Existing knowledge of rural women in fish production in Jorhat district of Assam

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■ **ABSTRACT :** They study was conducted at the two blocks of Jorhat district of Assam. A total of eight villages were selected to assess the knowledge of the farm women. A sample size 100 respondents who were actively engaged in fish rearing were selected from each of the block of Jorhat subdivision. The analysis of the study clearly revealed that maximum percentage of the respondents had "medium" level knowledge followed by "high" level knowledge in fingerlings and fish production.The study further showed that, in the area of basic pond character for both fingerling and fish rearing, pest management and care and maintenance the respondents had medium level of knowledge. There was a significant association with education qualification and organizational membership with knowledge level.

■ **KEY WORDS :** Fish production, Knowledge level, Fishery innovations

India has treameoundous scope for augmentaing its fish production. It contribute a considerable extent towards employment generation among the farmers engaged in fishing job. Fish is rich in vitamins and contains variable quantities of fat (omega -3 fatty acid), calcium, phosphorus and other nutrients required for human health and growth.

India has made remarkable progress in the development of fishery sector in the past 60 years. The sector occupies an important status in national economy. It provides valuable foreign exchange and employment to millions of people. It is also instrumental in providing sources of livelihood for a large section of economically backward and resource poor population of the country. India is the third largest producer of inland fish after China and Bangladesh and second largest producer farmfish after China.

Known as sunrise sector, fishery has recorded faster growth as compared to crop and livestock sector. Assam is the largest state in the north-eastern region of India and is bestowed with rich fishery resources in the form of wetlands, beels, ponds, tanks, etc. including two major river systems – the Brahmaputra and the Barak and their tributaries.

In Assam fisheries were found in maximum number of household in rural areas. Farmers could not return much

benefit from their investment of their resources. Most of the areas small ponds were also found in paddy fields where they rear indigenous fish . Farmers of Assam hesitate to come out to take fish production as income generating activities. Fish production in scientific way could elevate the poor economic status in rural farmers as well as combat malnutrition in farm families. Farm women are actively engaged in fish farming activities. Their skill on fish farming will be elevated and they could utilize their resources properly if they could get adequate training in this field.

Therefore, there is a need to study the existing knowledge of farmers in scientific fish rearing, so that the finding can help the authorities associated with the fishery research along with the extension worker, NGOs etc.

Objective :

–To study the demographic characteristics of respondents, to identify the existing knowledge of rural women about scientifically validated fish production technologies and to determine the association between selected variables and knowledge of rural women in scientific fish rearing technology.

■ RESEARCH METHODS

This study was conducted in Jorhat district of Assam, which consists of eight developmental blocks .In this study multistage sampling method was followed. In the first stage, Jorhat sub-division of Jorhat district was selected purposively. In the second stage, two blocks namely, Chipahikhola and North –west development block (Dhekarghara) were selected purposefully where fisheries were there in the villages .In the third stage, a list of household were collected from the village Panchayat Office and finally one hundred farm women who were actively engaged in fish rearing were selected purposefully.

Interview method was used as a tool to collect the necessary data. Observation method was used to give a true picture as well as to support the data collected through interview method.

■ RESEARCH FINDINGS AND DISCUSSION

A perusal from Table 1 revealed that majority of the respondents (74 per cent) were in the middle age group. It was noteworthy that, cent per cent were of the M.O.B.C./O.B.C. caste group. Maximum percentage (80 per cent) of respondents were of nuclear family type. Table 1 also revealed that 78 per cent respondents had medium family size of 5-8 members. About 56 per cent of the respondents had education upto High School level. About 78 per cent of the respondents have

