



Photo: Duckrabbit

Community Approach to Water Management

Problem

Lack of coordination is a major impediment to realizing the potential of the coastal zone. This issue is tied to decisions regarding the scale at which water within the polders is best managed, as well as current frameworks and policies that promote community water management. 'Community' is often defined at the village-scale, which does not always coincide with natural hydrological boundaries.

Background

The hydrology of the polders of the coastal zone is completely different from other parts of Bangladesh, governed by the natural phenomenon of tides, human interventions in the form of embankments, roads etc., and topographic variations. Therefore, it is usually impossible for an individual farmer to manage water - a community approach based on small water management units (WMUs) is required to realize production potential. For example, if most farmers want to grow high-yielding *rabi* crops (such as maize, sunflowers or vegetables) and traditional crops of sesame and *mungbean* with minimal risk, early rice harvest (with drainage shortly prior to harvest) is necessary. This will require growing high-yielding *aman* varieties that mature earlier. However, if some farmers wish to continue to grow traditional varieties, they will want to bring river water in at the same time as others want to drain. Furthermore, early-maturing rice crops grown in small patches risk heavy damage by rats and birds.

Recommendation

Coordination of water management and production systems needs to be based around WMUs, not villages. Owners and lessees of land within a WMU should engage in collective decision-making, taking into consideration available infrastructure and the biophysical resources of the WMU. This would enable the adoption of farming systems that provide the best return options for the farmers. At the same time, it could provide a plan for ensuring that ecosystem services are sustained for future generations.

Water management requirements will depend on the preferred cropping systems/technologies that farmers within a WMU want to adopt. There needs to be considerable shared interests and needs amongst farmers.

Within sub-polders, coordination of WMUs on water management is necessary. Co-ordination will be required, for example, to decide whether to allow the entry of saline water or to store freshwater during the dry season.

For more information, please visit : www.waterandfood.org and www.wle.cgiar.org