

## **Impact of Public Investment in Irrigation Projects on Food Grain Productivity**

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**ABSTRACT** The behaviour of agricultural investment inspired to investigate the true relationship between public investment and agricultural productivity. The present study attempted to examine the nature and extent of disparity in public investment in major and medium irrigation projects across states and to examine the long-run effect of public investment in major and medium irrigation in food grain productivity across the major states of India. The analysis showed that disparity among the states on the basis of expenditure on per hectare of gross cropped area in each state was marginally increased over the plan periods. The results obtained from Polynomial Distributed Lag (PDL) model showed that in Andhra Pradesh, Karnataka, and Orissa, a lag of six years was observed in attaining the 100 percent effect of public investment (major and medium irrigation) on food grain productivity while in Gujarat a lag of 9 years was observed. In Kerala, a lag of 11 years, Maharashtra and Rajasthan a lag of 7 years was observed. West Bengal, Punjab and Assam, a lag of 12 years was observed for realising the 100 percent effect of public investment in major and medium irrigation on food grain productivity.