Bangladesh Water Development Board (BWDB)

Embassy of the Kingdom of the Netherlands (EKN)
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Department of Agricultural Extension
(DAE)



Working Paper 7

Polder Economic Growth and Business Development in Blue Gold

August 2016

BETS

Socioconsult Ltd.
for sustainable development

FEMCONSULT
Mott MacDonald

Working paper 7

Polder Economic Growth and Business Development

August 2016

Blue Gold Program

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Issue and revision record

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Working Papers *are intended to explore the issues surrounding a particular aspect of the project (eg gender, BGP exit strategy, polder development planning, roles and functions of WMO organisations, water management, communications) in a form which allows discussion and comment within the project whilst remaining as a working draft - but with the eventual aim of issuing as a Technical or Thematic Report when the process of internal interrogation and refinement has resulted in a product which has wider application. A WP is not intended to be an action plan or progress report, but a discussion of issues and processes and the reasons behind what we are doing in the project*

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List of Abbreviations

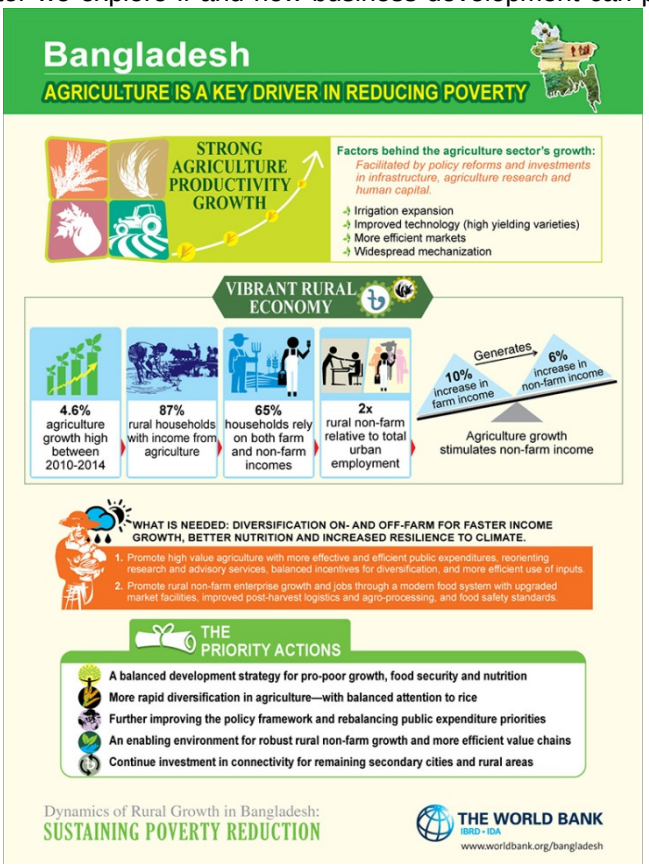
BWDB	Bangladesh Water Development Board
CWM	Community Water Management
DAE	Department of Agricultural Extension
FFS	Farmer Field School
GDP	Gross Domestic Product
HH	*Household*
ICT	Information & Communication Technology
IGA	Income Generating Activity
IOB	Inspection of Development Cooperation and Policy Evaluation (of the Netherlands)
LCS	Labour Contracting Society
MAM	Management of Agriculture Machinery
MEAS	Modernising Extension and Advisory Support
M4P	Markets for the Poor
MFS	Market Oriented Farmer Field School
NAEP	National Agricultural Extension Policy
NFI	Non-farm income
NGO	Non-Governmental Organisation
O&M	Operating and Maintenance
PF	Producer Group Facilitator
SAAO	Sub-assistant agricultural officer
S&C	Savings and Credit
SWAIWRPMP	Southwest Area Integrated Water Resources Planning and Management Project
TA	Technical Assistance
ToR	Terms of Reference
VCA	Value Chain Analysis
VCD	Value Chain Development
WMA	Water Management Association
WMG	Water Management Group
WMO	Water Management Organisation
WRM	Water Resource Management

Executive Summary

This working paper follows from a discussion paper circulated late 2015 - early 2016 and a presentation drafted for the Blue Gold Retreat in February 2016. It is not an attempt to describe a comprehensive approach to what commonly is referred to as business development in Blue Gold. Instead, the aim is to provide for some issues clarifications on 'why we do what we do'. It thereby focuses on then current questions in the team such as 'how does agriculture contribute to income, jobs and ultimately poverty reduction ?', 'which businesses are then developed?', 'can businesses support WMO cohesion?' and 'how does this a value chain approach contribute'?

While the unit was then generally called the 'Business Development Component' it's basic approach, as defined by Blue Gold's ToR, is supposed to be 'value chain development'. Fundamental to this approach is that it 'facilitates' and seeks market development. It places the focus on the existing market actors in agricultural value chains and tries to bring systemic change, thereby inherently seeking to be sustainable from the start.

In Chapter One we clarify that we apply Value Chain Development (VCD), through the analysis of constraints and opportunities followed by the identification of specific interventions, to make the most of the improving water infrastructure and commensurate water resource management. By improving agricultural productivity and profitability we aim to contribute to the transformation of the polder economies to reduce poverty in a structural way. In a second chapter we explore if and how business development can play a role in the sustainability of water management organisations, and more particularly to fund the maintenance costs of water infrastructure. In a third and final chapter, we describe our evolving value chain development approach in more detail and expand on some particular features relevant to our interventions in the broader Blue Gold programme. The chapters can be read on their own.



As some early commenters expressed doubts about general economic deductions, series of foot notes were inserted to substantiate statements and to encourage further reading. In that regard the World Bank report on the Dynamics of rural growth poverty reduction in Bangladesh, published the time of editing, is a must even if one just remembers the conclusion 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.

1. Pursuing Polder Economic Growth

1.1 Background

Blue Gold aims at the development of specific geographical areas, namely polders. These territories are characterised by a complex relation between the water from rivers and sea and their primary economic agricultural sectors[1]. That relation and climatic conditions make the area and its economy prone to risks. Greater protection from those risks, and any resulting losses[2], logically would stimulate investments[3] bringing along higher incomes and employment opportunities[4] and ultimately would encompass economic growth.

Given such a risk prone area, it should be no surprise that the majority of the population in these polders is poor. Nearly 76% of households (HH) is living below the international poverty line of $1.25 per day per member[5]. In Polder 22, 21.4% of households always had a food deficit while 33.7% sometimes had a food deficit, with 30.2% balancing their food requirements and only 14.7% reporting to have a surplus. One can debate the figures across a range of existing poverty surveys but the uniform conclusion of these are that these polders, and thereby the majority of their population, are poor. It worth nothing for targeting on the poor.

1.2 The polder economy

The main economic sectors in the polders, and thus the basis of the livelihoods, are:

- Agricultural Production consisting of Crop systems generally including rice and some other crops in the Kharif I and Robi seasons, complemented by,
- Fisheries (shrimps, white fish) in ponds and larger water bodies, and to a lesser extent Horticulture and Livestock around homesteads.
- Retail trade (mostly agriculture/livestock/fishery related and construction supplies , but also of general nature including consumables, health products, imported fruits and snacks …)
- Services (transport, repair services, rice & oilseeds milling, builders, tea & eating houses, finance, barbers…)
- Manufacturing (furniture, metal work & welding, saw mills, carpentry, construction elements, pit-latrines, …)
- Cottage industries (dress making, mats & baskets, …)
- Public services (teachers, health-, local government-, extension staff, …) and development workers.

In terms of primary production most of the polder economy is determined by agriculture or fishery production. A substantial part of this production is subsistence agriculture/fishery with little surplus being

[1] Any reference to the agriculture sector includes crop and livestock production, horticulture and fisheries.

[2] Or resilience to those risks, whereby as a response to climate and market risks small holders diversify their income, including the allocation of assets and labour resources outside of the farm (FAO 2015 p.23, UNCTAD p.80). Similarly, crop diversification is limited, the sole focus being on the one subsistence crop, but the spread of plots seems indicative of a risk containment strategy.