Table 1 : Personal and demographic characteristics of the respondent		(n=100)
Sr. No.	Category	Percentage
1.	**Age**	
	Middle age=30-40 yrs.	26
	Old=40-50 yrs.	74
2.	**Caste**	
	M.O.B.C./O.B.C.	100
3.	**Family type**	
	Nuclear	80
	Joint	20
4.	**Family size**	
	Small (up to 4 members)	20
	Medium (5-8 members)	78
	Large (9 and above)	2
5.	**Education**	
	Primary	6
	Middle School	16
	High School	56
	Higher secondary	20
	Graduate	2
6.	**Organisational memebreship**	
	No membership	10
	Member of one organization	78
	Member of more than one organization	4
	Office bearer in organization	8
7.	**Land holding**	
	Small (< 5 bighas)	36
	Medium (5-10 bighas)	
	Large (>10 bighas)	38
8.	**Socio- economic statu**	
	Low	96
	Medium	4
9.	**Closeness with extension agents**	
	Never	4
	Occasionally	96
	Frequenty	
10.	**Mass media exposure**	
	Regularly	72
	Sometimes	28

the membership of one organization. It was also found that 38 per cent of the farmers were found to be large farmer. The socio-economic status of the farmers was found to be low with 96 per cent . Majority (96 per cent) of the respondents were found to have close contact with the extension agents and 72 per cent were found to have mass media exposure.

Knowledge of the farmers regarding scientific method of fingerling and fish cultivation :

To asses the knowledge of the rural women on fingerling cultivation twenty one knowledge statements. were made on recommended practices that had to be followed in fingerling production in nursery pond. The statements were put into two point categories *viz.,* not yes and no with the scores 1,2 and 3, respectively. The scoring was then categorized as Low, Medium and High based on the mean and standard deviation of the scoring.

Perusal of Table 2 reveals that, maximum percentage of of the respondents (57.14 per cent) of the respondents have the medium level of knowledge followed by 25 per cent had high level of knowledge. This finding is contrary to the observation of Nagarajaiah, *et al.* (2000). that majority of the respondents had high and medium level of knowledge and very few had low knowledge.

Again, to asses the knowledge of the farmers regarding fish production, twenty eight knowledge statement was made related to basic pond character for fish rearing, pest management and care and maintenance of fishes. They were then scored with, 1,2 and 3, respectively. The knowledge of the respondents were thus categorized as high, medium and low, respectively on basis of mean and standard deviation scores.

Table 3 reveals that 57 per cent of the respondents had

medium level of knowledge followed by high level of knowledge (24 %) and 19 per cent of low knowledge category.

Further scrutiny of each of the area of the knowledge test was done to ascertain in which aspects of the farm women had better knowledge. Based on the mean and standerd deviation on scores obtained by the respondents, it may be concluded that in the area of " basic pond character for both fingerling and fish rearing" majority of the respondents (60 %) had medium level of knowledge followed by 29 per cent having low level of knowledge and only 11 per cent had high level of knowledge (Fig. 1).
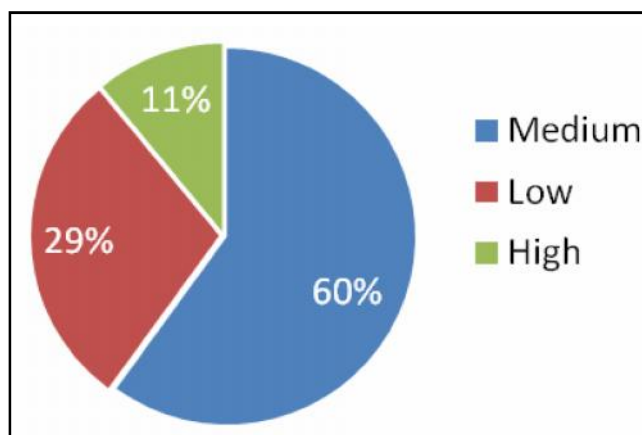

Fig. 1 : Distribution of level of knowledge for both fingerling and fish rearing

It was observed that in the area of pest management in fingerling and fish rearing, maximum percentage of respondents (58 %) had possessed medium level of

Table 2 : Distribution of rural women according to level of knowledge on cultivation of fingerling		
Sr. No.	Knowledge categories	Percentage (%)
1.	**Low** <5.14	17.86
2.	**Medium** 5.14- 9.07	57.14
3.	**High** >9.07	25

