

Institutional Design for Managing Irrigation Problems: A Case Study of Farmers'- and Agency-Managed Irrigation Systems of Nepal

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Abstract : Institutional design is an important aspect in efficient water resource management. In Nepal, the water supply in both farmers'- and agency-managed irrigation systems has become sub-standard because of the weak institutional framework. This study characterizes both forms of the schemes and links existing institution and governance of the schemes with its performance with reference to cost recovery, maintenance of the schemes and water distribution throughout the schemes. For this, two types of surveys were conducted. A management survey of ten farmers'-managed and five agency-managed schemes of Chitwan valley and its periphery was done. Also, a farm survey comprising 25 farmers from each of head, middle and tail regions of both schemes; Narayani Lift Irrigation Project (agency-managed) and Khageri Irrigation System (farmers'-managed) of Chitwan Valley as a case study was conducted. The results showed that cost recovery of agency-managed schemes in 2015 was less than two percent whereas service fee collection rate in farmers'-managed schemes was nearly 2/3rd that triggered poor maintenance of the schemes and unequal distribution of water throughout the schemes. Also, the institution on practice is unable to create any incentives for farmers for economical use of water as well as willingness to pay for its use. This, thus, compels the need of refined institutional framework which has been suggested in this paper aiming to improve the cost recovery and better water distribution throughout the irrigation schemes.

Keywords : cost recovery, governance, institution, schemes' performance

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