CLIMATE CROWD

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

JIGME DORJI NATIONAL PARK

BHUTAN SUMMARY REPORT

JULY 2024

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.

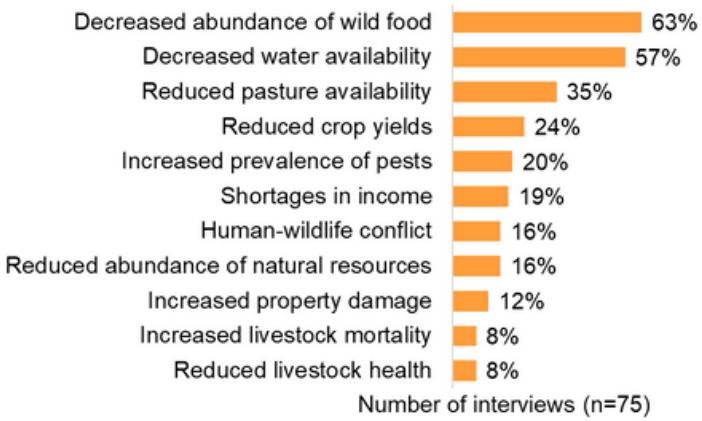
BACKGROUND

This report summarizes what was learned from 75 interviews with key informants (25 female, 50 male) in various communities within Jigme Dorji National Park—a snow leopard landscape—in northern Bhutan. Interviews were conducted by WWF-Bhutan in collaboration with the Department of Forest and Park Services in May 2024.

REPORTED CHANGES IN WEATHER AND CLIMATE (n=75)

- **73%** Heat waves and hotter days
- **60%** Changes in the timing of seasons
- **51%** Increased rainfall
- **51%** Changes in wind patterns
- **44%** Ice and permafrost melt
- **41%** Loss of water source
- **31%** Storms
- **29%** Erosion and landslides
- **27%** Decreased rainfall
- **19%** Flooding
- **16%** Drought
- **16%** Cold spells and frost

IMPACTS ON COMMUNITY LIVELIHOODS



63% of respondents reported that there is less wild food around their communities, especially cordyceps and medicinal herbs. People often collect these for their livelihoods, so with a decreased abundance of these plants and fungi, some respondents found themselves with less income (19%). Aside from cordyceps and medicinal herbs, 16% of respondents reported reduced abundances of other natural resources—including wood and non-timber forest products (NTFPs)—as well.

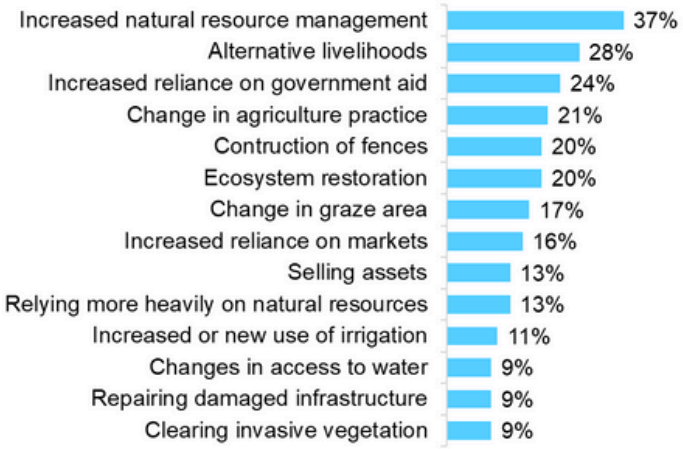
Over half of respondents reported that there has been a decrease in the availability of water and that their usual water source has dried up (57%). This also applies to water used for irrigation which confirms the reports of reduced pasture availability (35%) and crop yields (24%).

20% of respondents noted an increase in the prevalence of pests in addition to reduced livestock health (8%) because of water scarcity, lack of pasture, and diseases. Some community members mentioned increased livestock mortality as well (8%). One respondent specifically said that a landslide killed their yaks while another said that late snowfall and lack of pasture was responsible.

Due to decreasing food and water sources in the wild, 16% of respondents reported increased human-wildlife conflict as wildlife searches for food and water within communities, sometimes raiding crop fields and killing livestock.

Few respondents mentioned that severe weather was destroying their property (12%), like strong winds, floods, and landslides.

COMMUNITY RESPONSES TO CLIMATE CHANGE



37% of respondents reported increased natural resource management, including maintaining and managing water sources and the creation of NTFP management groups. Alternatively, 13% of respondents reported relying more heavily on natural resources than they did in the past.

28% of those interviewed reported changing their livelihoods due to declines in wild food abundance and agricultural productivity, two activities that comprise many respondents' livelihoods. Some people also reported selling their assets, especially livestock and crops, to earn extra income (13%).

To improve agricultural outputs, 21% of respondents reported changing their agricultural practices. Many people have also been changing where they take their livestock to graze (17%) as their previous pastures are now insufficient.

In an effort to protect their farms and water sources from wildlife, 20% of respondents mentioned constructing fences around these areas. 9% of respondents also reported that they have needed to repair and reconstruct infrastructure that was damaged from weather events.

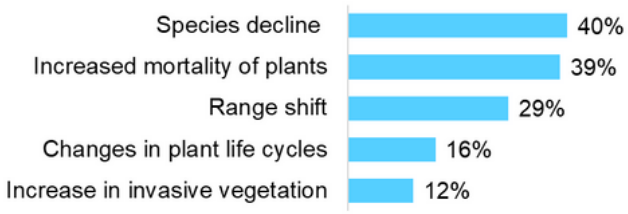
20% of respondents reported planting trees to restore ecosystems and to act as natural fences around their water sources and farms. Few respondents also reported clearing invasive vegetation (9%).

There has been an increase in government aid to supply communities with water (24%). 9% of respondents also reported changing where they get water from.

IMPACTS ON BIODIVERSITY

Many respondents noticed that changes in weather and climate were also impacting biodiversity, especially wildlife populations—40% of respondents reported declines in species numbers. On the other hand, 29% of respondents reported a shift in some species' ranges. This was reported most commonly in relation to observing new wildlife species near their communities.

39% of respondents reported increased mortality of plants and 16% reported changes in the life cycles of plants. Specifically, respondents noted that plants were flowering earlier in the year than usual. 12% of respondents also reported an increase in invasive vegetation and weeds.



WANT TO LEARN MORE?

Visit the Climate Crowd **website** to explore and download interview data, view **project pages**, and read more summary reports like this on our **publications page**.

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