Stories of Transformation

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IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELPMENT

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship and Resilience in Bangladesh (PARTNER)
Department of Agricultural Extension (DAE)
Ministry of Agriculture

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June 2025

Editing
Mrityunjoy Roy
Environment and Social Safeguard Specialist, PARTNER

Review Committee
Monotosh sikder
DPD, APCU-DAE-PARTNER

Dr. Mahbuba Moonmun
DPD, APCU-DAE-PARTNER

Dr. Md. Taufique Arefin
DPD, APCU-DAE-PARTNER

Dr. Md. Raquibuzzaman Khan
DPD, APCU-DAE-PARTNER

Technical Advisor
Dr. Gour Gobinda Das
Additional Program Director
APCU-DAE-PARTNER

Coordination
Abul Kalam Azad
Program Coordinator
PCU, PARTNER

Printer
Hasan Color Printing & Packaging
217, Fakirerpool (1st Floor), Frist Lane, Motijheel, Dhaka-1000

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Message from the Secretary, Ministry of Agriculture

I am pleased to know that the PARTNER program of the Ministry of Agriculture has documented best practices and success stories in agriculture sector and taken the initiative to publish it as a booklet shortly.

PARTNER is the largest project of the Ministry of Agriculture that uses a 'Program for Results' model focusing on results against interventions for sustainable agricultural development. The changes made as a result of this approach with the support of World Bank and IFAD helps ensure that interventions are effective and make a real difference. It is encouraging that with the publication of this booklet the best experiences will be disseminated among the stakeholders that could serve as a useful guide for future interventions at different levels and also encourage everyone to continue the good initiatives.

I extend my sincere thanks to all individuals and organizations who have contributed to achieve the results and assist developing this booklet. I expect that the PARTNER program will create many more such stories. This will help make the agriculture of our country more prosperous and sustainable.

Dr. Mohammad Emdad Ullah Mian
Secretary
Ministry of Agriculture

Message from the Director General, DAE

It's good to hear that, Program on Agricultural and Rural Transformation for Nutrition Entrepreneurship and Resilience in Bangladesh (PARTNER) has achieved several successes within just two years of starting its activities and has taken the initiative to publish a publication titled 'Stories of Transformation' to spread the word of those successes among everyone, including its partners. I welcome this auspicious initiative. There are currently 28 projects under implementation in the Department of Agricultural Extension. PARTNER is one of them. The main objective of this program is to bring about the desired transformation in the agricultural sector. The main architect of this transformation is the farmers of this country.

The implementers, including the project coordinator of the PARTNER Program, are working tirelessly to ensure that farmers, with the support of innovated technolgies by the researchers, marketing experts and the advice of extension workers, can successfully achieve the desired goals of the PARTNER Program.

These successes are the combined result of those efforts. I sincerely congratulate all the farmers, individuals, entrepreneurs, researchers, and extension workers who have achieved these successes. I hope their success stories will encourage others as well.

The Department of Agricultural Extension (DAE) will always provide leadership and support to keep this trend of success flowing. I believe that if we can move forward with proper planning through inclusive participation by all, then at the end of this program we will see a significant outcome and transformation in agriculture that we expect.

Finally, I would like to thank the compilers, writers and editors of these success stories, and thank PCU, the PARTNER, for the publication.

I wish this publication all the success.

Md. Saiful Alam
Director General
Department of Agricultural Extension

Message from the Program Coordinator, PARTNER

The Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship and Resilience in Bangladesh (PARTNER) is working to transform the country's agriculture in 495 upazilas across the country. Through nutrition, climate resilience, agribusiness, and the creation of agricultural entrepreneurs, this country's agriculture will become commercial and export-oriented. The journey of that process has just begun. Fifteen organizations under the Ministry of Agriculture have joined this journey. The organizations are working towards this transformation in their respective fields.

The PARTNER Program has already achieved several successes in some areas of work. Success stories have been written especially in the fields of innovative varieties and their expansion, technology expansion, entrepreneurship development and marketing, training, etc. The PARTNER have collected stories of success achieved in this short period from all over the country so that other farmers in the country can also be inspired by knowing these stories of success of those star farmers. Therefore, they too can contribute to the transformation of agriculture in this country. An initiative has been taken to publish this publication titled The Story of Transformation from PARTNER. We intend to compile notable success stories every year and keep such publications from PARTNER until the end.

We would like to express our sincere gratitude to all those who have enriched our publication by writing these success stories. We would also like to express our gratitude to those who have been associated with this publication and contributed in various ways. Last but not the least, sincere congratulations and gratitudes are for our heroic and successful farmers.

Abul Kalam Azad
Program Coordinator
PCU, PARTNER

Editor's note

All work has success and failure. Success begins the path of development, and those who achieve success follow that path towards the light. The foundation of success is built on failure. New problems or challenges teach people to stand up anew, help them find the address of light. Therefore, nothing is to be neglected, if we learn from those events, we will have to determine the right path.

The Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship and Resilience in Bangladesh (PARTNER) invites its partners to write success stories to learn about notable successes in program implementation. Responding to that call, many organizations wrote and sent their success stories. Although the final impact of the project is not easily visible at the beginning of the project, many people have started to change their traditional agricultural practices after coming into contact with PARTNER, and a wind of change has swept through agriculture. The development and use of new varieties that are climate-tolerant and nutrient-rich, the use of new and effective technologies, the production of safe crops following good agricultural practices (GAP), and new marketing strategies have made the country's agriculture multidimensional and commercial. As a result, an ordinary farmer has become an entrepreneur and exporter.

The publication 'Story of Transformation' is composed of these stories of agricultural transformation. In a word, it is a document of some of the significant successes achieved by the PARTNER in this short period of time. I hope these stories will inspire others to join this transformation of PARTNER in the future, and many more will be encouraged by learning about the successes of others.

I would like to sincerely thank all those who have enriched the publication by writing these stories. Mr. Abul Kalam Azad, PARTNER Program Coordinator and Dr. Gaur Gobinda Das, Additional Program Coordinator, have always provided valuable suggestions and assistance in the preparation of this publication. I am blessed to have been given the responsibility of editing it.

It was their advice that made it possible to overcome the limitations of the publication. Dr. Md. Taufique Arefin, Deputy Program Director, DAE, has provided considerable assistance in planning, editing, and translating the publication from the beginning. I am grateful to him for this. I also thank the Agency Program Directors (APDs) of implementing agencies and focals of strategic partners, and others who responded to this call for PARTNER. I also thank others who contributed to this publication by suggesting things in various ways.

Finally, it is hoped that the Stories of Transformation published in this publication will create many more opportunities for success in the future.

Mrityunjoy Roy
Editor

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PARTNER-BRRI's success in variety innovation, certified rice seed production and distribution

Dr. Md. Abdul Quader, Bidhan Chandra Nath, Md. Motalib Hossain

APD & DPD, APCU-BRRI-PARTNER

Bangladesh Rice Research Institute (BRRI) is the national institute for rice crop research. This institution has so far developed 121 varieties of rice, of which 8 are hybrid varieties. The three new varieties recently developed are BRRI dhan112, a salinity-tolerant, medium-life-span variety suitable for cultivation in the Aman season, BRRI dhan113, a high-yielding rice variety suitable for cultivation in the Boro season instead of BRRI dhan29, and BRRI dhan114, which is resistant to blast disease.

There are two main challenges in achieving food security in our country. One is climate change and the other is nutritional problems. To overcome of these two problems, steps have been taken to develop some varieties of rice through the Bangladesh Rice Research Institute (BRRI) under the PARTNER Program, which is supported by the World Bank and IFAD. Those varieties are tolerant to the impact of climate change and rich in nutrients. Under the PARTNER program, new varieties will be developed considering climate change and nutrient dense. Then, certified seeds of these varieties will be produced and distributed for further extension. Notably, BRRI Dhan100 and its subsequent varieties are more productive and nutritious and have special qualities which are suitable for surviving stress conditions. By this way, stress tolerant varieties will impact an important contribution to ensuring the food and nutritional security of the country.

Under the PARTNER Program, BRRI has a target of developing 5 varieties. BRRI has developed 1 variety in the fiscal year 2023-24 and the variety is BRRI dhan107. Apart from this, BRRI has developed 3 more new varieties in the fiscal year of 2024-2025, namely BRRI dhan109, BRRI dhan110 and BRRI dhan111. In order to expand these varieties among farmers, certified seeds of these varieties have been produced at the field level and supplied directly for exhibition set up among the farmers. Farmers have shown keen interest in cultivating these varieties after observing the yield performance and other characteristics.

Although certified seed production is not the main responsibility of BRRI, BRRI is conducting this activity with the topmost priority. By the way, farmers are being motivated to cultivate new varieties by collecting seeds directly from BRRI, thereby making a significant contribution to national production. In addition, it is creating a supporting role for the rapid popularity and spread of these new varieties. It usually takes 3 to 5 years for a new variety to reach farmers under the conventional seed network. But, as a result of distributing the seeds produced by BRRI directly to the farmers, it is spreading in the farmers' fields within just 1 year. BRRI has distributed a total of 295.93 metric tons of certified seeds of BRRI Dhan100 and its subsequent varieties across the country in the fiscal year 2024-2025. In addition, to increase the availability of seeds of this variety at the farmer level, BRRI has provided 10.8 metric tons of breeder seeds to Bangladesh Agricultural Development Corporation (BADC). As a result, it was helpful for the quick

expansion of these newly developed varieties.


BRRI dhan107

The specialty of BRRI dhan107 variety developed under the partnership of PARTNER is that it is a high-protein, premium quality balam type rice variety. It will contribute as a safe source of protein for the poor and middle-class people of the country. Apart from this, among the other post 100 varieties developed by BRRI, BRRI dhan100 and BRRI dhan102 varieties are playing a unique role in meeting zinc deficiency among the poor population of the country, especially pregnant women and children due to their high zinc content. The climate resilience variety BRRI dhan101 is playing a special role in combating climate-induced disasters as it is tolerant to bacterial leaf blight and has a positive impact on increasing production. BRRI dhan103 is a very high-yielding and tilt-tolerant variety of the Aman season. This variety plays a supporting role in agricultural mechanization, especially harvesting through combine harvesters and in turn to increase the country's rice production and to make an important contribution for reducing the cost of rice production. BRRI dhan104 is a high-yielding premium quality (basmati type) rice variety. Farmers are getting high prices in the market by cultivating this variety of rice, which is helping in poverty alleviation and achieving financial solvency. In addition, basmati rice plays an important role in saving foreign exchange by reducing dependency on imports. BRRI dhan105 is a low-glycemic index (Low-GI) 'diabetic rice' variety. It will play a helpful role in controlling blood sugar levels of people with diabetes and will contribute to reduce health risks. BRRI dhan108 is a very high-yielding cumin type variety that will earn farmers high prices by cultivating it and will help replace the low-yielding local cumin rice variety.

Since each of the above varieties has some special characteristics, direct supply of quality certified seed among the farmers will boost production thereby creating entrepreneurs in agriculture and pave the way for commercial agriculture.

Consequently, the contribution of agriculture to the national economy will also be increased by ensuring food and nutritional security.

Sadia's dream: Studying the mysteries of rice life

Dr. Md. Abdul Quader
APD, APCU-BRRI-PARTNER

The mysteries of rice life are truly mysterious. It is amazing to think how about 430 million base pairs, containing 32,000 to 50,000 genes, are embedded in just 12 threads of its microscopic cell chromosomes. Studying these genes is essential for any breeder to achieve all kinds of improvements and changes in the desired characteristics of rice. But the work is so delicate, complex and sensitive that it is not possible to do the work well without skills and expertise in that arena. To enhance such skills, the PARTNER Program is providing training on various subjects to scientists at the Bangladesh Rice Research Institute.

Sadia Sultana Chaiti, Scientific Officer of the Plant Breeding Department of BRRI, recently participated in two such training courses. The topics of the two training courses were 'Research Data Management Using Spreadsheets' and 'Bioinformatics Research for Future Rice'. As a result of those two trainings, she feels that it has increased her skills and knowledge in using the tools needed to effectively manage her research data, which has made her better at analyzing research results. She is now able to organize research data or information more effectively.

She now uses structured data entry, ensures consistency and reduces data errors. She is also skilled in cleaning and validating research data. This has resulted in high accuracy and reliability in research results. She is now proficient in using spreadsheet functions and formulas. She can efficiently analyze data, extract meaningful insights, and create clear and attractive data visualizations, which help her present research results in a way that is easy to understand. She is now able to automate repetitive tasks in research, which saves her research time as well as increased her productivity. She now understands the importance of data documentation and metadata. This is helping her make the data more understandable and reusable. Complex formulas, which once seemed daunting to her, have now become much easier.

“I discovered the power of data visualization, created compelling storytelling charts, and made my results accessible to everyone,” She says. Repetitive tasks were the bane of my existence, now that everything has been automated. The importance of data documentation and metadata became crystal clear, ensuring that my data was not just a collection of numbers but a valuable, reusable asset. I implemented best data protection and backup practices, protecting my research from potential loss. Crucially, I understood how to make my data reproducible and how to manage research data ethically and responsibly while maintaining the integrity of my work. The training wasn’t just a lesson; it was a transformation, enriching me with the tools and knowledge to effectively manage research data.”

She can immediately apply these skills to managing the vast experimental data or data she generates every day. Imagine, designing structured spreadsheets to collect research field data, ensuring accuracy through data validation, and creating consistent templates for different experiments. What a complex and difficult task it is to track plant height, flowering time and yield, etc., precisely! Yet all these tasks are crucial for breeding high-yielding rice varieties. Important for understanding genetic traits, genotypic and phenotypic data also need to be organized in linked spreadsheets. Germplasm management benefits greatly from organized spreadsheets and efficient tracking of accessions and traits.

These are the cornerstones of scientific progress. By applying these techniques, she is keen to contribute to advancing rice breeding at BRRI. After completing the training on 'Bioinformatics Research for Future Rice', she felt that there was a need to go beyond data collection and truly understand the rice genome at the molecular level. This is what she is interested in. It is important to identify genes responsible for important traits that we are working on, such as disease resistance or drought tolerance. "I am particularly interested in predicting protein structures from gene sequences," she says. Hopefully, this will give her a deeper understanding of how these proteins work and how they affect the rice plants we are breeding. She can see how this will help her design breeding strategies for more specific targets and look forward to developing and validating molecular markers with greater precision, which will make marker-assisted selection more efficient.' Genomic selection is another area she is keen to explore. Predicting plant performance using genome-wide data will speed up the rice breeding cycle. She is now excited to learn and analyse gene expression data to understand how rice responds to environmental shocks or stresses, which is crucial for developing climate-resilient varieties. So this training is not just about learning new software, it is about gaining the skills to truly understand the complex biology of rice, which will allow her to contribute more effectively to BRRI's goal of ensuring food security in Bangladesh.

Agricultural product processing business Khadija is now self-reliant

Md. Golam Mortuza
District Marketing Officer, DAM, Gazipur

The story of Khadija Khanam, whose origin was from a poor family in Barun village of Kapasia upazila in Gazipur now transforms into a wealthy family, is wonderful. After marriage, she was an ordinary housewife. But it was difficult for an unemployed husband to meet all the family expenses, including the education expenses of her two children. To take care of the family, she chose the path of earning money. At first, she started sewing after taking some short-term training. But it became difficult to manage the family well with the income she earned. Then she started thinking whether she could do something better. At one point, it came to her mind to start a processed food business. With that idea, she started making pickles, chutneys, etc. After that, she took 1-3 days of training from 2/1 institutions and started processing agricultural products. But it turned out that limiting herself to making pickles and chutneys was not going to work. There is a demand for jams, jellies, sauces, etc. in the market. But she did not know the techniques to make them. That is why she could not make them. On the other hand, the pickles and chutneys that were being made would spoil within a few days. Moreover, since she did not know the correct techniques of marketing, sales were not good.

In this situation, the Department of Agricultural Marketing extended a helping hand. First, she participated in a workshop on selecting entrepreneurs in Gazipur and learnt that the Department of Agricultural Marketing would create or develop 20,000 entrepreneurs across the country through the PARTNER

Program, of which 12,000 would be women and 8,000 men. To utilize that opportunity, she went to the Agricultural Marketing Officer's Office, Gazipur, for training on food processing of agricultural products.

Then, she participated in a 12-day training course in the PARTNER Program's Gazipur district. After receiving that training, her life took a turn. She is getting a new life after the training. She is currently skillfully making pickles, chutneys, jams, jellies, sauces, juices, etc. from jackfruit, other vegetables and fruits. These are more delicious, healthy and beautiful to look at than before. She does not use any harmful colors or chemicals in them. That is why these foods are 100% safe and healthy and do not spoil easily. Her income has increased by about 10 percent from before. Now she is earning profit by producing and selling these processed foods. So, she has expanded her business and now opened a company called 'Yummy Agro and Foods World' and is doing processed food business by following all the rules, becoming a successful woman entrepreneur. She started this business in 2021 with a capital of only 5 lakh taka. Now her monthly income is 60 thousand taka on an average, and her capital has now reached 10 lakh taka. She does not want to stop this success. Even if she takes a loan and wants to make the business bigger. She wants to be an example to other women who are backward in the society.

Dream daughter Khairunnahar

Md. Golam Mortuza
Agricultural Marketing Officer, Gazipur

Khairunnahar, a housewife from Tech Kathora of Gazipur Metro Police Station, also had an ordinary life like other women. However, she has made that ordinary life extraordinary with her interest and effort - the black and white life has become colorful and dreamy. Along with family work, she used to think about how to use her free time without spending it idly. Her dreams originate from her thoughts. She transferred her thought to work. She started processing agricultural products at home in her free time. After a couple of days of training from different institutions, she started making pickles and chutneys with jackfruit, mango, plum and olives. She also sold those products in the market on a small scale. But while she was selling, she realized that if she could not limit herself to pickles and chutneys only, she could make jam, jelly, sauces, etc., the business could be expanded. Since she did not know the techniques to make those, it was not possible for her to make those. On the other hand, the pickles and chutneys she made would spoil within a few days. Since she did not know the art and techniques of marketing, she was not selling as expected.

