

# IPRS technology brings new hope in fish farming

SHYKH SERAJ

In the first week of February this year, I went to Akbar Hossain's fish farm in Chapainawabganj's Bulonpur where no one had to go down to the pond to catch fish and get wet. Everyone was fishing from the concrete platform on the banks of the ponds. Workers standing beside the makeshift channels beside the ponds were bringing the fish up using different nets, used for different varieties of fish from different channels and you would have been really surprised to see that. We are now at the age of the fourth industrial revolution. With the advancement of technology, revolutionary changes are constantly taking place in the field of production. Agriculture is becoming an important chapter in this century. With the advent of the internet of things (IoT), artificial intelligence technology (AI), farmers are looking forward in producing more by spending less from a small space or land. Landmark changes are taking place, especially in the farming sector. The practical application of technology that could not have been imagined even five years back is surprisingly becoming effective today through flourishing applications. The information about advanced technology in developed countries is spreading in every corner of the world. The educated young entrepreneurs of our country are also getting the latest news on the internet. It can be said that agricultural technology is constantly knocking on the farmers' door. From fruits to poultry, dairy and fisheries, all sectors of farming are changing with the touch of technology. In recent times, the youth's interest in fish farming is showing the dream of a new silver revolution. Fish farming technologies like Biofloc technology (BFT), Recirculating Aquaculture System (RAS) for indoor fish farming have become very



Agricultural entrepreneur Akbar Hossain holds a fish, produced through IPRS technology, at his fish farm in Chapainawabganj's Bulonpur.

PHOTO: HRIDOYE MATI O MANUSH

Shykh Seraj is Bangladesh's pioneer development journalist. He received country's two highest civilian honours, Swadhinata Puroshkar and Ekushey Padak, respectively. He is a BIDS, Ashoka and Bangla Academy Fellow. He also received highest award for agricultural journalism from the United Nations, FAO A.H. Boerma Award, Gusi Peace Prize (Philippines) and many other prestigious accolades at home and abroad. At Channel i, he's the Founder Director and Head of News. He's also Director and Host of Channel i's popular agro-documentary, Hridoye Mati O Manush.



popular. The bottom clean raceway system also became popular in time's course.

The main obstacle in fish farming is excess ammonia and lack of oxygen in the pond water or reservoirs. Somehow, if the amount of oxygen can be increased by removing ammonia waste from the water, it is possible to produce more. Akbar Hossain of Chapainawabganj has brought a new technology in fish farming, which is entirely a different one indeed, known as, in-pond raceway system (IPRS). Akbar is counting more profit by cultivating more fish in a small space.

Dear readers, you may remember, in November 2016, I visited Akbar's fish farm and wrote about it. I was surprised to see the changing agricultural initiatives in the Barind region. Akbar was highly inspired by watching my programme Hridoye Mati O Manush (Soil & People in Heart) and built a huge fish farm with 36 ponds on 20 hectares of land. He has many other trees and fruit plants on his agricultural farm. He planted 400 manta plants right beside the ponds while 500 Vietnamese coconut plants are also there. There are 600

dragon fruit trees, papaya trees as well as lots of banana trees on the farm. He gets Tk 2 lakh (USD 2360) every year by selling the bananas. Akbar also has his rice mill in his agricultural compound. A beautiful pigeon house is there. In 2016, I was surprised to see his farm. Because, he started many new practices, especially in fish farming. An aerator was used to provide adequate oxygen to the fish in all the ponds. When feeding fish, there was an auto-feeder and it was not a manual method of feeding the fishes. As a result, food wastage was prevented and a certain amount of food was given to the fishes at specific times.

This time, when I went to Akbar's fish farm, known as Nawab Hi-Tech Fish Farm, I was amazed to see his new technology and great progress in fish farming. Akbar has revolutionized fish farming using in-pond raceway system technology. As far as I know, this is the first-ever fish farm in the country that is using IPRS. There are two farms in India and three in Pakistan that are using this technology, alongside the big game-changers like China. Akbar's farm is the largest in South

Asia in terms of size. IPRS is an American fish farming technology. China has made great strides in fish farming over the past few years using technology and became quite successful. The speciality of this fish farming method is more quality fish can be produced in less water.

