Exposure and autonomous adaptation to flood risk: A comparative study of coastal and inland communities in the Volta delta

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Summary

Preliminary findings suggest that almost a third (32.6%) of households in the entire Volta Delta are highly exposed to flood hazards, whilst 2.6% have moderate exposure and 64.8% households with no exposure to floods. Exposure to flood is however higher among households in coastal (39.8%) communities than in inland (24.0%) communities. Regarding the negative effects on households exposed to these flood hazards, proportion of households reporting on damages to physical structures is higher in coastal communities whilst those reporting damages to economic and food security is higher among inland communities. As a response to these negative effects, households in coastal communities employed a lot more of adaptation options that improved their physical structures, took out more loans and also sent a lot more people to work outside village whilst more households in inland communities did a lot more of moving into new house, cutting down trees and joining cooperatives.

Introduction

Deltaic communities all over the world are increasingly affected by climatic variabilities and extremes damaging lives and properties. One of such typical hazards occurring in the Volta Delta is floods with its consequent effect experienced differently by coastal and inland communities due to their levels of exposures and adaptive capacities hence employing different adaptation options.

This study looks at a comparative study of coastal and inland communities by examining similarities and differences in;

- the levels of exposure to flood hazards
- the levels of impact on housing structures, economic and food security
- responses used to reduce the effect of flood hazards.

Methodology

Quantitative Method

- **DE**ltas, vulnerability and **C**limate **C**hange: **M**igration and **A**daptation (DECCMA) Survey Data
- Number of households -1,500
- Study sites

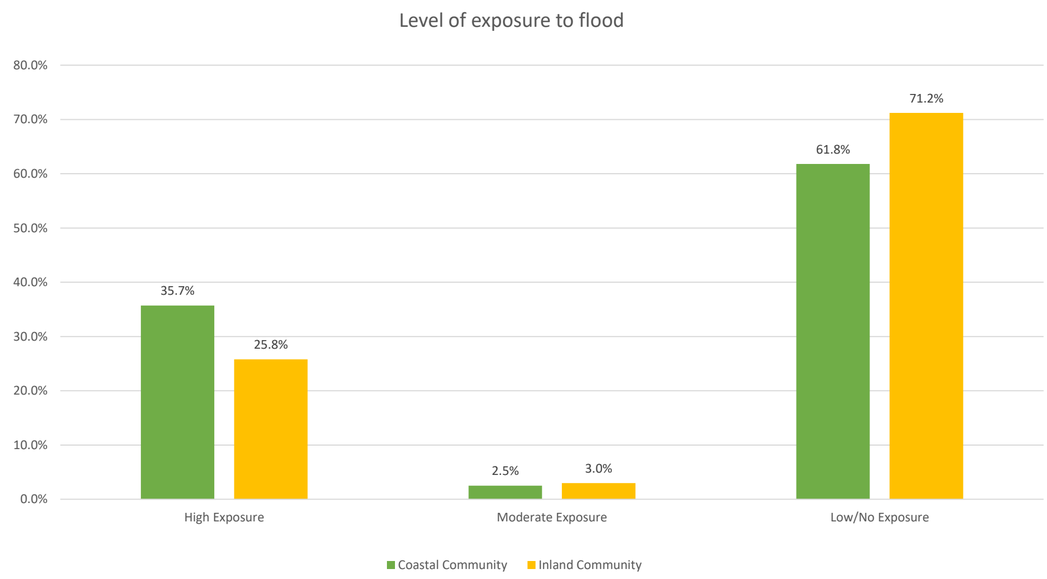
  Coastal Districts (Ningo-Prampram, Ada East, Keta & Ketu South)

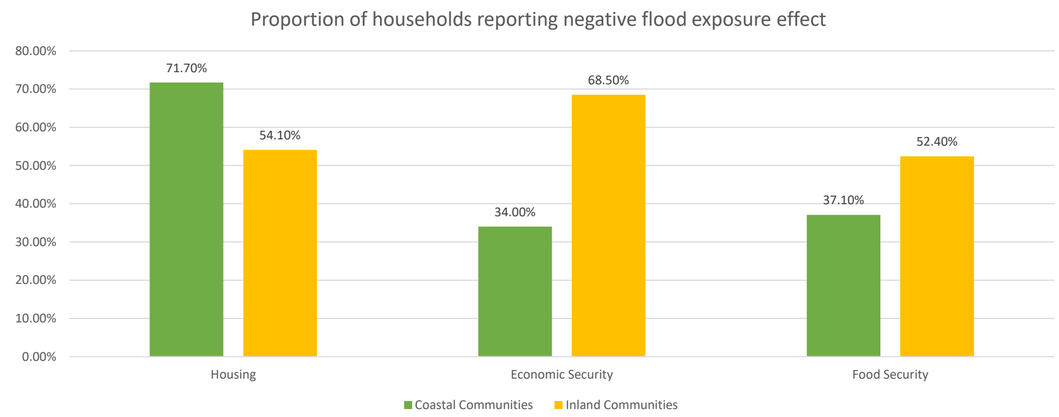
  Inland Districts (Ada West, South Tongu, Ketu South, Ketu North, Akatsi South, Central Tongu)

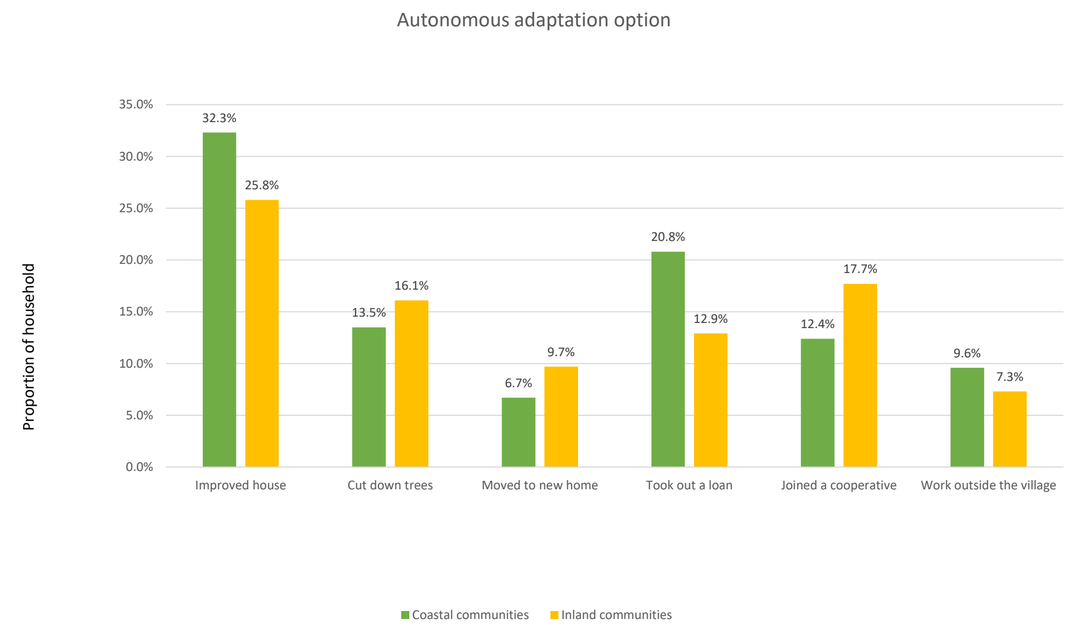
Study site

Data collection

Preliminary findings







Preliminary conclusion

Results suggest not much difference in adaptation options undertaken by coastal and inland communities, even though coastal communities have higher levels of exposure. A further qualitative research will be better placed to bring out the reasons behind what the data portrays.

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