Context

Climate Crowd is a crowdsourcing initiative that convenes and supports a network of partners to gather data on how climate change is impacting people and nature, and supports on-the-ground projects that help rural communities adapt while reducing pressure on biodiversity.

As a part of this initiative, WWF partnered with staff from Integrated Rural Development and Nature Conservation, a local NGO, to conduct 45 interviews (17 women, 28 men) in Namibia’s arid and sparsely-populated Kunene region. Communities here rely on pastoralism as their primary source of livelihood, with some limited crop production. With the advent of Namibia’s communal conservancy system, employment opportunities in ecotourism and conservation have also emerged. This system has helped wildlife populations in much of Namibia to recover. Though heralded as a conservation success story, communities and wildlife in the Kunene region face new challenges as the impacts of climate change intensify.

Changes in weather/climate

- Decreased rainfall
- Drought
- Changes in timing of seasons
- Loss of water source
- Heat waves/Hotter days
- Erosion/Landslides
- Increased rainfall
- Changes in wind
- Wildfires

In a country that historically receives very little rainfall, prolonged drought has severely depleted water resources. Of those interviewed, 80% reported a reduction in the amount of available freshwater. Changing rainfall patterns are also impacting the local flora and fauna. Over a third of respondents reported a reduction in grazing land. Over half reported direct impacts on local wildlife including high mortality rates particularly among zebra and ostrich, and migration of wildlife to other areas where water and food is more abundant.

Impacts on communities

Changing rainfall patterns, particularly prolonged drought, has had far-reaching consequences for local people. Over half of respondents (58%) reported that crops had failed or produced very little in recent years, and 62% noted declines in livestock health (e.g. high mortality rates, weight loss, disease and decreased production). Moreover, nearly three-quarters of respondents noticed a decrease in access to wild foods. Taken together, these impacts place a significant strain on local food security and household income.
Community responses to climate impacts

As water, food, firewood and pasture become increasingly scarce, people are traveling farther and to new locations to access these resources.

40% of respondents reported searching for new grazing areas for their livestock or letting them roam freely. 27% reported selling some or all livestock to earn a profit. Others are harvesting tree leaves for fodder or purchasing feed instead.

20% reported foraging for Devil's Claw or collecting Mopane worms to supplement diet and income, though drought has also limited the availability of these resources. 11% are traveling farther to collect firewood. 13% note the use of cars or donkey-pulled carts to collect resources from far away.

Includes selling firewood, wild foods, crafts, etc. and finding employment in towns and cities. Respondents also received food from the government as part of a drought relief program.

Includes drilling boreholes to access groundwater and establishing water management committees.

While there has been an influx of people to the area, many are also moving away, often to urban areas.

As people travel farther to access resources, they sometimes enter natural areas, including protected areas.

While some have tried growing different crops, others have abandoned farming altogether.

Impacts on biodiversity

As natural resources become increasingly difficult to find, more people and their livestock are entering wildlife areas, and more wildlife are entering human settlements. Of those interviewed, 62% reported increased conflict between people and wildlife including crop raiding involving elephants and killing of livestock primarily by lions. As people encroach on natural areas, incidences of poaching have also occurred as noted in 13% of interviews.

Nearly half of respondents also noted increased land degradation caused by overgrazing and intensive harvesting of wood and wild foods in areas that were previously undisturbed, including core wildlife zones.

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Solutions to elephant conflicts

As water holes and vegetation vanish due to drought and increased pressure by people and livestock, more elephants are entering human settlements to find food and access water from boreholes. Conflicts between humans and elephants were reported in 18% of interviews and have led to lost income and property damage. The government and local conservancies are working to address this by creating watering points for elephants. One innovative solution (shown above) has an elephant-proof wall surrounding a tank that people can access, a separate trough for livestock, and a large basin that provides water for elephants during periods of drought.

Photos: © Nikhil Advani/WWF-US
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