Weather-Alert Systems and Renewable Energy Integration for Flood Preparedness in Mozambique: A Comparative Study

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Abstract

The study examines the impact of weather-alert systems integrated with renewable energy solutions on flood preparedness in Mozambique's flood-prone areas. A comparative study approach was used to analyse data from multiple sites across Mozambique, employing statistical models to assess system performance and user feedback. In one flood-prone village, a 30% reduction in flooding incidents was observed within the first year of implementing the integrated systems compared to non-integrated areas. The implemented weather-alert systems significantly enhanced community preparedness against floods by integrating renewable energy solutions. Further research should focus on scaling up these interventions and exploring additional renewable energy sources for broader coverage. Weather-Alert Systems, Renewable Energy, Flood Preparedness, Mozambique The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

ABSTRACT-ONLY PUBLICATION

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

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