[3] As examples of such investment behaviour; a) at the time the embankments were build, flood risks were reduced resulting in an increased settlement in the polders. b) Boro production in our polders presents a lower risk, it is an example of the ability and willingness to invest more intensively in a crop despite being a lower profitability crop.

[4] Productivity increases in small farms contribute towards growth not only by reducing the price of staple foods, but also increasing demand for labour in the rural areas, generating jobs for the poor and raising the unskilled labour wage rate (FAO 2015).

[5] According to the IOB (2015) household survey for the Blue Gold Beneficiary group. They note this compares unfavourably with the national average of 31.5% and is considered very high. In comparison, 51% of the population in the South West area are poor. (SWAIWRPMP).

sold. Besides this limited surplus produce (crops and fish), additional income in the polder arises from manufacturing, secondary retail and service sectors and salary income. Retail and services primarily grow along with this primary production and salary income. Expenditure by development interventions bring along ad hoc injections in the local economy[6].

Surveys[7] indicate that the majority of polder income arises from agriculture/fishery production and from labour in farm and non-farm activities within and outside the polder. An IOB survey concluded that non-farm income is 1.5 times higher than farm income from production including cropping, livestock and fishing. To give a quantitative idea of the structure of the economy, an informed guess of the origin of HH income, allowing for polders more distant from urban areas, is presented below:

Agriculture	40%
Agriculture labour	5-10%
Labour outside polder	15-20%
Local retail and service sectors	15-20%
Public sector	10-15%
Land rent	5%

To characterise the HHs, it is safe to state that 'who earns income from what source' is largely related to land ownership/land access[8]. Those *with access to land* generate a part, if not most, of their income from agricultural/fishery production while those *with limited access to land* generate additional income by either providing their labour in this agricultural/fishery sector or to non-farm activities either related to this sector, or to other sectors in or outside of the polder. These non-farming options are also valid for those having *no access to land.* In addition there are those being self-employed or working in the public/NGO sector, of which any might have some land as well. According the IOB survey, 76% of HH have non-farm income of which nearly 60% comes from labour earnings, then non-farm activities and land rent. Amidst the labour earnings more than half comes from labour earnings from the family head, followed nearly equally by earnings from other family members and remittances.

This land access/income relation finds its expression in the household livelihood strategies. The majority of those households with access to more than 50 - 100 decimal, probably still aim to make a living from farming[9]. Their land size is sufficient to produce the subsistence volume of rice and create a surplus through increasing cropping intensity. Other households have a livelihood strategy depending on labour income[10], either to supplement their deficit in subsistence rice production or due to lacking access to land a livelihood completely dependent on labour [11].

In fact one should consider three categories of HH, namely those intend on farming and doing it increasingly commercially, those complementing farm production with labour income or vice-versa depending on the amount of land they have access to, and finally those who live of their labour/self-employment income. With respect to those seeking a labour income, one should note that they will seek to leave the agricultural sector which generally has a lower labour productivity in comparison to other economic sectors. As these are mainly found in urban areas, they are the cause for the outmigration of the

[6] Part of local growth is the result of surges in development spending which makes attribution difficult during M&E.

[7] Reference is made to our own HH and baseline survey and the IOB surveys. Nationally (2010) Agriculture contributed 19% to GDP, Industry 28% and Services 53% but in the polders Agriculture is well ahead of any other sector.

[8] Other determinants in the asset base of HH are e.g. access to electricity and skills base (level of education, literacy, numeracy).

[9] In polder 22 that would constitute between 35 and 50% of the HH.

[10] See also pathways out of poverty (farming, labour and migration) in World Development Report 2008 p.72. Others refer in this regard to HHs 'stepping up' or 'hanging in' in agriculture, or 'stepping out' from agriculture all together (i.a. DFID). The World Bank estimates about 350.000 people migrate to Dhaka each year. Most of them come from coastal areas where frequent storms and floods, river erosion, rising sea levels and soil salinisation are destroying homes and farmland annually.

[11] It is less clear who is poor in these groups as labour productivity in agriculture is notoriously low. While agriculture contributes nearly 20% to GDP it employs nearly 50% of the labour force. A HH with labour earnings outside agriculture could quickly make up for a lot of land. What is clear is that many have to bet on both sectors and that a large number of HH churn in and out of poverty due to the level of agricultural vulnerability in the polders. More access to land – HH income correlations need to be investigated.

rural areas. This is not particularly negative, as they reduce the population pressure on the land, induce farm wage increases[12] or provide investment capital by remittances.

As a result most policies for rural transformation will try to develop the agricultural sector along with skills development to facilitate this search for jobs with higher labour productivity (see DFID's new policy in Annex2). In fact to cover all rural HH, often a third strategy is added, namely social safety nets or cash transfer programmes for those which can't be reached by the above two approaches.

Targeting for agricultural development: In fact 20% of rural HH consider themselves landless but a small % of them might still have access to land through leasing. The remaining 80% can be considered to farm, again with a small % probably being just (absent) landholder and not farming as such. Of these 80%, 70% (or 56% of the total) go beyond the production of rice and increase cropping intensity by Robi/Kharif I crops. The latter are generally cash crops, while rice not being really profitable is for subsistence only. Possibly half of the farming 80% have to combine subsistence rice production with providing labour to have a sufficient income. Added to the nearly 20% landless, this correlates with the 55% which indicated not to have a food surplus in our HH surveys while 15% which said to have a surplus. Logically those intend on farming will be found amongst those with sufficient land, but one should not exclude those which complement it with some labour income. Together access to land and labour income could provide a good indicator of HH intentions. What the above shows is that a large percentage is included.

1.3 Economic growth in a polder

Clearly it is not Blue Gold's mandate to set up a skills development programme amongst the rural population to facilitate migration, neither is it Blue Gold's objective to develop social safety nets[13]. As a result, to create income and productive employment (or economic growth) in the polder a focus is required on crop/fish production; the core of the polder economy. When increasing productivity and production (cropping) intensity - large areas are fallow in certain periods of the year - the demand for labour in these sectors can increase, while generating income for the farmers. This productivity increase itself generates a direct demand for agriculture related goods and services (think of input providers, faria, transporters, power tillers, repair services, millers) itself constituting an increase in employment and income. In turn, both income and labour of both agriculture and agriculture related services increases the demand for general services (transport, tea & eating houses, general retailers, small scale manufacturers,..) thereby creating additional income and employment[14]. See Figure 1 for an attempt to represent this.

We can approach this also otherwise. Increasing the labour productivity in agriculture is key to rural growth. Expressed as Y/L (yield or value over labour) any increase in it will generally be interpreted as an improvement in the standard of living. Y/L can be expressed by including the land area A or Y/L = Y/A x A/L, whereby Y/A is the land productivity and A/L the area of land available per polder dweller. Knowing that the latter is decreasing due to land pressure, the land productivity or the yields per acre has to increase to maintain labour productivity. There is no better way to express the race against time to increase land productivity in order to maintain living standards and hopefully increasing them. Generally people are also leaving agriculture or the polder, and reduce the pressure on the land. Sometimes this is periodic. Labour shortages have been noted at peaks periods. As a result real wages increase in agriculture and there is a demand for the mechanisation of activities at these peaks.

[12] An IRRI study refers to a 45% real wage rate increase in Bangladesh between 2005 and 2010 due to agricultural labour shortages. It refers particularly to rural youth leaving the area, leading to an average age increase of rice farmers in Bangladesh from 44 in 1988 to 51 in 2011, and to women increasingly taking over the role of farm managers and decision makers (we got an unexpected 15-25% female participation in the crop MFS generally standing in for their absent husbands). (Male) household members out migrate or take advantage of rising non-farm opportunities. In the Independent, 'the weekend' of November 27, 2015.

[13] We do have the opportunity to pursue elements of these fully embedded in our mainstream approach.

[14] See recent UNCTAD and DFID views on the transformation process in rural economies. DFID is basing its brand new agricultural development strategy on it - see Appendix 3. For a view on the impact on food security, see IOB paragraph 10.5 Summing Up, p.39.

Figure 1: core growth of the rural economy

*"**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* published earlier this week (25 Nov 2015).
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. 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.

