

Climate Change Adaptation in West Africa: A critical analysis of climate change adaptation policies and their implications for coastal communities in West Africa

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Background

The UNFCCC, (2019) identifies climate change as a “threat multiplier” meaning that a sizeable amount of the UNs 17 Sustainable Development Goals are at threat from climate change. The recently published sixth assessment report by the IPCC further highlights that climate change is now at some level an unavoidable reality (IPCC, 2021). Whilst many West African coastal countries have adaptation framework to respond to the threat of climate change, several studies have highlighted an apparent gap in policy implementation, meaning that the policies are not as effective as intended at a grassroots level (Boateng, 2018; Davies-Vollum, Raha, and Koomson, 2021).

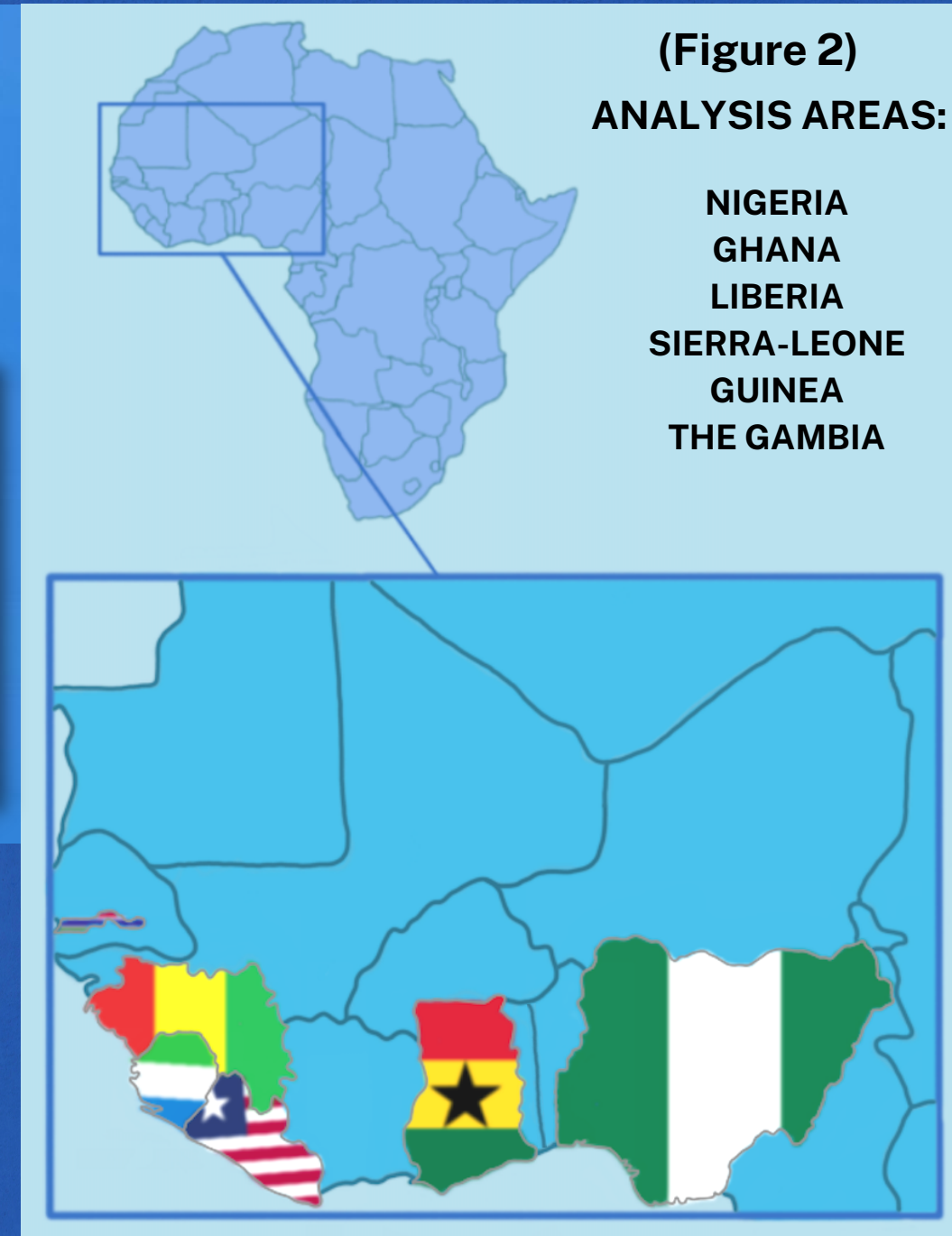
Aims

1. To critically analyse the institutional and organisational structure of climate change adaptation (CCA) policies and strategies in West African Coastal Countries.
2. To evaluate socio-cultural or socio-economic issues influencing policy implementation at a grassroots level.
3. To recommend alternative systematic policies or practical processes that could enable successful implementation of climate change adaption plans.

(Figure 1) photographic evidence of vulnerable coastline in Sierra-Leone



Source: (China Dialogue Ocean, 2021).



