USAID advisor Elizabeth Skewgar visits CSISA-BD Khulna hub

In July 2012, Dr Elizabeth Skewgar, Agricultural Research Advisor of USAID, Washington made a two-day visit to Bangladesh, to see for herself some of the CSISA-BD activities going on at the Khulna Hub. She was accompanied by Dr Benoy Kumar Barmon and Mokarrom Hossain from WorldFish Center, Dhaka. She was keen to learn about the farming community of Bangladesh, and in particular to see how the rice-fish based system promoted by the programme works for them. Senior officials (Dr Shajahan, Dr Harun and Dr.Satty) and CSISA-BD colleagues in Khulna welcomed her and filled her in on the background to her visit.

On the first day of her trip, Dr Skewgar went to Malmolia village, where integrated WorldFish, CYMMIT and IRRI activities are ongoing as part of the CSISA-BD programme. There she visited a typical farming family, and was welcomed by house-owner Aklima Begum. Aklima became a CSISA-BD farmer last year, and has a 30-decimal pond, where as a result of the training she now integrates rice production (from December to April) with fish culture (May to November), while at the same time growing vegetables and practicing high-value horticulture on the adjacent dyke. She talked to Elizabeth about her family and her activities with CSISA, and lifted out some prawn and carp from the pond to show how well they are thriving. Other group members joined them to share their experiences.
Next, Elizabeth visited the village of Shobna, where CYMMIT has been working from October 2011 and was welcomed by some of the group farmers. She toured the fields and then sat in on a farmers meeting. Those involved in the programme explained their activities using posters to demonstrate how the system works. They explained how they had come to know that wheat and maize can be grown as short duration crops during the lean season, and that this had brought a new source of food to the village. They also demonstrated a maize thresher and multiple seeder, new technology supplied by CSISA-CIMMYT.

Gutudia village is on the way to Khulna, and this was the next stop on the tour. Here Elizabeth visited integrated rice-based prawn culture with IRRI and WorldFish. She met the farmers at the rice field of Ms Monju, who explained how she grows rice from December to April (boro season rice) and then stocks post-larvae in May-June in the canal or small ditch inside the gher, and harvests prawn harvest through until November. At the same time, the farmers cultivate vegetables on the dykes, another good source of income.

Elizabeth then saw cage aquaculture in action in Batiaghata upazila. Cage operators Shikha, Amari and Bijoli showed her their fish, and explained the benefits the programme had brought them.

On the second day, Elizabeth went to see rice-based shrimp farming in Chitalmari upazila. She visited two farms: one producing freshwater prawn, the other brackish water shrimp. The farmers demonstrated their use of a cast net to catch prawn and shrimp, and both groups told her how using innovative practices has improved their livelihoods, and the ways in which CSISA supports them.
The Global Positioning System (GPS) is a space-based, satellite navigation system which provides the user with an image of a particular position on Earth anytime, anywhere, in any weather. It started almost 20 years ago with a network of 24 satellites continually transmitting signals that can be picked up by anyone with a GPS receiver, who can then determine their position on earth using the measurements of distance from four satellites. Even with a minimum of three satellites, the GPS receiver can determine a latitude/longitude position.

**How can GPS be used in CSISA-BD’s work?**
- At a glance, the user can view any CSISA-BD working location on Google Earth;
- Management can use GPS to oversee the project’s geographical coverage according to hub and throughout the year, and use it to inform their decision for the coming year;
- Through this system we can gain basic information about plot and pond size, production, income and expenditure for all demonstrations and adaptive research individually.

**What’s the process?**
Below describes the steps we followed to collect and upload the necessary information on Google Earth;

**Step-1:** Initially using a Samsung Smartphone we took a photograph of each demonstration and adaptive trial picture from the field, also receiving the latitude and longitude status of each photograph.

**Step-2:** After getting the picture and latitude and longitude, we created an information file in Excel. This included information such as the name of each farmer and their address, the size of the demonstration plot, and existing production and net margins.

**Step-3:** The Hub manager or Aquaculture Development Officer then uploaded these pictures on the photo bucket web site (www.photobucket.com) to enable online access by a data analyst back in the Dhaka office.

**Step-4:** Then set those pictures with description in Google Earth and create a linkage file (*.klm file). Through this linkage file, every user is able to view project activities and progress at a glance.

**Progress so far:**
In Year 1 (October 2010 to September 2011), under CSISA-BD, WorldFish Center established 86 community-based participatory demonstrations as part of the Jessore, Khuna, Barisal, Mymensingh and Rangpur hubs and 33 adaptive research trials: most of these locations are already set on Google Earth and provide up-to-date production and net return information.

