



CLIMATE CROWD

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

EASTERN CAPE

SOUTH AFRICA SUMMARY REPORT

FEBRUARY 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.

REPORTED CHANGES IN WEATHER AND CLIMATE (n=50)

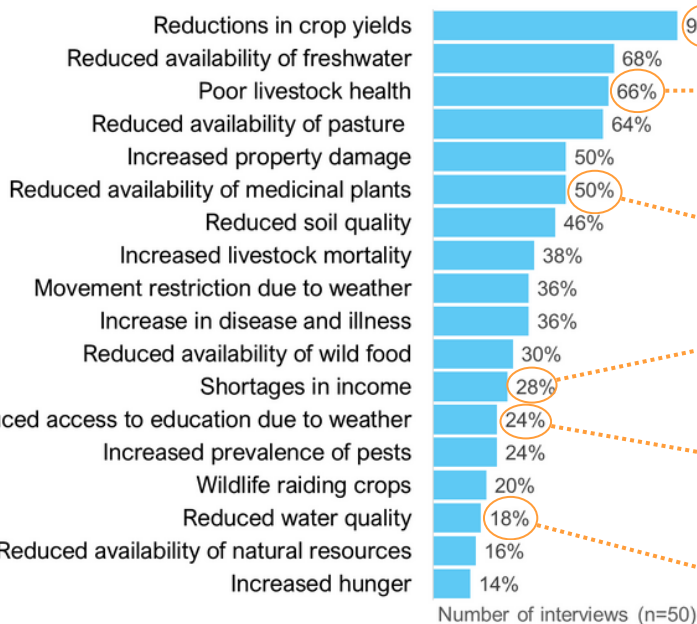
- 88% Changes in the timing of seasons
- 74% Increased rainfall
- 64% Decreased rainfall
- 62% Flooding
- 62% Drought
- 60% Storms
- 60% Changes in wind
- 54% Loss of water source
- 46% Cold spells and frost
- 44% Wildfires
- 42% Heat waves and hotter days
- 34% Erosion and landslides



BACKGROUND

This report summarizes what was learned from 50 interviews with key informants (15 female, 35 male) in various communities bordering Lesotho in the Eastern Cape province of South Africa. Interviews were conducted by Environmental and Rural Solutions staff in October of 2023 through January of 2024.

IMPACTS ON COMMUNITY LIVELIHOODS



Reduced crop yields are exacerbated by reduced availability of freshwater (68%), reduced soil quality (46%), increased prevalence of pests (24%), and increased crop raiding by wildlife (20%) as their natural food sources diminish.

Livestock rearing has also become less productive as the animals' health declines (66%)—sometimes resulting in death (38%)—due to an increase in diseases, pests, lack of pasture to graze on (64%), and reduced water quality (18%).

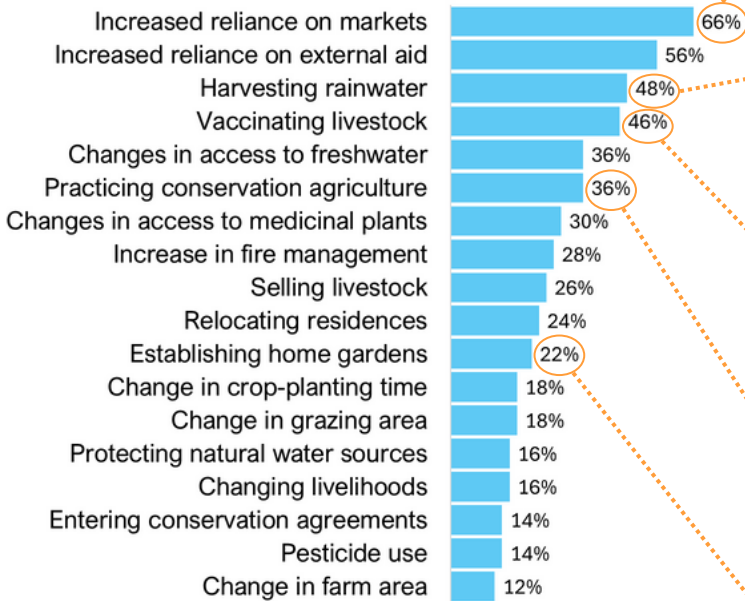
Natural resources that community members depend on have become scarce, including medicinal plants (50%) and wild food (30%).

Declining productivity in the agricultural sector has had serious effects on community livelihoods as they experience shortages in income (28%) and hunger (14%).

When the weather is too severe and roads have been damaged, people's movement is restricted (36%), often preventing children from attending school (24%).

Poor water quality, in tandem with malnutrition, was also mentioned as a major factor in the increase in human diseases and illness.

COMMUNITY RESPONSES TO CLIMATE CHANGE



To cope with the loss of resources, 66% of respondents mentioned relying more heavily on markets to purchase items like food, water, livestock feed, and medicine.

In response to water scarcity, those who could afford it have installed rainwater harvesting systems (48%) while others have resorted to travelling long distances to access freshwater (36%).

46% of respondents reported that people have been increasingly vaccinating their animals to protect against the influx of new diseases while 18% of respondents reported moving their livestock to areas with better grazing and 26% reported selling their livestock for additional income.

In an effort to address general agricultural issues, many people have begun practicing conservation agriculture (36%). Out of all the techniques, the most commonly reported was rotational grazing, a method that alternates between pastures, allowing one to regrow while the other is being used.

To improve crop outputs, people have established additional home gardens (22%), adjusted when they plant crops to match the changing seasons (18%), relocated their farms to areas with better soil quality (12%), and began using pesticides (14%).

DIRECT IMPACTS ON BIODIVERSITY

Just as changes in weather and climate have been affecting communities, they have significant impacts on the region's biodiversity as well. **58% of respondents reported that there has been an increase in invasive vegetation, specifically wattle.** The rapid spread of wattle has also impacted the quality of grazing and crop lands, further reducing agricultural productivity. Similarly, community members have observed increased habitat degradation due to a variety of climatic factors. Many respondents noticed that **certain species of wildlife have been declining in population as well (56%), along with many plant species (38%).** The life cycle of flowering plants has also been affected, with respondents commenting that they are blooming at different times of the year than they previously did (14%). As wildlife and plant species decline, many food sources for wildlife are also jeopardized (14%), often causing wildlife to shift their natural range and migrate in and out of the area as they search for food. Shifting wildlife ranges was reported by 32% of those interviewed.



INDIRECT IMPACTS ON BIODIVERSITY

The effects of climate change cause people to change their actions in an effort to adapt. However, sometimes these actions have indirect impacts on biodiversity. For example, as natural resources decline, people often overharvest the resources that are still available, causing further resource scarcity and degradation. Out of the community members that were interviewed, **26% mentioned that people were overharvesting resources.** Similarly, while trying to cope with declining pasture productivity and availability, some people have overgrazed the remaining pastures (20%), reducing the land quality and food base for wildlife. While these two coping mechanisms have adverse effects on the surrounding biodiversity, some actions that community members have taken have beneficially impacted the environment, like increasing efforts to clear the invasive wattle plants (30%) and participating in general habitat restoration (12%).

WANT TO LEARN MORE?

Visit the Climate Crowd [website](https://www.climatecrowd.org) to explore and download interview data, view [project pages](#), and read more summary reports like this on our [publication page](#).



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