



Blue Gold Program interventions

Lessons learnt for scaling out

How participatory water management contributes to
inclusive development



CONTEXT

Coastal Belt

The coastal belt can play an important role in the economic development of the country, but the region is vulnerable and has a high poverty rate. There are good opportunities to improve the local economy by intensifying agriculture and fisheries.

Flood protection is a prerequisite to achieving this, while better water management allows farmers to increase productivity and profitability.

Participatory Water Management (PWM)

Participatory Water Management involves community-based organisations in flood control and water management for better development outcomes.

Lessons learnt on Participatory Water Management help design future investment projects in and beyond the coastal zone. These lessons can also help strengthen the country's water sector. This will be the focus of the May 2020 National PWM Conference.



Who participates in Participatory Water Management?

- Male and female farmers and other community members, organised in Water Management Groups (WMGs) in small catchments, and WMGs organised in Water Management Associations (WMAs) at the level of major water systems, such as the coastal polders
- Local Government Institutions (LGIs), who advise,

guide and support the WMGs and WMAs in their role in local water management

- Private sector as partners for farmers, WMGs and WMAs attune production systems to opportunities offered by the markets
- Government agencies that provide services in the realm of water management and agriculture (such as BWDB, LGED, DAE, DLS, DoF and BADC)

BLUE GOLD PROGRAM

The Blue Gold Program (2013-2020) promotes Participatory Water Management in 22 polders in the southwestern coastal belt by:



Improving water management



Increasing and diversifying agricultural production



Increasing income and employment through market-led agriculture



Reducing poverty and improving food security



Using a pro-poor, inclusive approach, targeting men and women, to include all polder inhabitants and also to enhance development outcomes

PARTICIPATORY WATER MANAGEMENT: LESSONS FROM BGP

Outcomes

- Reduced occurrence of waterlogging, drought and floods enables economic development.
- Higher cropping intensities due to cultivation of more land and of more crops per year.
- Higher profitability, due to crop intensification and diversification, use of quality inputs, better cultivation and more efficient market linkages.
- Higher demand for labour, resulting in opportunities for men and women, higher wages and a growing demand for mechanisation.

Integrated interventions

Participatory Water Management combines three interventions:

- Infrastructure development, helping to reduce water-related risks and to harness water's productive power
- Institutional development, for constructive engagement between WMOs, local governments and specialised water management agencies
- Agricultural development, helping increase productivity and profitability towards agricultural commercialisation

The combined implementation of these interventions requires strong integration, coherence and collaboration.

Infrastructure development

A good water management system reduces risks to life and goods and enables the optimisation of agricultural production (including livestock and aquaculture).

This requires investments in major infrastructure such as embankments, drainage regulators and khals, but also in small-scale 'local' infrastructure, such as culverts, ditches and retention structures, to fine-tune the water system to the local production potential.

Water security requires good organisation, including rules for good use of infrastructure and responsibilities for operation and maintenance. Investment in infrastructure without organisations to do this is not effective.

Institutional development

Water management groups and associations perform best if they have good relations with Local Governments Institutions, Government Agencies and the private sector. Partnership is the institutional core of Participatory Water Management. Building partnerships requires time, but

results in:

- **Actions for the public good:** e.g. disaster risk reduction, khal cleaning, removal of blockades from drainage pathways, pro-poor interventions.
- **Better water management:** e.g. setting local water levels, the timing of drainage and resolving conflicts.
- **Better operation and maintenance of infrastructure:** assigning responsibilities and enforcing rules for good use.

Agricultural development

Proper water management enables farmers to commercialise agricultural production. For example, the introduction of shorter duration, higher yielding rice varieties and early post-monsoon drainage allows the increased and diversified production of rabi crops. This results in a cropping system of higher profitability with lower risks.

A combination of interventions assist farmers to optimise their cropping system:

- In-Polder Water Management: making best use of existing primary water management infrastructure, improving secondary and tertiary infrastructure and maximize the use of surface and groundwater, to facilitate improved cropping systems
- Enhance productivity and profitability: agricultural extension, covering both technology transfers and market orientation, helps introduce crops and varieties that benefit best from prevailing water management conditions and helps achieve the best returns to farming, as a business would.
- Facilitate and support access to markets: catalyse the linkages of producers with input and service providers, but also with sources of information and markets in support of agricultural innovations.

A more comprehensive and efficient extension mix motivates farmers to improve production and water management:



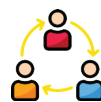
Demonstration trials and Farmer Field Schools (FFS), community-led agricultural water management (CAWM), targeting men and women



Co-financing by communities for improving small-scale water management infrastructure



Market orientation and linking farmers with input-suppliers and buyers



Horizontal learning, through successful farmers sharing their achievements with other farmers

Farmers in Amodkhali khal catchment of polder 2 in Satkhira now cultivate high yielding varieties of T-Aman after many years of leaving their land fallow, due to severe waterlogging. To fully benefit from the re-excavated main khal, farmers dug additional canals for better drainage, and thereby enhanced their yields and profits.



WAY FORWARD

Can this be applied elsewhere?

BGP and other PWM projects apply the existing legal, regulatory and institutional framework. Given the proven potential of participatory water management for enhancing development, the time has come to reassess the enabling framework for PWM. The experience of BGP suggests rethinking the following:



Participatory water management (infrastructural, institutional and agricultural development) must be initiated and supported. But where is the institutional capacity to do so at a nationwide scale?



Water Management Groups and Associations flourish when working closely with Local Government Institutions and line agencies. How can this partnership be extended to the whole country?



Water Management Groups and Associations develop small-scale infrastructure but also are stakeholders in main infrastructure. How can the planning of small- and large-scale infrastructure be optimised to complement each other?



New legislation establishes local and regional water resource committees. How can such bodies enhance the synergy between national, regional and local interest?