**Contributors: Md. Billal Hossain and Bilash Mitra**
Savings time and money in the ghers: boro cultivation without ploughing

On the bypass from Khulna to Fultola lies the village of Roymohol. Here in the wet season, the water in the ghers is usually about one metre deep, and used mainly to cultivate fish and fresh water shrimp. The farmers growing boro rice plough the land once or twice, particularly when the water level of the ghers goes down in December. Afjal Hossain, one of the lead farmers of the Roymohol IPM club reported, “We need BDT4000 to BDT5000 per hectare to plough the land just once,” and the CSISA Khulna hub team, determined to find a way to reduce this cost, went in to observe the production system and see where this could be done.

The farmers usually plough their land before the monsoon arrives, planting out the boro rice between late December and early January. Cropping system specialist Dr Md Harunur Rashid and his associate Md Khairul Islam had a suggestion – boro rice cultivation without ploughing. This was met with interest by Roymohol’s IPM club, and they asked to see a demonstration.

In April 2012, with the demonstration at maturity, CSISA-IRRI arranged a visit of about 70 farmers from different villages. Both men and women came, and compared the boro rice being grown without ploughing to that grown on ploughed land, counting the number of panicles per hill, and filled grain per panicle. Sample taken from a number of fields proved that growing boro rice without ploughing first does not reduce yield, inspiring the farmers to adopt the new approach. One of the farmers had travelled 15km to see the demonstration, and said she would practice the technology in all her ghers next year.

Contributors: M. Harunur Rashid, M. Khairul Islam Rony and Shama Nasrin.

Dulal Bepari follows AWD technology into a new era

In December 2011, CSISA-BD Faridpur hub began its income-generating rice-based activities for local farmers. Small farmer Md Dulal Bepari was using traditional methods to grow boro rice in his flooded rice field, using an irrigation pump to extract underground water. Through the CSISA-IRRI training, Dulal heard about alternate wetting and drying (AWD) technology, which conserves water, benefits the environment, and would reduce the cost of his diesel.

Dulal tried out AWD to grow boro rice (var BRRI dhan29) on his 65 decimals of land, and seven other famers followed his example. He found he had to irrigate twice a week instead of three. And not only did he save on water, and diesel – 34 litres (worth BDT2k) less than last year’s boro – his yield was 15% higher than his neighbours. He charged about 25% less for irrigation than neighboring pump owners. Altogether, Dulal earned an additional BDT6k from reduced diesel use and higher crop yield.

Dulal’s view is that if farmers use AWD technology, irrigation pumps will be able to cover more fields less water will be used by individual farmers, and at the same time pump owners will charge less for water. Using AWD technology has increased Dulal’s income and his good fortune – the farmers of Bangladesh would be well-advised to do the same.

Contributor: Dr. Parimal Chandra Sarker
In Bangladesh, maize means money. Farmers in Nandail upazila know this – they have been growing it for the last five years to sell as poultry feed – but lack the tools and techniques necessary to increase yield. In 2011, CIMMYT visited Nandail, and identified poor choice of seed, sub-optimal crop spacing, and poor nutrient and irrigation management as important issues to tackle.

New technologies work better when practiced in tandem, and demonstrating the benefits of layered interventions – like introducing improved nutrient management at the same time as a new variety – can increase the confidence of risk averse farmers in adopting new practices.

The farmers agreed to try the new techniques, and divided their fields into three. In the first they used traditional methods and the locally preferred variety (NK40). In the second, they continued with traditional practices but introduced an improved maize variety, 900M Gold. In the third, they planted 900M Gold and used crop management practices recommended by CIMMYT.

They found the results startling. Simply changing to 900M Gold boosted yields by 9.4% - but with improved crop management as well, farmers achieved a 3.4 tonne per hectare jump in yield – an impressive 51% - increasing by USD378 per hectare.

Md Mahabub, one of the demonstration farmers, says, “Many farmers see the demonstrations and want to change their variety and adopt the technologies recommended by CSISA CIMMYT”. Maize cultivation is expected to expand, as more farmers move towards sustainably intensifying their yield and productivity.

Contributors: Dr. T.J. Krupnik and Dr. D.B. Pandit
Women in pond aquaculture

Protima Rani lives in Horichoronsarma village, which is part of CSISA-BD’s Rangpur hub. She and her husband cultured fish in their homestead pond, mainly for household consumption. Their approach was the traditional one: buying fingerlings from the local patilwala, and paying little consideration issues such as the size of the pond, species combination, or size and number of fingerlings. They rarely used fertiliser or feed, nor did it occur to them to keep records or carry out a cost-benefit analysis of the business.

