaster preparedness by school administrators in some public secondary schools in Ekiti State.

- identifying the types of disasters facing the secondary schools in Ekiti State and what measure is been put in place in the case of disaster emergency.
- establishing knowledge and self-expressed practices/planning regarding disaster preparedness and awareness among secondary school educators

## 2. Materials and Methodology

This research was intended to explore knowledge of Disaster Preparedness and Awareness in school educators in Ekiti State and it also explores future perception of the school educators towards Disaster Preparedness and awareness.

In this study, a self-administered, well-designed questionnaire was prepared and distributed among 200 educators selected randomly from different public secondary schools in all the 16 Local Government in Ekiti State among which 199 was recovered. The questionnaire consisted of 24 questions divided into three sections. The questionnaire was designed to assess educators' knowledge and awareness of disaster preparedness. A convenience and purposeful sampling of participants was used to select questionnaire respondents. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Lawrence et al, 2016).

The data collected from the study was tabulated and analyzed using statistical tools- percentage, and Chi square tests. Section A solicited data on demographics, training and work experience; section B focused on general disaster education questions; section C contained questions about the levels of educators' /administrators disaster preparedness.

## 3. RESULTS AND DISCUSSION

**Table 1: Demographics, training and work experience profile of the respondents**

The general socio demographic characteristic of the respondents are shown in **Table 1a and 1b** below:

1(a)

	Frequency	Percent
Male	83	41.7
Female	116	58.3
Total	199	100.0

1(b)

	Frequency	Percent
Educator	139	69.9
HOD	46	23.1
Vice-principal	2	1.0
Principal	12	6.0
Total	199	100.0

The responses showed that 41.7% of the respondents were males while 58.3% were females. This shows gender fair distribution of respondents. Particularly, more women were sampled because according to Eric et al (2008), in his research, he addressed the vulnerability of girls and women with respect to mortality from natural disaster. He established that, natural disasters kill more women at an earlier age than men. Disaster lowers the life expectancy of women more than men. This could be probably because of their ability to absorb shocks.

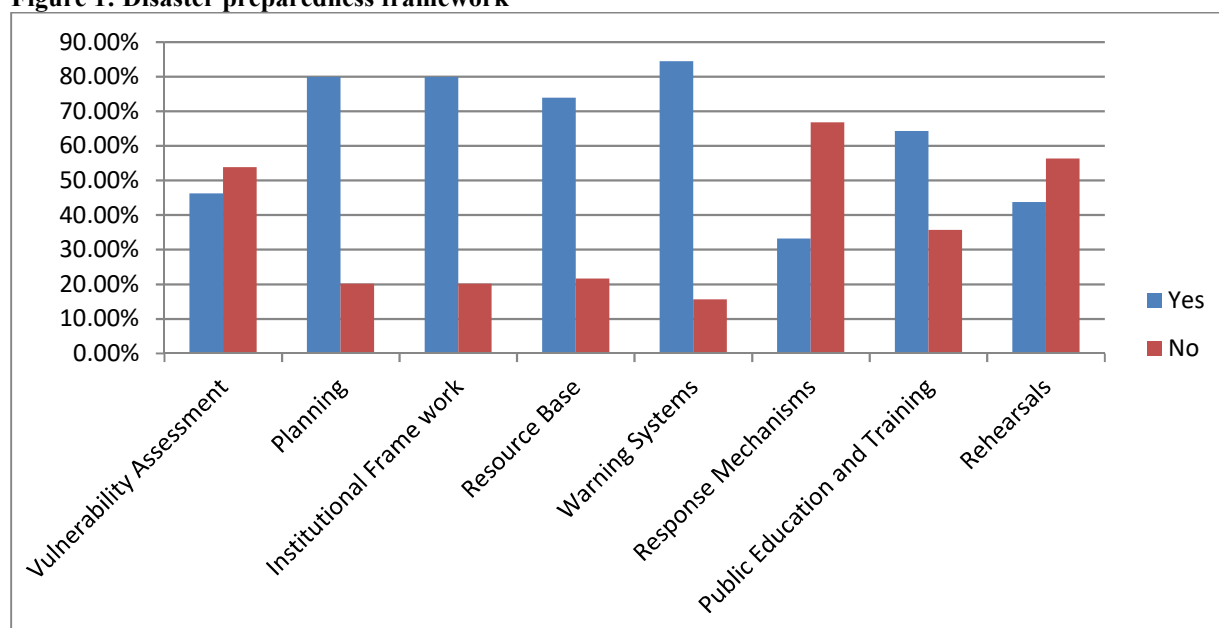
The main objective of the research is to assess the level of awareness and preparedness of administrators and educators from the selected schools. Hence, 30.1% of the result showed the responses of school administrators which include: HODs, Vice Principals and Principals while the remaining 69.9% were those of educators from the schools.

