

# **Understanding the Nature of Community and Fishermen's Access in Water Bodies of Haor Areas at Sunamgonj District: A Case Study on Matargaon Ganger Aga**

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## **Abstract**

The article is the outcome of a case study conducted at *Matargaon Ganger Aga* water body of Jamalgonj upozila in Sunamgonj district. The challenges relating the access of the villagers in water body of *Matargaon Ganger Aga* was explored following qualitative method. Study findings indicate that the *Khas* collection and leasing of the water body has created tension and frustration among the villagers. Both of these processes have affected the life of the villagers adversely. The production of fish and regenerated fish varieties has been declined dramatically. As its result, the poor villagers who are dependent on fishing are experiencing loss of income. Without any alternative source of income, a socio-economic condition of these people has deteriorated. Moreover, the villagers cannot catch fish for their daily consumption. An indirect restriction has been imposed against the villagers to the water land by the leaseholders. This has severely affected free access of the villagers to their own water land. The water body has already experienced a gradual loss of water weeds, grasses, aquatic vegetables, zooplankton and trees for unskilled fishing after the government's initiative for *Khas* collection. Species of resident and migratory water birds are disappearing. The study observes that there was a clear conflict and misunderstanding between the villagers and local administration in this connection. Villagers have also become divided in favor and disfavor of existing leasing based on their personal interest. The villagers suggested that the existing leasing system should be changed in a way so that local community people get priority in the water land. They also recommended that local administration, community leaders, civil society, development organizations, villagers, lease holders and local people's representatives should seat together to have a way to get the rights in the water land back to the villagers.

**Key Words:** Fishermen, Access, Haor, Water body

## **1. Background**

Bangladesh is a country where most of the population lives in rural areas. Quite naturally, agriculture is the main livelihood of majority population. Geographically this country is rich for its water resources as there are extensive river systems, costal and marine zones and huge number of ponds, *Khals, Beels and Haors*. According to Ramsar Convention, more than two-thirds of the country's landmass may be classified as wetlands. About 34 per cent of land of the country is remains under water for almost six months (Fakhrul and Tulshi, 2007). All of these water bodies contain huge fish resource. This resource and geography has always encouraged a large number of populations to be engaged in fishing and fish related activities. In fact fishing is the oldest and still a widespread profession of a large number of village dwellers in Bangladesh. But nowadays there are various setbacks and challenges that frequently restrict original fishermen to be engaged in fishing. They are gradually losing control over water bodies. As open leasing system is money intensive and power centered, it has become very hard for the poor and disorganized fishermen to compete against rich and powerful section and therefore they loose access to water bodies. Natural fishing grounds have been captured mainly by powerful groups who are not real fishermen and this process is getting dominant day by day. It has resulted in unskilled and over fishing, indiscriminate killing of juveniles and mother fishes, destruction of spawning ground, water body control related conflict etc have become everyday matter in *Haor* areas. Fish resources including biodiversity of *Haor* areas have been severely affected by such subversive activities. The powerful groups take lease over government water bodies from district or upazila administration on the basis of few terms

and conditions. But the leaseholders usually do not follow the terms and conditions of fishing that are described on leasing document and the existing laws regarding this issue is not well organized that can specify all factors relating preservation of fish resources as well as bio-diversity and occupational diversity of the region. Government official's negligence to investigate leased water body frequently and corruption in leasing process are also important factors for such mismanagement and disruption regarding fish and other water resources harvesting process. Political forces also act negatively; they usually support leaseholders' activities as this process benefits them. According to local villagers, the production of fish has been decreased remarkably within the last couple of years. Given these realities, getting no alternative many of real fishermen have changed their occupation. They are not skilled in their changed occupations and therefore, these new occupations can not contribute substantial income for them and their survival has become critical. So the existence of fisherman community is under tremendous threat.