In this situation, through a workshop on entrepreneur selection of PARTNER-DAM program in collaboration with the Department of Agricultural Marketing, Gazipur, he came to know that the Department of Agricultural Marketing has taken up the agenda of creating or developing agricultural entrepreneurs all over Bangladesh. Utilizing that opportunity, She received 12 days of training on processing of food and agricultural products. Through the training, she got an idea about good agricultural practices, business accounting, recording income and expenses correctly, making jam, jelly, sauce, juice, burger, pickle and chutney from various vegetables and fruits including jackfruit, and learnt methods of preserving them for a long time. As a result of the training, she started running the business with new enthusiasm by producing these processed agricultural products in a tastier and healthier way than before. Her income from those businesses increased by about 15 percent from the amount of income she had before the training. She has opened a business called 'Swapno Kanya Agro and Foods'. She is aware of all the rules and regulations related to business. She wants to continue his business legally by following those rules. Her dream now is to control the quality of these processed products strictly and take them beyond the borders of the domestic market and taking them to foreign markets.

Nancy's eyes now on exports

Md. Golam Mortuza
Agricultural Marketing Officer, Gazipur

Tamima Akhter Nancy was born and raised in Sarkarpara village of Pirujali Union of Sadar Thana, Gazipur district. From a young age, she felt the urge to do something on her own initiative in addition to her studies. After passing SSC, she passed HSC from Bangladesh Open University. Then she married Shamim Al Mamun. In a short time, she realized that her and her husband's goals were the same. So, they both started processing agricultural products together and were somewhat successful in it. Local people praised their products. Then, they made jam, jelly, pickles, jackfruit and fish chips and started selling them in the local market on a small scale.

Initially, there were some problems in producing, selecting and preserving products properly. Therefore, they started looking for ways to gain skills, and after inquiring about where and from whom they could learn about these issues, they came to know that there was a 12-day training program under the agricultural marketing arm of the PARTNER program. Then they contacted the local agricultural marketing department office and took the training opportunity. Through that training, they gained practical and theoretical knowledge and skills in producing, selecting and preserving products properly.

Then, with new enthusiasm, they started producing and marketing processed agricultural products. This increased their income by about 20 percent compared to before. On the other hand, with the overall cooperation of the Agricultural Marketing Officer's Office, Gazipur, they easily obtained trade license, premises license, employee health certificate, dealing license of the district administration and agricultural marketing license, etc. Then, they submitted an application for trademark registration to the Patent, Design and Trademark Office in Dhaka. After receiving the trademark registration, the DAM of the PARTNER Program, implemented by the Department of Agricultural Marketing is providing significant assistance to get the BSTI license.

The organization is named after Nancy. She named it ‘Nancy Agro and Food’, the product brand is ‘Nancy’. Now, her husband and two other assistants are working in that organization. She wants to make the organization bigger. Their hope is that one day, with the overall cooperation of the Agricultural Marketing Officer, Gazipur, their products will be exported across the country and abroad. Their dream is that one day, through that organization, 10,000 employment opportunities will be created. They want not only to create employment opportunities and foreign exchange earnings for people, but also to serve the society with a part of the profit they will get from this business. They also have plans to build orphanages, mosques, and old age homes in the area. They hope that with everyone's cooperation, they will be able to reach their goal very soon. They are grateful to their PARTNER-DAM for their support.

Abdul Kudduch's entry into commercial agriculture

Sabina Yasmin

Additional Agriculture Officer, Boda, Panchagarh

Agriculture is not only meant just for food, but for money - agriculture is now a profitable business. This has been proven by Abdul Kudduch, a farmer from Jorpakhuri village in Chandanbari union of Boda upazila of Panchagarh. A young man of just 25 years of age, he is a young and energetic man. Agriculture is his profession and the main source of running his family. All his dreams revolve around that agriculture. So, he thinks all the time about how to do agricultural work more profitably. He understands that to make agriculture profitable, he has to increase the yield of his crops. To increase the yield, he has to know the modern technologies of agriculture.

Finally, he got the opportunity to learn about those modern technologies. With the help of the PARTNER Program, the Department of Agricultural Extension started a PARTNER Field School (PFS) in Jorpakhuri village in the Rabi season of 2023-24. He became a member of that school. Through training, he learned the names of modern new varieties of rice and modern farming techniques. He also got an idea from the school on how to reduce the cost of farming and increase the yield. Earlier, he used to cultivate the BRRI dhan28 variety during the Boro season. But he was no longer satisfied with the current yield of that variety. A new variety of rice BRRI dhan102 was cultivated through the PARTNER Field School. He was impressed by its yield and planned a business by producing seeds of this variety of rice with some farmers in his locality. In

2023, four of them received 20 kg of seeds of the BRRI dhan102 variety from the Upazila Agriculture Office to implement a 2 acre cluster demonstration. Abdul Quddus alone does not have that much land, so he took three more people from the neighboring with him. By cultivating through the use of moderate inputs, following the irrigation-efficient AWD method and the logo method, their cultivation costs have been saved, and the yield has also increased. Earlier, they saw that cultivating BRRI dhan28 variety of rice cost them 10,500 taka per bigha and the yield of rice per bigha was 22 maunds. By cultivating this new variety, they saw that it cost them 9,100 taka per bigha and the yield was 27 maunds per bigha. Compared to last year, their yield increased by about 22.72% percent. However, the cost of production decreased by 13%.

They produced about 162 maunds of seeds from those 2 acres. They stored these seeds as advice given by the Upazila Agriculture Office. A program was held at the cluster demonstration. Many farmers came there to see the condition and yield of this new variety of BRRI dhan102 rice and showed interest in cultivating it. So, they took the initiative to sell these rice seeds among them. At the beginning of the Boro season in 2024, they sold 15 maunds of seeds at a price of 45 taka per kg. From there, they received 27 thousand taka. Then, they sold 10 maunds of seeds wholesale at a price of 60 taka per kg outside the area in Natore, Joypurhat, Rangpur and Bogura districts. They sold another 5 maunds of seeds at a retail price, receiving a price of 80 taka per kg. In this way, they sold a total of 67 thousand taka worth of seeds. Out of the remaining 132 maunds of seeds, 110 maunds of seeds were sold at a price of 1100 taka per maund and received 1 lakh 21 thousand taka. Thus, their total income was 1 lakh 88 thousand taka. Out of the remaining 22 maunds, 21 maunds were used as food for the family and 1 maund as seeds for their own land. If he had a seed dealer license and a system for packaging, he could have packaged and sold the entire seed himself. He found two specific reasons for the good price of this new variety of rice. Its yield was very high (8.10 tons per hectare) and the variety was rich in zinc nutrients. Amena Begum, a trained farmer at Jorpakhuri (PFS) said, “I know from the training that this variety of rice contains zinc, which reduces the risk of diseases. So, from now on, we are starting to eat this variety of rice.” Another big advantage of this variety of rice is that its seeds can be saved and cultivated every year, which is not the case with hybrid rice. Boda Upazila Agriculture Officer Ahmed Rashed-un-Nabi said, ‘this is the first time that BRRI dhan102 variety has been cultivated in Boda Upazila. This demonstration would not have been possible without the provision of seeds of this variety and other support through the PARTNER Program directly through the Bangladesh Rice Research Institute. Through this, farmers are now able to produce seeds and sell them for business instead of just cultivating rice for consumption. Abdul Quddush hopes that the BRRI dhan102 variety will be cultivated on about 50 hectares of land in this upazila this year, for the availability of the BRRI dhan102 variety seeds that he has produced. This has played a pivotal role in expanding the cultivation of new varieties of rice in the area.

Farmers are now also aware of protecting the environment

Mrityunjoy Roy
Environmental and Social Protection Specialist, PCU, PARTNER

A village rich in green and purple crops in Patiya Upazila of Chittagong is Shobhandandi. About 80 percent of the villagers are farmers who cultivate various crops throughout the year. Paddy is their main crop, their main source of livelihood. But many farmers now say that they are not very profitable by cultivating paddy. The cost of paddy cultivation is increasing day by day, and even the old varieties are not yielding as much as before. So some are turning to cultivating other crops instead of paddy. But the exception is Md. Mansur Ali (53), a farmer from that village. He, along with 4 (four) other farmers living around his land, set up a cluster demonstration of new non-paddy varieties following the advice of the Upazila Agriculture Office.

Through this demonstration, the farmers of that village not only got at least 10 percent more yield than the Boro rice cultivated in that field in the previous year but also saved irrigation water and reduced production costs by following eco-friendly farming methods, and they were able to contribute to environmental protection.

In the cluster demonstration, a PARTNER Field School or PFS was established in their village so that the farmers could cultivate the new variety of rice properly by following all the rules. Through that school, they became skilled in using all the modern techniques or technologies in rice cultivation. The facilitator of the farmer field school were agriculturist Kalpana Rahman, Upazila Agriculture Officer, Patia, Chittagong and Mohammad Bulbul, Sub Assistant Plant protection Officer, Patia, Chittagong. From them, the farmers learnt, while cultivating rice during the Boro season, farmers keep water in the fields for many days. As a result, the weeds die in the field. Then, the weeds and debris in the soil become decomposed and release a gas that is harmful to the environment from the rice fields into the air, which increases the temperature of the atmosphere. They even learnt the name of the gas called methane for the first time in their lives. The assistants taught them how to stop the gas called methane from their rice fields. They learnt that a new technology called AWD has come up, by using AWD they can stop the production of methane gas from their rice fields. Through this technology, instead of always keeping water in the land, if you irrigate the paddy field by giving and taking water out periodically, it will stop the emission of methane gas, and it will not harm the environment. During the training, farmer Md. Mansur Ali kept these things in mind. So, he started using this technology with others in their fields, the main material of which was a very cheap AWD pipe, which gradually became known to them as the magic pipe. In addition, they have used organic pesticides or bio pesticides instead of chemical pesticides in rice production this time along with organic fertilizers. “Rashidabad Block Sub assistant Agriculture Officer S. M. Jahedul Haque has provided all kinds of support and advice to the farmers in implementing this cluster demonstration” said farmer Md. Mansur Ali. They all planted seedlings in their land together on 30 January 2024. After that, after 10 (ten) days, they installed AWD pipes in that land. Through this pipe, they irrigated the soil by understanding the condition of the soil. At the end of the season, they found that while 10 irrigations were required for Boro rice cultivation last year, this time the land had to be irrigated 3 (three) times due to irrigation following this technology. As a result, it has been possible to save 7 times (30%) of irrigation water. Last year, while cultivating paddy in the Boro season, their irrigation cost was 2,500 (two thousand five hundred) taka per bigha, this time it was 1,485 (one thousand four hundred eighty-five) taka. As a result, the irrigation cost has decreased to 1,015 (one thousand fifteen) taka per bigha. Therefore, by holding this cluster demonstration, it has been possible to reduce irrigation, fertilizer and other expenses. However, the yield has increased. In the previous year, they got an average of 16.5 maunds of paddy per bigha from these lands, This time by cultivating BINA dhan25 varieties, they got a yield of 19.5 maunds per bigha. The actual profit has been 4,080 (four thousand eighty) taka. And there are environmental benefits that are not visible to the eye.

There are many more stories behind their success and high profits. Many people come to see this demonstration field of new varieties. They held a “Field Technology Orientation” event in the field by inviting local farmers, officials and media reporters. About 70 to 80 people participated in the event. Many showed interest in getting and cultivating the seeds of the new variety after seeing the appearance of the

new variety. Abu Taher (54), a farmer from the cluster demonstration, told a local TV channel, "We got an idea about the use of this new variety and AWD system through hands-on training from PFS. We have benefited a lot by using these technologies."

Farmer Sirajul Islam (51) expressed optimism that compared to the Boro variety they used to cultivate, the BINA dhan25 variety of rice is susceptible to less disease and insect attacks while the yield is higher. So, he decided to buy the seeds of this new variety from these farmers. Farmer Rafiqul Islam (46) came to see the rice field. He said "this variety of rice is thin and beautiful, so its price will be lucrative in the market." He believes that if rice can be made from this variety of rice well, there will be a huge response among farmers for cultivating this variety of rice. Therefore, through the cluster demonstration, they have stored 20 maunds or 800 kg of seeds of this variety of rice. By storing the seeds, they can sell them at a higher price than ordinary rice.

Fulfilling Swapan's dream with BRRI dhan103 variety

Md. Masud Rana
Sub-assistant Agriculture Officer, Durgapur, Netrakona

The beauty of the Garo Hills and Someshri River are the Queen of Nature located in Susang Durgapur captivates everyone. Along with its beauty, the cultivation here fights various natural problems. The hilly slopes coming down from the upstream is like a curse for the farmers. The golden crop mixes with the ground in an instant. Swapan Debnath, an ideal farmer of Telunjia village in Birishiri Union, a union is well known across the country in Susang Durgapur. Under the PARTNER Program, he implemented an demonstration of BRRI dhan103 variety rice on two acres of land to expand the new variety of rice in the financial year 2023-24 through the Department of Agricultural Extension. With the help and advice of the Sub- assistant Agriculture Officer of Telunjia Block, he started cultivating this variety by making an ideal seedbed of this variety of rice. But due to heavy rains in the hilly area, the seedbed was completely submerged. The joy turned into sadness in an instant. But after three days, the water receded. As soon as the water receded, the seedlings started to raise their heads. The seedbeds gradually turned green. Farmer Swapan could not have imagined that the submerged seedlings would wake up like this again. The seedlings started growing, and Swapan's dream turned into materialization.

One morning during the Aman season, he planted those seedlings in rows in the field. He cultivated this variety of rice by following all the rules required for the rice crop, such as parching, balanced fertilizer, and other rules. Therefore, the difference in the desired yield was also less. Within a few days, there was a stir in the area about Swapan's rice land. But ill fate crawls to Swapan's rice land. Suddenly, a hilly flood came. Since Swapan's land was slightly higher and the BRRI dhan103 variety was higher, the goddess of fortune helped him from the devastating flood. Within a few days of the water receding, the rice land seemed to regain its previous form. The field is filled with golden rice. He gets 125 maunds (6.1 tons per hectare) of rice from these two acres of land. Farmer Swapan said, 'If the BRRI dhan103 variety of rice provided by the PARTNER Program was not cultivated in the Aman season this time, the land would have remained barren. In other years, there were many problems in cultivating rice in this season due to the hilly slopes. This time, with the help of the PARTNER-DAE advice for cultivating this variety of rice has been of great benefit.' According to the Bangladesh Rice Research Institute, this variety is one of the highest yielding and tilt-tolerant varieties of the Aman season, and since the height of the plant is high, it does not sink in the hilly

slopes. This variety of rice can be easily harvested through a combine harvester.

Last year, he cultivated varieties of rice like Ranjit, Swarna-5, BRRI dhan34, BRRI dhan49, BRRI dhan87 on this land. This year, the same land has yielded about 20 percent more due to the cultivation of BRRI Dhan103 and the adoption of modern technologies. Due to the high height of BRRI dhan103, additional straw is produced along with rice. Since the rice in the low-lying areas is completely destroyed due to the hilly slopes, he earns extra income by selling the straw at a high price. This variety has created a huge stir in the area. He has stored 20 maunds of seed rice in 10 drums from the produced rice. He hopes to make more profit by selling those seeds to neighboring farmers and seed traders. With this amount of seeds, the cultivation of BRRI dhan103 variety will be expanded to at least 160 bighas of land in the coming season, which will contribute to increasing food production in this country.

A Partner Field School (PFS) was established in Telunjia village on rice crops. Through this school, 25 farmers have learnt a lot about rice cultivation. Swapan Debnath was a member of that PARTNER Field School. He said that the knowledge gained from the PARTNER field school plays an important role in getting good yields. Neighboring farmer Rakhal Chandra Kar said, 'Swapan has got a lot of paddy this time. We will also cultivate this paddy in the future. Let's take Swapan's seedling of rice and cultivate this paddy next time.'

Tribal farmer Christina Daring said, 'This time, there is fair paddy, next time I will also cultivate this paddy in my field. Swapan Mamu is doing well in cultivating paddy this time, we will also cultivate paddy like him.' Another farmer nearby, Nazrul Islam, said, 'BRRI dhan103 is an improved variety, there is no harm in cultivating this paddy. The agricultural officer says that if you cultivate it properly, the yield will be higher.' Everyone said the same thing: BRRI dhan103 is an improved variety. It is possible to get good yields if you cultivate it according to the right cultivation procedure. The Upazila Agriculture Department hopes that many farmers in Telunjia village of Birishiri Union will benefit like Swapan Debnath in the future as a result of the expansion of this new variety of rice under the PARTNER Program.

Partner in the provision of safe food

Md. Barkat Ullah
Agricultural Extension Officer, Biral, Dinajpur

Public awareness is increasing worldwide about the production and consumption of safe food. At one time, in our country, we only focused on filling our stomachs by eating food. After the achievement of the capacity to produce food that fills our stomachs, now we have to focus on improving nutrition as well as safe nutritious foods that is for our health. For this, emphasis has been placed on the production and marketing of safe food in many countries. For this, emphasis is being placed on inventing necessary policies and techniques and following them. Its main goal is to ensure the good health or health of the consumer and the protection of the environment.

In Bangladesh, Good Agricultural Practices Principles and protocols for cultivation of 15 crops have been formulated in the light of those principles. PARTNER Program is also being implemented by the Department of Agricultural Extension in 495 upazilas across the country to enhance the skills of farmers in cultivating these crops by following good agricultural practices.

