21 The Evolving Approach to the Commercialization of Agriculture

Briefing Materials

The following materials illustrate concepts, interventions, outcomes and lessons learnt, including through stories from community members.

Slide decks

• Improving the productivity of land in coastal Bangladesh: outcomes of Blue Gold interventions 2013-2019
• Commercialisation of agriculture: improved water management conditions driving reductions in poverty (long)

Thematic brochures

• Commercialisation of agriculture: improved water management conditions driving reductions in poverty
• In-polder water management: maximising returns from agriculture and aquaculture

Case studies

• Community-led agricultural water management at Uttar Khekuani
• Improving supply chain efficiency for rice farmers: Anowar's story
• Commercialising watermelon farming
• Impact of water resource management at Amadkhali, Satkhira

Many of the terms used for rice crops and seasons are explained in this schematic representation

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Project documents: Expectations and approach at the start[edit | edit source]

The Blue Gold Program Document[edit | edit source]

The Program Document of the Blue Gold Program (BGP) considered that *'the entry point of Blue Gold is the participation of the rural communities to the extent that they take up the responsibilities, by organising themselves in primary societies (cooperatives), for stepping out of poverty*'. The core idea was that about 600 cooperatives[Notes 1] would be newly established as Water Management Groups (WMGs) in addition to strengthening 250 existing cooperatives / WMGs in the IPSWAM polders; each cooperative would have 250 members on average. The Program Document states: '*The cooperatives will become the drivers of change towards better life*'.

The Program Document expected that 'once the water resources management infrastructure is effectively rehabilitated, the producers can use this to increase their productivity and their production intensity'. Farmer Field Schools (FFSs) were assigned as the extension approach for farmers to be introduced to innovations in agricultural practice and 'Blue Gold will facilitate this process of information and train the FFS facilitators'.

Considering "Business Development" as a separate set of activities, the Program Document argued that '*for the cooperatives to be sustainable, it is important that these entities will be organised and operated as private sector entities*'. In addition, it is stated that '*Value chain analyses will be made of a number of selected crops and private sector linkages will be established for well-defined services.*' As a result, *"at least 200 cooperatives will operate as an effective enterprise*".

The relevant outputs and activities for the Productive Sector and Business Development from the logical framework (or 'logframe') of the Program Document, which also served as the logframe of the DPP with BWDB, are presented in Annex 21-1.

***Preliminary Discussion*:** A major point to note from the Program Document is the separation of principally related approaches over the three program components[Notes 2] of community mobilization, agricultural production and business development:

- The formation of Water Management Groups (WMGs) as cooperatives was assigned to the community mobilisation component. A broad-based needs identification was pursued, aimed at establishing community-based organisations with a broad membership and multiple functions or objectives.
- Agricultural innovation and technology transfer to the farming WMG members was assigned to the production component. Its primary vehicle, Farmer Field Schools, would be organised by the Department of Agricultural Extension.
- The Business Development component was envisaged to analyse eight different crop value chains, with as primary purpose, and thereby recognising the private sector, to define a role for the WMGs to generate income and therewith increase the sustainability of its other functions, in particular water management.

However, one could argue that the above three elements are part and parcel of a comprehensive value chain development approach, i.e. the identification of producer weaknesses and options, of constraints and opportunities in the value chain's market linkages, and the capacity building of any actor required to address these. Ultimately, this could include, but only if necessary, the formation of a producer cooperative.

The DPP with the Department of Agriculture Extension[edit | edit source]

The DPP (Development Project Proforma) of DAE focused on agricultural extension through the Farmer Field School (FFS) methodology, which was already being implemented by DAE with DANIDA support. The output, included in the revised DPP, was the implementation of 1,492 FFS to transfer modern production technologies for crops, the distribution of a variety of inputs (vegetable seeds, fertiliser, fruit saplings) in 380 (horticulture focused) demonstrations, the general training of DAE staff (75 Departmental Trainers and 150 Farmer Trainers (FTs)), and the financial support to farmer organisations (375 x 20.000 BDT).

The DPP noted that in the selected polders BWDB would organize Water Management Groups (WMGs); DAE would provide crop production technology to these WMGs through a group approach i.e. the FFS approach. The FFS approach had been tested and confirmed by DAE in Bangladesh to be a solid and practical mechanism through which new knowledge, practices and messages can be transferred to farming communities where the literacy rate is low. The FFS approach is successful because the sessions run over the course of an entire cropping cycle during which the participants are encouraged to implement new practices, resulting in overall high adoption rates.

The logframe of the DAE DPP of May 2013 is inserted in Annex 21-2. Note that it is not compatible with the logframe in the Blue Gold Program Document of August 2012 (refer to the partial extract from the Program Document logframe - for Outputs 3 and 4 - in Annex 21-1).

Preliminary Discussion: The DAE DPP sets a strict framework for the implementation of agricultural extension through the Farmer Field School methodology. Farmer groups, belonging to the WMGs, were seen as leaders or core actors of value chains. However, the approach to farmers and to WMGs were not aligned. Any linkages between agricultural practices and water management, as well as linkages between farmers and other market actors were beyond the content of the classic FFS.

Blue Gold's DAE contribution consisted of a small central office to organize the implementation of DAE's FFS. It was expected to work through the lines of the DAE structure, 'buying person-hours and services' in DAE's line operations. In support of implementation (only) the training of field staff was envisaged. Beyond this, there was limited attention to the involvement of the line in the process.

