

SaFaL NEWSLETTER

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Leading exporters join hands with Solidaridad to scale safe mango export



FROM THE EDITOR'S DESK

Solidaridad in partnership with the Embassy of the Kingdom of the Netherlands in Bangladesh has been implementing the 'Sustainable Agriculture, Food Security and Linkages (SaFaL)' programme in southwest Bangladesh. SaFaL is supporting 58,492 farmers to trigger and facilitate a paradigm shift for producing quality and safe food, adding value in post-harvest management and extending support for the farmers and agribusiness entrepreneurs for entering into national and export markets. The project undertook a collaborative approach with multiple stakeholders and developed business models that are increasing income and employment opportunities for farmers and supply chain actors.

The most notable success of SaFaL is collectivisation of 58,492 farmers into functional Producer Groups (PGs) to facilitate farmers-to-farmers learning on improved farm management practices and develop their linkages with the forward and backward market actors. SaFaL developed 500 Lead Farmers, 86 Community Nutrition Volunteers, 60 Community Livestock Service Providers and 50 Agro Input Shops to promote best practices, food safety and market integration. The model is evolving to promote entrepreneur agriculture that is changing the farmers' farm businesses and improving the productivity of agriculture.

This newsletter reflects some of the key results that SaFaL has witnessed in improving productivity and the livelihood of thousands of smallholders as well as developing the rural market structures in southwest Bangladesh.

Prudently utilising the learning from last year's successful pilot initiative of contract farming for exporting mango to EU countries, this year SaFaL has broadened its partnership with Islam Enterprise and two other exporters to scale contract farming. Together with the three entrepreneurs and with support from the Department of Agricultural Extension (DAE), GoB, SaFaL is mobilising 200 mango and 500 vegetable producers. They are being provided with facilitation support to enter into contract farming in order to produce high quality and safe mango and vegetables for exporting to the international market and meeting the demand of the domestic market.

Through this public and private engagement, SaFaL is facilitating adoption of good farming practices, access to better inputs and post-harvest management and storage and packaging, which are facilitating smallholder mango farmers to enter into high-end markets and at the same time increase the productivity of their farm business. Contract farming is also promoting an enabling business environment to mobilise public and private investment and support towards inclusive growth of the sector.

Solidaridad is working with the government to frame a 'national action plan' making contract farming compulsory to enhance exports of fruit and vegetables. The plan includes robust farmers support and market structures for the production and marketing of high quality and safe mango.

Responsible sourcing at Mulia Shrimp Collection Centre triggers 200% business growth in two years

SaFaL established the Mulia Prawn Collection Centre (MPCC) in November 2014 in partnership with M U Seafood Ltd. The MPCC connected 900 fresh water prawn farmers with the MU Seafood supply chain through the introduction of direct sourcing. The joint venture business model has improved efficiency in the sourcing and has been able to curb the interference of middlemen in the supply chain. A win-win business incentive has triggered the business of the MPCC in a two years' time frame through which farmers are getting market competitive price and fair weight including timely payment, while the MU Seafood is getting high quality products adhering to the international market standard. Starting with 7.98 metric tons (MTs) of fresh water prawn in 2014, the MPCC has been able to source 36.98 MTs of prawn in 2016. The monetary value of the product is BDT 21,887,878 (€ 260,570).



National and international stakeholders commend SaFaL's initiatives for good agricultural practices and market linkages



A European Commission delegation visited SaFaL interventions as part of their Bangladesh visit to appraise the official control and plant certification system of exporting vegetables to the European Union (EU) market. The delegation appreciated the effort of SaFaL in collectivising farmers into cluster based producer groups as well as the contract farming model, which would act as a driving force for expanding the export of agricultural commodities from Bangladesh to the EU markets. They recommended for scale adaptation of the business model towards creating a competitive advantage in the agricultural sector transformation in Bangladesh.

Officials from the Ministry of Agriculture and their respective departments, local administration, the retail chain actors and the exporters also appreciated SaFaL's efforts for the adoption of good agricultural adaptation and market linkages towards promoting sustainable agriculture. They also recommended that the rural market structures (collection centres, agro-input shops, village super markets), which the project is developing should be scaled for improving the smallholders' accessibility to quality inputs and existing and emerging markets. In their view, the farmers support structure (Lead Farmers, entrepreneurs and service providers) needs to be adapted to the existing agriculture extension and support services for changing the market dynamics in order to connect the smallholders to the forward and backward markets. They also appreciated the effort of Solidaridad for public-private engagement, which will drive the development of multi-stakeholder partnership and determine agricultural policy reformation and the development of support services towards broadening the horizon of sustainable agriculture. The officials recommended for enhancing the horizontal and vertical integration and scaling of SaFaL initiative towards strengthening agricultural trade within and beyond the country.

