

## The KATALYST Cases



### Case Study Number 1

## Bringing Knowledge to Vegetable Farmers *Improving embedded information in the distribution system*

*Produced by*

KATALYST Bangladesh  
A project supported by DFID, SDC and Sida and implemented by  
Swisscontact and GTZ International Services

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December 2005

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## **Preface**

### **The Context**

Poverty alleviation efforts in Bangladesh need to be accelerated to tackle the low rates of human development in this country of 140 million people. Economic growth – vital for poverty reduction – is based on the private sector which comprises of 6 million SMEs<sup>1</sup>, and contributes to 25% of national income. The millions of commercial farmers also play a key role. These enterprises continue to grow but face increasing competition from a more global market place. Therefore, improving the competitiveness of selected sectors where the poor participate as producers, employees and consumers is essential for both private sector growth and impact on the poor.

### **The Project**

KATALYST, which started in 2002, is supported by DFID, SDC and Sida. It is implemented by Swisscontact and GTZ International Services and partners with the Ministry of Commerce. KATALYST is currently promoting more than 25 sectors and markets comprised of services such as accounting, marketing and quality management services; manufacturing sectors such as plastics, furniture, private health care and agro-tools & machineries to agricultural sectors like pond fishery, vegetables, maize and poultry. It also works with business associations to improve the enabling environment for businesses. The project has nationwide activities but has a special focus on areas in and around Dhaka, Faridpur, Rajshahi, Rangpur, Bogra and Jessore.

### **The Case Studies**

KATALYST identifies the key constraints to competitiveness in these sectors and promotes mechanisms to improve the setting-up and running of businesses and/or access to a range of business services. Instead of providing direct support to small enterprises, it takes a systemic view and intervenes to stimulate the private sector to provide these solutions.

The project has developed this series of case studies to share with the wider community what we do to promote markets, why we do it, the strategies we use and impact we have achieved. The cases aim to promote learning, illustrating both the potential of the market development approach and the challenges faced in its implementation.

This case describes our experience with one intervention in the vegetable sector in Rangpur. The project undertakes other activities in the sector – notably in relation to soil testing and packaging. However, we believe that our work in stimulating training of agricultural input retailers and the flow of knowledge and information within the distribution system is especially interesting and has wider implications for other development organizations.

I would like to thank Alan Gibson of the Springfield Centre, the author of this first case on the work of KATALYST, and staff within KATALYST who assisted him in researching the case.

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December 2005 Dhaka

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<sup>1</sup> National Private Sector Survey Bangladesh. Conducted by ICS for DFID, SDC, Sida and USAID 2003

## **Summary**

The performance of Bangladesh's important vegetable sector is undermined by very low productivity. Early evidence from this 2-year pilot project in Rangpur suggests that improving knowledge and information services embedded within the supply chain offers one means of addressing this problem. Focusing on training retailers of agricultural inputs, the results from the project - instigated by KATALYST in collaboration with Syngenta, an input supplier - hold the promise of improvements in the competitiveness and poverty reducing benefits of the sector.

In undertaking the project, KATALYST followed its market development approach to business services characterised by:

- Identification of the underlying cause: low levels of knowledge and information in the market (a key cause of poor productivity) can be attributed to weak private sector capacities.
- A clear strategic focus: developing the capacities of retailers – with whom farmers interact regularly - and input suppliers (retailers' main source of information) within the market system was therefore the main project goal
- Operational flexibility: within these strategic boundaries, engaging with appropriate players in an entrepreneurial manner that builds ownership with them. Indeed, the idea of retailer training emerged from such discussions.
- Scaling up with other players: in order to promote change throughout the market system, encouraging other input providers to invest in knowledge and information.

Under KATALYST's agreement with Syngenta, costs were shared for the development and delivery of a 3-day residential training programme for retailers on a range of generic and product-specific issues, reflecting both wider development as well as narrow commercial goals. In addition, KATALYST made significant technical inputs on training content and process. However, the organisation and delivery of training – the main part of the project – was managed directly by Syngenta.

480 retailers, 20% of all Rangpur retailers and serving approximately 200-350,000 farmers, were trained over the 2-year period. Taking account of both direct financial costs and staff time, overall cost per (retailer) trainee was \$90-100, with the effective Syngenta: KATALYST share of costs estimated around 60:40.

Early results from the project show positive impacts on each of the market players:

- Farmers' perception of their experience with retailers' service has improved
- Retailers have greater self-confidence, place more emphasis on advice and information, have better customer relations and, in most cases, increased sales.
- Syngenta's sales have grown 3-4 times faster than in other regions. The strategic importance of knowledge and information in the supply-chain has been re-emphasised. Syngenta plan to invest in retailer training throughout the country.

- Other input suppliers, who have often lost out competitively in the short-term, are now showing positive signs of interest in retailer training. This is the critical issue – “crowding in” - in determining wider market change.

The case highlights the importance of knowledge and information in improving agriculture performance - and the opportunity presented by this – and poses challenges for agencies in how to intervene effectively to stimulate more effective and large-scale market development.

## 1. Introduction

The vegetable sector in Rangpur, Bangladesh is important for the economy as a whole and for the poor in particular. Already a large sector in which many rural households are engaged as farmers and labourers, further development holds the promise of wider benefits. In order to improve its performance, and realise the potential gains it offers, a core, underlying problem facing the sector - low productivity - must be addressed. And in order for this to happen, among other steps, knowledge and information services in the sector must be improved.

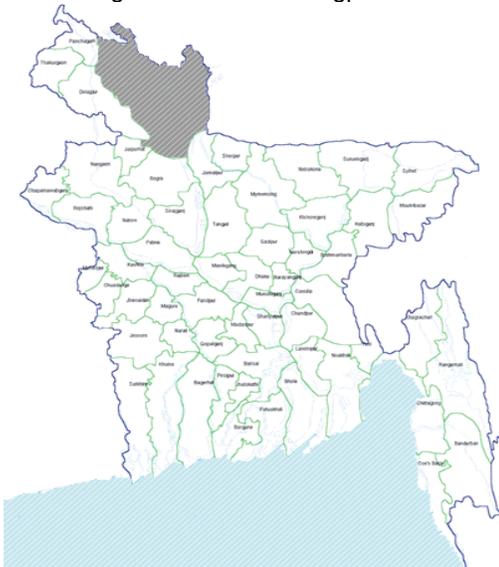
This paper sets out the experience of KATALYST<sup>2</sup> in addressing this critical constraint through an innovative intervention focused on training of agricultural input retailers and the development of “embedded services” within the input supply chain. In doing so, it outlines the analysis that underpins the intervention, gives details of what was done and how, and highlights initial changes arising from it. Early experience shows significant, positive impact. In describing and analysing KATALYST’s experience, the paper’s purpose is to add to learning in the wider development community.

The paper is structured as follows. Section 2 establishes the wider context of the overall vegetable sector and defines the productivity problem it faces. Section 3 analyses the underlying causes of this problem and in particular of weak information and knowledge services in the private sector. In this context, Section 4 sets out KATALYST’s approach to addressing these through the development of a retailer training programme with an input supplier (Syngenta) and its delivery to 480 retailers over a 2-year period in 2004-05. The impacts of this training on the key market players - input suppliers, retailers, farmers and the poor - are highlighted in Section 5. Finally Section 6 draws together major lessons and implications from this experience.

## 2. The overall market

Rangpur, located in the north of Bangladesh, is predominately rural, one of the country’s poorest regions and a priority area for KATALYST. Within Rangpur, the vegetable sector represents a logical focus for KATALYST for three major reasons.

Figure 1: Greater Rangpur



First, the vegetable sector is *important* in terms of size. Vegetables are estimated to contribute 3.68% to the economy nationally and more than this in Rangpur<sup>a</sup>. Out of Rangpur’s 1.6m rural households 60% are estimated to be engaged in vegetable cultivation and a further 50,000 people are estimated to be employed downstream in the industry in trading, distribution and packing.

Second, it is *growing*. A number of factors have combined to generate per annum volume growth of 5-6% in Bangladesh, faster than agriculture as a whole. Underpinning this growth of the vegetables<sup>3</sup> sector have been a number of complimentary “push” and “pull” factors. Most notably:

<sup>2</sup> International Development Enterprises (IDE) also worked with KATALYST in this project

<sup>3</sup> Vegetables here is taken to include a broad range of leaf and root vegetables including tomato, gourd, cauliflower, cabbage and spinach but excluding potatoes and field crops such as rice, pulses and maize.

