

# WOMEN IN AQUACULTURE: INITIATIVES OF CARITAS BANGLADESH

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## Abstract

In Bangladesh, women have proven to be competent in adopting aquaculture technologies, despite the fact that their role in aquaculture growth has not been sufficiently recognized and remains inadequately addressed. To ensure sustainability in aquaculture, it is necessary to understand related issues and develop gender sensitive interventions.

The participation of women in different aspects of daily life is strongly affected by social, cultural and religious norms such as seclusion, segregation and the veiling of women in public. These restrictions and the gender division of labor have created the norm of a segregated and protected role for women, and have constrained women's mobility and participation in work outside the home. Traditionally, women have been involved in small-scale aquaculture in different stages of operation. They are active "caretakers" of fish in homestead ponds, nurseries, cages, and even in rice fields. It is only now that there is a growing recognition of the ability and potential of women in contributing to the national economy in the fisheries sector.

Caritas Bangladesh has organized a total of 18 269 beneficiaries under its Aquaculture Program from 1998 to 2000, out of which 8 603 were women (47%). It has been observed that necessary capacity building support followed by some special provisions to overcome socio-cultural taboos have been successful in getting women involved in aquaculture. This paper reports the general status of women in fisheries, their potential in Bangladesh and the experience of gender-sensitive initiatives of Caritas Bangladesh.

## Involving Women in an Aquaculture Development Program - A Gender-Sensitive Initiative of Caritas Bangladesh

In Bangladesh, the capability of women in adopting and implementing aquaculture development technologies is well substantiated, although their full potential has yet to be explored. To ensure sustainability of aquaculture, it is imperative to understand women's role in aquaculture. Participation of women in different aspects of daily life is strongly affected by social, cultural and religious norms. Gender inequality is deeply embedded in the overall structure And social controls at all levels make women subservient to men.

Bangladesh has both the world's largest delta system and the greatest flow of river to the sea. It also has vast and enriched water bodies such as ponds, *dighi*, *beel*, *baor*, *haor*, lakes, rivers, estuaries etc. One third of Bangladesh's physical space of 144,000 sq km is comprised of water in the dry season, while in the rainy season up to seventy percent is submerged. Annual fish production is about 1.55 million metric tonnes and per capita fish consumption is about 17 g/day (BBS 1999). Closed water culture fisheries such as ponds, oxbow lakes and shrimp farms contribute approximately 39% of the production, while the balance comes from capture fisheries. The average growth rate for the last ten years was 13%.

Various studies show that 43% of rural women are contributing to agriculture and fisheries-related activities besides performing their household responsibilities. Rural women are also singularly contributing to seasonal fish drying, processing and many other assorted types of work associated with fisheries. They

spend a major part of their day at ponds performing a variety of tasks such as wash, cook, bath, and collect water for the cattle. After fulfilling their traditional responsibilities in the household, women can simultaneously be involved pond fisheries activities. This enables their male counterpart to work elsewhere, and women to supplement the family income.

## National Strategy for Aquaculture Development

Bangladesh is the most densely populated country in the world, having a landmass of 144 000 sq km with a population density of 861 persons/sq km (1997). At least 70 million live in absolute poverty, and of these, 35-50 million comprise the extreme poverty groups (BIDS 1990; 1992). Due to extreme poverty, millions of people, particularly women and children, suffer from severe malnutrition and undernutrition mainly due to the lack of animal protein in their diet.

The Government of Bangladesh rightly recognized the need for a pragmatic National Fisheries Policy and promulgated the same in 1998. The main features of the policy are to

- Bring the ponds, lakes and other closed and semi-closed waterbodies under intensive fish culture;
- Promote the application of modern technology to increase production;
- Provide extended training facilities for development of human resources in the public and private sectors; and
- Introduce an integrated development approach to be followed by a sustainable integrated rural development program. This approach takes into account both the technical aspects of aquaculture development and the socioeconomic needs of the small farmers.