The Blue Gold Proposal[edit | edit source]

The Proposal took the line of the Program Document, making the divergence of responsibilities and approaches even more explicit. Food security and agricultural production stood apart from Business Development. No differentiation of farming households was envisaged in the pursuit of agricultural production. Increasing agricultural production was sought through FFS in a Food Security and Production component, leaving the market linkages to Value Chain and Markets for the Poor (M4P) approaches pursued by a Business Development component. In this way, both components pursued identical results in the logframe but through different outputs. The Food Security component focused its interventions on the producers and Business Development's focus was on the other value chain actors, mainly to carve an enterprise role for the WMGs.

The FFS focused on improving production. They would be implemented by DAE and envisaged to go beyond their traditional focus on rice. Instead of establishing farmer clubs they would work with WMG subgroups. Blue Gold would therein focus on cropping, leaving dairy and aquaculture value chains to CARE and SOLIDARIDAD in the SAFAL project. The outcomes of value chain analyses would serve the drafting of business plans and strengthening capacities. By suggesting Farm Business Groups and referring to the experience of the International Development Enterprise (iDE) with collection points, the expectations regarding the development of Cooperatives, eminent in the Program Document, were tempered.

The Blue Gold Inception Report[edit | edit source]

In the Inception Report the different approaches, as described in the Program Document and adhered to in the Proposal, were increasingly entrenched in the Project Organisation's Components. In short:

Community mobilisation followed the slightly adapted six step approach to develop Water Management Organisations. This approach originated from a set procedure developed in IPSWAM. The arrangements with the Department of Cooperatives were already under strain though. WMOs, at that time, were village-based and capacity development pursued a CBO (Community Business Organization) type platform.

The Food Security and Agricultural Production Component split the integrated IFMC[Notes 3] approach that was recently developed at that time. It thereby followed the FFS output targets defined in the DAE DPP and the TA budget. It divided responsibilities between DAE and the Technical Assistance (TA) team, allowing also for the involvement of the Department of Livestock Services (DLS) and the Department of Fisheries (DoF). DAE would implement 1000 FFS focused on crops only[Notes 4]. Initially only rice production was envisaged, but later other field crops were included as well. Blue Gold's TA would implement 200 + 200 FFS focused on livestock and aquaculture, to which later homestead gardening was added. Blue Gold's TA aimed at farmers with less than 50 decimals of land and considered poor. Both types of FFS followed DANIDA's standard curricula. Groups consisted of 25 participants and for the TA FFS a 50% target of female participation was set.

It was recognised that the commodity focus of the IFMC's FFS approach did not address all aspects of BGP objectives. It was thus foreseen that curricula would be reviewed to incorporate new elements or extra sessions to overcome this; and for the FFS to become a vehicle for market orientation and to strengthen the position of farmers in the value chain by the introduction of a new module. Simultaneously a first level of farmer differentiation was foreseen by distinguishing three FFS types, i.e. a first focused on Food Security (the homestead FFS by TA, see chapter 25), a second was Production Oriented (crop FFS by DAE) and a third was Market Oriented (MFS by TA).

The Business Development component noted that Blue Gold's area development concept was based on water resource management and aimed to benefit the heterogeneous population of its polders. Both points were found at odds with the traditional value chain approach with market demand as entry point and a more selective attitude to participating farmers. In addition, doubting the cooperative solution as proposed in the Program Document, an open mind was kept to the ideal form of producer organisation. It did not seek to crowd out the budding private sector by a focus on supporting Water Management Organizations (WMOs) to take up entrepreneurial roles and foresaw a slow, needs-based build-up of producer organisations. Finally, it set out to harmonise a value chain approach with the current main stance of providing extension, namely by FFS. The development of a Market Orientation cum collective action module for FFS was the responsibility of Business Development. The content was to be defined by Value Chain Analysis (VCA) wherein producers would take centre stage and opportunities and constraints across the value chain would be taken in

consideration, i.e. including other market actors.

Finally, the overall approach of Blue Gold was envisaged and presented as sequential: WMOs would be formed and infrastructure rehabilitated, production would be enhanced, and business development would follow upon the increased production.

In summary: a difficult starting point[edit | edit source]

The outcome of the above document analysis is that Blue Gold carried - from the start - potentially flawed concepts relevant to agricultural development. Flawed concepts which might prove difficult to resolve within divided responsibilities. In short, the key positions on critical aspects were:

On WMO development[edit | edit source]

The starting position to WMO development was that the process should follow the guidelines elaborated in IPSWAM. The process was not only very structured and detailed, it was also prescriptive in e.g. membership and leadership, and sought to be multi-functional. It was a foregone conclusion that WMO's should function as cooperatives, because they had to be registered as cooperatives and therefore were envisaged to undertake various business enterprises, with as primary objective to make their function in Operation and Maintenance (O&M) within water management sustainable. Leaving aside the difficulty of making the cooperatives function despite weak management capabilities, this would also mean that fees would be charged to all members to pay for the maintenance of water infrastructure. This however, would also benefit non-members, who tended to be larger landowners. So inherently, the WMOs have the risk of making the (generally more poor) members pay for services from which non-poor non-members would benefit as well. This, of course, would be quite contrary to the intended outcomes.

On pursuing Farmer Field Schools along Value Chain Development (VCD)[edit | edit source]

Similarly, the FFS approach was set to be the methodology to enhance agricultural production and naturally focused on the agricultural producers. Said to be a tried and tested method over many years, and requiring minimal adaptation, it solidified an obstinate application amongst the practitioners. Meanwhile, these same producers should be part and parcel, if not at the core, of another set methodology, namely Value Chain Development. The result thereof was that VCA-defined interventions involving producers had to be grafted on FFS, while activities with other actors, such as input traders or buyers, required a separate program of interventions. This supposedly included also the association of those same producers in the WMOs, as their cooperatives had to take a central role in the value chains. This was further complicated and solidified by the fact that different project partners, DAE and Blue Gold TA team, were respectively responsible for the attention to producers versus other actors in the market system.

