ClimateForAL

Climate Forecasting, Adaptation, and Legitimacy

Project Summary

This project explores whether seasonal forecasts enable pastoralists to cope with long dry seasons in Turkana, Northern Kenya. This is a timely concern as the long dry season in East Africa is projected to become longer in a warming climate (Wainright et al.2021). We will explore how dissemination of climate information can respond to this threat by co-producing policy evidence with key stakeholders in Turkana who asked us to lead the Scientific Advisory Group for the county's Climate Information System.

We also test whether integrating traditional knowledge produces more culturally appropriate information for greater impact in a context where people prefer forecasts from local seers and mistrust official scientific information. In this context, local forecasters, or *emurons*, generate climate information by reading goat intestines among other sources of local information such as vegetation and behaviour of birds and other animals. There forecasters have significant legitimacy and in more rural areas are the most common source of climate information. We will explore heterogeneous effects by gender, which shapes access to information and risk sharing networks, vulnerability to shocks, and potential short-term coping actions. This is crucial to understanding long-run adaptation.

We will achieve this using an experimental evaluation of a feasibly scalable intervention co-created with local stakeholders and policymakers. We have designed this intervention to overcome the most common barriers households face at the last mile of climate info communication. These challenges include language barriers for people who speak only Ngaturkan, difficulty interpreting complex scientific information, and lack of network access, and information that arrives too late to be helpful. Respondents in randomly-selected treatment villages will be visited by a village climate information officer to deliver the seasonal forecast. These climate information officers will deliver information translated into local languages, and use simple graphics to illustrate complicated probabilistic forecasts. By travelling directly to households, they will be able to reach participants who lack access to radio or mobile networks. Half of the treatment group will receive forecast communications with conventional scientific modelling blended with traditional information. To test the effect of cultural legitimacy, respondents in this group will be told of co-development with local seers. The control group will receive no additional information.

Our project will test whether information reaches households, whether it changes beliefs and desired actions, and finally whether it improves livelihoods and reduced losses and conflict. A follow-up survey at the end of the dry season will measure differences in coping actions and outcomes, trust in climate forecasts, and interest in future forecasts.

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