Besides, all the respondents cut across different fields of study namely: sciences, social sciences, education and Arts. This was to enable wider view and coverage from the angle of different professionals. The research also captured the views of educators with diverse years of experiences ranging from 1 month to above 16 years.

**Table 2: Disaster preparedness framework**

	Yes	No
Vulnerability Assessment	46.2%	53.8%
Planning	79.9%	20.1%
Institutional Frame work	79.9%	20.1%
Resource Base	73.9%	21.6%
Warning Systems	84.4%	15.6%
Response Mechanisms	33.2%	66.8%
Public Education and Training	64.3%	35.7%
Rehearsals	43.7%	56.3%

**Figure 1: Disaster preparedness framework**



From **Table 2 and Fig. 1** above, 46.2 % of the respondents indicated that the vulnerability assessment of the schools was carried out while 53.8 % indicated that no such assessment took place. This is an indication that many schools that may be prone to disasters were not given vulnerability assessment.

Besides, 79.9 % of the respondents said there were planning made in the case of any eventuality of disasters while the remaining 20.1% opined that there were no planning put in place in the instance of any disaster. Although, there was a large number of people who responded that there were planning in place, however, the responses of the 20% showed that there are still issues with planning in disaster preparedness in schools

The responses showed 79.9 % of the respondents agreed to the facts that institutional framework for disaster preparedness was in place in their schools. However, 20.1% of the responses showed that no institutional framework was in place in their school. Perhaps the 20.1% did not know whether any institutional framework exist in schools. This could be due to little or no awareness of government provision for disasters. This assertion was further corroborated as 35.7% stated that there were no public education, training and enlightenment. This shows that there is still much to be done by the government or its representative agencies on public enlightenment.

Also, 84.4% showed that they had understanding of warning system but only 66.8% of the respondents had no knowledge of any response mechanism whenever any disaster occur. With 75.4% emphatically saying that there were no workshops or seminars organised on disaster management despite the occurrence of some forms of disasters while others forms are envisaged. This is an indication that the knowledge and education of educators on disasters are inadequate. This assertion is further buttressed as about 35.7% of the respondents agreed that they have no knowledge of any disaster education and training for schools. Although, significant proportion of 64.3% of the respondents had knowledge of disaster public education and training. Beside, 56.3% had no knowledge of any disaster preparedness on rehearsals.

**Table 3: Relevant disaster preparedness assessment**

	Yes	No
Should disaster preparedness education be taught in classrooms?	72.9%	27.1%
Do you have some financial aids in the event of disaster in your school?	55.8%	44.2%
Does your school have a disaster preparedness plan?	72.9%	27.1%
Have you ever attended any seminar or workshop on disaster management?	24.6%	75.4%
Do you think disasters do happen in Ekiti-State?	76.9%	22.1%
Do you think your school could be seriously affected by disasters one day?	24.6%	75.4%

**Table 4: Methods used to dispose waste materials**

	Frequency	Percentage
Burning in the school composite pit	78	39.2%
Collected by waste collection companies	6	3%
Burning in the incinerator	113	56.8%
Left laying all over the school compound	2	1%

From **Table 3**, out of the total number of sampled schools and respondents, only 24.6% of the respondents envisaged some forms of disaster in their schools which may include; wind, building collapse, herdsmen attack, erosion and fire disasters. In view of these, 72.9% of the respondents support that disaster preparedness should be taught in schools, disaster and emergency drills should be conducted in schools.

Moreover, in **Table 4**, as part of the measures put in place in most of the schools to control air borne diseases, most of their wastes are burnt in their incinerators or composite pits as indicated by 96% of the respondents. This burning process if not well controlled could also result in another form of fire disaster. In the event of a fire disaster, many of the schools do not have disaster preparedness equipment such as: fire extinguishers, where they exist, they have expired; no fire alarms, smoke detector, empty first aid box and a few sand pots.