On Value Chain Development's suitability for territorial development[edit | edit source]

In addition, VCD itself appeared a somewhat ill-fitting predetermined methodology. Value chains generally have end-markets in mind as entry point for specific produce. They thereby primarily focus on particular farmers in a high potential area to produce to the high requirements of this market demand and to supply this as efficiently as possible through the value chain. Meanwhile, the entry point of Blue Gold was the broad increase of production and productivity based upon improved water management, which is defined by a territorial approach, namely hydrological units. Along

comes the responsibility to consider the total, or nearly total, polder population and not to become involved in cherry-picking amongst farmers. With this came the understanding that polder households are not homogeneous, not in their livelihood strategies, and also not in their endowments or assets to farm. A differentiated strategy to the heterogeneity of the households should have been part from the start. In addition, with a substantial segment of the polder inhabitants being extreme poor, in a majority of poor, an approach more tilted towards a Markets For the Poor (M4P) approach than towards VCD would appear more appropriate.

Lines of change during implementation – an evolving approach[edit | edit source]

Starting off on the above basis, implementation provided progressive insights. These are discussed below and simultaneously cover evolving lines of change and approaches.

The Water Management Group: no longer a Cooperative[edit | edit source]

As discussed in chapter 19, in the course of the Project, the approach to water management groups changed in several ways:

- The legal basis of the WMGs changed from registration as a cooperative, to registration as a water management group under the BWDB
- The focus of the BGP TA team's support to WMGs shifted from supporting compliance to the legal requirements to support to their functionality.

These changes made it possible to focus agricultural commercialisation on smaller groups, and helped promote optimisation of water management conditions for commercial crops.

Linking Value Chain Development and Farmer Field Schools to commercialise agriculture[edit | edit source]

The Program Document strongly established the FFS methodology as the approach to pursue production improvements. DAE had long standing experience with FFS through DANIDA projects. A short history of FFS in Bangladesh is presented below[1] in box 21.1:

Box 21.1 A short history of FFS in Bangladesh

> The FFS approach was initially developed in Indonesia to educate farmers on Integrated Pest Management (IPM). Also, the first FFSs in Bangladesh (in the mid-1990s) by the Department of Agricultural Extension (DAE) were focusing on Integrated Pest Management with the main objective of reducing pesticide misuse. The 14 weekly IPM FFS sessions were spread out over an entire (rice) cropping season.
> Gradually the FFS curriculum shifted to Integrated Crop Management (ICM) with a more holistic view on growing healthy crops, for example by including learning about seed health, soils and fertilizer management. While most FFS were conducted in rice, also some other field crops were gradually included. Another change that took place was that the earlier IPM FFSs had 25 (mainly male) participants while the ICM FFSs included 50 participants of 25 households (1 male and 1 female from each household). These FFS had 20 weekly sessions, usually 11 for crop related topics (male participants), 4 for topics that are of interest to women (homestead gardens, nutrition), and 5 sessions with all 50 participants together to develop a farmers club to sustain FFS activities in the following seasons. In the meantime, the FFS approach was also introduced with assistance from DANIDA in the fisheries and livestock sectors where new training modules were developed for aquaculture, big and small ruminants and poultry. Through collaboration between the two DANIDA-funded projects (AEC and RFLDC, 2007-2013), ideas started to develop to bring the crops, livestock and aquaculture together in one modular FFS curriculum for Integrated Farm Management (IFM). The projects initiated pilot FFSs to test and develop this IFM approach, which from mid-2013 onwards will be used by DAE in the new DANIDA funded Integrated Farm Management Component (IFMC). The IFM FFS consist of 52 sessions divided into different modules (e.g. rice, poultry, small ruminant, large ruminant, fish, nutrition, homestead garden) and works with 25 male and 25 female participants (same household). Many of these FFS will eventually form a Farmers Club.

As per its DPP, DAE kicked-off with a season-long (seed to harvest) FFS program for groups of 50 participants from 25 household. The locations were selected independently from water management considerations. A small number of FFS were outside the BGP polders. The program primarily focused on rice production and used the standard DAE curriculum of an Integrated Crop Management (ICM) approach. While based on learning from experience (experiential learning) through a participatory learning process the trials focused primarily on technology transfers ranging from land preparation and variety selection to fertiliser and pest management practices. When testing new ideas in field observations, data collection focused on yield comparisons. It lacked the essential financial information to analyse profitability along productivity and to make well-informed farm management decisions. The standard curriculum gave no attention to a farmer’s market orientation or the producer’s market linkages. DAE FFS implementation came to a halt at some stage following administrative disagreements with EKN.

In the Agricultural Growth and Employment Program (AGEP), implemented in parallel to Blue Gold, DAE and DANIDA pursued the Integrated Farm Management Component (IFMC) wherein they ran a Farm Business School (FBS) alongside a more traditional FFS program. The latter implemented the comprehensive IFM approach, while the Farm Business School approach focused on identifying and implementing business and marketing ideas with mature Farmer Clubs or Farmer Organisations established in previous FFS programs. Farm Business Schools consisted of 20 sessions primarily focusing on value adding and collective marketing. The approach proofed to be very demanding in terms of business planning and was subsequently abandoned and replaced with a more down to earth approach involving Business Focal Persons (BFP). The latter was still pursued parallel to IFMC

FFS.

Blue Gold TA staff worked closely with IFMC on the Farmer Business School approach. IFMC's Program Document also suggested FBS as an option to pursue the Business Planning of WMOs as Cooperatives. As the registration of WMGs as cooperatives was abandoned in 2014, the focus was on FFS members and Blue Gold pursued the idea of integrating or grafting additional (part)-sessions in FFS and/or adding a Business Development module. The sole participants of FFS being producers, the attention was on business ideas or collective actions by farmers and not on strengthening the capacities of other actors in the value chain.

