



Enhanced Coastal Fisheries in Bangladesh (ECOFISH II) Activity

Women's Economic Empowerment and Hilsa Fisheries: Experience in ECOFISH Activity

Section 1: Introduction and Site Context

The U.S. Agency for International Development (USAID) Enhanced Coastal Fisheries in Bangladesh (ECOFISH) activity (2014-2019) aimed to improve the resilience of the Meghna (Padma-Meghna and tributaries) river systems and communities reliant on coastal fisheries. The activity, implemented jointly by WorldFish and the Government of Bangladesh's Department of Fisheries, supported the Department of Fisheries and local communities to establish a collaborative, science-based co-management approach to reduce overfishing and protect juvenile fish species and brood in the peak spawning season. ECOFISH achieved these objectives through involving various stakeholders across 10 coastal districts, including support for 20,000 fisher's households.

ECOFISH focused on Hilsa shad (*Tenualosa ilisha*), an anadromous fish that spends adulthood in the marine environment and migrates to major rivers for breeding and nursing, and is treated as a flagship fish for biodiversity conservation. In Bangladesh, fishers catch hilsa year round; when they do not catch hilsa, they tend to target fish species of all sizes. Hilsa fish started to decline in the late 1990's and reached its lowest production levels of less than 200k metric tons in 2003. The decline of hilsa in the Gangetic river systems, including the Padma and Meghna, was due to the construction of barrage in upstream areas, siltation and pollution, overfishing, climate change, and increased efficiency of the fishing gears like monofilament nylon net, locally known as *Current Jal*. A large number of fishing boats sail for hilsa fishing every day but pick up everything irrespective of juveniles or brood fishes, when they do not get enough hilsa in their catch. Thus, the biodiversity in the Padma-Meghna river systems has severely declined, which has implications on the decline of coastal and marine fisheries and biodiversity as well.

In response to the rapid decline of the hilsa fishery, the Government of Bangladesh introduced the Hilsa Fisheries Management Action Plan (HFMAP) in 2005, focusing on five major areas of interventions. These areas are: 1) declaration of five sanctuaries in the strategic hilsa breeding and nursing sections along the Meghna (including Padma) and its tributaries, 2) regulation of illegal gears, 3) fishing ban on catching of juvenile hilsa (*Jatka*), 4) fishing ban on brood hilsa catch, and 5) compensation to fishing households. There were two fishing bans: i) the brood hilsa fishing ban

for 22 days in October, and ii) the juvenile hilsa fishing ban in the sanctuaries during March-April each year. Despite government efforts for nearly a decade, the conservation efforts were not successful. The government efforts were unsuccessful for two main reasons: top down imposition of government rules and regulations without engaging communities, including both men and women; and lack of awareness raising on the fisheries bans. The top-down enforcement approach of punishing and fining the non-complaint fishers approach neither succeeded in making the fishing bans effective nor resulted in increased hilsa and river fish production to meet the market demand. The ECOFISH activity thus set up a hypothesis that if a science based approach in co-management was adopted and socio-economic conditions of the fishing households were improved then coastal biodiversity and hilsa fish production would be enhanced.

Within this context, ECOFISH aimed to improve the HFMAP's implementation through a bottom up approach with inclusive community engagement of both fishers' women and men in the decision making process and introduction of adaptive co-management across the river sanctuaries. The project sought to reverse this trend and revive the hilsa fishery in the Bangladesh River system as well as increase biodiversity through improved resilience of the ecosystems and that of the fishing communities.

From the start, ECOFISH incorporated a gender perspective in its fisheries management activities. An initial two-day inception meeting brought together national and international experts, some of whom had significant gender expertise, to streamline a gender inclusive implementation approach at all levels of the project. In addition, the ECOFISH team reviewed the gender components of other ongoing USAID biodiversity activities and incorporated the lessons learned into ECOFISH's gender strategies.

