

Greater Noakhali Aquaculture Extension Component Baseline Report on PME Piloting

Kazi Gias Uddin Monitoring and Evaluation Officer
--

Introduction:

Greater Noakhali Aquaculture Extension Component (GNAEC) has been working since July 1998. Aquaculture training and extension activities in 6 Upazilas of Noakhali and Lakshmipur district have been implementing since February 2000. The activities of remaining 8 upazilas have expanded from July 2002.

The immediate objectives of Greater Noakhali Aquaculture Extension Project (GNAEP) is to increase pond production in 14 upazilas will be achieved through application of semi-intensive fish culture techniques in about 25,000 pond targeting rural poor within the project period.

GNAEP training & extension strategy is implementing through group approach. A Fish Farming Group (FFG) is formed with 12-15 members to extend the aquaculture activities. The Extension Trainer (ET) is responsible to implement project activities in the FFG. Each two unions, there are three ETs (2 male, 1 female) are working at union level. Each ET is responsible for 9 FFG with 100-group member in 3 years (average 3 FFG in each year).

Objective of the Participatory Monitoring and Evaluation:

GNAEC has a strong Monitoring and Evaluation Unit of its own. From the beginning of the project MEU has developed an M&E strategy to monitor over all project input, output and outcome. This M&E process serve mostly to strengthen the project management decision making process and measuring the outputs. The extension strategies of GNAEP are usually transferred technology by training advice provided through the regular weekly meeting and individual pond visits. The way of technology transfer may not be an effective way to promote aquaculture, and of aquaculture techniques have not spread more effectively than the project expectation. In order to strengthen the interactive learning process among the participants and field worker, participatory approach in M&E is through to be a good approach and an initiative was taken by GNAEC to move towards PM&E. The system constitutes participatory monitoring and sample surveys using questionnaire. All qualitative and quantitative information that project participants and staff considered important to them for making decision is generated in PM&E session. The information is instantly analyzed and used by farmers and Extension Trainers of GNAEC. The information then goes to different level of managers and is used to analyze and identify areas for backstopping. This report described the information that is generated and collected through participatory methods.

Objective of baseline survey:

- To collect data on 2002 batch farmers in order to compare with pre and post fish culture status and production.
- To create opportunity of analyzing the reasons of success and failure.
- To inspire participants to make planning of implementing their gathered learning.

Data collection Methods and Materials:

PM&E data collected through FGD. The farmers and the Extension Trainer jointly did this work using visual tools (Picture on different fish culture activities and seeds etc). Two Extension Trainer (ET) actively involve in each session. One ET plays the facilitators role and conduct the session and other ET plays the role of co-facilitator/record keeper. A set of picture showing different fish culture activities, art paper, art liner also used.

Findings:

Fish Production and Income:

According to the group discussion with the farmers in the farmers' participatory baseline session it is observed that on an average 95% farmers involved with pond aquaculture. Individual analysis revealed that only 8% farmers could produce above 2 mt/ha of fish from their pond and 75% farmers produce below 1.2 mt/ha of fish. Due to less production rate 55% farmers can't get any cash income from fish culture. The fish consumption from pond by each member of the family is also low (53% less than 5kg/year).

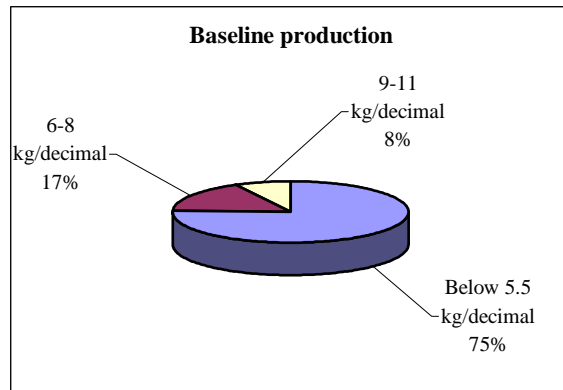
Baseline information on production and income		
Average annual production		
	Nos. of farmers	%
Below 5.5 kg/decimal	154	75
6-8 kg/decimal	34	17
9-11 kg/decimal	16	8
Average consumption fish from own pond by each family member		
	Nos. of farmers	%
Below 5 kg/year	108	53
6-10 kg/Year	71	35
11-20 kg/Year	26	13
Estimated per HH annual income from pond		
	Nos. of farmers	%
No cash income	112	55
500-2000 taka	44	21
2000-5000 taka	35	17
Above 5000 taka	15	7

Reasons of less production and income:

- ✓ Lack of knowledge on proper culture system
- ✓ Over stock
- ✓ Lack of quality fingerling
- ✓ Lack of knowledge on species combination
- ✓ Disease
- ✓ Not to feed regularly
- ✓ Poaching etc.