The crops or produce to which this was to be applied still needed to be defined. This was the outcome of a Value Chain Selection process supported by extensive polder information gathering. From a wide range of crops and produce a selection was made of a few *rabi* crops which stood to benefit easily from improved water management, such as mung, watermelon etc. The criteria were not set to define high value crops for specific end-markets but towards creating the most social and economic value from improved water management conditions. Still focused on the aim to embed producer groups within WMGs and an income generating objective, poultry and pond aquaculture were added to maintain contact with the group throughout the year and to be more gender-inclusive.

The next step was the undertaking of Value Chain Analyses for these products (such as mustard, tilapia, local poultry and mung bean). This identified constraints and opportunities across the value chain, covering producers as well as other actors and moving beyond cultivation practices to market participation. The findings were translated into interventions upon feasibility assessment and finally included in a Value Chain Development program addressing the capacity strengthening of multiple actors, in particular crops like sesame, mung and short duration rice.

What remained was linking up with the FFS approach and implementation. Due to the specific design of Blue Gold, the implementation of the VCD program required a rather complex arrangement. The interventions related to the producers were supposed to be implemented through the FFS approach and by DAE. For this purpose, producer-focused interventions were grafted into an FFS curriculum on which DAE field staff were trained along with broader Value Chain concepts. Interventions relating to other value chain actors remained the responsibility of the Technical Assistance team and were implemented through Blue Gold's polder teams, for which they were similarly trained.

For the selected produce, sesame, mung bean, tilapia and poultry, FFS-curricula were drafted fully integrating technology transfer and market orientation aspects. The field trials were devised to demonstrate the agricultural potential if good water management practices were applied. In addition, when demonstrating new varieties, inputs or practices, also the access to those was facilitated along with the opportunity to organise this collectively through a resource farmer. Throughout the sessions, the profitability of innovative practices was put central, and the farmers' decision-making ability strengthened. These fundamentally different curricula were referred to as MFS, or Market Oriented Farmer Field Schools.

As DAE had not restarted its participation in Blue Gold and under pressure from the 2015 Annual Review Mission to start field activities, Blue Gold TA commenced an MFS program. Relating to DANIDA experience this program would work for three years with a same producer group to allow them to mature as a business group. The program started the first year with Mung Bean/Tilapia in Patuakhali and with Sesame/Poultry in Khulna. Each zone started with up 40 producer groups -each with 25 participants - linked to existing WMGs. In the second year another 40 producer groups were started in each zone. The first groups went into their second year with a curriculum reducing the

weight of technology transfer and increasing the attention to farmer entrepreneurship and collective actions.

At this time, it became clear that some of the constraints to the *rabi* crops could only be overcome by adaptations in the T Aman crop, for example, the need for shorter duration varieties to allow an earlier start of the Rabi crop. Therefore, the MFS program converted from a single crop seasonal focus to a year-round cropping system program. Central to this was the improvement of the productivity and profitability of a cropping system under improved water management conditions. Half-way the second MFS year a rice MFS was implemented. It stripped most of the standard rice FFS technology transfer water management practices to enable a more secure start to the *rabi* crops. In some places this allowed for further diversification of *rabi* crops e.g. maize, sunflower and wheat or of further intensification e.g. the introduction of mustard as a third crop. It was the moment that the importance of the local variance in water management conditions was appreciated. In 2016, at the end of the second MFS year, half-way into the first cropping system approach, FFS implementation through DAE was set to commence again. In parallel also CAWM[Notes 5] activities had been started up with DAE implementing FFS along similar lines, see the CAWM FFS module (Bangla). The MFS program through the Blue Gold TA was discontinued in order to be grafted onto the DAE FFS as originally intended. The DAE field staff were trained on the tested MFS cropping system curriculum. However, implementation along these lines remained a challenge. Besides Market Orientation understanding, it assumed a moving away from facilitating a farmer's operation on the basis of a set curriculum, to facilitating a group more flexibly on the basis of an enhanced understanding of local physical variations and production constraints and opportunities. The combined DAE FFS and CAWM interventions, along with a market system development program, that included capacity development of backward-forward actors, formed the basis of Blue Gold's commercialising agriculture.

Differentiating Households: Maintaining a focus on the poor and reducing poverty[edit | edit source]

The cropping system interventions related to water management improvements led to a natural bias of interventions towards households with access to land. Understandably possessing such assets, they were often somewhat better off than many others in the polders but nonetheless poor as found in the Household Survey[2]. It was felt that Blue Gold should focus on the poorest even more. Meanwhile also the ARM called upon BGP 'not to lose the poverty focus' and to attend to the landless.

While the heterogeneity of the households in the polders was noted during Inception, it became better understood through applying the rural transformation framework. Around 2015 UNCTAD, DFID and IOB published strategy papers on rural transformation[3][4][5]. In essence, these papers recognise the heterogeneity of rural households and the need to diversify strategies to lift them out of poverty accordingly. At the core is the categorisation of rural households by Dorward, in households (i) 'stepping-up' (improving farm production), or (ii) 'stepping-out' (i.e. stopping subsistence farming), alongside those (iii) 'hanging-in'[6].