ECOFISH's underlying hypothesis was that if hilsa fish was conserved, therefore increased in production, all other fish species in the rivers and estuaries would be conserved as well. ECOFISH also assumed that, if hilsa production increased in the coastal rivers, fishers' would experience improved wellbeing. Further, ECOFISH combined its fisheries management interventions with targeted women's economic empowerment and access to finance and technologies (both on-farm and non-farm) interventions. From the very outset, ECOFISH involved both men and women in fisheries management as an innovative approach in Bangladesh.

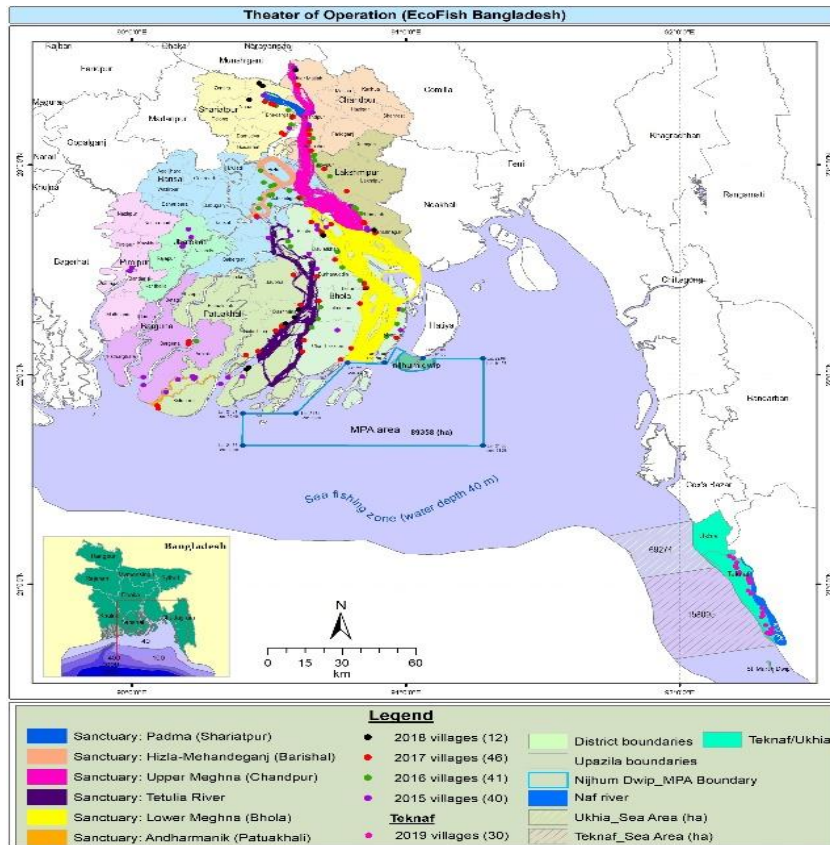


Figure 1. Fish sanctuaries and fishing communities in and around the Padma-Meghna River systems in Bangladesh

As part of socioecological improvement of the fishing communities through livelihood support, ECOFISH intervened in 136 fishing communities distributed along the major river courses that touched all six sanctuaries, including the sixth one, established under the ECOFISH activity. ECOFISH selected 20,000 fishing households for interventions based on their income, poverty levels, and household assets. All fishing villages were selected through village profiling, and only relatively poorer fishing households (approximately one-third of the total fishing households) were selected for livelihood support, alternative income generating activities, and fisherwomen's community savings groups. The fishing villages were located along 420 km of the sanctuaries in the Padma-Meghna River systems and its tributaries (Figure 1).

The intervention sites covered 10 coastal districts including Barishal, Barguna, Bhola, Chandpur, Jhalokathi, Laxmipur, Noakhali, Patuakhali, Pirojpur, and Shariatpur. In 2019, USAID added Cox's Bazar as an additional site.

Women's role

Prior to ECOFISH's interventions, women in the fishing communities were not organized as a group; women did not participate in any fisheries related activities nor in any income generating activities. Women in the intervention areas are mostly illiterate and heavily influenced by social

norms and religious conservatism. Bangladesh social norms prohibit women from attending any activities outside their home, from participating in community meetings with male counterparts, from engaging in any income earning activities outside their homes, and from moving freely in the village or to any distance places without a male family member. Other social norms include expectations on appropriate clothing, many of which are not clearly defined.

