

Factors Influencing Women's Empowerment through Fisheries Activities: a Study in Manipur

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ABSTRACT

*Empowerment of women and gender equality recognized globally as a key element to achieve progress in all areas. The study was conducted to know the level of empowerment of women involved in fisheries activities in Manipur and the different factors influencing the empowerment process. One hundred and twenty women fish farmers were the sample of the study. A structured interview schedule was used to collect the information through personal interview. The data was analyzed by using frequency, percentage and Wilcoxon signed Rank Test. Majority of the respondents (70%) were coming under medium empowerment category (score range from 70.5-103.3). The 'Z' value (-9.507**) of Wilcoxon signed Rank Test revealed that, there was significant difference in index values of empowerment of rural women before and after taking up fisheries activity. Decision making ability in family, spending ability, cosmopolitaness, social participation, access to assets and resources of farm women are getting improved and increased after participation in fisheries activities and it is highly significant at one per cent level. The variables such as education, area under aquaculture, experience in fisheries, information management behaviour, management orientation and egalitarianism positively and significantly associated with rural womens' empowerment.*

Key words: Fisheries activities; Women empowerment; Empowerment index; Factors;

Women are the most undervalued and inappropriately utilized human resource in the developing world. With the global efforts to increase gender awareness, noticeable changes in the attitude of people towards using this un-utilized/under-utilized human capacity have been seen in the last decade. The 2012 World Development Report emphasized for women empowerment, and equality between women and men as a desirable goal. Empowerment as a concept was introduced at the International Women's Conference in 1985 at Nairobi. This Conference defined empowerment as a "redistribution of social power and control of resources in favor of women". Subramanian (2003) reported that empowerment of women refers to creating situations in which they can decide their own destiny and participate as equal partners in various

developmental activities. Women development in recent years emphasised on providing equal opportunities to women by removing gender bias, empowering women and creating self-reliance among them. Empowerment of women and gender equality recognized globally as a key element to achieve progress in all areas. Over the past few years, the word "Empowerment" has become the buzzword in rural development in India and the year 2001 was declared as the 'women's empowerment year' by the Government of India.

Role of women in agriculture is better understood and in some continents like Africa, women are known to be responsible for majority of the food produced. However, the visible and invisible role played by women in aquaculture has only begun to receive attention recently with the efforts made by various organizations.

Asian Fisheries Society has made consistent efforts to address gender issues in aquaculture by identifying key researchable areas as well as areas to influence the policies of the Governments for more than a decade (Williams, *et.al.*, 2002; Choo, *et.al.*, 2006). The efforts made to measure the participation of women in aquaculture and identify areas for intervention have brought out the potential of aquaculture to improve family nutrition and economy by suitable gender based intervention in many societies.

Manipur is situated between 23° 83' N and 25° 68' N latitude and between 93° 02' E and 94° 98' E longitude, at an altitude of 790 m above mean sea level. The state has a distinct zoo-geographical identity. The total area of the state is 22,327 km² with hilly areas covering about 92% of the landscape that enclose a central valley of about 1,800 km². The Meitei community and the tribal population are indigenous to this region. Fish have always played a central role in Manipuri socio-economic culture and over a period of time several customs and beliefs have evolved and passed on from generation to generation. The role of women is well recognized in the state of Manipur, and their contribution to the economy is increasing significantly (Gurumayum, *et al.*, 2006). The empowerment of women through fisheries activities need to be studied properly to support the systems with overall development of women in fisheries sector. When the United Nations declared the Decade for Women in 1975, an important step should be taken to raise the profile of the age-old social, cultural and economic barriers that prevented and hindered women from being active agents and beneficiaries of development. This will necessitate a changing of the current nature of both women's participation in aquaculture as well as associated issues, such as its impact on their empowerment. This paper therefore aims to determine the level of empowerment of women involved in fisheries activities as well as the factors influencing the empowerment process with the following objectives.

1. To study the level of empowerment of women involved in fisheries activities;
2. To identify the factors influencing the empowerment process of the women involved in fisheries activities.

METHODOLOGY

Bishnupur district of Manipur state was selected purposively because of highest fish production among all the districts in the state coupled with the presence of Loktak Lake in the district which is one the most important source of fish production of the state. Ex-post facto research design was used for conducting the study. All the three sub divisions were included in the study to make the study more comprehensive in nature. Four villages from each sub division were selected purposively based on fisheries resources and women involvement in fisheries. Thus, a total of 12 villages were selected. All the women engaged in aquaculture activities for more than 3 years in all the twelve villages were the universe of the present study. From each village 10 women who have the experience in aquaculture activities around 3 years were selected through simple random sampling (without replacement) method. Thus a total of 120 women were selected for the study. In order to collect the data required for the study, a structured interview schedule was developed. The draft interview schedule was tested in a small subsample of 30 women in the study area.