In the polders the fortune of the bulk of agriculture is closely interrelated with water infrastructure. When seeking to increase productivity and profitability we expect producers to invest more but they will only be enticed to do so, if risks can be lowered. Crop producers indicate to have 3-4 good years, 3-4 average years and 2-3 poor crop conditions over 10 years[15], mainly but not solely related to water resource management. Present production systems and practices take cognisance of the multitude of risks farmers face. Risk-averse behaviour in the production systems is the norm in the polders (e.g. crops as mung bean and sesame) and behaviour can change substantially with a reduction of risk through improved water resource management. In fact, productivity increasing- and value chain development efforts, e.g. addressing market risks, are largely wasted if not accompanied by improved water resource management. Farmers might readily accept the demonstrated techniques but only those with a sufficient asset base will adopt these as they expect they can cope with the inherent risk of a lack of water resource management. In a growth-diagnostic perspective, one refers to water resource management as being the binding constraint to productivity improvement in the (cropping) production systems. Once the water resource management constraint is removed, others will come to the fore e.g. mechanisation, finance, etc. due to for example an expansion of acreage.

[15] This is a coarse indication from limited field questioning and something which should be analysed better by an agro-meteorologist in order to define the frequency of non-wrm related risks.

1.4 The focus of business development in a polder

From the above we should be able to define the *priority sectors* in which to develop businesses in a polder. The priority is crop agriculture and in some areas or sub-areas, fisheries. Within those sectors the surplus producing units are of more relevance than those caught in subsistence or with a conscious labour oriented livelihood strategy. *This is not a question of favouring one over the other, but on the one hand an alignment with our program objectives and on the other an attempt to serve the unique needs of those seeking to pass from subsistence to market oriented farming*.

We should approach a surplus producing household as a business[16] in the polder and assist them to increase productivity and profitability. Through increasing investments in inputs (seeds, fertilizer, chemicals) and services (land preparation, labour) and the sale of their resulting surplus production, they increase the demand for farming related rural enterprises and for employment in a direct relation. In value chain terms, this demand is primarily found in the farmer's market linkages on the input and output side. In turn and in an indirect manner, the increased income resulting from this higher producer production increases the demand for non-agriculture related businesses, creating additional opportunities for employment or self-employment in the polder[17]. As a result, the interest for business development in the priority sectors is foremost in the *market linkages* and comprises the producer as well as the input and output side market actors.

Taking this a step further to define target households. With surplus producing units we refer here in principle to any household, large or small, which produces a marketable surplus on land, on homesteads or in ponds[18]. These can be found across the spectrum of 80% of the households which have access to land. As for some definitions one is landless with < 50 decimal, this includes the top 30-35% of the landless. Besides, there are several reasons to focus on the *crop producers*, and more specifically those involved in robi - kharif 1 production. First because we should recognise that Blue Gold's mainstream objective is water resource management, and secondly because, partly due to improved water resource management, the potential increase of productivity is highest in this sub-sector and cropping season. In addition, this group constitutes, as main beneficiaries, the most probable drivers of water resource management related organisational development at catchment level. As a result of this interdependence, a form of mutual re-enforcement can arise from this.

We noted earlier that 70% of those with access to land (80%), or around 55% of the HH are involved in this type of surplus production e.g. sesame and mung bean. These 55% are spread across the 80% and we might expect a correlation between farm size and market participation. While the tendency might be to get involved with the larger amongst these for reasons of economies of scale, it is not necessarily the largest ones that are of interest to us. Smallholders participate less in the markets due to the costs of participation, the so called transaction costs, and exactly those smallholders are the focus of our collective action or business development efforts. The largest farmers will see less a need for this. Besides, there is no reason to disregard smaller farmers who complement farm income with off-farm labour income. This off-farm income often plays a role in farming as a business. Practically, we should not shy away of getting the business development activities underway with the top 50% amongst these smallholders, to allow the 20% smaller ones to join up as well once the initial constraints of e.g. economies of scale are overcome. This will definitely be more efficient than the other way around.

[16] FAO 2015 p.1 "across all stages of development, smallholders operate their farms as entrepreneurs operate their firms, or at least they try". Not everyone in society is an entrepreneur though. Consider the livelihood strategies of those hanging-in and stepping-out, and the general notion of entrepreneurship by choice versus by opportunity.

[17] Additional Income in a polder can also arise from employment outside the polder but this is not the realm of Blue Gold. Supporting households in their livelihood strategies seeking employment outside the polder are natural complementary programmes. These households might initially provide agricultural labour, or have employment during the off-season, later extending to longer periods in the region or even abroad.

[18] One can also include those whose market linkages are mainly on the input side.

Assessments of impact: It is worth to note a few points related to the increase of productivity and cropping intensity in a polder and the resulting outcome and impact or indicators of income, employment and business:

1. In general the increase of productivity and cropping intensity will increase income and employment in the polder. The facilitation of mechanisation might directly result in labour-saving (e.g. in sowing or land preparation) but create jobs elsewhere as more is being produced as a result thereof (e.g. it allows the expansion of the area under production). Note labour-saving might be in any case essential in peak periods to overcome rapidly rising labour costs but less in other periods.
2. Judicious pest management might reduce the demand for pesticides (thus of business turnover in the area) but simultaneously increase by the expansion of the production area.
3. Market linkage development often seeks to reduce transaction costs thereby bypassing middlemen/traders to reach higher levels of input providers/buyers offering better prices. This might result in registering less business turnover in the polder, but lead to more unnoticed business outside of the polder's geographic area. As a result both income and employment might reduce in the polder but increase more than proportionately outside the polder. This will be particularly so in polders close to larger urban centres.
4. Some market efficiency improvements, as described in the points above but also e.g. by the introduction of electronic scales, eliminate some functions and thus jobs & income, but due to increasing a value chain's efficiency more jobs or income are created elsewhere. Consider e.g that computers have eliminated the secretarial typing pools of the past, but clearly created many jobs in the ICT sector.
5. As proxy for this kind of effects we can monitor the labour productivity of farmers in agricultural production along with their trade turnover (volumes or value) in inputs and outputs. It would guide the impact of the business development activities with the producers and their market linkages but not necessarily the geographic location thereof.
6. Attribution to polder income and employment will always be a challenge. If the income from non-farm economic activities is indeed higher than from agriculture (see IOB survey) than the growth of income and employment in the polder might depend proportionately more on the economic pull from the areas outside the polder e.g. industrial development in a nearby urban centre or increasing opportunities abroad.

Market linkage development (see point 3 in the text box) is key to business development in Blue Gold. Through these linkages the inputs are ensured to increase productivity and the resulting surpluses are sold. Improving the efficiency in market linkages can, as part of upgrading the value chain, lead to developing business by the producers themselves in a collective manner. Producer organisations generally play a major role in this by either taking upon themselves the role of coordination or developing forms of cooperation. While the efficiency gain might be similar these two forms pose different demands on the producer organisation. By the involvement of a lead firm a less demanding role of coordination is left to the producer organisation, while a producer organisation could undertake more on its own by seeking higher forms of cooperation amongst themselves. Either way, producer organisations aim to increase efficiency and deliver the best possible service to the group at the least cost possible to the individual. The organisation as such has generally no profit aim.

In summary the focus of business development is;

a. on the households with farming as livelihood strategy and which should best consider their farms as businesses;
b. on the facilitation of business development around the market linkages of such households through producer organisations (collective actions in MFS); and
c. on the market actors they deal with in those market linkages.

In tandem with water resource management, this focus would be the most efficient way of increasing income and employment in a polder. Functional water resource management opens opportunities to increase land and labour productivity by changing cropping systems which if remaining unfulfilled jeopardise the farmer incentive to maintain the water infrastructure.

2. Business Development and WMOs

2.1 Background

The development of business or of (business) collective actions is regularly linked to the development of Water Management Organisations (WMO), more particularly Water Management Groups (WMG). The underlying reasoning generally refers to businesses playing a key role in the sustainability of the WMG, either by the creation of income to fund infrastructure maintenance or to strengthen the cohesion of its membership. We first consider the WMGs as they are presently formed with a membership enveloping the range of households in the polders. Thereafter we launch some alternative lines of thought, as the funding of infrastructure is indeed a critical issue in the Blue Gold programme.

