

Drought experts launch pilot project to work with African communities on building resilience

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Experts at the University of Birmingham are launching an interdisciplinary project called CreativeDrought to prepare rural communities in Africa for possible future drought by combining local knowledge with environmental science.

Involving leading researchers from universities in Africa and the UK, the team put together by Birmingham drought expert Dr Anne Van Loon will work directly with people in rural southern Zimbabwe - particularly small-scale and subsistence farmers. They will be building on existing local experiences and stories of drought and creatively experimenting with possible futures.

Supported by a grant announced by the Natural Environment Research Council (NERC), Economic and Social Research Council (ESRC), and Arts and Humanities Research Council (AHRC), the pilot project focusses on the Mzingwane region in Zimbabwe, which suffered the consequences of a [severe drought](#) this year.

The project aims to support rural communities by combining local stories about past drought events with modelling of future drought to create a virtual experience of coping with a lack of [water](#) in the region.

Project leader and University of Birmingham Water Science Lecturer Dr Anne Van Loon said: "With the CreativeDrought project we hope to lay

the foundations for new ways of supporting rural communities in developing countries better prepare for the impacts of drought.

"We want to work with people in rural Zimbabwe to combine the strengths of local knowledge with scientific methods. We believe we can help increase drought resilience by engaging local communities and authorities in creative experiments based on past drought stories and future drought model scenarios."

Drought events cause severe water and food insecurities in many developing countries. In many of these countries, resilience to drought is low for many reasons, including poverty, unequal political and social structures. The project focusses on limited access to information and problems adapting traditional knowledge to changing situations.

The project spans a number of research disciplines, including social, cultural and physical geography, hydrological modelling, drought analysis, water resources management, sociology, arts, and climate change adaptation.

Researchers will collect stories about past drought events and other useful local knowledge, before developing hypothetical future drought scenarios with a locally-relevant hydrological model.

The project team will then organise workshops with communities to experiment with stories about how future drought may affect them and how they might be able to cope. The project also aims to embed the outcomes of these workshops in local water management.

Local water management agencies in Zimbabwe, as well as regional agencies in southern Africa are faced with the complex problem of managing the variable water resources and may benefit from the project.

Local Non-Governmental Organisations (NGOs) and humanitarian response organisations may also benefit from the project's findings, through an improved understanding of local communities' perceptions of drought and how these can be adapted to prepare for an uncertain future.

Drought has already increased in frequency and intensity in Zimbabwe with further increases projected, amplifying stresses on water availability and food supply. The Mzingwane region of southern Zimbabwe is extremely vulnerable to drought because of the semi-arid climate, infertile soils and lack of reliable water sources. It also has a poor population that depends on small-scale dryland farming and high unemployment, as well as limited access to information, tools and resources.

The community's ways of coping with [drought](#) historically might not be sufficient for future droughts, but this [project](#) hopes to show that through building in collaboration with them scenarios of possible future droughts, combining their local and cultural knowledge with scientific modelling, their ability to adapt will increase.

Provided by University of Birmingham

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