*Matergaon Ganger Aga* water body is the part of *Pagner haor* of Sunamgonj district which has a profound contribution in life and livelihood of the dwellers of *Matargaon* village of *Fenerbak* union from time immemorial. This is the only one source of water during dry season and fish for the villager and this water body was controlled by the villagers. The villagers got lease this water body on a token payment. But recently local administration has leased it to outsiders and quite naturally the poor and powerless villagers have lost their access and control over the water body. Present study has chosen this location as the area of investigation purposively. As a CSRL partner IDEA has conducted two consultative meetings with farmers, fishermen and small vendors where fishermen's access struggle in *Haor* basin was identified as an alarming issue of exploration. The issue of *Matergaon Ganger Aga* water body of *Matargaon* village has become a national issue in discussion. A sanctuary (made and cared by the villagers) is located inside the water body which was contributing positively in biodiversity conservation as well as the life and livelihood of the villagers. It is demolished by the recent administrative action by local Upazila administration. It was widely covered by local newspapers and there was civil society awareness on this issue. Still the villagers are struggling to get access in this water land. That was the valid ground to select this village to document the challenging factors regarding villager's access in water resources. Although the study has targeted a particular area, the findings and recommendations have addressed many of common issues regarding government water bodies and biodiversity of the country. Therefore, the study has national value. The access of fisherman community and poor villagers in water bodies is shrinking continuously and it affects negatively the fisherman community, poor village dwellers and our resourceful biodiversity of *Haor* areas. Thus, the access of fishermen community in government water body needs to be ensured and research on this issue can find out ways how it can be materialized.

## 2. Study Objectives

The main objective of this study was to delineate the challenges relating the access of the villagers to the water body of *Matargaon Ganger Aga*. However the specific objectives are-

- Determining and documenting the factors why villagers and fisherman community is fighting to establishing their right to access in water body
- Analyzing state policy and role, role of vested interest and power groups in harvesting the production of water body
- Delineate the impact of 'not fisherman' people's control over water body and water resources
- Identify how poor villager's and fisherman community's access to respective water body can be ensured.

## 3. Methodology

With the objectives of an in-depth exploration of the problems experienced by the villagers to get access in water resource, the research project used qualitative methodology designed to identify meanings of challenges, its impacts and pattern of external pressure on their everyday life and livelihood. The design followed the guidelines of ethnographic research. Since the findings of a research are heavily dependent on reliable data sets and their analysis (Patton, 1990) this research focused heavily on the field work phase. During the fieldwork the researchers stayed and interacted with various stake holders. This study was designed to make use of both naturalistic observation and interview narratives to explore the livelihood of the villagers from within their natural environment. The study followed in-depth, open-ended interviews and direct observation along with informal and formal discussion as techniques for collecting data from the participants. Three focus group discussions (FGD) were also conducted. Fishermen, villagers, lease holders, civil society men, local elites,

development activists and respective government officials were the sources of information. Government laws and provisions regarding leasing system are also used.

#### **4. Findings of the Study**

##### ***How Conflict was Originated?***

*Matar Gaon Ganger Aga* is located at the ending point of *Dolta* River. Villagers and fishermen from other close distant villages used this water body as source of regular fish consumption, as well as household use. In the courses of time the depth ness of this water body was shrinking and it was silted. Taking lease from government, few of the villagers started paddy cultivation on parts of the water body. This water body was termed like community property after 1985. Taking lease on token payment villagers got right from the government to use this water body for their everyday use in 1986. Then it was under Sylhet district administration. This process continued up to 1996. In 1997 Sunamgonj district administration leased it to people who are not the dwellers of *Matergaon* village. Lease holders applied de-watering method for catching fish and as its result life of the villagers were severely affected. This was the beginning of conflict between district administration and villagers and the lease holders also involved in this conflict as stake holder. Following the conflict in 1998; local elites, political forces, lease holders and villagers sat together and agreed that the water body will not be leased through existing procedure, it will remain as previous position and there was agreement that nobody will participate in government leasing process. In 2001 villagers took initiative with a project support facilitated by CNRS to make a sanctuary which will be maintained and protected by the villagers themselves. Villagers dug the silted part of the water body taking accent from the Chairman of *Fenarbak* Union Parishod. They also applied for permission to the UNO of Jamalgonj Upazila in 2000. After their intervention this water body became perennial from seasonal and became resourceful. Villagers declared the 1.03 acres of deep part of the water body as sanctuary consulting with the other stakeholders. Focus of the project was to regenerate the biodiversity of this water body and to ensure villager's access in this water body. Project was phased out in 2005. Villagers were protecting the water body from de-watering as well as fishing was restricted inside the sanctuary. As its result, according to the villagers, lost varieties of flora and fauna reproduced and especially fish resource was growing rapidly and gained great ecological, economic and commercial values. In 2004 the water body was leased to *Laksmipur* Youth Association. Villagers initiated movement against it and the lease holders were compelled to leave the water body. The water body was out of leasing from 2004-2006 and the villagers were protecting the water body as previous fashion. In August 2007 the villagers applied to Sunamgonj district administration for getting right to the water body on token payment basis for protecting the sanctuary and practicing their traditional rights on the water body. They urged to the administration to take initiative so that the water body is out of regular leasing system for ever and the sanctuary can be preserved. The district administration processed the application in favor of the villagers and sent it to land ministry. In September of the same year the villagers also sent an application to the Secretary of the Ministry of Land for declaration of excavated part as permanent sanctuary. But both of the applications were rejected by the ministry in 2007 saying that there is no government provision to lease or hand over any water body on token payment basis. Then the district administration suggested Upazila administration to take action as per existing rules. Following this decision Upazila administration took initiative to lease the water body in same year. But they failed to lease it due to tender related complexity and initiated fishing for collecting revenue which is known as *Khas collection*. There was a conflict between villagers and Upazila administration on the spot of fishing. However, fishing was done at last by the administration. In 2008 Upazila administration has leased the water body to *Sukhdevpur* Youth Association for three consecutive years. The villagers took part in leasing process and despite being highest bidder; they did not get it as they failed to collect money. However, there was lack of consensus among the villagers on this issue. At the time of our discussion with the lease holder it was evident that the villagers are not united, a section supported the leasing and participated in leasing system indirectly in favor of the lease holder. According to lease holder, this group has share of leasing and benefit will goes to them. Our third FGD with villagers proved lease holder's statement as true. Although most of discussants were trying to proof their unity, few participants including an older person uttered that 'we have some villagers who are connected with the lease holder and shall share benefit from the water body'. However, the villagers, except very few interest seekers are still trying to earn right in this water body through any legal process except leasing.