Adoption of new technology changes production practices and improves productivity of the smallholder farmers

Manik Chandra Bachar (40), of Debhata Upazila in Satkhira district has been engaged in shrimp farming since long. His production was very low because of high mortality of shrimp PL. He could harvest only 20-25% of the PLs he cultured in his pond. Abdus Salam Morol, another shrimp farmer from Paikgacha Upazila in Khulna district had always been unsuccessful in making good profit as fish of his enclosure used to die due to disease outbreak. None could provide the two farmers with an effective solution to the problem until they joined SaFaL producer group. Both Manik Chnadra and Abdus Salam received training from SaFaL on various aspects of scientific shrimp culture such as preparation of pond, stocking and nursing of PL, disease detection and prevention, regular testing and management of soil and water, the use of Probiotics and regular monitoring of PL growth, crop protection and loss minimisation.



Manik Chandra applied Probiotics in his shrimp pond and found that 50-60% PLs were alive. He was overjoyed. 'It is unbelievable that 50 to 60% PL could survive with the help of a very simple technology. If I had known it before, I could have had much more productivity from my farming. Now that I know what's necessary for minimising mortality and enhancing productivity, I will not have to waste money on unnecessary feed and fertiliser.' Abdus Salam Morol, on the other hand, released high quality Specific Pathogen Free PL (SPFPL) in his pond and also used Probiotics. "I was really surprised to see that most of the harvested shrimp are of the same size, 25 grade, thereby adding value in terms of market price," he said. This time, he made 110% profit which is 54% higher than the highest profit he made previously from the same pond.

"Using SPF PL and Probiotics, my production has increased significantly. I am really surprised to see that most of the harvested shrimp are of the same size, 25 grade, and thereby adding value in terms of market price." – *Abdus Salam Mondol, one of the SaFaL Shrimp Farmer*



SaFaL Milk Collection Centers change market reality by connecting dairy smallholders to formal milk supply chain

SaFaL developed 5 Milk Collection Centres through a tripartite partnership with BRAC Dairy and local entrepreneurs to source high quality milk and payment on the basis of quality parameter. This has changed the milk market price in the locality. Farmers who used to sell milk at BDT 32 per liter on average are now getting minimum BDT 35 and maximum BDT 54 per liter based on the fat content of milk. In the village of Rangpur in Dumuria, Khulna, a milk collection centre was established in 2015, which connected 140 smallholders who are now getting secured market access to sell their milk at a better price.



"Because of quality based payment mechanism, there have been increased awareness among the milk producers about good dairy practices."- Rabiul Islam, one of the SaFaL Milk Collection Center Entrepreneurs

The MCC is collecting 200-500 liters of milk per day, supplies milk to BRAC and local sweetmeat shops and is generating a profit of BDT 18,961 per month. As the farmers are having a better return from the dairy business, they are incentivised to improve their milk quality through the adoption of good farming practices.



"We used to sell milk through the Farias, who used to deprive us on fair weight and price. Now, thanks to SaFaL Milk Collection centre, we are getting fair price based on milk quality. This is also inspiring us to adopt good farming practices." – Tarapada Mullick, one of the SaFaL dairy farmers

Village Super Market: a robust rural market structure for backward and forward market integration and to connect producers with high-end markets

SaFaL has started the construction of two Village Super Markets (VSM) to strengthen the efficiency in backward and forward market integration and inclusiveness. The VSM is taking a comprehensive approach for developing marketplaces for inclusive engagement of thousands of producers and entrepreneurs with the backward and forward supply chain actors. VSM will connect the producers and supply chain actors through introduction of responsible



sourcing, will create better access to quality inputs, improved technologies, and higher yielding varieties. It will introduce a range of post-harvest management services to reduce post-harvest losses and transport costs, will shorten the transit time and will increase overall quality of agri-products. VSM is a flagship initiative of SaFaL that will introduce standard management practices in agro-input and food supply chain for improving the productivity of smallholder agriculture. It will also help to revitalise the rural agri-business sector of southwest Bangladesh.

SaFaL Triggers Farmers Behaviour Change on Technology Adoption and Food and Nutrition Practices towards Improving their Food Security Status and Household Social and Economic Well-being

Solidaridad conducted an in-depth study on **Farmer's Behaviour Change, Drivers and Barriers as well as 'Spontaneous' Impact on Family and Neighbours of SaFaL**. The study assessed the results of the adoption and adaptation of new technologies, analysed the household level food and nutrition behaviour and its impact, women empowerment and market engagement. The key findings of the study are projected below.

SaFaL horticulture interventions are supporting 11,715 farmers with an annual production volume of 57,120 metric tons of fruits and vegetables

- Use of compost fertilisers and micronutrients has increased. 90% farmers now use vermin compost and 72% use compost. Use of chemical fertiliser has also increased- there have been changes in farmers' mindset on the application of right dosage. It has been observed that many farmers still prefer their own practices to following the recommended dosage. SaFaL is promoting application of fertiliser and micronutrient through soil health analysis.