- Surging consumer demand. Tastes have changed. Prompted by a number of factors – not least persistent promotion by development agencies – vegetables are a relatively new but increasingly important part of consumers' diets.
- The beginnings of a new commercialisation of the sector. While this is still a substantially diverse and disorganised sector - with many small players - new companies (national and multinational) are emerging to offer better quality and more sophisticated inputs and services to farmers<sup>b</sup>. And for urban consumers, supermarkets – with all their implications for other players – have arrived.
- Greater planted area from improved irrigation. The major investments in the 1980s and 1990s in irrigation infrastructure and equipment have resulted in more acreage being available in the winter season for vegetables.
- Improved transport and communication efficiencies. Better roads and mobile phone communications have allowed improved flow of goods and information and the emergence of a truly national market. Price differences between markets in different regions are reported to be minimal.

These factors have combined to offer relatively high prices and high returns for vegetable growers<sup>c</sup> and, attracted by these, further output growth is predicted.

Third, vegetables are particularly important for the *poor* in their capacity as consumers, producers and labourers.

- As *consumers*: the average consumption of vegetables is estimated to be less than half the recommended intake with subsequent adverse consequences for health. The availability of more and better quality vegetables is therefore nutritionally important.
- As *producers*: although landlessness is especially marked in Rangpur, most rural poor people have *some* land which they are able to cultivate for their own consumption or for sale. 50% of the poorest households (the "always" poor) in Rangpur grow vegetables and nearly all of the "occasionally" poor (the main category<sup>d</sup>). For them, vegetables represent a high return income earning opportunity.
- As *labourers*: on farms in particular (but also elsewhere in the value chain) a range of labouring tasks - tilling, planting, weeding and harvesting – are created by vegetable production.

For women in particular, vegetables is an important sector. While women are rarely involved in buying inputs (such as seeds and fertilisers), homestead production is undertaken primarily by them and there has been a recent marked increase in female employment in vegetable cultivation<sup>e</sup>. Anecdotally, women's wage rates in vegetables are closer to men's than in other spheres of employment.

### **2.1 The overall problem: low productivity**

The above trends all appeared to indicate a vibrant market. One which was big, growing (in volume and financial terms), commercialising with new, diverse players entering the market, becoming more discerning as consumers tastes change and offering opportunities for the poor and especially for women.

However, this apparently healthy situation disguised a basic problem within the sector. Productivity in vegetable production – the amount produced per unit area of land – is stagnant or declining. Growth in vegetable output has been due entirely to increased land area planted – either “new” land released by irrigation or switching from other crops - rather than any increase in efficiency. In other words, growth has been achieved by doing *more* and not by doing *better* or more *effectively* (Table 1). Moreover, this weak performance within Bangladesh is in a context of a vastly inferior performance relative to other Asian countries (Table 2) and a position of inefficiency that has not changed substantially in many years.

**Table 1: Stagnant productivity at home.....<sup>f</sup>**

Crop	Average annual percentage change in selected crops; 1990-2000		
	Area	Yield	Production
Vegetables	4.26	-0.24	4.01
Wheat	4.63	3.12	7.76
Potato	6.70	1.41	8.11
Pulses	-3.08	0.41	-2.67
Rice	-0.04	1.81	1.77

**Table 2: .....reflects a weak international productivity performance <sup>9</sup>**

Country	Land productivity for selected vegetables, 2004 (China = 100)			
	Cabbages	Cucumbers and gherkins	Squash and gourds	Tomatoes
China	100	100	100	100
India	110	39	52	58
Pakistan	70	75	56	42
Philippines	57	24	47	37
Bangladesh	52	25	40	27

A weak productivity performance is a problem for the Rangpur and Bangladesh economies as a whole. Although regional trade in vegetables is currently limited, it is growing. If productivity is not addressed, Bangladesh – as in other sectors – will have to rely on low labour costs to be competitive. More generally, the potential for wider economic growth from efficient food production cannot be realised without productivity growth. But for the poor in particular, low productivity is a barrier to their development. As consumers, it ensures that prices are relatively high; as producers, it prevents them from getting the most from their own resources and as labourers<sup>4</sup> it is likely to mean less opportunity to increase earnings.

Other problems, of course, do impinge on the sector. For example, although there appear to be few major regulatory constraints, there is a general absence of formal standards relating to seeds and other inputs. The structure of different value chains linking farmers to the ultimate consumer market limits farmers' access to appropriate information and concentrates power in key traders and other intermediaries. While these are important issues, especially in particular localities, low productivity is recognised to be a core competitiveness problem underpinning the whole sector. Addressing this is a key development challenge and the task to which KATALYST committed itself.

<sup>4</sup> The relationship between improvements in land productivity and labour earnings varies from one situation to another.

### **3. Market performance: the underlying causes**

For KATALYST, if low/static levels of productivity was the main symptom of poor market performance, the key questions were, first, what are the constraints that prevent appropriate solutions from emerging through the market system, and second, what can be done to address these?

Gaining accurate answers to the first of these was critical for KATALYST to ensure that its intervention was focused appropriately on underlying causes rather than symptoms. Its search for answers involved wider competitiveness analysis, detailed sub-sector studies and discussions with key informants and market players. In doing so, following KATALYST's market development approach (Annex 1), the analysis began with the product market of vegetables and proceeded to the business services that permeate the sector.

#### **3.1 Immediate causes: weak knowledge and information**

The myriad problems of Bangladesh agriculture are manifested in the "productivity problem".

- Land ownership is typically disparate and production economies of scale hard to achieve.
- Physical infrastructure, although improved, is highly variable in its quality. Together with weak transportation and high wastage rates for perishables this acts as a disincentive to improved practice
- Some market structures (such as in the seed supply industry) are anti-competitive
- Unreliable and low levels of seed quality undermines farmer confidence
- Financial services are often unfavourable for horticultural investment
- Low levels of co-operation between small-scale farmers acts as a barrier to planning and investment.

All of these issues are real. Some are especially intractable (such as land ownership and use) while in others (such as seeds) the beginnings of a market response (the development of high quality - and higher priced - seeds) is already evident<sup>5</sup>. But underpinning many of these is the basic and general problem of low levels of knowledge and information among farmers about good vegetable farming practices. There is broad consensus in the sector that farming practices – especially in this still new activity for many farmers - are deficient with regard to, for example, use of inputs (where dosage rates are commonly incorrect), planting techniques, and recognition and treatment of problems. For KATALYST, therefore, it was vital to address the knowledge and information issue at the heart of the productivity malaise.

#### **3.2 The underlying systemic causes: weak private sector capacity**

Recognition of the importance of knowledge and information in enhancing productivity prompted another question for KATALYST: why wasn't the wider market system providing a solution to weak knowledge and information? Why were existing knowledge and information services not addressing the wider productivity problem in the vegetable sector?

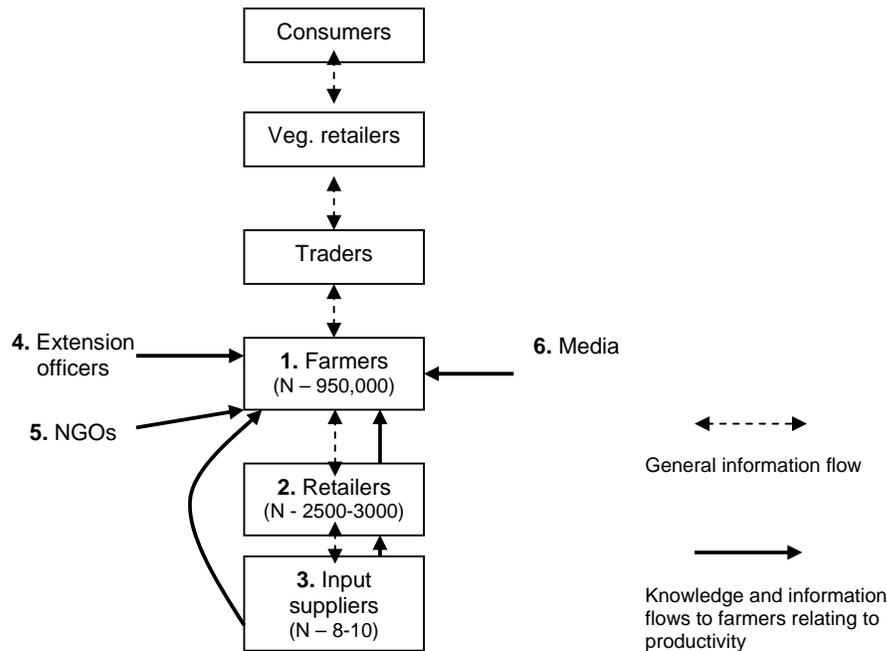
KATALYST's intervention had to be shaped by answers to these questions – by an understanding of the underlying systemic constraints impinging on the supply and demand for information. It therefore had to understand the existing picture – including which sources of information were commonly being used by farmers, their perceptions of these and the wider experience of development agencies in engaging with farmers. From a combination of consumer research surveys,

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<sup>5</sup> In some cases – such as seeds and packaging – other KATALYST interventions have been initiated

interviews and document analysis a number of potential sources of information related to productivity were evident (figure 2)<sup>6</sup>.

