



CLIMATE CROWD

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

MANJOLO WARD BINGA DISTRICT, MATABELELAND NORTH, ZIMBABWE SUMMARY REPORT

SEPTEMBER 2022



REPORTED CHANGES IN WEATHER AND CLIMATE (n=45)

When asked about the observed weather and climate changes:

- 38 of the respondents noted changes in seasonal timing.
- 30 reported hotter temperatures/ heat waves.
- 42 reported erratic rainfall, 26 reported a decrease in rainfall and 16 noted an increase.
- 22 also observed changes in drought occurrences.
- 9 reported a loss of water sources.
- 8 noted storms.
- 4 reported erosion.

ABOUT

[Climate Crowd](#) is a bottom-up community-driven initiative. Working with communities and local organizations in over 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

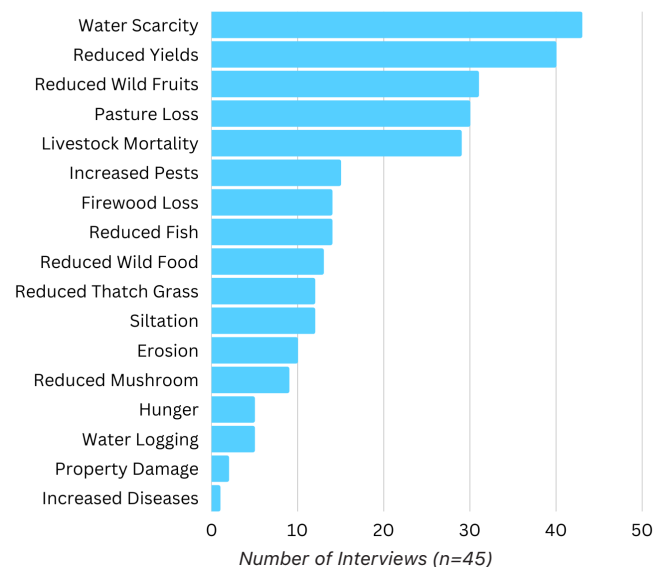
When people live adjacent to protected areas, how they respond to climate change affects nature's balance. In Zimbabwe, we worked with the Department of Agricultural Technical and Extension Services to survey how people experience climate change and its impacts on biodiversity. We conducted this Climate Crowd survey in November 2021 in Manjolo Ward in Binga district of Matabeleland North Province. We interviewed 45 respondents (24 women, 21 men), including farmers, traditional leaders, teachers, and religious leaders. In this rural area, communities depend mainly on rain-fed agriculture. The climate affects the harvests that people rely on and the well-being of their livestock.

STUDY AREA

Manjolo Ward is in an agro-ecological region with low and erratic rainfall (>500mm per year) and high temperatures. It falls in the [Kavango Zambezi Transfrontier Conservation Area](#), which spans Botswana, Namibia, Angola, Zambia, and Zimbabwe. Many areas around Manjolo are part of important wildlife dispersal for Chizarira and Matusadona National Parks, Chete and Chirisa Safari Areas, and Sengwa Research Station. Wild animals like elephants, buffaloes, lions, kudus, and other species compete with people for space and resources, leading to livestock disease, mortality, and human-wildlife conflict.

IMPACTS OF CLIMATE CHANGE ON COMMUNITY LIVELIHOODS

Water scarcity affected 96% of the respondents, attributed to decreased rainfall, extremely high temperatures, drought, siltation, delayed rainfall onset, and a shorter rainy season.



Almost 90% of respondents mentioned reduced agricultural yields, exacerbating household food insecurity. Less rainfall, high temperatures, and waterlogging, have also affected crop productivity. Respondents also believe water scarcity, drought, reduced pasture, and high temperatures have led to more pests and disease infestations in livestock, with 64% of the respondents reporting livestock mortalities and 67% reporting poor livestock health. Many rural households rely on wild fruits, and 69% of respondents reported less wild fruit available than in previous years. They also said available fruits had changed in taste and size. Fishing is also an important part of this

community's livelihood. They believe changing weather patterns have affected the fish supply, which 31% of respondents say has drastically reduced over the years. Survey respondents have also reported that increased vulnerability is caused by firewood loss (35% of respondents), erosion (22%) and a decline in thatch grass (27%).