Reasons of more production:

- ✓ Use cow dung
- ✓ Apply feed
- ✓ Optimum stock



Pond preparation, feeding and fertilizing:

Around 63% farmers not dry out the pond or repair the dike and remove the weed before stocking. Seven percent farmers say that it is not needed for their pond because their pond is small and it dry out automatically. Most of the farmers agreed that the removal of predator and apply lime before stocking is important but only 35% and 21% do the work. Only 19% farmers apply organic and inorganic fertilizer and 36% farmers apply feed for fish. Those who apply feed and fertilizer in the pond they don't do this properly.

Pond preparation				
Activities	Farmers practiced before GNAEC		Farmers not practiced before GNAEC	
	Nos.	%	Nos.	%
Dry out/Dike repairing/ Weed removal	61	30	129	63
Predator removal	71	35	122	60
Lime use during preparation	43	21	162	79
Fertilizer before stocking (Organic/inorganic)	38	19	167	81
Feed applied	74	36	125	61

Reason behind not to prepare pond before stocking;

- ✓ It is costly
- ✓ They don't know the proper way to do
- ✓ Lack of money

- ✓ Water quality deteriorated due to apply of organic fertilizer
- ✓ Don't know the feed fertilizer rate

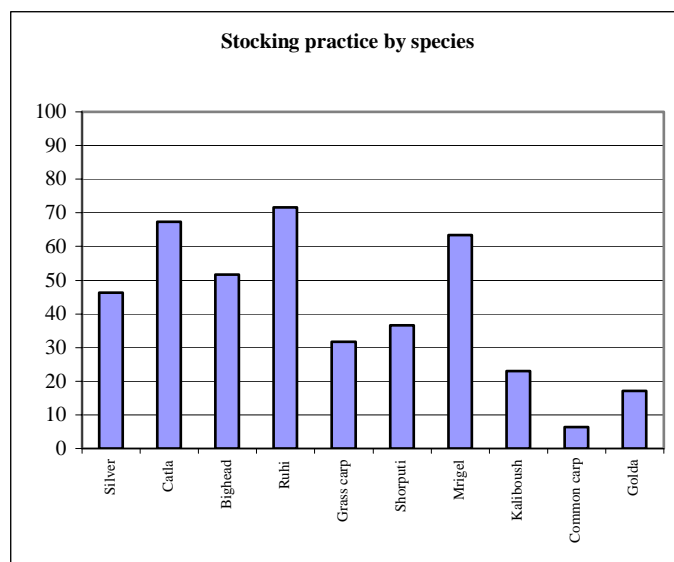
Stocking Practices:

Only 10% farmers found to stock the fingerling follow the species combination and density. Majority of the farmers stock fingerling when the vendor comes to them i.e. the pick season. Indian major carp are the first choice by the farmers. Percentage of first growing species like Silver carp, Grass carp, Bighead and Common carp is low.

Stocking Practice		
Type and time of stocking	Nos. of farmers	%
Optimum stocking density (Proper species combination and counting and stock appropriate number)	20	10
Over stocking or less stocking and not proper species combination	183	89
Stock in early stocking period	70	34
Stocking in pick period	112	55
Late stocking	21	10

Reason behind not to stocking properly and species choice;

- ✓ Lack of knowledge about stocking density and combination.
- ✓ All the species not available in time.
- ✓ Always buy the fingerling from vendors,
- ✓ Indian major carps are testy to eat
- ✓ Market price is high



Integrated farming:

Vegetable cultivation is not new for the farmers in this area. About 48% farmers cultivate vegetable on pond dike or adjacent homestead and 34% cultivate in their agriculture land. Only 18% not cultivate vegetable, most of them not cultivate due to lack of initiative and a few don't due to lack of space. Poultry rearing is also a common activity for all the FFG

farmers, only 6% farmers not rearing poultry. They don't mention any reasons not to rearing the poultry. Fifty percent farmers not rearing livestock due to lack of money they mentioned during the session. All of these are not in integrated approach but there is possibility to introduce the integrated fish farming approach with all of these farmers.

Integrated Farming		
Type and time of stocking	Nos. of farmers	%
Not cultivate any vegetable	36	18
Cultivate vegetable on pond dike or homestead	98	48
Cultivate vegetable in agriculture land	70	34
Not rearing any poultry	13	6
Rearing poultry upto 5 numbers	41	20
Rearing poultry 6-10 numbers	151	74
Not rearing livestock	103	50
Rearing livestock upto 2 numbers	60	29
Rearing livestock 3-5 numbers	41	20

Conclusion:

PME is an educational process which enabled farmers and field staff to monitor their progress by their own, analyze the reasons of success and failure and to use the result for further improvement. From the above information it found that most of the farmers have poor technical knowledge on semi-intensive pond aquaculture and integration with other farm activities. So project needs now to deliver the technical know how and aware the farmers to manage the activities by themselves to get better production and profit for changing their livelihood.
