

FOR EFFECTIVE IRRIGATION MANAGEMENT AT

GALOYA IRRIGATION SCHEME, SRI LANKA

By

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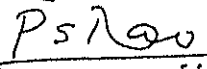
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A Case Study of Farm level Management and Constraints for
Effective Irrigation Management
at Galoya Irrigation Scheme, Srilanka.

(ABSTRACT)

A research study was conducted at the Galoya irrigation scheme in the dry zone of Srilanka. The principal objective of the study was to evaluate whether rehabilitation and improved management of the main system has contributed to the farm level management for increased productivity and proper utilization of water when the irrigation water supply was adequate and reliable.

The improvement in main system management has contributed substantially in expanding the irrigable area. However, results of the study site shows that this has not affected water management at farm level or increased the productivity of individual farm units. Although, the main system management has improved the reliability and timeliness of supply of irrigation water, this has very little bearing on the observed timing of operations during the cultivation season which depends on the availability of resources at the farm level.

The study revealed that in the study area there is a considerable gap between the genetically potential yield

and what is obtained in actual practice (about 50% of the potential possible) even after rehabilitation of main system and improvement to its management. The management of other inputs along with water can be attributed to such a gap.

The income generated from moderate (1.6-1.8 ha) and large (2.0-2.2 ha) holdings is sufficient for subsistence living. However, large holdings appear to spread less inputs over the entire holding, thus, receiving marginal returns to their capital investment. In comparison moderate holdings appear to invest sufficient capital and obtain better yield levels. However, even with potential yields, smaller (0.6-1.0 ha) holdings are unable to survive even at subsistence level.

The study revealed that many factors constrain the productivity at farm level. The sample area being small did not clearly show any particular trend or pattern of those constraints among farms. A sufficiently large sample size based on random selection may identify similar trends of these constraints through the use of multivariate statistical techniques.