A number of programs are being implemented under the auspices of the Department of Fisheries. During the current fifth five-year plan, a total of 28 projects related to fisheries development have been initiated. The collaboration of NGOs and the Government in government-sponsored programs has already yielded results as the beneficiaries are increasingly being involved in the implementation and management process.

## Potentials of Women in Aquaculture

In most rural communities, there are essential differences between the economic, social and political roles of men and women. This also holds true for fishing communities. While the nature as well as the dimension of these responsibilities may differ from country to country and from community to community, a number of basic features can be identified. Fisheries activities are commonly perceived as men's work. This is also a common phenomenon. However, while there exist difficulties of different magnitude for women to be fully involved in fisheries, there are also vast potentials for women to contribute meaningfully in the fisheries sector.

Involvement of women in all development initiatives including agriculture is seen as a priority in the national development paradigm. Traditionally, women have played a major role in agriculture. However, studies on various development endeavors have also endorsed the fact that while female members of farm-based households are playing a significant role in agricultural farm and household activities, their work loads have been consistently higher than that of the male members. Rural women are involved in different household activities like cooking, food preparation, child-rearing, livestock and poultry-raising, and household gardening, which are essential for household maintenance. They are also engaged in post-harvest activities, which includes rice processing (that is, boiling, drying and husking of paddy). The male members of agricultural households are involved in field activities while the female members undertake tasks like seeds preservation, and drying and boiling of paddy. Although all these are essential for the existence of each rural household, they are not awarded any form of recognition as these types

of work do not directly generate money. Rather, in most cases, women are treated as dependents despite the fact that they play a substantial role in household agricultural activities. Research studies show that besides their regular household work, 43% of women are involved in activities related to agriculture, and almost 15% undertake agriculture as their second occupation.

While fishing too is perceived to be a full-time occupation of men, the involvement of women is just as significant. Together with their male counterparts, women are engaged in activities like making fishing nets, gears, repairing or maintaining the gears, sorting of fingerlings, fish processing, transportation and marketing. However, as time progresses, this complementary role of women is changing and women's involvement in these activities is becoming a full-time occupation.

### Pond Fishing

In rural Bangladesh, most women spend a major portion of their time doing household work. The type of work a woman has to do makes it necessary for her to be close to a pond where she has to wash, bathe, collect drinking water and perform other household tasks. There exists therefore, a natural condition for women to explore the possibilities for fish cultivation. These ponds are also used for vegetable cultivation, ensuring the supply of much needed nutrition for the family.

By undertaking pond fisheries activities, women can

- contribute to the family income considerably;
- ensure constant supply of much needed family nutrition;
- generate an opportunity for self-employment;
- uplift their overall socio-economic condition; and
- become more skilled

### Seasonal Fishing

Lands adjacent to the homestead remains water logged for three to six months in a year. These lands are situated close to the rural households. Normally, these lands/ditches remain unutilized. By using a proper method of treatment and cleaning, these fallow lands can be prepared for fish cultivation. Seasonal ponds can be economically profitable, as the land becomes fertile with the homestead organic waste and often after inundation of floodwater. With nominal investment and labor by the family members, these water bodies could be used for fish cultivation. Various species of fish like *Puntius sarana*, *Oreochromis nilotica* can be cultivated in these types of water bodies. The investment is affordable and the work does not require much labor. Women therefore can conveniently embark in such ventures.

### Mini Ponds

These types of ponds provide the ideal conditions for fish cultivation. Ensuring water availability throughout the year would guarantee fish cultivation for the entire year. Because they are smaller in size (normally 8 meters in length and 6 meters wide), these types of ponds can be excavated in compounds of the homestead. Women can undertake fish culture in these ponds in the same manner they would cultivate vegetables in and around the plinth of their homestead. This will help families meet the requirement of fish in their daily diet and also to meet extra family expenses. Fish culture in the mini ponds does not require extensive technology. This kind of activity is inexpensive and can be easily managed.