Under this program, a Partner Field School (PFS) on Good Agricultural Practices was implemented in Sakoa village of Raghunathpur block of Mangalpur union of Birol upazila of Dinajpur in the last fiscal year 2023-2024 with the participation of 15 farmers and 10 women farmers. Before the implementation of this PFS, no farmer knew about Good Agricultural Practices or GAP. They used to cultivate fruits and vegetables in the conventional way. As a result, none of the fruits and vegetables they produced were safe for the consumer. Currently, most of the farmers/women farmers in this school are cultivating crops following various methods of Good Agricultural Practices. Before receiving the training, they used to use additional chemical fertilizers. From the PFS training, they understood that soil testing is necessary for applying fertilizers in the crop field. Currently, they are using chemical fertilizers in a balanced manner

after testing the soil and increasing the use of organic fertilizers. Trainee Abu Saeed said, “I now produce vermicompost myself and I use that vermicompost in my land.”

Farmers are now using fences/nets in their crop plots. They are following the integrated pest management method as advised by the Sub-assistant Agricultural Officer in pest management. They are now using organic pesticides instead of chemical pesticides in their crops and are cultivating vegetables using sex-pheromone traps, yellow sticky traps and mulching paper. After receiving the training, they are harvesting various vegetables and fruits using sharp knives/scissors instead of hand harvesting. They are now using personal protective equipment such as masks, gloves, aprons, etc. while working in the fields. They are also now aware of crop waste management and safe water use. They are taking care that the crops are not contaminated by any contaminants and do not cause any harm to the consumers.

Earlier, they used to use polythene/fertilizer bags for transporting vegetables and fruits. But after receiving training, they are using plastic crates and wrapping paper. Earlier, they did not keep any written information about crop cultivation. But now, they are recording all kinds of information in the ledger or register, such as land preparation/cultivation information, seed sowing/planting, seed/seedling source, weed control information, fertilizer and water irrigation information, irrigation water source, collection and storage information, product transportation information, etc. In previous time, they used to wash and clean the collected crops in pond or pond water, but after receiving training, they are washing and cleaning them with safe water from tube wells. Then, following all the rules, they sort them, divide them according to quality and size and pack them. In this way, at every stage of fruit and vegetable production, they follow all the rules and the fruits and vegetables produced are safe for the consumers.

Keshab Chandra Dev Sharma (52), a trained farmer at the PARTNER Field School in Sako, along with many others, have increased the production and consumption of safe vegetables in the area by using these technologies after receiving training. Keshab Chandra Dev Sharma cultivated sweet pumpkin on 100 acres of land. From that land, he was able to produce about 3,000 kg of sweet pumpkin vegetables in a safe way. He has also been able to increase the production of vegetables by about 15 percent compared to last year.

As a result of the campaign of the Upazila Agriculture Office, some consumers buy safe vegetables from his fields. Earlier, he did not know that vegetables in the market have to be made safe. Now, he has learnt a lot through training at the PARTNER Field School. As a result of this knowledge, he is now making a profit by producing safe vegetables and is also getting the opportunity to maintain good health by eating them. Labani Akhtar (28), a farmer from Sakoa Ghap PFS, said, "Earlier, I used to farm on my own, but now I am trying to produce safe vegetables after receiving training in PFS school." A local consumer, Rabiul Islam (32), said, "Nowadays, we buy and eat vegetables from this Sakoa village without any worries. I have heard that they use less chemical poisons and fertilizers." Keshab Chandra believes that if everyone in the village like Rabiul buys and eats these vegetables, even at a slightly higher price, then they will no longer have to look for other markets for safe vegetables, and the cost of transportation and marketing will also be reduced. However, he believes that there is a need to run campaigns and establish more contact with the market to create public awareness about eating safe vegetables. If there is no system to certify that the vegetables produced are safe for health, ordinary buyers will not want to believe it easily. This aspect also needs to be considered, he said.

Corn farming makes Mozammel happier

Md. Sajedur Rahman
Additional Agriculture Officer, Parbatipur, Dinajpur

This country has recently achieved unprecedented success in corn farming. Dinajpur is one of the districts where more corn is cultivated. Currently, many hybrid varieties are being cultivated in corn farming. Many varieties have gained popularity among farmers due to their high yield. A school named 'Hoybatpur Partner Field School (Corn)' was implemented in Parbatipur Upazila of Dinajpur in the 2023-2024 fiscal year under the PARTNER Program. Twenty-five farmers received training in the school on corn farming. The farmers participating in the training were taught techniques on how to get more corn yields. Entrepreneurial farmer Md. Mozammel Haque was a member of this school. He received training from the PARTNER field school on improved varieties of maize, cultivation techniques, disease and insect control measures through IPM system and other topics. Later, he received an demonstration of Samrat variety maize from the said program. That demonstration was a validation trial demonstration of a new variety of grain (non-rice) maize.

By implementing the demonstration through the training received from the PARTNER field school, he was able to produce 11.5 tons of maize from 2 acres of land. The market price is about 2 lakh 93 thousand 750 taka. In the demonstration, he controlled diseases and insects through integrated pest management or IPM system. As a result, his production cost was less than other maize farmers. The production cost of cultivating maize on his 2 acres of land is 1 lakh 43 thousand 750 taka. Therefore, he earned 1 lakh 50 thousand taka from 2 acres of land. Local farmer Abdur Rahim said, "Mozammel Haque's corn has become the best in the area. From now on, we will also cultivate this corn in the same way by following these rules." The Upazila Agriculture Officer expressed optimism that the corn variety will be further expanded in the 2025-2025 fiscal year. He said that the target of 5,475 hectares of corn cultivation in Parbatipur Upazila has been achieved in the 2024-2025 Rabi season, which is 25 hectares more than the last fiscal year. If farmers benefit from cultivating improved varieties of corn crops through modern methods, their socio-economic conditions will be changed.

Light of hope BRRI dhan103

Md. Barkat Ullah
Agricultural Extension Officer, Kaharol, Dinajpur

At one time, BRRI dhan29 was a popular variety of the Aman season in this country. Then came BRRI dhan49 and BRRI dhan87. Then in 2022, the BRRI dhan103 variety was approved for cultivation, which has a relatively higher yield than these two varieties, and the height of the plant is also higher. Since its rice is slender and thin, farmers get a higher price in the market by cultivating this rice. There is even an opportunity to export this variety of rice in abroad.

Meeting the demand for rice by increasing rice production and coping with the effects of changing climate in Bangladesh is a big challenge. The amount of agricultural land, fertility, groundwater and agricultural labor are decreasing day by day. In this situation, on the one hand, increasing rice production and improving nutrition are one of the main challenges. This challenge can be met only by developing new potential varieties and following modern sustainable farming techniques for rice production.

One of the cultural and natural heritage upazilas of Dinajpur is Kaharol. In this upazila, the BRRI dhan103 variety of rice was cultivated for the first time under the PARTNER Program in the last Aman season. Farmer Md. Liton Ahmed, along with two other farmers, successfully cultivated this variety of rice in their 2 acres of land that season. He was provided with free seeds, fertilizers, pesticides and seed storage drums of this variety of rice through PARTNER-DAE. They received this demonstration as seed producer entrepreneurs in the 2023-24 fiscal year.

He also took training from the PARTNER Field School and gained a lot of knowledge about modern farming, water, fertilizer management, selection and cultivation of modern varieties. With all the support and guidance of the Upazila Agriculture Office Kaharol, Dinajpur, he harvested the crop in just 129 days through modern farming methods. This variety of BRRI dhan103 is early and has higher yield compared to other Aman varieties. He got 150 maunds of paddy (7.4 tons per hectare) in 2 acres of land and made a profit of 80,000 taka by selling 50 maunds of paddy seeds at 40 taka per kg and made a profit of 1,66,400 taka by selling 130 maunds of paddy at 32 taka per kg. Then, he has stored 17 and a half maunds of seeds in 10 drums supplied by the PARTNER.

Local farmer Mr. Manas Roy said that he first saw the BRRI dhan103 variety in the land of local farmer Mr. Liton. He found the variety very good. And the yield of the variety is also good. He further said “I have taken 50 kg of seeds and will cultivate it myself.” On the other hand, Mr. Liton said, ‘I have stored 17 and a half maunds of BRRI dhan103 variety seeds. I will cultivate this variety again in the next Aman season and provide the remaining seeds to the members of the Partner Field School free of cost.' If farmers benefit from cultivating improved varieties, they will be more motivated, and their socio-economic development will be enhanced.

Asif's golden egg-laying duck BINA dhan25

Md. Hasan Mahmud
Sub Assistant Agriculture Officer, Hathazari, Chittagong

Who says that you have to count losses by cultivating paddy? A farmer from Hathazari has proven that good profits can be made by cultivating paddy. He has earned more than one lakh taka per acre by cultivating paddy during the season. There are many stories behind this profit. Asiful Hasan, a farmer from Purbadholai village in Hathazari upazila of Chittagong, has been doing farming for a long time. Although he cultivates various crops, rice is his wealth and capital. But while cultivating that rice, he would sometimes stumble. Even if he wanted to, it was not easy to find seeds of improved varieties and quality at hand. If there was even a slight breeze in the field, the rice plants would bend in the wind. Sometimes the bending plants would fall on the ground. When the rice was ripe, a kind of black scab disease would develop on the grains. When he tried to break the husks of many varieties of rice, the grains would break. This was not just Asif's problem, it was the problem of many other farmers in that area.

One day, Asif went to the Upazila Agriculture Office for advice and after talking to the officials of that office, he came to know that there is a variety of rice called BINA dhan25 that can be cultivated in the Boro season. Cultivating that variety can solve this problem to a large extent. The Upazila Agriculture Officer said that the Department of Agricultural Extension has started a PARTNER program to expand the high-yielding new 100 Plus and BINA dhan25 rice varieties. This season, a plan has been taken from that office to implement the exhibition of BINA dhan25 variety. Seeing Asif's interest in this matter, he was allotted a demonstration of this variety. He implemented the demonstration properly on two acres of land.

Initiatives and Suggestions

The PARTNER Program for the Extension of High-Yielding New Varieties has been working since the beginning. In continuation of this, an initiative was taken to implement the BINA dhan25 variety exhibition in Hathazari Upazila in the fiscal year 2023-24. When the seeds of BINA dhan25 variety were confirmed, this exhibition was implemented in the upazila that year. BINA dhan25 is a high-yielding and at the same time thin rice variety. The people of Chittagong like to eat thin rice. In this case, it is easy to expand BINA dhan25 variety through the PARTNER Program.

That is, this variety can withstand the attack of false smut disease. Even then, during the implementation of the demonstration, the Sub-assistant Agriculture officer of the Upazila Agriculture Office observed Asif's demonstration field and gave necessary suggestions to remedy this disease. As per his advice, the pods of the false smut are carefully removed so that they do not spread spores from the pods. The Upazila Agriculture Office advises to break the paddy in an auto rice mill by keeping the moisture content of the

paddy at 15-16 percent. Milling the paddy accordingly eliminates the tendency of breaking the rice to a large extent. To reduce the tendency of tillering in uncultivated land, it is recommended to apply 30-35 kg of MoP fertilizer per hectare.

As a result of providing the right advice at the right time and implementing the advice correctly, the production of the paddy in that area has increased by 15 percent compared to other conventional varieties of paddy in that season.

Key Achievements

The cultivation of the BINA dhan25 variety through the Hathazari Upazila Partner Program has received a huge response in the area. Especially since Chikon rice is a high-yielding and delicious rice variety, farmers in the area have become interested in cultivating BINA dhan25. The expansion of high-yielding varieties (HYVs) through the PARTNER program has played an important role in this. As a result of planting rice following the row and logo method instead of conventional cultivation and doing other maintenance properly, while conventional rice cultivation used to yield 5 to 5.5 tons per hectare, Md. Asiful Hasan obtained a yield of 6.8 tons in BINA dhan25 cultivation. In addition, he has benefited financially as the market price of BINA dhan25 variety rice is 3-5 taka higher per kg than the market price of previously cultivated rice. As a result of cultivating this variety of rice, his actual profit per acre has been 1 lakh 08 thousand 325 taka.

Impact and Change

As a result of the benefits of cultivating BINA dhan25, Md. Asiful Hasan's perspective towards cultivating high-yielding varieties of rice has completely changed. Seeing him, other farmers in the area have also become interested in cultivating HYV rice instead of local rice and are contacting Md. Asiful Hasan to get seeds. A comparative picture of Md. Asiful Hasan's BINA dhan25 cultivation is given below-

Year	Variety	Area	Yield (ton/hectare)	Price (Tk/kg)	Income (Tk)	Total Cost (Tk)	Net profit (Tk)
2023	Golddhan (local variety)	1 acre	5.0	32	1,60,000	1,23,460	36,540
2024	Binadhan-25 (Ufshi variety)	1 acre	6.8	35	2,38,000	1,29,675	1,08,325

Neighboring farmers are surprised

Md. Sarwar Uddin, a farmer from Purba Dhalai village, said, 'BINA dhan25 is a high-yielding paddy variety. We have seen that this paddy yields 15 to 20 percent more than the rice we usually cultivate. This variety of rice is fine and tasty to eat, so the price is also good. I am also interested in cultivating this variety of rice. I will buy seeds from Asif.' Md. Nurun Nabi Zahed and Md. Ibrahim responded similarly to Sorowar.

Last words

This success story of Md. Asiful Hasan proves that agriculture can still be a profitable and respectable profession, if done with proper planning, modern technology and perseverance. His story is not just a success story of an individual; it is an inspiration through which we understand that extraordinary success is also possible in the field of agriculture. The activities of PARTNER-DAE have inspired him behind this success.

Farmers of Chakaria benefit from AWD irrigation system

S.M.Nasim Hossain
Upazila Agriculture Officer, Chakaria, Cox's Bazar

Farmers of Chakaria are benefiting from using the AWD system, a water-saving irrigation technology for Boro rice production. Farmers are saving Tk 1,000 per bigha of irrigation cost by cultivating rice in the method of alternate wetting and drying (AWD) the land in different stages of rice. Some farmers of Karmuhuri Para of the Chakaria upazila have now irrigated 7 acres of land using the AWD system by burying 25 cm pipes in the land. Farmers apply water after seeing the pipes and understanding the condition of the sap in the land and do not keep water in the fields all the time like before. This has saved them about 30 percent of their water in Boro rice cultivation this time. This has reduced production costs. These farmers of that village were benefitted as production costs are low and yields are high.

In the year of 2023, in the Boro season, an AWD cluster exhibition was given on 2 acres of land in Chakaria under the PARTNER Project. The demonstration was set up in Karammuhuri Para of Brindavankhil Block under Harbang Union of Chakaria Upazila. Farmer Nezam Uddin of that village implemented the deonstration. By using this irrigation-saving method, farmer Nezam Uddin saved about 7 to 8 thousand taka on 2 acres while the yield was increased by about 20 maunds. Before using this method, about 30-35 percent of his irrigation water was wasted by cultivating the same land. As a result, his production cost was higher, which caused him financial loss. Since, using this method, he has been getting quite good profits by cultivating paddy in that season. This year, he has cultivated Boro paddy using the AWD method on more acres of land. Inspired by seeing farmer Nezam, more local farmers have used the AWD method in Boro paddy cultivation. Due to the impact of the demonstration implemented last year, currently the AWD method has been expanded among farmers in Chakaria Upazila in irrigation management on 7 acres of land.

The observation and opinion of local farmers is that less irrigation water is required and the cost of cultivation is also reduced. Sub-assistant Agriculturel Officer of the concerned Brindavankhil block said, 'Using AWD technology reduces diesel and electricity consumption and increases crop production by 1 to 2 maunds per bigha. I told the farmers this before cultivation. But many did not believe it. But many of those who went to farmer Nezam Uddin's demonstration and saw it with their own eyes and heard about Nezam Uddin's experience, have now expanded this system in Chakoria upazila themselves.'

Currently, due to climate change, the water level in the soil is decreasing and there is a shortage of irrigation water. Therefore, it is important to save irrigation water. As this technology is being provided to farmers to deal with the irrigation crisis, this method is becoming popular with farmers day by day. Farmers worry about irrigation in the field due to load shedding and salinity until the moment before harvesting Boro rice. Farmers are worried about the lack of water in their paddy fields. Since, this technology allows them to get more yield at a lower cost, other farmers in the area are also interested in cultivating in this way. If this technology is adopted by 100% of farmers in the future, it will save a lot of irrigation, reduce the pressure on groundwater use, and benefit the environment.

Green gold grows in the sand of the char

Tushar Kanti Roy
Upazila Agriculture Officer, Kaliganj, Lalmonirhat

Kaliganj is an upazila of Lalmonirhat district in the north of Bangladesh. Hatibandha upazila and Cooch Behar district of India are to the north, and Gangachara upazila of Rangpur is to the south. The Teesta, Trimohini and Swarnamati rivers flow through this upazila. There are quite a few chars in the vicinity of these rivers, which are uncultivated. There is a vast char area that has arisen on the banks of the Teesta River in Bangerhat of Votmari Union. The land of this char had been uncultivated for a long time. No crops were cultivated there. However, thanks to the efforts of a few local farmers, the uncultivated char is now a feast of greenery. Not only that, these progressive, educated farmers have produced safe vegetables in the char through various techniques by following Good Agricultural Practices or GAP. The 25 farmers of that group have covered the silvery sand with green vines of sweet pumpkins and watermelons. Sweet pumpkins and watermelons are now like the green gold of the char. In the char, they all produced 8 tons of safe watermelons and 120 tons of vegetables in the winter season last year on 14.85 acres of land, got 3 tons of wheat, and 3.74 tons of potatoes. By selling those watermelons, sweet pumpkins, wheat, corn and potatoes, they made an average profit of 48,790 taka per acre or hundred. From now on, they are weaving a web of new dreams about char agriculture.

The beginning

In November 2024, the journey of 18 educated youth and 7 educated women from Bangerhat village started with North Bangerhat Jamirbari GAP-PFS. Among the 25 members of that field school, there are members who have passed SSC to Masters. During the training at the field school, they came up with the idea of cultivating in the char. But while cultivating in the char, they faced several problems. When they planned to start cultivating jointly in the char, many of this group objected to cultivating there, citing the inadequacy

of irrigation, the barrenness of the land, and the fear of disease and pest infestation. In addition, many were reluctant to invest there, considering the inadequacy and safety of transporting crops due to the lack of adequate roads in the char. In addition, the lack of capital and lack of experience in investing in the char region made this work a challenge.