For Blue Gold's purposes we recognised that when addressing the water resource management constraints on agricultural development, not all households equally benefit from project interventions beyond the safety offered by embankments. Households have different assets, physical and otherwise, determining the extent they can participate in agricultural production innovations and take advantage of water resource management improvements. Based on the rural transformation framework, we recognised three, not necessarily sharply defined, categories:

- A first category, numbering probably slightly over half of the households, have access to land either through ownership and/or leasing and possessing some other assets (household labour, skills, finance, etc). They are intent on farming as their livelihood strategy but often complement it with some non-farm labour income. Only few of them are really food secure but generally they are poor or oscillate in and out of poverty as most of the polder inhabitants. This group stand to benefit from improved water resource management. It gives them the opportunity to make their farming more 'commercial', to become more market-oriented instead of subsistence focused.
- A second category, estimated at some 25-35% of the households, but varying across polders, lacks access to land in any form and has few other means or skills. They generally are the poorest in the polders and food insecure. Not involved in cropping agriculture, they do not really stand to benefit from water resource management besides through the safety of the embankments and indirectly from increased demand for wage labour, as for many of them such wage labour is a main income source. Roughly the upper half of this group (i.e. 15% of the total population) nevertheless have a homestead plot, possibly some livestock or a small pond, and the minimum labour available in the household of sufficient health to benefit from homestead production interventions.
- A third category, partly overlapping with the two other categories, make use of their labour and skills, and have other means or assets to be actively involved in other activities and sectors. This category includes government service holders, private sector employees, craftsmen, local entrepreneurs, etc. They have opted out of agriculture, even if they own land, and see their future elsewhere basing their livelihood strategy on the labour and skills in the household.

While these categories cannot easily be defined unambiguously and households move from category to category, Blue Gold stood to gain efficiency and effectiveness in its interventions by taking notice of their different requirements. Having the agricultural expertise, linked to water resource management, available to address the first category, this same expertise is able to achieve a measure of inclusiveness by addressing the food security needs of many in the second category. Blue Gold differentiated its approach and targeting of households accordingly, resulting in a dual strategy. The first strategy aimed at commercialisation and is the subject of the remainder of this chapter, and the second strategy aimed at food security on the basis of homestead production described in chapter 25 of Section F. Both strategies are based upon the FFS approach and both include market orientation, be it at a more basic level in the homestead FFS. Another distinction is that the homestead FFS relate to short local value chains, whereas the crop FFS relate to long regional or national value chains.

Blue Gold also envisaged a differentiated contribution to the reduction of poverty by both strategies. Through improving homestead production immediate contributions to consumption and nutrition deficiencies in the households could be made, also increasing their resilience. In addition, the increased procurement of inputs, and more regular selling of surpluses and spending of the resulting income, contribute to local economic activities, in turn generating income and employment, though this is relatively limited in terms of the added value of production increase, as compared to the larger direct and indirect contribution to poverty reduction through the commercialisation of agriculture. An increase in agricultural productivity and profitability in the polders - from field crops and homesteads production together - generates more income and employment in farming, but also in the broader agricultural and economic sectors as depicted in Figure 21.1.

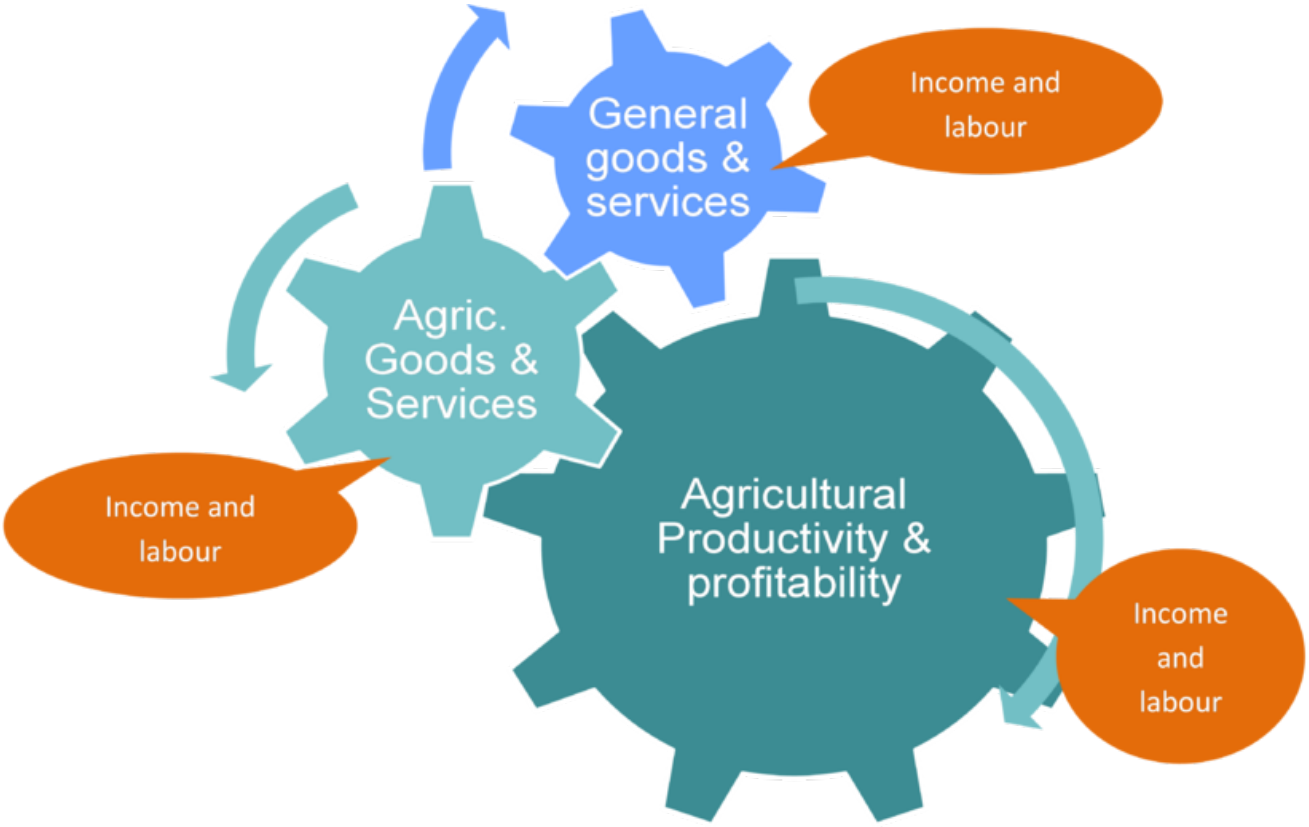

Figure 21.1 Core Growth of Rural Economy

A more in-depth exposé of 'commercial or market-oriented agricultural development as key driver to reduce poverty' is provided by both the UNCTAD and the World Bank[5][7], see box 21.2.

