

ABSTRACT

Agriculture sector in India is vulnerable to climate change. Higher temperatures tend to reduce crop yields, favour weed and pest proliferation. Climate change can have negative effects on irrigated crop yields across agro-ecological regions both due to rise in temperature and changes in water availability. Agriculture is one of the most vulnerable sectors owing to its high dependence on climate and weather conditions. Crop Diversification can improve resilience in a variety of ways by engendering a greater ability to suppress pest outbreaks and dampen pathogen transmission, which may worsen under future climate scenarios, as well as by suffering crop production from the effects of greater climate variability and extreme weather events'. As the study was mainly based on primary data, the sampling respondents in the study were selected through multistage systematic stratified sampling techniques. Through these blocks, the study was selected Thondamuthur and Annur blocks under a higher and lower level of percentage of irrigated area to total cultivable area. The occurrence of adequate reasoning and adaptive interferences ensures climate change. Because the study relied heavily on primary data, the study's sampling respondents were chosen using multistage systematic stratified sampling approaches. Diversification and growth hypothesis and evidence. The study examined the relationship between cropping pattern, diversification, technical efficiency and development, with varying conclusions about the sign and direction of Casualty. Agriculture expansion was an essential condition for economic development, and modern farming knowledge with considerable increases in production/yield and low levels of instability was good for agriculture's long-term development. To encourage agricultural growth and development, the government should allocate greater money to agricultural research. Crop diversification was a method of redistributing resources among crops based on their comparative value.

Key Words: Climate Change, Agriculture, Cropping Pattern, Crop Diversification, Technical Efficiency and Government Intervention.