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## **OBSTACLES TOWARD HUMAN AGENCY: A STUDY ON CBFM PROJECTS IN WATER RESERVOIRS IN NORTHEASTERN BANGLADESH**

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### **Abstract**

This study examines to what extent participation in collective fisheries management constrains fishers' individual agency towards adjusting with environmental and economic vulnerability and ensuring a sustainable livelihood through marshaling resources and skills. Unequivocally, this research aims at exploring the factors that fade away individual agency in collective action. In the context of Tedala-Chatol-Hoglia Beel in Dakshin Sunamganj, Bangladesh, it reveals that community-based fisheries management (CBFM) facilitates fishers' access to resources in the fisheries, participation in collective decision-making processes and transfer of resources and skills from fisheries to other enterprises for extending livelihood options. But the fishers fail to achieve socioeconomic freedom to live a decent life over the years. Hence, we seek, to what extent does collective action restrain fishers' individual agency in Tedala Beel? Using in-depth interviews and focus group discussions (FGDs), it shows that social position allows some fishers to modify rules and resources that improve their individual capacity of acting rationally in different occasions, while others agency is undermined by the same rules and resources.

**Keywords:** Human agency, Fisheries management, Access to resources, Collective action

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### **Introduction**

Based on theories of structuration and collective action, this research critically explores how social structure in the form of rules, practices, and use of resources constrains human agency. This paper links the obstacles to human agency with unequal access to resources, lack of livelihood and response diversity, failure to transform resources and

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skills and local power dynamics. Human agency has now emerged as a prominent approach to enable fishers to obtain a sustainable livelihood in community-based fisheries management (CBFM) programs. This study considers agency as the long-term adaptive capacity of fishers to respond to environmental and economic changes for attaining a living by using resources and skills. Also, it combines Giddens' (1884) and Cleaver's (2007) perspectives on human agency that underscore structural factors that may either enable or constrain individuals and communities to achieve sustainable livelihood. Specifically, this study examines the factors that constrain fishers' agency in collective action in the context of Tedala-Chatol-Hoglia Beel at Dakshin Sunamganj, Bangladesh.

For enabling inland fisher communities to adapt to social-ecological stresses and to sustain their livelihood by using the benefits of social-ecological systems, the government of Bangladesh has embarked CBFM program in association with non-government organizations (NGOs) since 1996 (Sultana and Thompson, 2004). By and large, CBFM assumes equal benefits for all fishers in collective fisheries management. Notably, the CBFM project aims at delivering benefits from fisheries to communities, generating income from alternative sources to regulate fishing and improving fishers' personal skills through training and education programs (Thompson, Sultana and Islam, 2003). Furthermore, it underscores connecting new knowledge to localized customary views about ecology to improve sustainable use of fish resources and livelihood of fishing communities, including the ability of fishing communities to make their own decisions freely about the future of the resources (Thompson, Sultana and Islam, 2003).

Currently, the approaches to human agency in CBFM emphasize fishers' ability to encounter natural disasters and to maintain the flow of resources equally for both present and future generations. According to Kabir, Yew, Noh and Hook (2013) and Dickson (2007), CBFM has significantly improved fishers ability to manage fisheries because of their active participation in decision-making and institution-building processes in Bangladesh. Additionally, it is evident that CBFM improves sustainable use of fisheries by involving all probable stakeholders in decision-making processes and by generating benefits especially for poor fishers (Pemsl and Seidel-Lass, 2010; Sultana and Abeyasekera, 2008). Again, Fatema et al (2016) reports that CBFM significantly improves the productivity of the water reservoir and fishers' income and their ability to enlarge livelihood opportunities. There is little doubt that collective management smooths poor fishers' access to fisheries and

resources, but these studies overlook the factors that might limit the productivity of the fisheries and individual agency of fishers.

Some recent studies, however, suggest that sustainable livelihood of the poor fisher communities and maintenance of fisheries for future generations in Bangladesh has not significantly improved despite a prevalent use of CBFM throughout the country. For Khan (Khan et.al 2016), the interference from the locally powerful people and the participation of fishers from diverse occupations in managing the fisheries squeeze fishers' chances to strengthen the hold over fisheries and resources. Also, improper vocational training for improving skills, income and the output of the fisheries ignoring the needs of the fishers and their imbalanced interactions to make decisions and perform activities to manage the fisheries exert as obstacles to a sustainable livelihood (Mamun, Brook and Dyck, 2016). Likewise, other studies point to the long-standing problems of the CBFM programs. For Islam, Shzee and Yew (2013), CBFM still fails to facilitate poor fishers' access to fisheries, and to improve the production and sustainability of fishery resources.

In addition, Murshed-e-Jahan, Salayo and Kanagaratnam (2009) suggest that unsustainable fishing methods to exhaust resources from fisheries, excessive number of stakeholders in a fishery, weak organization, conflicting interests between fishers hamper sustainable livelihood in collective fisheries management. Further, the absence of a cooperative mechanism to understand the strengths and necessities of stakeholders living around the fisheries and proper regulations can exacerbate fishers' livelihood and the outcomes of CBFM (Hossain *et al*, 2006). Nevertheless, to what degree collective action constrains individual agency is absent in these researches.