Fisheries management challenges

The main fisheries challenges were non-compliance of fishers and other stakeholders in the value chain. For example, fishers used illegal gears, such as monofilament nylon nets (B. *Current Jal*) and set bag nets (B. *Behundi jal*). They also heavily fished juvenile hilsa (B. *Jatka*, <25 cm) and brood hilsa, even during banned periods and despite periodic patrol of law enforcement throughout the sanctuary and non-sanctuary sites.

Under the Government of Bangladesh's hilsa management program, 50-60 percent of households received support during the Jatka fishing ban period, from March-April each year. The government also provided rice during the 22 day brood hilsa fishing ban period in October each year. Despite this support, fishermen were unhappy with the alternative income generation support and the distribution of rice. They felt they did not receive the right quantity of rice (40kg per family per month) and that support was not distributed transparently. In addition, not all poor fishing households were covered by the compensation program (provision of rice for four months to the fishing households to ease their sufferings during fishing bans), even though all households experienced similar challenges due to fishing bans.

The ECOFISH activity addressed these challenges through several interventions:

- **Policy support:** Science-based policy support to the government, such as support on an optimum brood fishing ban for 22 days in October, establishment of a new sixth sanctuary at the critical confluence on Meghna/Kalabadar/Gajaria Rivers, 6.5 cm mesh size of hilsa fish gill nets (under consideration), and delineation of 3,188 sq.km² Nijhum Dwip Marine Protected Area (MPA)/ Marine Reserve (MR) at the mouth of the Meghna River estuary extending to the Bay of Bengal.
- **Promotion of co-management and women's empowerment:** Adopted adaptive co-management in the sanctuaries through formation of local level fisheries management committees (FMC) in all 136 villages. These committees contributed to the formation of the union, upazila, and district fisheries co-management committees at various levels. ECOFISH empowered fisherwomen to participate in these committees, and women in two out of 10 committees hold leadership positions in both community and upazila level fisheries management committees.

- **Income generation and access to finance:** Provided livelihood and alternative income generating activity support to fishing households and ensured women had access to finance through introduction of community savings funds and matching funds from ECOFISH.
- **Capacity building and training:** Provided training programs on basic literacy, maintenance of savings and bank accounts, and built capacity of fisherwomen through a business literacy school. Also provided training on income generating opportunities, such as vegetable farming; chicken, duck, and turkey rearing; goat, sheep, and cow husbandry; tailoring; toy making; and pond/cage aquaculture.
- **Recognizing Model Fishing Villages and Fisherwomen Champions:** Established two model resilient fishing villages in Uttar Bogula, Chandpur, and Balaramsura, Bhola district. Supported events like the fisherwomen congress and hilsa breeding festivals to facilitate fisherwomen to join social events and promote interaction among fisherwomen from different localities. Recognized fisherwomen champions for their contribution in community mobilization by giving awards/prizes, including in kind prizes such as household materials and books.

Section 2: The Influence of Women's Empowerment on Fisheries Management

ECOFISH helped improve the livelihoods and economic empowerment of coastal fishing households by providing training and input support for diversified and more resilient alternative income generating activities, including for women. 7,380 household members of the fishing communities received training on financial management and on on-farm and non-farm technologies, of which 59 percent were women. ECOFISH provided livelihood supports to 20,800 households, of which 50 percent of the beneficiaries were women. The activity helped women to raise their voices and speaking abilities in the meetings, even in the presence of men and government officials.