COMMUNITY RESPONSES TO CLIMATE CHANGE

While changes in weather and climate have impacted livelihoods, communities have come up with various measures to adapt to the adverse impacts. From the interviews, 82% of the respondents indicated they have responded to reduced crop yields by changing farming techniques, such as adopting conservation agriculture. Other farmers (78% of respondents) have changed the major crop type from the staple rain-dependent maize to smaller grain, more drought-tolerant crops. Many respondents, 36%, also adopted dry planting and other alternative planting techniques. The government and some NGOs have also assisted communities with food and farming inputs (reported by 44% of the respondents), focusing on the elderly and physically disadvantaged community members. To cope with water scarcity, some people have drilled wells/boreholes (18% of respondents), constructed dams (7%), or traveled long distances to fetch water (67%). NGOs and other donor agencies have also assisted with additional borehole drilling. Some community members have also collaborated in earth dam construction initiatives.

"Fish populations have significantly decreased and we now do seasonal fishing due to high temperatures and strong wind currents on the Zambezi river"

**Water Point Secretary-
Manjolo, Binga**

Although the communities rely on subsistence crop farming, some families are not able to meet their needs and have to purchase food (13% of respondents). Other households have sold livestock (22% of respondents), fruits (4%), and other products (38%). The decline in pasture has forced some families to move their livestock to different grazing areas (38% of respondents). However, this has increased their risk from predators and diseases. Widespread deforestation has led communities to walk long distances to fetch firewood (31% of respondents). Twenty-four percent of the respondents indicated that parents had withdrawn children from school because their livelihood sources including farming, selling livestock, and/or fruits have been affected by changes in weather. As a result, many children only complete primary level education. Some have diversified their

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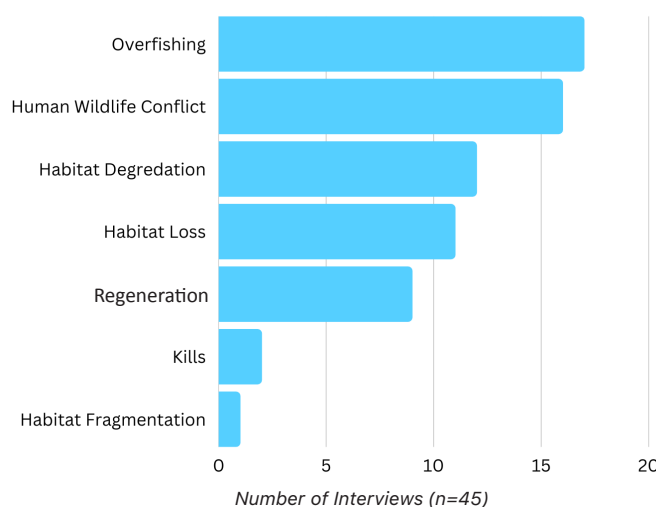
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incomes by selling assets (12% of respondents), migration (33%), and trade (21%).

IMPACTS OF RESPONSES TO BIODIVERSITY

Many survey respondents, 38%, reported over-fishing as a major threat to biodiversity, followed by human-wildlife conflict (36% of respondents), habitat degradation (27%), habitat loss (24%), retaliatory kills (4%), and habitat fragmentation (2%). These impacts resulted from land expansion for farming, competition for pasture and water, and encroachment/resource extraction. However, 20% of the respondents reported that they have been involved in reforestation and controlled grazing practices that help regenerate ecosystems.



Declines in animal and plant species were noted by 60% of respondents, while 20% reported that elephants and antelopes had shifted their ranges. Finally, changes in phenology were mentioned in 27% of the responses. Drought and heat-induced mortality of flora and fauna were reported by 7% and 4% of the respondents respectively. Climate-related diseases were reported by 2% of the respondents.

