

THESIS

**IMPACT OF LINING OF SHAHKOT DISTRIBUTARY ON
WATER SUPPLY CONDITIONS**

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For the Degree of

Master of Science

IN

WATER RESOURCES MANAGEMENT

CENTRE OF EXCELLENCE IN WATER RESOURCES ENGINEERING

UNIVERSITY OF ENGINEERING AND TECHNOLOGY,

LAHORE, PAKISTAN

1998

ABSTRACT

The main objective of this study was to see the effect of lining on water supply at the tail end. For this purpose Shahkot distributary was selected, whose total length is 49.12 KM and has 93 outlets. Seepage losses were measured with the help of inflow-outflow method. For the study purpose the Shahkot distributary was divided into four small reaches. Since the method used for this study has the limitation of minimum number of outflows, the 3rd reach from RD-105+000 to RD-114+000, having only one watercourse, was found to be an ideal reach for the test. The discharge of all selected reaches were measured, both at upstream and downstream ends and also the discharge of all the watercourses in the selected reaches were measured.

The present study revealed that seepage losses have been reduced by 52% as a result of lining. The lining has considerable effect on the cropping pattern of the area, because with more and regular availability of water the farmers preferred to grow rice in kharif season rather to other crops. With the more water availability cultivated area has also increased. With respect to water availability, lining has its major impact on the tail and middle portions of the distributary. Four watercourses were selected on the tail end of the distributary and the irrigated area under these watercourses has increased by 10.88 % when compared with pre-lining conditions.