

THESIS

**LESSONS LEARNT FROM LEFT BANK
OUTFALL DRAIN STAGE-I PROJECT**

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ABSTRACT

LESSONS LEARNT FROM LEFT BANK OUTFALL DRAIN STAGE-1 PROJECT

Left Bank Outfall Drain (LBOD) Stage-1 Project is located in the Province of Sindh, one of the four provinces of Pakistan. The Project on its completion will provide surface and priority sub-surface drainage facilities to an area of nearly 0.514 million hectares of land lying on left bank of river Indus and in the administrative boundaries of Nawabshah, Sanghar, Mirpurkhas and Badin districts. The project also includes complementary investment in irrigation improvement, both on-farm and in the main and distributary systems. The project will utilize the LBOD spinal drain and Kadhan Patiji Outfall Drain (KPOD) constructed earlier by Sindh Irrigation and Power Department and later remodelled by Water and Power Development Authority (WAPDA) and provide a new outfall in the form of the Tidal link, to dispose off the drainage effluent to sea. The major components of the project are; (1) construction of spinal drain and tidal link to Arabian Sea; (2) provision of surface and subsurface drainage, interceptor drains and On Farm Water Management in Nawabshah sub-project; (3) provision of surface and sub-surface drainage and interceptor drains in Sanghar sub-project; (4) provision of surface and sub-surface drainage, interceptor drains and On Farm Water Management in Mirpurkhas sub-project; and (5) provision of Irrigation Works, (Remodelling of Nara/Jamrao Canals) and Chotiari Reservoir.

A separate element of review and feed back was added in 1992 through a Reassessment study. As a result of these planning reviews, the project scope has been added to provide variously, additional focus on O&M, environmental impact assessments and resettlement studies.

This study was undertaken to understand the implementation process of Left Bank Outfall Drain (LBOD) Stage-1 and to review the project assessment reports prepared by Project Monitoring Agencies during periodic reviews for identifying main lessons learnt by GOP/GOS during its implementation and inferring recommendation to complete the design and implementation phase on schedule for future projects particularly in the drainage sector. For this purpose various agencies (WAPDA, LBOD General and specific component Consultants, PID Sindh) involved in design and implementation of the project were contacted to obtain data and information in addition to field visits. Collected literature was reviewed in view of the objectives of this study.

It has been concluded that LBOD (Stage-1) is experiencing time overrun/delayed status, therefore, it is of vital importance that the project implementation should be realistically rescheduled for early accrual of the intended benefits to strengthen the national economy and repayment of the borrowed loans. It is further concluded that for timely completion of future projects keep public especially beneficiaries/affectees well informed about project goals and how these are to be instituted, suitable allowance for delays should be made while developing implementation schedules, concentrate on main arteries well in advance of other

components for accruing early benefits, risk analysis post and pre-construction should be carried for highlighting the short-comings of the project components, topographic maps be obtained well in advance for field work, simulate major discharges throughout the system through time-series analyses, physical modelling for works on major channels be complied with, ensure institutional capabilities for operation and maintenance, undertake Environmental Impact Assessment and Resettlement Studies at the start of the project and critical areas for changes should be reviewed periodically for the projects taking many years to implement.

It is finally concluded that preference should be given to short duration/gestation projects over the larger projects to accrue the project benefits earlier and scope of the projects should not be increased substantially during project implementation which may cause unnecessary delays in project completion and its intended benefits.

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