## Regional Disparities in Growth and Structure of Public Investment in Agricultural Research and Education

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The present paper studies the regional disparities in structure of investment in agricultural research and education and assess the productivity gains in agriculture arising out of research investment. Results observed that all the States showed impressive growth in research investments and spent more on agricultural research relative to their agricultural gross domestic product (agricultural research intensity) in 1992-94 than they did in 1980-82. Results also indicate an association between high growth rate in real investment in research and education and growth in average value of yield per hectare in all states except West Bengal.

## Introduction

Differences in pattern of agricultural growth are in large part the result of regional differences in factor and environmental endowments and in the policies adopted towards agriculture and more specifically agricultural research. Under-investment in agricultural research has often been identified as an important reason for inadequate agricultural performance in many of the developing countries. It is about 0.7 per cent of agricultural gross domestic product for the developing countries and 2 per cent for the developed countries (Pardey et. al.; 1991). In India, the total (center, as well as, state) real Government expenditure (at 1981-82 prices) on agricultural research and education since 1960-61 to 1994-95 grew 5.4 per cent annually (Pal, et. al., 1996). However, apart from the level of investment, efficiency in research resource allocation among regions and commodities based on research needs are equally important, especially in view of observed large disparities in the share of research resources allocated among them. Though, such disparities are inevitable to some extent due to several factors like production pattern, factor and environmental endowments and other socio-political factors. However, enough attention has not been given to this issue. Therefore, the main objectives of study are (1) to examine the regional disparities in growth and structure of investment in agricultural research and education and (2) to observe the productivity gains arising out of research investment.

## Data

The paper is confined to the Government investment in agricultural research and education only. The study derived secondary data from various published sources. The government expenditure on agricultural research and education were compiled from various official documents of Central and State Governments (Comptroller and Auditor General of India, Ministry of Finance and Reserve Bank of India) to derive estimates of agricultural research and education expenditure. This includes all expenditures (plan and non-plan) on agricultural research and education on revenue and capital account and include research and education expenditure for major groups, viz., agriculture, soil and water conservation, animal husbandry, dairy husbandry and fisheries.

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