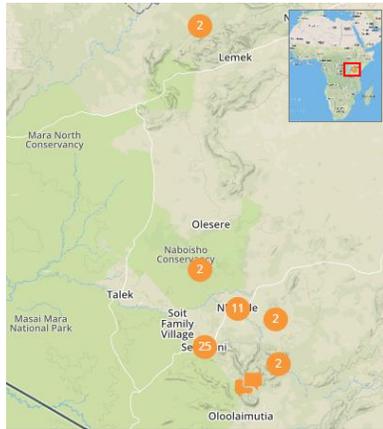


### OVERVIEW

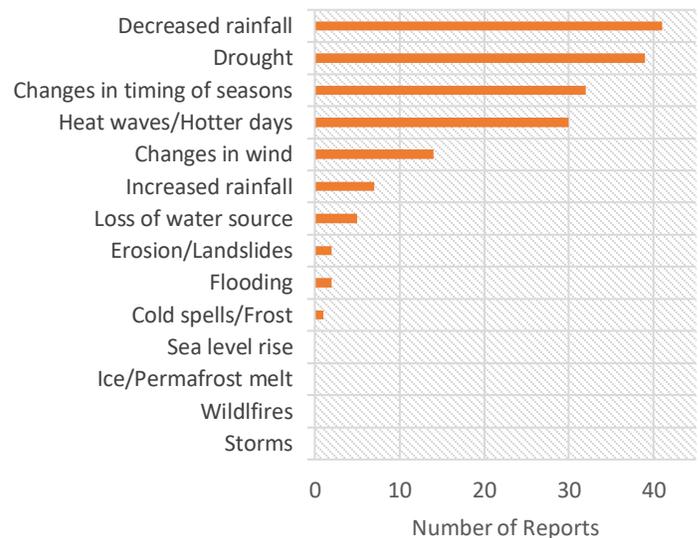
Climate Crowd is researching how communities are being impacted by, and responding to, changes in weather and climate. 45 interviews were conducted in the predominantly pastoralist communities bordering Kenya's Maasai Mara National Reserve, world-renowned for its diverse and abundant wildlife.



Facing declining rainfall, warming temperatures and shifting seasonal patterns, local communities have adopted a number of coping techniques to deal with loss of livelihood and resource scarcity including: selling livestock, traveling to other areas such as parks/reserves in search of natural resources, fencing property, and pursuing alternative livelihoods. Some responses adversely impact biodiversity by increasing rates of human wildlife conflict, encroaching on habitat, and restricting wildlife movement.



### REPORTED CHANGES IN WEATHER/CLIMATE



### IMPACTS ON COMMUNITIES



The apparent trend towards a warmer and drier climate has impacted communities in the following ways:

- Reduced availability of freshwater (~90% of surveys) and firewood (~24% of surveys)
- Death and malnourishment of livestock due to water scarcity and less pasture (~90% of surveys)
- Increased prevalence of diseases such as typhoid and malaria among humans (44% of surveys)
- Increased prevalence of foot and mouth disease and vector-borne 'Nagana' in livestock (36% of surveys)
- Crop failure due to insufficient or unreliable rainfall (11% of surveys)

## COMMUNITY RESPONSES TO CHANGES

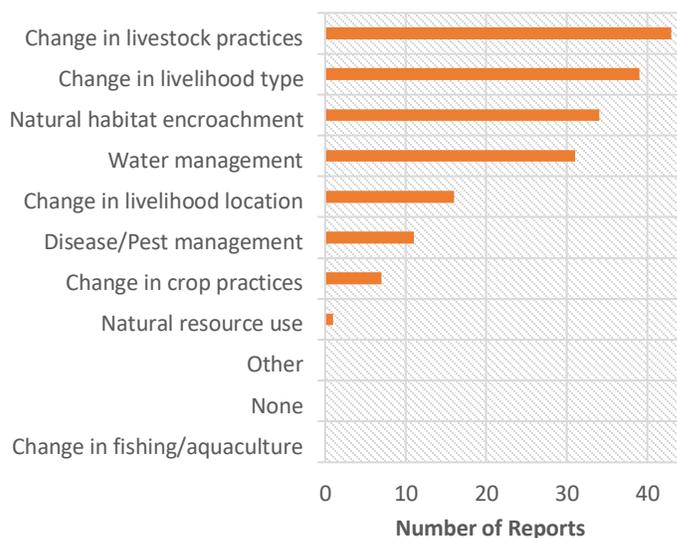
Left to their own devices, communities are responding to the above impacts by:

- Selling livestock to avoid losses during drought
- Fencing off land to protect privately owned pasture
- Creating conservancies that can be used for livestock grazing during periods of drought
- Traveling further for firewood including into forests and parks, borrowing/purchasing wood from neighbors, and transitioning to charcoal fuel to cope with decreased firewood availability
- Starting small businesses to earn additional income, e.g. restaurants, shops and tourism - those with access to wooded land are also selling firewood/charcoal
- Constructing boreholes, piping water and harvesting rainwater
- Changing grazing practices, namely where livestock graze - eight respondents reported taking their livestock into parks and reserves to graze
- Switching to more resilient livestock breeds
- Migrating to areas that receive more rainfall/have more pasture or clearing nearby forested land for settlements/farming/pasture



Photos: © Nikhil Advani/WWF-US  
Citation: Climate Crowd, 2017. Kenya summary report. World Wildlife Fund, Washington, DC.

## RESPONSES TO CHANGES IN WEATHER AND CLIMATE



## IMPACTS ON BIODIVERSITY

- ~69% of surveys mention increased instances of human wildlife conflict mainly involving elephants due to growing competition for water and food
- Respondents noted that several species of wildlife have moved out of the area or their numbers have declined
- Habitat encroachment and degradation is a growing problem as people bring livestock into parks, relocate to other areas, and venture further away from settlements in search of water and firewood, including into forests
- Widespread fencing of pasture is restricting wildlife movement
- Frequent interactions between livestock and wildlife increases the risk of disease transmission. One respondent mentioned spread of foot and mouth disease to wild buffalo

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