Initiatives and Solutions

But the local Upazila Agriculture Office stood by those indomitable farmers. They made them trainees at that school to implement a GAP-Field School of the PARTNER Program. After receiving training at that field school, they understood how to use organic pesticides instead of chemical pesticides and produce safe crops in a cost-effective way without polluting the environment. As a result, they were motivated by the training and started cultivating in the uncultivated land of the char in groups. Through training at the PARTNER Field School, they learnt about irrigation and fertilizer management suitable for char. They learnt about LLP and ribbon pipes. With the help of this, they overcame the obstacles to irrigation in char cultivation. They had already thought that using organic fertilizers would increase the fertility of the land, but the thought of how to transport such a large amount of organic fertilizers to the char worried them. Finally, they gained knowledge about the production and use of vermicompost. This fertilizer requires less than cow dung or other organic fertilizers and is also easy to carry. In that field school, they received advice on proper packaging and transportation so that the crops do not get damaged during transportation after harvesting. Since, there is a specialized cold storage for storing vegetables in this union, they store vegetables in this cold storage during the crop production season, and they learnt that if there is a delay in marketing of watermelons and vegetables after harvesting, they can also be temporarily kept there. This keeps the quality of the vegetables good and earns good prices in the market.

Key Achievements

Members of Jamirbari GAP-field School, North Bangerhat, were inspired by the training, formed an organization called Niro Sanghathi and formed a joint agricultural fund. Unbelievably, each member saved Tk 31,400 and collected a total of Tk 7,85,000. Through this fund, they rented land for two years and jointly cultivated sweet pumpkin on 30 bighas, watermelon on 2 bighas, wheat on 5 bighas, corn on 5 bighas and potatoes on 3 bighas of land in Jamirbari Char. To cultivate these crops, they had to invest Tk 8 lakh 95 thousand including the rent. The total crop was sold for Tk 17 lakh 65 thousand 900. Therefore, the profit or profit was Tk 87 thousand 900. As a result of joint cultivation, they shared the harvested equally. By this way, each of them got a profit of Tk 34 thousand 836 this season. Since there will be no rent in the future, they hope to reap more profits from the char by sowing the crop next winter.

Production Increase Strategies and Impact

- 30% more production has been possible by applying hand pollination and one-g, two-g, three-g, four-g cutting methods in sweet pumpkin.
- Instead of chemical pesticide sprays, eco-friendly yellow traps, white traps, blue traps and pheromone traps have been installed, which the members learnt from the GAP-Math School. As a result, the cost of pesticides has been reduced.
- By procuring seeds and fertilizers at wholesale prices from registered seed and fertilizer dealers, their cost of these materials has decreased.
- Health risks during crop care have been greatly reduced by using aprons, glasses, gumboots, masks and gloves while spraying the crop fields.
- Through proper irrigation and fertilizer management, the fertility of the land has increased and crop diseases have been reduced to a large extent. Production costs have decreased and profits have increased.
- In addition, after harvesting, proper packaging, cold storage and transportation have facilitated marketing by which farmers are getting better prices than before.

About transformation

As a result of GAP-training, farmers are now interested in collective farming. Earlier, farmers used to cultivate their own crops, which gave relatively low yields and high costs. Now, through collective and planned cultivation, production has increased and costs have decreased. As a result, profits have increased.

The implementation of proper transportation and storage techniques has improved the quality of the crop and is fetching good prices in the market. Local farmers are also getting inspired by this initiative and are making the fallow lands of the char suitable for cultivation. New irrigation systems have enabled improved yields while using less water, paving the way for more sustainable agriculture in the future. However, the biggest transformation has been the conversion of barren char into arable land.

Testimonials and success stories

If they had not received GAP training, they would not have been able to learn about safe vegetable and crop cultivation. Besides, they would not have had the opportunity to do group farming. 10-12 taka per kg. As a result, they are getting almost double the benefits that were made possible by the knowledge gained from GAP-Field School.

Learnings

GAP training is essential for producing safe and quality vegetables or crops. Farmers did not know that it was possible to cultivate crops like sweet pumpkin, watermelon, wheat, potato, etc. so well using the sandbar method in the Teesta river char area. But after learning about it through training, they became motivated and are successfully cultivating it. Seeing their success, neighboring farmers have also started cultivating uncultivated land in the char. This success story not only points to the economic liberation of the farmers, but also proves that with proper training and planning, it is possible to transform from subsistence farming to commercial farming.

PFS is like a beacon of nutrition

Md. Shahanur Rahman
Additional Agriculture Officer, Phulbari, Dinajpur

Phulbari upazila in Dinajpur is located in the border of India. Suryapara is a village in this upazila. About 95 families live in that village. Out of these, 52 families belong to the Santal community. Their main occupation is agriculture. But in that agriculture, they were a backward farming community. They used to work hard all day long, and in the evening they would drown themselves in drinking haria (tadi or country liquor made from palm juice). Modern techniques of agricultural production were almost unknown to them. Their way of cultivating crops was traditional. They did not collect seeds themselves, did not use them properly, did not know how to use balanced fertilizers and used excessive chemical fertilizers. Therefore, despite working day and night, they could not produce crops that could be eaten well throughout the year. As a result, poverty and malnutrition were their daily companions.

The Upazila Agriculture Office came forward to shed light on the backward Santal community in terms of agriculture and nutrition. With the help of the PARTNER Program, Sub-assistant Agriculture Officer Md. Rokonuzzaman Khan started a PARTNER Field School or Nutrition PFS in December 2022 with 25 women and men from that village. In addition to teaching them modern technology or techniques for crop cultivation, the school provided them with hands-on training on various topics related to nutrition development. They were taught how to produce and eat nutritious foods in their own backyards and fields and protect their health. After receiving that training, each of them established a nutrition garden in their own backyards, where crops such as red vegetables, chili, fenugreek, bitter gourd, radish, etc were cultivated. Inspired by that PFS, they cultivated ginger and vegetables in sacks using a different farming technique. For those who do not have land to grow a garden at home, it was a wonderful method. They never had to buy fertilizer to cultivate these crops. Because, they themselves have learned from the field school how to produce earthworms with the help of earthworms. They have started producing earthworm fertilizer. They have used the earthworm fertilizer themselves and have earned money by selling it to others. Since chemical fertilizers and pesticides are not used, the vegetables are not only safe and nutritious, but also the cost of cultivation has been saved.

During their training at the field school, Md. Shahanur Rahman, Additional Agriculture Officer and Md. Atiqul Islam, SAPPO, were their assistants or trainers. Inspired by their words, they have taken the initiative to open a farmer service center. Each member is saving there at the rate of 100/- taka monthly. In this, their current savings amount stands at 82000/- taka. From this savings, they can take interest-free loans for their needs. Earlier, if they needed loans, they had to take loans from local moneylenders. Now they are free from that loans. Inspired by PFS, they have established a nutrition club and an agricultural library, which has taken them on a new journey towards an enlightened life. They have now changed many old habits and reforms, and have joined the mainstream of development. Patras Kisku (42) and Shefali Hazda (32), members of Suryapara PFS, have already started small businesses. Pratarash Kisku is in the pesticide business and Shefali Hazda is in the food shop business. They are earning about Tk 2000/- per month from these businesses. They could not even think of earning money from other things besides farming before. With the increase in income, their lifestyle has also changed. Their children are now in school, and they can afford to buy good clothes. Most importantly, they are now able to prepare and eat nutritious food at home every day. And they grow most of that food themselves.

Farmer Md. Ajmal Hossain (45) of the neighboring village of Basudebpur Notun Para said, "The school is like a beacon of light in Suryapara village. The school is like a beacon of light, and in its light, the lives of the Santals are becoming more beautiful than before." Farmer Madan Chandra Sarkar (48) said, "The PFS has benefited the backward Santal farmers of this village a lot. They have quickly joined the mainstream of development. "According to farmer Sajjad Hossain (30), "The Suryapara Math School is not only an example for the Santals, but also for other communities. I hope its benefits will spread to farmers in other areas as well."

Mostafizur's agricultural journey

Eva Mallik

Upazila Agriculture Officer, Kalia, Narail

Md. Mostafizur Rahman Molla is a successful farmer from Mauli village of Kalia, Narail district. His life started out very ordinary, but gradually by adopting advanced agricultural methods and technology, he has brought about extraordinary changes in his life. His agricultural journey has become an example not only for himself but also for other farmers in Mauli village.

Mostafizur Rahman Molya's father, Md. Moksed Molla, was an ordinary farmer. It was through him that Mostafizur's interest in agriculture was born. But like any farmer, Mostafizur also faced various problems. One of the biggest challenges in his life was the decision to limit the use of chemical pesticides. One day, this decision suddenly affected his agricultural cultivation. Because due to dependence on chemical pesticides, problems also arose in crop production, and the yield was also damaged.

At first, Mostafizur was quite confused in this situation. How will it be possible to produce crops without chemical pesticides? This thought made him sleepless nights. But fortunately, he received training on Good Agricultural Practices (GAP) through the PARTNER program on safe vegetable production, techniques for using biocontrol agents, pheromone traps, blue sticky traps, etc.

After the training, Mostafizur's outlook and work style changed completely. He realized that it is possible to cultivate crops without chemical pesticides. He started using biocontrol agents, through which the problem of pests in his crops was eliminated and he was able to produce safe and healthy crops.

Through the PARTNER program, Mostafizur not only gained skills in technology but also in using modern methods of agriculture. He was also given various kinds of advice from the Department of Agricultural Extension. As a result, Mostafizur became more aware of various aspects of agriculture. He was able to increase soil fertility by using organic fertilizers and compost. In addition, his farming became more sustainable by adopting conservation agriculture and climate-resilient farming methods.

After the training, Mostafizur's confidence increased greatly with the increase in production. As the quantity and quality of his produce improved, he started selling his produce in the local market. Immediately, the market connectivity opportunities also increased. Mostafizur now knows how to price his crops correctly and present them in the market as safe agricultural products in a quality condition. As a result, his income increased and he was able to improve the standard of living of his family.

After adopting modern methods and technology of agriculture, a new horizon began in Mostafizur's life. He himself is now producing his field crops following Good Agricultural Practices (GAP). He is also encouraging his neighbors to follow this method. He has seen that even after reducing the use of chemical fertilizers and pesticides by 30-50%, crop production has increased and farming has become environmentally friendly.

Mostafizur Rahman Molly's story is not just a farmer's story, it is an example of how modern agricultural practices, training and awareness can change people's lives. Just as the PARTNER Program changed his life, it has also brought new hope to the farmers in his village. Today, Mostafizur has not only changed his own life, his efforts have improved the agriculture of the entire village.

Now Mostafizur Mauli is like a teacher to other farmers in the village. He tells them, 'If we do not adopt modern methods of agriculture, we will not only harm ourselves, but also the environment. But if we cultivate in an environmentally friendly way, not only will we benefit ourselves, but future generations will also benefit. This will protect the environment and nature of this country, and natural resources will be used in moderation.' May farmers like Mostafizur Rahman Molly create more examples in our society, so that the country's agriculture becomes safer, sustainable and environmentally friendly.

A farmer from his village, Chamad Sheikh (40), said, "I have earned 12,000 taka more profit this year than last year by cultivating vegetables with the help of the Department of Agricultural Extension on the advice of Mostafizur Rahman Bhai." This agricultural journey of Mostafizur proves that through proper training and the use of modern technology, a farmer can change his life and can also play a role in the development of the country's agriculture. He wants to take this journey much further. He hopes that he is not alone, all the farmers in this country will take training and cultivate in an environmentally friendly way. The environment must be saved first, then agriculture. Otherwise, we will all face an existential crisis.

Initially, the farmers were hesitant - will the new technology be useful at all? But gradually they learnt about the importance of cultivating improved varieties of high-yielding rice, new varieties of rice, water saving through AWD method, seed treatment and germination testing, and balanced fertilizer application, etc. A total of 25 farmers received training from the said PFS and also gained skills in the field. Using the AWD method for the first time, they saw that the production cost of irrigation on their seven acres of land had reduced by 20-25% and they had earned more than 18 thousand to 20 thousand taka. This was a new experience for them. Moreover, on the advice of the Department of Agricultural Extension, they decided to run the school at the beginning of the field school and convert the PARTNER Field School or PFS into a farmer service center in the future. For this reason, they started saving regularly at the rate of 100 taka each per month. They opened a bank account in the Kalia branch of the Bangladesh Krishi Bank and deposited the money they saved there. At one time, their savings in that account stood at 65 thousand taka.

Since they are benefiting from following the AWD method, they are now providing advice and technical services to other farmers in the village through the Krishak Seva Kendra. It is known that 55-60 farmers have used the AWD method in the 2024-25 season. However, they are not stopping at field school training and establishing a farmer service center. They are making various plans to further increase their income and are working accordingly. The farmers are now storing and selling improved rice seeds. They also have plans to introduce vermicompost production, seed processing and solar-powered irrigation systems in the future. Those who were once skeptical about new techniques have today set an example of modern agricultural systems. Their Krishak Seva Kendra is now a place of trust for many neighboring farmers. Many are benefiting from the advice of these trained farmers.

Farmers' Service Center in Dhopakhola helps farmers

Md. Rokonuzzaman
Upazila Agriculture Officer, Sadar, Narail

One day, farmers in Dhopakhola village in Narail Sadar Upazila heard from the Upazila Agriculture Office that a school for farmers would be opened in their village. The farmers of that village thought, what is that again? They have been cultivating crops for years, what will farmers be taught in that school again? Indeed, one winter morning in 2023, a few people from the Upazila Agriculture Office came to their village and discussed with the farmers of the village. The farmers understood that they would not have to attend the school every day, they would come once a week and teach the farmers the techniques of rice cultivation. They thought, they have been cultivating rice since the time of their fathers and grandfathers, what new things is there to learn from this?

When the people at the agricultural office told them how to get more rice, reduce irrigation and fertilizer costs, easily control diseases and insects, and make more profit by saving and selling seeds, they would teach the farmers these things.

At that time, Swapan Biswas, Susham Biswas, Palash Biswas, Sushanta Biswas and many others from Dhopakhela village showed great interest in taking the training. The PARTNER Program stood by them. In 2023, during the Boro season, the PARTNER Field School journey began with 25 farmers from that village.

Initially, farmers were hesitant-would the new technology be useful at all? But gradually they learnt about the importance of cultivating improved high-yielding varieties of rice, water conservation through the AWD method, seed treatment and germination testing, and balanced fertilizer application, etc. A total of 25 farmers received training from the PFS and also gained practical skills in the field. Using the AWD method for the first time, they found that their production costs for irrigation on their seven acres of land had decreased by 20-25% and they had made an additional profit of 18,000 to 20,000 taka.

This is a new experience for them. Moreover, on the advice of the Department of Agricultural Extension, they decided to run the school from the beginning as a field school and in the future to convert the PARTNER Field School or PFS into a farmer service center.

That's why they started saving regularly every month. They opened a bank account and deposited the money there. At one point, their savings in that account amounted to 65,000 taka. Since following the AWD method has been beneficial, they are now providing advice and technical services to other farmers in the village through the Krishak Seva Kendra. It is known that 55-60 farmers have used the AWD method in the 2024-25 season.

However, they are not stopping at setting up field school training and farmer service centers. They are planning various things to further increase their income and are working accordingly. Farmers are now storing and selling improved rice seeds.

They also have plans to introduce vermicompost production, seed processing, and solar-powered irrigation systems in the future. Those who were once skeptical of new techniques are now setting an example of modern farming.

Those who were once skeptical about new techniques have now set the example for modern farming. Their farmer service center is now a trusted resource for many neighboring farmers. Many are benefiting from the advice of these trained farmers.

BRRI dhan100 is like golden rice in Chaherabad

Md. Showkat Hossain
Upazila Agriculture Office, Pathorghata, Barguna

The Ministry of Agriculture has taken the initiative to expand high-yielding rice varieties nationwide through the Department of Agricultural Extension, a PARTNER program. Under this program, the Patharghata Upazila Agriculture Office of Barguna has undertaken a program to expand BRRI dhan100 and its subsequent high yeilding varieties developed by the Bangladesh Rice Research Institute (BRRI).

A farmer named Chagirul Alam from Chaherabad village in Charduani block of this upazila was given the responsibility of implementing a demonstration. He is not only a farmer but also an enterpreneure and a successful agricultural producer. After receiving the demonstration, he made a substantial profit by selling the rice from that field as seeds. Through him, this new variety of rice was expanded in the area.

Through the PARTNER program, he produced zinc-enriched rice of the BRRI dhan100 variety on his own rice-producing land. Because this variety of rice had not been cultivated in that area before, he received 2000 kg of rice from that demonstration land. By producing rice, he supplied this zinc-rich rice to various demonstration for farmers in the area, including the Upazila Agriculture Office, and the people of the area learnt about the benefits of this variety. Seeing the yield of this new variety of rice, others bought it at a higher price and cultivated it. Many farmers even exchanged seeds.

Calculations have shown that Chagirul Alam has made a lot more profit by cultivating this variety of rice than other varieties this year. This year, he has sold about 95,000 taka worth of zinc-rich BRRI dhan100 rice seeds. This income has helped her overcome the zinc deficiency in her family's diet and made it easier to pay for the education of her two children. Her standard of living has improved compared to before.

He has received various trainings on vegetable and field crop production technologies from the Department of Agricultural Extension and the Bangladesh Agricultural Research Institute. For this success, Chagirul Alam received the support of PARTNER, Upazila Agriculture Office, Patharghata and local Upazila Agriculture Officer Md. Shawkat Hossain.

As a result of his success, many more farmers have become interested in producing zinc-rich rice. With the help of seed producer Chhagirul Alam, it has now been possible to expand the cultivation of zinc-rich BRRI dhan100 variety on 8 hectares of farmer's land.

