



# CLIMATE CROWD

Community-driven solutions to help people and nature in a changing climate

## MANAMBOLO TSIRIBIHINA

# MADAGASCAR SUMMARY REPORT

AUGUST 2023

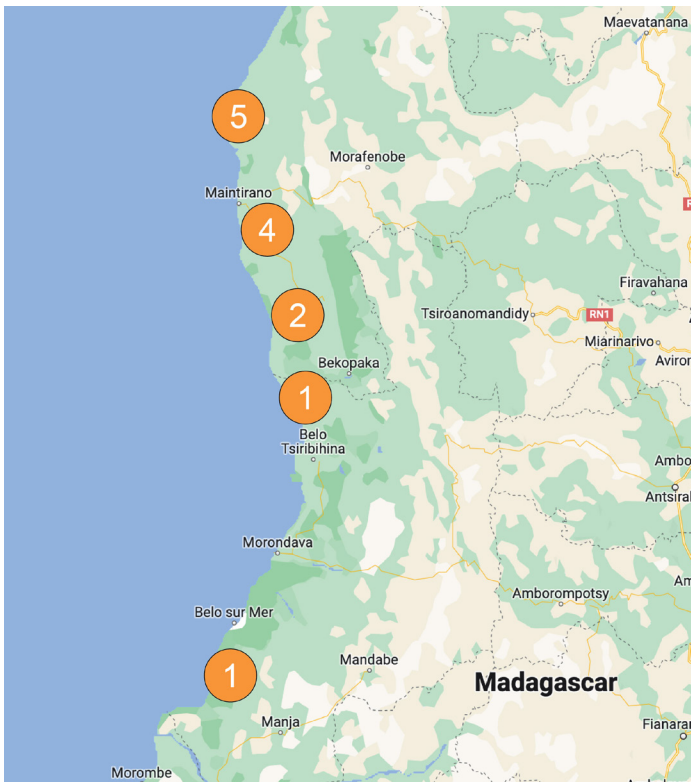
## ABOUT



**Climate Crowd** is a bottom-up, community-driven initiative. Working with communities and local organizations in more than 30 countries, we collect data on climate impacts on communities, analyze the data, present the data back to the communities, and work with them to develop, fund, and implement on-the-ground solutions that help people and nature adapt to a changing climate.

## BACKGROUND

This report summarizes what was learned from 13 focus group interviews, with roughly 15 key informants each, in 13 communities across the Manambolo Tsiribihina landscape and seascape in western Madagascar. Interviews were conducted in October and November of 2022 by WWF Madagascar.

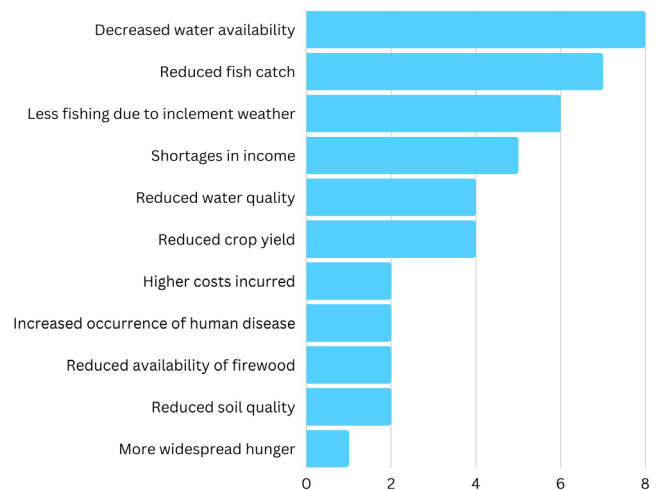


## REPORTED CHANGES IN WEATHER AND CLIMATE (n=13)

- 100% Decreased rainfall
- 100% Changes in wind
- 77% Changes in timing of seasons
- 62% Sea level rise
- 54% Drought
- 31% Heat waves/hotter days
- 31% Erosion/landslides
- 23% Storms
- 15% Flooding

All 13 focus groups reported that they have noticed a decrease in rainfall and changes in wind patterns within their respective communities, and 10 groups reported that there have been changes in the timing of seasons. 7 groups reported increased occurrences of drought, partly attributable to the decrease in rainfall and increased heat waves. Given that the community members in the focus groups reside near the coastline, there were 8 reports of sea level rise in recent years. Less commonly observed changes were increased erosion and landslides (4 reports), more severe storms (3 reports), and flooding (2 reports).

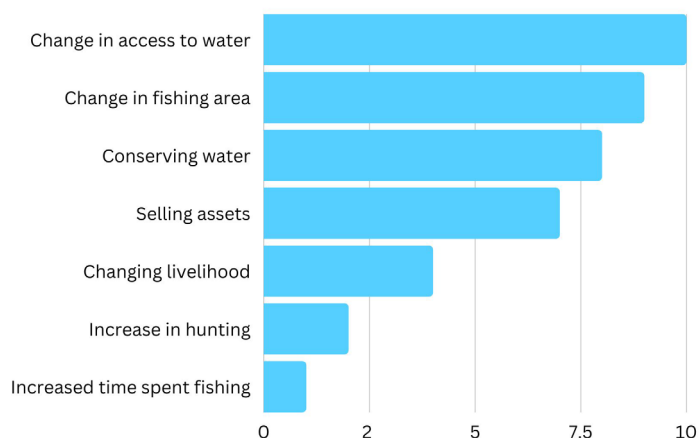
## IMPACTS ON COMMUNITY LIVELIHOODS



The community members are experiencing impacts to their livelihoods brought on by climate change, with 8 reports of a decrease in freshwater availability recently and a reduction in water quality (4 reports). There were 7 reports that there has generally been less fish, resulting in reduced catches and similarly, there were 6 reports of an increase in inclement weather that has prevented people from going out to fish. Considering fishing makes up a significant proportion of these communities' livelihoods, many people have faced shortages in income (5 reports). Further contributing to a lack of income, there were 4 reports that crop yields have been lower due to water scarcity and due to reduced soil quality (2 reports). Respondents also mentioned that there have been higher household costs, more widespread hunger, an increase in human illnesses, and a decrease in available firewood.



## COMMUNITY RESPONSES TO CLIMATE CHANGE



As a response to the issue of water scarcity, 10 of the focus groups mentioned that they have had to change where they get their water from, sometimes trekking long distances to these new water sources, while 8 groups mentioned increased efforts to conserve water. Since fishing efforts have been so heavily impacted by the changing weather and climate, people have had to change the areas where they fish (9 reports) and have spent more time fishing in hopes of improving their catch (1 report). All focus groups who reported fishing in new locations specifically mentioned increased fishing in mangrove wetlands. To cope with fish-related livelihood losses, there were 7 reports of people increasingly selling their personal assets and changing their livelihoods from fishing to livestock production (4 reports). There were 2 reports of an increase in hunting efforts to combat hunger—another potential consequence of decreased fish yields.

## DIRECT IMPACTS ON BIODIVERSITY

Several focus groups noticed that the surrounding biodiversity has also been impacted by changing weather and climatic conditions. There was 1 report that the mangrove forests have been dying due to lack of rain, along with the fish population. Another report also mentioned mangrove mortality and that the birds that live in the mangroves have been migrating elsewhere. There was 1 report of a decrease in the size of wild animals, a phenomenon attributed to lack of water. To cope with the loss of available firewood, there were 2 reports of increased logging of mangroves.



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