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IN BANGLADESH**

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COMMUNITY AND PROFESSIONAL COMMUNITY CHARACTERISTIC FEATURES OF AQUACULTURE TECHNOLOGIES AND SKILL DEVELOPMENT NEED IN BANGLADESH

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ABSTRACT

Rahman MM, Azad SA, Rahman MS, Azam KI (2015) Community and professional community characteristic features of aquaculture technologies and skill development need in Bangladesh. *Marine Res. Aqua.* 3(1), 6-10.

A study was conducted on the community and professional features of aquaculture technologies in Bangladesh West and west-southern Agro-Ecological Zones with the objective for identifying the weak sectors and potential priorities as related to fisher group dynamics. The results on skill requirement aspects for the fishers community improvement show that the capital management scored highest. The trend of the important factors varied according to the respondent group indicating significant variability. The women group gave more importance to technology development, marketing knowledge and cultural methods. It was recommended from the results that the more skill training should be given for land ownership and capital point as required mostly on gender need basis. The terms Fisher and Fishermen should be defined techno-econ considerations under the community composition and development priorities. It may be recommended from the findings of Focus Group Discussion and case studies that the Real fisher should be identified with specific characteristics providing ID beneficiary categories. Rural women need skill development through training on IBCT concept on the small scale techniques of homestead integrated aquaculture as the existing technologies are targeted male fisher and businessman and not well friendly to women community. The wards specially women sector of fishers must accept the profession for their livelihood carrier of the running projects. Active participation in the fisherman communities should be created for the fishers. Intensive training should be given to the fishers on both technologies and community operations.

Key words: *fisher community, aquaculture technologies, techno-economics, information based communication technology*

INTRODUCTION

As conceptualized by (Anon. 2003 and Rashiduzzaman *et al.* 2014), a fishing community is a community that is substantially dependent on, or substantially engaged in, the harvest or processing of fishery resources to meet their needs. As discussed by many workers including Kuperan *et al.* (2006) and Hossain (2009) small-scale fishing communities may have alternative livelihoods which are supported by other resources and which are likewise integrated in the community's social and cultural interactions in most of the cases in the low lying developing countries. In various parts of the country today prevailing cultural ideas about the utilization of natural resources are also in a state of rapid change, being constantly mediated and revised as a result of emerging environmental conflicts. Some people and their wards or family sharers still continue to press for growth and development, wishing to see their livelihoods enhanced even though the growth they desire. In most of the small-scale fishing communities, especially in developing countries, few people are fishing the whole year round. Hossain *et al.* (2014) favored that extensive and diverse rather than an intensive and specialized pattern of exploiting resources were reported to still exist though showing a reducing trend over time in cases of small and poor fisher communities of developing countries like Bangladesh.

The fisheries enterprises are rapidly extending at the community level from individual identity at present keeping more scope for prospective future. The profitability from fish production becoming higher due to its domestic demand and export value. A series of researches recently conducted with Bangladesh fisheries have led to such statement as above (Rahman *et al.* 2013a; Rahman *et al.* 2013b). According to Azad *et al.* (2014) the management systems of community managed floodplain fisheries were found to be varied from locality to locality, community to community and even from floodplain to floodplain physiographic characters. The share distribution systems were mostly reported to be of has its identical character. There is a marked difference between community-based fish culture in public and privately owned floodplains. The DoF/ World Fish Centre project on fish culture has proven that it is technologically and socially feasible to successfully integrate large floodplains into community-based fish culture, irrespective of whether they are subject to public or private ownership.

The Fisheries Management Committee (FMC) ensured full-time fishers of a secure employment during the monsoon months of fish harvesting from the floodplains; they received benefits directly through their own harvesting of stocked fish in the form of a share of the fish or cash after harvest. They also received benefits from getting a share of net income earning from the FMC fish production of the floodplains. Large numbers of people, including landless poor seasonal fishers, professional landowning fishers, and non-fishing landowners, benefited from the successful implementation of the (Community Based Fisheries Center (CBFC) activities in the floodplains.

In the context the present research program was developed and conducted on community based fisheries management prevailing on the Extension of aquaculture Technologies at inundated zones of Jessore in

Bangladesh with following specific objectives such as to: i. identify the features of fisherman communities, ii. know the pivotal points of community dynamics, and iii. specify the priorities for its improvement.