##### ***How Sanctuary Helped the Villagers as well as Biodiversity Conservation?***

Two types of opinion were found regarding the usefulness of sanctuary. Though the villagers termed the sanctuary as their asset, the local Upazila administration did not recognize even its existence. According to villagers, once it was declared as sanctuary, villagers stopped fishing from the sanctuary area; they took care of fish and other water resources. They protected it like their common property as they became sensitized towards

sustainable water resource management by Center for Natural Resources Studies -CNRS (an organization working for bio-diversity conservation in *haor* areas). One older villager told,

*“Nobody catch fish from the sanctuary, if someone goes for fishing he is prohibited by the villagers and even his brother takes position against him. Everybody consider it as his own property.”*

Another villager mentioned,

*“Nobody could initiate fishing by de-watering as it was not anyone’s personal property and mainly because of this habit, the amount and varieties of fish was growing rapidly. As well as different types of water weed was growing rapidly. But it has already affected after government intervention in the name of Khas collection. They operated massive fishing last year and caught almost all fishes of the sanctuary. This year the sanctuary is leased to a person who is an outsider. We are afraid, our experience is that the lease holders operate de-watering method for fishing and this process destroys fish and flora of water body.”*

Almost all of the participants showed their position against the leasing system and termed it as very negative for bio-diversity and for production of fish as well. Fishing methods generally practiced by lease holders are destructive for the environment and fish; in fact, it has impact to the whole *Haor* system. They observed-

*“De-watering method of fishing is the killer of fish and other water resources. It kills all flora and fauna of water. After drying all fishes is caught and the water weeds are automatically died. Sometimes lease holders apply poison on mud so that all fishes hidden under the mud is appears and they catch it. This process kills all lives including snails. We do not see birds now, because all of their foods are killed by de-watering method of fishing. De-watering method of fishing is only possible if it is leased to a person; considering his own property he try to maximize his profit and there is nobody who protect him as he has gained legal right on water body. But if the water body is not leased, all users consider it as collective property and any person can not initiate anything on it.”*- the villagers uttered.

A teacher, also a villager shared his experience,

*“This water body had few varieties of fish before making sanctuary by CNRS. It has increased quickly after its excavation and declaration as sanctuary. Many lost varieties like SADA PABDA, GUTIA, RANI, GUNNA etc are seen at large number. The size and production of other fishes are also increased. But it has started to disappear again just after KHAS collection by the Upazila administration. Indiscriminate catching is the main cause of such change. As this water body is leased this year, the flora-fauna will be disappeared like other water bodies of this region.”*

Villagers reported that this water body is the only source of water for regular consumption like bathing, cleaning cloths and livestock etc. We found the statement true and practically observed its use.

