

Katalyst: making 'last mile' distribution of quality seed work for smallholder farmers in Bangladesh

How Katalyst enabled half a million small farmers to step up vegetable production in Bangladesh between 2008 and 2013. It was one of the first MSD programmes to translate the 'making markets work for the poor' concept into a functional approach.

The initiative overcame last-mile distribution hurdles for vegetable seeds, enabling at least half a million smallholder farmers (many women) to step up vegetable production. It involved innovations in seed packaging and access to critical information via mobile seed vendors; driven by engagement with seed supplier companies. These changes were taken up at such a large scale that access to quality seeds, and good advice about how to use them, become the 'new normal' for Bangladeshi smallholder farmers. The programme resulted in income and nutritional benefits for millions of people living in rural poverty.

The market systems perspective

Why vegetable production?

- Vegetable production is an important source of food and supplementary income for four million rural households (including at least a million with women the main cultivators).
- smaller farmers were missing out on the opportunity to increase their incomes through supplying vegetables to rapidly growing urban markets.
- Increased vegetable consumption would also have wider nutritional benefits.

Traditionally, farmers with little land grew vegetables on micro-plots for their own consumption. Women in particular did not go to markets to buy inputs or sell produce and so lacked information and advice about quality seeds and how to use them. Yields were low (half that in comparable Indian districts). In 2008 the Ministry of Agriculture estimated that less than one-in-five Bangladeshi farmers were using reliable high-yielding vegetable seed varieties. This meant few were able to take advantage of growing demand for vegetables in urban areas where increased prosperity is changing food habits.

Katalyst's analysis of the market system for vegetable seed revealed that quality seed distributors and retailers were only established in towns and major markets. Smaller and more remote farmers and homestead gardeners instead buy from travelling seed vendors in small local markets or at the farm gate. These vendors mostly sold inferior, unpacked seed (less likely to germinate, more disease-prone and with lower yields). When small farmers sought out quality seeds they found that the regular seed packets were far too large for their small-scale cultivation needs.

Few supply firms (ten out of 100 large firms) had a good reputation for supplying quality seeds. Those that did focused their marketing efforts on larger, commercial farmers in the established vegetable production districts. The supply firms were failing to recognise the potential of smaller farmers as reliable customers, and an unwillingness to take risks to recruit them. They had no strategy or investment plan to reach them.

Interventions that catalysed innovation and behaviour change

Katalyst developed a vision for lasting change with widespread impact. It centred on engaging the major seed supply companies to develop a better system for distributing good quality seeds to small farmers and homestead gardeners. This required three significant business innovations, launched through various partnerships that evolved between 2009 and 2012 as Katalyst learned more about the seed market system.

1. Integration of mobile seed vendors

In order to get seed suppliers on board, Katalyst needed to demonstrate that smaller farmers could become valuable customers without huge investments in marketing. Its first important deal in 2009 was with a large reputable seed company. Lal Teer Seeds agreed to incorporate mobile vendors into their formal distribution channels, by offering them discounted prices. Katalyst covered a proportion of the business risk.

2. Formalising training for vendors

Katalyst knew that good yields for farmers required access to reliable information as well as seeds. It designed and arranged initial training for the first group of 50 mobile seed vendors. As their success in reaching new customers (5,000 within 2 years) became obvious, Lal Teer took on full responsibility for training new groups. They were quickly copied by other seed companies.

3. Seed pack innovation

Conventional packs (typically containing enough seed for 1000 m²) are too large for small farmers. Vendors would open packets and re-sell contents in smaller quantities. This was bad for assuring seed quality and threatened brand reputation. In 2010 Katalyst partnered with two companies (Lal Teer and A R Mallik) to design, develop and test tamper-proof mini-packs (containing enough seed for just 150 m²). The companies then made 35 varieties of hybrid and open pollinated quality-assured seeds affordable to poor farmers. Katalyst helped develop attractive packaging and promotional materials.

How Katalyst's MSD interventions led to systemic change and impact

Katalyst's theory of change in this MSD approach involved the following logic:

- Katalyst's market research and negotiations convinced at least one major seed supplier that the smallholder market had enough potential to justify their investment in distribution innovation.
- Support for training and inclusion of mobile vendors in formal distribution channels proved an effective way to reach smaller farmers with quality seeds and information. Other companies started to adopt this vendor model, then Katalyst helped them introduce mini-packs for seeds to make them more relevant and affordable to smaller farmers, especially women.
- Sales to small farmers soared thanks to availability of mini-packed seeds along with better advice from trained mobile vendors. Other agri-input firms adopted the mini-pack technology.
- Better yields and higher returns achieved by early adopters of mini-packed seeds convinced increasingly large numbers of small farmers to step up vegetable cultivation and invest more to achieve higher incomes.

Indicators that showed lasting market system change and impact

Mini-packed seeds became hugely popular

Sales of mini-packed seeds far exceeded seed company's expectations.

- › Three quarters of a million were sold in the first year (200,000 in early season, 550,000 in late season).
- › Mini-packs were being distributed across 55 (out of 64) districts within two years.
- › By 2012, the total number of households using mini-packed seeds had grown to 460,000.

Poor farmers' incomes increased

A comparative study of 500 farmers using / not using quality seeds over 3 seasons showed that:

- › 80 per cent of households buying mini-packed seeds were living in poverty (<USD 2.5/day).
- › Incomes of individual farmers rose by USD 17 per season on average, and 90 per cent had nutritional benefits from increased consumption of vegetables.
- › Aggregate income of poor farmers increased by USD 14 million in just 18 months.

Companies took ownership of the training function

- › Lal Teer invested in training more than 1,000 vendors to reach farmers in remote locations such as small riverine islands called chars.
- › Other companies followed suit. They started adopting strategies to produce, package and market vegetable seed mini-packet (including poaching competitors' staff).
- › By 2018, it is estimated 4,500 mobile vendors were part of seed companies' distribution networks (reaching over half a million farmers).

Mini-packs and informed vendors are the new normal

- › The Katalyst-inspired 'last-mile' distribution model is now mainstream in Bangladesh. Companies are using the same formula to make other agro-inputs accessible to small and remote farmers (e.g. crop protection).
- › It has also become 'normal' for companies to invest in training small retailers (including in remote locations). Syngenta branched out to set up a rural training centre to train their distributors and retailers. Hundreds of thousands of farmers have benefitted from retailers becoming a more reliable source of knowledge on disease control.

Katalyst background information

- [Katalyst Phase 1 profile](#)
- [Katalyst Phase 2 profile](#)
- [Katalyst Phase 3 profile](#)

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