### Shrimp Aquaculture

In coastal Bangladesh where shrimp farming is a dominant occupation, women are already actively

engaged in many ways. It was found that almost 85% of the women are engaged in fry collecting as it does not interfere with their day-to-day household work, and helps supplement the household income. The principal source of fry collecting is from rivers and women's access to rivers is unhindered. Moreover, the work is not time bound and therefore women can do it at their convenience. Unfortunately at present, fry collecting is being discouraged to protect the aquatic biodiversity of the area. Women are also actively engaged in various kinds of work in shrimp farms. In these farms, they do dyke construction and maintenance, liming, harvesting and other farm-related activities. Typical of shrimp aquaculture, women also work in the depots/factories and in places where the trading takes place. They play an important role at the export level in fish grading, de-heading and packaging. It must however be recognized that these services of women are in great demand because of the fact that they are paid much less than men for the same type of work.

### Crab Culture

This is another kind of work that women can do close to their homestead. Through the application of indigenous technology, women are already engaged in such work. Traditionally, it is often difficult for women to go away from their homestead to work. It was found in a number of studies that the social and familial life of women who go out for earth cutting work is affected because her absence from home for a long period of time is not socially accepted. If opportunities are created and made available, women can undertake crab culture in the ponds adjacent to their homestead, much like pond fisheries. This will help them maintain their regular household work and give them the opportunity to supplement their family income.

### Fish Processing

Women can undertake projects for fish drying using indigenous and available species. The dried fish can be marketed during the lean season to earn good returns on their investment. Besides, they can also buy fish from the trawler and deep-sea fishing boats directly.

### Fishing Gears

This is traditionally an area of work done by rural women. They have the required expertise and are aware of the technology best suited to make different kinds of gear. If linked with skill development training and marketing of the products, this can also be an important area for the involvement of women in bigger numbers.

### Fish Feed Preparation

In Bangladesh, many women are involved in making prawn/fish feed at home for their own use. It has also become an important income-generating activity as they can sell the feed to other farmers in the area. This is another example of the kind of work that women can do conveniently at home.

It can be seen from the above examples that there lie ample opportunities for women in aquaculture-related activities. However, there are also issues related to the involvement of women, which will be discussed in the following section.

## Constraints Women Face in Aquaculture-Related Activities

Socially, a woman in Bangladesh enjoys lesser importance than her male counterpart. A Bangladeshi woman's most important recognized role is that of a housewife. From childhood, a girl is trained to be a wife and a mother. Generally, this term refers to those who do not engage in economic activities.

Although women's contribution is well recognized in agriculture-related activities, their contribution in economic activities remains unvalued due to patriarchal and traditional norms. Reduction or eradication of these constraints could lead to increased productivity, resulting in an enhanced economic welfare, particularly for rural poor families. The following are some of the major constraints:

### Social Customs/Norms

In Bangladesh, the social norms and customs are greatly influenced by religious interpretation. Women are secluded or conditioned to seclusion for fear that once they gain access to the outside world, men would find it hard to manipulate them further. The activities of women in the sociocultural environment of Bangladesh are primarily domestic in nature, confined to the four walls of their home. The major factor leading to non-valuation of women's work stems from the country's socio-economic, cultural and religious contexts. Women's position in all areas is very much inferior to men. Women's limited access to education, skills, resources and opportunities lead to gender inequality in all spheres of women's lives.

### Resource Availability

A recent study by ILO showed that women's contribution to the world economy is 66% but they enjoy only 10% of the total wage. It is absolutely unfortunate to see that property owned by women is only about 1%. It is a total disproportionate contrast in view of women's contribution to the wealth accumulation of nations. In the case of holdings on personal property, it is men who hold the ownership title. Common property resources like Khas Land and water bodies are leased out to groups, usually cooperatives formed and run by men. The law does not prohibit women to own or possess these resources but discriminatory attitudes bar women's access and ability to take control of these common property resources.