We found opinion of government officials completely opposite from the villagers. One of the government officials who had role in leasing system support leasing and he consider it as positive for the increase of fish and other water productions. We asked him how? In response to our query he reported that-

*“Lease holders protect harmful fishing methods that are practiced by fishermen and villagers. They use current net which is the enemy of fish and it kills all seed fishes including small water insects. This process is practiced in every water body, even inside the sanctuary. Almost all lease holders follow pile fishing except some small lease holders. As pile fishing is maintaining, varieties is increasing and other water resources are protecting.”*

Following our discussion with the villagers and CNRS staffs, we noticed to the concern official of upazila administration that about one acres of land inside the *Matergaon Ganger Aga* water body was excavated and has been declared and maintained as sanctuary by villagers. But he had special observation on *Matergaon Ganger Aga* water body-

*“I found no sanctuary practically when I visited the whole area when I was crossing the water body by boat. People were catching fishing on and around that water body; there was no sign of sanctuary. If it is sanctuary, there must have some protective measures. I did not see anything like that”*-he told.

***How was Affected the Villager's Access in the Water body after Khas Collection and Leasing***

In April of this year *Matargaon Ganger Aga* sanctuary has been leased and the lease holder is an outsider. Due to this new environment and ownership some problems have already been created. It has already mentioned that the villagers used to utilize the water body since time immemorial like their common property. So naturally the new system of ownership has created some basic problems regarding access to the water body. We had long discussions and independent in-depth interviews with the villagers. Villagers identified following problems regarding access in water body-

- Villagers can not catch fish even inside their own land where water is connected with leased water body.
- Although leasing land is about 150 meters away from houses, fishing is restricted around the village during rainy season. Lease holders restricted villagers access in all connected water bodies
- Can use water for regular consumption but sometimes people of the lease holder forbid them, break bamboo made bathing place
- There is a growing conflict over resources between the local community, local administration and the leaseholder of the water body and the villagers have started to avoid the water body fearing conflict.

One of the villagers told-

*"Although they have not imposed restriction using water for regular consumption and people can use water body for bathing and household use, fishing is restricted. Villagers don't want to go into this water body fearing loss of prestige-lease holder's security men may forbid them. "*

We have observed the practical scenario and found few evidences in favor of the statement presented above. Lease holder has set a security camp on the bank of the water body.

We had discussion with the lease holder also. He told us-

*"The water body can be used by the villagers for household use but we do not allow fishing in water body. Our people take care of it. Few of the villagers are sharer of the lease and they can observe it, we shall engage security men also to protect night time fishing. "*

However, the upazila administration had a special observation on the total process. They viewed that this water body is not the only one source of water of the villagers; they have other sources closer to the village. So, according to them, leasing system shall not affect the villagers at all. 'A section of the villagers who were using the water body to serve their own interest, only they disputed against leasing.'- they added. They raised some legal aspects and obligation in favor of leasing. Although the water body is a government property, CNRS, an NGO excavated the government water body without having any contract or lease from the government. They are compelled to earn legitimate right over the land, but they ignored it. On the other hand villagers were also reluctant to be engaged in a formal contract with the government-that is leasing. We were noticed by them that they personally were sensitive and were willing to lease it to the villages and took some steps but the villagers did not go to the right directions. Instead of this villagers applied force against government employees, harassed them when they went there for *Khas* collection- they observed. Getting no alternative they had leased the water body to a Youth Association following government leasing procedure and this process will not affect the villagers and will not create any problem for any body-they added. However, the leasing process generated tension and there were clashes between local administration and villagers and cases were filed against the villagers. At last, older people of the village were forced to give written commitment to the Upazila administration that they will never hamper leasing system and will not go there for fishing.

Although we found nobody from fisherman community in *Matargaon* village, there were few poor people whose livelihood is depends upon fishing. According to villagers getting no alternatives for survival they have engaged fishing. This group of people is severely affected by leasing. Now their income has dropped about fifty percent since they can not catch fish freely and varieties of fishes have declined due to over fishing by local administration last year. One of the poor villagers who has become a fisherman reported that-

*"There was no de-watering method of fishing before leasing; we had available fish in rainy season. But now we get nothing, all mother fishes are caught in the name of Khas collection by the administration last year and therefore production has dropped dramatically."*

Villagers viewed that the government intervention has been started as the water body became resourceful after making a sanctuary inside the water body. They observed that the government did not take any

steps to excavate the silted water land; rather they left it as useless. Just after its excavation few of economically and socially powerful groups have become active to gain benefit and have influenced government to arrange open bid for leasing. The villagers did not earn legitimate rights before excavation and it has become difficult for them to gain it because the resourceful water land is demandable to many rich people who are willing to pay large amount for its ownership.