MATERIALS AND METHODS

The methods and materials used in the studies briefly include:

Techno-dev survey, Focus Group Discussion (FGD) and Case studies.

Sites and Sampling: Districts: Jessore, Jhenaida, Magura, Meherpur, Kustia, Sirajganj, Pabna, Rajbari, and Natore.

Agro-Ecological Zones (AEZ) coverage were AEZ 10 - Active Ganges Floodplain, AEZ 5- Atrai Basin, AEZ 7- Active Brahmaputra Floodplain, AEZ 12- Lower Ganges Floodplain, AEZ 11- Ganges Floodplain.

Respondent variables: i. Community Fisher, ii. Elites, and iii. GO/NGO agencies.

The approach methodologies reviewed by fisheries system scientists and their recommendations were considered in formulating the methods and materials of the present study sectors (Hussain 1995 and Wahiduzzaman *et al.* 2013).

Personal information: Name---Identity of community ---Duration ---yrs Age:---Gender-- Address: Upazila : --- District : -- AEZ: ---Sub-zone-

RESULTS AND DISCUSSION

The results presented in the studies are sequentially interpreted and presented here after compilation analysis.

Characteristics of Fisheries Community

The results obtained on the composition of studied are presented in Table 1. The result shows that the participants were mostly within the age range of 40-55 years and the qualification was V-X class. The farm information collected from the fisheries communities group shows that the working experience in Community groups were of 3-5 years duration. The size of water bodies 10-30 acre, high in AEZ-5 Atrai Basin. In case of community elites high in AEZ-5 was low and AEZ-11 Ganges Floodplain. Extension agents highly active in AEZ-5 and low in AEZ-10, Active Ganges Floodplain.

Table 1. Mean% of Fisheries Community Profession

District	Profession Parameter	Yes with condition	No with condition	Yes/No
Jessore	Accepting	57	37	4/2
	Accepting by wards	48	38	8/6
	Policy for community interest	33	44	3/20
Jhenaida	Accepting	43	37	10/10
	Accepting by wards	41	32	6/21
	Policy for community interest	23	51	4/22
Magura	Accepting	47	40	7/6
	Accepting by wards	36	33	5/26
	Policy for community interest	22	42	8/28
Mean		38.89	39.33	6.1/15.7

The results presented in the Table 1 and Fig. 1 show that in Jessore accepting the profession yes with condition is 57% is high, no with condition is 37%, yes is 4%, no is 2% is low. Accepting the profession by wards yes with condition is 48%, no with condition 30%, yes 8%, no 6% is low. Policy for community interest yes with condition 33%, no with condition 44%, yes 3% and no 20%. In Jhenaida accepting profession 'yes with condition' 43%, no with condition 37%, yes 10%, no 10%. Accepting the profession by wards was 'yes with condition 41% no with condition 32%' yes 6%, no 21%. Policy for community interest no with condition 51%. Yes with condition 23%, Yes 4%, no 22%. In Magura accepting profession 'yes with condition 47% no with condition 40%' yes 7%, no 6%. Accepting profession by wards yes with condition 36% no with condition 33% yes 5% no 26%. Policy for community interest no with condition is 22%. Yes with condition 42%, Yes 8% no 28%. Mean of community profession acceptance 'Yes with condition 39.33% and No was 15.67% followed by 'Yes with condition 38.89% and Yes 6.11%. It was revealed that the present policies and implementation strategies not favorable for fisher as community. A number of researches conducted directly and indirectly in these fisher community issues stated different scenario in the country though it was with mainly on fisheries resources and marketing (Hussain 1995 and Kuperan 2006). However, Rahman *et al.* (2013a) while working on the community dynamics of aquaculture and fisheries technologies at inundated zones of Jessore in Bangladesh suggested the for community characteristics and aquaculture technology based skill requirement in the country. The results obtained here thus can provide a basis for solving fisher community problems and enhance social equity.

