



# CLIMATE CROWD

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

## BWABWATA NATIONAL PARK, ZAMBEZI REGION, NAMIBIA SUMMARY REPORT

SEPTEMBER  
2022



### 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.

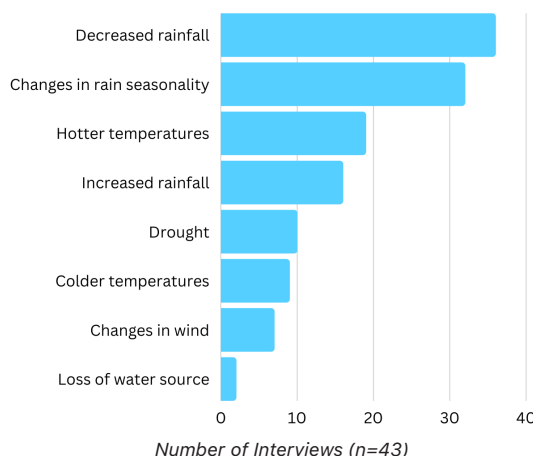
### BACKGROUND

We conducted 43 interviews in Namibia's Bwabwata National Park in the villages falling within the Zambezi Region, which are Chetto, Pipo, Luitcixom, Omega 3, Poca, and Masambo. We interviewed 16 women and 27 men; interviewees included traditional authorities, association management committee members, community game guards, crop and livestock farmers, and community elders. We asked them about the impacts of climate change on community livelihoods, natural resources, and biodiversity and how they are adapting or responding to these impacts.

### STUDY AREA

The 6,274km<sup>2</sup> Bwabwata National Park spans Namibia's Zambezi and Kavango East regions. The Zambezi region receives an average annual rainfall of 650mm. It has a hot, semi-arid climate with minimum and maximum temperatures of 2-4°C and 34-36°C, respectively. The region's dry season is from April to November, with a shorter wet season from mid-November to early April. The features of this landscape include the Okavango and Kwando Rivers, their floodplains, and riparian vegetation. There are also parallel drainage lines that hold seasonal rain-fed pans between the two rivers. The area comprises of low-nutrient and deep aeolian Kalahari sands which form linear dunes in some places and is home to the Khwe and !Xung indigenous San communities. The resident community has a large Managed Resource Use Zone (4,055km<sup>2</sup>) for community-based tourism, trophy hunting, human settlement, and development. The Kyaramacan Association is a legal entity that represents the park's residents.

### REPORTED CHANGES IN WEATHER AND CLIMATE



### IMPACTS OF WEATHER AND CLIMATE ON COMMUNITY LIVELIHOODS

A majority of respondents, (77%), reported decreased crop production and wild fruits owing to a decline in rainfall, hotter temperatures, prolonged droughts, and population growth straining existing resources. They struggle with hunger, poverty, food insecurity, and loss of income as yields and the availability of wild fruit decline.

Many respondents, 72%, observed that since the majority of community boreholes are solar-powered, and since streams and ponds no longer hold as much water as they once did, communities often go days without water when sun exposure is limited. Specifically, the communities in Omega 3 and Luitcixom lack access to potable water, which makes this a huge challenge as their water has an extremely high iron content and they rely on rain for fresh water. As a result, they fetch water from neighboring villages, which is difficult for elders. They worry that contaminated water causes diarrhea and other waterborne diseases, and that it stains their teeth and clothing.

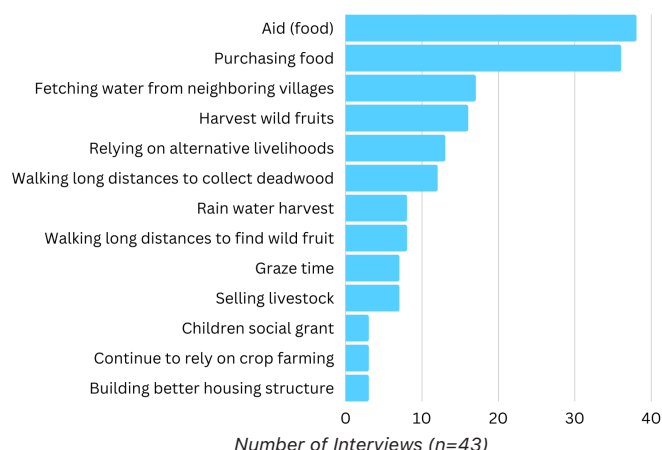


The two villages also lack health clinics, and many cannot afford transport to the nearest clinic in Chetto. Sixty-seven percent of respondents also noted poor human health because of erratic rainfall, hotter temperatures, and prolonged drought. Respondents commended that people who experience poor health are less productive and less able to harvest wild fruits, till fields, or otherwise work to support their families. As a result, children leave school because there is sometimes no money for food, let alone education-related costs.

Thirty-five percent of respondents reported a decline in firewood due to population increase, decreased rainfall, prolonged drought and changes in wind patterns. Those surveyed also noted less pasture is available (33% of respondents) resulting in poor livestock health (23%). Some people have also reported property damage (9% of respondents) because of changes in wind patterns.

## COMMUNITY RESPONSES TO CLIMATE CHANGE

To cope with poor crop yields and inadequate wild fruits, some communities rely on food aid (88% of respondents) from the government and purchase food (84%) either from the local village shops, although being quite costly, while others purchase from the commercial markets in Katima Mulilo, Kongola and Divundu when they have money to travel. The families that cannot afford to buy food continue to rely heavily on crop farming (7% of respondents) and harvesting wild fruits (37%). However, many respondents, 19%, noted that finding wild fruits now requires walking long distances. Due to water scarcity, communities have resorted to fetching water from neighboring villages (40% of respondents) and harvesting rainwater (19%). People respond differently to water scarcity depending on their age and income status; younger people can walk to neighboring communities to fetch water, but the elderly find it difficult. People with livestock may use them to help transport water.



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Due to the loss of firewood, survey respondents reported trekking long distances to collect deadwood (28% of respondents). To counteract pasture loss, some families have been selling their livestock (16% of respondents) as they can't afford to feed and care for their livestock, while some families have been taking their livestock to graze in a different location during the day (16%). To contend with property damage, communities have been improving their housing structures (7% of respondents) to minimize damage. Thirty percent of respondents reported being highly dependent on alternative livelihoods such as selling crafts, selling honey, and earning income from building traditional homes, in order to pay for food and other necessities. A small number of people have also become highly reliant on child social grants (7% of respondents) to survive.

***"In the past, we used to weave baskets and keep them for ourselves but now we have started selling them to survive."***

## IMPACTS ON BIODIVERSITY

Survey respondents reported plants and trees bearing fruits and flowering during unusual seasons as well as a decline in plants and trees overall (7% of respondents). They attributed this to changes in wind patterns. Additionally, respondents noted a range shift for animals such as buffalos and hyenas (5% of respondents) migrating closer to human settlements, which was never the case historically. The respondents also noted human-wildlife conflict incidents arising from species such as elephant (67% of respondents), kudu (49%), hyena (21%), buffalo (19%), and duiker and leopard (9%) and leopard (9%). Communities have responded to human-wildlife conflict by erecting wooden fences and drumming (21% of respondents). Communities also reported habitat degradation and loss as a result of people moving into wildlife corridors, clearing land and chopping down trees to accommodate human settlements and crop fields.