We found a special technique adopted by the lease holders. Villagers reported that one kind of seeds locally known as *Tomal Gota* is put by the lease holders in the distant water bodies that are out of leasing. This seeds are poisonous and in its affect, all fishes flew and take shelter inside leasing lands. Sometimes fishes are died also. This process substantially reduces fish in water bodies where fishermen have access. Moreover, as large number of people engages in fishing there, amount of fish is declining and after near future all water bodies shall remain as resource less-they observed.

#### ***Problems Regarding Bio-diversity Protection***

Unsustainable harvesting policies and lack of ecological considerations have led to the destruction of valuable wetland habitat for fishes, birds and other associated biodiversity in *Haor* areas of Sunamgonj district and our research site was not an exception. We asked the lease holder how he will catch fish. He had a very careful and sensitive response. He notified that the water body is the source of water of the villagers and therefore he will not act on there in a way so that villagers get into trouble. He told-

*“I have taken the lease for the first time. As this water body is used by the villagers for regular household use, it would not possible for me to operate de-watering process of fishing. We will have to catch fish using net only so that water remains usable.”*

Villagers view it differently. Though fishing is not started by the lease holder yet, they have found evidences that are alarming and they fear that the lease holder will act like other lease holders of this region. One villagers opinioned that-

*“He will try to maximize his profit and will apply all possible measures to catch fish. He has started to clean the bank of the water body. He has set security camp. It seems that fishing will be started soon despite having government restriction on fishing for the first two years of three years leasing.”*

Villagers have negative experience form previous leasing year and last year when Upazila administration caught fish under the provision of *Khas* collection. According to the villagers an abnormal fishing was done at that time. Cleaning all water grasses and trees, they used various kinds of traps and nets, made the water body muddy and almost all fishes were caught. Few bad impacts of over fishing are observed by them. Those are presented below-

- Destruction of water weds and grasses, aquatic vegetables, zooplankton and trees for unskilled fishing
- Destroying all living stuff including mollusks and snails that are used as food for birds
- Species of resident water birds are disappearing.
- Migratory water birds are barely seen
- Destroying fish varieties due to over fishing and using current net and *PONA* nets. As its result fisheries production has been declined.
- No brood stocks and year class

However, the concern government officials termed leasing system as positive both for bio-diversity as well as for the production. Pile fishing is followed in most of the water lands and thus fish production is increased, he observed. Moreover, only few of the fishes were caught through *Khas* collection. According to them villagers initiated abnormal fishing before government intervention.

#### ***Leasing Process Restricts Fishermen's Access in Water Resources***

Although the issues of poverty alleviation and socio-economic development of fisherman community and the increase of fish resource are reflected in the Government Water body Management Policy 2005, some limitations of this policy discriminates poor fisherman community. It is said that the fisherman association shall get priority in leasing system for more than 20 acres water land and it will be administered by district administration. If fisherman association is not found eligible for the first bidding, the policy has a provision to offer open tender for second bidding where anybody can participate. Due to this provision, in most cases poor fishermen can not get access to the water body and local elites or influential rich people take lease and make business from the water body. Less than 20 acres of water lands are leased by Upazila administration. In this leasing system, special attention has been given to youth association and there is no obligation or priority for

fisherman youth association and that is why, in most cases the fisherman community fails to compete with rich or influential groups and automatically fails to gain control over water lands. There is another dimension here, in most cases it is seen that the youth society is not holding the lease, another powerful/influential/affluent person take lease in the name of any youth society. According to community people of the study area, the youth association members are from different village and they are not lease holder, their society name was used as it is government's provision and the original lease holder is a politically influential rich person whose relative is local representative and the person does not belong to fisherman community. Members of youth association get some money from original lease holder as their name is used just for maintaining formalities. Our observation proved that the local administration know all these matters very clearly. Though *Matargaon Ganger Aga* water body is leased to a youth association, the ownership is belongs to the president only. In most cases it is seen that the youth society and fisherman society do not have economic capacity to participate bidding and this limitation works as opportunity for the elites and rich people. People belonging rural power structure or whose relatives are in power they have preference in getting lease. Village politics also have influence over leasing. Local administration sometimes become over active to lease in the name of revenue collection ignoring community people's interest and opinion. It generates conflicts between villagers and local administration as well as among the villagers as there are interest groups in favor or disfavor of the leasing. We found it real in the case of *Matar Gaon Ganger Aga*.

