



Blue Gold Program success stories

Community-led Agricultural Water Management at Uttar Khekuani

Context

A sub-catchment of the Water Management Group (WMG) Uttar Khekuani, of polder 43/2F, suffers from waterlogging during the monsoon season and scarcity of water for irrigation during the rabi season. This is due to the topography of the land and poor drainage. 75 out of the 100 acres are severely affected.

Problems

- Stagnant water makes farmers choose local varieties of T-Aman, resulting in low productivity and incomes
- Damage to T-Aman seedbeds, further reducing productivity
- Late seedling transplantation and slow and late drainage suspend aman harvest and rabi planting
- Late aman harvesting limits options in the rabi season to mung bean
- Late rabi planting and harvest make crops vulnerable to drought and erratic pre-monsoon rains

BGP interventions

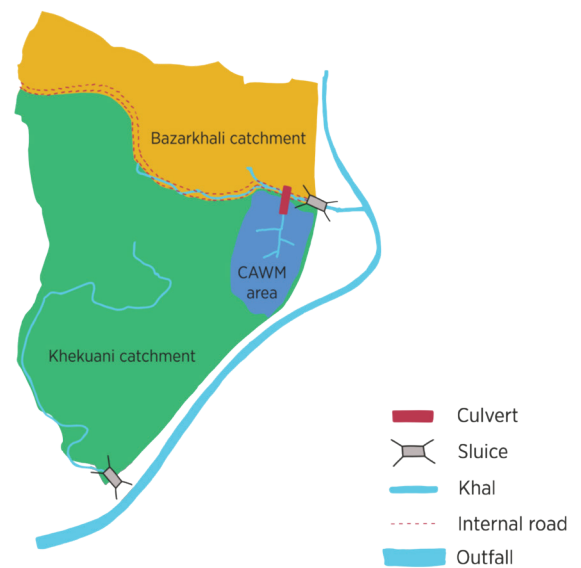
The main aim of CAWM is to improve productivity and profitability of the cropping system by improving in-polder water management. The Department of Agricultural Extension (DAE) supports CAWM through the Blue Gold Program. Nearly all (50) male and female farmers from the severely affected area took part in Community-Led Agricultural Water Management (CAWM). The larger part of the farmers in the severely affected area joined CAWM, so that water management and crops could be aligned.

Actions taken under CAWM

- Participatory action plan by members of the WMG, beneficiaries and DAE
- Construction of 30 feet long, 20 inch diameter pipe

culvert with gate at north side to connect with Bazarkhali catchment

- 600 feet long branch-canal ('sakhakhal') excavated
- Closing of culvert at west-side of sub-catchment
- Farmers dug narrow drains ('hatnala's') across the field to connect with branch-canal
- A year-round Farmer Field School provided by DAE helped farmers improve their cropping system



Outcomes



Sustainable and resilient cropping pattern



Higher productivity of T-Aman, sufficient to meet consumption needs of families



Diversification of high value rabi crops (sunflower, mung bean, ground nut and chilli) generates employment and spreads risks



Yearly increase in net income of approximately BDT 12,000 per acre (see chart on next page)



Improved decision-making related to water management and crop production

After CAWM



Improved drainage system: no waterlogging



Timely transplantation of seedlings



Cultivation of shorter duration modern variety BR52 T-Aman in 100 acres



Increased yields of T-Aman



Cultivation of sunflower, mung bean, groundnut and chilies as rabi crops



Reduced risk of damage by drought or early rains during rabi

Eidrish's story

Md. Eidrish Hawlader is a member of the Uttar Khekuani WMG and a participant in CAWM activities. He and his wife own two acres of land in the severely affected area of the sub-catchment.

Before CAWM, he faced the following challenges:

- Difficulty growing seedlings because of large water depth and slow drainage of water
- Only local T-Aman was viable
- Paddy production of 50 maunds for 2 acres was insufficient for his family's own needs
- Delayed drainage only allowed for cultivation of local variety mung bean as late rabi crop



Together with most farmers from the severely affected area, Eidrish participated in a meeting with DAE and BGP staff to make an action plan for the sub-catchment. They decided on infrastructural interventions and the extent of their contribution to it. They jointly chose a more profitable combination of crops so that they could drain and irrigate their lands at the same time. They also requested the WMG to help coordinate sluice operations for their drainage requirements.

The drainage of Eidrish' land improved after CAWM interventions. Absence of waterlogging now allows him to raise seedlings on time and cultivate modern BR52 T-Aman. Eidrish is able to cultivate sunflower as a rabi crop on his land. He expects to earn at least 1.5 times more with sunflowers than he did with mung beans. His crops are now less likely to be affected by waterlogging and pre-monsoonal rainfall. He produces enough to feed the family, and sells more at the market for additional income.

