



# Blue Gold Program

## Commercialisation of agriculture

Improved water management conditions driving reductions in poverty



## CONTEXT

The Blue Gold Program (BGP) works in the polders of Bangladesh. This coastal zone is disaster-prone, and highly vulnerable to environmental challenges, including floods, waterlogging, salinity, and drought.

Agriculture and fisheries production are the backbone of the polder economy, constituting 60-70% of household incomes.

Adverse climate and water conditions are at the root of low agricultural productivity and profitability, and have many households oscillating in and out of poverty.

## CHALLENGES TO AGRICULTURAL DEVELOPMENT

- Waterlogging during the rainy season, and lack of fresh water and increasing soil salinity during the dry

season constrain the cropping system potential.

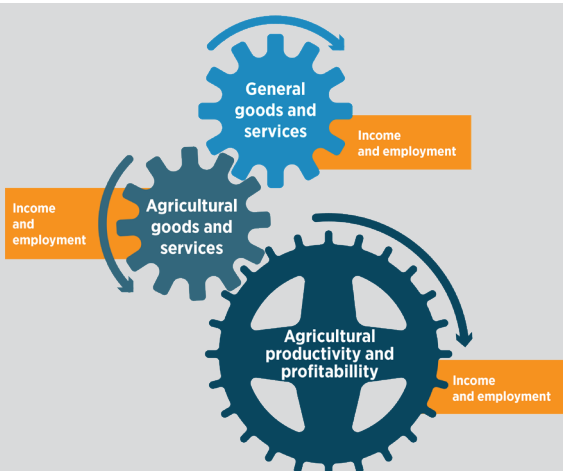
- Agriculture production is primarily subsistence-oriented. Farmer decision-making is characterised by risk-averse practices, limited market orientation, and underdeveloped market linkages.
- The market system, or supporting network of input and service providers, buyers and traders, is rudimentary and small-scale. Extension services are in short supply, and do not focus on market linkages.

**To truly benefit sustainably from the improved water management conditions, households need to upgrade their farming operations to viable businesses i.e. to commercialise. Extension can facilitate their access to new technologies, inputs, services, and markets. It can also increase the capacity of providers of inputs, services, and information, and catalyse traders and buyers to adapt to the farmers' increasing commercial ambitions.**

**Most farmers grow a single rice crop, using local varieties which can survive stagnant flooding, but have a low yield, and mature late.**

**This T-Aman crop is often followed by late-sown, low-input, and low-yielding sesame or mung bean. These face high risks of severe damage from pre-monsoon rains and cyclones.**

**Shorter duration T-Aman varieties, combined with improved water resource management, create the opportunity to subsequently grow mustard, followed by a high-yielding variety mung bean at lower overall risk.**



**Intensification of production increases the return on available assets, land, and labour. It leads to additional income and employment in both farming and non-farming sectors, and ultimately reduces poverty.**



## COMMERCIALISATION OF FARMING

To facilitate higher levels of productivity and profitability, Blue Gold interventions aimed to:

### Improve the extension content

- Integrate water management, technology transfer, and market-orientation messages.
- Demonstrate opportunities within the year-round cropping system.
- Stimulate farmers to perceive farming as a business.
- Expand market linkages required by the innovations.
- Consider the risks farmers take with higher investments.
- Target women in their role as farmers and decision-makers.

### Gain efficiencies as producer groups

- Make use of their collective bargaining power in market relations.
- Build the capacity of resource farmers to facilitate contact with others in the market system.

### Catalyse market systems adaptations

- Involve input and service providers, buyers and other actors to strengthen relations with farmers. This enhances trust and creates awareness of new requirements in terms of inputs, services, information and markets.
- Build the capacity of providers and buyers. This includes the recognition of collective actions as win-win strategies.
- Leverage local actors, farmer trainers and resource farmers, and Water Management Organisations (WMOs) as networks to address problems and constraints.

## OUTCOMES

### Enriched extension delivery

- A new extension curriculum takes a cropping system perspective, considers water management conditions, and includes market orientation topics.
- Cost-effective extension methods, based on demonstrations and horizontal learning, are often undertaken by lead farmers and private extension agents.
- Added impetus to extension sessions by the involvement of resource farmers, local entrepreneurs and farmer role models, and private sector companies.
- Increased outreach and accessibility of field officers by contacting groups through their resource farmers.

### Enhancement of farmer market orientation

- A growing number of farmers, men, and women considers farming as a business, and use simplified gross margins, weigh up risks, and involve their spouses in decision-making.
- Expanded networks for goods, services, and information broaden the farmers' production options.
- Increased farmer bargaining power through producer groups reduces costs, and increases revenues.
- Mobile phones, which allow virtual access to markets, enhanced market linkage opportunities for women farmers especially.

### Market systems development

- Positive and timely response by other market actors to new demands for goods, services and labour, resulting from alternative cropping systems.
- More accessible input and service providers, growing trade volumes and revenues by offering quality products and services.



- Reduced transaction costs to both parties, evolving from collective actions.
- Upgraded and new market linkages, of higher levels of mutual understanding and trust, constitute systemic changes. They make present innovations sustainable, and will facilitate future adaptations to changing conditions.

Blue Gold finds that once farmers are benefitting from increased productivity and profitability, they are more readily inclined to safeguard those gains by organising the operation and maintenance of their water infrastructures.

Blue Gold, in partnership with the Department of Agricultural Extension (DAE), undertook more than 1,200 Farmer Field Schools (FFS) and more than 700 demonstrations focussed on cropping, along with Farmer Field Days, Horizontal Learning events, and melas.

Through these, BGP reached 35,000 farming households directly, and affected another 50,000 indirectly.

Additionally, more than 1,200 farmer trainers, resource farmers, community animal health workers and input providers were trained, and 90,000 farmers participated in collective actions.

## POLDER ECONOMIC GROWTH IMPACT



Growth of agricultural production through increases in yields, cropping intensity, and diversification.



Along with farm production, incomes and labour requirements have increased. This then boosts trading volumes and service demand, resulting in more jobs and higher non-farm incomes.



Labour remuneration and land leases have increased with higher productivity.



In some areas, higher productivity and profitability were foregone by farmers opting for more equitable outcomes instead.



Cost benefit analyses show that overall returns to cropping system improvements justify large-scale infrastructure investments.

