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Community perceptions of and preparation to drought: an interdisciplinary case study in rural South Africa

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This presentation showcases the findings from the CreativeDrought project, which aimed to increase drought resilience by combining local knowledge with scientific methods in a rural village in the Limpopo Province of South Africa. The project had an interdisciplinary methodology, bringing together social sciences with hydrology. We reflect on what this allowed us to observe and understand regarding the perception of and preparation for drought in this context. In particular, we demonstrate how the combination of scenario modelling with narrative tools resulted in a holistic and temporal view of water uses, which is important for future adaptation.

Here we first present people's experiences of drought through time with a focus on the past, which we collected through group narrative interviews with different sections of the community (phase 1). Our analysis enabled us to identify the different drought hazards people experienced and related impacts, as well as some of the coping strategies they put in place to respond to such extreme hydrological conditions and the barriers to preparation and adaptation they faced. This approach gives a contextualised understanding of the challenges the community has been facing. It can also reveal past coping mechanisms that have been lost, and it draws attention to the specific needs of a given community.

Second, we give an overview of the future impacts of drought as identified by the villagers, and of the individual, communal and governmental solutions they envisage are needed. To do so, we draw on our analysis of workshops we ran in the village (phase 2). The workshops aimed to get groups within the community to creatively engage with future drought scenarios based on local data and tailored to the local area. This was used as the starting point for discussion and the intention was to explore preparedness and adaptation strategies for future droughts and encourage intergenerational and cross-sectoral exchange. Valuing local viewpoints by using a bottom-up approach such as with narratives gives a voice to communities who may otherwise find it difficult to communicate with higher levels of government. Combined with scenario modelling, it helps local populations to talk about extreme but uncertain future events.

Finally, we put the villagers' experiences about the past and their thoughts on the future in the context of past and present drought management practices, by drawing on interviews we carried out with local government officials. In this presentation, we share observations we made on the challenges to efficient drought management on three fronts: i) community level issues, ii) government procedures, and iii) government capacity. This leads us to recommend a partnership approach to drought management, enabling preparation and adaptation strategies tailored to the local context and where responsibilities are shared between community and government rather than totally deferred to one or the other.