**Figure 2:** Sources and flows of knowledge and information in the Vegetable market in Rangpur



**1. Farmers:** farmers like to go to other farmers for information. Over one-third (figure 3) say that this is their preferred source and certainly within every farming community, respected “lead” farmers exist who are available, local and perceived to be practical<sup>7</sup>. Advice offered here is in the context of wider social relationships and structures. However, progressive and influential farmers still need to be able to access new information (on new approaches, products etc), raising the question of where this can be sourced?

**2. Retailers:** along with farmers, the main and most regularly used source of information is retailers. Retailers are, typically, independent owner-managed small businesses, located in simple shop premises in rural villages and towns. Typically, they sell a combination of fertilisers, pesticides and seeds (and often other household non-agricultural items as well) and information is offered as a service *embedded* within these commercial transactions as a means of adding value to customer relationships. They are likely to stock the products of a number of input suppliers, although sometimes favouring one supplier over another. Some are sole stockists for one company. Retailers as sources of knowledge and information have a number of characteristics:

- They are used widely and regularly. Like farmers, their closeness to and frequent interaction with farmers offers a real opportunity to influence.

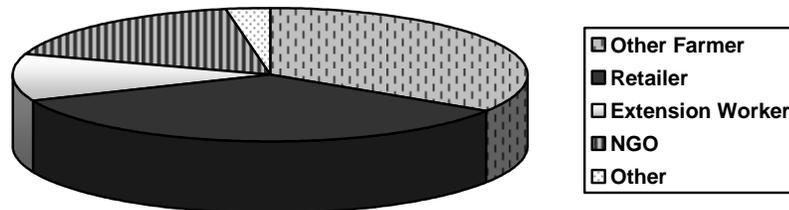
<sup>6</sup> This excludes market traders who are likely to be sources of information on prices – but not farming practices per se

<sup>7</sup> There is considerable evidence to show that the best providers of business advice (in any sector) are close (physically, culturally, socially) to businesses – and farmers as advisers have these qualities.

- 60% of farmers going to a retailer do so in search of a solution to a farming problem rather than to buy a specific product (or brand)<sup>8</sup> .....
- ..... yet, despite this, most retailers undervalue the importance of the embedded information service they provide to farmers. They are often reactive in their approach to customers, don't know how to deal with them positively and lack technical knowledge. More commonly they see themselves as sellers of products rather than providers of solutions. ....
- ..... and they have a "mixed" record and image with farmers. While survey data indicates that a reasonable proportion of farmers regard retailer advice favourably, tales of retailer "cheating", product adulteration and wrong advice are widespread in farming communities.
- Reliance on input suppliers for information: retailers are given a variety of product promotional material by input suppliers and, to a considerable degree, their opinions are formed by these and their experience with these products. Certainly, there is no independent "neutral" view to guide them.

Retailers number approximately 2500 in Rangpur.

Figure 3: Main source of advice for farmers



**3. Input supply companies:** these fall into three main categories – seeds, fertilisers and pesticides suppliers (with some overlap between them). The seed supply sector is the most disparate with a vast array of informal suppliers, NGOs, a large parastatal and emerging new corporate ventures co-existing. Pesticide suppliers, on the other hand, totalling around 8-10 main players, are relatively large-scale firms, both Bangladeshi and multinational, with the latter predominating. While input suppliers do undertake product demonstrations with farmers directly on an occasional basis, in the main, their route to their final consumer is through retailers.

**4. Government extension officers:** the role of the Department of Agricultural Extension (DAE) is to advise farmers directly and to organise fairs to bring different actors together. In Rangpur there are believed to be around 200-300 *block supervisors* (ie officers with responsibility for a particular "block" of land). Although most farmers are aware of the government extension service and respect block supervisors' technical knowledge, few are regular users of their services. The main beneficiaries tend to be larger farmers. This level of weak outreach and impact comes after a long history of substantial donor support. Among many donors, it has been concluded that the ingrained incentives and culture of the DAE mean that it cannot be an effective deliverer of knowledge and information.

<sup>8</sup> Information from Syngenta research

5. NGOs: like many parts of Bangladesh, there is an extensive NGO presence in rural Rangpur. They work with groups of low income “beneficiaries/clients” and provide a range of advisory and more tangible (seeds) support. Their coverage is limited and they depend upon further external funding for their continuance.

6. Media: beyond these sources, farmers may also gather relevant information from the wider media. However, newspapers are not widely read and while there are relevant advertisements contained within them there are few user-friendly articles on vegetable production. Similarly, radio and television coverage is poor and their content of limited relevance.

Within the above picture of the different providers of information, four main characteristics stood out:

- (a) Farmers are often unsure of what information they can expect from whom but are certainly largely unhappy with what they are receiving! The relatively high rates of return available from vegetables in the last few years appear to have allowed farmers to “sit back” and wait for the market to deliver high prices rather than pursue greater efficiency. However, when vegetable prices begin to stabilise there will be more incentive to improve practices and therefore greater demand for information.
- (b) While farmers advising other farmers is a practical form of information provision, for this information to be new and relevant it needs to be up-dated and this requires access to other sources, external to farmers.
- (c) Existing public providers of information in government are regarded widely as irrelevant. Increasingly, their structures and operations are seen to be dysfunctional and, more simply, they are usually not there!
- (d) Private sector retailers, even though they interact with farmers regularly and farmers would like useful information from them, generally do not provide an appropriate service. In general, both retailers and input suppliers undervalue the importance of information within commercial relationships.

From the above analysis, the most practical immediate focus to bring about significant impact lay with a KATALYST intervention to develop private sector capacities.

#### **4. Acting to build the market: intervention design and implementation**

The underlying reasons for the weak level of information provision in the vegetable sector left KATALYST with a clear direction for intervention. The strategic challenge - given the players involved – was to build the capacity of the private sector to strengthen existing relationships and offer relevant knowledge and information services. The analysis provided the context for a future vision of farmers (consumers) demanding good quality information and providers offering this (on a sustainable basis) because it was in their commercial interests to do so.

How to achieve this was less clear. KATALYST recognised that there might be different options before them. Guiding them were two main principles:

- A commitment to facilitate others in the market to do things rather than provide directly. While KATALYST might play different roles in intervention, ultimately these had to be consistent with a future market vision in which

KATALYST has no role. This defined the *boundaries* for KATALYST's intervention

- Operational flexibility: intervening not with a fixed blueprint but with a willingness and ability to adapt and change KATALYST's "offer" in response to opportunities. Being flexible and entrepreneurial within a clear strategic framework and direction, therefore, are essential qualities (Box 1).

#### **4.1 Identification of key activities and partners**

Given the above principles, a number of possible activities were considered. For example, working to build the capacity of private sector fee-for-service trainers and intervening to improve the content of the media in relation to vegetable production were both considered but largely rejected because they were seen to be *too far* from immediate market realities and to be beyond KATALYST's capacity. In fact, the idea of training for retailers emerged from this process of brainstorming and discussion, specifically from discussions with Syngenta. The route from concept to intervention had several stages and features.

The process of market research unearthed a number of key input suppliers for the vegetable sector. KATALYST's discussions with these took on the purpose of both finding out more about the market and exploring intervention possibilities. In discussions with several companies, the only one receptive to collaboration was Syngenta.

Syngenta is a large, multi-national company, the market leader for a number of crop protection products in Bangladesh (40% of the market) as well as a substantial seed provider. Their motivations were two-fold: first, as a company publicly-committed to staff training as a business strategy, they saw this as a means of extending that "philosophy" to their retailer partners. Indeed, in the past, they had offered limited 1-day training to retailers. Second, as part of their wider corporate social responsibility and aware of its public image, this was an opportunity to engage beyond "normal" business activities. Both motivations lay behind their decision to work with KATALYST.

