

Environmental and Socioeconomic Determinants of Climate Change Resilience in Rural Nigeria: Empirical Evidence towards Resilience Building

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Abstract : The study aims at assessing the environmental and socioeconomic determinants of climate change resilience in rural Nigeria. This is necessary because researches and development efforts on building climate change resilience of rural areas in developing countries are usually made without the knowledge of the impacts of the inherent rural characteristics that determine resilient capacities of the households. This has, in many cases, led to costly mistakes, delayed responses, inaccurate outcomes, and other difficulties. Consequently, this assessment becomes crucial not only to policymakers and people living in risk-prone environments in rural areas but also to fill the research gap. To achieve the aim, secondary data were obtained from the Annual Abstract of Statistics 2017, LSMS-Integrated Surveys on Agriculture and General Household Survey Panel 2015/2016, and National Agriculture Sample Survey (NASS), 2010/2011. Resilience was calculated by weighting and adding the adaptive, absorptive and anticipatory measures of households variables aggregated at state levels and then regressed against rural environmental and socioeconomic characteristics influencing it. From the regression, the coefficients of the variables were used to compute the impacts of the variables using the Stochastic Regression of Impacts on Population, Affluence and Technology (STIRPAT) Model. The results showed that the northern States are generally low in resilient indices and are impacted less by the development indicators. The major determining factors are percentage of non-poor, environmental protection, road transport development, landholding, agricultural input, population density, dependency ratio (inverse), household assets, education and maternal care. The paper concludes that any effort to a successful resilient building in rural areas of the country should first address these key factors that enhance rural development and wellbeing since it is better to take action before shocks take place.

Keywords : climate change resilience; spatial impacts; STIRPAT model; Nigeria

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