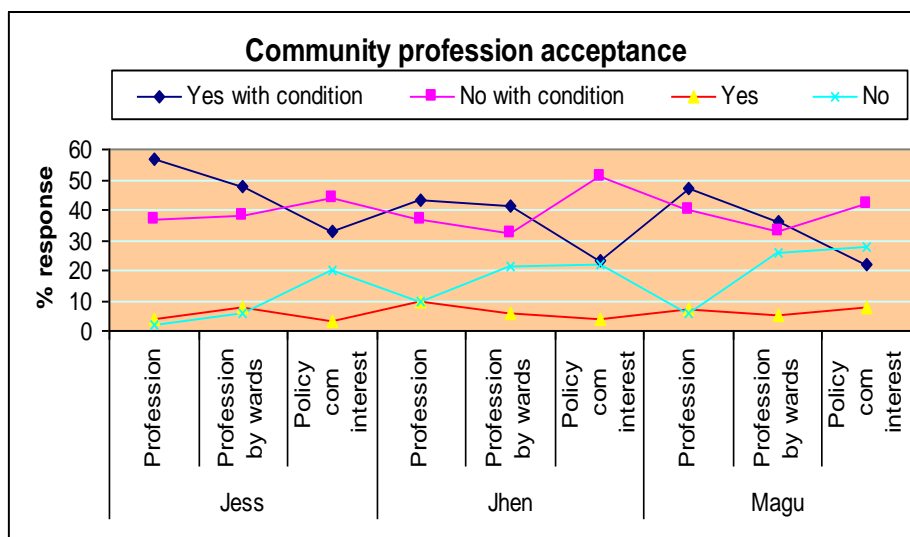


Fig. 1. Acceptance of the profession by the fisher community

The Sustainability of the Community Groups

The results found on the sustainability of fisher communities formed by different project methods are given in the Fig. 2. The results show that 16% respondent were negative. While, 39% told that these communities will not sustain unless duly registered in terms favorable for actual working participants and direct beneficiaries. On the other hand 39% told that it may sustain if some conditions are followed including creating awareness and developing community operations as to update their respective skills. Many authors previously reported that lack of awareness and skill were very prominent in Asian countries and Bangladesh specially for prawn culture and small scale integrated culture systems. Here it may be supported quantitatively. (Haque *et al.* 2013 and Wahiduzzaman *et al.* 2013).

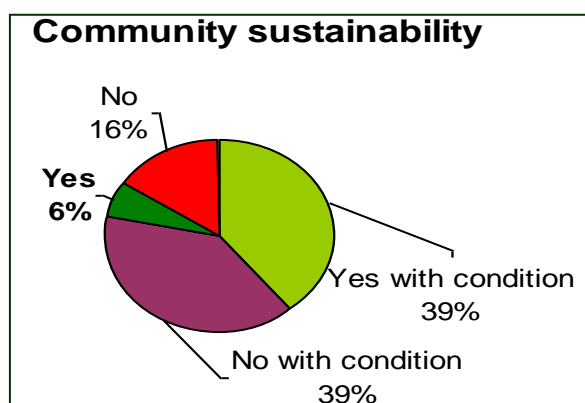


Fig. 2. Sustainability components of the Community Groups

The result shows that the community sustainability in chart shows that 78% fishermen mentioned Yes or No with condition. As a total mean, sustainability may be said to be in the positive range by 55% respondents and negative range being 45%. It seems that in case of community sustainability under the shelter of favorable Govt. policies for awareness based skill development dominated the situation development findings. These findings are in line with the previous assumptions made reflecting the recommendations of national level policy makers as to improve the livelihood of fisher community ward members (Rashiduzzaman *et al.* 2014 and Wahiduzzaman *et al.* 2013).

Professional Skill Requirement Sectors

As obtained results on the professional skill requirement of this specific sector and given in the Table 2 Figs. 3 and 4 here. The results found on the skill requirement as done for Information Based Communication Technologies (IBCT) methods aspects for the fisher's improvement are mentioned in the Table 2. The results show that the capital management scored highest being 63.4% as an important factor, the lowest being the cultural methods being 41.4%.

Table 2. Percent response for skill requirement sectors

Respondents	Skill sectors					Mean
	Community operations	Cultural methods	Technology development	Marketing knowledge	Capital management	
Community fisher	75	42	46	51	88	60.4
Non-community fisher	11	37	63	55	77	48.6
Elites	71	22	36	69	72	54.0
Businessman	48	39	42	65	72	53.2
Fisher wards	52	43	71	27	39	46.4
Women wards	61	76	81	76	63	71.4
Service providers	53	31	28	32	33	35.4
Mean	53.0	41.4	52.4	53.5	63.4	52.7

The results found on the skill requirement as per skill sector given in the Fig. 3 show that the trend of the important factors varied according to the respondent group. While the Fig. 4 shows that the women group gave more importance to technology development, marketing knowledge and cultural methods.