Table 3 : Distribution of rural women according to level of knowledge on fish cultivation		
Sr. No.	Knowledge categories	Percentage (%)
1.	**Low** <7.04	19
2.	**Medium** 7.04- 12.66	57
3.	**High** >12.66	24

RUMI BARUAH, POREE SAIKIA AND MANJU DUTTA DAS

Table 4: Association between involvement and selected independent variable	
Independent variables	X^2
Age	2.085^{NS}
Educational qualification	13.260^*
Marital status	1.840^{NS}
Family type	1.931^{NS}
Family size	1.920^{NS}
Organizational membership	11.840^*

NS: Non-significant, * Indicate significance of value at P=0.05, X^2: Chi-square

knowledge followed by 32 per respondents with low level of knowledge. Very low (10 %) of respondents had high level of knowledge (Fig. 2).
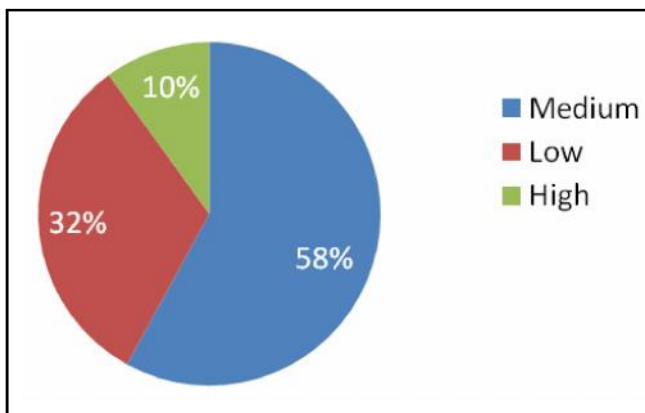

Fig. 2 : **Distribution of level of knowledge of respondents on pest management**

Again scrutiny was done to assess the knowledge of the respondents in care and maintenance of fingerlings and fish rearing (Fig. 3). The results showed that 61 per cent of the respondents had low level of knowledge , followed by medium level knowledge (28 per cent) . High level of knowledge was found in very low percentage of the respondents (11%).
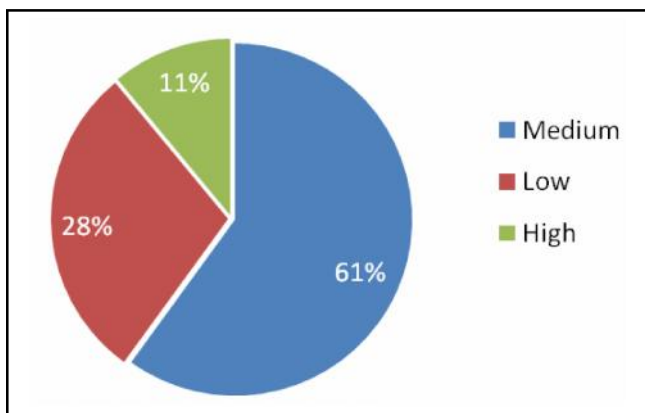

Fig. 3 : **Distribution of level of knowledge of respondents on care and maintenance of fingerlings and fish rearing**

There was a differential adoption behaviour of farmers in fishery innovation (Singh *et al*., 2004).

Association between the selected variables and knowledge of rural women in fish production technology :

Table 4 reveals that there was a significant association with education qualification and knowledge. It means knowledge increased with increase in education. This might be due to the fact that educated women easily understand the importance and benefit of fish production than the uneducated women. Further analysis of the table also shows that organisational membership was significantly associated with knowledge in fish production technology. It is due to the fact that organizational membership might helped the farm women to take training on production of fish and also to interact with different people regarding advantages of fish production.

Conclusion :

Thus, the knowledge level of the respondents was found to be medium. So, farm women need extensive training to which they are highly receptive. This will help in earning more income and thereby it will help a long way towards women empowerment.

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Asian J. Home Sci., **8**(1) June, 2013 : 200-203   **203**   HIND INSTITUTE OF SCIENCE AND TECHNOLOGY