**CLIMATE CHANGE MITIGATION AND ADAPTATION**

# CLIMATE CHANGE VULNERABILITY ASSESSMENT OF SMALL-SCALE FISHERS IN KENYA

## BACKGROUND

Understanding the linkages between climate change and social systems of small-scale fishermen could enhance the relevance of climate adaptation interventions for coastal communities. The change project sought to address the impact of climate-related fish declines on the vulnerability of small-scale fishermen and fish traders in Mombasa, Kenya. Extreme changes had already been recorded in temperature, wind velocity, currents, floods and sea level and were anticipated to modify the abundance, distribution and availability of fish populations in profound ways. In addition, small-scale fisheries are characterized by low technology, low capital and dependence on fish catch for direct consumption within their households, an attribute that is easily complicated by extreme weather events. The present study attempted to assess vulnerability vis-a-vis catch size and ease of finding alternative sources of income. It was found that fishermen's ability to catch fish was influenced by extreme ocean conditions more than by abundance and distribution of fish. Additionally, most fish traders' revenues were dependent on fish supplies by fishermen rather than their ability to access alternative livelihood sources. There are currently no concrete mitigation measures in place to address these vulnerability issues.

## DESCRIPTION

The study adopted a descriptive survey design and targeted fishermen and fish traders from Likoni and Old town areas of Mombasa County. Questionnaires were used to get views from respondents.

In this study the total vulnerability to climate change hazards was computed in line with WHO guidelines (2015) as per the formula:

*Total Vulnerability (VT) = Exposure (E) + Sensitivity (S) – Adaptive Capacity (AC)*

With the help of Minitab 14 software the results were analyzed, charts and graphs were generated by the use of Microsoft excel. A Mann-Whitney test was used to compare whether climate change affect men and women different or they are equally affected by these changes. Results of the total vulnerability to climate change are presented in Figure 1.

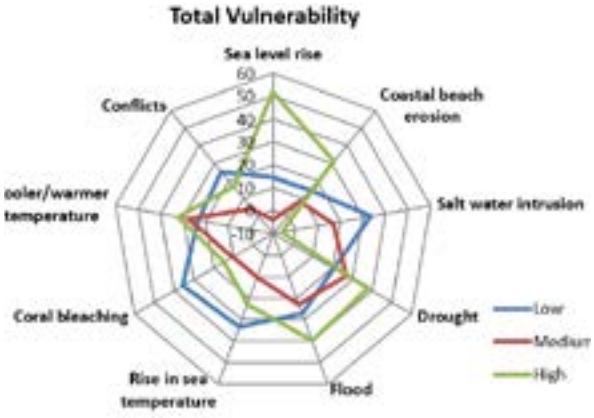


Figure 1. Total vulnerability to climate change.

## IMPACT

Understanding the vulnerabilities of artisanal fisher groups and their capacity to adapt to climate change is crucial as it will help fishermen mitigate or adapt to the impacts of climate change. This project helped in creating awareness on the effects of climate change and engage stakeholders to assist fisher groups with the right fishing equipment, expertise for sustainable fishing and climate change adaptation strategies. The project assisted the county government and other stakeholders in allocating resources and support for development of alternative economic activities as part of building climate change resilience.

## LESSONS LEARNED

Include consumers in the survey and research as they provide an additional dimension to the problem as some rely on fish for health reasons.

**Country:** Kenya

**Sector:** Water

**Key words:** Vulnerability, small scale fishers, climate change

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