### Technology Transfer/Education

If education is considered as a resource then women are greatly deprived of this resource. Bangladesh has made great strides in increasing enrollment in schools and the national literacy rate has increased from 37% in 1996 to 47% in 2001. However, the literacy rate of women is well below the national level. Besides education, women's access to research findings has also been neglected from the application point of view. It is often seen that almost all research takes place to benefit men rather than women. For example, a particular testing on farmers is done only with the men. A particular research methodology is designed in such a way where the man remains the center focus. Women's involvement and their needs in farming or farming-related activities remain ignored.

The vast majority of training sessions and extension services are conducted by men. Women are unable to take advantage of such programs because women and men outside the family are not encouraged or even prohibited to socialize with one another. Too often, when training and extension services are offered, they are geared to the needs and interests of men rather than women. Training is normally held in places where it is difficult, if not impossible for women to attend. In cases of distribution of new technologies, there is hardly any scope for women to avail of new technologies as they are hardly or never considered as potential practitioners of such innovations. Women enter the labor market without sufficient education or skills. They are considered "unskilled" workers and are therefore paid lower wages. Barring women access to education and skills training only perpetuates the vulnerability of women and leads them towards further pauperization.

### Credit Facility

For millions of poor rural women, poverty means a long list of things; not having enough to eat or

lacking adequate housing, suffering from malnutrition and dying of disease. Poverty also means not having the economic resources to invest in shaping a better present or building a more secure future. Without such resources, the poor face an ever-descending slide into deeper destitution. If this situation is to be reversed, if poor women are to have a little chance to improve their lives, then they must have access to credit. Credit, as it is often said, is a vital catalyst for development.

The poor in general have little access to credit. For poor women in the part of the world, the situation is more complex considering the legal, economic and social status of women, and the impact of traditional customs, age-old practices and long-held stereotypes. In Bangladesh, women of any age are considered legal minors and thus do not have access to credit without the signature of a father, husband, or brother. Without title to land or control of other assets, the women have nothing to put up as collateral and so are not eligible for many types of loans and are viewed by money-lending institutions as credit risks. Most poor rural women engage in subsistence farming, and these institutions find it difficult to believe that loans given to these women can be repaid. In addition, since women tend to take out smaller loans than men, the higher administrative costs involved is given as an excuse to avoid lending to them. Other factors enter the picture as well. Women find it difficult to leave the home to travel to a bank. The lack of education and experience in financial matters is a further constraint. Cooperatives and other associations through which credit is channeled to farmers tend to be exclusively reserved for men. So, poor women, who are more in number than poor men, are faced with the choice between going without and turning to the informal credit sector. The introduction of micro-credit schemes by the NGOs paved the way for large numbers of women to have access to small credit loans, but the decision of how the credit is used still remains with men. With regard to women taking credit for fisheries projects, the credit ceiling is insufficient for any kind of initiative. The repayment mode is also an obstacle and unfriendly to the socioeconomic conditions faced by women.

### Availability and Accessibility of Input

Since the movement of women is traditionally restricted, it is quite difficult for them to travel to distant areas to purchase necessary ingredients like fertilizer, fingerlings and feeds that are required for the projects they have undertaken. Normally, the ingredients are available in places far from their houses and a woman is unable to travel the distance to get the needed materials. In such cases, women are again dependent on men.

### Representation and Decision-making

Women are generally under-represented in cooperatives and thus lack the support and economic power that such collective enterprises can offer. Besides, men tend to hold the vast majority of leadership positions. Women therefore, have little or no say in many areas which affect their lives, and little chance to develop leadership and decision-making skills. In our social system, men make decisions of an important nature. In the case of pond fisheries projects, men usually decide about stocking, harvesting, marketing, and finally on the utilization of the income from the project although women often play a major role in nurturing and harvesting. Even for the products that come from the initiatives of women, men make major decisions, as women are not linked with markets. Economically, women have always been involved in production although their share in consumption as well as control over capital and cash has always been nominal and neglected.