The assumption on promoting alternative income generating activities in the fishing communities was that the alternative income would both decrease pressure on the hilsa fisheries, particularly during fishing ban periods (the *jatka* fishing ban in March-April and the brood hilsa fishing ban in October), and increase women's empowerment, including through income, and would enable them to speak up more about fisheries management. This empowerment of women would create opportunities for micro-businesses and entrepreneurs development for fishing households. Based on choice and need, the project provided women friendly on-farm and non-farm input support and relevant training for fishing households. On-farm alternative income generating activities included goat rearing, pond aquaculture, poultry rearing, and homestead vegetable cultivation to provide nutrition in times of scarcity. These activities were adapted to local conditions to provide potential for scaling up in neighboring households and other fishing villages. Collective alternative income generating activities options, such as commercial vegetable cultivation and cage aquaculture, increased social cohesion through working in groups on a

cooperative basis with the neighborhoods and also strengthened linkages with local markets and service providers.

ECOFISH also encouraged fishing households to engage in resilient non-farm alternative income generating activities, such as tailoring, small grocery businesses, *hogla* mat, bamboo baskets, and 'Pebble' soft-toy stitching. These activities are less dependent on natural resources and provide year-round income through market linkages.

As a result of ECOFISH's support and training, fisherwomen's contribution to their family and community became visible and women's position in households improved. Women's alternative income generating activities have created new sources of income and opportunities for improved family nutrition. Women's capacity to produce vegetables, rear livestock, and engage in other opportunities increased. Consequently, fisherwomen are now supporting their male members during the fishing ban periods with money and household resources from their income. These women's contributions to family income have in turn reduced dependency on fishing.

Women in Chandpur and Bhola reported that they felt more comfortable sharing their opinions with their husbands after ECOFISH's interventions. Women said they could now play a better role in household decision-making. The economic empowerment of fisherwomen encouraged communities to increase women's engagement in fisheries governance and created opportunities to extend their positive influence through their role in decision-making. Women are now participating in meetings alongside their male partners and peers and sharing their opinions in meetings at all levels, breaking the age-old unwritten social restriction.

Women's economic empowerment also contributed to their increased engagement in fisheries compliance and enforcement. After women's empowerment increased, fishers' illegal activities have reduced, resulting in 90 percent compliance across all 136 villages. Some villages eliminated illegal fishing activities completely. Women are also keeping their husbands engaged in family activities like gardening, livestock rearing, and pond management during fishing ban periods.



Figure 02. Women are now contributing to family income through alternative income generating activities.

Women’s Influence in Fisheries Governance: ECOFISH has promoted women’s influence in fisheries governance, resulting in increased sustainability and conservation. Women’s participation in adaptive co-management helped identify and resolve potential conflicts and differences in setting management priorities between and within user groups. ECOFISH included women in hilsa conservation groups at the village and community level, and they advocated for reducing illegal fishing. Their inclusion in these groups positively contributed to improved decision-making for fisheries sustainability. The project also ensured women’s participation in union, upazila, and district co-management committees, where women openly share their thoughts on conserving hilsa fish and biodiversity for future generations.

After two years of activities focused on women’s economic empowerment interventions, women’s mobility increased significantly and their voices were heard. Women started feeling less constrained by social norms on dress and style, and they felt confident that they could contribute to their family as well as to the community. They started convincing their male counterparts not to illegally fish during the *jatka* and brood hilsa fishing ban periods and not to use illegal fishing gear during other times of the year.



Figure 03. Women participating in Hilsa Conservation Group and in district co-management committee meeting

ECOFISH worked at village, ghat (landing center), and the administrative level to ensure representatives from every stakeholders of resource users to establish a co-management system (Figure 3). The project, through two yearlong motivational efforts at the grassroots level, ensured fisherwomen’s participation in co-management committees at all levels, where they could share their thoughts to conserve hilsa for future generations. A gradual approach of developing building blocks and co-management committees and percent participation of fishers’ women is presented in Figure 4.

