EVALUATION OF IRRIGATION AND INSTITUTIONAL EFFICIENCY OF KOGA IRRIGATION SCHEME, TANA BASIN, ETHIOPIA

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ABSTRACT

The technical performance evaluation of Koga Irrigation Scheme was made in order to identify management practices for implementation to improve the system operation and the performance of the irrigation system. The evaluation was made based on the selected performance indicators such as water application efficiency, dependability of irrigation interval and sustainability of irrigated command area. The availability of institutional and support services were also investigate through questionnaires administered to beneficiary farmers and other stakeholders. Overall activities in primary data collected included: field observation, interviewing beneficiary farmers, discharge measurements in the inlet of field, determination of moisture contents of the soil before and after irrigation and measurement of depth of water applied to the fields. In addition to primary data, secondary data were collected from the secondary sources.

The results obtained showed that Application efficiency monitored on three farmers' farm located on different ends of the command ranges from 52.2 to 61.8% at irrigation scheme. Dependability of the schemes evaluated in terms of irrigation interval shows that the schemes irrigate more frequently than was intended. The sustainability of the irrigated area initially planned for development or the actual irrigated area during the design period was 7,004 ha. However currently it is irrigating about 6,200 ha . This shows that the sustainability of the scheme is 0.86 ~ 86%.Conflict among users is more or less minimum. Support services rendered to the beneficiaries were minimal. There were very few indicators that production was market oriented; however, production is mainly for household food consumption. In conclusion, the participation of farmers and sense of owner ship is rated to be minimum. Therefore, if structures are in place and water users associations are empowered more in order for it to enforce its bylaws; it will augment the efficiency of the scheme exceedingly.



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