A dream variety for Ramu BRRI dhan103

Tanzila Rahman
Upazila Agriculture Officer, Ramu, Cox'sbazar

Rice is the most important crop in Bangladesh's agriculture. But before that, no variety as good as the newly developed BRRI dhan103 variety for cultivation in the Aman season has come. The PARTNER Program has taken the initiative to expand the new varieties recently developed by the Bangladesh Rice Research Institute with the aim of continuously increasing the yield of rice across the country. Especially in the case of rice, BRRI dhan100 and its subsequent varieties are better than the previous varieties, so the Department of Agricultural Extension is continuing the work of expanding those varieties at the field level. In continuation of this, there was no BRRI dhan100+ variety in the Aman season. Therefore, a new chapter has begun in the history of rice cultivation in this country with the introduction and widespread adoption of the BRRI dhan103 variety. This high-yielding, disease-resistant rice variety developed by the Bangladesh Rice Research Institute (BRRI) has changed the lives of farmers, increased food security and made a significant contribution to the country's agricultural transformation. The first-ever demonstration of the BRRI dhan103 variety was implemented this year in Patiya Upazila of Chittagong through the Department of Agricultural Extension from the Partner Program. The practical results of that exhibition have farmers expressing joy and excitement saying that BRRI dhan103 has become a dream variety for them.

Challenges

Bangladesh, with a population of over 160 million people, has long relied on rice as its staple food. However, the country's farmers have had to face several challenges in rice cultivation. Such as the impact of uncertain weather or climate change, deteriorating soil health and the constant threat of insects and diseases. Rice diseases like bacterial blight and blast posed a serious threat to crop yields, and traditional indigenous rice varieties had become less productive in the face of changing environmental conditions. Farmers were constantly struggling to produce enough rice to meet the growing demands of the population, and many were in dire financial straits.

Success

Responding to these challenges, the Bangladesh Rice Research Institute (BRRI) began work on developing a new rice variety that could withstand diseases, insects, and erratic weather conditions while also yielding high yields. Years of research and testing led to the development of a modern rice variety called BRRI dhan103. Its characteristics set it apart from traditional varieties. The yield of this variety was even higher than the high-yielding BRRI dhan49 and BRRI dhan87 varieties cultivated in the previous Aman season. If properly managed, this variety could yield up to 8 tons per hectare. No Aman rice variety had ever produced such high yields in the history of this country. The variety could grow in a variety of soils, and its short lifespan allowed farmers to harvest the crop quickly.

Acceptance of the variety

The real success of the BRRI dhan103 variety has come through its widespread acceptance across Bangladesh. Due to initiatives like agricultural extension programs, government subsidies, and PARTNER programs, farmers have seen the benefits of cultivating this new variety. Initially, the government promoted the qualities of the BRRI dhan103 variety among farmers in various ways. When more farmers started experimenting with the new rice variety, the results were phenomenal. Farmers who cultivated the BRRI dhan103 variety for the first time in Ramu Upazila from the PARTNER program reported higher yields, reduced crop damage, and greater tolerance to diseases. For example, farmer Md. Farid of Ramu Upazila in Cox's Bazar has noticed a dramatic change in his rice cultivation. He says, "Before cultivating the BRRI dhan103 variety, I used to feel lucky if I got a yield of 4 tons per hectare. Now I regularly get 6 to 7 tons of yield in the Aman season, and the cost of pesticides and fertilizers is less. Because this variety is more resistant to diseases, insects are also less.' He added that they have saved 1000 kg of seeds to sell to interested farmers in the next season. They hope that the farmers in the area will buy these saved seeds from them and the BRRI dhan103 variety will spread very quickly in the area.

The success of BRRI dhan103 also has the ability to withstand the effects of climate change. It can especially withstand temporary waterlogging. Sometimes, hilly slopes suddenly come in Ramu upazila, and after some time, the water recedes again. This variety of rice is not harmed by it. Aman rice is rain-dependent and does not require irrigation, so the production cost is much lower. This new variety is tolerant to such conditions, even when irregular rainfall and temperature fluctuations are becoming common. Therefore, the ability of this rice to survive and adapt to climate change has given it a unique characteristic.

Impact

The adoption of BRRI dhan103 has had a far-reaching impact on the nation's agricultural economy. Farmers' income has increased due to higher yields and lower production costs. Less dependence on pesticides and chemical fertilizers has reduced adverse environmental impacts. Farmers are also happy with the higher yields and prices of rice. So the success story of BRRI dhan103 is not just a story of farmers, it has strengthened the agricultural sector, helped consolidate rural economic development and contributed to national food security. In addition, the success of BRRI dhan103 has also opened doors to international markets.

Future prospects

The story of BRRI dhan103 is not just one of scientific innovation - it is also one of climate resilience, cooperation and determination. Building on this success, Bangladesh is exploring more advanced rice varieties that can further expand the range of productivity and sustainability of Aman season without irrigation.

Bari Sorisha-14 cultivation brings a smile to the farmer's face

Imran Hossain
Upazila Agriculture Officer, Dumki, Patuakhali

In the Algi block of Dumki Upazila, Patuakhali district, many fields were once covered in a vast yellow blanket. The beauty of the mustard flowers is as captivating as the story of a farmer's tireless labor and success hidden amidst them. Mohammad Amir Khan, a hardworking farmer, has made himself financially independent through BARI Sorisha-14 cultivation and has become an inspiration for the farmers around him.

Farmer Mohammad Amir Khan decided to cultivate BARI Sorisha-14 under the direct supervision of the Dumki Upazila Agriculture Office in the 2023-24 fiscal year within the framework of the PARTNER Program. He took the initiative to cultivate this high-yielding mustard variety on his one-acre land and, along with four other farmers, collectively planted mustard on a total of two acres. This initiative quickly gained momentum in Naldowani village of Pangasia Union, and other farmers also became interested in it.

Initially, Mohammad Amir Khan and the farmers in his village followed the traditional two - crop fallow - mung - aman cropping pattern. However, following the advice of the Upazila Agriculture Office, they changed this crop rotation and adopted a three-crop system, incorporating BARI Sorisha-14. Now, they cultivate three crops-mustard, mung, and aman-on their land, which is more profitable than before.

BARI Sorisha-14 is a high-yielding variety with a lifespan of just 78-85 days. It can be easily included between aman and mung crops, allowing farmers to maximize the use of their land. He was a member of the Oil Crops Field School under the PARTNER Program, from where he received the necessary technical support and advice. Mohammad Amir Khan said, "Through this field school, he learnt about improved mustard cultivation techniques, balanced fertilizer use, and disease, pest, and weed management, which helped increase his yield by about 10 percent."

He added, "Due to adopting improved cultivation methods, he has produced about 1.2 metric tons of mustard from his one-acre land. This will meet my annual demand for oil, and by selling the surplus as seeds, I have earned about 2.5 lakh taka." This income has improved his family's financial and social condition, and he can now spend more on his children's education and living expenses than before.

Inspired by Mohammad Amir Khan's success, another 50 farmers in his village have been encouraged to cultivate mustard. They are now interested in making their land more productive by adopting this new cultivation method. With the support of the Agriculture Office, they are receiving training and moving

forward with mustard cultivation using improved technology.

Mohammad Amir Khan's success is not just for himself; it has initiated a revolutionary change in his entire village. Farmers now understand that it is possible to bring about a revolution in agriculture through proper planning, technology use, and government cooperation. As Mohammad Amir Khan has improved his economic condition through BARI Sorisha-14 cultivation, he has also opened up a new horizon for local farmers. His success story will remain a valuable example and lesson for other farmers.

New horizons opened in transplanted Aman cultivation in the South Bengal

Mohammad Nasim Uddin

Sub-Assistant Agriculture Officer, Tazumuddin, Bhola

Farmers in Tazumuddin Upazila of the island district of Bhola have achieved success by cultivating a new rice variety, BRRI Dhan103, during the Aman season for the first time under the Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh (PARTNER) program. The bumper yield demonstrated by this variety has created quite a stir among local farmers. Under the framework of the PARTNER program in the 2024-2025 fiscal year in Tazumuddin Upazila, the demonstration of the BRRI dhan103 variety was conducted. Sujit Kumar Datta, Tapon Chandra De, and Apple Dhupi, three members of the Duttapara PARTNER Field School, implemented this demonstration.

In the southern region, particularly in Bhola district, there is a huge demand for bold rice, and farmers are accustomed to cultivating bold rice. However, since the rice of the BRRI dhan103 variety is slender and long, the farmers had no intention of cultivating this variety at all. The Upazila Agriculture Officer of Tazumuddin, Mohammad Nazmul Huda, and the Sub-assistant Agriculture Officer, Mohammad Nasim Uddin, informed the farmers about the characteristics of this variety and enhance their interest in cultivation. Subsequently, they supplied 20 kg of BRRI dhan103 seeds, necessary chemical and organic fertilizers, and other materials including 10 seed storage containers or drums.

Later, the farmers cleaned the seeds and produced healthy and strong seedlings of the BRRI dhan103 variety in the standard seedbed. On September 4, 2024, they transplanted 30-day-old seedlings on 2 acres of land. Afterwards, under the supervision of the Department of Agricultural Extension, they properly cared for the rice field, including the use of balanced fertilizers, weed control, and pest management through IPM methods. Subsequently, it was observed that compared to other varieties, the plants of the BRRI dhan103 variety had comparatively fewer diseases and pests, and the yield was good, creating great excitement among local farmers about this variety. The rice was harvested in mid-December.

Approximately 5.5 tons of rice were produced from the 2 acre demonstration plot. After that, this rice variety was published in several widely circulated print and electronic media, there was widespread excitement among local farmers regarding this variety. Farmers showed great enthusiasm for this variety. Therefore, the demonstration farmers were advised to store seeds in the supplied seed storage containers, and those farmers preserved 1000 kg of seeds following all rules and techniques, which can be distributed among local farmers in the next season. As a result, through the PARTNER program, this new variety of rice is spreading in Tazumuddin and surrounding areas, and it is expected to increase farmers' income and financial well-being.

AWD Technology use changes farmer's fate

Nihar Ranjan Roy
Agriculture Extension Officer, Pirganj, Thakurgaon

Bokul Chandra Roy, a farmer from Masaldan village in Pirganj Upazila, has set a unique example of success by using the water-saving technology AWD (Alternate Wetting and Drying) under the PARTNER program. Bokul Chandra Roy is an enterprising farmer from the 6th Ward, Pirganj Union of Thakurgaon district. Every year, he cultivates rice on 2 acres of land during the Boro season. However, the main problem with Boro rice cultivation is irrigation costs. He learnt about the water-saving irrigation method, AWD, through the Upazil Agriculture Office, which sparked his interest in using this method.

In the meantime, activities under the PARTNER program started through the Upazila Agriculture Office. Through this program, he implemented an irrigation management system in his rice field using AWD pipes. He learnt about this technology in detail, hands-on, through training at the PARTNER Field School organized by the project. Utilizing the knowledge gained from the training and with direct assistance from the Sub-assistant Upazila Agriculture Officer in the block, he started using this technology. On the adjacent land, conventional Boro rice cultivation required 12 to 13 irrigations, whereas using the AWD method only requires 3-4 fewer irrigations. Moreover, the yield is comparatively higher.

Where conventional irrigation costs 8 thousand taka per acre (totaling 16 thousand taka for 2 acres), using AWD technology reduced the irrigation cost to 5 thousand 400 taka for the same area. That is, a savings of 10 thousand 600 taka was achieved through AWD. On his total cultivated area of two acres, he produced 6.5 tons of rice. Out of this, he preserved 480 kg as seeds. He sold 100 kg of these seeds for 65 taka per kg, totaling 6 thousand 500 taka, and the remaining 380 kg at 60 taka per kg, totaling 22 thousand 800 taka. In total, he earned 29 thousand 300 taka from selling the seeds.

With the money earned from selling seeds, he purchased a diesel-powered irrigation pump, which he rents out to earn income. Last fiscal year, under the partnership of the PARTNER program, a PARTNER Field School was implemented in the same village with 25 farmers and farming women, known today as the Masaldan Farmer Service Center. Mr. Bokul Chandra Roy, as the chairperson of that Farmer Service Center, has been diligently fulfilling his duties. The Farmer Service Center has a savings account number, where savings are collected from the members every month and deposited in the bank. The farmers and farming women of that village express their gratitude and appreciation to the Upazila Agriculture Office and the PARTNER program for their help.

BRRI dhan102 brings smiles to farmers' faces

Md. Shafiul Alam
Agricultural Extension Officer, Ranishankail, Thakurgaon

Md. Gafur, a farmer from Gazirhat village in Ranishankail upazila of Thakurgaon. He was an ordinary farmer. After coming in contact with the PARTNER Program, he has now become an agricultural entrepreneur. He has cultivated a new variety of rice on the same land where he used to cultivate rice, impressing the farmers of the area and making the neighboring farmers interested in cultivating that new variety of rice. The new variety is BRRI dhan102. BRRI dhan102 is a variety of Boro rice rich in high levels of zinc. This high-yielding variety of rice can be cultivated all over the country. The amount of zinc in this rice is 25.5 milligrams per kilogram of rice. Its rice is long, thin and white. Due to this, the market price is also higher. Ghafur first learnt about these things from the PARTNER Field School in his village. He was a member of that school in 2022-23. During the training, he heard about many new varieties from the trainers and became interested in cultivating the BRRI dhan102 variety of rice and contacted the Upazila Agriculture Office for seeds. Seeing Ghafur's interest, the Upazila Agriculture Office allocated him a 2 acre demonstration area for AWD cluster production of BRRI dhan102 variety of rice under the PARTNER Program in the fiscal year 2023-24. After that, he set up the demonstration area on 2 acres of land with two others.

From the PARTNER Field School, he learnt how to produce good rice, get more yield, and how to make more profit from rice cultivation? While receiving training in modern rice cultivation at the PARTNER Field School, he realized that to make rice cultivation profitable, advanced modern varieties, i.e. integrated agricultural technology for rice cultivation, are needed. Among them are the AWD irrigation method, line logo, perching, balanced fertilizer management and insect control, etc. After receiving training on these topics, Md. Gafur decided in his heart that this time he would cultivate a new variety of rice. But what variety? On the advice of Ruma Akhter, Sub-assistant Agricultue Officer, he decided to cultivate the BRRI dhan102 variety of rice in the Rabi season in 2024. By cultivating that variety of rice, he got 6.1 tons of rice from 2 acres of land. He had never got such a high yield by cultivating rice before. The neighboring farmers were surprised to see his face when there was rice in the land. They also wanted to buy that rice seed from Gafur and would like to cultivate it.

Later, he stored 2 tons of seeds in 20 drums. At the beginning of the current Rabi season of 2024-2025, he sold 2 tons of seeds at a rate of 50 taka per kg and earned 1 lakh taka. Then, he sold the remaining 4.1 tons of rice as food at a price of 20 taka per kg and got 82 thousand taka. The production cost on 2 acres of land was 70 thousand 238 and he made a profit of 1 lakh 11 thousand 762 taka. He had not imagined that he could make so much profit by cultivating rice. Moreover, many farmers have been inspired by the yield and market price of BRRI dhan102 in the field. Among those farmers, local farmer Abdus Sattar said, "I am samazed to see the yield of BRRI dhan102 variety in Gafur Bhai's land. The variety is quite good. Rice also contains zinc which will provide nutrition to our body. Moreover, the yield is also good. That is why I bought 25 kg of seeds from Gafur Bhai. I will cultivate it myself." In this way, BRRI dhan102 is being expanded in the fields of farmers from farmer to farmer. Zinc enriched BRRI dhan102 has brought smiles to the faces of farmers and happiness has come to their house. If farmers are assured of benefits by cultivating new variety of rice like BRRI dhan102, their socio-economic transformation will be achieved.

BRRI dhan103 is now a golden crop for Partha Pratim

Md. Mosaddek Hossain
Senior Monitoring Officer, PARTNER, Khulna region

The traditional Rampal Upazila is located in the south of Bagerhat district. The area of cropland in this upazila is 19,500 hectares. The crop density is 131%. This upazila was once full of rice and fish. But due to the adverse effects of nature, various natural disasters including Sidr, Aila, Amphan, Fani, Yash, and abnormal flow of rivers, agriculture in Rampal Upazila is facing threats.

But with the excavation of the Mongla-Ghashiakhali channel and the record mining of mines, a revolutionary change has come to the agriculture of Rampal Upazila. The cultivation of arable crops on the embankments of the Gher, including Aman rice and Boro rice, is increasing day by day. Rice, fish and vegetables are being produced in this Upazila on the same land.

As rice cultivation has increased, many farmers in this upazila have now become interested in producing and expanding high-yielding varieties of rice. Therefore, under the PARTNER Program, in the Kharip-2 season of the 2023-2024 fiscal year, Partha Pratim Biswas, along with 2 farmers, set up a rice demonstration field of the Brri Dhan103 variety on 2 acres of land.

The demonstration farmers sowed the seeds on July 30, 2024 and transplanted the seedlings in the demonstration plot on August 28. The demonstration crop was harvested on November 15. After harvesting, demonstration farmer Partha Pratim observed various characteristics of the rice variety and found that,

- The average height of the mature plant at the time of harvesting was 125 centimeters.
- The leaves of the plant were erect and the color of the stem and leaves was green at maturity.
- The grains of nutritious rice were long and thin.

• Based on calculations, the average lifespan of rice is 128-133 days.

• The yield of rice is 5.9 metric tons.

Before this exhibition, the Brri Dhan103 variety of Aman rice had never been cultivated in Rampal Upazila. Earlier, a popular variety of Aman rice in this area was Brri Dhan87. With the arrival of this new variety, farmers have received an Aman rice variety that is contemporary to the Brri Dhan87 variety. The main problem of agriculture in this area during the Aman season is waterlogging. After planting this Briri 103

variety of rice, the seedlings were submerged under water for 4 to 5 days at the Kushi stage. As a result, the fish in the water ate almost half of the rice leaves. Get the yield.