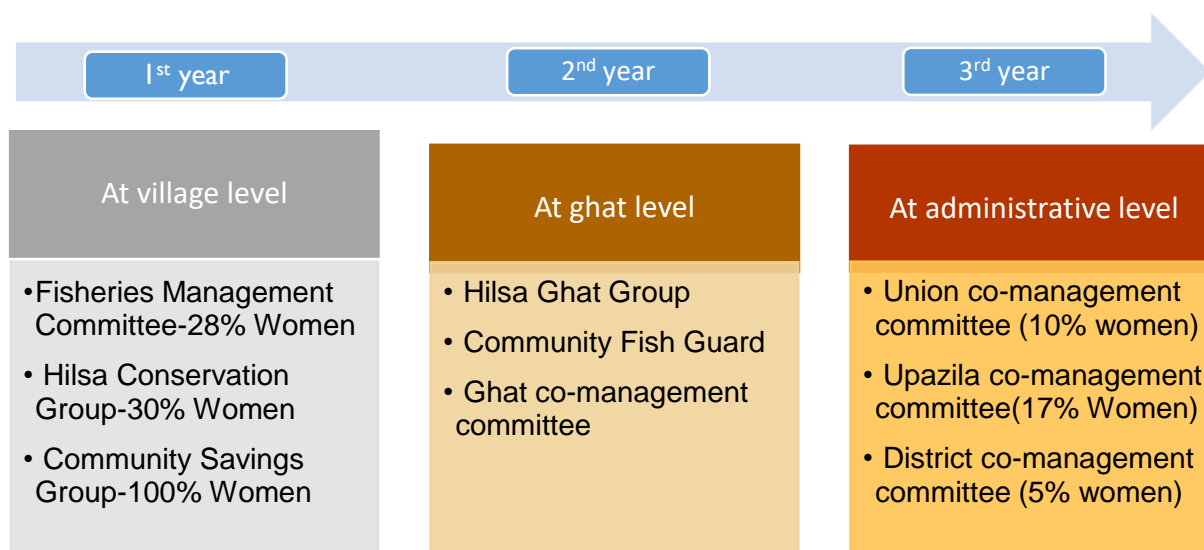


Figure 4. Building blocks in the co-management process

Strengths and Weaknesses of Pathways for Women’s Influence on Fisheries Governance:

Before interventions in each village, ECOFISH carried out a thorough village profiling with the help of local NGOs. Through focus group discussion and key informant information across the fishing communities, ECOFISH critically observed and identified the strengths and weaknesses of different pathways for women’s influence on fisheries governance, as shown in Table 1.

Table 1: Strengths and weaknesses of different pathways for women’s influence on fisheries governance:

Pathway	Strengths	Weaknesses
Women as leaders	<ul style="list-style-type: none"> ➤ Fisherwomen have leadership potential ➤ They have decision making power ➤ The have potential for empowerment 	<ul style="list-style-type: none"> ➤ Poverty and illiteracy ➤ Lack of participation ➤ Patriarchic system inhibits potential
Women as resource stewards	<ul style="list-style-type: none"> ➤ Participate in fish conservation ➤ Generate alternative livelihood income ➤ Raise awareness among children on conservation measures ➤ Fishing and nursing in small scale fisheries 	<ul style="list-style-type: none"> ➤ Social norms and insecurity ➤ Social orthodox ➤ Patriarchic system
Women in processing & trade	<ul style="list-style-type: none"> ➤ Participate in debone hilsa and add value ➤ Contribute fish drying, salting & packaging ➤ Assist in processing of small fishes 	<ul style="list-style-type: none"> ➤ Lack of training skills ➤ Lack of support from family ➤ Gender-based violence

ECOFISH observed that a good percentage of women in each village have some leadership potential, but they could not exert it due to poverty, illiteracy, and male dominated social norms. The project identified that fisherwomen can play a role in decision making if they are empowered through access to financial resources and income generating training and technologies. Women have the potential to play roles in conservation and surveillance of resources provided they are given opportunities in the face of current social and religious norms. ECOFISH strongly believed that the fisherwomen could be potential change makers in post harvesting fish processing and trading. Thus, as a first step, ECOFISH took the challenging but simple approach of introducing savings schemes, training on financial management and on-farm and non-farm technologies, and transforming women into a responsible income generating member of the family. ECOFISH found fisherwomen's pathways, primarily as resource stewards but also as leaders, have the potential to play a strong role in the small-scale coastal rivers fisheries governance in Bangladesh.