#### **4.2 Negotiation of agreement**

The outline of the final signed contract negotiated between KATALYST and Syngenta was as follows:

- KATALYST and Syngenta collaborate to develop and deliver a 3-day training programme for retailers in Rangpur. This would be given to 480 retailers in 16 batches of 30 over a 2-year period. Both parties agreed to donate staff time freely and reached an agreement over sharing material and logistical costs.
- The basis of the cost-share agreement was one-third Syngenta/two-thirds KATALYST on the basis that (roughly) one-third of content was directly of interest to Syngenta (pesticides) and two-thirds of wider interest.
- KATALYST – with experienced trainers on its staff - would provide technical assistance on programme content and methodology and two-thirds financial support for the delivery of the training.
- Syngenta would collaborate with KATALYST on programme development and organise and deliver the training (including the selection of trainees) at a suitable venue and contribute one-third of the training cost.

**Box 1: Debates and dilemmas: the realities of implementing interventions**

While KATALYST's intervention was shaped by its overarching market development approach (Annex 1), this did not provide a mechanical, step-by-step formula to guide actions. There was a linear process to be followed but, because market development is concerned with stimulating others, it required that they reviewed and adapted what they did in relation to market response. As KATALYST's experience illustrates, the reality of implementation is that dilemmas are faced regularly, each requiring consideration and decisions. For example:

*Dilemma: to work with Syngenta or not?* They are influential of course but they're a multinational firm with huge market power. Why do they need KATALYST?

*Dilemma: to work with one or more than one?* Working with one company might give them an advantage but they are the only ones interested in collaborating.

*Dilemma: how much to give?* How much (and what) should be offered to excite their interest while still making it a Syngenta-owned process?

*Dilemma: how broad should the outreach be?* KATALYST's aim is have wider, more inclusive outreach. Syngenta's natural wish is to focus narrowly on retailers with most potential. Can these different aims be reconciled?

*Dilemma: how to bring in others?* Should the same offer be made to Syngenta competitors? With reduced risk from the example of a market innovator, should they be offered less? For companies with less capacity should they be offered more?

For KATALYST, responding to these dilemmas in an appropriate way, guided by an overall framework and approach, is the essence of successful intervention.

- The training had to be of sufficiently high quality to impact on productivity. Both KATALYST and Syngenta agreed that a cost minimisation approach – characteristic of the private sector in Bangladesh – would not succeed
- The emphasis throughout was on Syngenta leading the process with KATALYST supporting.

From a KATALYST perspective, its aim in negotiating this arrangement was, on the one hand, to offer enough to attract Syngenta and, on the other, to not provide so *much* as to undermine their ownership of the final programme. The relationship had to be one that was based on exchange and mutual benefit. The agreement was signed in late 2003 and activities began shortly thereafter.

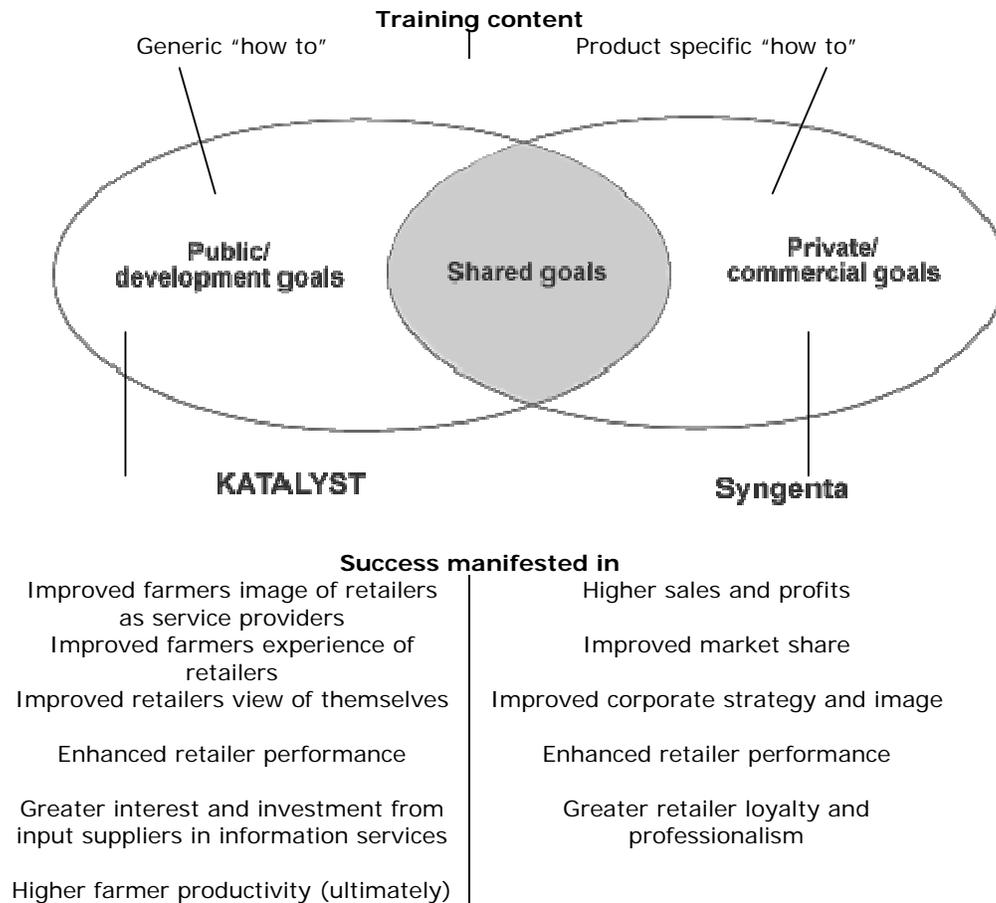
### 4.3 Training programme design

The underlying *thinking* behind the training approach was to achieve a balance between generic and product-specific content (Figure 4). The former was the focus of KATALYST – how to deal with customers, ethical business practices, how to select and use inputs appropriately, how to use pesticides safely, legal aspects on sale of inputs, cultivation practice for major crops etc. For Syngenta, promoting the benefits of specific products – what product in different circumstances and how to use - was the main priority. The programme therefore was located in the overlap between the wider public objectives of enhanced knowledge and information provision on vegetable cultivation and the narrow private objectives of selling Syngenta products. Its rationale was that both sets of objectives could be achieved in one programme and the curriculum reflected this attempt to achieve balance.

The programme also followed new innovations in training methodology and approach. Data projector technology was used to create a strong visual image

and participative techniques, including role play, were employed to enhance learning. For the retailers and Syngenta, these new techniques were a revelation.

**Figure 4:** The underlying rationale for the intervention and training approach



#### 4.4 Delivering and fine-tuning the programme

Training was organised on a residential basis with retailers paying a small commitment fee to book their place on it. In the course of the 2-year period of the programme a number of small changes were made in the light of experience. For example, at one stage KATALYST paid for a female trainer to sensitise retailers on dealing with female customers. And, in response to retailer suggestions, Syngenta introduced a module on providing a service throughout the different seasons of the farming year. Overall, however, the programme changed little because Syngenta, with whom operational ownership lay, were satisfied with the results.

#### 4.5 Clarification of agreement

One year into the agreement a disagreement broke out between KATALYST and Syngenta which highlighted the divergent objectives of both parties. Syngenta's approach to selection of retailers was to focus on those with greatest business acumen, many of whom were also Syngenta retailers (some being sole stockists of Syngenta products). ie they used the same criteria to choose trainees as they did in choosing their retailer partners. Syngenta wanted to continue to focus on "the best", maximising overall impact as well the benefit for them. Only after 200 retailers had been trained did KATALYST become fully aware of this coincidence of

the best quality and of Syngenta's "own" retailers. Wary of offering too much support for one company, KATALYST wanted to make the training open to retailers generally rather than only Syngenta's partners so that wider market change would be promoted.

Eventually the Syngenta view prevailed but only on condition that KATALYST could offer similar support to a Syngenta competitor should this be appropriate. Since legal ownership of the programme had always been left open between KATALYST and Syngenta, there was no barrier to engaging with others. For KATALYST the issue was a reminder that engagement with the private sector does involve a conscious assessment of public:private benefits and highlighted the need to continually review the balance of these (Figure 4).

#### **4.6 Engagement with other players**

After 15 months it was clear that - for Syngenta at least - the intervention had been successful (see section 5 below). For KATALYST this raised the question of (a) whether this private success was equalled by a wider public benefit and (b) how (if at all) it should act to ensure overall market change and not just in Syngenta's "part" of the market. How to go from pilot intervention with one partner to wider change in the whole market system was the challenge laid out. Given this, as an integral part of the intervention, explanatory discussions began with Syngenta competitors. Some of these had been involved in initial discussions but shown little interest at that time. Others had become increasingly aware of the training and the new level of activity from Syngenta and approached KATALYST directly.

