



### ABOUT



**Climate Crowd** is a bottom-up community-driven approach. Working with communities and local NGOs in over 40 countries, we collect data on climate impacts to 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. The Climate Crowd model provides a rapid way to gather data, pilot projects, and mobilize financial resources for the most vulnerable communities, through a participatory method.

### BACKGROUND

This report summarizes what was learned from 46 interviews with key informants (20 female, 26 male) in various communities in the Kafue Flats around Kafue National Park, Blue Lagoon National Park, and Lochinvar National Park in Zambia. Interviews were conducted by WWF Zambia in November of 2023.



The majority of those interviewed identified drought as a significant change in weather and climate (87%), closely related to the reports of decreased rainfall (78%), heat waves and hotter

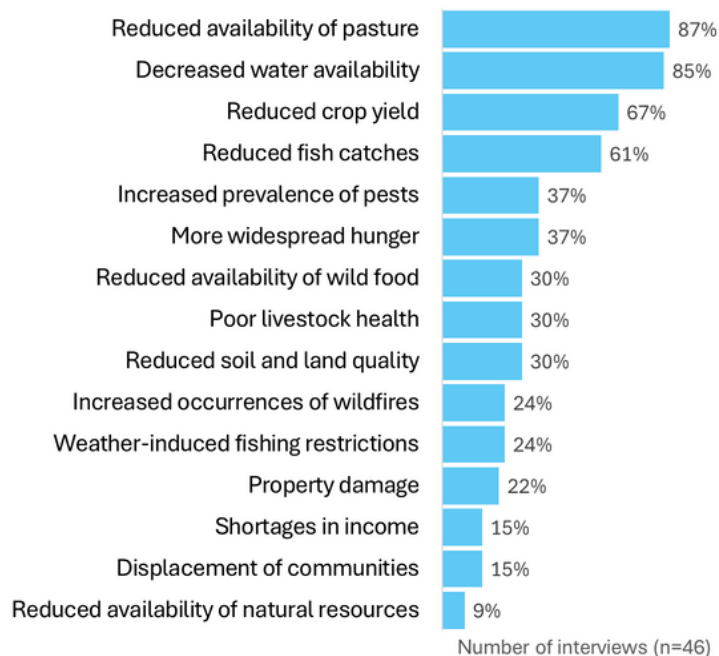
### REPORTED CHANGES IN WEATHER AND CLIMATE (n=46)

- 87% Drought
- 80% Flooding
- 78% Decreased rainfall
- 65% Changes in the timing of seasons
- 46% Heat waves and hotter days
- 26% Changes in wind
- 11% Loss of water sources

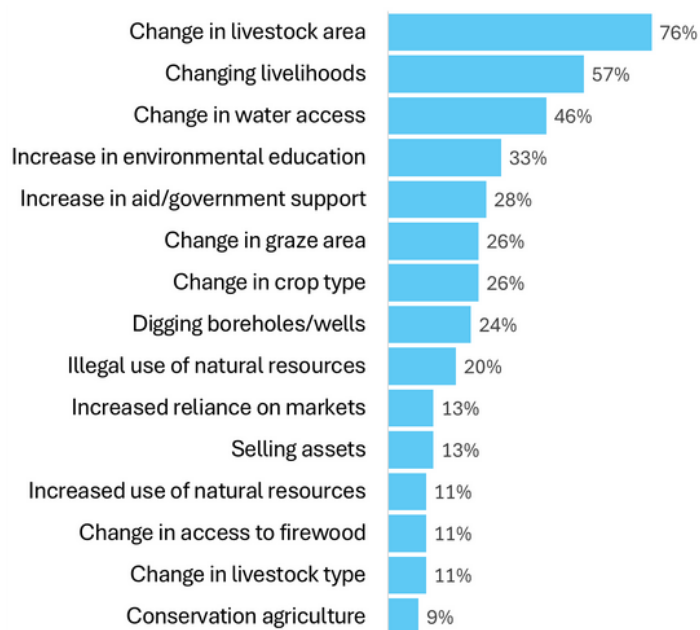
days (46%), and loss of water sources (11%). Many respondents also reported increased flooding during precipitation events (80%) which has ultimately been affected by the changes in the timing of seasons, as reported by 65% of those interviewed. Roughly one quarter of respondents reported changes in wind patterns (26%).

### IMPACTS ON COMMUNITY LIVELIHOODS

Increased drought and hotter temperatures have resulted in reduced availability of pasture for livestock, decreased availability of freshwater, and reduced crop yields, according to 87%, 85%, and 67% of those interviewed, respectively. The combination of drought, heat, and water



scarcity has decreased soil and land quality as well (30%), further exacerbating agricultural issues. Agricultural productivity has not only been stunted by lack of water, heat, and soil quality, but also by an increased prevalence of pests (37%) which respondents have said has caused an increase in diseases and general poor health in livestock (30%). Consequently, 37% of respondents reported increased hunger, brought upon by this decline in agricultural yields and livestock productivity as well as reduced fish catches—reported by 61% of respondents—and a reduced availability of wild food (30%). Another result of decreased food production has been income shortage (15%) as many people make their living by selling their crops, fish, and livestock products. Extreme weather events, like floods and severe winds, have also impacted community livelihoods, including restricting fishing activities (24%) and damaging property (22%), which sometimes leads to the displacement of families (15%). Additionally, 9% of respondents have reported a general reduction in the availability of natural resources.



