Impact of watershed development programmes on productivity and efficiency of crops in Rajasthan

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ABSTRACT
Watershed development (WSD) programmes have been reckoned as an instrument to bring the second-generation Green Revolution through, increasing productivity in rainfed areas. The present study examined the productivity gains and the technical, allocative and economic efficiencies in cultivation of two major rainfed crops i.e., wheat and pearl millet at farms within and outside watershed projects. It was found that implementation of WSD programmes led to significant gain in productivity of all the crops. However, farmers opted for more water intensive crops without adopting water saving technologies of irrigation, which could be counter productive. The technical efficiency for wheat was found to be more within watershed villages (0.83) than in non-watershed village (0.47). The allocative efficiency was also found to be higher within watershed (0.63) than outside watershed (0.49). Since economic efficiency is a product of the two, it was concluded that wheat farmers within watershed were economically more efficient (0.52) than their counterparts outside watershed (0.22). In case of pearl millet, no significant difference was observed in technical efficiencies between the two regions. However, farmers outside the watershed area were found to be allocatively more efficient (0.71) than their counterparts within the project (0.51). This was due to the fact that the scarcity of water makes farmers adopt a strategy that minimises risk rather than maximises production. Educational level of farmers was the most significant variable influencing technical efficiency in case of wheat. Allocative efficiency was found to be affected by farmers’ access to credit, distance of the market and extension contact. Hence, it was concluded that provision of better education and training, greater credit access, providing linkages between production and marketing and providing farmers technical and market information through better extension services would lead to a greater level of economic efficiency.

Key words: Socio-economic impact, Watershed, Economic efficiency.

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