Finally, it is very unfortunate that in spite of disaster occurrences in the state ranging from building collapse, fire incidence, herdsmen attacks, wind storms and erosion with and the fact that some schools are in the likelihood of been faced with some forms of disasters, yet, no much aid is given to schools. About 55.8% of the respondents showed that aids were given to them while 44.2% claimed that no such aids were given to the schools. Perhaps, no all schools were captured as beneficiaries of disaster management aids from either the government or any non – governmental organization.

#### 4. Recommendations

Considering the outcome of the research carried out, the following recommendations are arrived at:

1. Funding is essential in combating with disasters when they occur. Hence, the government at all levels and non – governmental organizations should come to the aid of schools through giving of aids to combat with disasters.
2. There should be provision of functional disaster preparedness equipment in schools such as fire extinguishers which should be refilled regularly, first aid box with necessary equipment and materials, fire alarms and smoke detectors.
3. There should be prompt response on the part of government and disaster agencies whenever there is any occurrence of disaster.
4. The teaching of disasters should be incorporated in the school curriculum, students should be taught and made to practice disaster drills. Educators should be well trained on disaster preparedness and regularly made to go for refresher course on disasters through seminars and workshops attendance.
5. That regular public awareness, enlightenment and orientation be made to keep everyone adequately prepared for any form of disaster.
6. That students, schools and administrators should prepare themselves for emergencies at schools in a number of ways; from conducting regular, emergency-specific drills to making sure the building's infrastructure is up to code. To respond appropriately to emergencies when it happens and recover as quickly and effectively as possible.

#### References

- Adam P., Jeffrey P. B., Courtney R., and Gregory S., (2016). Evaluation of a Tabletop Emergency Preparedness Exercise for Pharmacy Students. *America Journal of Phamaceutical Education*. Vol. 80 (3), Article 50.
- Ashley M. (2015). Children and Disaster Education: An Analysis of Disaster Risk Reduction within the School Curricula of Oregon, Texas, and the Philippines. Master of Art in International Development and Service, Thesis Project. P 9.
- Centre for Research on the Epidemiology of Disaster, (2018). **Losses, Poverty & Disasters, 1998-2017. P 5.**
- Eric N. and Thomas P. (2008). The Gendered Nature Of Natural Disasters: Events on The Gender Gap In Life Expectancy, 1981-2002. *Annals Of The Association Of American Geographers*. Volume 97. Issue 3. Pages

- 551-566.
- Geneviene W. and Maurice A. O. (2018). Disaster Awareness and Preparedness of Secondary Schools in Homa Bay countries, Kenya.
- Joshi Sonopant Ganpatrao (2014). Knowledge and Practices of school Teacher regarding disaster management. *International Journal of Health System and Disaster Management*. Vol. 2, Iss. 2, pp 98-102.
- Lawrence A. P., Sarah M. H., Carla A. G., Jennifer P. W., Naihua D.P. & Kimberly H. (2016). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Journal of Administration and Policy in Mental Health and Mental Health Services Research* Volume 42, Issue 5, pp 533–544.
- Mururi S. (2014) Disaster Preparedness In Secondary Schools In Ruiru Division, Kiambu County, Kenya. *East African Medical Journal Vol. 91 No. 11*.
- Ogundele, J.A., Arohunsoro, S.J., Jegede, A.O. and Oni, B.B. (2013). Evaluating the operations of emergencies and disaster management agencies in Ekiti State, Nigeria. *Journal of Natural Sciences Research* Vol.3 (15), P 132-138.
- Olurunfemi, F.B. & Raheem U. A.,(2002). Sustainable Disaster Risk Reduction in Nigeria: LessonsforDevelopingCountries. *African Research Review* Vol. 2 (2) 2008 pp. 187-217.
- Peace Corps (2001). A Text book on Disaster Preparedness and Mitigation (DPM): A Pre Service Training Module. Center for Field Assistance and Applied Research Information Collection and Exchange. Washington, D.C. 20526. P 9.
- UNESCO (2014). A Teacher’s Guide to Disaster Risk Reduction. Stay safe and be prepared. Published by the United Nations Educational, Scientific and Cultural Organization. ISBN 978-92-3-100044-7. Designed & printed by UNESCO. P 8.
- Wikipedia (2019). [https://en.wikipedia.org/w/index.php?title=Ekiti\\_State](https://en.wikipedia.org/w/index.php?title=Ekiti_State). Ekiti State.