



EXPERIENCE BRIEF QUALITY VEGETABLE SEED IN MINI-PACKETS

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One of the major causes of the low yields experienced by small and poor farmers of Bangladesh is the limited use of quality seeds. In 2008, Katalyst designed an intervention to make quality seeds available to farmers in small, affordable 'mini-packets'. Despite being seemingly simple, the intervention positively impacted the lives of hundreds of thousands of poor farmers in Bangladesh by ensuring higher yields and contributing to increased income.

About Katalyst

Agri-business for Trade Competitiveness Project (ATC-P) – branded as 'Katalyst' – is a market development project which aims to contribute to increasing the incomes of poor men and women in rural areas of Bangladesh. It does this by facilitating changes in services, inputs and product markets, which in turn increases the competitiveness of farmers and small enterprises.

Katalyst is co-funded by the Swiss Agency for Development and Cooperation (SDC), the UK government, and the Danish International Development Agency (Danida). It is implemented by Swisscontact under the umbrella of the Ministry of Commerce, Government of Bangladesh.



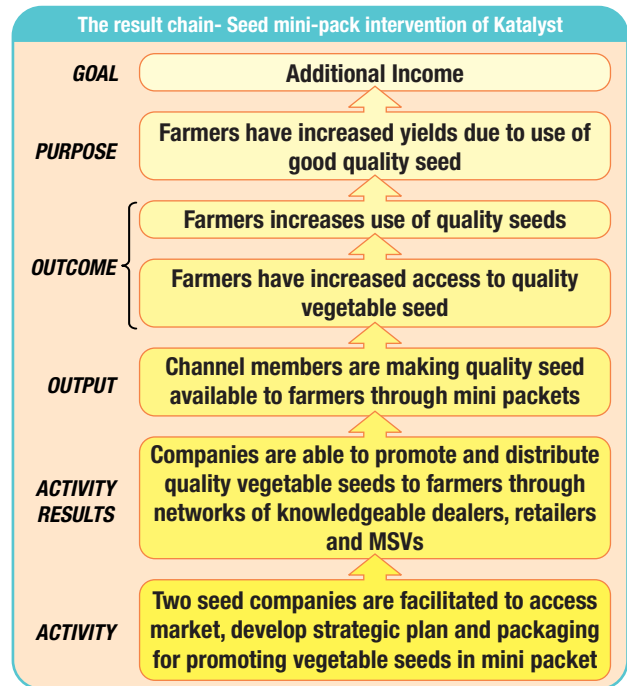
ABOUT THE SEED INTERVENTION

Before the intervention, poor farmers in Bangladesh were largely unaware of the benefits of using quality seeds, and instead tended to save deteriorated seeds from the previous harvest or buy seeds which were cheaper but of inferior quality. Of the small farmers who are aware of quality seeds, many continue to use substandard seeds because the regular, quality seed packets are too big for their needs. Farmer's requirement for smaller quantities of seeds has in the past led to the practice of retailers selling smaller quantities of seeds taken from opened large packets. These are often adulterated at the point of sale, with inferior seeds being mixed in with the good quality ones.

The seed companies in Bangladesh which produce and distribute quality seeds usually prefer to serve a clientele of medium to large farmers. Their investment focuses on the mainstream market and production hubs. They are slow (and at times reluctant) to invest in diversifying to the untapped areas and expanding their customer base, as they perceive the "first mover's advantage" to be extremely short-lived in the seed business. In general, these companies do not undertake activities or design products and services which address issues commonly encountered by small and poor farmers, such as lack of awareness, access, and affordability.

GOING IN-DEPTH TO ACHIEVE SOLUTIONS

Initially, the idea of selling quality vegetable seeds to small farmers in mini-packets seemed almost too simple a concept – and yet at the same time too risky – to attract seed companies and get them on board. In 2008, Katalyst started working with one seed company targeting small farmers by including mobile seed vendors¹ (MSVs) in the company's distribution channel. Up to that point, MSVs had been selling only inferior quality, non-packed seeds to poor farmers. Within two years, this initial intervention had been widely adopted by other seed companies, and showed there was a high probability of a market for quality vegetable seeds among poor farmers. It was also observed that small farmers were buying seeds sold by MSVs from opened packets, reinforcing the idea of a market for smaller packets of seeds. (FIGURE-1)



The seed companies were initially reluctant to introduce mini-packets of seed without a guaranteed business case. Market research by Katalyst informed the companies that despite the perceived risks there was still a clear demand-supply gap for smaller quantities of seed in packets. In March 2011, Katalyst had a breakthrough when it partnered with two leading seed companies, Lal Teer Seed Limited (formerly East West Seed-Bangladesh Limited) and A. R. Malik Seed. Through its facilitation, Katalyst had convinced these two seed companies that they could sell more seeds, probably to an untapped section of farmers, if they had appropriately sized and priced products – in other words, the mini-packets. Reducing opportunities for adulteration by distributors, retailers and vendors was also identified as a major interest of the seed companies. It was also observed that mini-packets could have an impact on a wider range of farmers, boosting their total seed sales.

