

DECLINING PERFORMANCE OF TANK IRRIGATION SYSTEM IN SRIKAKULAM DISTRICT, ANDHRA PRADESH – A STUDY WITH IRRIGATION INDICIES

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ABSTRACT

Historically, tanks formed the primary sources of minor irrigation in the country as a whole and South India in particular, in conformity with local conditions. However, in the recent past, the minor irrigation under tanks received a setback due to various reasons. The Srikakulam district located in the north coastal Andhra Pradesh depending largely on minor irrigation under tanks is no exception. In certain mandals of this district, the problem is so severe and thus, it became a matter of concern for the researchers and the government to study and evaluate the problem in order to take remedial measures. Keeping this in view, an attempt is made in this present work to conduct a study on minor irrigation under tanks in Srikakulam district, using the data obtained on various factors over a period of six decades. The data so collected is synthesized and the following irrigation indices viz., 1) Ratios of irrigated and cropped areas i.e.net, gross, and irrigated more than once 2) Irrigation intensities 3) Crop intensities 4) Tank Effective Ratios (TER) 5) Tank Deviation Factors (TDF) are evaluated. From these indices, it is observed that there is a considerable reduction in the capacities of the tanks of Srikakulam district during the study period of 1955 to 2010 indicating that the minor irrigation under tanks in the district suffered with negative growth rates.

KEYWORDS: Irrigation Indices, Tank Effective Ratio, Tank Deviation Factor, Minor Irrigation