## Caritas Initiatives, Achievements and Experience in Involving Women in Aquaculture

Caritas Bangladesh is a national non-profit NGO that was established and mandated to work to enhance human welfare and contribute to the national development of Bangladesh. Caritas has about 44

multidisciplinary projects under 11 sectors and all are directed to alleviate the condition of the poor and the marginalized section of the people to more humane conditions. Caritas believes in the primacy of the human person; affirms that there is power among the powerless; and stresses integral human development. Among the 11 sectors that Caritas works in, Fisheries Development is one. Caritas adopted a single and consistent approach to community development within all the sectors and uses a people-centered approach to its entire development endeavor.

As a development agency, Caritas is aware of the constraints as well as the possibilities in the field of fishery development. In responding to the needs of the people and to bring about a balanced development approach, Caritas began its Aquaculture Development Program (ADP) in 1981. This was a pilot initiative. Caritas continued with the project activities and were able to feed the idea of fish culture to the target beneficiaries. It was also found that the people responded readily to fish farming practices as this produced visible results in terms of increased income and improved nutritional status. Looking at the response of the people and their enthusiasm, the program took a new shape under the Extended Aquaculture Development Program (EADP 1 & II). Meanwhile, technologies were transferred to the beneficiaries and the selected groups were trained in various fields of aquaculture. However, from a number of studies and evaluations, it was clearly evident that the men were reaping the benefits of the initiatives because the support devices such as leasing system of ponds, khas lands and other resources were directed towards the benefit of men. The program then took a different course from the early 1990s, keeping in mind that almost 65% of Caritas formed groups were women. Meanwhile with the progress of time and acquired experience, Caritas designed its aquaculture development program with some new dimensions in the form of Sustainable Aquatic Resources Management (SARM) for another five years starting from 2001. It may be mentioned that within its organizational policy, Caritas places a high priority on gender sensitivity and gender equity, and these elements are worked into all the programs. Conditions were made where access of women in appropriating resources was ensured. The strategy of group formation, their nurturing and management were made appropriate to fully corroborate with the organizational policy towards gender equity. Through different programs of Caritas, the areas of awareness-raising, family counseling, and making people more articulate to avail of Government resources, were given top priority. These were translated from a development agenda, to policy and to practice. Credit support was seen as an effective instrument for realizing the financial need of the groups. Caritas adopted a credit disbursement policy ensuring availability of credit to the groups at a shortest possible time. Provisions for grants (in extreme special cases) have also been made in different projects where credit alone would not serve the purpose of the groups. It needs to be explained in brief why the fisheries program was made to suit the condition of women. Caritas having worked over two decades identified that the performance of women groups were much better in all spheres of the initiative. The following are some of the reasons:

- Women's groups were found to be more disciplined and determined to bring about a change in their lives;
- They are more concerned about the social taboos and forces that hinder their development;
- Women group members are enthusiastic about learning and thus attend the training regularly;
- Savings rate of women is much better than that of their male counterparts;
- Women group members are the best borrowers and their repayment rate is much higher than the male group members;
- Women's groups are more open to new ideas and concepts and are serious about adopting these concepts.

## Major objectives of the Caritas Fisheries Program

### Long Term Objectives

1. Increase in fish production, profitability, and availability, creates more employment and uplifts the quality of life of the rural poor organized under different programs of Caritas.

2. Ensure optimum utilization of available fisheries resources.

### Immediate Objectives

1. Organize group members and fisher folk to strengthen their involvement in fisheries resources and credit mobilization.
2. Dissemination of sustainable eco-friendly aquaculture and fisheries management technology, integrated aquaculture with livestock and crop farming.
3. Strengthening of fishpond projects/groups for sustainable fish production through communication mobilization, training and necessary support services.
4. Renovations of derelict ponds in order to create employment opportunities among the group members and eventually utilize them for fish culture.
5. Professional skills development of group members in the field of fisheries like, nursery management, hatchery operation and integrated aquaculture.
6. Creating awareness of conservation of environment and water resources among the primary group members and fellow villagers, ultimately spreading all over the country to save them from natural and man-made calamities.