Following this dialogue with the private companies, Katalyst saw strong buy-in from them to try out the mini packets. These were defined as smaller packets with a smaller quantity of seed at affordable prices – enough to cover up to 0.03-0.04 of an acre of land (the packets usually produced by these companies cover around 0.2-0.3 acres of land). The mini-packets were introduced for 35 varieties of hybrid and open pollinated (OP) vegetable seed with the price ranging from USD0.03 (OP varieties) to USD0.25 (hybrid varieties)². In addition, Lal Teer Seed introduced the concept of a maximum retail price for a packet of seed, a first in Bangladesh.

1. Mobile Seed Vendors (MSV's) are traditional vendors who move around within rural local weekly markets with seeds in hessian sacks. They usually cater to a poorer clientele requiring less quantity of seeds.
2. An average regular seed packet would cost around BDT 90- BDT 150 (USD 1.17 to 1.95) which is usually used by medium to large farmers. Exchange rate: USD 1=BDT 77

EVIDENCE OF IMPACT

The first season's sales target was for a modest 100,000 mini-packets during the pilot. However, companies hugely overshot that target, selling 558,000 packets in next six months. After a year, although A R Malik Seed had to close its mini-packet production due to internal restructuring, Lal Teer went on to sell 1.3 million packs.

Identifying the enormous population of mini-packet users spread across 55 of the 64 districts of Bangladesh, and assessing the impact on them was indeed a significant measurement challenge. A user tracking survey³ was conducted to identify the mini-packet users. It covered 35 sub-districts, and provided a breakthrough in setting criteria for the selection of a control group⁴ against the treatment group⁵. The data collected was filtered in multiple stages to eliminate measurement errors and bias.



The number of cumulative beneficiary households from mini-packet use grew from 236,000 to 339,000 and to 458,000 in three subsequent seasons in 2012. **Repeat buying rose from 15 to 41 percent.** In those three seasons, the intervention created impact equivalent to the production of USD 14 million worth of additional vegetables.

At least **90 percent of the beneficiaries** also used the produce grown from the mini-packets to feed their families; 40 percent of farmers used the mini-packets in home gardens, and there were **over 100,000 women beneficiaries.**

An average beneficiary used the seed on an average of 0.03 to 0.05 acres of land; 80 percent of them lived below the USD2.50/day poverty line⁶.

The company's own analysis showed growth of its mini-packets sale also contributed to the growth of their normal packets, which has grown by 35 percent since the introduction of mini-packets.

3. The measurement method applied was 'use of result chains to guide research design', 'difference-in-difference attribution' and 'multi-layer triangulation'.

4. Comparison farmers, who did not use any kind of quality seed packs (including mini pack)

5. User farmers, who used the mini-pack seeds

6. Source: PPI survey conducted by Katalyst in Many-July 2012

FORWARD TO SCALE UP IMPLEMENTATION

Even though it took nine months for Lal Teer to break even, within three months the company had started investing in scaling up the product line. This has created a huge pull effect on other seed companies throughout the distribution channel, encouraging Lal Teer to introduce mini-packet sizes. At the same time, optimum utility from these packets has sometimes been hindered due to the limited knowledge of poor farmers and home gardeners of proper cultivation techniques for HYV and hybrid seed.

In its new project phase, Katalyst aims to further scale up the use of mini-packets by partnering with other seed companies and farmer


organisations. It will provide support to the companies to market and distribute mini-packets of quality vegetable seed, and work with farmer organisations and service providers to increase farmers' knowledge of better cultivation practices. This will include sharing Katalyst's experience in working with mini-packets to provide financial and technical support. One expansion plan includes facilitating changes in packaging content, such as incorporating easy-to-understand knowhow on sowing and cultivation. The next step is to facilitate expansion of mini-packets to the isolated *chars* of Bangladesh through existing and alternative distribution channels.

For this intervention,
Katalyst won the
**2014 OECD Development
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Innovation to Scale



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