Methodology

(Figure 3) step by step research methods

- 1 An Initial analysis of 11 West African coastal countries determined the accessibility of CCA framework & literature.
- 2 Countries included in this study: Nigeria, Ghana, Sierra Leone, Liberia, Guinea, and The Gambia.
- 3 An examination of the government & non-government CCA documents was conducted for each country, highlighting policies affecting coastal communities.
- 4 Relevant secondary climate change adaptation literature was inputted into Nvivo for thematic analysis. This includes critical reviews, case studies or other independent academic adaptation material.
- 5 Reoccurring socio-economic, socio-cultural barriers or institutional structural flaws were identified and paired with country specific CCA policies which highlighted gaps & issues.

(Figure 4) Government adaptation framework & secondary literature

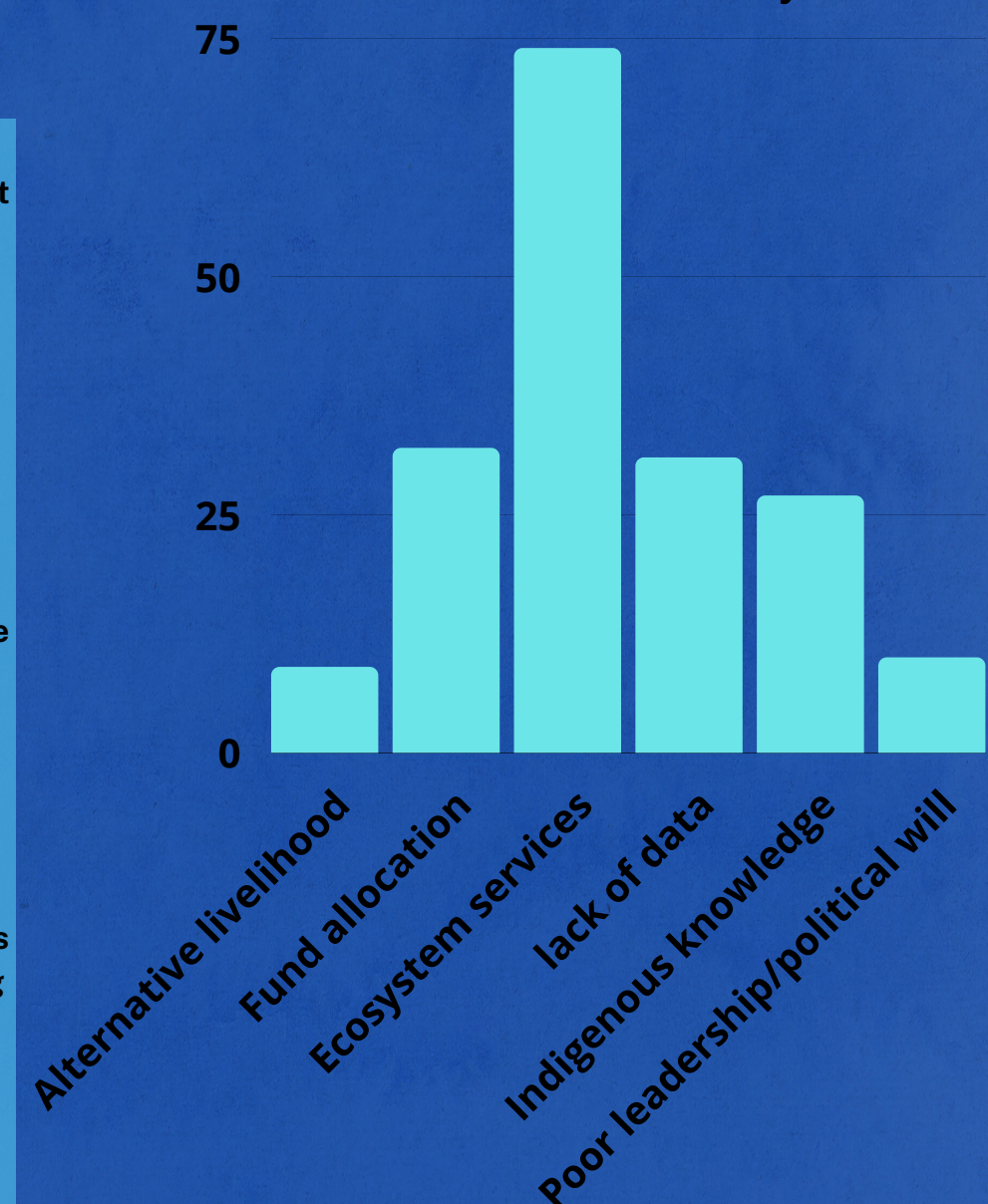


Findings

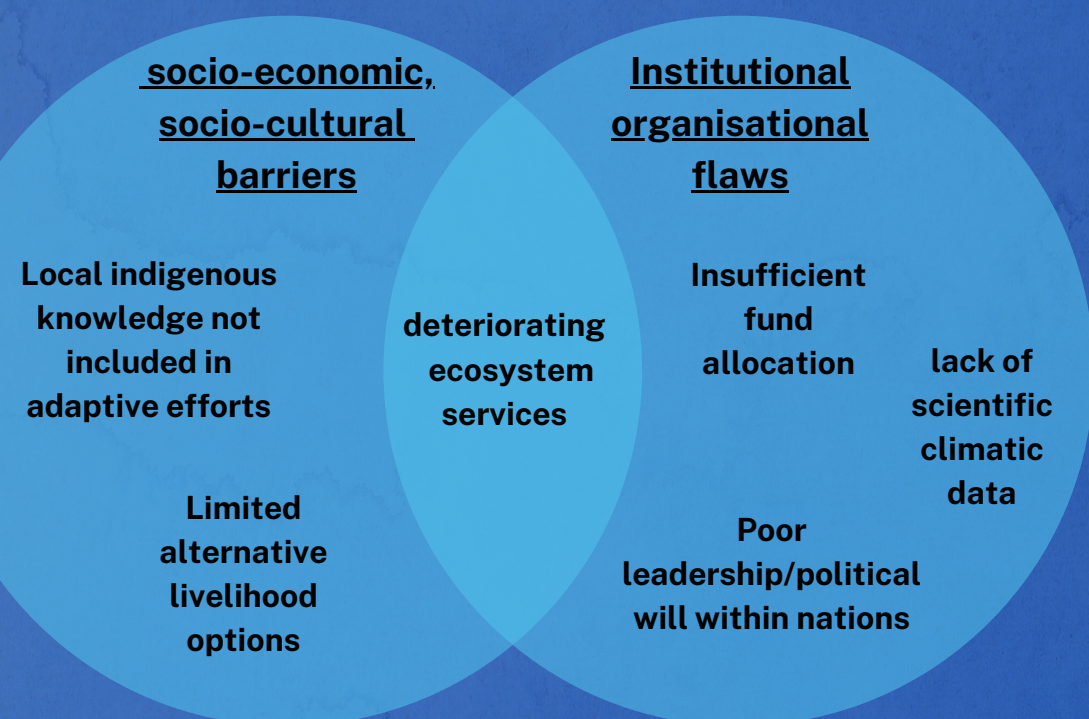
This study has confirmed a significant CCA "policy gap" for West Africa's coastal communities (Davies-Vollum, Raha, and Koomson, 2021 p2). Whilst there are several significant re-occurring themes that influence policy implementation, this analysis has shown that the multi-faceted dimension of ecosystem services has been a fundamentally overarching consideration for CCA policy implementation. Figure 6 shows that ecosystem considerations such as ecosystem mismanagement, inadequate ecosystem conservation and lack of ecosystem investment are dominantly re-occurring across all west African coastal literature analysed. Ecosystem services are also intrinsically linked to all other themes revealed from the thematic analysis, which are shown in figure 5.

Another significant finding can be seen when comparing countries, as this analysis has revealed a variation in country preparedness for coastal climate change. Nigeria, Ghana and The Gambia's CCA coastal policies have displayed some acknowledgment to the themes revealed in this analysis, such as alternative livelihoods, more comprehensive data and increasing protected areas. Liberia, Sierra Leone and Guinea are less focused on the themes identified by this analysis, being more focused on aspects of awareness raising and maintaining protected areas.