Five measures of empowerment were selected for this study in the line of Rahman and Naozore (2007). These are: a woman's decision making ability within the family, spending ability, cosmopolitaness, social participation and access to assets and resources. A number of items were arranged under each of these five measurements and the women taking part in the survey were asked to indicate their perceived extent of empowerment along a 4-point continuum, taking into account their situations influenced by fisheries activities. The empowerment score of a respondent in a particular measure of empowerment was computed by adding the scores obtained in all items in that class. A summary of the measuring system of all five measures of empowerment.

$$\text{Unit empowerment score} = \frac{\text{Mean score of a particular dimension}}{\text{Max. possible score of the dimension}}$$

The overall empowerment score of a respondent was determined by adding the total scores from all five components, which is range from 0 to 132, with 0 indicating no empowerment and 132 indicating the highest level of empowerment. In order to make a comparison among the five measures of empowerment, a unit score will be computed for each using the following formula:

$$\text{Empowerment index} = \frac{\text{Score obtained}}{\text{Max. obtainable score}} \times 100$$

Based on the score obtained from these variables extent of empowerment was calculated by computing the empowerment index (expressed in percentage) as follows. Empowerment Index

RESULT AND DISCUSSION

Aquaculture is a major activity carried out in the state and women are most actively involved in it. Involvement of women in all stages of aquaculture is a common phenomenon observed throughout the state. Recognizing the interest of women in aquaculture and the hardship confronted by them, women's associations, such as the *Nupi ngayok marup* (Women Fish Culture Group) have been established and there are now 696 such groups in the state that undertake fish culture activity with the support of the Department of Fisheries (DoF) (Nandeesh, 2009).

Unlike in other places where men play key roles in transportation of fish and women in marketing, in Manipur, women carry out both activities efficiently. Although men do assist in large-scale operations, in general women independently undertake the smaller-scale activities, thereby allowing men to attend to other tasks. Fish marketing is generally undertaken by women and is a major domain of women in the retail trade sector. There are markets that are known as *Nupi Keithels* or *Ema Keithels*, which means women's or mother's market, and only women are allowed to trade in these markets. Gurumayum *et al.*, (2006) in this connection reported that in the central market of Imphal, there are about 300 women fish traders. All these women are allocated a regular trading place by the Municipal Council on a rental basis. Fish processing is usually categorised as full processing or semi-processing. Women in the study area were usually involved in semi-processing due to lack of money which is required in full processing. Fish is either sold fresh or in a processed state. Processing involves smoking, sun drying or frying. There is a greater diversity of products in the market.

Extent of Empowerment of Rural Women through Participation in Fisheries Activities: The Table 1 highlights the extent of empowerment of rural women in Bishnupur district of Manipur through participation in fisheries activities. It indicates that majority of the

respondents (70%) were coming under medium empowerment category (score range from 70.5-103.3). Only 19.17 per cent of the respondents were high empowerment group (more than 103.3).

Table 1: Distribution of Women as per Empowerment Score

Empowerment score	No.	%
Low empowerment (<70.5)	13	10.83
Medium empowerment (70.5-103.3)	84	70.00
High empowerment (>103.3)	23	19.17

Table 2. Extent of Empowerment of Rural Women through Participation in Fisheries Activities (N=120)

Empowerment Index (before)	31
Empowerment Index (after)	66
Gain in empowerment	35
Wilcoxon signed Rank Test (Z)	-9.507**

