

Food Security and Sustainability

June 26-27, 2017 San Diego, USA

Climate change perception and farmer attitude to adaptation: An empirical study of socio-cognitive predictors of adaptive behavior in two communities in Northern Nigeria

Jellason Nugun Patrick^{1,2}, Baines Richard N¹ and Conway John S¹¹Royal Agricultural University, UK²National Biotechnology Development Agency, Nigeria

Statement of the Problem: Climate change adaptation in the northern Nigerian drylands is a contentious issue. The great Sahel drought of 1969 to 1974 exposed the crisis and conditions faced by the rural households in the drylands of Sudano-Sahelian Africa which have since been a subject of environmental research and development. Agriculture is said to be most vulnerable to environmental challenges in terms of losses in production and food security. The agricultural sector remains a major source of livelihood providing about 65% of permanent jobs and 25-30% of African GDP. In Nigeria, about 40 million people depend on the drylands for their livelihood but also experience poverty under these dry conditions. The purpose of this study is to integrate behavioral change theories in climate change adaptation in the Nigerian drylands context.

Methodology & Theoretical Orientation: Drawing on a survey of 220 households and a follow up survey to explore the theory of planned behavior for climate change adaptation intention.

Findings: Results of principal component analysis (PCA) showed majority of households perceived climate change to be happening; while other outlier households show limited knowledge of the climate changing. Interestingly, there was no difference in the socio-economic structure of the two separate groups. The theory of planned behavior was used to further explore role of cognition in influencing climate change adaptation.

Conclusion & Significance: Perception differed in each community; Zango household (driest region) responses were towards perception of high sunshine intensity and increasing dryness while Kofa responses (typically more rainfall than Zango) were more sensitive about reduced rainfall amount. Recommendations are made for policy to focus on improving climate change information to smallholders to enable them adapt and improve household food security.

Biography

Jellason Nugun Patrick is an earlier career researcher building expertise in social adaptation to climate change for improving food security. He is passionate about enhancing resilience and improving food security of smallholder household as climate change and other environmental stresses limit agricultural potentials. He is currently researching on this theme for a PhD in the Royal Agricultural University, Cirencester, UK. He has few publications to his credit under review.

nugunpatrick.jellason@student.rau.ac.uk

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