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Case Studies on Fisheries Recorded in North-East Indian Villages Aiding in Rural Livelihood Development of the Fish Farmers

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ABSTRACT

The present case study is based on the field survey in different villages across North-east States of India. The survey investigation indicated that fish rearing as per scientific recommendations has helped in long-term rural livelihood improvement fro the fish farmers and aquaculturists.

Keywords: Fish farmer, North-east States, Rural livelihood.

CASE STUDY I

Mrs. Junti Dihingia, with her four family member resides in Bordolopa village (Dhemaji block) of Dhemaji district in Assam. She owns 3.5 hectare land most which is scattered in various places of the village and nearby villages. She generally used to cultivate paddy and mustard in her land. In off season her husband earned a livelihood from MGNREGA and other wage earning activities nearby villages. She has a pond of 0.13 (1 bigha) hectare besides her residence where she cultivated fish in extensive way of without any scientific management. Because of an erratic and insufficient household income, their nutritional requirements were barely met prior to 2008. After that Mrs. Dihingia got Rs. 9500.00 for renovation of her pond in the year 2009-2010. She has got 840 Nos. fingerlings in the month of April, 2010 and other inputs like 1360 kgs of oilcake, 760 kgs of rice polish as fish feed and lime, urea & SSP for her pond as well as she participated in Fish culture training programme conducted in her village under NAIP. She also has placed around 900 Nos of fingerlings. She herself has contributed around Rs. 6500.00 towards the total expenses during the period. Besides household consumption, till February, 2011 she has sold 267 kgs of fish and earned around Rs. 23,720.00.

a. Ladies come forward



a. Mrs. Dihingia with her husband near her pond



b. During construction rice fish horticulture model by Mrs. Dihingia



c. Fish harvesting by Mrs. Dihingia and her family



d. Mrs. Dihingia with harvested fish.

From this intervention she has got net profit of Rs. 17220.00 within 11 months. After getting good profit she decided converted her pond into Poultry-fish-integration model and she got 40 nos of Kroiler sick's from the project and also she converted her 0.26 hectares of rice field into rice- fish- horticulture farming system for which she spent Rs. 29720.00 as labour wage for construction of tranches in the periphery of the rice field for fish cultivation. By the end of 2012 she got a net profit of Rs. 27550.00 from integrated poultry cum fish culture system. Even though she invest a huge amount of money she got a net profit of Rs. 9788.00 from integrated rice fish horticulture system which she expected to increase in the next year. It has significantly changed her standard of living.

b. Integrated Rice fish horticulture



a. Mr. Hatibaruah in his rice fish horticulture field



b. An overview of his rice fish horticulture field



c. Mr. Hatibaruah with his harvested fish

CASE STUDY II

Mr. Kanak Hatibaruah, who believes that agriculture is one of the major components of development, is one of the beneficiary under NAIP (Component 3) Dhemaji. He is from Seujia pathar village of Machkhowa block (Low Land Cluster). His family consists of his wife, two sons & two daughters. He is very much enthusiastic & energetic farmer of age 45. His family's main source of livelihood is only farming. He is being supported by College of Fisheries, AAU under NAIP project with Rs. 13000.00 for construction of Rice-Fish-Horticulture module in 1 hectare of his land, 6000 nos. of fish fingerlings & 250 nos. of banana suckers in the month of March 2009. From which he got net profit of around Rs. 1.5 lakhs. Now he became self sufficient and continues culturing of fish in integration of rice and horticulture without any support.

c. Integrated Livestock fish horticulture



a. An overview of Live stock fish horticulture farm of Mr. Handique



b. Pigs of Mr. Handique's farm



c. Mr. Handique Harvesting fish of his farm



CASE STUDY III

Mr. Sashi Handique is a young energetic & optimistic farmer from Bordolopa village of Dhemaji block. He is one of the beneficiaries under NAIP, Component 3, Dhemaji. He is an under metric & his family consist of mother, father, his wife & himself. The main source of their livelihood is agriculture only. His total land holding is 12 bighas & pond of around 1 bigha. He has got two nos. of cross breed piglets, fish fingerlings, vegetable seeds, banana suckers, ahu paddy seed & bao paddy seed under NAIP in the year 2009. He is also being provided training on Integrated Farming System & improved cultivation practices under NAIP.

He has cultivated vegetables in two bighas of land. Vegetables grown are mostly used in household consumption. Moreover, some of the quantities are sold in market from where he earned around Rs. 1500.00. He has cultivated 3 bighas of ahu paddy & 3 bighas of bao paddy. After harvesting he got 15 quintals of ahu paddy (5 qnths/bighas). In comparison, it yields around two times more than the local varieties. He also has got 2000 nos. of fish fingerlings (Rahu, Mrigal, Common Carp, Silver Carp, Bahu). He also has planted 200 nos. of banana suckers on the bank of the pond.

Item Sold:

- i) Vegetables: Rs. 1500.00
- ii) Fish: Rs. 22500.00
- iii) Banana: Rs. 6000.00

Before intervention his yearly income was around Rs. 10,000.00. After intervention his yearly income rises to Rs. 45,000.00 to 50,000.00

Integrated poultry cum fish culture - A new hope for small farmers**CASE STUDY IV**

Fish is one of the favorite item of the diet of Assamese people. Integration of livestock, fish and horticulture in a small plot of 0.5 bigha land can bring a new hope for the small and marginal farmers. Mr. Golok Mandal (age 25 years) is a H.S.L.C. passed farmer of village Dharmapur of Sisibor Gaon Block. In the year 2007, due to the devastated flood in Dhemaji, his village was also affected by large sand deposition. His four bighas of cultivable land are now covered with sand. In the year, 2009 he dug a pond of 0.5 bighas land for rearing fishes. We have selected him as a beneficiary of NAIP, component 3. He has received 36 croiler breeds, fingerlings, planting materials like different vegetable and rice seeds. He is also being provided training on Integrated Farming System & Improved Cultivation Practices under NAIP.

Translating his knowledge in to action, he constructed a shed for rearing the croiler breeds in the pond, so that droppings of the birds fall directly in the water which is a good feed for the fishes. The bank of the pond is utilized for vegetable cultivation. In the month of July, 2010, he sold the entire croiler breed and earned Rs. 5000/- as it takes time to get money from the croiler if use for laying purpose. From this amount, he started broiler farm and already sold 450 kgs of broiler in 3 batches. His net profit from this unit is Rs. 10,500/-and now he is thinking for expansion of the broiler farm. The litter collected from the broiler farm is used as manure for vegetable production & as feed for the fishes. In the month of February, 2011 he got Rs. 9000.00 by selling of fishes an additional income of Rs. 8000.00 he has got by selling his vegetables. For the first time he cultivated summer paddy (Boro 9) followed by winter paddy (Ranjit) in 2 bighas of land & harvested 11 Qntls. Summer rice & 12.8 Qntls. of winter rice.

He formed a farmer group consisting of 5 members & cultivated vegetables & rabi crops in 5 bighas of fallow land. Now he is earning around Rs. 45,000.00 per annum which is a good financial support for his three member family. They also are enjoying the delicacy of healthy, nutritious and fresh food from his farm.