Box 21.2 Commercial or market-oriented agricultural development as key driver to reduce poverty

"***The main route out of [rural] poverty is through some combination of market-oriented smallholder farming, non-farm activities and emigration from rural areas,***" says the UN Conference on Trade and Development in its *Least Developed Countries Report*[5].
The report warns that despite urban migration, many sub-Saharan African countries still have a predominant rural population, which in fact will most likely increase instead of decrease by 2030! Despite efforts from donor communities and regional and central governments to modernize rural economies, several (11) of the least developed countries in the world have seen their agricultural labour productivity declining since the 1990s. But the issue is not just rural, because "agricultural growth, rather than overall economic growth, has been found to be the primary driver of poverty reduction at the national level." The first step is raising the productivity of commercial smallholders - largely family farmers who grow mainly for the market, or have the potential to do so. This requires higher-yielding varieties, fertiliser, irrigation, and machinery - which can be small machinery such as small pumps and two-wheel tractors. At the same time, rural non-farm business activity should be encouraged, usually linked to commercial farming - input sales, crop processing, equipment rental and repair, construction of roads and irrigation systems. Not only do non-farm businesses create more jobs, but "in African least developed countries in particular, rural non-farm income is usually the main source of cash for agricultural investment.

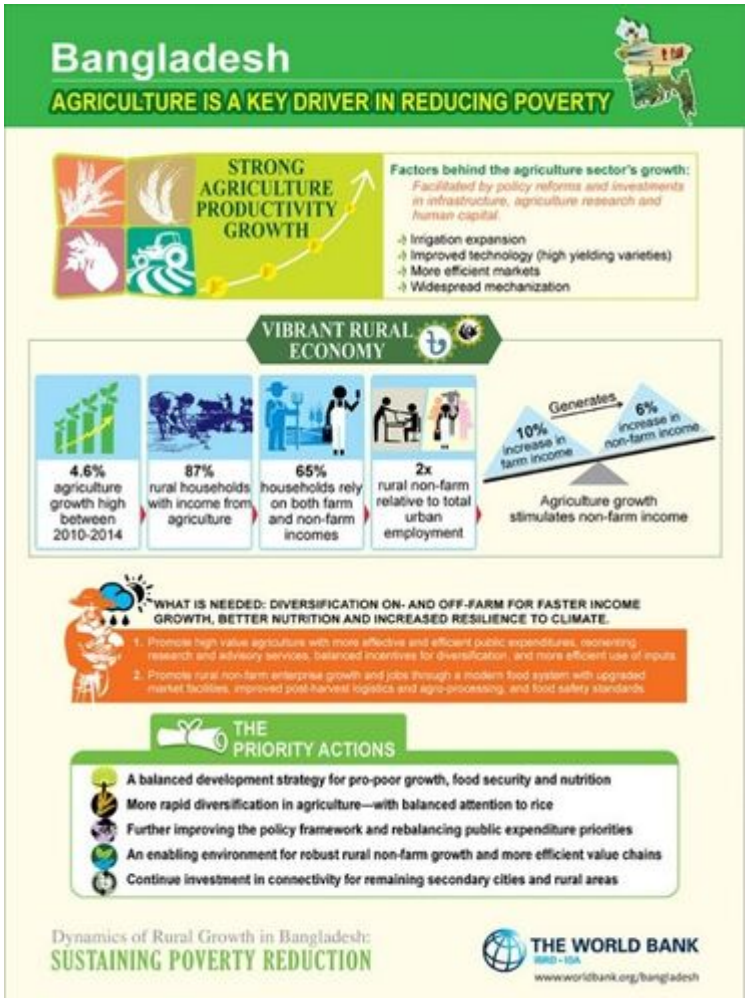

Figure 21.2 Infographic from World Bank Dynamics of Rural Growth in Bangladesh Report

The World Bank's *Dynamics of rural growth and poverty reduction report* of 2016 focused specifically on Bangladesh. It concluded that agricultural growth stimulates non-farm income, *more specifically a 10% growth in farm income generates along a 6% increase in non-farm income*, making agriculture a key driver in reducing rural poverty, see also Figure 21.2. Blue Gold's Working Paper 7 further elaborates how agriculture contributes to income, jobs and ultimately to poverty reduction.

Enhancing agricultural production along the FFS approach and the related business development through Value Chain Development, can best be integrated as both producers and other market actors need to adapt to changing conditions in production, and therefore to changing demand for inputs and changing supply of produce. Agricultural Development and Water Resource Management thereby go hand in hand, as improved WRM is a pre-requisite for agricultural development. At the same time, the Agricultural Development interventions can (i) motivate the need for improved WRM, and (ii) optimize the operationalization of WRM. Therefore the link between WRM and agricultural production must be institutionalised in agricultural extension.