It may be mentioned that apart from the above-mentioned areas, the Fisheries Program also made some special provisions to ensure the increased participation of women. These are summarized as follows:

- It was made conditional that women members of the family get possession of the ponds belonging to the family and undertake fisheries-related activity in such ponds. Adequate support was provided for excavation, re-excavation of such ponds as well as other types of support, which were required to make the derelict ponds cultivatable.
- Family counseling was undertaken to enable the male members to understand the idea of involving their female counterparts in fish culture.
- Training programs were made women-friendly. Women extension workers were deployed for providing training to women beneficiaries. Training opportunities were therefore taken to the doorsteps of women beneficiaries.
- Extra provisions were made for women borrowers so that they can take credit at the shortest possible time to respond to their needs. In some cases, the rate of interest was also lowered and the repayment time shortened.
- Considering the difficulties of women in traveling long distances to buy inputs, Caritas ensured the availability of inputs such as fish feed and fingerlings so that women continue with their activities without any difficulty.
- Women beneficiaries in fisheries activities were also given training as well as input support for home/kitchen gardening so that besides doing fisheries-related activities, they can also make good use of their fallow lands and thus supplement their family income.

All the above was done to cultivate women's interest in fish culture and related activities. This affirmative action proved successful over the years as shown by women's increased participation in fisheries activities.



**Table 1. Major activities and achievements of Caritas Fisheries Program at a glimpse (1983 to 2000).**

Sl. No.	Field of Activity	Achievements	
		No. of Projects	Area (acre)
1	Pond re-excavation	1,591	509.97
2	Pond lease & purchase	3,224	2,344.28
3	Fish processing project	83	n/a
4	Natural fish catching project	1,104	n/a
5	Village based nursery	535	182.71
6	Paddy cum fish farming project	4,634	6,935.99
7	Small Pond fish farming	3,886	476.82
8	Integrated fish farming	1,937	476.82
9	Poly-culture	3,019	633.75
10	Hatchery Support	9	92.56
11	Marketing support project	3,690	n/a
12	Demonstration of new technology	182	n/a
	<b>Total</b>	<b>23,893</b>	<b>11,652.90</b>

**Table 2. Farmer Group Involvement.**

Sl. No.	Subject	Numbers
1	Total groups involved	6,366
	a) Male Groups	3,441
	b) Female Groups	2,925
2	Total farmer/beneficiaries	69,443
	a) Male members	39,981
	b) Female members	29,462

**Table 3. Production and profit analysis (1999-2000).**

1	Average production cost/decimal US\$	3.33
2	Average production/dec/Kg	11,386
3	Average production /ha Kg	2,812
4	Average net profit/dec US\$	7.94
5	Average per capita income US\$	104.13
6	No. of small scale carp hatchery operation	09
7	Spawn production kg/year	680
8	Fry /fingerling production	4.5 million

## Impact of the Caritas Fisheries Program

### Resource Utilization

- Common people in the program areas have become enthusiastic in fish cultivation using whatever water resources they have after having seen the success of the ADP.
- Previously most of the village ponds were packed with water hyacinth and other sorts of aquatic weeds, and were breeding grounds for mosquitoes. Now, such a scene is a rarity in the areas where the fisheries program is implemented.
- Derelict ponds or water bodies are no longer available in the working areas.
- Caritas-organized group members are now gradually facing difficulties in getting ponds on lease, because the pond owners prefer to culture fish by themselves. Even homestead small and shallow ditches are being renovated and prepared for seasonal fish farming.

## Technical Know How

- Infuse a great deal of enthusiasm and enhance community awareness regarding fish farming.
- Create a scope for introducing new fisheries projects - Community-based Beel Fisheries Management (CBFM), Sustainable Environment Management Program (SEMP), Management of Aquatic Ecosystem through Community Husbandry (MACH), Aquaculture Technology Transfer Project (ATTP), Patuakhali-Barguna Aquaculture Extension Project (PBAEP) - thus addressing different aspects of fisheries in the context of Bangladesh.
- Create an interest among pond owners outside the groups to learn farming technology from Caritas beneficiaries.
- After a certain period, fish farmers are able to run their projects independently without the technical assistance of Caritas.
- Aquaculture farmers are becoming acquainted with induced breeding technologies in their small-scale carp hatcheries.
- Women's groups in Caritas working areas are practicing integrated fish farming along with crab fattening, fry nursery, rice fish culture and fish processing, following the prescribed technologies given by the project.

