

Economic Aspects of Irrigation Management in Major and Medium Surface Irrigation Systems in India

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Progress of irrigation development in India has given rise to two major problems, among others, specially in respect of major and medium irrigation systems. Firstly, the problem of paucity of resources which not only restricts taking up new projects, but also puts severe restrictions specially on operation and maintenance of the existing surface irrigation systems and completing the on-going unfinished projects. Secondly, the problem of overall poor performance which may be often the fall out of the first problem. The dismal performance in operation and maintenance of most of the systems, owing mainly to the paucity of funds and low water rates, calls for allocating more funds for the operation and maintenance costs and enhancing the water rates in order to restore the financial health of the public irrigation works which has deteriorated at a rapid rate. In this paper an attempt has been made to examine these issues with reference to cost aspect of the operation and maintenance of the existing major and medium irrigation systems and pricing of irrigation water.

The Context

A perusal of irrigation related statistics indicate a very impressive development of irrigation in India over the last four decades.¹ Between 1950 and 1990 about 55 million hectares of irrigated land were added to the already existing 23 million hectares of irrigated land, bringing the total to around 78 million hectares in 1990, through a massive investment of Rs. 40,605 crores in absolute terms (in respective period's prices). However, considering the ultimate irrigation potential of India, the country has a long way to go on irrigation.² Out of the 78 million hectares of irrigation potential created by the end of the Seventh Five Year Plan, around 30 million hectares were contributed by major and medium irrigation sources and remaining 48 million hectares by minor irrigation. Thus, about 40 per cent of the additional irrigation was through major and medium schemes brought about by a massive investment of Rs. 26,200 crores in absolute terms. Eighth Plan envisaged an investment of Rs. 22,414 crores on major and medium irrigation. It is evident that there has been a quantum jump in such investment during Sixth, Seventh and Eighth Plan periods.

Despite such impressive growth in irrigation development, it is being increasingly realised that gains from such development efforts are not at all commensurate with the

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¹ Five Year Plan documents, Planning Commission and Economic survey, Government of India, 1995-96.

² The ultimate irrigation potential in the country remains a matter of debate specially with reference to minor irrigation. Out of the estimated 113 million hectares of ultimate irrigation potential the share of groundwater irrigation was estimated to be around 40 million hectares. Recently, the government has revised the irrigation potential from groundwater to 80 million hectares on which some researchers have expressed their reservations.