

AwF – St. Xavier's Bishramganj Project

(Progress report –July, 2008 –April, 2009)

Background:

St. Xavier's Vocational Training Centre has been established with the purpose of training the school dropouts and the unemployed youth by providing them skills that can help them to earn their livelihood. The major vocational training activity includes agriculture, horticulture, animal husbandry, aquaculture, driving, welding, handicrafts, tailoring, computer, etc. Based on the interest and educational level of the individuals, appropriate skills are provided. The center with nearly 40 acres of land is utilized to carry out various agricultural activities.



Imparting weaving skill



Raising plant nursery

Fish culture

Besides providing skill based training to the youth, the center is also engaged in helping farmers living around the center with various agricultural information and basic health support to the people in an informal way. Since several farmers have built ponds in their farm, an effort was made since 3 years to introduce aquaculture in these farm ponds. The work carried out with 75 farmers has shown the possibility of increasing the productivity by helping farmers with the necessary technical information. Most of the farmers have been resorting to buy the seed at high cost and stock them in poorly prepared ponds with no feeding or other management practices being adopted. As a result, the productivity obtained by these farmers was very low with many of them getting less than 700 kg/ha/year. This productivity levels have been gradually improved and the farmers perception

about aquaculture has been changed by training both men and women in the family.



Feeding fish



Harvesting fish from pond

Quality seed problem

One of the major problems encountered is the non-availability of quality seeds for the farmers in rural areas. Further in the interior parts of Tripura with no hatchery being established seed availability is recognized as the major constraint. Fortunately, the vocational training center brings students from the remote parts of Tripura and most of them have agricultural lands with farm ponds as a component of the system. To address this major problem of fish seed and to take the advantage of giving additional skill to the vocational training students, it was decided to explore the possibility of establishing a hatchery in the center.

Based on this decision, a proposal was submitted to the AwF funding for the establishment of the hatchery was approved as the third phase activity. The project activities were commenced on 10th July 2008, coinciding with the National Fish Farmers Day celebrated throughout the country. The first phase of the hatchery facilities built was inaugurated on that day by Mr. Kishore Ambuly, District Collector and the Magistrate of west Tripura district. The hatchery was named after the South Place, Marlow, in respect of the contribution made by the people of that street for the AwF activities during the past two phases as well as for the establishment of the hatchery during this third phase. A message sent on the street party held on 12th July, 2008 is annexed (Annex A) for reference.



Chinese hatchery- with AwF support



Hatchery inauguration

Utilization of the facilities for the hands on training of Fisheries College Students:

College of Fisheries under the Central Agricultural University, offers four year degree course in fisheries. The students are encouraged to work with production to gain first hand experience. Two boys and three girls from the third year class volunteered to work at the Vocational Training Centre during their semester break. During the hatchery inauguration, these students were inducted for work experience for three weeks. These students were given the required accommodation and food by the center. The students were asked to help the vocational trainees with the knowledge on aquaculture and fisheries and these students conducted classes on various aspects of aquaculture to the trainees.



Imparting knowledge to trainees



Imparting skills on bamboo handicrafts

Breeding carps

For the work experience of students, breeding of carps was carried out with some of the brood fish available using the hatchery facility. Though results were not highly encouraging because of

various difficulties in water supply, quality of the brood fish, etc. initial attempts in the first year have helped in starting of the activities. The seed obtained were nursed on the station until they reached the fry stage and these seeds were supplied to farmers for further nursing. Farmers who worked in the past with the project were given support to undertake the seed nursing as an income generating activity. Five farmers have started the activity and they were given support through regular follow up visit. Large part of the seed have been retained by these farmers in their own pond till now.



Injecting brood fish with hormones



Water hardened eggs ready for hatching



Keeping eggs for hatching



Hatchlings kept in hapa

Aquarium fish seed production

The trainees were also given hands-on training in Aquarium fish seed production and nursing. The girl students were actively engaged in this activity. Using some of the facilities available, aquarium fish production activity has been started on the station. The girl students of the vocational school have been actively involved in this project. Tripura imports most of the aquarium fish from West

Bengal and hence if the aquarium fish could be produced locally, there is some opportunity for the center to earn income and also help the local people with additional skills.