The field technology orientation of this exhibition was held under the partner project under the leadership of Partha Pratim Biswas and two other farmers from the Upazila Agriculture Office, where 50 other farmers from the surrounding area attended. As a result, everyone can learn about a new waterlogging-tolerant Aman variety.

Kamlesh Halder of the area said, "We thought the Bri Dhan 103 variety of Aman rice would be ruined under water. But in the end, it is very good to see such a good yield."

Another local farmer, Kalam Sheikh, said, "I was surprised to see that even after half of the Aman rice plants of the Bri rice variety 103 were eaten by fish, they yielded much better yields than the

Farmers from PFS School said that if they get the seeds, they will cultivate the Bri Dhan 103 variety of Aman rice in their own land in the next Aman season. The farmers at the exhibition, including Partha Pratim Biswas, had stored about 1,000 kg of their seeds, which they sold to neighboring farmers.

Partha Pratim Biswas said, "If anyone wants to cultivate the Bri Dhan 103 variety of rice during the Aman season, they can contact them through the Upazila Agriculture Office or directly. They are also interested in providing technical advice on cultivating this variety of rice."

Safe mangoes at farmers' market: Visionary Kabirul

Md. Mosaddek Hossain
Senior Monitoring Officer, PARTNER, Khulna Region

There is a glimmer of hope in the eyes of Kabirul Islam, a mango farmer from Ilishpur village in Kalaroa upazila of Satkhira district. Each mango wrapped in a yellow bag is the fruit of his hard work, discipline and agricultural practice. Where last time he had to sell mangoes at the price of water, this time he is getting 90-100 taka per kg. There is no middleman, no fear of uncertainty. Because this time he has cultivated mangoes following the 'Good Agricultural Practices' or GAP method.

Kabirul's safe mangoes have now reached the farmers' market of the Department of Agricultural Marketing on Manik Mia Avenue in the capital. There is increased interest and confidence among consumers in Dhaka around those mangoes. Kabirul is an educated young entrepreneur. After passing HSC, Kabirul started farming on his ancestral land in search of a livelihood without getting a job. He did not get the desired success by cultivating paddy, jute, and wheat. Then, with the help of the Department of Agricultural Extension, Kabirul started mango cultivation around 2012-13. Kabirul's dream was that one day his mangoes would go abroad, bring dollars for the country, and his mangoes would reach the elite class of Dhaka. However, despite getting a good harvest of mangoes, he was somewhat disappointed as he did not get the desired price. Finally, one day, he went to the Upazila Agriculture Office and found a partner. He took a one-day training on good agricultural practices under the partner and was inspired to decide that he would have to cultivate the crop by any means through good agricultural practices and get the GAP or Good Agricultural Practices certificate. That being said, he accepted a GAP demonstration from the Upazila Agriculture Office and implemented mango cultivation management on his one acre of land following all the rules and regulations including soil testing, water testing, and keeping documents. It is worth noting that although he currently cultivates mangoes on 15 bighas of land, there is a commotion over the mangoes from these three bighas of land. Seeing this scene, other farmers in the village were also inspired and expressed their determination to cultivate mangoes in the future like Kabirul. GAP or Good Agricultural Practices is not just a paper certificate. Behind it is training, awareness, step-by-step production in a prescribed manner, safe collection and quality marketing process. This time Kabirul has used fertilizers, medicines, water - everything according to specific rules. The result - 'Although the cost is a little higher, the profit is higher. In Dhaka, it is being sold at a price of 20-25 taka more per kg.' Other farmers like Kabirul are also happy to get a fair price. In the eyes of Dhaka consumers, this mango story is becoming a reflection of the country's agricultural transformation - our promise to eat safe mangoes.

Unexpected changes have come to the lives of DAE's new officers

Dr. Gaur Govinda Das
Additional Program Director, APCU-DAE-Partner

The Department of Agricultural Extension (DAE) is the largest government agricultural service provider in the country. Its main responsibility is to provide agricultural technology to the entire farming community of the country so that they can apply those modern techniques in their own fields to increase crop production in the country and bring about changes in their lives. The Department of Agricultural Extension has a large number of manpower (3,204 officers) to provide this service. Agricultural officers deployed at the field level are constantly providing agricultural services.

To ensure quality services, the skills of officials need to be developed. The enriched and more skilled officer is the more effective the services farmers and farmers benefit from. Therefore, the Partner Program has arranged for hands-on, practical, demand-driven, and field-based season-long training for a total of 1000 officers of the Department of Agricultural Extension from across the country to enhance their skills. The goal is to train 560 agricultural officers through a total of 7 batches. A total of 560 agricultural officers in 7 batches have received season-long training in the 2024-2025 fiscal year. The main topics of the training were Good Agricultural Practices (GAP), Integrated Pest Management (IPM), Integrated Crop Management (ICM) and Integrated Plant Nutrition Management (IPNS). In light of these concepts, the trainees gain knowledge about fruits, vegetables, rice, wheat, corn, pulses, oil crops, and human nutrition.

The main objective of these trainings is to accustom the new or young officers who have joined the Department of Agricultural Extension from the traditional education system to the field-oriented practical education system so that they can go beyond textbooks or books and read the field as a book, they can provide appropriate advisory services to farmers to solve their field problems quickly and efficiently, and help them increase their production. A special aspect of this training is to motivate about one million farmers in the country to produce crops following Good Agricultural Practices (GAP), so that they can transition from commercial farming to export-oriented farming.

Specifically, through such practical training, an officer can apply modern agricultural techniques in the field and verify their effectiveness, learn to recognize and manage various field problems, especially various pests and fertilizer problems, they can learn the country's prevailing agricultural protocols and rules and regulations and provide proper advisory services to farmers in the light of this experience and knowledge. There is no alternative to increasing the skills of young officials in the country's agricultural development. This is not just a traditional training in the literal sense - it is life-changing training with lifelong impact. This training makes an officer thirsty for more knowledge, creates interest in new experiments.

This not only changes his knowledge and skills, but also gives him a field-oriented perspective. The basic principle of the daily activities of this training is learning by doing, that is, go to the field - see, experiment and learn, learning by doing is the real thing. Such training breaks down the shyness of an officers going into the mud and water of the field, and provides an opportunity to sit in the field and become intimate with the farmers. As a result, the exchange of experience and information is more effective. After receiving the season-long training, every officer admitted that such training had brought about incredible changes in their lives. They never imagined how effective this participatory approach to training could be. Through this training, each of them has been able to transform themselves into a farmer. After receiving the training, they returned to their respective workplaces and are playing an important role in the production of safe crops for the people of this country through environmentally friendly techniques by farmers in those areas. For this,

they expressed special gratitude to their partners. A brief summary of the activities and success stories of a season-long training course is described below.

Season-long GAP training for safe and nutritious food production and export-oriented crop production

PARTNER Program started the a batch of training course on season-long Good Agricultural Practices (GAP) from 19 October 2024 which ended on 2 February 2025. A total of 80 Sub Assistant Agricultural Officers of the Department of Agricultural Extension participated in this third batch of training in two groups in which 4 were women. Each group consisted of 40 trainees. The training for each group is completed in 4 installments at 15-day intervals for a total of 60 days.

Before participating in the training, one trainee did not know much about 'Good Agricultural Practices' or GAP. Their knowledge of it was limited, and they did not understand how it related to safe food production or export. Trainees didn't know what PHI, MRL Test, IPM, ICM and IPNS were? But after undergoing 60 days of season-long training under the PARTNER Program, one trainee's perspective has completely changed. They learnt how to properly prepare land, sow seeds, apply fertilizers, control diseases and pests, and harvest crops following GAP/GAP protocols, all in accordance with specific rules, so that food is safe and international standards are maintained. They have easily learned that if we produce crops by testing the soil and water, we can get safe crops from the land. They learnt about PHI and MRL testing of crops. Through this training, they gained detailed hands-on knowledge about various methods of modern irrigation management and how farmers can use modern technology and mechanize agriculture. Through this training, the trainees learned in detail about GAP certification, BACB, BAB, etc., which is a certificate of quality and safety of agricultural products.

They also learnt that it is now possible to export agricultural products produced following the GAP to the international market from Bangladesh, which will create great opportunities for the country's economy.

They also learnt about the environmentally friendly and safe production techniques of GAP's 5 fruit and 10 vegetable crops. This training has brought about a positive change in their thinking, practices, and future plans. Now they are not only interested in their own careers, rather, it is hoped that they will be able to spread good agricultural practices among the farmers around their workplace, which will contribute to the country's safe food production and the target of producing crops following GAP on three lakh hectares of land by 2028 set by the partner. On the one hand, this training is making extension workers working at the field level more skilled, confident, and motivated. On the other hand, it will play an important role in producing safe and nutritious crops, ensuring fair prices for farmers, creating entrepreneurs, and commercial and export-oriented agriculture. A real example of this can be found in the feelings of Sub-assistant Agricultural Officer Md. Saiful Islam Sohag, who won first place in the training.

(Contributor: Md. Mosaddek Hossain, Senior Monitoring Officer, Partner, Khulna Region).

Md. Saiful Islam Sohag
Sub-assistant Agriculture Officer, Nalitabari, Sherpur

I thank Allah Almighty for allowing me to participate in the season-long coach-training course. I am grateful to the PARTNER Program for giving me the opportunity to participate in the TOT training.

I completed my diploma in agriculture in 2010. After a long time, I joined the Department of Agricultural Extension as a junior officer on June 22, 2023 as a Sub-assistant Agriculture Officers (SAAO). Being out of agriculture for more than a decade, I almost forgot what I had learnt and everything I had in mind did not match current agriculture. After joining, I was having trouble advising farmers. At that time, I used to solve the farmers' problems with the help of mobile phones and with the advice of senior Sub-assistant Agricultural Officers (SAAO).

To find a solution to this problem, I expressed my interest in participating in the PARTNER's season-long Training of Trainers (TOT) course and got the opportunity to participate. After attending the training, I gained a complete understanding of the basics of good agricultural practices, modules, compliance standards, IPM, ICM, IPNS, surveillance, AESHA, AESA, PFS, FSC, diseases and pests of rice, vegetables and fruits, and post-harvest management. As a result, I believe I have become a fully-fledged Sub-assistant Agriculture Officer. By advising farmers, I will be able to help them bring about sustainable changes in their socio-economic conditions, InshaAllah.

The journey that my PARTNER started with the dream of transformation was fulfilled through this training, and my life changed. I believe that in the future of agriculture, the trained young generation will lead and take the country to a unique height, and the country will produce safe crops.'

Bached is now a beacon of light by exporting potatoes

Mitul Kumar Saha
Joint Director (Marketing), Hortex Foundation

The river breaks on one side and builds on the other. This is the game of the river. Like the words of the song, it seems to come true in some people's lives. The light of the full moon comes into some people's lives, while the darkness of the new moon descends on others. One such farmer is Abdul Bached of Chakmugi village in Kalai upazila of Joypurhat. He has found a new direction in life by exporting potatoes. Bached, who once used to cultivate potatoes in small quantities on a small scale by renting out other people's land, has now become a potato exporter. He earns 3 to 4 lakh taka annually by exporting potatoes. This is like a magic lamp!

How did an ordinary potato farmer become a potato exporter? When asked, he said that he used to spend his days with great difficulty with a small family of five including three sons and daughters, and he had to live day by day. He did not get any land for cultivation from his father. He used to earn daily wages at the next house. If he could not earn a day, he would have to starve with his family. He used to farm on a small scale by renting other people's land. Even then, the family did not run well. One day, he came to know that Hortex Foundation was providing training to

Picking and sorting potatoes in the field for export

Storing potatoes in the field for export and sending them on trucks

farmers under the PARTNER Program. He took that training and is currently an active member of Hortex Foundation PARTNER Group in Gopinathpur, Kalai Upazila, Joypurhat district.

Suddenly, one day, he met a man from Chittagong. He exported potatoes abroad. He expressed his interest in buying potatoes from Bached at the Chittagong depot. The two talked and decided everything about it. Abdul Bached's other life began. Once Bached was a potato farmer, but now he has become a potato trader to supply potatoes for export to the Chittagong depot. According to the exporter's demand, he started collecting potatoes from potato farmers in his area. However, before harvesting the potatoes from those lands, he bought the land along with the potatoes while they were still in the field. Then, after harvesting the potatoes from those lands with his own workers, he sorted the potatoes of different sizes. Then, he separated the potatoes according to the depot's demand. He first filled the sorted potatoes in sacks and stored them in the field, then brought them to the truck and loaded them on the truck and sent them to Chittagong. This cost him 500 to 550 taka per maund. Even then, he earned 260 to 300 taka per maund. After sorting the potatoes, he sent the remaining small potatoes to the markets of Mymensingh, Netrokona, Bhaluka and Sarishabari for sale at a relatively low price. He said that he bought the varieties of potatoes from the fields that were in demand abroad from the potato farmers. These varieties were Sunshine, Elaka, Musica, Kumbika, Santana and Granula varieties of potatoes. He sent these potatoes to Chittagong. The depot people in Chittagong export the potatoes to Malaysia, Sri Lanka, Saudi Arabia and Nepal through air-conditioned cargo ships. So far, he has sent 3,025 tons of potatoes abroad through Hossain Enterprise, Sufla Multi Products Limited, Crosses Agro and Thinks to Supply and Fast Delivery. He hopes that this year he will be able to double the export volume. This year, he has set a target of exporting potatoes of 7 to 8 thousand tons.

He earned about 3 to 4 lakh taka last year by exporting potatoes. As a result, his life has also changed. His children are now studying in school, and his family has become prosperous. Now they no longer have to go without food. Bached is now a beacon of light for the potato farmers in the area. Behind this is his interest, effort, hard work and Hortex's guidance.

Rafiq, an entrepreneur obsessed with mango dreams

Mitul Kumar Saha
Joint Director (Marketing), Hortex Foundation

Md. Rafiqul Islam, a college teacher and mango farmer from Nachol upazila of Chapainawabganj district. Like ten others, he also started mango farming a decade ago. Md. Rafiq cultivates mangoes in the conventional method. He started his farming career with some of his own land. He saw profit every year by cultivating mangoes. He kept increasing the amount of land and giving more importance to mango farming, but it was no longer possible to maintain his teaching profession. His dream is now only to cultivate fruits. His garden now has a mix of various local and foreign fruits. 25 varieties of mango, 4-5 types of Malta, oranges, BARI Dragon-1 and 50 species of fruits are blooming in his orchard. Being educated, he easily found a way to do well in this profession. Almost all the high-yielding varieties newly released from the local Regional Horticulture Research Center, Chapainawabganj are now in his garden. He has a good understanding with the local agricultural office. He takes any kind of initiative after talking to the concerned people.

We met him around June 2023. At that time, the size of his orchard was about 800 bighas or a little more than 100 hectares. From an ordinary farmer, he has become a successful entrepreneur. He only has a dream of mangoes in his eyes. He came to the attention of important people in the Department of Agricultural Extension for the dissemination of good agricultural practices in Bangladesh. This time, the determination to do more seems to be in his eyes. . This determination is like a promise to take Bangladesh's mangoes one step further.

With the financial support of the Bangladesh Agricultural Research Council, a research program on mango cultivation following Good Agricultural Practices (GAP) was started on his 100-acre land under the supervision of fruit researchers of the Bangladesh Agricultural Research Institute. The research work is being carried out on the BARI Mango-3 and BARI Mango-4 varieties developed by the Bangladesh Agricultural Research Institute. He carries out the work very successfully at the field level. He is now an inspiration to farmers in other areas of the country. Every day, local mango farmers come to him to get wise advice on mangoes. Currently, 10-20 more farmers follow him, dreaming of becoming as successful as Rafiq. During the implementation of the Bangladesh

Good Agricultural Practices Protocol, people related to agriculture, mango exporters, and foreign representatives have visited his garden and expressed their satisfaction with all aspects of mango. Now the size of his orchard is 950 bighas or about 130 hectares. About 100 people work regularly in his orchard every day. More people work during the season, sometimes during the mango season, about 400-450 people work in his various orchards. Every year, mangoes worth 3-4 crore taka are bought and sold through him. During the implementation of the Bangladesh Good Agricultural Practices Protocol, he practices Bangladesh Gap for producing quality mangoes in other mango orchards. His mango marketing is remarkable. Online mango sellers buy mangoes from his orchard and deliver them to their buyers. He is in touch with mango traders in important districts of the country. He has been exporting mangoes for the last few years. Also, many buyers buy mangoes directly from his orchard. He has mastered the techniques of producing good quality mangoes by implementing the Bangladesh Good Agricultural Practices Protocol. In recognition of this, he won the Safe Food Medal in 2025. He is an important agricultural figure in Bangladesh and was honored as an AIP in 2021. Many farmers are suffering financially due to not understanding mango cultivation well, but he is consistently benefiting. Rafiq's dream is that other farmers like him will follow Bangladesh Good Agricultural Practices in mango cultivation and produce safe, poison-free and exportable mangoes and become self-reliant by cultivating mangoes.

Conservation and women's empowerment Transformation of Uttar Ganirampur

Dr. Nasiba Akhtar
Gender Specialist, PARTNER, PCU

Farmers of Uttar Ganirampur village in Taraganj upazila of Rangpur district have been facing a difficult reality for a long time. Due to the falling groundwater level, irregular power supply and limited irrigation opportunities, rice and other food grains cultivation has almost stopped. As a result, many are forced to turn to tobacco cultivation.

However, although tobacco cultivation provides temporary economic relief, it has a negative impact on the soil and environment, increases chemical dependence, reduces biodiversity and threatens overall food security. Women are exposed to health risks as they are involved in tobacco processing, and malnutrition in children is becoming more evident.

In this crisis, one of the initiatives of the PARTNER Program was to save irrigation water by introducing improved irrigation systems through the Bangladesh Agricultural Development Corporation (BADC) through the alternate wetting and drying (AWD) method and pipelines. BADC changed the irrigation system of farmers in Ganirampur village by installing irrigation pipes under the land and through the AWD method. As a result, farmers were able to switch from tobacco cultivation to paddy cultivation and started practicing sustainable agriculture through safe food production. Farmers have now found a way out of the crisis.