In Government Water body Management Policy there are water body management committees at Upazila and district level whose members are mostly government officials. These committees are responsible to monitor the activities of the lease holder to ensure the spirit of policy (protect, preserve and development of fish resource). Unfortunately in most cases this committee remains malfunctioned except completing leasing formalities. Even in many cases conditions are not verified and followed accurately when leasing is made. We came to know from government officials that there is no monitoring after leasing whether the lease holders are following the regulations regarding the use (Catching fish) of water body. According to villagers, journalists and civil society men of research site, this rich and socio-politically influential people take lease to make business and most of them do not have idea about appropriate fishing. Poor fishermen or villagers, who are dependent on fishing, get opportunity to engage there in various indirect manners under their strong control. Poor fishermen are used as fish labor for a particular period when fishes are collected. In some cases fishes are sold to fishermen and they collect and sell fish at local market. They are locally known as *NIKARJ* or *PHORIA*. The money for such business is generated form local *DADON* system. In this system, rich people invest money in advance ensuring very high rate of interest. In few cases one or more shares are sold to a fisherman who collect money form informal sector i.e. local rich person.

## 5. Recommendations

Government policy regarding leasing system heavily affects the grassroots fisherman community as well as people who are dependent upon water resources and fish for a particular period when work other than fishing is not available for livelihood. We found *Matargaon Ganger Aga* water body as a community property before this leasing and had a profound contribution in the life and livelihood of the poor villagers who are dependent on fishing. Following existing leasing system local administration has leased it to a youth group whose members are outsiders. About 35 family's income is severely affected by current leasing system. Creating job for the rural poor and ensuring bio diversity is important equally to the government. However, both of these are under threat here in *Matargaon Ganger Aga* by the government intervention. Therefore, appropriate intervention is needed immediately in this regard. Objective of leasing should be changed from revenue focused to biological management of fisheries and ecological management of habitat. The dwellers of *Matargaon* village do expect that the water body will remain as sanctuary. Based on the findings of the case study and the suggestions of the villagers, we have delineated few recommendations to ensure fisher folk's access in the water body. These are presented below-

- The leasing system should be changed in a way so that the rights of community people as well as fisherman community in water resources are protected and ensured. In leasing system priority should be given to those people who have experience in regulated and sustainable fishing. This is the villagers and fishermen who have right to access and the water body should come under the control of the villagers. A national review committee can be formed by members of fisherman community leaders, NGOs working in this sector, technical experts, researchers, environmentalists, civil society men, elected public representatives and government officials.
- A coordination meeting can be arranged with the local administration, *Matargaon* village dwellers, *Fanarbak* Union Parishad representatives, lease holder and CNRS to find a way to recreate the sanctuary and to ensure villagers access in water body like before.

- The study observes that there is a clear conflict and misunderstanding between the villagers and local administration. CNRS has also involved here as actor. It must be reduced. *Haor* Group can organize a discussion among the parties so that every party can be sensitized on the issue.
- Conflict should be eliminated between the two groups of the villagers. A group of people who found way to earn some money from the lease holder are supporting leasing. Considering this practical issue, CNRS should move forward and can work to rebuild unity among the villagers.
- Legal rights and permission must be earned before implementing any development plan. It was the responsibility of the CNRS to earn legal right and permission from the government before creating sanctuary by the villagers. As they ignored it, a legal space was created and the local administration took the opportunity.
- Local administration should be more sensitive towards the needs and interest of the community people. *Matargaon Ganger Aga* water body is located inside *Matargaon* village and it has a history of conflict, occupation, re-occupation and restoration. As a sensitive issue it could be given special attention and an alternative way could be found out by the administration. Now they can cancel the lease and can help the villagers to recreate sanctuary as it is very much consistence with the objective of the government policy on its water body management-to development of fisherman community and to protect and maintain biodiversity.
- Cooperation can be made with electronic media to document and telecast the issue of *Matargaon Ganger Aga* sanctuary so that higher level government authority can be aware about its significance.
- A voluntary committee can be formed to protect the sanctuary. If it is possible to recreate it avoiding existing leasing, both villagers and the biodiversity system of this area shall be benefited. Villagers, local administration, CNRS staffs, local elites and peoples' representatives can be included in this committee as members.

