

## LIVELIHOODS ON THE EDGE WITHOUT A SAFETY NET: THE CASE OF SMALLHOLDER CROP FARMING IN NORTH-CENTRAL NAMIBIA

Despite being particularly vulnerable to climate change, farmers in semi-arid Namibia are largely unaware of the threats facing them, limiting the uptake of adaptation measures. In order to improve the resilience of these communities knowledge co-creation and sharing will be essential.

### WHAT WAS DONE, AND WHAT WAS NOVEL?

Semi-arid Namibia is marginal for agricultural production. Low soil fertility combined with low and variable rainfall restrict the livelihoods of smallholder farmers who often struggle to produce enough food. Although historically, communities have adopted a number of coping mechanisms, climate change threatens to further reduce agricultural production.

We asked farmers in north central Namibia about their perceptions of how their yields will change in the future, and whether they will change their farming practices.

Our intention was to determine whether farmers perceive their vulnerability to climate change in the future and whether they are responding to it. Farmers were also asked about what prevents them from starting new agricultural practices, providing key insight to understanding barriers to the uptake of adaptation in semi-arid regions.

### KEY FINDINGS

We demonstrate that farmers in north-central Namibia seem to be largely unaware of climate change, or the threats posed to them by the associated impacts. This results in many farmers intending to maintain current farming practices, and failing to adopt adaptation strategies. Some of these farmers believe that God controls the rain and that God will provide and that therefore there is no reason to change the way that they farm.

These results suggest that to sustain the livelihoods of rural communities in north-central Namibia, support is needed from local and regional authorities, as well as traditional and religious leaders to assist with enhancing access to information, enabling information sharing on adaptation options, and increasing awareness on climate change, its impacts, and what can be done about it.

### KEY IMPLICATIONS FOR POLICY, PRACTICE AND RESEARCH

As farmers in north-central Namibia are extremely vulnerable to the impacts of climate change, there is an urgent need for climate-smart agriculture practices and resilience building. However, the lack of awareness around climate change needs to be addressed in order to promote adaptive practices. This requires political, traditional, and religious leaders to assist in creating awareness and information sharing processes.

Furthermore, building resilient livelihoods requires the development of locally-relevant adaptation options of climate-smart agriculture. In order to support the uptake of these options demonstrations are important for educating local communities, and developing self-help groups and local capacities is key to facilitating behaviour changes within semi-arid communities.