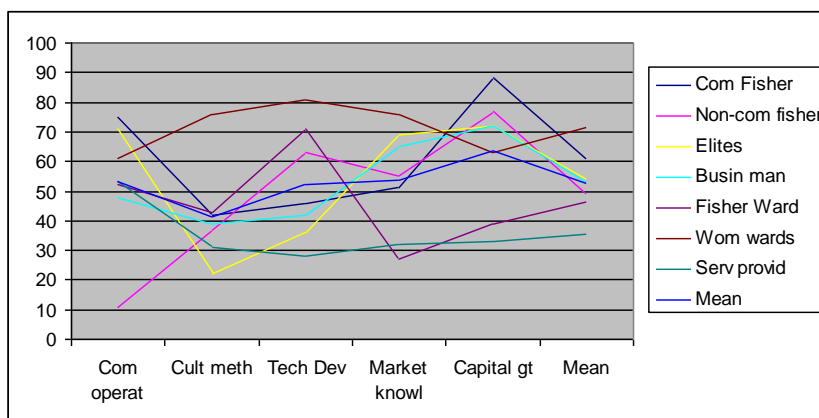


Fig. 3. Mean percent response for required different skills

Information Based Communication Technologies (IBCT) methods involve skill training using all lecture note, pictures, videos and hands on practices as the sector demand for less educated fishers. The results given here show that women sector required more skill training on the cultural methods of aquaculture as the existing technologies are mostly done male participants and which are well compatible to women members having social and physical barriers. The technical problems reported by on fisher training may be solved by using this IBCT method training specially for rural less educated community fishers Azad *et al.* (2014); Haque *et al.* (2013) and Hossain (2009).

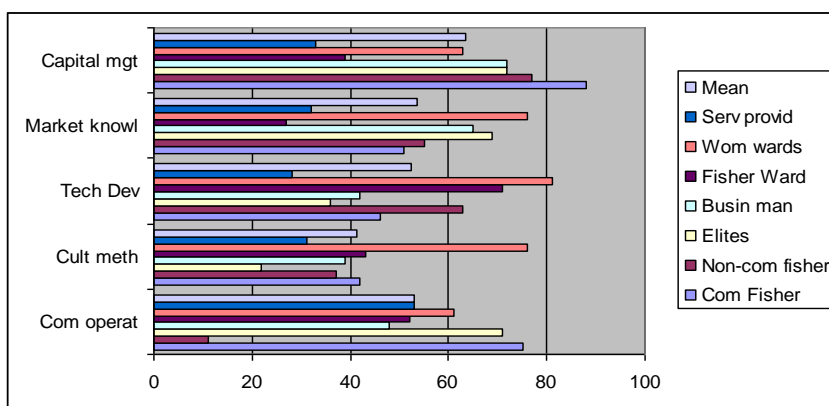


Fig. 4. Percent category based response for skill demand

CONCLUSION

The terms Fisher Fishermen should be defined as done by MoA with Bank facilities. Every fisherman should have 3 specific characteristic such as the fishers must maintain livelihood by means of fishing; the fishers must have owned fishing nets and should have owner of Jalmahal (water bodies) through leased out. The results found on the skill requirement aspects for the fishers improvement show that the capital management scored highest, the lowest being the cultural methods. The results found on the skill requirement show that the trend of

the important factors varied according to the respondent group. The women group gave more importance to technology development, marketing knowledge and cultural methods. Thus it may be concluded the more skill training should be given for capital arranged as required mostly on gender need basis. Government should identify real fisher/fisherman providing ID benefit card for every fisher. The wards specially women sector of fishers must accept the profession for their livelihood for the sustainability of the fisher projects. Women required skill training on different aquaculture as the existing technologies are mostly suited to male and not compatible to women. Active participation in the fisherman communities should be created for the fishers. Intensive training should be given to the fishers on both technologies and community operations.

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