



Weathering the Drought: Resilience strategies for local adaptation and decision-making under extreme risk and uncertainty

R. J. Cornforth (1), E. Boyd (2,3), P. J. Lamb (4), A. Tarhule (5), M. I. Lélé (6), and A. Brouder (7)

(1) NCAS-Climate, University of Reading, NCAS-Climate, United Kingdom (r.j.cornforth@reading.ac.uk), (2) Geography and Environmental Science, University of Reading, United Kingdom (emily.boyd@reading.ac.uk), (3) Stockholm Resilience Centre, Stockholm University, Sweden (emily.boyd@reading.ac.uk), (4) Cooperative Institute for Mesoscale Meteorological Studies, The University of Oklahoma, Norman, United States (plamb@ou.edu), (5) School of Meteorology, The University of Oklahoma, Norman, United States (atarhule@ou.edu), (6) The University of Oklahoma, Department of Geography and Environmental Sustainability, Norman, United States (issalele@ou.edu), (7) Oxfam GB, Oxford, Great Britain (ABrouder@oxfam.org.uk)

The Horn of Africa and West African Sahel are currently suffering food shortages affecting 31 million people. Such ongoing and future crises require that people in the region adapt to an increasing and potentially irreversible global sustainability challenge. Given this situation and that short-term weather and seasonal climate forecasting have limited skill for West Africa, we illustrate the value of near real-time monitoring and improved communication through the Rainwatch project for the unfavourable 2011 West African monsoon, the resulting severe drought-induced humanitarian impacts continuing into 2012, and their exacerbation by flooding this last year. Coupling of Rainwatch with AfClix, a boundary organization, is now integrating the expertise and actions of relevant institutions, agencies, and stakeholders to broker ground-based dialogue to promote resilience in the face of recurring crisis. Lessons learned suggest that at a bare minimum, institutions must establish practical innovations to anticipate impending crises. This includes long-term monitoring and timely communication of user-relevant information, access to relevant and reliable forecasts, and the ability of stakeholders to act on that information through effective strategic partnerships.