2.2 Business collective action and WMO

A business collective action generally gathers a group of members with a common interest. Generally it starts with a single common interest, and more often than not, it remains focused on one interest to enhance success. In contrast, the membership of the WMG being heterogeneous in asset base, risk aversion and in livelihood strategies has a variety of actual and/or potential common interests but probably none of these is shared by all. The membership's common interest is supposedly water resource management but even this might mean different things to different sub-groups. Such a state is a fundamental problem to cohesion and commitment to responsibilities in any organisation.

It is less problematic for cohesion to define sub-groups of a WMG who truly have a common interest on the basis of which action can be generated. Nevertheless, any sub-group pursuing a business (usually a service to its members or income to its shareholders) will not seek to generate a profit and subsequently cede part thereof to the WMG without a service in return. This reciprocal service expectation might encompass the maintenance by the WMG of infrastructure of which the sub-group also benefits, but not being the sole beneficiary they are unlikely to accept this for long. Why would they contribute and others not? The situation would be even worse if the concerned common interest sub-group, e.g. of landless members, benefits less of such infra maintenance than other members of the WMG e.g. larger farmers. Besides wondering how a WMG could justify to claim part of the income of such a sub-group as we just did above, any consideration of creaming off any income from the poorest members and apply it for infra maintenance seems definitely un-equitable.

A different case arises when the WMG generates funds in return of a service which stands to benefit this group directly e.g. a WMG renting out a water body to the sole benefit of a common interest sub-group of fishermen. To the latter the rent would constitute a cost and to the WMG it would be a justified income as return for a common asset it holds. Common assets which the WMG can make available could consist of land, water bodies, machinery, buildings and share capital[19]. The subsequent use of this return or 'rental income' for the maintenance of infrastructure unequally benefitting across the membership runs into a similar untenable situation as the case above. Moreover, such collective actions pursued by sub-groups are generally only of interest to those constrained in their asset base and limited in their livelihood strategy. As such this case will in addition often constitute a transfer from the poorer sections to the richer sections of a WMG's membership.[20]

[19] Staff and WMG management often refer to the substantial funds they have available. They in fact refer to the savings of the S&C groups. These are individual savings though and not common assets belonging to the WMG. Only the share capital, usually a very limited amount, can be considered a common asset.

[20] At present the richer sections of the population are under-represented and/or the poor are more than proportionately represented due to the way the WMGs are presented to the communities and the formation guidelines to be achieved.

A final way for a WMG to generate funds is to seek compensation for the organisation or management of a function or service by its own management team. This could include the management of the Savings &Credit (S&C) function or the organisation of the Labour Contracting Society (LCS) services. In order to avoid in-equitable transfers as per above cases any income should only serve to compensate actual costs (including time) of the management involved. It should definitely not seek profits to be applied for infra maintenance benefitting members across the board in a very un-equal way. Just consider the WMG management making a 'profit' on the back of landless people toiling as LCS to repair an embankment or a sluice, itself not providing them any benefit but allowing some large landowners, many not even member, to expand their agricultural production.

Let's be clear, WMG can house businesses e.g. offer some members collective IGA opportunities on the basis of their common assets or organise a business by own management and get compensated for this. Any income of housing such businesses should although not be considered to fund O&M for the general benefit.

Besides not serving the O&M funding purpose equitably, such profit allocation of business development faces some additional challenges and deliberations:

1. Profit making is not part of a cooperate philosophy. The latter seeks to provide the best service at the least cost for its members. Only limited reserves are sought in a cooperative to ease financial management and/or in preparation of some (common asset) investments.
2. Managing an enterprise collectively is notoriously difficult, making profits uncertain and losses more the rule than the exception. The members of many WMG have shown to understand this extremely well when making their informed choice for the management of the agricultural machinery (MAM) through opting for leasing-out instead of opting for operation under own management.
3. Calling upon business collective actions to generate the coherence that the 'raison d'être' of a WMG, i.e. water resource management, fails to deliver is very questionable from an organisational development perspective.
4. Not only do such activities place heavy demands on the scarce management capacities (and voluntarism) amongst the leadership, they also form a substantial threat to trust and coherence amongst the membership. The S&C function provides ample examples hereof. In turn, this is a threat to the existence of the WMG and ultimately its core water resource management purpose.
5. Business collective actions (in the form of production, services, or management of a function) in WMGs bring along complex bookkeeping and audit requirements to maintain transparency. These once more place high demands on scarce managerial skills. Equivalent services to such collective actions can be developed in alternative ways, generating equal if not more benefits to members. For example, the power tiller services, despite being leased out, still place high demands on WMG management while such power tiller services might have been encouraged through individual or small groups of farmers (producer groups) as private service providers.
6. Instead of WMOs seeking themselves to create income they might rather stimulate local development by making their role and potential impact explicit. Colleagues referred in this regard to facilitating economic opportunities for others, i.e. facilitating early planting of winter crops, by securing common assets and enabling fishermen to stock khals with fish, by differentiating water levels using retention structures. An MTR member appealed to consider quick wins taking advantage of water resource management to generate support for O&M, i.e. not to generate funds in direct financial terms.
7. Mature WMOs which have at least mastered their WRM can benefit from enterprising sub-groups. In SWAIRPMP, the IGA are an opportunity in a mature WMO, not the source of sustainability and O&M funding. The latter is achieved by a fee.

2.3 An alternative approach to WMO development

Before exploring alternative ways to fund O&M, we should note that the sustainability of WMOs in terms of water resource management is not solely compromised due to a lack of funds. The required amounts for maintenance are not only small in comparison to the potential benefits but just after rehabilitation, at the time when there is in fact no need for maintenance funding yet, there is still no proper water resource management. The operation of the infrastructure seems disregarded. The reasons are more likely to be found in the organisational development of a WMO.

The start of any organisation needs a commitment towards a defined purpose by at least some people. At present the purpose of a WMO is defined in a broad way thereby accommodating a range of members standing or expecting to benefit in very different ways without being clear on equitable contributions to

costs[21]. Present membership includes the whole spectrum of households with varying access to land (from 25-30% landless and very limited access to land, to a small % of large landowners). All of them stand to benefit in rather similar fashion from the protection by the embankment (an infrastructure at polder level) but they benefit very differently from water level management through sluices, outlets and khals (infrastructure at catchment level). In fact the truly landless have no meaningful benefit from the latter while those with access to land stand to benefit incrementally with the size of their land holdings. In economic terms, both levels of infrastructure deliver substantial but different extents of public goods and in turn are subject to free rider problems[22] of different magnitude. It helps to consider the nature of the different infrastructures when defining maintenance funding.

The purpose of a water management organisation at polder level is mainly linked to *the protection of all inhabitants by an embankment.* The WMO could seek the membership of all to take up the joint responsibility for O&M but protection being such a general public good, the maintenance thereof could also be considered a transfer to a region being generally poor and prone to disasters. It would hereby avoid the drive towards a full-membership or alternatively a taxation of literally all living in a polder.

The purpose of a water management organisation at catchment level is mainly linked to *the management of a water level serving the producers in this catchment*. The beneficiaries are smaller in number and more easily identifiable while benefits are more attributable and readily understood by farmers. As a result, the commitment of the beneficiaries to pursue the organisation's purpose would tend to be higher and more responsibilities could be assigned and readily accepted by the beneficiaries. This would open opportunities to consider a contribution to the funding of O&M. The most logic option would be to consider this on a land access or -ownership basis.

Considering different infra and their purposes, allowing different levels of organisation, range of membership, responsibilities and in turn funding, would set the scene for a new approach to WMO development.

2.4 The approach at catchment level

The actual ground to relate water resource management (water level management) to the production systems (core drivers of the polder economy) is the catchment.

At this catchment level, we should start the planning process with the actual beneficiaries of water level management infrastructure in this hydrological unit and generate commitment from their present understanding of the water resource management-production system relations. We start with informal groups drawn from the different villages in a catchment, plan infrastructure with them, and develop leadership from amongst them for a catchment level organisation with a clear focus on water level management[23]. In the process conflicts need to addressed, responsibilities understood and agreed upon and roles developed to ensure the proper operation of the infrastructure, along with the funding of the maintenance thereof[24].