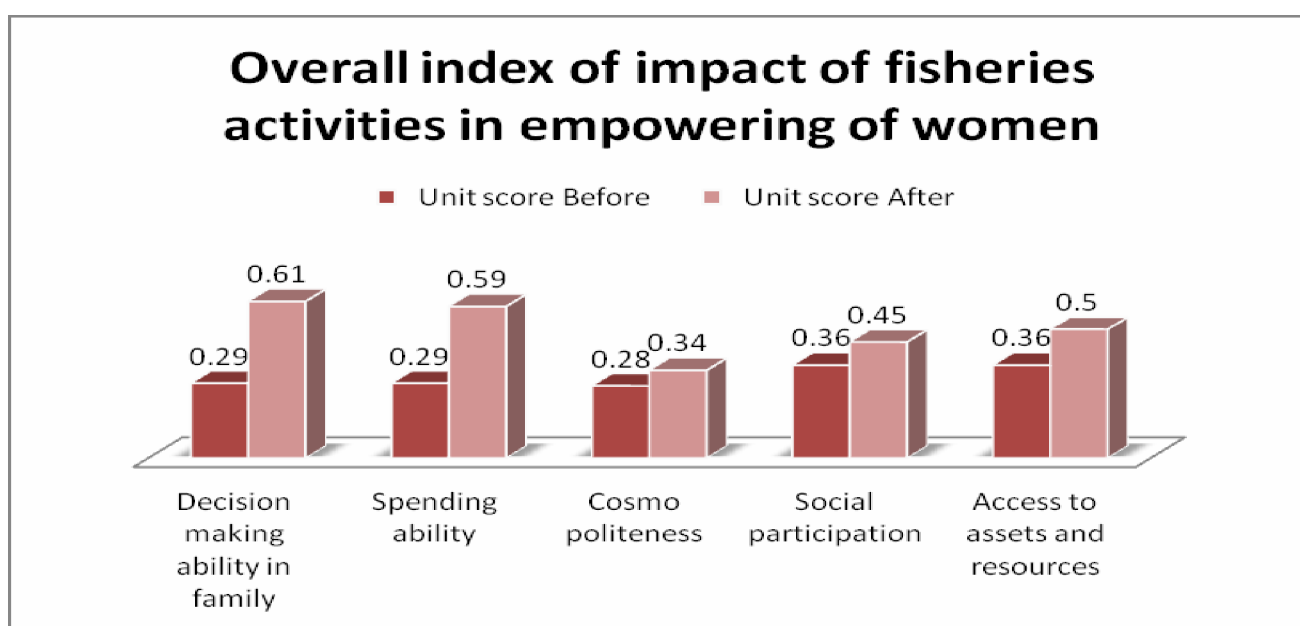
Further, the index value of empowerment before and after participation in fisheries was measured and presented in Table 3 which reveals that there was 35 per cent gain in empowerment in the study area. The 'Z' value (-9.507**) revealed that, there was significant difference in index values of empowerment of rural women before and after taking up fisheries activity, which clearly revealed the fact that participation in fisheries activity significantly contributed for enhancement in empowerment.

Impact Index of empowerment of women through involving in fisheries activities : Table 3 shows the unit empowerment scores of the respondent women in all five dimensions before and after their involvement in the fisheries activities. Index value of empowerment before and after participation in fisheries was also measured. The 'Z' values revealed that, there was significant difference in index values of empowerment of rural women before and after taking up fisheries activity, which clearly revealed the fact that participation in fisheries activity significantly contributed for enhancement in empowerment. This gives an idea that decision making ability in family, spending ability, cosmopolitaness, social participation, access to assets and resources of farm women are getting improved and increased after participation in fisheries activities (Figure 2) and it is highly significant at one per cent level. Women in the study achieved a significant level of empowerment in all the dimensions measured after involvement in the fisheries activities. However, although

Table 3: Empowerment Scores Before and After Participation in Fisheries Sector (N=120)

Empowerment dimensions	Possible score range	Mean and SD				Unit score		Wilcoxon signed Rank Test(Z)
		Before		After		Before	After	
		No.	%	No.	%			
Decision making ability in family	0-36	10.61	(3.58)	21.97	(2.92)	0.29	0.61	-9.528**
Spending ability	0-30	8.78	(3.73)	17.93	(4.70)	0.29	0.59	-9.528**
Cosmo politeness	0-24	6.62	(3.31)	8.15	(3.95)	0.28	0.34	-9.550**
Social participation	0-21	7.50	(3.45)	9.43	(4.19)	0.36	0.45	-9.536**
Access to assets and resources	0-21	7.50	(3.02)	10.45	(3.65)	0.36	0.50	-9.530**

** P<0.01. Figure in parentheses indicating standard deviation.

**Figure 1: Overall index of impact of fisheries activities in empowering of women**

they improved, the unit scores indicate that the empowerment of the respondents in most of the dimensions, (with the exception of family decision making and spending ability) seemed to remain relatively low. It could be concluded from this result that the involvement of women in aquaculture activities does significantly improve their empowerment levels but still many things need to do for further capacity building of women.

Factors affecting empowerment : Relationships among the selected independent variables and women's extent of empowerment were determined by correlation coefficient (r), which is presented in Table 4. The results show that eight variables had significant positive relationships with the women's extent of empowerment. The variables such as education, area under aquaculture, experience in fisheries, information management behaviour, management orientation and egalitarianism positively and significantly associated with rural women's

empowerment. Family annual income did not in fact show any significant relationship with women's empowerment. A significant relationship was found between the women's education and their empowerment and this implies that education enhances a women's empowerment, both in family and society. It increases a woman's understanding and awareness of the situation in which she lives, as well as increases her cognitive and psychological realm of empowerment. This is supported by a study conducted by Ahmed (2003), Sarkar (2005), Rahman and Nazore (2007) and Khan *et al.*, (2010). Education improves awareness, decision making power, skill and knowledge, marketing behaviour and also builds self-confidence. Therefore, efforts are to be made by all concerned to educate the women which form the basis for empowerment.

