

The Influence of a Radio Intervention on Farmers' Practices in Climate Change Mitigation and Adaptation in Kilifi, Kenya

Authors : Fiona Mwaniki

Abstract : Climate change is considered a serious threat to sustainable development globally and as one of the greatest ecological, economic and social challenges of our time. The global demand for food is projected to increase by 60% by 2050. Small holder farmers who are vulnerable to the adverse effects of climate change are expected to contribute to this projected demand. Effective climate change education and communication is therefore required for smallholder and subsistence farmers' in order to build communities that are more climate change aware, prepared and resilient. In Kenya radio is the most important and dominant mass communication tool for agricultural extension. This study investigated the potential role of radio in influencing farmers' understanding and use of climate change information. The broad aims of this study were three-fold. Firstly, to identify Kenyan farmers' perceptions and responses to the impacts of climate change. Secondly, to develop radio programs that communicate climate change information to Kenyan farmers and thirdly, to evaluate the impact of information disseminated through radio on farmers' understanding and responses to climate change mitigation and adaptation. This study was conducted within the farming community of Kilifi County, located along the Kenyan coast. Education and communication about climate change was undertaken using radio to make available information understandable to different social and cultural groups. A mixed methods pre-and post-intervention design that provided the opportunity for triangulating results from both quantitative and qualitative data was used. Quantitative and qualitative data was collected simultaneously, where quantitative data was collected through semi structured surveys with 421 farmers' and qualitative data was derived from 11 focus group interviews, six interviews with key informants and nine climate change experts. The climate change knowledge gaps identified in the initial quantitative and qualitative data were used in developing radio programs. Final quantitative and qualitative data collection and analysis enabled an assessment of the impact of climate change messages aired through radio on the farming community in Kilifi County. Results of this study indicate that 32% of the farmers' listened to the radio programs and 26% implemented technologies aired on the programs that would help them adapt to climate change. The most adopted technologies were planting drought tolerant crops including indigenous crop varieties, planting trees, water harvesting and use of manure. The proportion of farmers who indicated they knew "a fair amount" about climate change increased significantly ($Z = -5.1977$, $p < 0.001$) from 33% (at the pre intervention phase of this study) to 64% (post intervention). However, 68% of the farmers felt they needed "a lot more" information on agriculture interventions (43%), access to financial resources (21%) and the effects of climate change (15%). The challenges farmers' faced when adopting the interventions included lack of access to financial resources (18%), high cost of adaptation measures (17%), and poor access to water (10%). This study concludes that radio effectively complements other agricultural extension methods and has the potential to engage farmers' on climate change issues and motivate them to take action.

Keywords : climate change, climate change intervention, farmers, radio

Conference Title : ICECC 2016 : International Conference on Environment and Climate Change

Conference Location : Zurich, Switzerland

Conference Dates : January 12-13, 2016