## Socioeconomic Aspects

- Participation of women in fish farming activities has increased considerably. At present, 43% of the total beneficiaries engaged in pond aquaculture are women and in fact, they do almost all the activities that used to be done by men (earth-cutting, pond preparation, feeding and fertilizing, accounts-keeping, decision-making on marketing/consumption of products etc.). The women's groups are practicing test netting, fish harvesting and marketing on their own without any help from others. As more women become owners of land (ponds), their status both in the family as well as in the society is enhanced.
- The living standards have improved and the beneficiaries are now sending their children to schools as they can meet the education expenses of their children.
- The program has created a strong feeling among the poor beneficiaries regarding their social and economic status, resulting in strong organizational integrity within the groups. The women's groups in particular, have demonstrated a strong bond and unity as well as commitment towards their quest for self-development.
- With increased economic power and respect, the group members (both male and female) are now well accepted in society. They are called upon for local arbitration and their views are greatly valued. A number of once voiceless, assetless people have contested in the local elections and were elected.

Through the Fisheries Program of Caritas, it was possible to shift the traditional way of dealing with the fisheries sector as the idea of fish culture and fish cultivation has been rightly propagated to the rural people of the country. It was demonstrated that by giving due support, people can utilize their hidden potential to a great extent. The experience of Caritas Fisheries Program also shows that if a program is designed with the objective of making people skilled, the responsibility of the organization lessens as people gradually take over such responsibilities.

## Recommendations

From the above presentation and also in consideration of the potentials of women in fisheries, the following recommendations are made:

1. Ownership to assets is the single important factor. Therefore, measures need to be taken to ensure women's full entitlement to land rights, equally with men in terms of ownership, usage rights and security of tenure. Where appropriate, wife and husband may jointly hold such rights. Conducive and time befitting policies should be adopted enabling women to have possession over Government khas lands and other water bodies for fisheries activities.
2. The existing extension services should be revamped so that both male and female extension workers can reach women who are engaged in fisheries activities. Fisheries research should consider the different needs of women and provide technological solutions. Women engaged in fisheries-related projects should be given opportunities while farm trials and research is undertaken.
3. All forms of discrimination must be eliminated to make the movement of women free and safe. There is a need to create a more enabling environment for women so that they can move beyond the confines of their house to receive trainings offered by Government/non-government extension services.
4. Reorientation of the current micro-credit system is needed, as the current system does not meet the requirement of women, especially for fisheries activities. Credit facilities must be made available in consideration of their actual needs. If required, special provisions could be made to respond to sectoral needs. Credit should also be made available for other kinds of work associated with making different kinds of gears for fishing i.e. nets, traps, etc.
5. Most importantly, the attitude of men towards women must change. Women's involvement in fisheries-related activities must be recognized and their views/opinions must be given due importance.
6. While designing a program, it must be ensured that women are given equal rights and opportunities to actively participate in the programs. There should not be any element in the program that hinder the participation of women. Therefore, program designing should be gender-sensitive.

## Conclusion

Women play an important role in the fisheries sector of Bangladesh. This role encompasses social and economic activities and duties, both within and outside the family, including marketing, processing and also harvesting fishery products. Development initiatives over the last few decades clearly show that sustained improvements in productivity and in people's lives depend upon the recognition of the crucial role women play in production, processing and marketing in the small-scale fisheries sector in the country.

It is imperative that to accelerate its development initiative, an under-developed country like Bangladesh needs to unleash the full potential of its women. A social transformation must be engineered by changing power relations within the household and society. To achieve this, the Government and its development partners need to re-orient their programs and implement an effective affirmative action for women.

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