In parallel, land cultivation and market orientation is addressed with the beneficiaries along value chain development lines. Certain crops stand to benefit substantially from improved water resource management, especially those in the robi - kharif I seasons e.g. mung bean and sesame. While we should

[21] In fact the most difficult part of their responsibilities is left to the WMG to resolve, no wonder it remains unresolved. With respect to funding, the priority should be in the first place to ensure that the BWDB fulfils its responsibilities.

[22] In economics, the free rider problem refers to a situation where some individuals in a population either consume more than their fair share of a common resource, or pay less than their fair share of the cost of a common resource.

[23] There seems little reason to work towards a formal organisation at village level. Definitely not at an early stage. It is unclear what water related core purpose an organisation would have at this level. Instead, at this level an organisation with a broader purpose could be justified, allowing for some representation input at the catchment level. Considering its broader (e.g. village development purpose) it would not be a WMG, but contain a water management sub-group to represent WRM at the catchment. The village level organisation would not have the BWDB as parent. The latter is involved at catchment and at polder level.

[24] Some ground probably has to be made on the responsibilities of the BWDB.

not lose sight of the cropping system, even farming system as a whole, these crops have the potential for quick wins with good water resource management.[25]

We establish producer groups to enhance the insight herein and impact hereof, and seek individuals amongst these group members who are interested in pursuing common business interests for the group. Cross membership between the slowly developing WMO and the business collective action group is highly likely and comes naturally. We do not force these budding organisations to integrate, and definitely do not transfer funds from the latter to the former to support O&M. Their parallel and interrelated interests in terms of water level management and collective business actions offers opportunities to seek and develop more synergy between the organisations in an organic way.

[25] Especially cropping intensity is said to contribute to growth and crop production is considered positively related to poverty reduction (Md. Sarwar Hussain et alia, 2015).

3. What Business Development?

3.1 Background

Having clarified the sources of economic growth in the polders and the focus of our business development, this section provides more practical detail on the actual approach undertaken and on specific issues faced by the business development team.

3.2 Value Chain Development as primary approach

The underlying notion is that agriculture is a core contributor to rural growth and reducing poverty[26], something which appeared of particular relevance to the economic structure of the polders. Of the various advocated approaches to rural transformation, the *commercialisation of smallholders* is most suitable to the Blue Gold programme objectives. Smallholders are constrained by a multitude of factors and the project documents justifiably considered value chain development as the primary approach to business development. The value chain perspective looks at the total market system which consists of three elements, namely the core value chain, the supporting services and the business enabling environment[27]. It seeks to identify constraints and opportunities in the market system and subsequently facilitates improvements by market development. Seeking systemic change makes pursuing sustainability inherent to the approach.

Value chain development incorporates by design the alignment of agricultural production[28] and market linkage activities. Particularly productivity and profitability stand to benefit from the mutual reinforcing of agricultural and market linkage development efforts, and will support the economic development of a polder where its impact is highest[29]. So, in practice our primary aim is to develop the core economic sector of a polder, namely the cropping sub-sector which stands to benefit from improved water resource management, and its supporting range of enterprises by;

- a focus on the core value chain commodities, primarily robi and kharif 1 crops standing to benefit from improved water resource management (productivity and production intensity) within their cropping systems. Thereby allowing for crop diversification as WRM improves.
- improving farmer/household decision making by enhancing numeracy, record keeping and gross margin awareness[30]
- facilitating the market linkages of those production systems, aligning inputs and produce more to the demands in the value chain, and ultimately of the end-market.
- producer groups encouraged to undertake collective action to reduce transaction costs, command lower input costs and obtain higher produce prices by utilising their bargaining power.
- in support hereof, the enhancement of the farmer's network of contacts with information, goods and service providers.
- supporting producer organisations seeking organisational synergy at catchment level as water management beneficiaries and producers overlap largely.

[26] In the World Development Report of 2008, the World Bank argued that improving productivity, profitability and sustainability of small holder farming is the main pathway to reduce poverty in developing countries (World Bank 2007). In the meantime also the 2016 World Bank's report on the Dynamics of rural growth and poverty reduction in Bangladesh provides substantial evidence of this.

[27] For more details see Appendix 5.

[28] Referring to both production productivity and -intensity improvement efforts.

[29] The CWM results in polder 30 demonstrate the underlying primary assumption of the productivity increases that become achievable with improved water resource management.

[30] "Where subsistence production predominates, financial literacy and basic business skills are a high priority" Unctad, p. 146 2015

- networking amongst producers for various reasons of representation at public service and local authority levels
- enhancing entrepreneurship skills[31] for self-employment in support of the agricultural/fishery sectors, particularly in the supply of goods and services.
- seeking public private partnerships in market oriented advisory services for sustainable knowledge transfer (pluralistic extension service)
- addressing particular constraints or opportunities in the business enabling environment
- contributing to innovation in terms of products (crops diversification, saline resistant varieties, …), processes (farm management, mechanisation, storage, harvesting technologies, information technologies…) and markets (lead firms, …)
- considering support to individual IGA[32] (e.g. present Homestead FFS) or collective IGA (common asset based) in the agricultural or fishery sectors,

3.3 Target group

As indicated, with 80% not always food secure few of the polder dwellers are not poor. When we aim at smallholders 80% have landownership and more have access to land[33], so we can reach a sizeable percentage of farmers in the polders with both farm as well as non-farm income.

Meanwhile not all of them will opt to commercialise or increase their market participation and the extent to which they might want to is correlated to land size, ability to take risks, present income and availability of household labour. So, how can we impact on this? Through improved water resource management more land will be brought under production, while also production risks will be reduced. In the meantime we seek to lower transaction and input costs, and increase revenue by collective actions via the formation of producer groups. This is of particular relevance to the smaller and poorer farmers, and partially offsets the higher investments recommended by our interventions.

While MFS is directed at a relatively small number of farmers in producer groups, its measures are not limited to them only. Resource farmers involve non-MFS members, and systemic changes with traders, service providers and lead firms impact far beyond the MFS group members.

3.4 Networking

Through the establishment of producer groups with lead farmers, a variety of opportunities arise for, and stand to be exploited by, the farmers in the way of networking. When we refer to this, we essentially consider *three types of networking*:

1. Networking for representation = lobbying or advocacy
2. Networking for good and services = collective actions
3. Networking for information = sustainable knowledge transfer

Together these three networking areas encompass what one could call the curriculum for lead farmers and their groups.
Networking for representation: Lead farmers can represent their group of producers and formally or informally form an association for this purpose. We envisage the lead farmers in the first place as

[31] Entrepreneurship skills are a combination of technical skills, business management skills and personal skills required for starting and operating in business and self-employment. They include, for example, opportunity recognition, team building, negotiation, strategy development, risk management, financial planning, and marketing. Supporting the acquisition of entrepreneurship skills is important for not only increasing start-up rates but also improving the quality of business start-ups. OECD Inclusive Business Creation: Good Practice Compendium 2016

[32] We should be aware that many would-be entrepreneurs are '*entrepreneur by necessity*' (in low return, very competitive self-employment), instead of '*entrepreneur by choice*' (perceiving market opportunities). Pushing survivalist IGA is not going to help much as these are characterised by low productivity, crowding out, and by reliance on non-costing labour and assets.

[33] We have not a readily insight yet in the correlation of access to land and poverty, but with 80% not always secure, and some 20% not having land, we are aiming at 60% of the polder population at least.

representing them at WMA level in order to address the water resource management issues the producers face in the catchment. At other levels, e.g. the union level, farmers should be better represented at the Union Parishad local authorities as well as public service providers e.g. such as per DAE's policy to make the extension service more demand led.

Networking for goods and services: In value chain development within Blue Gold we focus on the market linkages in the lower end of the value chains, namely between the producers and their input providers and buyers. These linkages are the subject of the collective action efforts seeking a reduction of transaction costs, an improvement of the quality and prices of goods and services, and commanding higher market prices. The collective actions are based upon the group's bargaining power and economies of scale. While these market linkages and collective actions constitute networking for goods and services, in what follows underneath the focus is on networking for information.

