

THESIS

PERFORMANCE APPRAISAL OF WATER RESOURCES  
DEVELOPMENT PROJECTS OF PUNJAB PROVINCE

6291

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## ABSTRACT

The scope of the study is reduced only to two main water resources projects representing surface water and groundwater categories. The main reason behind this was the limitation of time. In 1960s SCARPs were initiated to control twin menaces of waterlogging and salinity. With the passage of time, the performance of SCARP Tubewells (STWs) deteriorated and their operation and maintenance cost exceeded the revenues generated. Consequently, the Government decided to transfer responsibility of pumping groundwater in fresh groundwater areas to farmers as private tubewells (PTWs) and 213 STWs were replaced with 2100 low capacity PTWs in Khanqah Dogran, a sub-unit of SCARP I with prohibitively high cost.

Encouraged by the response, a Second SCARP Transition Project (SSTP) was launched in 1992 to privatise the remaining sub-units of SCARP-I except saline groundwater STWs. To achieve these objectives various agencies involved in transition were contacted to obtain data and informations. It was established that the SCARP projects in all its different forms are in the national and farmers interest. It is recommended that such projects to be continued to save the nation from ever increasing fiscal burdens.

Attractive water storage sites on the river system in Pakistan are extremely limited. On Jhelum river, Mangla is the only available large storage site where Mangla dam was build with main purpose to replace water of the three eastern rivers allocated to

India under the Indus Water Treaty of 1960. By the year 2000, Mangla reservoir has lost about 20% of its gross capacity due to sediment deposition. Raising of the dam is needed to regain the capacity and thereby augment the irrigation releases as well as the hydropower generation. In this study only two main aspects water availability and sedimentation are evaluated. The study has shown that raising of Mangla dam is technically feasible. The study further concludes that additional such types of storage reservoirs are the urgent need of the country for sustainability.