Scheme Details

- Scheme Name: North Ganirampur STW Irrigation Scheme
- District: Rangpur. Upazila: Taraganj
- Union: Kursha, Village: Uttar Ganirampur
- Number of farmers: 50 (12 women)

- Command area: 9.00 hectares
- Led by: Abul Kalam
- Year of service: 2024–25
- Technology: AWD (Alternate Wetting and Drying) and pipeline irrigation system

Steps to adopt AWD system

- Training and awareness meeting for farmers
- Formation of farmer groups and election of group leaders
- Construction of improved irrigation infrastructure through pipelines
- Introduction of AWD technology on 9 hectares of land
- Regular monitoring and technical assistance provided

Results

- 50 farmers (12 of them women) participated in AWD practice.
- Previously, they used to irrigate 24 times in a season, but with the use of AWD, it has been reduced to 18 times - that is, 25% water saving.
- The command area will be able to be increased up to 3.5 hectares with the use of saved water.
- Irrigation costs and production costs have decreased, and farmers' profits are increasing.
- Progress has been made in ensuring food security as paddy and other food grains have resumed cultivation.

Gender perspective: Women's participation and leadership

Special initiatives have been taken to ensure the active participation of women in this project. Women are not only working in the fields, but they are also involved in irrigation, soil monitoring and decision-making in irrigation timing. Rabeya Khatun is an active member of the water management group. She said, "Earlier, I would only help in harvesting paddy. Now I understand when to irrigate, how to save water. I am proud that I am now helping my family and nature. Earlier, I could not get two meals a day, but now I can eat."

Conclusion

This success in Uttar Ganirampur is not just a technological intervention—it is a community-based social transformation. This initiative is a shining example of partnering to empower women, conserve water, produce safe food, and protect the environment. This model is now becoming a model to be emulated in the Rangpur region and other parts of the country.

Successful farmer in cabbage cultivation using Good Agricultural Practices by Sujaul

Agriculture in Bangladesh is no longer just a means of livelihood, but has become a productive and profitable profession due to the proper application of modern technology and science. The importance of good agricultural practices (GAP) in the development of current agriculture is immense. When various initiatives are being taken to increase productivity through the use of modern technology in the agricultural sector of Bangladesh, farmer Md. Sujaul Islam of Khamarpara village has become a successful example of a marginal farmer. He has achieved incredible success in cabbage cultivation by following the Good Agricultural Practice (GAP) method on 35 acres of land in a remote village in Shibganj upazila of Bogura district. He has shown how success can be achieved even on limited land. His efforts are now a shining example for other farmers in the area.

Md. Sujaul is an experienced vegetable farmer, who has been cultivating rice and other conventional vegetable crops for a long time. He started his journey in agriculture with a small piece of land of his own. Later, he increased the amount of land and put more emphasis on vegetable cultivation and utilized his experience. The winter vegetables he produced include gourd, sweet pumpkin, cauliflower, cabbage, and summer vegetables include cucumber, chichinga, dhundal, and bitter gourd. He markets the produced vegetables in the local market as well as in the urban areas. Due to low yields and profits, he was inspired to produce safe vegetables. For this, he got the opportunity to travel to Indonesia and two other countries under the Hortex Foundation. He maintained close contact with the local agricultural office. He discussed any kind of enthusiasm and initiative he had with the agricultural office and the relevant people.

But facing repeated losses, he thought about how to make more profit with less cost. In 2024, he received training on good agricultural practices from the Department of Agricultural Extension with the help of the PARTNER Program. That's when his interest in good agricultural fodder arose. Since then, he has focused on good agricultural practices.

He became interested in learning about any kind of modern technology of vegetable cultivation and new varieties of vegetables and cultivating them. Md. Sujaul came to the attention of the Department of Agricultural Extension for implementing good agricultural practices in Bangladesh. Thus, his interest and inspiration increased further. His dream of producing safe vegetables in the light of good agricultural practices went one step further. With the financial support of the Bangladesh Agricultural Research Council and under the supervision of vegetable researchers of the Bangladesh Agricultural Research Institute, cabbage cultivation was implemented in his 35th selected land. He completed the work very successfully at the field level. He became appreciated by the farmers of his own area and other areas of the village. Following Sujaul, other vegetable farmers in the village also dream of being successful. In the light of Md. Sujaul's good agricultural practices from the district to the divisional level, this cabbage cultivation field became beautiful like a picture, and everyone noticed it. He also regularly highlighted his success in good agricultural practices in various newspapers and TV channels of the country: The strategies followed by

Sujaul Islam in good agricultural practices were well-planned and environmentally friendly. As the reason for increasing both the quality and yield of cabbage, he mentioned the scientific modern techniques, including soil and water health testing, moderate use of pesticides for disease and insect management, conducting the entire cultivation process based on balanced fertilizer use, planting cabbage seedlings at a certain distance, and especially the use of polythene mulch. Through this technology, he was able to produce about 25-30% more cabbage than the production of cabbage in the 35th century using the conventional method. As a result, he earned a net profit of about 67 thousand taka. Md. Sujaul Islam's success has now become an example for other farmers in Khamarpara village. Many people are visiting his farm and are interested in following good agricultural practices. Sujaul said, "Earlier, I used to cultivate using the conventional method, which resulted in more time and cost, and less profit. After using mulching paper, the cost has decreased, the crop has become beautiful, and the profit has increased. I want everyone to learn this method." He mentioned that the basic instructions from the scientists of the Bangladesh Agricultural Research Institute, the on-site inspection of the Upazila Agricultural Officer, and the regular monitoring of the Bangladesh Agricultural Research Council have played an important role behind his success.

This success of Md. Sujaul Islam's cabbage cultivation proves that technology-based and planned farming can be profitable and sustainable. Such examples will play an important role in the overall development of the country's agriculture. With the application of the right technology, the use of modern agricultural knowledge, and government support for market connectivity, even an ordinary farmer can be a beneficiary of extraordinary success. His experience is now not just a success story, but a guiding example on the path to sustainable and safe food production in the country's agricultural sector.

Pointed gourd Cultivation under Good Agricultural Practices in Jashore

Pointed gourd, a popular vegetable including Bangladesh and various countries worldwide, significantly contributes to meeting summer vegetable demands in Bangladesh. Currently, Bangladesh cultivates Pointed gourd across 10437.22 hectares, yielding 110397.49 metric tons, with a national average yield of 1.21 metric tons per hectare. Pointed gourd is grown year-round in Bangladesh. However, it is claimed that not all produced pointed gourd are 100% safe for consumption due to improper production management, raising concerns about health risks for consumers and extreme health risks for farmers applying excessive pesticides, including banned ones. This has reportedly led to various diseases and impacted biodiversity.

In Borhabotapur village, Jashore Sadar Upazila, three farmers are successfully cultivating pointed gourd on their 85% land following Good Agricultural Practices (GAP). This effort is under the overall supervision of a Bangladesh Agricultural Research Institute (BARI) scientist and with field-level support from an Sub-assistant Agriculture Officer from the Department of Agricultural Extension (DAE). Financial assistance and scheme monitoring were provided by the Bangladesh Agricultural Research Council (BARC).

Borhabotapur village and several surrounding villages are already known for pointed gourd cultivation. In that village, farmers are skilled in pointed gourd farming but often use excessive pesticides, including prohibited ones from neighboring countries, posing health risks. The farmers practicing GAP have seen their yield increase by 9% over the average, and they receive about 10 taka more per kilogram in the market compared to conventional methods. Consequently, they are very happy and feel gratified to have reduced the use of harmful pesticides. Inspired by their success, many nearby farmers are now adopting this method. They aspire to make pumpkin cultivation entirely pesticide-free and safe for everyone's consumption, potentially increasing production and creating a safe and sustainable environment in Jashore Sadar. This initiative is expected to yield significant economic benefits.

Yard Long Bean Cultivation following Good Agricultural Practices

Yard long bean (borboti) is a nutritious and popular vegetable in Bangladesh as well as various other countries worldwide. In Bangladesh, yard long beans are cultivated throughout the year. Its tender pods, unripe, and mature seeds are rich in various nutrients. Currently, approximately 39,529 metric tons of yard long beans are produced in the country across 7181.46 hectares of land, with a national average yield of 5.54 tons per hectare. However, the desired quality and higher yield of yard long beans are often hindered by factors such as excessive or unbalanced fertilizer use, indiscriminate and frequent pesticide application, use of harmful chemicals to maintain a deep green color, limited adoption of modern technology, and insufficient training for yard long bean farmers and laborers, particularly regarding personal hygiene, safety, and labor rights.

In Bangladesh, good agricultural practices (GAP) are being implemented for yard long bean production in Borkoit village of Chandina Upazila, Cumilla District. Three farmers in the said village are cultivating yard long beans on their 70 decimal land following GAP guidelines. The implementation of GAP for yard long beans was overseen by a scientist from the Bangladesh Agricultural Research Institute (BARI) and supervised at the field level by a Sub-assistant Agriculture Officer from the Department of Agricultural Extension. The Bangladesh Agricultural Research Council (BARC) provided financial support and acted as the scheme owner in this initiative. Chandina Upazila has long been renowned for yard long bean cultivation, and its farmers are quite skilled in its production. However, they traditionally use a large amount of toxic pesticides, even spraying them on their yard long bean crops every one or two days. Consequently, consuming these yard long beans poses health risks, leading to various complex diseases and harming the environment and biodiversity.

Following good agricultural practices (GAP), the yield of yard long beans has increased by 2.5 times compared to the average yield, and farmers have received approximately 20 Taka more per kilogram in market price than those using conventional methods. This has greatly pleased the farmers, and their ability to reduce the use of harmful pesticides has given them immense self-satisfaction. All of them express the wish that this method of cultivation will be adopted nationwide for all types of vegetables, ensuring everyone's safe and healthy livelihood.

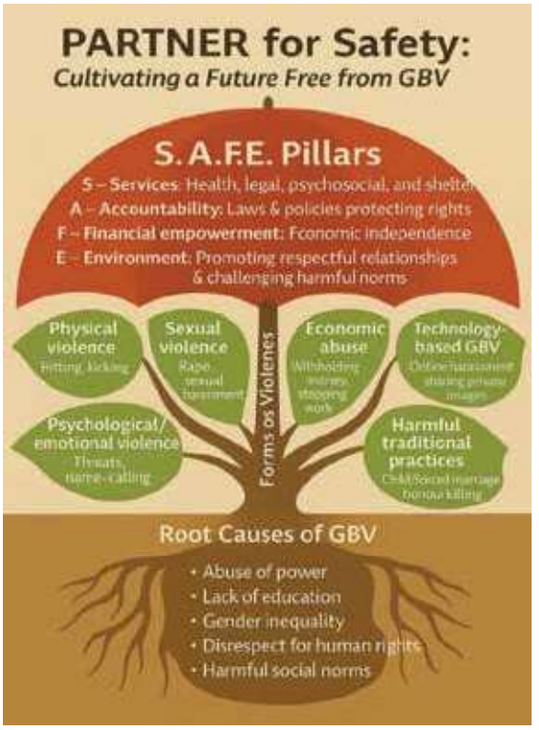
As a result of following proper production management, the cultivated yard long beans are considered 100% safe. It is hoped that if yard long beans are produced following Good Agricultural Practices (GAP), both domestic and international markets will expand, and yard long bean exports will be significantly increased. Ultimately, the country will be benefitted financially.

Countering Domestic Violence: Silence is the Key

Dr. Nasiba Akhtar
Gender Specialist, PARTNER, PCU

It is acknowledged that ensuring protection from domestic violence in the development model of Bangladesh is essential for development. However, when the PARTNER program began assessing gender within the Department of Agricultural Extension, a stark reality emerged. Despite the promise of national action, there is a gap in knowledge, coordination, and proactive response to gender-based violence (GBV), sexual harassment (SHR), and sexual exploitation and abuse (SEA). The problem is not so much a lack of awareness, but a lack of training, time, and a clear response mechanism.

Do we truly know or understand gender-based violence? Some understand it, while others remain silent, unsure where to go or who to tell. And this silence becomes one of the biggest challenges for gender equality and social protection systems. So, this journey of the PARTNER program begins with us knowing and understanding.



The diagram of the S.A.F.E pillars of the PARTNER program acts as a protective umbrella against various forms and root causes of GBV, ranging from physical and sexual violence to technology-based abuse and harmful social practices.

Success

PARTNER is working quickly and strategically. As a first step, the team is introducing a code of conduct - a mandatory document for every individual, PATNAER or organization involved in this work. It outlines a zero-tolerance policy for this, that is, for this, and that, to ensure that everyone is aware, accountable and committed to their involvement.

To build the confidence of victims, a confidential reporting link was launched using the Kobo Toolbox, a first in the history of the Department of Agricultural Extension. It allows victims or witnesses to report incidents anonymously and ensures a prompt, confidential and timely response.

The impact

The results have been transformative. Through continuous capacity building using tools such as this pocket guide, focal points in the field have learned how to report without fear, ensure confidentiality and ensure the safety of survivors. Coordination between the UW and program partners is improving, enabling proactive responses to these issues.

Most notably, 100% of the reported H/E/M/E incidents received were resolved through appropriate action, demonstrating that a well-structured system supported by leadership and empathy can change organizational culture.

The program's robust visual posters—which are being widely distributed in field offices and community hubs—are reinforcing this message: "We are always here for you." Through hotline numbers and clear, survivor-centered messaging, the posters are becoming an important access point for previously voiceless people.

Conclusion

This success story is not about tools or protocols. It is about rebuilding trust, creating safe spaces, and proving that systems can be responsive when built on empathy, commitment, and innovation.

Safe mangoes at farmers' markets

Zahidur Rahman

Safe mangoes produced following good agricultural practices will be available at the farmers' market on Manik Mia Avenue in the capital.
Samakal

Kabirul Islam, a mango farmer from Ilishpur village in Satkhira's Kalaroa district, now has a glimmer of hope in his eyes. Each mango wrapped in a yellow bag is the fruit of his hard work, discipline and agricultural practice. Last time, where he had to sell mangoes at the price of water, this time he is getting 90-100 taka per kg. There is no middleman, no fear of uncertainty. Because this time he has cultivated mangoes following the 'Good Agricultural Practices' or GAP method.

Kabirul's safe mangoes have now reached the farmers' market of the Department of Agricultural Marketing on Manik Mia Avenue in the capital. There is increasing interest and confidence among Dhaka consumers regarding those mangoes. The marketing program for safe mangoes produced under the GAP system was officially inaugurated at this market on Friday. The inauguration was done by Secretary of the Ministry of Agriculture, Dr. Mohammad Emdad Ullah Mian.

GAP - Good Agricultural Practices is not just a paper certificate. Behind it is a process of training, awareness, production in prescribed stages, safe procurement, and quality marketing. Kabirul said that this time he used fertilizer, medicine, water - everything according to specific rules. The result - in his words, 'Although the cost is a little higher, the profit is higher.' In Dhaka, it is being sold at a price of 20-25 taka per kg more.' Like Kabirul, other farmers are also happy to get a fair price. In the eyes of Dhaka consumers, this mango story is becoming a reflection of the country's agricultural transformation.

A PARTNER program jointly funded by the Ministry of Agriculture, the World Bank, and the International Fund for Agricultural Development (IFAD) is working to implement initiatives for safe mango production and marketing. The Department of Agricultural Extension, the Department of Agricultural Marketing, and the Hortex Foundation are also involved in this program.

Gulshan resident Farhana Rahman came to the farmers' market on Friday. She had a few kilograms of mangoes in her hand. She said, `In the general market, there is a fear of pesticides. I bought it here after seeing the GAP writing. The mangoes smell quite good.'

Behind this trust is the concerted efforts of government initiatives, farmers' sincerity, and science-based practices. The Agriculture Secretary said, `Although the taste and quality of Bangladeshi mangoes are good, we are lagging behind in exports due to weaknesses in processing and quality control. Efforts are underway to overcome this deficit by introducing improved agricultural practices and filling the gap.'

Mangoes are now exported from Bangladesh to 38 countries. This year, China has joined. Last year, 1,300 tons of mangoes were exported. The government's goal is to increase this to 50,000 tons. Researchers in the country are working to extend the mango season and improve its color. However, challenges remain in some areas regarding quality, safety, and rapid export - especially in the areas of customs and health certification. The Agriculture Secretary said that efforts are underway to resolve these problems in an inter-ministerial meeting. Abul Kalam Azad, Program Coordinator of the PARTNER Program, said that this program is spread across 8 divisions, 64 districts and 495 upazilas of the country. Target is GAP-based cultivation of fruits and vegetables on 3 million hectares of land. Under this program, farmers are being provided with GAP training, certification, market connectivity and necessary technical support. Along with this, modern irrigation systems, seed testing labs and smart cards have also been provided.

Director General of the Department of Agricultural Marketing, Nasir-ud-Daula, said, `Mango farmers associated with farmers' markets are a conscious part of the safe food system. Their mangoes are on the verge of the world market. Bangladesh's agriculture is changing - not through production, but through quality, safety and consumer confidence.'

Dr. Syed Md. Rafiqul Amin, Managing Director of Hortex Foundation said, `A collective bond is being formed to ensure safe food - between producers, government agencies, scientists, exporters and consumers.' GAP is not just a practice, it is a national commitment to a safe food system. Maintaining the popularity of mangoes worldwide requires quality production, safe storage, and professional marketing.

Mitul Kumar Saha, joint director of Hortex Foundation, said that one ton of mangoes will be sold every day at the capital's farmers' market. Mangoes from Satkhira, Naogaon, Chapainawabganj and Rajshahi will come to Dhaka throughout the season under government management. This will not cause any additional cost to the farmers.

Samakal, 31 May 2025

Hortex-PARTNER program mango marketing begins

Staff reporter

Naya Diganta

Hortex-PARTNER Program Mango Marketing, the joint initiative of Hortex Foundation and PARTNER Program has officially started the marketing of mangoes cultivated according to Good Agricultural Practices (GAP). This is a significant step towards increasing the country's fruit exports. Agriculture Secretary Dr. Mohammad Emdad Ullah Mian inaugurated the initiative at the Farmers Market located in the Sangsad area of Dhaka on Friday (May 30).