#### **4.7 Outputs achieved**

As the 2-year period nears its end, the main outputs delivered by the project and the costs involved in doing so are as follows:

- As planned, 480 retailers have been trained<sup>9</sup> in 16 sessions of 30, with the distribution of these spread throughout the year at times appropriate for retailers.
- For KATALYST, the total direct cost (KATALYST's share of the costs of venue, materials, accommodation etc) has been \$13,625. The costs of KATALYST staff time for programme preparation, design, monitoring and administration is estimated at \$3,910. Total KATALYST costs are therefore estimated at \$17,535, equivalent to approximately \$37 per retailer trainee<sup>10</sup>.
- These costs are for activities related directly to the project delivery and do not include the significant costs associated with preliminary extensive research on the vegetable market in Rangpur (which acted as the basis for a number of interventions) or with detailed impact assessment – both of which are likely to be considerable. Nor do they reflect the intervention's "share" of KATALYST's general overhead.
- For Syngenta, as per the contract agreement, their share of financial costs has been half that of KATALYST. However, appropriately since they are the key drivers of the process, Syngenta staff's time input has been considerably more than that of KATALYST. Conservative estimates suggest that every person-day committed by KATALYST leveraged a Syngenta contribution of five days.

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<sup>9</sup> At the time of writing, with two sessions still to be completed, 420 have actually been trained but Syngenta are on track to meet their targets within budget. All costs given here are based on an extrapolation to 480 retailers and have been converted to US dollars from taka.

<sup>10</sup> Given the likely customer base of these retailers, this is equivalent to 6-9 cents per farmer

- Overall, taking account of time inputs, the Syngenta: KATALYST contribution was approximately 60:40.
- The overall cost per trainee (both KATALYST and Syngenta costs) was approximately \$90-100.

## 5. Developing the market: changes from interventions

While ultimately impact arising from KATALYST's intervention on retailer training should be reflected in higher productivity, this is a difficult and (in the short-term at least) impractical indicator to track. More immediately, KATALYST's priority was to bring about positive change in knowledge and information services within the sector. Impact here was assessed at two levels. First, with respect to the three main players that KATALYST had been seeking to influence:

- Farmers (the demand-side)
  - Retailers
  - Input suppliers
  - Syngenta and others
- } (the supply side)

As Figure 4 shows, the logic of the intervention was that positive market change would be *felt* by all three players. Indeed, if this was not the case, the incentive for supply-side players (both retailers and input suppliers) to further strengthen knowledge and information services would be limited. The depth and durability of change, therefore, would be weak. Given this, immediate changes have been assessed at each level and for the market as a whole<sup>11</sup>.

Second, change was assessed in relation to the prospects for wider change. The rationale for KATALYST's market development approach is that, by addressing underlying constraints, positive change in the wider market system will be stimulated. To what extent has this happened or is this likely to happen?

### 5.1 Farmers

Changes in the demand-side of a market are usually assessed with respect to consumers' awareness, use of and satisfaction with services. Using these criteria in the context of an embedded service such as knowledge and information presents some difficulties. However, a number of conclusions can be drawn for those areas where retailers have received training (Table 3).

Table 3: Change in farmers' perception of retailers (baseline and post-training surveys)

Use of retailers as a source of advice						
	Baseline		Post-training			
Rated "best source"	3.52		4.32			
On a scale of 1 to 5 (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always)						
Satisfaction with retailer advice (%)						
	Seeds		Fertilisers		Pesticides	
	Baseline	Post-training	Baseline	Post-training	Baseline	Post-training
Rated "very good"	27	40	30	32	33	36

<sup>11</sup> Change was assessed by individual interviews and discussions with farmers, retailers and input suppliers. In addition, at the farmer level a baseline and impact survey and at the retailer level, a post-training survey, were undertaken.

- Farmers' image of retailers as a source of information has improved slightly. More farmers appear to see retailers as useful advisors on seeds, fertiliser and pesticides.
- Farmers' satisfaction with the service from retailers has improved significantly. The extra "professionalism", confidence and willingness to offer information that (at least some) retailers have derived from the training has been noticed and appreciated by their consumers.

Given that 20% of the retailer stock in Rangpur has been covered but that these generally represent the more established retailers (with greater customer outreach), improved knowledge and information has potentially been made available to approximately 25-35% of vegetable farmers (250-350,000 farmers). While it is too early to assess the final impact on these farmers' productivity, farmers' perception of retailers' information is at least positive, is consistent with retailer data and can be regarded as a "proxy" indicator for final productivity impact. Moreover, early anecdotal feedback supports the survey results suggesting a positive impact on farmer performance (Box 2). Similarly, while impact on the poor has not been identified separately per se, as farmers and labourers, they might also have been expected to gain from retailers' better performance.

## 5.2 Retailers

The objectives of the training were to improve retailers' knowledge base of different aspects of vegetable production and enhance their management of problem-solving, customer-oriented retail businesses. Changes therefore could be anticipated in retailers' financial performance and in their view of their business and of customers. The following key findings emerged in relation to the 450 retailers:

- More than 90% of retailers reported that relations with customers had improved since the training and that customers had a more positive impression of them. Retailers cite increased farmer satisfaction and trust and an appreciation of the improved communication between them. The practice of information as an integral part of the retailer offer to farmers appears to have been strengthened.
- Increased self-confidence was a recurrent prominent theme in retailer responses. Knowing more – and being seen to know more – has allowed retailers to give more attention to advice and information.

*"Now I give more time to farmers because of the training"*

*"I have learnt about product quality and pass this understanding on to farmers"*

*"Farmers come to me because they know I am trained"*

*"Now we do field visits, as taught in the training"*

- Sales of Syngenta products have increased markedly. More than one-third of retailers report a rise in Syngenta sales in excess of 100% and less than 1 in 10 report no growth in sales. Retailers cite a variety of reasons for this performance. They are especially confident in relation to Syngenta products and the use of new sales techniques for them. In addition, Syngenta's follow-up sales and promotion activities (including incentives for retailers) around the training were intensive and well-co-ordinated<sup>12</sup>. Overall, retailer loyalty towards Syngenta as a company and a brand has clearly increased.

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<sup>12</sup> Indeed, for the best retail performers Syngenta provided short leisure breaks to Darjeeling!

**- Box 2: Farmer's perspective on retailer change: the case of Mohammed Rustam**

Mohammad Rustam lives in a village about 1.5 kilometers outside Badarganj. He is 26 years old and considers himself to have been a farmer for ten years. He farms on land that is leased and on his own land. On his leased land, he grows rice and wheat. On his own land, however, amounting to 100 decimals (ie one acre), he cultivates vegetables.

Rustam grows a range of vegetables. In the summer he cultivates bittergourd, pointed gourd and spices and in the winter cabbage, cauliflower, potato, and tomatoes. Although he does grow some seeds (jinja), most of his inputs – seeds, fertiliser and pesticides - are bought from retailers. The last two years has witnessed a major change in his purchasing behaviour. Two years ago he would buy from different places. There is a big choice of outlets and he did not develop a close relationship with any particular retailer. Now this has changed. He buys all seeds, fertilisers and pesticides from the shop of Azizul Haque.

Why the change? According to Rustam, the problem is that retailers are often dishonest. They push the quantity of fertiliser to be used and they adulterate the ingredients to sell sub-standard products. Rustam heard from other farmers that Haque sold good quality seeds, gave proper advice on fertiliser doses and provided good information on how to use inputs.

Rustam's experience since going there confirms this view. The most important difference between Haque and other shops is not so much the products that he sells but the advice that he gives. Others will refer to the same product but will advise him to use more of it. Rustam's contrasting experiences with brinjal - a summer crop grown between June and August – with Haque and another retailer exemplifies the change resulting from different advice.

<b>Retailer</b>	Imran Ali	Azizul Haque
<b>Season</b>	Summer 2004	Summer 2005
<b>Advice for 60 decimals</b>	<ul style="list-style-type: none"> <li>- 50kg phosphate</li> <li>- 3kg pesticide</li> <li>- 30kg urea</li> </ul>	<ul style="list-style-type: none"> <li>- 20kg phosphate</li> <li>- 2kg pesticide</li> <li>- 20kg urea</li> <li>- 10kg potash</li> </ul>
<b>Total costs</b>	Tk 4,000	Tk 3,000
<b>Harvest</b>	120kg	160kg
<b>Quality</b>	Plant was reddish, crop was smaller. He suspects this was due to too much fertiliser.	Good
<b>Sales</b>	Tk 10,000 (approx \$150)	Tk 20,000 (\$300)

According to Rustam the difference in production between 2004 and 2005 cannot be explained by climate or pests or other external factors. The advice, including having his soil tested by a local private provider, was the critical factor.

