## World Academy of Science, Engineering and Technology International Journal of Agricultural and Biosystems Engineering Vol:11, No:02, 2017

## Effectiveness of Management Transfer Programs for Managing Irrigation Resources in Developing Countries: A Case Study of Farmer- and Agency-Managed Schemes from Nepal

Authors: Tirtha Raj Dhakal, Brian Davidson, Bob Farquharson

Abstract: Irrigation management transfer has been taken as the important policy instrument for effective irrigation resource management in many developing countries. The change in governance of the irrigation schemes for its day-to-day operation and maintenance has been centered in recent Nepalese irrigation policies also. However, both farmer- and agency-managed irrigation schemes in Nepal are performing well below than expected. This study tries to link the present concerns of poor performance of both forms of schemes with the institutions for its operation and management. Two types of surveys, management and farm surveys; were conducted as a case study in the command area of Narayani Lift Irrigation Project (agency-managed) and Khageri Irrigation System (farmer-managed) of Chitwan District. The farm survey from head, middle and tail regions of both schemes revealed that unequal water distribution exists in these regions in both schemes with greater percentage of farmers experiencing this situation in agency managed scheme. In both schemes, the cost recovery rate was very low, even below five percent in Lift System indicating poor operation and maintenance of the schemes. Also, the institution on practice in both schemes is unable to create any incentives for farmers' willingness to pay as well as for its economical use in the farm. Thus, outcomes from the study showed that only the management transfer programs may not achieve the goal of efficient irrigation resource management. This may suggest water professionals to rethink about the irrigation policies for refining institutional framework irrespective of the governance of schemes for improved cost recovery and better water distribution throughout the irrigation schemes.

**Keywords:** cost recovery, governance, institution, irrigation management transfer, willingness to pay **Conference Title:** ICAFE 2017: International Conference on Agricultural and Forestry Engineering

**Conference Location :** Melbourne, Australia **Conference Dates :** February 02-03, 2017