The event was jointly organized by Hortex Foundation, Department of Agricultural Extension (DAE), and Department of Agricultural Marketing (DAM). Marketing support is provided by Zahera Seed Corporation, Arat Agro BD and SK International. The Agriculture Secretary highlighted the government's commitment to modernize agricultural exports by removing long-standing logistical and policy barriers.

He said, "We are developing a country-specific export action plan not only for ethnic consumers but also to enter the mainstream global market. Although Bangladeshi mangoes are in high demand globally, the export volume is low due to various challenges. We are actively working to overcome these obstacles using GAP and advanced technology.'

He announced that soon mango exporters will benefit from a simplified process, where customs and security clearance will be provided at a single point. This will reduce both time and cost. This coordination will make our fruit and vegetable exports competitive in terms of both quality and efficiency. Work is also underway to eliminate inter-ministerial complexities in logistics and processing. Discussions are ongoing to reduce air transportation costs. In addition, post-harvest management such as hot water treatment and cold chain infrastructure are being developed.

Hortex-Partner project begins marketing GAP-certified mangoes | Naya Diganta

Currently, hot water treatment facilities are operational in Gabtoli. Additional facilities are under construction in Shyampur and Purbachal. There are also plans to shift customs operations to Shyampur, where customs and civil aviation authorities will jointly issue clearances. On future plans, he said, "The country has immense potential for mango exports. In the last fiscal year, we exported only 1,300 tons of mangoes. But Bangladesh is capable of exporting up to 50,000 tons of mangoes annually in addition to meeting domestic demand."

He highlighted the importance of attractive colors and quality in the international market and noted that research is ongoing to align local production with global consumer tastes. The government is working to

make seasonal fruits like mangoes more accessible through initiatives like Krishak Bazar, which helps meet export targets and local market demand.

Other distinguished guests present at the event included Director General of the Department of Agricultural Extension Md. Saiful Alam, Director General of the Department of Agricultural Marketing Nasir-ud-Daula, Acting Executive Chairman of the Bangladesh Agricultural Research Council Dr. Nazmun Nahar Karim, Dr. Syed Md. Rafiqul Amin, Managing Director of Hortex Foundation, and Abul Kalam Azad, Program Coordinator of the PARTNER Program.

This initiative is part of the Ministry of Agriculture's larger plan, which is working to ensure food and nutritional security for future generations by transforming agriculture into a sustainable, safe, and commercially profitable sector. To this end, the ministry is implementing the 'Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship and Resilience in Bangladesh (PARTNER)', which is baing run from July 2023 to June 2028.

This project, funded by the Government of Bangladesh, the World Bank and the International Fund for Agricultural Development (IFAD), is being implemented in eight divisions, 14 regions, 64 districts and 495 upazilas of the country. Seven implementing agencies under the Ministry of Agriculture are working on this program, with the Program Coordination Unit (PCU) of the Department of Agricultural Extension serving as the lead agency. Eight organizations of MoA, including Hortex Foundation, are working as strategic partners in this initiative.

Naya Diganta, 30 May 2025

First-time mango cultivation using fruit bagging technique in Hili

Hakimpur, Dinajpur Correspondent

Desh Rupantar

In Hili of Hakimpur, Dinajpur, farmer Nirajan Sarkar has successfully cultivated safe mangoes using the fruit bagging technique for the first time. Due to favorable weather, the mango yield has been good. He also expects profits due to the lower production costs resulting from using the bagging method and hopes to export the mangoes if they receive government support. Under the guidance of the 'Program on Agricultural and Rural Transformation for Nutrition Entrepreneurship and Resilience in Bangladesh (PARTNER)' and the 'Cluster Demonstration for GAP Standards of Fruits' project, farmer Nirajan Sarkar from Gohara village in Hili has cultivated 'Bari 4 Gauramati' and 'Amrapali' varieties of mangoes on one acre of land. Most of the trees are now fully ripe, and he expects to market them soon.

Nipen Barman, an employee working in the orchard, said, "Nirajan Da (uncle) has a mango orchard here. I am responsible for the orchard's maintenance and overall care. We work here following health regulations, wearing masks and gloves. We water the trees and apply medicine or vitamins. This is done so that no germs contaminate the produced mangoes. The current condition of the orchard is very good; mangoes are appearing on all the trees, and they have grown quite large. Many people come here daily to see the mangoes. The income earned from working here helps educate my children and run the household well."

Interested farmer Lutfar Rahman said, "Nirajan Sarkar has cultivated mangoes using the bagging method near our village. The mangoes on the trees look perfect and beautiful, with no signs of disease or pests. Besides, cultivating mangoes this way is profitable, and good prices can be obtained for them in the market. That's why I came to see his mango orchard. I hope I will also cultivate mangoes using this method in the future."

Farmer Nirajan Sarkar from Gohara village said, "I first received training from the GAP and PARTNER program, and then, under the same program, I cultivated mangoes here. We receive various kinds of advice from the Upazila Agriculture Extension Department, and following that, I care for the mangoes and have benefitted greatly. I have cultivated Gouramati, Bari 4, and Amrapali varieties of mangoes. This year, the weather has been good, and the mango yield is quite good. If the market is good, mango cultivation will be profitable. In addition, if we receive support from the government and the Department of Agricultural Extension, we hope to be able to market them abroad. Previously, we cultivated mangoes without the bagging method, because we couldn't get good prices for them, it wasn't very profitable for us mango farmers. Besides, when mangoes are cultivated without the bagging method, many harmful insects land on them and damage the fruit. As a result, mango farmers face more losses than profits instead of gains. In addition, the use of pesticides is harmful to the human body. For these reasons, we believe that cultivating mangoes using the bagging method is very important and the best way for us. Also, the sex pheromone trap to keep the fruit free from pests is very useful. Using pesticides costs more, but cultivating mangoes using the bagging method saves that cost. In addition, once the bag is used, it can be used again the next year. In this way, not only are the quality of the mangoes better with this method, but the cost is also less, making it profitable."

Hakimpur Upazila Agriculture Officer Arjena Begum said, "For the first time in the current season in the upazila, mango cultivation demonstration using GAP and under the PARTNER program is being implemented. Farmer Nirajan Roy of Gohara area has set up a one-acre mango orchard demonstration here. All kinds of care in this demonstration orchard are being done following the protocols of GAP. From soil and water testing to when and how much of any pesticide to spray, all advice has been given. Regular monitoring of his orchard is being done by the Agriculture Office. Performing safe fruit harvest or processing is also one of the GAP protocols. Bagging is a very important practice under GAP through which the use of pesticides can be regulated, and the size or color of a fruit can also be managed. One of the main objectives of GAP is to be able to export it. Following those protocols of GAP, we can initiate the export process. Since this is entirely new in this upazila, we are working to spread it further. Everyone who visits here or works in maintenance follows the GAP guidelines so that there is no health risk here."

Regional workshop for farmers and agricultural officers from three hill districts

Hefazat Sabuj

Somoy Sangbad

A regional workshop for farmers and agricultural officers from three hill districts was held in Rangamati to discuss the production of high-yielding and safe food. The workshop, held on Wednesday (May 21st) morning in the conference room of Rangamati District Council Sadar Upazila Parishad, involved agricultural officers, farmers, and community representatives from the three hill districts.

The chief guest at the workshop was Kajol Talukder, Agriculturist Chairman of the Rangamati District Council. Special guest were Md. Obaidur Rahman Mandal, Director of Field Service; Abul Kalam Azad, Program Coordinator of PARTNER; Additional Director Nasim Haidar, and Additional Program Director Dr. Gour Gobinda Das.

Speakers at the workshop emphasized that to achieve profitable and safe food production in hill farming, agricultural technology must be utilized. Farmers in the hill context need to be aware of the latest agricultural technologies. They must understand how to achieve high yields without using pesticides. Without this knowledge, farmers cannot expect the desired yields.

During his address as the chief guest, Kajol Talukder stated, 'Negative publicity about jhum cultivation in Hill Chittagong occurs, but jhum is practiced in countries like Thailand, Laos, and Cambodia. Our focus should be on how to modernize it further. This year, Rangamati farmers have been encouraged to cultivate onions instead of tobacco to reduce tobacco farming, and they have succeeded. We plan to initiate projects from the district council in the future for onion cultivation in the hills."

He further added, 'If there hadn't been a revolution in agriculture in the country, our people might not have had enough to eat. New high-yielding varieties are still being innovated. We must value these agricultural scientists."

The workshop, organized by the Department of Agricultural Extension with the cooperation of the World Bank and IFAD, also featured an exhibition of various seasonal fruits and vegetables produced in Rangamati.

Day-long Partner Congress held in Bancharampur

Fajle Rabbi Rifat
Correspondent, Bancharampur Barta

A day-long "PARTNER Congress" was held at the Brahmanbaria Banarupur Upazila Auditorium hall room, organized by the Department of Agricultural Extension. The congress, held under the "Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh (PARTNER)", was attended by people from various walks of life, particularly those involved in the agricultural sector, entrepreneurs, and policymakers.

The event, held on Thursday (June 19th), was presided over by Banarupur Upazila Nirbahi Officer Ferdous Ara. The chief guest was Dr. Mostafa Imon Hossain, Deputy Director of Brahmanbaria District Agricultural Extension Department. Additional guests included Md. Moyonul Hak Sarkar, Additional Deputy Director (Crops) of Brahmanbaria Department of Agricultural Extension, and Sarwar Jaman, Regional Monitoring Officer (Agronomist) for the PARTNER program in the Cumilla region.

The keynote presentation was delivered by Md. Naser Uddin, Banarupur Upazila Agriculture Officer. The session was moderated by Agricultural Extension Officer Suchandra Bhattacharjee.

Among those who spoke at the event were Dr. Kazi Mostain Billah, Upazila Livestock Officer, and Saiyada Akter, Upazila Fisheries Officer. Present at the event were panel chairmen from various union councils, local journalists, representatives from non-governmental organizations, entrepreneurial farmers, farmers from PARTNER schools, and other respected farmers from the area. Discussions during the congress covered the objectives and activities of the PARTNER program, the work of the PFS service centers, income-generating initiatives, best agricultural practices, and ongoing and future plans in the Banarupur upazila.

An important part of the event was the interaction with the attending farmers, where they shared their practical experiences and opinion. Organizers believe the event will play an important role in promoting entrepreneurship in agriculture, improving nutrition, and spreading environmentally friendly technology.

Business plan consultation meeting for the development of fragrant rice-based value chain

Dinajpur correspondent

Bangladesh Protidin

A day-long Value Chain Promotional Business Planning Consultation Meeting was held to develop the fragrant rice-based value chain and increase private sector involvement. A day-long Value Chain Promotional Business Planning Consultation meeting was held at the Chirirbandar Upazila Parishad Hallroom on Sunday, organized by Hortex Foundation.

The meeting was attended by about 110 participants, including more than a hundred farmers, processors, millers, market intermediaries, representatives of government and private organizations, bank officials, NGO representatives, and journalists from Chirirbandar and surrounding areas.

Based on the discussions at the meeting, a preliminary action plan was adopted, with special emphasis on private investment, government support, and farmer skill development.

The speakers discussed the production of fragrant rice, post-harvest management, quality control, packaging, branding, and market linkages. During the meeting, the participants pledged to work together to build a sustainable and market-oriented value chain.

Chirirbandar Upazila Agriculture Officer Zohra Sultana presided over the speech, Bangladesh Agricultural Research Center Senior Scientific Officer Dr. Muhammad Shamsul Huda, Upazila Social Welfare Officer Md. Hamidur Rahman, Agricultural Extension Officer Md. Rezaul Karim, Partner Program, Md. Abdul Mannan, Value Chain Promotional Officer, Hortex Foundation, among others. The main discussant was Md. Mamun Hossain, Post Harvest Specialist, Hortex Foundation.

Bangladesh Pratidin, Online Version, Sunday, June 01, 2025

Thakurgaon's Amrapali mangoes are going to the UK and Europe

Zakir Mostafiz Milu

Thakurgaon District Correspondent Amrapali mangoes from Thakurgaon are being exported to the UK and European markets. The formalities for the export of this mango were completed on Saturday at the initiative of the Sadar Upazila Agriculture Department. Mango exporter farmers Kamrun Nahar and Dulal Islam, one of the owners of the mango orchard located in Fakirpara in the district town, said, they have received all kinds of support from the Department of Agricultural Extension in producing high-quality mangoes. They are happy to be able to export them.

According to the Department of Agricultural Extension, various GAP exhibitions have been implemented in Thakurgaon Sadar Upazila following good agricultural practices through the Program on Agricultural and Rural Transformation for Nutrition Entrepreneurship and Resilience in Bangladesh (PARTNER) Program. Various vegetables and fruits, including bitter gourd and mango, are being produced at these exhibitions.

The crops of this program have already been exported to the global market, especially to various European countries and America, which has earned a considerable reputation. In continuation of this, under the supervision of Thakurgaon Sadar Upazila Agriculture Officer Nasirul Alam. Under the management of the upazila, the gap crop (Amrapali) was officially loaded onto trucks for export to the UK on Sunday afternoon. Regarding this arrangement, Sanjay Debnath, Senior Monitoring Officer of this program, said that gap crops are being produced on a large scale, which will transform the country's subsistence agriculture into commercial agriculture and ensure safe food supply to the people of the country.

Zahangir Alam Kabir, Additional Deputy Director of the Department of Agricultural Extension of Thakurgaon district, Agricultural Extension Officer Mashiur Rahman, Agriculture Extension Officer Abu Abdullah Al Mujahid, Sub-assistant Agriculture Officer Saifuzzaman Shah and others.

BongoNewsbd24.com

Programs to make agriculture commercial and climate resilient

Samakal Correspondent

The adverse conditions in agriculture are becoming increasingly evident due to the impact of climate change. Excessive rainfall, drought and early floods have become obstacles to cultivation. Farmers are repeatedly facing losses due to the hostility of nature.

This is affecting the food production system, increasing security and nutritional risks. In this context, the government is implementing major programs to sustain the sector, increase productivity, and transform agriculture into a profitable profession.

The 'Program on Agricultural and Rural Transformation for Nutrition Entrepreneurship and Resilience in Bangladesh (PARTNER)' program has started in the fiscal year 2023-24. It is being implemented by seven agencies of the Ministry of Agriculture. The program aims to establish agriculture on a modern, commercial, and environmentally sustainable basis.

At a workshop on the program organized at a hotel in the capital on Sunday, agricultural experts said that if the project is implemented, there will be a revolutionary change in the country's agriculture. Not only food production, but agriculture will also become a profitable and export-oriented sector. There will be diversity in production.

Speaking as the chief guest at the event, Agriculture Secretary Dr. Mohammad Emdad Ullah Mian said that this project includes issues of agricultural production, export, entrepreneurship development, quality control, and market systems. If this is successfully implemented, the path to transforming agriculture into commercial agriculture will be paved and food and nutritional security will be ensured.

Abul Kalam Azad, the Program Coordinator, said the main objective of the program is to diversify agriculture, create entrepreneurs, ensure climate resilience, and maintain food security.

Additional Program Director Dr. Gour Gobinda Das said that this program is not limited to production only, but also ensures that farmers get fair market prices. A farmer database is being created for all upazilas. All farmer information will be stored digitally through smart cards, from where direct assistance can be ensured. It was informed at the event that the project is being implemented in 495 upazilas of 14 agricultural extension zones in eight divisions of the country. The total cost of the program has been estimated at 6,910 million taka. Seven implementing agencies of the country, agricultural exporters and entrepreneurs were present at the workshop.

It was informed at the workshop that under the program, a complete protocol is being prepared for five important fruits and 10 important vegetables, which includes production, marketing and initiatives have been taken to bring 3 lakh hectares of land under Good Agricultural Practices (GAP) based cultivation for each stage of export. At the same time, there are plans to add 2 lakh hectares of land to the cultivation of high-yielding rice varieties.

Under the program, one million farmers are being trained to follow good agricultural practices or GAP. In addition to developing the country's seed network to strengthen seed management, work is underway to develop five environmentally tolerant and high-yielding rice varieties and 15 more varieties of other crops. One lakh hectares of new agricultural land is being brought under irrigation through advanced water-saving technology. Smart cards will be provided to 2.27 crore farmers in 64 districts of the country, through which farmers' production, land information and government assistance will be recorded. In addition, work is underway to establish 10 international accreditation laboratories to control the quality of exportable agricultural products. At the same time, emphasis is being placed on technical training and capacity building of farmers to expand the cultivation of rice and other crops.

Daily Samakal, June 23, 2025

Some pictures of the PARTNER's notable activities

Director General, DAE presenting certificates to trainees of GAP certification training in Munshiganj

Secretary, Ministry of Agriculture with trainees at the season-long Trainer-Training Course, ATI, Sylhet

Secretary, Ministry of Agriculture is visiting GAP field at Horticulture Center, Dinajpur

Secretary, Ministry of Agriculture inaugurates GAP certified mango marketing at farmers' market in Dhaka

Field visit by Member (Secretary), Agriculture, Water Resources and Rural Institutions Department, Planning Commission in Khulna

Member (Secretary), Agriculture, Water Resources and Rural Institutions Department, Planning Commission, presenting GAP training certificates in Satkhira

Some pictures of the PARTNER's notable activities

Dr. Mohammad Emdad Ullah Mian, Secretary, Ministry of Agriculture, and Abul Kalam Azad, PC, Partner, speaking at the PARTNER's Dhaka Region Regional Workshop

PARTNER's Regional Workshop, Khulna Region Workshop was hosted by Divisional Commissioner Mr. Md. Firoz Sarkar and President Mr. Md. Rafiqul Islam, Additional Director, Khulna Region, DAE

PARTNER Regional Workshop, Rangamati Region

PARTNER Regional Workshop, Rangamati Region