Rustam explains how he interacts with Haque. In cultivation there are different phases. For each phase he pays a visit to Haque, six to eight times in total. The first time he goes to discuss how to prepare the seed bed. The second time he goes to discuss land preparation, fertiliser and pesticide requirements. Thereafter he just goes to check if the crop is progressing adequately. If he detects a disease, he will bring a plant sample to Haque's shop. If there is a serious problem, Haque will go to the field. He does not pay for these services - the field visits and the half- hour long discussions in his shop. Rustam explains that Haque knows that if he gives good advice, people will come to him to purchase inputs.

Rustam believes that Haque is establishing a good reputation. More farmers are interested to go to him. For Rustam, the benefits have been clear. He intends to remain a Haque customer. (An expanded version of this, and one other "mini-case", is given in Annex 3)

- Sales trends for the products of other companies have had a more mixed performance – with similar percentages reporting sales growth, sales decline and little change. This range of experiences does reflect the different ways in which training has been received by retailers. Some have become enthusiastic advocates for Syngenta while others regard themselves as independent advisors and believe that the general knowledge obtained in the training can be applied to the products of any company (Box 3)
- Overall, when asked how participation in the training programme has affected their business, more than three-quarters mention greater sales, customer numbers and profits while one-third (in addition to or instead of these) highlight their enhanced knowledge.

Clearly, for most of those attending the training, this was a significant and influential event. While more than 70% of trainees said that they had attended training in the past but these were one-day product-specific presentations. No one had previously taken part in an event of this duration, type (residential), intensity and sophistication (use of participatory training techniques, data projectors etc). Discussions with retailers who had not attended the training showed that it has created wider *ripples* among retailers. Here there is some sense of being "left out" and an acknowledgement that sales have increased for those who attended.

### **Box 3: Differing retailer responses to the training programme**

#### **The enthusiastic convert**

For this young retailer who inherited the business three years ago, the training was a revelation. While he has attended product presentations before, never has he been exposed to this kind of training experience. He describes the resultant change as moving from a *passive* to an *active* approach. Now he is confident enough to seek to offer advice and, working with Syngenta sales personnel, reaches out to farmers in field locations. Syngenta products he believes are the best and most of the 60% growth in sales he has experienced has been from these.

#### **The impressed but realistic old-hand**

Sixteen years in the business and a farmer as well as retailer, this experienced owner-manager has been to 1-day Syngenta events previously but acknowledges that this was much better. For him, the main benefits have been improving his knowledge of different vegetables, cultivation techniques and appropriate dosages for different treatments. He says he's always been a provider of information to his customers and that while Syngenta products are sometimes the best, this isn't always the case. His *store* of knowledge has been helped by the training but his view of his business and his role hasn't changed. Sales have increased slightly since the training.

## **5.3 Input suppliers**

### **(1) Syngenta**

As the provider of training, positive changes for Syngenta could be expected in sales and market share and in their approach to knowledge and information in their relationships with retailers. Three main areas of impact stand out:

- Sales growth: sales of crop protection products have increased by an average of 36% in areas where training has taken place, compared with 10% elsewhere in the region. And for seeds, growth in Rangpur region as a whole has been 108% compared with 28% in a neighbouring region, 3-4 times the growth rate of elsewhere. These increases are well beyond Syngenta's

expectations, have increased their market share and are attributed entirely to the retailer training. In relation to the total cost of delivering the programme (from both KATALYST and Syngenta), sales have increased 10-fold.

- The importance of training: for Syngenta, a company who see themselves as training –friendly, the experience has been an insight into the potential of high quality, imaginative, multimedia, participative training techniques to bring about change<sup>13</sup>. The contrast between previous Syngenta training and the programme with KATALYST is clear (Table 4).

Table 4: The change in Syngenta training approaches

Previous approach	Approach with KATALYST
1-day Day only Traditional training approach - talk, handout, listen Technologically simple Narrow product focus "Product push" orientation	3-day Residential Varied and participative - role play, exercises etc Variety of techniques, inc. multi-media Broader – "how to" "Problem solve" orientation

- The strategic importance of knowledge and information: the experience has re-affirmed the importance of investing in supply-chain relationships. Retailers have, to some degree, been neglected in the past yet they are critical in farmer decision-making and are the final point at which consumers engage with Syngenta. Enhancing their capacity to behave in a knowledgeable and informed manner with farmers is ultimately in Syngenta's (and the wider public's) interests.

Overall, the immediate benefits for Syngenta have been substantial and demonstrable. The key development issue now is the extent to which this successful pilot results in wider change in Syngenta (see 5.5)

**(2) Others**

The immediate impact of the training on other input suppliers has been mixed. In relation to sales, companies who are directly competitive with Syngenta's main products, undoubtedly, have experienced reduced sales revenue. In other cases, there may have been some gain in sales as a result of improved generic retailer capacity. In relation to image, the relative ascendance of Syngenta in the eyes of retailers has clearly been at the expense of other suppliers. The key development issue is how input suppliers, taking note of their experience, respond to the competitive challenge laid out by Syngenta (see 5.5).

**5.4 Immediate market change .....**

Overall, the evidence from the above initial impact assessments is that KATALYST have been successful in generating significant improvement in the flow of information and knowledge in the market. To a considerable degree, knowledge and information services are now seen to be an integral part of the vegetable input supply chain in Rangpur. Ultimately, this can be expected to impact positively on productivity.

Within this overall picture, some changes are more apparent than others. In order of scale and certainty of benefits, the following can be said.

<sup>13</sup> In many ways, the training programme has involved taking the training approaches of the Bangladesh "development sector" and applying these to corporate Bangladesh

- Syngenta – have benefited substantially both in an immediate commercial sense and possibly from new operational and strategic learning. Having been prepared to take some risk in co-investing with KATALYST in a revised business model, Syngenta are, indisputably, the big winners from the collaboration.
- Retailers – although the situation varies, in general they have gained commercially and in terms of knowledge and self-confidence.
- Farmers – are more satisfied with and have a better opinion of retailers and the information they offer.

### 5.5 ..... and the prospects for wider change?

Given the above immediate changes that can be related directly to the intervention, are wider changes – beyond Syngenta, Rangpur and indeed vegetables - likely to follow? KATALYST's objective is to generate positive change on more than a "one-off" basis, change that is deep-rooted and *systemic*; ie to bring about changes that are sustainable and with the potential to scale-up beyond the scope of an initial intervention. To what extent has this type of change been achieved here?

Without any further intervention from KATALYST, a natural, if slow, scaling up can be expected. Farmers learn from each other. Retailers copy their competitors. The training programme has created a "splash" among retailers and, now that this precedent has been set, it may be that this will result in retailers "demanding" similar training of other input suppliers.

However, the critical issue in considering the potential for greater change is the degree to which input suppliers are prepared to invest in the *business model* that is contained within the intervention approach. And for KATALYST, what action should it take to encourage wider impact or "crowding in" of the private sector, not just in Rangpur but in the other (90% plus) of rural Bangladesh?

At this stage, with the pilot project still "live", definitive conclusions are premature (12-18 months from now a more definitive view should emerge). However, a number of comments can be made:

- KATALYST have initiated new projects – on a similar basis – with two other input suppliers who are (to some degree) competitive with Syngenta; Bayer Crop Science and East-West Seeds. Under these arrangements, an additional 840 retailers in Rangpur will be trained. This is a major strategic change in approach for both firms. Neither has any previous experience of retailer training.
- Both arrangements resulted from prolonged discussions and build on real enthusiasm on the part of suppliers, influenced by an awareness of Syngenta's experience. However, in neither case is it likely that they will invest in further retailer training (beyond their KATALYST collaboration) by themselves until this initial experience has been assessed.
- Syngenta are now<sup>14</sup> planning to invest in training in other regions of Bangladesh throughout their national network of 12,000 retailers. And certainly, were the Rangpur response to be repeated (or close to it), this would be commercially justifiable. More widely, Syngenta internationally are

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<sup>14</sup> From discussions with Syngenta in December 2005

keen to learn from their Bangladesh experience. Substantial scaling-up within Syngenta's operations is therefore envisaged.

Overall, in this highly competitive market, it is clear that something new and interesting has been stirred. KATALYST with Syngenta have brought about "disruptive innovation" in the market – change that is entirely new and significant<sup>h</sup>. And while the scale and nature of impact from this is not possible to predict, there are grounds for believing that improved knowledge and information services in the market – with consequent productivity benefits - will result.

## **6. Key lessons and conclusions**

The experience of KATALYST in developing the vegetable sector in Rangpur is distinctive in a number of ways. Grounded in a detailed understanding of the wider market system it has identified the immediate causes of the sector's weak productivity performance – inadequate knowledge and information services – and the underlying reasons for these. Shaped by a clear view of how the market system can work more effectively, it has intervened to instigate a new capacity-building training process with one input supplier (Syngenta) and 480 retailers to enhance the quality of knowledge and information in the sector.