Annexes[edit | edit source]

- Annex 21.1: Logframe Program Document (Productive Sector and Business Development)
- Annex 21.2: Logframe in DPP of DAE

Notes[edit | edit source]

1. ↑ At the time the Project Document was developed, Water Management Groups were registered as cooperatives under the Department of Cooperatives. Since the Participatory Water Management Rules of 2014, WMGs were registered in their own right under the Bangladesh Water Management Board (BWDB)
2. ↑ The Program Document also distinguished a fourth component of Integrated Water Resources Management and a fifth of cross-cutting issues.
3. ↑ IFMC refers to the Integrated Farm Management Component, a DANIDA funded program supporting DAE to develop and implement FFS.
4. ↑ However, in DAE's approach teams of husbands and wives are selected to participate, with the husbands following the field crop modules and the wives homestead production and nutrition modules.
5. ↑ Community-led Agricultural Water Management (CAWM) interventions combined short duration Rice crop followed by exploring additional crop where possible, in a cropping year, linking with water management at community level with a view to encourage farmers at sub-catchment level more in water management for additional production and income.

References[edit | edit source]

1. ↑ "Paragraph 3.3.3". *Blue Gold Program Inception Report* (PDF) (Revised March 2014 ed.). Embassy of the Kingdom of the Netherlands, Bangladesh Water Development Board, Department of Agricultural Extension. November 2013.
2. ↑ *Blue Gold Program: Household Survey Report* (PDF). Technical Report No. 6. Euroconsult Mott MacDonald, Bangladesh Water Development Board (BWDB), and Department of Agricultural Extension (DAE). March 2014.
3. ↑ *DFID's Conceptual Framework on Agriculture* (PDF). Department for International Development, Govt. of United Kingdom. November 2015.
4. ↑ *Household survey baseline report – impact evaluation food security program Bangladesh*. IOB. 2015.
5. ↑ [5.0] [5.1] [5.2] *The Least Developed Countries Report, Transforming rural economies*. UNCTAD. 2015.
6. ↑ Dorward, Andrew; Anderson, Simon; Bernal, Yolanda Nava; et al. (2009). "Hanging in, stepping up and stepping out: livelihood aspirations and strategies of the poor". *Development in Practice*. **19** (2). doi:10.1080/09614520802689535.
7. ↑ Faruqee, Rashid; Gautam, Madhur (2016). *Dynamics of Rural Growth in Bangladesh : Sustaining Poverty Reduction*. World Bank.

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Section E: Agricultural Development

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A defined set of temporary activities through which facilitators seek to effect change

Blue Gold Program

A process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them.

Water Management Group - The basic organizational unit in Blue Gold representing local stakeholders from a hydrological or social unit (para/village). Through Blue Gold, 511 WMGs have been formed and registered. The average WMG covers an area of around 230 ha has 365 households or a population of just over 1,500.

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Integrated Planning for Sustainable Water Management

Farmer Field School - A group-based learning process through which farmers carry out experiential learning activities that help them to understand the ecology of their fields, based on simple experiments, regular field observations and group analysis. The knowledge gained from these activities enables participants to make their own locally specific decisions about crop management practices. This approach represents a radical departure from earlier agricultural extension programmes, in which farmers were expected to adopt generalized recommendations that are formulated by specialists from outside the community.

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Development Project Proforma: a formal document which sets out the intention of a GoB organisation to invest in a development project, seeking approval for the investment and, if

successful, a budget allocation. The DPP follows a prescribed format, including the project's financial and physical scope, benefits, and proposals for monitoring and internal and external audits. The approval of a development project proposal follows a number of stages: formation with preliminary studies, formulation to develop greater detail and with additional information to make the economic case for the project, scrutiny by the executing agencies and concerned ministries, appraisal by the Planning Commission, recommendation for approval by Project Evaluation Committee (PEC), Minister/ECNEC approval, and inclusion of a budgetary allocation in the Annual Development Plan (ADP).

Bangladesh Water Development Board, government agency which is responsible for surface water and groundwater management in Bangladesh, and lead implementing agency for the Blue Gold Program

Community mobilization is a process that brings together different societal factions to undertake development activities. Within BGP this especially refers to organizing the community members into Water Management Groups

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human intervention in the capture, conveyance, utilisation and drainage of surface and/or ground water in a certain area: a process of social interaction between stakeholders around the issue of water control.

Value chain - the set of activities that need to be performed in a specific production sector in order to deliver the end product to the consumer. Agricultural value chains typically include input supply, growing/production, processing and marketing/distribution.

Also known as 'business linkages'. Linkages refer to the trading relationships between and among producers, input providers and traders, and other enterprises in a supply chain or value chain. We refer to Backward linkages on the input side and Forward linkages on the output side of the producer.

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Department of Agricultural Extension, a department of the Ministry of Agriculture responsible for disseminating scientific research and new knowledge on agricultural practices through communication and learning activities for farmers in agriculture, agricultural marketing, nutrition and business studies.

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Danish International Development Agency

Farmer Trainer - Well-performing and capable farmers, previously trained in Farmer Field Schools, who became FFS facilitator themselves after ToT training

Farmer Trainer - Well-performing and capable farmers, previously trained in Farmer Field Schools, who became FFS facilitator themselves after ToT training

Bangladesh Taka

Value chain - the set of activities that need to be performed in a specific production sector in order to deliver the end product to the consumer. Agricultural value chains typically include input supply, growing/production, processing and marketing/distribution.