- The farmers are using both hybrid and local variety of seeds (produced by themselves). 45% of SaFaL farmers informed that the productivity of local variety seeds is high since they are more adaptable to the local ecosystem.
- Adoption of safe and natural pest management technologies such as sex pheromone trap and bio pesticides (82% farmers are using pheromone trap and 50% are using bio-pesticide) has increased, which has significantly reduced farmers' input costs and increased product quality.
- There has been substantial change in post-harvest management practices among producers, which significantly increased their products' price. At present, 97% producers harvest their produces at mature stage while 74% wash and 97% sort and grade the products. 47% pack the produces safely for transportation.



- ✓ 40% farmers experienced up to 40% cost reduction in fertilisers.
- ✓ 38% experienced up to 80% cost reduction in pesticide use.
- ✓ 40% experienced decreased labour cost by 71% and 78% in extension services, 60% in transportation and irrigation, and 57% in pest management.

SaFaL dairy interventions are supporting 18,078 farmers with an annual production volume of 14,655,707 litres of milk.

- Significant change in the ownership of hybrid/cross-bred cows. 72% beneficiaries own at least one cross-bred/hybrid cow.
- 45% farmers cultivate improved variety green grass for their cows and almost 100% producers prepare homemade feed.
- Change in cow shed management behaviour is substantial, 71% farmers installed well-pit and drainage system for their cows.
- 47% farmers now use lime and soda to clean their cowsheds while 40% have their sheds open at both the north and south sides.
- Almost 100% producers now take de-worming service from Community Livestock Service Providers regularly.

- ✓ **Farmers feed cost reduced by 73%.**
- ✓ **98% farmers are enjoying increased milk production. 56% reported milk production increase up to 30%, and 44% reported up to 70% increase.**



SaFaL aquaculture interventions are supporting 28,699 farmers with an annual production volume of 35,990 MT fish.

- The farmers' knowledge and behaviour on pond preparation has changed remarkably. 73% farmers drain out the pond water and apply lime, compost, urea, potash, and other necessary inputs suggested by the project.
- The farmers' knowledge about and access to fish seeds has improved. 96% farmers are purchasing quality fish seeds.
- 83% use stocking with appropriate density and 83% practice nursing before stocking.
- Almost 100% fish farmers use commercially purchased concentrated and ready feed, more than 90% farmers have adopted improved feeding practices while around 60% producers use home-made fish feeds.
- 63% fish producers use Probiotics to purify pond water and are satisfied with the results.
- 76% producers test pH level during pond preparation, 65% test water temperature of the pond and 58% test phyto and zoo plankton amount in pond water, which helped reduce fish mortality and increase productivity.



- ✓ 98% farmers reported increased production and 53% reported less disease prevalence.
- ✓ Reduced farming cost by 47%.

NUTRITION AND HYGIENE

- Most of the households consume food items from more than four food groups. 55% women now eat Vitamin A-rich food while 62% take eggs and 56% take dairy products regularly.
- Over 50% children consume protein at least twice a day and, as complementary food, 26% eat boiled eggs, 19% *khichuri* and 12% fruits.
- 100% of the beneficiary households regularly seek knowledge on improved food and consumption pattern from the Community Nutrition Volunteers (CNVs) while 98% seek information on hygiene, nutrition and feeding practice.
- 84% beneficiary families are regularly visited by the CNVs which the recipients found beneficial for their well-being.
- 46% beneficiaries now wash their hands with soap after defecation and 69% before eating. 62% women wash their hands before cooking and 74% before cutting vegetables.

WOMEN EMPOWERMENT

- In horticulture, 88% women are involved in post-harvest activities and 70% in harvesting. Women's participation in decision making has increased. 89% women decide about food purchase for their household members and children, 97% on their own and their children's healthcare measures and 93% on savings.
- In dairy, 85% women are actively involved in milk sales, 82% in feeding, 70% in feed preparation and 74% in milking.
- In aquaculture, women's decision making capacity has increased. 85% women decide about food purchase for their household members and children, 89% on their own and their children's healthcare measures and 82% on savings.

"I feel proud to become an agro-input entrepreneur, my fellow farmers can reach me day and night. I am doing something new in my community, which very few women could do." - *Mithu Rani, one of the successful women entrepreneur of SaFaL*



MARKET AND ECONOMIC SITUATION

- In horticulture, 70% farmers sell through collection centres. In aquaculture, around 90% farmers sell over 90% of their produced fish. 39% of them sell their produces to local *aarotdars*. In dairy, 67% producers sell more than 70% of their cow milk daily. 61% farmers sell milk to neighbours and collectors.
- Producers who sell through collection centres and local *aarotdars* are being benefitted from better price, guaranteed and cash sales options and less transaction time and cost.
- 90% households take loans; 62% from MFIs and 24% from public and commercial banks.
- Most of the beneficiaries saved around BDT 21,000-50,000 in the last two years.

Solidaridad, with support from the Embassy of the Kingdom of the Netherlands (EKN), is implementing the Sustainable Agriculture, Food Security and Linkages (SaFaL) project in the southwest Bangladesh. SaFaL is supporting 58,492 smallholder farm households, disadvantaged landless workers for adoption of sustainable value chain based farming practice in three sub sectors (livestock, aquaculture and horticulture).

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