(Figure 6) re-occurrence of themes from the thematic analysis



(Figure 5) Venn diagram showing themes from the Nvivo analysis



Conclusion

In conclusion, this study has identified several clear socio-cultural/socio-economic barriers and institutional structural flaws that have influenced policy implementation for west African coastal communities. However, there has also been revealed a strong disparity between countries in terms of adaptive capabilities. All 6 countries included in this study are by no means exemplifying ideal levels of adaption, and all are experiencing issues with policy implementation. Nevertheless, some countries have a much more visible roadmap to adapt than others, which is shown in Figure 4 by the stark variation of government CCA framework and literature available. This has mirrored each country's vulnerability level as figure 7 shows some countries are precariously more vulnerable than others. Sierra Leone, Guinea, and Liberia are considerably lacking in government adaptation framework, as well as literature. It is essential that comprehensive research is conducted to better understand the climate impact in these countries. This will enable the formulation of new framework and policies, which should be built upon the issues and barriers identified in this analysis (see figure 5). Whilst the themes identified in this analysis are independent variables, each are interconnected and symbiotic in nature. As an additional recommendation, it is imperative that an all-encompassing multi-sectoral approach is conducted to simultaneously rectify each the socio-cultural/socio-economic barriers and institutional structural flaws uncovered in this study.

(Figure 7) Country vulnerability levels

Country	Vulnerability Level
Nigeria	High (Yellow)
The Gambia	High (Yellow)
Ghana	High (Yellow)
Liberia	Medium (Orange)
Guinea	Low (Red)
Sierra Leone	Low (Red)

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