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**Abstract:** Climate change has become vicious as it started showing consequences over both living and non living system. The severity of impacts is more intense on agricultural sector than the rest and it is most severe on rainfed agriculture. Now, the urging need is to slow down the rate of change and to make the system tolerable to already occurred changes. Adaptation is the most promising tool to withstand the damages due to climate change. For a tolerant ecosystem, adaptation and mitigation should go hand in hand. Climate resilience is the ability of a system to absorb shocks and recover as quickly as possible to normal conditions when external environment improves. NICRA is an ICAR initiative launched with a focus on making most vulnerable districts of the nation climate resilient. Since the inception of the project, a number of climate resilient technologies have been demonstrated across the country. The present study made an attempt to investigate the socio-economic and technological impact of these technologies based on ex-post facto research design. Gumla and Tumkur districts from Jharkhand and Karnataka states, respectively were selected purposively as the study locale. Awareness level of individual on climate resilient technologies is an important factor leading to adoption. NICRA farmers and non-NICRA farmers were well aware on aspects of climate change but NICRA farmers had a higher level of awareness on climate resilience(78.83) which was lacked by non-NICRA(23.85). Soil health card, farm ponds, checkdams and its renovation, redgram varieties BRG1 and BRG2, ragi-redgram cropping system, preventive vaccination of animals were the most adopted interventions under various categories recommended by NICRA. The most important factors responsible for adoption climate resilient technologies among farmers were experience in farming and leased-in land area. The study revealed that cropping intensity, crop diversification, knowledge level and resilience were much higher for beneficiaries than non-beneficiaries. A considerable significance in difference of crop diversification, land area irrigated during kharif, rabi and summer, rabi and summer irrigation frequency achieved between NICRA and non-NICRA farmers. A significant increase in employment, yield of crops and savings of 95 beneficiaries occurred on a longitudinal time basis. KVKs are involved in a variety of activities for adopting adaptive strategies. Input delivery services(7.21) of KVKs were proved to be highly useful. Financial (1.76) and marketing assistance (1.88) were few missing links of NICRA. Trainings on climate resilience recorded highest satisfaction (6.43) among farmers. Officials evaluated technical constraints, and labour and economic constraints as the most severe, where as farmers did not consider so. Among different technical factors, inadequacy of inputs stood first in hindering adoption as regarded by farmers. But officials considered poor availability and accessibility of short duration drought tolerant crop varieties as the most severe one. Among labour and economic constraints, longer gestation period to get the returns from adopted intervention and shortage of owned resources were major constraints as per the opinion of farmers and officials, respectively. Resistance to change the conventional practices was considered as the most severe by both farmers and officials in social and personal constraints. The study threw some light on policy matters to reproduce NICRA models to other villages and to redesign the already implemented interventions in a way which ensures a higher adoptability by managing the constraints. NICRA must have to adopt suitable mechanism for securing a lateral spread of technologies to nearby villages.

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