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Indigenous Adaptation Strategies for Climate Change: Small Farmers' Options for Sustainable Crop Farming in South-Western Nigeria

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Abstract : Local people of south-western Nigeria like in other climes, continue to be confronted with the vagaries of changing environments. Through the modification of existing practice and shifting resource base, their strategies for coping with change have enabled them to successfully negotiate the shifts in climate change and the environment. This article analyses indigenous adaptation strategies for climate change with a view to enhancing sustainable crop farming in south –western Nigeria. Multi-stage sampling procedure was used to select 340 respondents from the two major ecological zones (Forest and Derived Savannah) for good geographical spread. The article draws on mixed methods of qualitative research, literature review, field observations, informal interview and multinomial logit regression to capture choice probabilities across the various options of climate change adaptation options among arable crop farmers. The study revealed that most 85.0% of the arable crop farmers were males. It also showed that the use of local climate change adaptation strategies had no relationship with the educational level of the respondents as 77.3% had educational experiences at varying levels. Furthermore, the findings showed that seven local adaptation strategies were commonly utilized by arable crop farmers. Nonetheless, crop diversification, consultation with rainmakers and involvement in non-agricultural ventures were prioritized in the order of 1-3, respectively. Also, multinomial logit analysis result showed that at $p \leq 0.05$ level of significance, household size ($P<0.08$), sex ($p<0.06$), access to loan($p<0.16$), age($p<0.07$), educational level ($P<0.17$) and functional extension contact ($P<0.28$) were all important in explaining the indigenous climate change adaptation utilized by the arable crops farmers in south-western Nigeria. The study concluded that all the identified local adaptation strategies need to be integrated into the development process for sustainable climate change adaptation.

Keywords : crop diversification, climate change, adaptation option, sustainable, small farmers
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