An approach in six steps to develop Water Management Groups developed by the previous IPSWAM project

Water Management Organizations - The common name of organizations of the local stakeholders of a water resource project/sub-project/scheme. The concept WMO typically refers to WMGs and WMAs (and/or WMFs) together

Integrated Farm Management Component (DANIDA-funded program)

Technical Assistance

Department of Livestock Services, a government department under the Ministry of Fisheries and Livestock responsible for the livestock industry in Bangladesh

Department of Fisheries, a government department under the Ministry of Fisheries and Livestock responsible for regulating the fisheries industry in Bangladesh

Within BGP this refers to enhancing insights of especially FFS participants in how markets work, how to collect market information, facilitating linkages with market actors and increasing negotiation capacities

Market-oriented Farmer Field School - Farmer Field Schools dealing with cash crops or other commercial production, such as aquaculture, integrating market orientation. Specific MFS were conducted in the first years of BGP; later all FFS included market orientation.

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Collective action - by a producer group is one way to partially overcome constraints such as in weak markets, where inputs and services essential to production innovations, are generally scarce, costly to access and/or to obtain. Collective action is working in group instead of individually in order to gain economic or social benefit. Through collective action, farmers can address constraints in their market linkages, organise their activities jointly and use their collective bargaining power to reduce input costs through bulk purchase, or to obtain services from buyers such as farm-level collection of produce

Value Chain Analysis

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Operation and Maintenance

actions taken to prevent or repair the deterioration of water management infrastructure and to keep the physical components of a water management system in such a state that they can serve their intended function.

Value Chain Development

An area of low-lying land surrounded by an earthen embankment to prevent flooding by river or seawater, with associated structures which are provided to either drain excess rainwater within the polder or to admit freshwater to be stored in a khal for subsequent use for irrigation.

The strategies that people employ in order to utilize and transfer assets to produce income today and deal with problems tomorrow. These strategies change and adapt in response to various shocks, external influences, institutional norms and rules, and other factors.

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stakeholders from a hydrological or social unit (para/village). Through Blue Gold, 511 WMGs have been formed and registered. The average WMG covers an area of around 230 ha has 365 households or a population of just over 1,500.

Integrated Pest Management

Integrated Crop Management

Embassy of the Kingdom of the Netherlands, the contractual representative of the Minister of Foreign Trade and Development Cooperation of the Netherlands and signatory to the agreement for the Blue Gold Program with the External Resources Division of the Ministry of Finance as the signatory for the Government of Bangladesh

Agricultural Growth and Employment Program

Collective action - by a producer group is one way to partially overcome constraints such as in weak markets, where inputs and services essential to production innovations, are generally scarce, costly to access and/or to obtain. Collective action is working in group instead of individually in order to gain economic or social benefit. Through collective action, farmers can address constraints in their market linkages, organise their activities jointly and use their collective bargaining power to reduce input costs through bulk purchase, or to obtain services from buyers such as farm-level collection of produce

The dry season (typically mid-October to mid-March) with low or minimal rainfall, high evapotranspiration rates, low temperatures and clear skies with bright sunshine. Crops grown are boro, pulses, sunflower, sesame and mungbean.

transplanted aman; a rice crop, with nurseries for seedlings started in June/July, for transplanting in July/August in areas liable to a maximum flood depth of about 50cm. Harvested in November/December. Local varieties are sensitive to daylength whereas modern varieties are insensitive or only slightly sensitive.

Community-led Agricultural Water Management - with DAE, Blue Gold established a network of schemes for demonstration purposes where locally-applicable annual cropping patterns are introduced along with water level control facilitated by small-scale water infrastructure, and the development of value chain skills in farmers

the adjustment of gates in water management infrastructure to control hydraulic conditions (water levels and discharges) in a water management system.

Annual Review Mission, the broad objective of which was to secure and where possible further enhance the relevance, efficiency, effectiveness and sustainability of the project. ARM members were individuals who were appointed by, and reported directly to, EKN and BWDB/DAE

assumed in this report to operate up to 0.5 acres (0.2 ha)

A process of change in rural areas strengthening the local economies

The Policy and Operations Evaluation Department (IOB) is the independent evaluation service of the Ministry of Foreign Affairs of the Netherlands which researches and prepares reports on the outcomes of Dutch foreign policy for reasons of accountability and so that the findings can be used in adjusting future policymaking

Any formal or informal structure (not necessarily a physical place) in which buyers and sellers exchange goods, labour, or services for cash or other goods. The word 'market' can simply mean the place in which goods or services are exchanged. Essentially, markets are defined by forces of supply and demand, rather than geographical location

contiguous area of land operated as a single unit by a farmer - average area of 27 decimals (0.11 ha), with a normal range between 10 and 70 decimals (0.04 to 0.28 ha)

The inclusion of the (interests of) different types of people and treating them fairly and equally, considering their different roles and interests in water management

Increase in the capacity of a country or an economic region to produce goods and services. It also refers to the increase in market value of the goods and services produced by an economy. It is usually calculated using inflation adjusted figures, in order to discount the effect of inflation on the price of the goods and services produced

Water Resource Management

A process by which the local stakeholders are directly and actively involved in identification, planning, design, implementation, operation & maintenance and evaluation of a water management project.

Integrated Water Resources Management - Internationally-accepted approach for efficient, equitable and sustainable development and management of water resources especially applicable where there are multiple stakeholder interests with conflicting demands.

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Part of the catchment which is not directly connected to the regulator, and is hydrologically independent from other parts of the catchment.

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Blue Gold Program Wiki

The wiki version of the Lessons Learnt Report of the Blue Gold program, documents the experiences of a technical assistance (TA) team working in a development project implemented by the Bangladesh Water Development Board (BWDB) and the Department of Agricultural Extension (DAE) over an eight+ year period from March 2013 to December 2021. The wiki lessons learnt report (LLR) is intended to complement the BWDB and DAE project completion reports (PCRs), with the aim of recording lessons learnt for use in the design and implementation of future interventions in the coastal zone.