In these few years, the farm has become even bigger. Earlier, there were 36 ponds. Now they increased up to 43. Thirteen concrete channels have been already made in a 60 bigha (8 hectares) pond which follows the IPRS system. Rest of the ponds in the increased area are doing the regular fish farming. Artificial currents are being produced in the channels through raceway technology connected to the pipeline. Oxygen is always being created in the flowing water. The fish of the channel is getting the current and environment of the river. As a result, six times more fish can live there than that the usual one. There are different types of fish in each channel. Akbar said due to the provision of food and proper care with the help of technology, the fish grows fast and there is no outbreak of disease. Organic

manure is made by filtering fish waste and leftover food from the water with the help of a machine, which is being used in the cultivation of vegetables on the banks of the pond. Each stage of fish farming is so transparent that the quality of the fish is always at the top. The fish bears a river-grown look and tastes the same as the river.

I was talking to Akbar while walking along the paved edge of the channel. He said he went to China to check out the IPRS technology. Then he returned to the country and built a fish farm with this technology, imported from China last year. Chinese technicians and engineers came to Bangladesh and installed the equipment and tools, necessary for the IPRS. The investment for technology in the farm is more than Tk 5 crore (USD 560,000). Akbar wanted to start fish farming using IPRS technology from the beginning of 2020. But the impact of the coronavirus outbreak has delayed the process. He was saying that the amount of fish that can be produced in 600 bighas of water will be produced now in 60 bighas by using IPRS technology. It is possible to produce fish three times a year from each channel. In other words, fish can be farmed three seasons in a single year. Akbar's calculations say, for two seasons a year he will get 2,000 tonnes of fish from 60 bighas. Its market value will be about Tk 10 crore (USD 1120000). It means, he is expecting a profit of Tk 5 crore (USD 560000) in the first year.

In addition to food security, we now have to think about safe food. There is no alternative of using technology in the farming sector. In the last few decades, we have seen a trend of fish farming in different regions of the country and farmers are digging ponds on their cultivable lands. Although, we are moving onward to fish farming, we're losing croplands for agricultural production. If the farm is built with IPRS technology, more fish can be found in less space. It will not be necessary to dig thousands of ponds by destroying croplands. To make the fisheries sector more profitable, the government should take necessary steps for facilitating these technologies first and it would certainly open the door for fish export. Like Vietnam and Myanmar, we can earn foreign exchange by exporting fish. During 1990 to 1995, we had to import Rui-Katla fish, worth crores of taka from India and Vietnam. Now there is no need for that. We have succeeded in meeting the country's demand. Fish farmers like Akbar are completely prepared to capture the quality fish market abroad. Now the first step is most required and that is to secure the international fish market through both public and private initiatives showcasing such brilliant efforts from Bangladeshi entrepreneurs working in this sector with the latest technologies the world has offered.

## Covid pandemic worsening prognosis of Tuberculosis

OUR CORRESPONDENT, Moulvibazar

The coronavirus pandemic has affected the awareness building, diagnosis and treatment of tuberculosis.

Many tuberculosis patients faced difficulty to continue their treatment either because of the lockdown enforced due to the covid-19 pandemic or because of the absence of health assistants in remote tea garden areas in Moulvibazar.

Saiful Islam, 38, a resident of Sindhurkhan area in Sreemangal upazila of Moulvibazar said, "I am tuberculosis patient. I ran out of medicine in May last year."

"But due to the lockdown, I could not go to the hospital to bring the rest of the medicine. If anyone was even heard coughing, it would be difficult for him to get into transport," he said.

Twenty-five-year-old Shulekha Ghatual, who lives with five-member family in a tea

garden unrecognized.

Health experts believe that these patients are increasing the risk of further spread of TB infection remaining out of treatment.

A total 10,077 people were found infected with tuberculosis among only 90,050 presumptive examined in 16 upazilas of Sylhet, Habiganj, and Moulvibazar last year, said Munuru Jacob, project director of HEED Bangladesh TB control.

In 2019, 10,596 people with TB were found among 1,12,639 presumptive examined; the figures in 2018 were 8783 people out of 96,244 presumptive examined respectively.

However, the number of tuberculosis patients in the tea gardens is very high. Because in the tea gardens, population is high and people live in unhygienic condition, he also said.

Dr Chowdhury Jalal Uddin Murshed, civil surgeon of Moulvibazar district,



A health assistant collects cough from a TB patient in a TB centre of Moulvibazar. The photo was taken recently.