ECOFISH empowered women through formation of fisherwomen community savings groups. ECOFISH established 575 hilsa conservation groups, 63 hilsa ghat groups, 148 community savings groups, and 400 community fish guards as building block of fisheries co-management, where women's participation was ensured in all groups except in ghat groups and community fish guards. Fisherwomen's participation was mandated as follows: at 30 percent at all community levels, fisheries management committees, and union committees; and 10-17 percent at the higher level, upazila, and district committees. Community savings groups were formed with 30-35 women from the fishing households who are mostly the poorer section of even the fishing communities. ECOFISH delivered need-based trainings to all community savings groups and facilitated discussions on fisheries management, biodiversity conservation, and livelihood issues. After 24 sessions, the groups graduated under the close supervision of the ECOFISH district level team and NGOs. Community savings groups served as a gateway for fisherwomen's empowerment through which they played a greater role at the family, community, and higher levels for making influence that led to better fisheries management and conservation and compliance with the government rules and regulations. An underlying hypothesis of community savings groups introduction was that if the women in hilsa fishing communities were engaged in community savings schemes, their dependency on micro-credits and non-formal loans would be reduced and that would lead to better compliance with the fishing regulations. That would refrain the money lenders from compelling the poor fishers going for illegal fishing on jatka and brood hilsa using the illegal gears.

In practice, ECOFISH's interventions increased women's influence in fisheries governance, which in turn contributed to increased conservation efforts and sustainable fisheries. As a result of simultaneous effects of increased women's economic empowerment, enhanced capacity in decision-making, and improved access to finance, the hilsa fishery has now become more sustainable in Bangladesh. Through the ECOFISH activity's coordinated efforts with the Department of Fisheries and other stakeholders, total hilsa catch increased remarkably from 387,000 metric tons at baseline (2015) to 517,000 metric tons at the end (2019), just over a 5 year period. ECOFISH thus contributed to the revival of a dwindling hilsa fishery and enhanced the economic wellbeing of the fishing communities through inclusive gender participation.

Section 3: Women's Engagement in Fisheries as a Pathway to Empowerment

ECOFISH has engaged women as stakeholders in fisheries management and improved their access to financial tools, which has in turn provided a pathway for women's empowerment. Fishing households in the ECOFISH intervention areas had very limited access to flexible, low interest credit services customized to the local context. The micro-finance institutions and informal moneylenders heavily exploited the rural fishing communities. Whenever they faced economic shocks, they borrowed loans from different formal and informal moneylenders, especially during hilsa ban period, when this practice became more frequent. The community lived in a culture of age-old poverty and lacked a culture of savings. At the same time, women were very vulnerable in coastal fishing communities, as they depend on fishing income to support their families, and this income became less dependable. Women have very limited decision-making power, access to and control over resources, and participation in income generating activities. Moreover, patriarchal power structures directly influence women's lives, which caused barriers to their involvement in development activities. In addition, fishing communities did not typically invest in non-fish related entrepreneurship, which limited women's options further. During the fishing bans, most fishing households resorted to borrowing loans. Repayment of these loans was extremely difficult, especially because installments had to still be paid during the hilsa ban period. Since fishing as an occupation is only associated with men, women's work in fishing and in the fish value chain was mostly unrecognized and very limited.

To address women's limited access to finance, ECOFISH initiated community savings groups for the women of fishing households. In community savings groups, both the fisherwomen and ECOFISH contributed to a women-managed revolving fund, which community savings group members used for entrepreneurship development loans. Women in the community savings groups received training on savings management, business and leadership, along with social awareness for transforming gender attitudes and behaviors.

The project formed at least one community savings group with 30-35 women in each fishing village of intervention. By 2019, ECOFISH had formed 148 community savings groups, involving 5,180 women with a total savings of US\$ 159,210. 4,125 Fisherwomen received soft loans from this fund and reinvested their money in different businesses, such as tailoring, goat rearing, cow rearing, commercial gardening, grocery business, and poultry rearing. Each loan recipient re-paid her loans in 10 installments over a period of 10 months, excluding the jatka ban period, along with a nominal five percent service charge. This intervention helped the poor fishing families in the intervention villages eliminate the high interest exploitative loans from the non-formal loan sharks, known locally as *dadonder*.