This has clearly brought substantial immediate benefits for Syngenta and for retailers – and, in their own eyes, a better service for farmers, which should result in higher productivity. More important, it *may* have also laid the basis for larger-scale, sustainable and systemic change, although at this still early stage this is still a premature conclusion to draw.

For private sector companies, especially those engaged in agricultural supply chains, a clear message emerges from the case: properly designed and delivered, building knowledge and information services within commercial relationships works and is a profitable strategy.

For organisations seeking to build the effectiveness and inclusiveness of market systems, the case highlights a number of key learning points and challenges. First, a number of lessons – emerging from a range of other experiences<sup>i</sup> – have been reaffirmed.

- Useful, capacity-building knowledge and information can be offered in supply chains as an integral element of companies' operations within a market context and can be a successful strategy. The notion that information should be seen, somewhat preciously, as a "public good" that must be delivered by public agencies is incorrect – and such agencies can therefore be released to play other (still important) roles in markets.
- It is possible to engage successfully with large private sector companies provided that this is done within a clear strategic framework, there is recognition of the (legitimate) differences between public and private aims and agencies intervene in a flexible and entrepreneurial manner.
- A systemic approach, which places the poor within a wider context, may lead to interventions seemingly a long way from their immediate reality (for example developing a training programme with a multinational corporation). However, provided that the initial analysis is correct, the overall system should develop in the favour of the poor.
- The constraints to making markets work for the poor more effectively are often not financial. As in this case, they are often related to products, ideas,

methods and new business practices. The value-added brought by KATALYST has not been attributable to financial subsidy. Market facilitators need the appropriate capacities to address these constraints.

Second, for development agencies, the following challenges and questions are posed by KATALYST's experience.

- ***How to go beyond the initial anti-competitive effect to bring about wider impact?***

Syngenta and their retail partners are the immediate, undoubted big winners from this intervention, experiencing the “supernormal” profits of the early innovator. This has been at the expense of their competitors. Farmers haven't lost out (on the contrary, they've gained) but they will in future (and the development rationale be lost) unless a competitive response emerges so that the wider market functions more effectively. If short-term changes in the competitive position are sometimes inevitable it is especially important, from the outset, to consider how to crowd in others to the market so that the market system as a whole (and not just one player within it) is the main beneficiary.

- ***How to avoid the endless circuit of direct subsidy when moving from demonstration to wider change?***

The aim of this intervention (and others like it) has been to induce change in the business model of key supply-side players (input suppliers and retailers). The desired end-point is for them, weighing up potential risks and rewards, to invest in change. Defraying risk through subsidy (KATALYST's current approach) may be a valid initial strategy for the first risk-taking partners but, thereafter, care needs to be taken to ensure that intervention offers do not slide into “easy” subsidy that undermines risk-taking innovation rather than, for example, giving companies better information to make choices and promoting a broader environment of intelligent innovation.

- ***How to assess impact in a rigorous and convincing manner?***

The route through which market facilitators such as KATALYST “reach” poor people, although clear, can be long and with many steps. More traditional approaches to private sector development, which involve direct provision by development agencies, often in a distortive, subsidised manner, offer a narrow and illusory picture of impact that fails to assess the wider market system within which the poor exist. Market development, essentially influencing others in the market place, is more ambitious – but is inherently more difficult to measure! KATALYST has laid out the basis for effective impact assessment in the vegetable sector – but further efforts will be required as the next stages of crowding in take place. A challenge remains: how to assess and represent the wider ripples of market development impact?

- ***How to bring the KATALYST role into the market?***

Part of the role played by KATALYST in the vegetable sector has been that of a strategic corporate consultant and trainer – providing advice on corporates' approach to the development of their supply chain. This is a commercial role in many countries and is required on a regular (if not frequent) basis. Ultimately, for the future development of market systems in Bangladesh (and other low-income countries) this kind of capacity is required here as well. For KATALYST therefore, although this may seem a considerable way from their initial Rangpur-focused concerns, a challenge is raised: how can they get *out of* – and get others *in to* – the role they have played to date in enhancing the market system.

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## Annex 1: the KATALYST approach to market development

### The Project

KATALYST is currently promoting more than 25 sectors and markets comprised of services such as accounting, marketing and quality management services; manufacturing sectors such as plastics, furniture and agro-tools & machinery to agricultural sectors like pond fishery, vegetables, maize and poultry. It also works with business associations to improve the enabling environment for businesses. The project has nationwide activities but has a special focus on areas in and around Dhaka, Faridpur, Rajshahi, Rangpur, Bogra and Jessore.

### Sectors and markets

KATALYST is working in growing sectors where the poor participate in large numbers as producers, employees and consumers. The activities in agricultural sectors like vegetables and pond fishery fall under this category. The project also works in service markets which have an impact across many economic sectors. This refers to the work in accounting services, marketing and media. Business associations play a critical role in advocating for better rules and regulations and the project also works on this.

### Strategy formulation

KATALYST identifies and analyses the above markets by using a variety of tools like sub-sector analysis, cluster analysis, UAI surveys and enabling environment studies. In this process it identifies the key constraints and opportunities, market players, the direction the sector/market is moving in, a vision of the future and what would be the key areas for project intervention such as farm or firm productivity, input related issues or output related issues.

### Business services

Based on the analysis above, the project then seeks to promote markets for business services that relate to the above constraints/opportunities so that these are available on a sustainable basis for large numbers of businesses. Business services could be related to knowledge and information on market access, management and technical skills, quality issues, and production methods among others. Business services can be classified into 3 types:

- **Transacted services:** This refers to a situation where there is a distinct supplier of knowledge and information, often outside the value chain, and a payment in cash or kind takes place. Examples include management consultancy, advertising services and market research.
- **Embedded services:** This refers to services that are packaged or bundled within commercial transactions in the value chain. There is normally neither a distinct service provider nor a fee paid. Examples include design advice to a manufacturer from a buyer or knowledge on input use from an input supplier.
- **Public Benefit Services:** This refers mainly to services provided by chambers or associations which have an effect beyond a single enterprise. Examples include advocacy for business friendly regulations or information on new trends and opportunities.

### Interventions

The nature of a market development intervention is that it:

- Has a systemic view and objective<sup>i</sup>
- Is grounded in a careful understanding of local institutional contexts

- Is nuanced in its interpretation of roles of different players in a market environment
- Has an explicit view of sustainability from the outset
- Focuses on realistic, market-appropriate solutions, consistent with local norms and resources

This leads to quite a variety of specific interventions in the selected markets. Based on the strategy above, the project intervenes to improve in a systemic way one or more of the business service markets outlined above. For example, the options for improving the machine productivity of mold makers in the plastic sector in Old Dhaka were:

1. Promoting a market for machine productivity training by identifying and developing a few commercial trainers (transacted service)
2. Building on mechanisms of knowledge transfer from the machinery supplier in the value chain (embedded service)
3. Assisting the plastic association to raise awareness on the issue (public benefit service)

In this case the project selected option 2 based on the specific context and a careful analysis focusing on outreach, cost-effectiveness and sustainability. However, different mechanisms are used in different markets.

### **M&E and Impact**

Project interventions lead to better functioning service markets that improve the competitiveness of small enterprises and contribute to pro-poor growth. This is the impact logic of the approach and the project has developed systems to track such changes at various levels.

In order to show impact, it is necessary for these interventions to be traced back through the impact chain in terms of changes in service markets to enterprise level changes. In other words, the project intervention must show that it has the above characteristics and improves the functioning of a market for business services, which in turn contributes to improved competitiveness of the targeted enterprises and, if possible, to show if pro-poor outcomes are reached.

### **Wider Learning**

The above approach is based on Bangladeshi and global experience and is elaborated in the papers and notes related to the Donor Committee on Small Enterprise Development, the Making Markets Work for the Poor and the OECD Poverty Network discussions.

A series of case studies are being prepared for international dissemination to illustrate the approach and impact of market development.