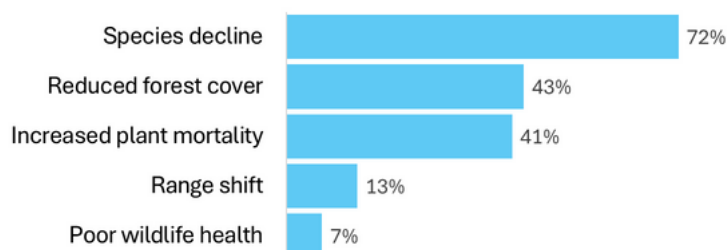
## COMMUNITY RESPONSES TO CLIMATE CHANGE

In response to the most significant climate change impacts, respondents have already begun adapting their lifestyles. To cope with unproductive pastures, 76% of respondents have reported that livestock owners have started taking their livestock to different areas to graze—sometimes to areas that are far away or are in wildlife reserves or habitats. Similarly, in response to widespread water scarcity, 46% of those interviewed reported having to spend more time and/or travel further distances to access freshwater while 24% reported that people have drilled new boreholes and dug new wells. Due to the financial consequences of reduced agricultural productivity, 57% of respondents noted that they have changed their livelihoods from agriculture to other livelihoods like fishing and merchandising while others mentioned having to sell

their livestock and land (13%). Reduced agricultural productivity has also resulted in people having to switch to drought-resistant crop types (26%) and resilient livestock breeds (11%), like goats, in addition to relying more heavily on external aid and government support (28%) and on markets for food they previously did not have to buy (13%). Even though natural resource abundance has been declining, 11% of respondents reported an increased use of natural resources and 20% reported harvesting these natural resources illegally, like using illegal fishing nets such as mosquito nets and illegally logging for timber and firewood. On a similar note, 11% of those interviewed said they have had to travel further distances to find firewood. Environmental education has also been on the rise, according to 33% of respondents, as well as conservation agriculture (9%).

## DIRECT IMPACTS ON BIODIVERSITY

While changes in weather and climate are having major effects on communities and their livelihoods, these changes are also greatly affecting the surrounding biodiversity. 72% of those interviewed observed a general decline in various wildlife species while 13% observed that some species were shifting their natural range and



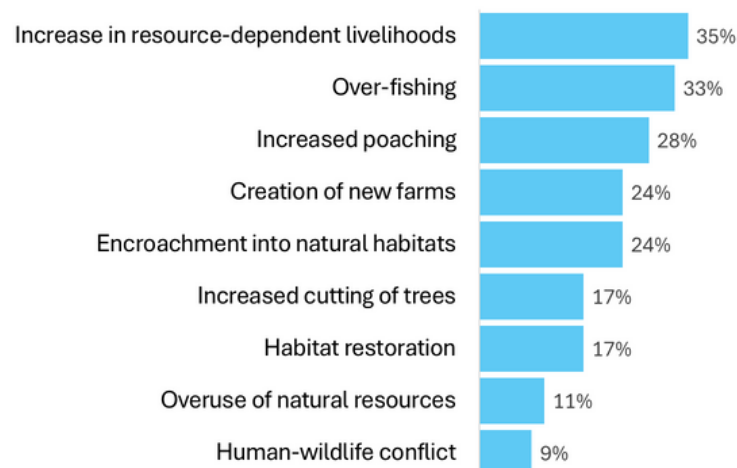
migrating out of the area due to drought, flooding, and changes to their habitat. The habitat that changed the most, according to those interviewed, were the adjacent forests; 43% of respondents reported that forests have been diminishing, reducing their tree cover. Similarly, 41% of respondents observed an increase in plant and vegetation mortality, further contributing to the loss of wildlife habitats. Few respondents also noticed declines in the health of wildlife due to a proliferation of diseases (13%).



## INDIRECT IMPACTS ON BIODIVERSITY

As people try to cope with climate change impacts, there can be repercussions on the surrounding biodiversity. For example, 35% of the respondents reported that while trying to diversify and increase their income due to weather and climate-related livelihood impacts like failing agriculture, people have been turning to natural resource-intensive livelihoods, like logging for charcoal, timber, and firewood. Similarly, 28% of those interviewed reported that people have resorted to poaching in the wake of failing agriculture, decreased fish catches, and shortages in income. As a result of decreased fish catches, people have also been over-fishing, meaning that in an attempt to increase catch, fish populations have been depleted (33%). To increase crop yields, respondents reported that community members have started converting uninhabited land into farmland (24%). Out of the 24% of respondents

who reported this, half of them noted that large swaths of forest were cut down to make space for the new farms. Deforestation—unrelated to livelihood diversification or agriculture yet still in response to changes in weather and climate—has been on the rise, according to 24% of respondents who noted that people were cutting down



more trees in response to things like decreased availability of firewood. 11% of respondents also reported that, in general, people have been overusing and exploiting natural resources as they try to adapt. As resources for people and livestock become scarcer, there has been more of a need to encroach into natural habitats for these resources, as reported by 24% of respondents. This resource scarcity coupled with habitat encroachment is often a driver of human-wildlife conflict, a phenomenon reported by 9% of those interviewed. While the aforementioned actions have been negatively affecting biodiversity, community members have also begun coping with climate impacts in a nature-positive way: 17% of respondents reported that land and habitat restoration efforts have increased, including planting trees, conserving fish populations, creating community conservancies and environmental bylaws, and managing invasive species.



### WANT TO LEARN MORE?

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[climatecrowd@wwfus.org](mailto:climatecrowd@wwfus.org)