PHOTO: STAR

garden in Sreemangal, said, "I was suffering from a mild cough and fever in May last year. Then I began to lose weight rapidly."

Her husband Sadhon Ghatual said, "Sometimes I buy her some medicines for fever. But I didn't find anyone to talk about my wife. I did not find any TB assistant either."

"Later, I used some local medicine for treatment when she became very weak," Sadhon also said.

Wishing anonymity, a TB assistant said "Some children and pregnant women are coming here with fever, cold and coughs without masks. But we don't have personal protective equipment (PPE)."

"And if the situation goes on this way, we can be infected with Covid-19 anytime."

The coronavirus pandemic has affected the tuberculosis situation in the country. Hence, not only a large number of common TB patients were not diagnosed, but also drug-resistant tuberculosis patients

told this correspondent, all training and information centres under the TB program remained suspended due to covid-19, a section of health workers could not attend work due to local lockdown and travel bans, field monitoring had to be discontinued.

The NGOs that run programmes to control tuberculosis were also affected by lockdowns. That is why the task of diagnosing tuberculosis came down to one-third.

But now things are becoming normal, he added.

Dr Anisur Rahman, assistant director (disease control) of Health Department Sylhet division said, if someone has cough and fever, first covid-19 test is done then tuberculosis test is done. Many patients get scared and avoid the tests.

He said, Corona infection was first detected in the country on March 8, 2020. Corona has been affecting the tuberculosis program since March last year.

## Clash leaves two killed in Cumilla

5 others injured

OUR CORRESPONDENT, Cumilla

Two youths were killed and at least 5 others injured in a clash between two groups of youths over a trivial matter in Debidwer upazila of the district early yesterday.

The deceased were identified as Saiful Islam, 18, son of Habib Mia of Abdullahpur village, and Rahim Mia, 20, son of Renu Mia of Gunjor village in neighbouring Muradnagar upazila.

Officer in Charge of Debidwer Police Station Arifur Rahman said the clash erupted between two groups centring a feud over a dance party at a marriage ceremony programme.

Locals said a dance party was arranged at the house of Oman expatriate Jakir Hossain centring his daughter Nazma Akter's marriage.

Rahim, Sajib and Mamun, who hail from Gunjor village, had an altercation with local youths over a trifling matter around 1:00am.

At one stage, both the groups locked in a fierce clash near Jibonpur Insaf Market area that left Rahim dead on the spot while Saiful died on his way to Debidwer Upazila Health Complex.

Meanwhile, critically injured Sajib, Mamun and Akter were admitted to Cumilla Medical College Hospital, from where they were later shifted to Dhaka Medical College Hospital as their condition deteriorated.

Being informed, police recovered the bodies and sent those to Cumilla Medical College Hospital for autopsy, the OC said, adding that none had filed any complaint in this regard yet.

Police, however, detained Zakir and one Basir Mia of Abdullahpur for interrogation.



A wall of this newly built drain in Moulvibazar's Kamalganj upazila collapses on Tuesday only after 15 days of its construction. Moulvibazar district council constructed the drain, along the boundary wall of Kamalganj Government Model High School, spending Tk 2 lakh.

PHOTO: STAR



### North-West Power Generation Company Ltd.

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#### Office of the Plant Manager (Superintending Engineer)

Sirajganj 225 MW Combined Cycle Power Plant (Unit-3)  
NWPGL, Soydabad, Sirajganj-6750.

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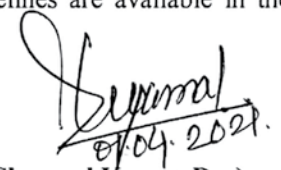
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#### e-Tender Notice

The following e-Tender is invited in the National e-GP System Portal ([www.eprocure.gov.bd](http://www.eprocure.gov.bd)):

Sl. No.	Tender ID	Brief Description of Tender	Publication Date & Time	Last Selling Date & Time	Opening Date & Time
1	558271	Procurement of Spares for Automation System	01/04/2021, 10:00 AM	20/04/2021, 03:30 PM	21/04/2021, 11:00 AM
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3	558275	Procurement of Lube Oil Purifier & Varnish remover for Sirajganj 225MW CCPP (Unit-3)	01/04/2021, 10:00 AM	20/04/2021, 03:30 PM	21/04/2021, 12:00 AM

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01/04/2021

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