Networking for information: Our target farmers need to rise above subsistence levels of production and are continuously facing new challenges in an increasingly complex environment. They presently receive information and knowledge through a range of Blue Gold interventions. Most of this transfer takes place person-to-person by our staff and we should recognise that once the Blue Gold 'feeding' of material/info/knowledge stops, no further transfer of new knowledge will be enhanced if we leave it at that. We should seek to facilitate new knowledge to enter the farming community beyond Blue Gold's content and beyond Blue Gold as a programme. This requires the consideration of other sources of information as well and a better understanding of the existing network of knowledge exchange.

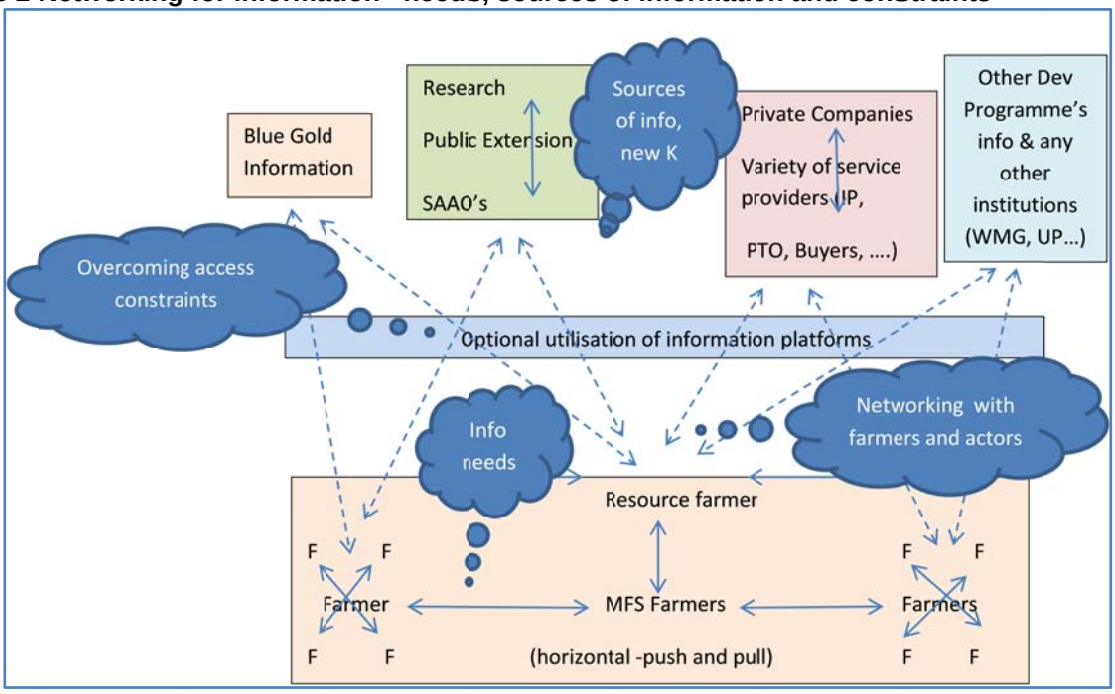
Attempting to describe this a bit more practically: Farmers use information to make their farming decisions. Commercialising or Market Oriented farmers have a substantially higher need for information than subsistence farmers. Their 'business' environment moreover changes constantly. Our approach to Market Oriented farmers is to enhance their decision making ability to satisfy their farming objective (generally a profit motive). For this we must stimulate his/her information seeking behaviour. We can structure this by considering a farmer's information needs, along with his/her potential sources of information and his/her constraints to accessing these information sources. In the process we should look beyond the traditional linear approach that new knowledge will come from the research institutes to the farmers via the extension services. This is too limited a view.

As a first step, we should raise the awareness of the increasing information needs amongst commercialising farmers. A practical approach consists of developing a basic understanding of the varying information needs at the different stage of a production season. At present farmers still primarily rely on their own experience, which reveals the traditional character of subsistence farming. According to the literature in Bangladesh and elsewhere, the next source of information consists of contacting fellow farmers, family and friends (FFF) for information. In terms of the constraints which farmers usually face, namely trust, availability, accessibility, etc. these FFF are the logic sources to turn to from their perspective as they score high on accessibility and trust. But these sources are also extremely limited in the extent they allow new knowledge transfer to reach the farmers[34].

While many other information sources are available to the farmer, accessing these is constrained. ICT can play a major role in making these sources more accessible both in time and costs. Besides making those more accessible we can also strengthen some of these information providers, including resource farmers, extension officers and input providers. In addition, there are a series of simple measures which can contribute as well to improved decision making, e.g. farmer record keeping, farmer field days, contact lists, and exchange visits.

[34] Interesting to note is also that the perception of risk, i.o.w. the vulnerability of the situation, impacts on the information seeking behaviour. Farmers are more likely to turn to external agents in such a situation.

Figure 2 Networking for information - needs, sources of information and constraints



Information and Communication Technologies: Information and communication tools such as cell phones, the internet, radio, and television can dramatically improve farmers' and intermediaries' access to information relevant for rural households, production agriculture, and agribusinesses. The tools can be used to raise awareness or to provide specific information in response to questions about agricultural technologies, markets, prices, etc. However, these tools are just a part of the extension process and are most effective if combined with established good extension practice.

For extension in general and for ICT in particular to be effective, the service has to be **client focused** and **needs driven,** providing **credible content** and a **relevant and actionable message** through a **trusted messenger**. Furthermore, access to information is just part of the formula for success. Farmers have to see sufficient evidence that they are convinced to turn the new information received into 1) a willingness to test the approach and then 2) if the test is successful, adopt. Success of an IC tool or approach therefore also depends on **availability of required inputs**, **sufficient knowledge** to test and use those inputs appropriately, and **access to markets** for them to profitably sell their outputs.
Summary Statement report on ICT for Agricultural Extension in Bangladesh, MEAS

Outcome from *MEAS workshop on ICT for Agricultural Extension in Bangladesh*

- Identify enthusiastic farmer to motivate others
- Work with advanced farmers and facilitate their access to information, which they can then use and pass on
- Empower extension agents e.g., by providing them with business phones and tablet computers
- Develop videos in local dialect, picture drama
- Make sure that recommended practices can be observed at demonstration plots, Farmer Field Schools, model farmers, community plots. Offer exposure visits.
- Strengthen farmers groups and associations, improving their bargaining power in the market place (for inputs, outputs, but also advisory services)

3.5 Main sustainability dimensions

By developing the market system and bringing about systemic change, the Value Chain approach aims at sustainability through three distinct market actors. The first is the farmer and producer group, the second DAE and third is the private sector.

1. The first dimension is focused on the farmers themselves. It seeks to increase sustainability by increasing the flexibility of farmers as farm or household decision makers. This includes the improvement of their information searching behaviour in the face of a continuously changing and increasingly uncertain environment. In addition, it seeks to harness their bargaining power as a group versus other market actors, in contrast to facing the markets on their own.
2. The second dimension rests on DAE as the institutional means to support market orientation, along our MFS methodology, beyond Blue Gold. It is not our assumption that the whole DAE will start to work exactly along MFS lines by the end of the project. In the longer term one can expect growing interest

though to attend to the increasing needs of commercialising farmers. Value Chain Development is a relatively new concept in Bangladesh which can assist in this regard. It increasingly receives attention in the Planning Commission and DAE's draft National Agricultural Extension Policy. MFS has the benefit that it undertakes Value Chain Development on the basis of the familiar FFS approach. In addition, DANIDA is supporting a more market development approach in its IFMC at present.

3. The third dimension is seeking sustainability through the private sector both in the value chain and it's support- and business environment. The above point 2, i.a. supports the supply of information to the farmers by the public sector. There are also opportunities to involve the Private Sector in extension type activities through their dealer network. We can refer to an increasing interest in Pluralistic Extension in Bangladesh. The existence of lead farmers provides a platform to improve the efficiency of any extension agents. Simultaneously an improvement in the private's sector provision of goods & services is sought through systemic changes.