ECOFISH introduced a Business Literacy School to provide basic literacy, business, and loan management skills to community savings group members with the objective to engage them in local businesses and trade. ECOFISH held 120 training programs and trained 3,758 community savings group members. In the capacity building meetings with the community savings groups, a

number of topics were thoroughly discussed. Topics included the importance of literacy, savings, and loan management; the role of community savings group in hilsa conservation; opportunities to improve livelihoods through loan activities; child education; food security; water and sanitation; child marriage and dowry; violence against women and girls, and community savings group development plans. These initiatives enabled women to increase their financial independence, improve dietary diversity in the family, improve access to clean water and sanitation, increase child health and nutrition through provision of nutrient-rich foods, increase the number of children in primary school, and reduce the violence against women at the family level. All these achievements created an enabling environment that encouraged the participation of fisherwomen in hilsa conservation.



Figure 05. Monthly meeting of community savings group and matching fund distribution



Figure 06. Small scale business run by fisher women

Figure 07. Women making toys

Increased access to financial resources and increased access to training and capacity building support for alternative on-farm and off-farm income opportunities contributed to fisherwomen's economic empowerment. In turn, women's increased economic empowerment has led to their increased engagement and increased influence in fisheries government. Women's engagement and influence in fisheries management eventually led to the increased conservation of coastal riverine resources and tremendously increased hilsa fish production as well as increased access of

fish to the poor fishers and non-fisher households. Women's increased economic empowerment and engagement in fisheries governance has had a positive impact on their households and fishing communities as well as on non-fishing communities, through spillover effects. The non-fishing neighbors of the fishing households and in some cases non-intervened fishing communities near the intervened fishing communities also came forward to play positive roles in the compliance of the fishing bans and regulations. Further, women's increased engagement in fisheries governance has increased conservation efforts and eventually enhanced hilsa fish production and fishers' income.

Section 4: Synergies across Strategic Approaches

From the beginning, ECOFISH implemented strategic approaches on access to finance, women's empowerment, and sustainable fisheries management in a coordinated, integrated way that recognized the complementarity of these approaches. ECOFISH adopted the strategic approaches of enhancing fisherwomen's access to finance to ensure the economic empowerment of women across ECOFISH's interventions in coastal waterfront sites. Women's economic empowerment has increased over the five-year project period. Increasing women's economic empowerment, through adoption of adaptive co-management, helped to accomplish sustainable fisheries management.

The ECOFISH activity focused on village and community profiling to understand poverty levels and household assets. Women, who make up 50 percent of the 20,000 fishing households, must be included to ensure community resilience. In recognition of the importance of women's inclusion, ECOFISH mainstreamed women's representation in all co-management committees, ensuring their inclusion in interventions in the coastal rivers in all of Bangladesh's co-management sites.

Fisherwomen's access to finance, formation of community savings groups and fisheries management committees, women's economic empowerment, and sustainable fisheries management together contributed to increased compliance and improved fisheries management in the Meghna River systems. As a result of their participation, fisherwomen and men from the communities became increasingly aware of sustainable fisheries management practices and thus compliance was improved.

ECOFISH's accomplishments have been recognized beyond Bangladesh, as shown by interest generated in Myanmar and India. A team from Myanmar, including policy makers, researchers, academics, and fishers' leaders visited Bangladesh and learned from ECOFISH's experience in 2019. The team participated in a two-day experience sharing workshop in Dhaka and made a field visit in Chandpur to observe the women-led activities in a model resilient fishing village, Uttar Bogula. The Indian fishers' associations and researchers from Kolkata have shown similar interest in a visit to observe the success of hilsa management in Bangladesh.