Aquarium fish seed production



Breeding of live bearers

Farming systems

The students of the college as well as the vocational training center students were given hand on training on various agricultural activities that relate to the farming systems prevailing in the NE regions. The integrated farm facility involving piggery diary, rabbit, various horticultural crops, the students have been able to gain hands on experience of working with all these farming system components. The relationship that is being built between the trainees and the students of the college is now continued with the weekly or fortnightly visit of the students to the vocational training center and helping the trainees with the required information.

Building the hatchery facilities

An open well to ensure clean water supply for the hatchery has been built and good amount of water has been obtained. This will help to operate the hatchery using clean water and it would even be possible to start the hatchery operation early in the season. In order to support the hatching of different species eggs at the same time, cement jars have been developed. Based on the necessity, the number of jars would be increased.



Open well for hatchery water supply



Jar hatching facility creation

As the program aims to produce the species that are most appropriate to small farmers, it is proposed to initiate the breeding bata (*Labeo bata*) and silver barb (*Barbodus gonionotus*). These species are known to grow well in ponds that are generally less than 0.1 ha. On the farm, with the available facilities, brood stock of Indian major carps have been maintained along with common carp and silver carp.

Support to farmers

The farmers under the project area were supplied with the fish seed and they have been given the support through periodic field visit to help them in carrying out the activity. These farmers stocked the available carp seed and have been growing fish using the resources available on the farm. Fish grown in the pond are harvested and used for family consumption purpose. Bulk harvest is sold in the market. As many ponds have been drying up due to lack of rain, farmers have been harvesting the fish and selling them in the local market. Though productivity has been improved by stocking only required number of seed, because of the lack of feeding, the productivity of fish is still low. A survey of the farmers is proposed before stocking the fish seed once again. Focus group discussion of these farmers are held in each of the four village and encouraged them to undertake seed nursing as an income generating activity. After nursing the seed, it is planned to help these farmers continue with growing fish.

This year , a tribal student has volunteered to work with the project and it is proposed to utilize the services of this person along with another student who has already been working on the project for the past year. As a prelude to the proposed activity , proposed survey would help in identifying farmers who would be willing to undertake nursing activity and others who would continue growing market size fish.



Nursing fish seed in pens



Collecting nursed fish seed

Challenges

1. There has been unusually low rainfall this year and this is followed by the unusual drought. This has resulted in drying of several ponds and posed a major problem for brood stock maintenance
2. Farmers need heavy capital investment to improve production. Bank loans are not easily available.
3. Vocational trainees joining with interest in aquaculture is still small and special efforts are needed to identify trainees who can undertake seed production activity in different area.

Opportunities

1. As the basic facilities for integrated farming, seed production and nursing have been built, these can be effectively utilized to train the unemployed youth to undertake the activities.
2. As the rain fall in the area is high (> 2000mm), if the water harvesting process can be improved, fish culture period can be prolonged. At present during summer, water level is reduced sharply, thereby making fish culture restricted to just 6-8 months.
3. Students of the College of Fisheries can utilize the facilities effectively for hands on training and in turn, they can help the center with their expertise.

Conclusion

The vocational training center facilities have been enriched with the additional infrastructures that will help the trainees to get hands on training in fish seed production and nursing. With the seed nursing activity in rural areas, farmers would not be able to get additional income, but also supply

healthy seed to other farmers. A technician has been appointed to take the responsibility of the seed production operation and this person is expected to place the hatchery in to operation and help in training of the vocational centre students. This year, selection of new batch of students have been completed for the vocational training centre and formal training would start from June for the selected trainees.

