



Introduction

The establishment of the National Data Centre (NDC) in Ghana in 2010 has helped the country with its seismic hazard studies. Ghana has a major fault line stretching from the McCarthy Hills area in Accra westwards towards Kasoa-Nyanyanu area in the Central Region and eastwards towards the Akwapim Range all the way to the Volta Region. The epicenter of the fault line is thought to be located around Nyanyanu. Since 1939, when Ghana experienced its severest earthquake which caused a lot of damage with a magnitude of over 6.0 on the Richter scale, there have been reported occurrences of earth tremors in recent times. Kasoa and parts of Accra; Weija, Gbawe, McCarthy Hills, Bortianor, Anyaa and their adjoining areas have experienced a series of earth tremors which have thrown residents into fear and panic. Seismologists have warned that the continuous earth tremors should not be taken for granted. The tremors were recorded on 24 March, 2018, 9 December, 2018 and January - March 2019 with magnitude ranging from 3.0 to 4.8 on the Richter scale.

Earthquake occurrence and observation survey at Weija/Kasoa and its environs

Objectives / purpose of the research

- Assess the perception, experiences and adaptation strategies of randomly sampled residents of Kasoa and Weija-Gbawe areas to seismic events.
- Disseminate information on seismic hazards and to ensure that effective measures are taken in land development.
- Obtain information for policy making; advise the government on geo-scientific issues relating to seismic events

Materials and method used for the research

- Questionnaires
- Stationery
- Laptops

DAY 1- Introductory visit to the National Disaster Management Organization (NADMO), planning of fieldwork locations and schedule

DAY 2- Short training of NADMO Staff on seismic events and questionnaire administration



Briefing before fieldwork



NADMO and NDC staff



Lecture session



Advertising geophysical services to stakeholders

Outcome of the survey

- Divergent views from the inhabitants on their perception, experiences and adaptation strategies to earth tremors in the area.
- Residents and stakeholders were well **informed** on what to do before, during and after an earthquake
- Residents were encouraged to do site investigation before developing their lands
- Safe building requirements for contractors in the seismically active area
- Public awareness of seismically active zones in the country

Conclusion

Through the briefing and interview sessions, the realization was that:

- Most of the people were aware that they live in an earthquake prone area but had no measures put in place to mitigate it in any form.
- The agencies and institutions responsible for permitting and regulating building activities in the area do not emphasize the need for geophysical evaluation of their land before, during and after development.

Recommendations

It is recommended that all residents of the affected areas should seek professional advice for a seismic, geotechnical and geological evaluation of the sites where their structures are located to determine the hazards and possible solutions

There is the need to involve the chiefs and opinion leaders, real estate developers and the people themselves in the mitigation process since they are the custodians of the land.

References

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