However, there are steps should be undertaken to ensure the access of the fisherman community in government water bodies. Local level needs and interest should be given priority in leasing process. Representatives of fisherman community should be involved in fish resource management including leasing process. NGOs can organize and form community based organization and can support them in gaining rights in government water bodies. Though there is a provision to lease water lands to fisherman association or youth association, and theoretically it is followed by the government official; different picture is found practically. Lease is made in the name of association but it goes to local elites or politically influential people who are materially solvent. Almost all of these lease owners are not from fisherman community and don't have previous skills regarding fish harvesting and conservation. Therefore, over fishing and destructive fishing is frequently administered by them. It must be protected through proper monitoring and utilization of legal action. Governance issue in regard to leasing of water-body should be critically reviewed. Water resources should be managed by the community people. Once a water body will be controlled by large number of people, it is expected that there will have a community feelings and as common property anybody will not be able to misuse it, which we have seen in the case of *Matargaon Ganger Aga* sanctuary. As lease holders occupy whole water body connected with his leasing land, leasing land should be marked clearly by law so that rest of the water body is free from the occupation of lease holder and fisherman and community people can get access there. It can reduce conflict between lease holders and community people. Upazila water land management committee should be more active so that the lease holders use water body following terms and conditions set by the government. De-watering of fish grounds, use of poison and spare fishing of parent fish must be stooped and if it is possible, bio-diversity will be improved. As well as part of the revenue should be spent for development of water-bodies, conservation of fisheries resources viz. re-excavation of degraded water-bodies, establishment of fish sanctuaries, and other conservation measures. Research and workshop should be organized frequently so that water resources can be identified properly and appropriate model for protection, maintenance and harvesting of water resources can be developed. All stakeholders can be sensitized by this process also. Grading of water bodies should be made as per quality of habitat and fisheries resources based on empirical data and information.

In national water land management policy 2005, there is no specific rules for the lease holders to preserve bio diversity. So the issue of bio diversity conservation must be included in the policy. As Bangladesh has signed and ratified Bio Diversity Convention, it is an obligation to the government to ensure bio diversity protection. In 1992 government adopted environment policy that must be implemented. Sustainable environment management should be ensured as per the Bangladesh Environment Conservation Act (BECA). Though the objectives of the National Fisheries Policy covered the ecology biodiversity conservation issue, it ignored the rights of fishermen in government water bodies. This policy should be modified ensuring fishermen's access in government water bodies. Community people should be organized and it is important to sensitize them in favor of the protection of water resources. Education and awareness raising activities should be



organized to promote understanding of the need for water resource conservation. Fishing restriction can be introduced for few days during breeding season. Training on conservation of bio-diversity should be provided to the lease holders and community people to sensitize them towards the importance of the issue of bio-diversity. The NGOs have capacity to initiate those steps. Therefore, the government should seek cooperation among GO-NGO and fishermen community in the management water resource at *Haor* areas.

## 6. Concluding Remarks

In most cases it is seen that people of *Haor* region have limited sources of income. Agriculture is practiced here for about six months of the total year and rest of the time cultivable lands remain under water. This reality has created massive poverty among most of the dwellers as they don't have enough income from agriculture and therefore, they engage in fishing. Hence these people survive on fishing for a certain period of time; legal protection, monitoring or motivation may not be the only way to resist them from unplanned fishing. Therefore, creating job opportunities for the poor and arranging alternative sustainable livelihood for the villagers who are dependent on fishing can help to protect, preserve and develop water resources. As the socio-economic condition of fisherman community is very poor, comprehensive program for changing economic situation of *Haor* dwellers is essential. Development of fish resources, to ensure their access in water bodies as well as creating alternative livelihood is needed for the advancement of this community. Sweet water fishes of Bangladesh have international reputation. This sector can create huge number of job opportunity as well as it can be one of the dominant sources of earning foreign currency for the country if it is properly managed. Since traditionally fisherman community has knowledge and skills in sustainable fishing, their massive participation and access in water bodies can contribute positively in fisheries sector and their socio economic situation will be improved automatically.

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