Barriers to Implementation

ECOFISH encountered some obstacles at the initial stage of intervention with the fisherwomen. Some of the major obstacles include religious conservativeness, older generation's negative attitudes towards women's participation in meetings outside their homes and meeting community men, negative propaganda of the moneylenders, and the strict purdah of not meeting outsiders, especially male members of the ECOFISH team. Through consistent, sustained efforts and support from NGOs and gender experts, ECOFISH addressed these challenges. After only one year, husbands learnt that their wives will not leave them or become arrogant if they attend the trainings or become economically empowered. Gradually, more women were inspired and supported to participate in ECOFISH programs in the following years. ECOFISH's gender empowerment approach through alternative income generating activities, livelihood support, and community savings schemes may be a global example for scaling.

Section 5: Conclusions

ECOFISH promoted science-based adaptive co-management and livelihoods and alternative income generating activities among a large number of fishing communities in the coastal river waters. Both activities engaged fisherwomen through involving them in all tiers of co-management and village level interventions and directly involved them in sustainable fisheries management. ECOFISH supported women through access to finance interventions and raised women's status and promoted their economic empowerment. The coordination among the three strategic approaches, including access to finance, fisherwomen's empowerment and engaging women in adaptive co-management, resulted in a remarkable change in fisheries governance and ensured better compliance in 136 fishing villages, fish landing centers, and at other levels. This improved compliance and fisheries governance has led to improved resilience in both the fish sanctuaries and the river systems. These achievements also triggered the success in enhancing compliance of the government management rules, ensuring better governance at the no-take or partially accessed sanctuaries, increasing uninterrupted recruitment of juveniles through adequate breeding of brood hilsa, and thus resulting in a dramatic increase in hilsa catch in Bangladesh waters.

ECOFISH's main achievements are the increase in the number of fish species in all rivers, including sanctuaries; greatly increased hilsa shad production, which reached the highest level in 30 years; and increased percentage of large size hilsa over 10 percent. The impacts of community led inclusive management approaches also increased the production and size of the river catfishes, such as *Pangas*, *Ayr*, *Rita*, and *Baghayr*. Therefore, fishers are catching more fish in a shorter time, which improves their family nutrition and income and results in more time for recreation with family and friends. Interventions to build the capacity of women through the Business Literacy School increased women's literacy and has resulted in more women sending their children to school. After ECOFISH's intervention, women's participation in co-management decision-making increased in ECOFISH intervention villages. Women are now raising their voice in different meetings and consider their position raised in the community. These women also influenced their

family members to follow government rules and regulations of hilsa and fish biodiversity conservation. Women's increased awareness and motivation in a large number of fishing villages resulted in spillover effects to non-ECOFISH interventions fishing villages as well.

Selected achievements, key lessons learned, and recommendations are summarized below.

Achievements:

- Women have received loans from community savings group funds, started businesses, and contributed to family income and nutrition.
- Women provide critical family income during fishing ban periods.
- Women's participation in savings and alternative income generating activities improved their family's livelihood status.
- An increasing number of women are interested in participating in co-management.
- Full compliance observed in the fishing communities during the brood hilsa fishing ban in October and the jatka fishing ban in March and April.
- Women's position in household and community elevated.
- Women's mobility, social networks, and social capital have all increased.
- Improved transparency in rice distribution through updating lists of fishers to identify fishers in the community that had previously not been included and connecting the community fisheries leaders with elected representatives and government officials.

Key lessons learned:

- Women can influence and improve their families' wellbeing if they are given access to finance and training and support for alternative livelihoods.
- Women can be change makers (through supporting husbands in compliance, destroying illegal gears, supporting the family during fishing ban periods) in biodiversity conservation and fisheries management.
- Women who received adult education in the Business Literacy School were more likely to send their children to school.

Recommendations:

- Ensure a respectable position for women in fisheries value chains.
- Promote recognition of women's contributions in biodiversity conservation.
- Ensure women's access to finance and various on-farm and non-farm technologies.
- Support fisherwomen in establishing their rights and privileges.
- Make women-friendly technologies (e.g., boneless hilsa, hilsa soup and hilsa noodles, smoked hilsa, processed and packaged hilsa) available in the fish value chain.
- Establish training facilities for fisherwomen in small-scale fisheries programs.
- Involve women in fish trading and promote market linkages of their products.