Stories from the field

Nganyi forecasters and researchers begin discussion on a consensus forecast
Photo: ICPAC

Linking traditional and modern forecasting in western Kenya

In many parts of rural Africa, there are elders who hold seemingly mystical powers of weather forecasting. In some communities they are known as 'rainmakers' as some believe they not only foretell when the rains may come but can make them happen.

In western Kenya, the Nganyi clan are renowned for these abilities. Behind the mystique lies a body of knowledge passed down through the generations, based on close observation and understanding of weather patterns and the behaviour of local plant and animal life. Changes in humidity and temperature can be observed in the flowering and leafing of shrubs and trees, the call of certain birds, the behaviour of ants, and even the croaking of frogs and toads. Within rainmaker families, this knowledge is guarded carefully, as both a sacred trust and a source of livelihood.

Climate change challenges the holders of traditional knowledge, as extreme weather events happen more frequently and rainfall patterns and seasons become increasingly unpredictable. Meanwhile, advances in modern climate science have improved forecasting accuracy over time-spans ranging from a single season to more than a year. Such knowledge is extremely useful for early warning and for managing climate risks. Yet these modern forecasts have had little impact in rural areas. Communities that have relied for generations on indigenous knowledge are wary of outsiders who claim to know better and who speak a technical language far removed from that of rural people.

The IGAD Climate Prediction and Applications Centre (ICPAC), a regionally mandated climate information provider, is leading a project that links scientific and traditional knowledge. The team works with Nganyi rainmakers to develop consensus forecasts. In the process, it is hoped that traditional knowledge will be better understood and valued, scientific knowledge will be increased, and communities at risk from climate change will have more reliable information in local languages to help them protect their health and livelihoods.

After an ICPAC-led Climate Outlook Forum produced a seasonal forecast for September to December 2008, downscaled for local use by the Kenya Meteorological Department, climate

scientists and Nganyi forecasters met to develop a consensus forecast for the region. With the help of local government officials and development agencies, the harmonized forecast was then converted into advisories concerning community health and agriculture for the coming season.

The integrated forecast and advisories were translated into local languages and disseminated to the larger community at a church compound meeting. They were aired on the Luhya language service of Kenya Broadcasting Corporation and Mulembe FM radio, accompanied by interviews with a community leader.

Building trust between scientists and rainmakers has been a delicate part of the research process.

'Rainmaker' Mzee Osore Nganyi at work
Photo: ICPAC

The research team brought on board the Kenya Intellectual Property Institute and national museums to protect specimens of local flora and fauna and to ensure that community ownership of the knowledge is respected. The local Member of Parliament and other civic leaders are involved, and committed to helping protect and rehabilitate 'shrines' of local flora and fauna used by the rainmakers. A range of mentoring and micro-credit activities for women and youth add to the benefits for the local community.

Building on what is learned in this pilot project, ICPAC and other research partners aim to see harmonized forecasts used on a wider scale.

Gilbert Ouma
Project Officer
IGAD Climate Prediction and Applications Centre (ICPAC)
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As a project officer with ICPAC, Gilbert Ouma knows well the barriers that farmers and others face in trying to access climate information they can use. ICPAC is mandated by ten governments in the Greater Horn of Africa to provide timely early warning information to help the region cope with the risks of extreme climate variability and change.

Seeing people increasingly at risk from climate change – despite the growth in relevant knowledge and technologies – drew Ouma to work in the field of adaptation.

"I realized that reducing vulnerability had to be done at the community level."

The main challenge he sees is that adaptation is essentially a development process, which demands sustained funding. Through its research, ICPAC hopes to link vulnerable groups to both policymakers and development partners.

Ouma notes that the CCAA program has enabled ICPAC to test new approaches to working more directly with information users.

"The program's focus on participatory action research has opened up avenues of direct dealing with the communities, to better understand their problems and engage in relevant research that helps those in greatest need."

This story illustrates progress towards CCAA's ***outcome area 2:*** *At-risk groups, policymakers, and researchers share learning and expertise on climate vulnerability and poverty*

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