In 2011, things changed when Protima Rani joined CSISA-BD through WorldFish Center. Putting into practice the improved pond management techniques she acquired in training, she stocked her pond with mola and carp fingerlings. WorldFish and CSISA-BD staff were on hand to give technical support and assistance, and Protima has already earned BDT52,408 – more than double her initial investment.

CSISA-BD also encouraged Protima to grow vegetables, and the family now eats more than ever before, with surplus to give to relatives and even to sell, last season earning her BDT5,340.

Not only have these changes increased the family’s health and material well-being, Protima’s status has risen both at home and in the community. Now the decision-maker, she controls the income from the fish and vegetable cultivation, and even has a reserved stock of orange flesh sweet potato vines ready to give out to her neighbours.

Protima acts as a development agent, pleased to be a CSISA-BD client and share her knowledge with other women. This is just one story of how CSISA-BD’s work with farmers, especially women, demonstrates locally-adapted technologies and innovative practices.

Contributors: Md. Habibur Rahman
In August (27-30), in keeping with tradition and as part of our outreach programme, Cereal Systems Initiative for South Asia (CSISA) in Bangladesh hosted its planning meeting and annual retreat at the Nazimgarh resort in Sylhet. Its purpose was twofold: to plan the project’s third-year activities and to provide a team-building and relaxation opportunity for staff.

There were 54 participants including CSISA-BD employees and guests from CSISA India and Nepal. The meeting started with a presentation on Systematic Change by the Chief of Party, Christian Portal, followed by a discussion. The next session, Large Working Group: Sector Logics, was introduced by the monitoring and evaluation (M&E) team leader Josh Bryant and his team.

Day 2 started with a brief discussion introduced by CSISA-IRRI Coordinator Dr. M A Salaque and then the M&E team took over. They began by summarizing the previous day’s work, and the participants were then divided into groups to talk about their vision for next year’s sub-sector activities: post-harvest, mechanization and marketing, management practices, and public-private partnership. After lunch a group working session met to finalize sector logics and the Day 2 sessions were then closed by Christian. On the final day, coordinators from 3CG Centers (IRRI, WorldFish and CIMMYT) reviewed Day 2, which was followed by an open Questions and Answers session.

The trip was not all work, however: the three-day event also included team-building sessions and entertainment: group photography, organized games, a river cruise and social events. The cruise took speed boats on the river through Lalakhal, offering the CSISA team a great opportunity to experience the natural beauty of the land along the riverbanks.

Not only are games fun, and a must for any gathering, they also nurture team spirit. The trip included outdoor sports, team games and recreational activities for everyone, with prizes given out afterwards. The highlights were arm wrestling, tug-of-war and musical chairs.

Both the river cruise and the social event turned out to be a refreshing break from work. And the fun did not stop there: the night ended with a barbecue.
On Day 4 the event wrapped up with the finalization of the year three planning by 3CG Center’s Coordinators, and Christian giving a vote of thanks to everyone for sharing such thoughtful, stimulating, informative and provocative ideas and perspectives, each participant thereby making a vital contribution to CSISA-BD planning meeting for year three.

Each Participant hopes to take forward to spirit of team work and innovation as CSISA-BD embarks on its third year of activities.

Contributor: Ambareen Khan

We congratulate

Mr Harun-Ur Rashid, Cropping Systems Specialist, CSISA-BD Khulna Hub, presented a paper on *Increasing Productivity of Rice-Rice Cropping System Adopting Short Duration Rice and Mustard and Relay Cropping in “International Conference on Environment, Agriculture and Food sciences”* held at Phuket, Thailand on 11-12 August 2012 which is awarded as the best session paper. Our heartfelt congratulation to you and your team.

We welcome...

Welcome on board!!

Shahidul Islam, Training Specialist CSISA-CIMMYT
Syeda Fauzia, Associate-Administrative Coordination, CSISA-IRRI Faridpur Hub,
Ms. Nurun Nahar, Associate- Administrative Coordination CSISA-IRRI KhulnaHub
Md. Ataur Rahaman, Associate- Administrative Coordination, CSISA-IRRI, Rangpur-Hub

Farewell

We thank Dr. Md. Abdul Mazid (CSISA-IRRI) and AKM Salahuddin (CSISA-CIMMYT) for their contributions in CSISA-BD and wish them all the best in their future life and career.

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