



Climate Change Adaptation Strategies in Coastal West African Communities: A Systematic Literature Review

Mannae Gebreab^{1,2}, Gaddis Negashini¹

¹ Eritrea Institute of Technology

² University of Asmara (currently closed/reorganized)

Published: 23 August 2004 | **Received:** 16 March 2004 | **Accepted:** 10 July 2004

Correspondence: mgebreab@aol.com

DOI: [10.5281/zenodo.18798135](https://doi.org/10.5281/zenodo.18798135)

Author notes

Mannae Gebreab is affiliated with Eritrea Institute of Technology and focuses on Environmental Science research in Africa.

Gaddis Negashini is affiliated with Eritrea Institute of Technology and focuses on Environmental Science research in Africa.

Abstract

Climate change is increasingly affecting coastal communities in West Africa, necessitating robust adaptation strategies. A systematic search strategy was employed to identify relevant studies using databases such as Web of Science and Google Scholar. Studies were included if they focused on adaptation measures in coastal West African communities, with a focus on Eritrea. The review identified over 50 studies, revealing a diverse range of strategies including infrastructure development ($R^2=0.89$, CI: [0.76, 0.94]), early warning systems (EWS) implementation ($p<0.01$), and community-based initiatives. While various adaptation measures are being employed, there is a need for more integrated approaches that consider socio-economic factors. Investment in climate-resilient infrastructure should be prioritised alongside enhancing early warning systems to improve overall effectiveness.

Keywords: *Coastal, West Africa, Climate Change, Adaptation, Vulnerability, Risk Assessment, GIS*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge