A Study of Water Use, Production, Productivity and Farm Income of the Farmers in Tamil Nadu

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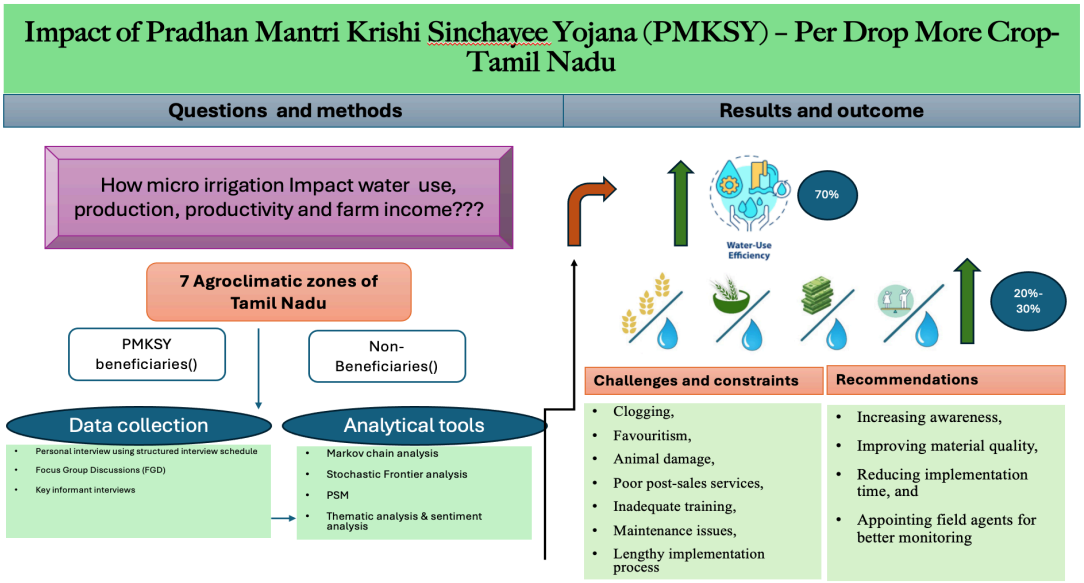
3

Graphical Abstract/ Lavout



Project Description

The study evaluated the effectiveness of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), particularly its "Per Drop More Crop" component launched in 2015-16. Despite its significance, research on PMKSY's impact on improving water use efficiency, production, productivity, farm income, cropping patterns, input use, technical efficiency were limited. A mixed-methodology and cross-sectional survey design were employed, involving 2,414 beneficiaries and 720 non-beneficiaries selected through multi-stage sampling in Tamil Nadu. Data collection included structured interviews, focus group discussions, and evaluations of conveyance and application efficiency. Analytical tools such as Markov chain analysis, cost assessments, and Propensity Score Matching (PSM) compared beneficiaries with non-beneficiaries. Thematic and sentiment analysis using NVivo provided qualitative insights.Findings revealed significant gender disparity, with male farmers as primary beneficiaries, and underrepresentation of denotified communities and scheduled castes. Most beneficiaries were small and marginal farmers with larger irrigated areas, achieving 17-35 per cent higher water efficiency through drip irrigation compared to furrow and flood methods. Markov chain analysis indicated continuity in cultivating crops like groundnut, banana, and horticultural crops under micro-irrigation, with beneficiary farmers experiencing reduced costs and increased incomes. Challenges identified were maintenance issues, clogging, animal damage, poor post-sales service, and lengthy implementation. Stakeholders recommended improving material quality, increasing awareness, reducing delays, and enhancing monitoring.The study concludes that PMKSY has improved water efficiency, cropping patterns, and incomes but there is a need for addressing the challenges and studying non-beneficiaries to maximize program impact and equity.

Products / Instruments / Results / Outreach activities