3.6 Shifting to Territorial Development

The core approach to business development in Blue Gold is Value Chain Development. Agricultural value chains link primary production to end-markets. While the producers in any of the selected Value Chains have their geographic basis in the polders, their value chain as such, stretches far beyond these boundaries to actors and markets at regional, national and even international levels. Meanwhile water resource management is bound to hydrological units, and as a result also its organisational development and member outlook is focused on local geographic areas or territories, be it catchments and/or polders.

The Blue Gold business development approach finds itself at the cross-roads of horizontal cooperation in the polders through WMOs and vertical collaboration along value chains and market hierarchy. The horizontal process focuses on establishing WMO's aimed at sustainable water resource management. Logically the beneficiary producers should be the drivers of these organisations. Simultaneously, their members, grouped around common production interests by MFS, are the focus of the primary production in the value chains wherein efficiency is sought by upgrading them towards end-market demands. As a result, the linking pin between the horizontal and vertical processes are the producer groups, e.g. in the form of farmer field schools, sub-sector producer groups and farmer business clubs or farmer organisations.

These producer groups arise from the initiatives of DAE, NGO or other projects. At the core they typically have a production technology focus. Within Blue Gold we seek to broaden this with market orientation and we facilitate interventions upgrading the value chain. Producer Group Facilitators (PF) and lead or resource farmers (RFs) from the producer groups play a major role in this. The RFs are at the core of the different networking activities. At first, they have their producer group at heart and a single commodity focus but they can also exploit their skills in support of other farmers and products and services for other value chains. Increasingly they gain, and use their specific territorial knowledge and relations to bring various networking benefits to fruition for the communities at large. As a result, Producer Group Facilitators, Resource farmers and local SAAO's can shift and enhance their contribution from a commodity development perspective towards a territorial development one.

Many of the interventions in value chain development arise from local constraints or are driven by local opportunities. A standard or common approach will not work. For example, some areas require more attention to mechanisation due to local labour market conditions, others do face power tiller shortages which can be eased by collective action and again others already have the benefit of a good local input provider in a nearby market. Territorial differences and aspects such as proximity to urban areas[35] play a major role in defining the necessary interventions and what will work or not work in a catchment and/or polder. Territorial insight is an important determinant of diversification and production upgrading, of business and non-farm income opportunities, and as such of identifying the right efforts in consideration of the territorial variances.

The outcome of this is that we should not shift our facilitators from polder to polder upon completion of a commodity based seasonal programme. This destroys territorial knowledge that has been build up, obliterates insights and relations which are of utmost value in local economic development. A longer term

[35] UNCTAD notes also the contradiction between need and opportunity in this regard: Remote and isolated areas have the greatest need for diversification but the least opportunities.

presence of facilitators, first in a catchment and subsequently in a polder, seems a pre-requisite to pick the fruits of this shift towards territorial development .

3.7 Innovation and value chain perspectives

Any intervention seeking to address a constraint or taking advantage of an opportunity in the market system, is to some extent an innovation. In fact we are all continuously involved in introducing innovations in a variety of forms. The key is to define and pursue those interventions which have the widest possible impact on income, as rapidly as possible.

For example, innovations can be sought in the form of basic research, e.g. the search for new resistant crop varieties. While the potential impact on farm income might be staggering, the realisation of the idea is still far removed from commercialisation and as such unlikely to come to fruition within Blue Gold's implementation period. Such innovations could be valuable though and are best referred to the Innovation Fund. Alternatively, one might consider the introduction of a field tested and proven new variety, i.o.w. with imminent commercialisation potential. Even in this case, a much broader perspective has to be taken than introducing the variety in FFS trials on the basis of its higher productivity. Not only will farmers have to be convinced of its higher profitability, but they will also need access to the seeds via nearby input providers and be aware of interested buyers with sustainable market demand. So, even in this seemingly simple case of introducing an innovation, a broader look at the value chain is required to ensure we identify the necessary interventions at the various links in the value chain in order to ensure a systemic effect.

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Appendix 2 Landless in Bangladesh

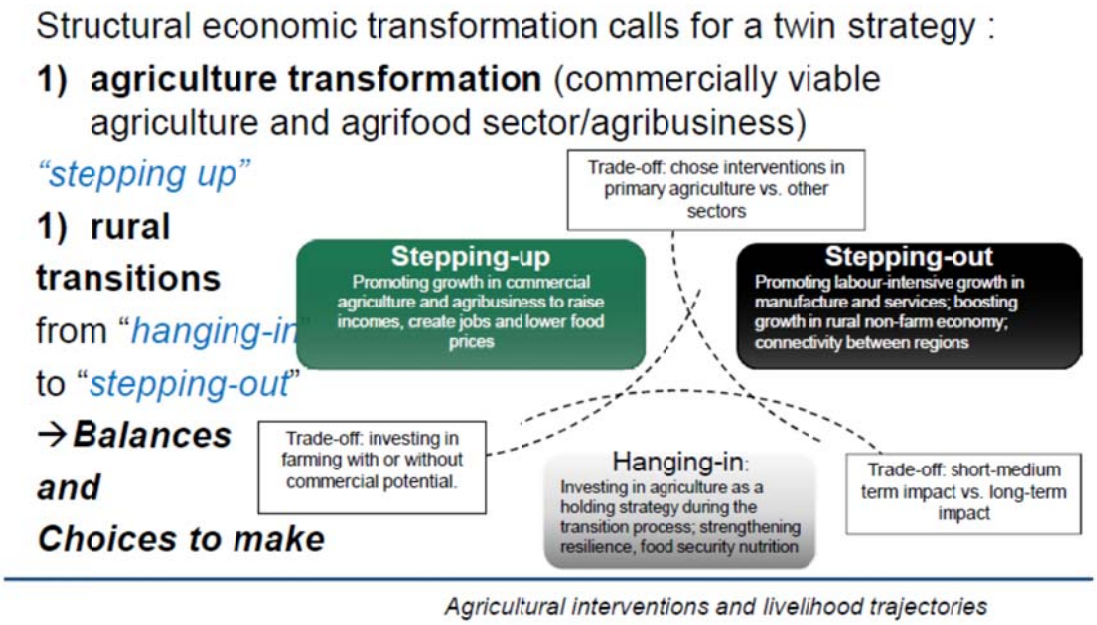
Understanding who is considered landless in Bangladesh

The following classifications of landlessness in Bangladesh were found in a FAO publication:
Landless I: households with no land whatsoever;
Landless II: households only owning homestead land;
Landless III: Households owning homestead land and up to 0.2 ha (or 0,5 acre or 50 decimal).

