

Bajo Irrigation Channel Siphon Project

WACREP Activity No. 2.5.1: Demonstration Projects –
Promote Science Uptake for efficient irrigation practices & technologies

Background

The Lingmutey-chu watershed is one of the small agriculture areas in Thedtso Block in Wangduephodrang district. The watershed is home to six villages. Farming is the mainstay of its inhabitants. By local standard, the area has a high proportion of paddy land and a source of pride to the local farmers. The Lingmutey-chu stream is the main source of irrigation and drinking water.

Problem statement

Although perennial, the Lingmutey-chu stream does not have sufficient flow to irrigate the whole agriculture land within its catchment. Local farmers experience severe water shortage during the dry season and paddy transplanting when the Monsoon rains have yet to arrive. Conflicts over water sharing between upstream and downstream farmers are common and protracted legal disputes between these parties are known nationally.

Objectives

The main objective of the Bajo Irrigation Channel Siphon Project is to improve irrigated agriculture of 52 households in Wangjokha and Thanggo villages under Thedtso Block, that are located at the tail end of Lingmutey-chu stream, which results adding another 87 acres of additional paddy lands under irrigation. Furthermore, sufficiently irrigated paddy fields would augment the yields – the expected increment is from 1.2 to 1.6 metric tons per acre. In general it is expected that functioning of this project would resolve the existing conflicts with upstream users of Lingmutey-chu stream.

Activity

Water diverted to Lingmutey-chu watershed from Bajo Yuwa canal which has sufficient flow and capacity to carry the additional discharge without using water pumps. The total project, including spreading more than 600 metres of High-density polyethylen (HDPE) pipe and constructions were funded by BhWP through a local contractor. The community contributed in labour for trenching the

Bhutan is well endowed with freshwater resources and is one of the countries having highest per capita water availability in the world. However the uneven spatial and temporal distribution of water bodies leads to water shortages both for drinking and irrigation in many areas. Undulated terraces are very common throughout the country.

Irrigated land area constitutes only 25 percent of the total arable land. Paddy is the main crop cultivated under irrigated agriculture whereas a significant fraction of cultivation is rain-fed. These have resulted comparatively lower rice yields (1 mt/acre). Inadequate funding and capital investments have delayed establishing adequate and efficient irrigation infrastructure in the country. Therefore major investments in developing irrigation infrastructure can boost the domestic agriculture production.

pipeline. The Engineering Division, Department of Agriculture of the Ministry of Agriculture and Forests in Bhutan was the main implementing partner for the project.

Outcome: Increase agriculture production using modern technology on efficient water management.



Few highlights of the project

For further information: Mr Ugyen Lhendup, Country Coordinator
Bhutan Water Partnership Royal Society for Protection of Nature (RSPN)
Kawangjangsa, Po. Box 325, Thimphu, Bhutan.
Email: bhwp@rspnbhutan.org, ulhendup@rspnbhutan.org

Ms Priyanka Dissanayake, Regional Coordinator, GWP – South Asia Regional Office (GWP-SAS)
C/o International Water Management Institute (IWMI)
127 Sunil Mawatha, Pelawatte, Battaramulla, Sri Lanka
Tel: +94 11 2880000 | Fax: +94 11 2786854
Web: www.gwp.org/en/gwp-south-asia