Increasing the participation of women in aquaculture can empower women through increased

knowledge and income, which in turn can lead to increased status inside and outside the home. This is supported by a study conducted by *Debasish, et al.*, (2002) which also concluded that knowledge gained from the learning sessions on stocking density of fish in composite culture, the women have influenced the families to reduce the stocking density of fish and to sell out the excess fish stocked. Some of the women effectively used the lessons learned for pond management to improve fish production. Therefore, from the present study it was identified that knowledge in fisheries, experience and information management behaviour as important factors which influenced the empowerment in positive way. As all these factors can make a woman confident and skilful in using technology, they logically also increase her level of empowerment. This finding is further supported by some other works conducted in Bangladesh (*Biswas, 2002 and Sarkar, 2005*).

The Table 4 further indicates a highly significant association between the aquaculture area possessed by the family of respondents and empowerment. This might be due to the fact that individuals with more pond area might have better socio-economic status, opportunity for formal education, exposure to mass media leading to acquisition of knowledge and skill involved in different income generating activities from fisheries, which will encourage saving habits and control the money earned by her. Significant association was also found between information management behaviour and empowerment. It is because of increased general exposure through different channel and their extent increase their awareness of women rights. With the increased mass media use women will become aware of many aspects, knowledge improvement, attitude change, which ultimately leads them to empowerment.

As fisheries is a relatively profitable income generating activity, women participating in it gain more control of the economic and social returns from it. This makes them self-reliant and enhances their empowerment status within the family as well as in society in general. The finding of the study is with the same line of *Rahman and Nazore (2007)*. On the other hand psychological variables such as management orientation and egalitarianism were also influencing the empowerment in positive direction. Management orientation such as planning orientation, production orientation and marketing orientation enable a human

to approaches towards empowerment. Egalitarianism refers to value orientation to equality. Such positive value in a society is highly appreciating as it facilitates perception of equal accessibility and distribution of common goods among people across gender. However, the independent variable such as fatalism behaviour of women was found as negatively associated with the extent of empowerment of women. Fatalism refers to belief in fate. Generally due to lack of education, people believe in fatalism, thereby attributing the process and outcome of any event to fate. Hence, it is essential to bring about change in value orientation of people in order to pave the way for progressiveness. People should be motivated and trained to take initiatives and have control over the processes and outcomes. This result is in line with the study conducted by *Saradha (2001)*.

Table 4: Relationship among Rural Women's Empowerment and Independent Variables

Independent Variables	(r)
Age	-0.002
Level of education	0.208*
Family size	0.061
Area under aquaculture	0.136*
Total annual income	0.043
Material possession	0.054
Training programme attained	0.098
Experience in fisheries	0.232**
Information management behaviour	0.178*
Knowledge in fisheries	0.159*
Management orientation	0.196**
Economic motivation	0.051
Fatalism	-0.130**
Egalitarianism	0.174**
Participation in fisheries	0.211**

(* and ** indicates correlation is significant at the 0.05 and 0.01 level, respectively)

CONCLUSION

Fishery is feasible enterprise and very much suitable for rural women to practice and empower them economically and socially. So the financial institutions and NGOs should come forward to extend financial support and guidance for rural women through Self Help Groups to take up fishery enterprise as an income generating activity.

The result of the study indicated that the extent of gain in empowerment through fisheries activities was

35 per cent and total empowerment was 66 per cent after participating in fisheries activities, which indicated that still there is scope to empower the women by taking the contributing factors. The significant and positive relationship between women's participation in aquaculture and their extent of empowerment implies that the empowerment status of women can increase with their increased participation in aquaculture activities. As aquaculture is a relatively profitable income generating activity, women participating in it gain more control of the economic and social returns from it. This makes them self-reliant and enhances their empowerment status within the family as well as in

society in general. Aquaculture need women, but whether women need aquaculture? This is a pertinent question raised by *Felsing, et.al., (2000)*. Aquaculture when carried with adequate care and investment, yielding much greater return on investment as compared any other agricultural activity carried out by farmers, there is a need to consider aquaculture as a tool to empower women. Recognition the contribution of women in fisheries needs to be emphasised by the local Government. This will act as an incentive to motivate the women in further development. The awards, women fish farmers' day may be initiated by the development organisation.

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