Fish culture is recognised as the most suitable activity in tripura owing to the high demand for fish prevailing in all parts of the state. Yet the farmers are not willing to invest in fish culture because of the fear of poaching or poisoning of fish. Small farmers can't take risk and there is no insurance scheme to cover such risks. However, with a view to help the farmers realize the full potential of fish culture, there is a need to undertake some demonstrations. The Development agencies representatives of the Govt of India have made visit to the facilities and have encouraged to seek support to undertake demonstrations in villages wherein AwF has already been working. The Management of the centre have made the decisions to seek support and expand the activity.



Vocational training centre trainees with five students of Fisheries College at the end of their stay at the training centre

Message from the AwF beneficiaries of Tripura to the South Place Marlow Community



Farmers get together on the occasion of hatchery inauguration

The support provided by the South Place Marlow Community through the AwF to the St. Xavier's Vocational Training Centre is beginning to have multiplying impact in this land locked state located on the Northeastern part of the country. With the support received the Centre was able to help 75 farmers with fish ponds to improve their productivity by effective utilization of the resources. The knowledge centric approach used by the centre, instead of the material support approach is appreciated by the farmers. Development being a complex process, the centre has been making all out efforts to ensure sustainability for any of the activities introduced.

Farmers are confronted with the quality of the seed and as a result, productivity enhancement efforts are often failed owing poor seed quality. Recognising this problem, in the last year message, the Centre had expressed its desire to build a hatchery to provide quality seed to the farmers. This dream has now begun to be fulfilled with the additional support received by the Centre from AwF. The first phase of the small Chinese hatchery construction has been completed and the facility was inaugurated on 10th July, 08 by Mr. Kishore Ambuly, District Magistrate and Collector of the West Tripura district. It was the good fortune of the centre that this visionary administrator kindly agreed to open the facilities and grace the occasion. Since the Government of Tripura has accorded the highest importance for fish production, the Collector assured all possible

support to the centre to expand its activities and reach the large number of people. Impressed with the commitment of Father K.J. Joseph, he summed up his observations **“God helps those who help others”**. The event was also attended by Pransinjit Bhattacharjee, Block Development Officer of Bishalgarh. Mr. Bhattacharjee is also a well known poet in Bengali, assured all help from the block. For the St. Xavier’s Centre, the support of these officers is essential and will be useful to reach wider population.

This phase of the project will aim at producing quality seed and supply to farmers. Species diversification to improve productivity is considered as an important approach and the project will aim at producing the seed of such species that will benefit farmers. Most importantly, the project will focus on providing knowledge and skills on fish seed production and fish culture to the trainees of the vocational training centre, drawn every year from all over Tripura. As indicated in our earlier message, about 50 boys and 50 girls who are school drop outs, unemployed youth from rural areas are brought to the centre to provide vocational skills. After a year long training, these trainees return to their places and engage in various activities. Seed production being a specialized activity, from among these trainees with facilities and potential, would be chosen and support provided to build their capacity. It is anticipated that such an approach will have far reaching impact in spreading the technique to all over Tripura and thereby ensure quality seed availability in various places.

The support provided by the South Place Marlow Community to initiate aquaculture activities by the St. Xavier’s Vocational Training Centre and the continued technical support by the College of Fisheries and the Indian Council of Agricultural Research Centre have contributed to attract the attention of the right people and organizations. Besides the support provided by the District Collector in recognition of the good work of the centre to improve their pond facility through the special program of Government of India, the Centre was recently visited by the Officers of the Department of Biotechnology, Government of India and some of the leading experts in the country. It is anticipated that all these will blossom into major programs. The initial support provided by the Marlow community has helped the Centre to Foundation on this aquaculture activity and your support will always be cherished. There are many challenges and newer opportunities to help the

people. With all your guidance and good wishes, the centre aims to embark on this task and bring peace and happiness to people.

On the occasion of the inauguration of the fish hatchery complex coinciding with the Fish farmers day 2008, we have conveyed all of your good wishes message sent by the Founder Chairman of AwF Mr. Michael New. Father K.J. Joseph, Director of the Centre, the trainees of the Centre and farmers have requested us to convey their heartfelt thanks to all of you and in particular to Michael New, Chairman, AwF (UK) and Kevin Fitzmons, Chairman, AwF (USA) for this support.