## Annex 2: Brief outline of retailers training

Introduction to Swisscontact and KATALYST and its objectives	
Introduction to Syngenta International and Syngenta Bangladesh	
Training objectives	
The meaning of <i>active</i> and <i>passive</i> business	
	Properties of active retailers
	Properties of passive retailers
	The importance of product positioning
	Product diversification for round-the-year business
Seeds	
	The need for good quality seeds
	Properties of quality seeds
	Preservation of seeds
	Syngenta seeds available in the market
Soil testing	
	Importance of soil testing
	Introduction to soil testing kits and sources of supply
Fertiliser	
	The collection of fertilisers
	Preservation of fertilizers
Fish	
	Pond preparation
	Typical production problems in production
	Introduction to products and their uses
Rice	
	Cultivation methods- quality seeds, seed bed preparation, land preparation, irrigation, plantation etc
	Introduction to good quality rice seeds
	Typical problems in production
	Introduction to different Syngenta products and their uses
Vegetables	
	Varieties of selected vegetables and their seasonality
	Cultivation methods
	Use of different fertilisers for different vegetables
	Typical problems in production
	Introduction to different Syngenta products and their uses
Potato	
	Cultivation methods- quality seeds, land preparation, irrigation, plantation etc
	Requirement of different fertilisers at different level of production and application methods
	Typical problems in production
	Introduction to different Syngenta products and their uses
	Harvesting methods
Chillies	
	Cultivation methods- quality seeds, seed bed preparation, land preparation, irrigation, plantation etc

Requirement for different fertilisers and their application methods  
Typical problems in production  
Introduction to different Syngenta products and their uses  
Harvesting methods

Banana

Cultivation methods- seedling selection, land preparation, irrigation, plantation etc  
Requirement for different fertilisers at different level of production and application methods  
Typical problems in production  
Introduction to different Syngenta products and their uses  
Harvesting methods

Maize

Cultivation methods- quality seeds, land preparation, irrigation, plantation etc  
Requirement for different fertilisers at different level of production and application methods  
Typical problems in production  
Introduction to different Syngenta products and their uses  
Harvesting methods

Protection of crops during storage- introduction to Syngenta products

Sprayer

Importance of using sprayer machine  
Introduction to different types of sprayer machine

Precautions for pesticides

While transporting  
While preserving  
Before using  
While using  
After using

Legal aspects of pesticides retailing

Licensing and renewing

Recap

### Annex 3: Glimpses of impact: two cases from Badarganj

The experience of two farmers located outside the small town of Badarganj, where two retailers were trained, illustrates the nature of impact felt by some farmers.

#### Case 1

Mohammad Rustam lives in a village about 1.5 kilometers outside Badarganj. He is 26 years old and considers himself to have been a farmer for ten years. He farms on land that is leased and on his own and his parents' land. He leases fifteen acres of land together with three other farmers and on his quarter share he grows rice (two crops) and wheat in the winter. His own land, however, amounting to 100 decimals (ie one acre), he uses mainly for vegetable cultivation.

Rustam grows a range of vegetables. In the summer he cultivates bittergourd, pointed gourd and spices and in the winter cabbage, cauliflower, potato, and tomatoes. As a third crop he cultivates jute and spinach.

Although he does grow some seeds (jinja), most of his inputs – seeds, fertiliser and pesticides - are bought from retailers. The last two years has witnessed a major change in his purchasing behaviour. Two years ago he would buy from different places. There is a big choice of outlets and he did not develop a close relationship with any particular retailer. Now this has changed. He buys all seeds and fertilisers from Azizul Haque. Similarly, pesticides – which he uses less frequently, only when a crop is infected – are all purchased from Haque's shop.

Why the change? According to Rustam, the problem is that retailers are often dishonest. They push the quantity of fertiliser to be used and they adulterate the ingredients to sell sub-standard products. Rustam heard from other farmers that Haque sold good quality seeds, gave proper advice on fertiliser doses and provided good information on how to use inputs.

Rustam's experience since going there confirms this view. The most important difference between Haque and other shops is not so much the products that he sells—these are more or less the same—but the advice he gives. Others will refer to the same product but will advise him to use more of it. Rustam's experience with brinjal exemplifies the change resulting from different advice. Brinjal is a summer crop grown between June and August. This year (2005) he is late, because rains damaged the first seedlings but he could still compare the first harvests for both seasons.

Retailer	<i>Imran Ali</i>	<i>Azizul Haque</i>
Season	Summer 2004	Summer 2005
Advice for 60 decimals	- 50 kg phosphate - 3 kg pesticide - 30 kg urea	- 20 kg phosphate - 2 kg pesticide - 20 kg urea - 10 kg potash
Total costs	Tk 4,000	Tk 3,000
Harvest	120 kg	160 kg
Quality	Plant was reddish, crop was smaller. He suspects this was due to too much fertilizer.	Good
Sales	Tk 10,000 (approx \$150)	Tk 20,000 (\$300)

According to Rustam the difference in production between 2004 and 2005 cannot be explained by climate or pests or other external factors. The only noticeable

difference was that in 2004 he did mixed cropping, mixing brinjal with ginger, which may have lowered brinjal yields. But the advice, including having his soil tested by a local private provider, was the critical factor.

Rustam explains how he interacts with Haque. In cultivation there are different phases. For each phase he pays a visit to Haque, six to eight times in total. The first time he goes to discuss how to prepare the seed bed. The second time he goes to discuss land preparation, fertiliser and pesticide requirements. Thereafter he just goes to check if the crop is progressing adequately. If he detects a disease, he will bring a plant sample to Haque's shop. If there is a serious problem, Haque will go to the field. The last time this happened was for tomato (in contrast, a previous disease problem was not controlled following Ali's advice). He does not pay for these services - the field visits and the half- hour long discussions in his shop. Rustam explains that Haque knows that if he gives good advice, people will come to him to purchase inputs. Certainly Rustam relies on Haque's advice – indeed Rustam doesn't know the brand of inputs he buys. For this he follows Haque's advice.

According to Rustam, Haque is establishing a very good reputation in Rustam's village. People know about him and farmers are especially interested to go to him now that he has received training from a company (he attended training in the spring of 2004). Certainly, Rustam prefers Haque to other farmers and government extension officers as a source of information. He has a higher income now and has used this to buy more food and clothes. Eventually he will try to buy more land.

#### **Case 2**

Sader Ali Bakshi is 50 years old and has been a farmer for 25 to 30 years. He lives in (another) village 1.5 kilometers outside Badarganj. He farms his parents' land and has bought additional land. In total he cultivates 400 decimels, half of which is used for rice, the other half for vegetables and spices. The rice-based crop cycle is rice (summer) – jute (winter) – rice (third). The vegetable-based crop cycle is pointed gourd / cauliflower / cabbage / carrot / spinach / tomato (summer) – jute (winter) – potato (third).

Bakshi has a relationship with the second retailer in Badarganj to receive training, Mr. Wahidul. Bakshi's purchasing behavior has also changed in the last two years, although less dramatically than in the case of Rustam. Indeed, with regard to seeds, there has been relatively little change. He stores pointed gourd, leafy vegetables such as spinach, some potatoes and some rice varieties. He buys the other vegetable, hybrid potato, hybrid maize and jute seeds. He has two preferred seed retailers who he believes sell quality seeds but he also regularly goes to two other retailers for seeds of if they have a good offer.

With regard to fertiliser and pesticides more significant change is evident. These he now buys exclusively with one retailer, Wahidul. He has been a customer of Wahidul's for the last five years but in the last two years he has started to buy everything here. While the shop was always a good place to buy high quality inputs, the advice he has started to receive following Wahidul's training has convinced him to take his custom here only. The example (potatoes) he gives of the benefits of good advice show his reasons why.

<b>Retailer</b>	<i>Wahidul before training</i>	<i>Wahidul after training</i>
<b>Season</b>	2003	2004
<b>Fertiliser advice for 30 decimals</b>	<ul style="list-style-type: none"> <li>- 30 kg phosphate (Chinese brand)</li> <li>- Magnesium</li> <li>- Borac</li> </ul> <p>Total cost: Tk 600</p>	<ul style="list-style-type: none"> <li>- 25 kg phosphate (Bangladeshi brand)</li> <li>- Magnesium</li> <li>- Borac</li> <li>- Compost fertiliser</li> </ul> <p>Total cost: Tk 500</p>
<b>Pesticides</b>	Same brand 3 doses	Same brand 2 doses
<b>Fuel (irrigation) cost</b>	Tk 50	Tk 50
<b>Harvest</b>	20 bags (90kg bags)	30 bags (90 kg bags)
<b>Quality</b>	Reasonable	Better, because potatoes were lighter, and therefore attracting prices of Tk 40-100 more per bag

According to Bakshi, the advice he received from Wahidul is the critical factor in explaining this change. He continues to visit the retailer three to five times per season, for different purposes/stages of cultivation as he has always done. However, what has changed is information and advice. Wahidul provides much more detail than before and, rather than waiting for questions, takes the initiative to offer information. For farmers who find it difficult to remember prescriptions he even writes things down.