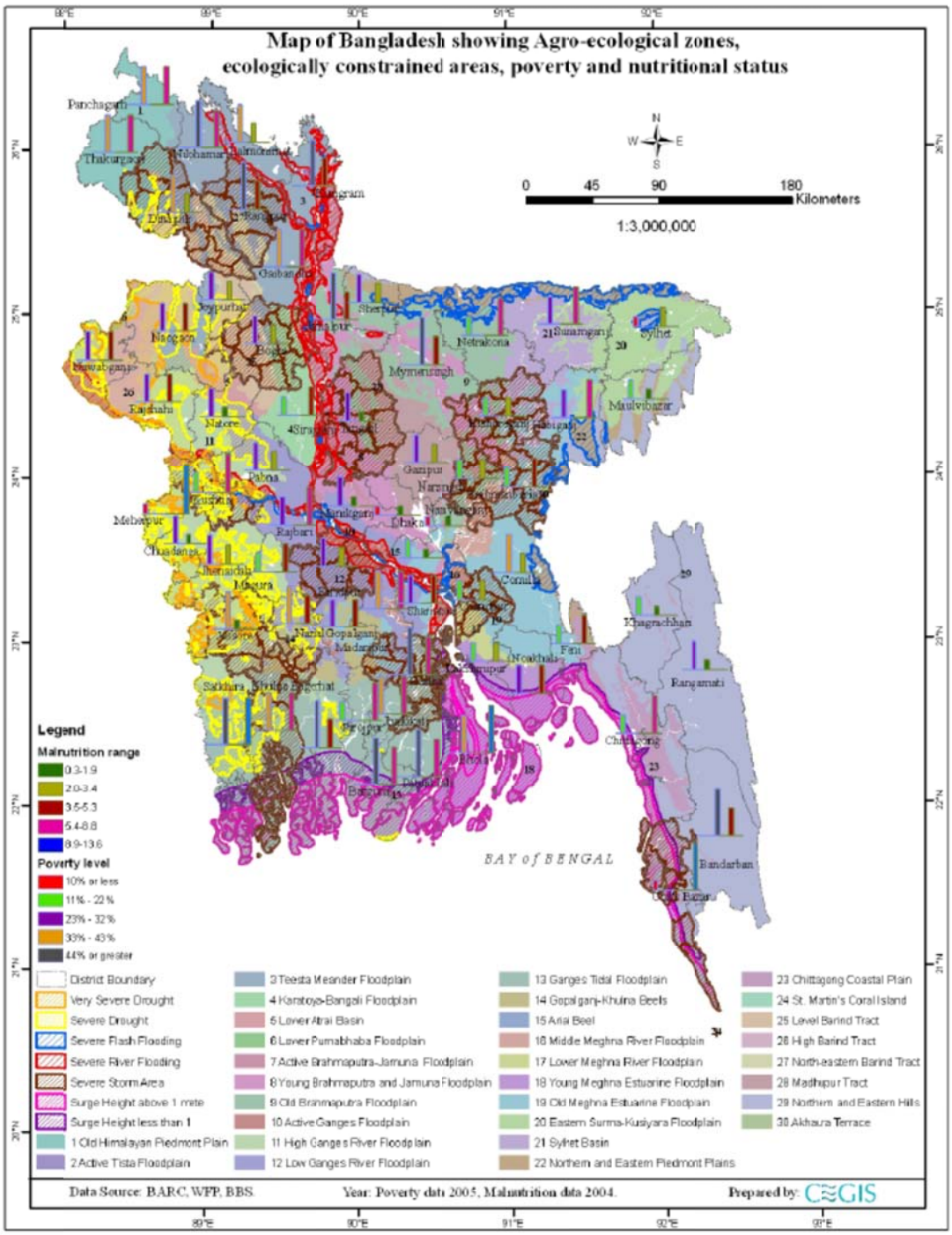
Landless (0.00 to 0.49) acre = 0 to 0.49 dec = 0 to 2 ha
Marginal (0.50 to 1.49) acre = 50 to 150 dec = 0.2 to 0.6 ha
Small (1.50 to 2.49) acre = 150 to 249 dec = 0.6 to 1.0 ha
Medium (2.50 to 7.49) acre = 250 to 750 dec = 1.0 to 3.0 ha
Large (Over 7.50) acre = over 750 decimal or over 3.0 ha

Appendix 3 Rural Transformation

DFID's view on Structural Economic Transformation of rural areas



Appendix 4 Map



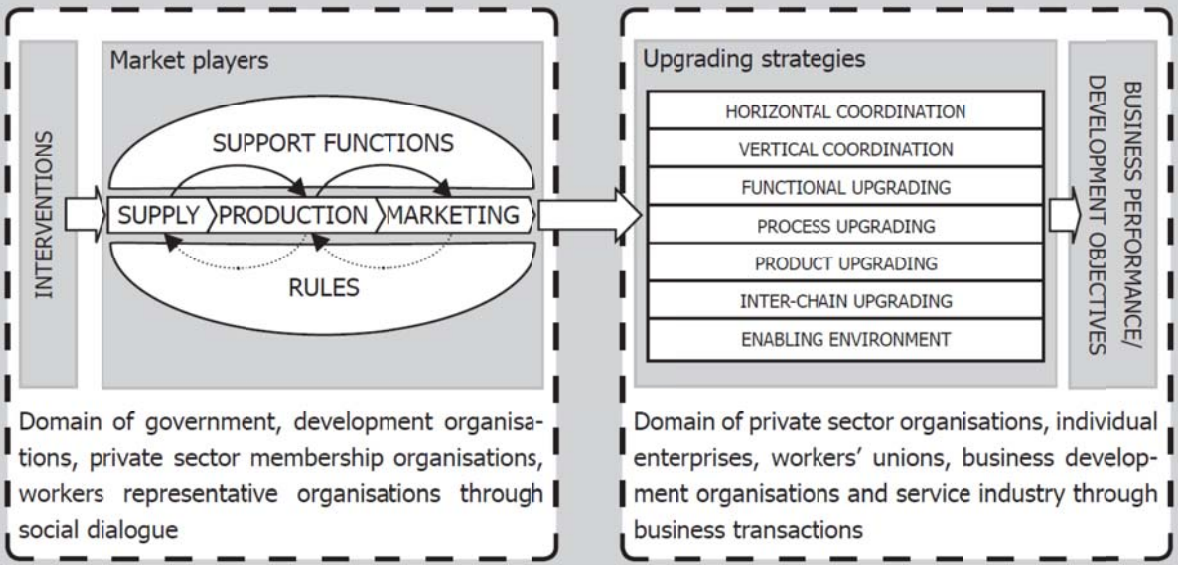
From the NEAP

Appendix 5 Value Chain

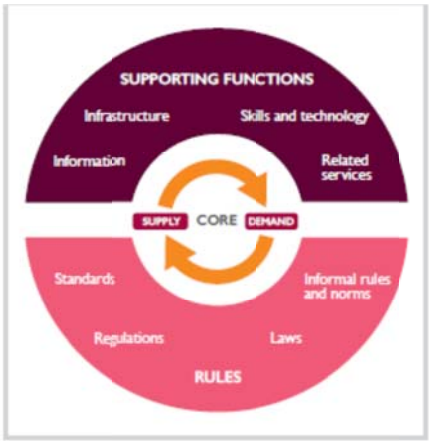
Box 1: Benefits of value chain analysis

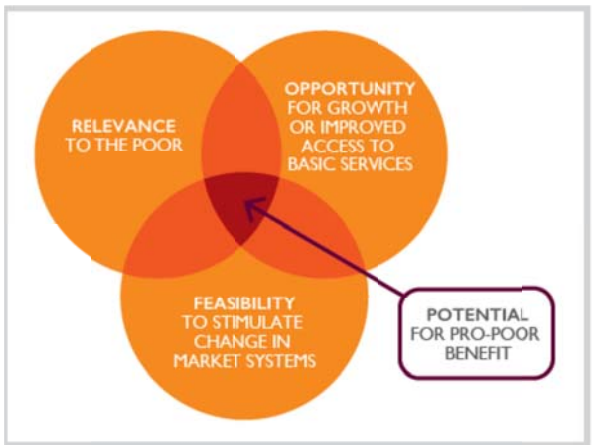
- Recognises the lack of economic power of target beneficiaries compared with more powerful firms setting the 'rules of the game' in the value chain, and how this constrains their choices.
- Has economic viability and commercial sustainability at its core because of its market focus.
- Is a powerful diagnostic tool that can identify critical issues and blockages for specific target groups – and provides a framework for interventions to change the circumstances of the resource poor.
- Identifies the core rents and barriers to entry that determine who in the value chain benefits from production.
- Is inherently scalable: even if the initial focus of a value chain development exercise is a single producer group or firm, the same logic can be applied to a cluster of firms, a region or a whole country.
- Is relatively value free – beyond a concern with competitiveness and the efficiency of the chain – compared with the baggage and assumptions one has to accept when taking on some other theoretical stances.
- Can provide a policy and restructuring tool to counter both market and state failures.

Figure 1: A new typology of upgrading strategies



Source: COPLA, Briefing Paper, Upgrading along value chains, Strategies for poverty reduction in Latin America, 2009





The Market System, and basis for market system selection (The Operational Guide M4P, second edition 2015)

A market system is a multi-function, multi-player arrangement comprising the core function of exchange by which goods and services are delivered and the supporting functions and rules which are performed and shaped by a variety of market players. Facilitation refers to the temporary actions of a facilitator to bring about system-level changes. There is systemic change if the market system changes through the capability of its market players and their ability to respond to future changes. This makes the changes inherently more sustainable.