

ABSTRACT

The project objective was to develop educational curricula and research and extension competencies of present and future scientists to better assist farmers identify technology options that enhance their adaptive capacity to cope with risks and opportunities associated with climate change and variability. Research conducted by five PhD (two women) and four MPhils (one woman) students contributed to project outputs. Baseline data to describe cropping system and management under current climate variability and farmer perceptions about climate change across 4 districts of Zimbabwe and Zambia was collected and analysed. Indigenous knowledge of climate and indicators to seasonal conditions were also documented and compared with scientific forecasts. Seven workshops were held to educate farmers and extension agents on interpretation of the Seasonal Climate Forecast (SCF) and explore together its application in making cropping decisions. Management options in response to the SCF were then tested in participatory on-farm trials. Most smallholder farmers (at 3 of the 4 sites) were not aware of the existence of the SCF. However, in both seasons the farmers' prediction of seasonal climate was consistent with that from the meteorological department. Engaging smallholder farmers with SCF assists them in making investment decisions on crop management options and in particular, on-farm trial results showed that farmers could derive reliable and substantial benefit from the SCF via decisions related to fertility input levels. The project demonstrated that farmer uptake and use of SCF benefits from an extended participatory approach that provides timely access and interpretation of the SCF, experimentation, monitoring and a post-mortem of results which enhances farmer ownership and adoption after the project.