97 A Comparative Study of Rural Poor Cooperative Programme and RDA Made Irrigation Channel

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a) Researchers' Identity

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b) Objectives

The general objective of the proposed study was to find out the comparative performance of the channels made by RPCP and RDA in respect of cost, design and construction techniques. The specific objectives of the study were as follows:

i. To assess the conveyance efficiency;
ii. To determine the cost per running meter;
iii. To measure the land occupied for the channel;
vi. To assess the durability and maintenance cost; and
v. To study the construction technique.

c) Abstract

The study was carried out at Chandaikona Moddhapara DTW scheme during the irrigation season of 1995-96 to find out the comparative performance of the channels constructed by Rural Poor Cooperative Programme (RPCP) of BRDB and Rural Development Academy (RDA) Bogra. From the study it was found that having water conveying capacity of 56 liters per second, the cost of RPCP made rectangular channel was Tk. 579.44 per running meter.

On the other hand, RDA constructed two types of channels, i.e. rectangular and semi-circular shaped, having the same water conveying capacity, the cost of the channels were Tk. 219.00 and 210.26 per running meter respectively. The RDA channels had satisfied the designed criteria of the best hydraulic section but the RPCP channel had not followed the criteria of the best hydraulic section concept. Moreover, the conveyance efficiency of RPCP and RDA channel was found 81.56% and 89.17% at a distance of 116 m length for each type. In all respects, RDA made channel is more suitable than RPCP channel in terms of design, cost, economic life, conveyance efficiency and maintenance. The views of the direct users of the two systems also substantiate in this fact.

d) Conclusion and Recommendations

The results of the study indicate that the two channels ; (a) pre-cast ferro cement and (b) cast in-situ cement concrete as constructed by the Academy are found to be better than the RPCP made cast in-situ brick channel in respect of cost, durability, maintenance and conveyance efficiency . The views of the direct beneficiaries also confirm the truth of the fact. In consideration of all these facts, the RDA made water conveyance system should receive favorable consideration for on-farm implementation in the country.