It is obvious from the above studies that CBFM provides fishers access to fisheries and improves the productivity of the fisheries. But the return from the fisheries does not guarantee a sustainable livelihood. It is, therefore, important to investigate the factors that hinder fishers' agency in collective management. However, this study aims at exploring how community based fisheries management—with new set of rules, practices and use of resources—constrains fishers' agency to cope with environmental risks and economic difficulties to acquire a viable living.

## **Objectives of the Study**

For a sustainable livelihood, individuals follow persistent collective actions to enhance their agency in community-based fisheries. But this study would critically examine the limits of collective action in generating individual agency in Tedala-Chatol-Hoglia Beel.

The objectives of the research are as follows:

- to examine the extent to which fishers' participation in community-based fisheries management improves their access to resources
- to investigate the characteristics of collective action that constrain fishers' adaptive capacity to cope with changes in the environment or market
- To understand fishers' obstacles to adopt new ecological knowledge and practices
- to explore how collective action restrains fishers' ability to transform resources and skills to achieve agency
- To find out how disturbance from the locality hinders fishers from achieving agency

## **Rationale of the Study**

This research investigates the state of human agency at both individual and collective level, specifically the shortcomings of collective action that constrain individual agency in a community-based fisheries project at Dakshin Sunamgang Upazila<sup>1</sup> situated in the north-eastern part of Bangladesh. By evaluating the downside of CBFM approaches to development, this study would enhance knowledge about particular socioeconomic and environmental contexts in which collective action limits the ability of individuals to participate in making decisions and using resources to overcome the obstacles to their agency.

## **Methodology**

This research utilizes in-depth interviews and focus group discussions (FGDs) to examine to what extent collective action restrains fishers' agency in Tedala-Chatol-Hoglia Beel. A total of eighteen interviews and three FGDs are conducted to assess the drawbacks of collective action that limit fishers' individual agency. Interviews with the fishers give an overall understanding about their participation in the Beel management, monthly meetings, income and occupation and knowledge about

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<sup>1</sup>Dakshin Sunamganj Upazila is an administrative sub-unit of Sunamgang district, which is located in the northeastern region of Bangladesh. This Upazila is full of numerous small, medium and large Beels.

ecology, while FGDs inquire about their collective activity to mobilize resources and skills for overcoming ecological or economic stresses. This study recognizes both individuals and group of fishers as units of analysis. This research employed convenience sampling to select respondents who gave consent to take part in this research from the fishers of 'Tedala Hoglia Chatol Beel Users Organization. A fisher was asked to serve as a key informant to identify and interview the respondents.

Interviews and FGDs were conducted in person and they were recorded. Also, collected data in terms of filed notes and transcriptions was transcribed and interpreted during and after the fieldwork to describe core issues and processes regarding collective action and agency. This study strictly maintained the privacy of the respondents. Additionally, personal observations were applied to analyze agency in addition to collected primary data. A small number of interviews and time constraint restricted the opportunity to outline major themes about collective action and human agency.

### **Theoretical Framework**

In order to understand the implications of collective action for constraining individual agency in a community-based fisheries management, this study constitutes theoretical framework based on Giddens' structuration theory and Cleaver's concept of collective action. These theories explain human agency in relation to social structure that reins opportunities and resources to develop agency for individuals regardless of their choice. For Giddens, social structure is the production and reproduction of rules and resources that form human agency, and is simultaneously influenced by agency (Bryant and Jary, 1997). Giddens considers agency as the capacity of acting in different events in terms of the unintended consequences of action instead of mere intentions (Giddens, 1984). Individuals can achieve agency subject to their capacity to perform activities, to select an activity or withdraw from it and to transform preceding actions through acquiring and utilizing resources.

Agency as a result suggests power that refers to transformative capacity that denotes the ability of an individual to engage in activities one after another (Giddens, 1984). Actors both generate and depend on resources to practice power. Allocative resources (raw materials, land etc.) allow individuals to control material objects, and authoritative resources regulate individuals (Giddens, 1984). Whereas actors set procedures to shape the use of resources, the forms of controlling resources also influence the actions of individuals. For cleaver (2007), social structure hampers the ability of individuals to perform actions because socially established agents realize extra benefits in using

resources, changing rules and practicing power. However, allocative and authoritative resources in community-based fisheries at Chatol Beel embrace uneven control over material resources, unequal rules and practices to regulate resources, differing opportunities to transform resources and skills and local power dynamics that limit the opportunities for poor fishers to exercise agency.

According to Cleaver (2007) “participatory natural resource management approaches encompass ideas about the desirability of citizens actively engaging in the institutions, policies and discourses that shape their access to resources. Underpinning such approaches are assumptions about the nature of human agency. Purposive individual action is seen as instrumentally desirable as well as potentially radical and transformatory. Through participation in collective resource management it is claimed that people can re-negotiate norms, challenge inequalities, claim their rights and extend their access”. She identifies cosmologies, complex individual identities, the unequal interdependence of livelihoods, structure and voice, embodiment and emotionality explain both constraints and enabling factors of exercising agency in collective action.

### **Findings**

This study considers agency a capacity to adapt to changes in environment and socioeconomic conditions, to participate in decision-making and to utilize resources (income and skills) in other enterprises to obtain a livelihood in a collective management of the fisheries. Specifically, this study examines to what degree participation of fishers in collective fisheries management curbs individual agency. Individual agency is devised to gain fishers’ family wellbeing, whereas the collective agency bestows the efforts to maintain a sustainable livelihood for the fishers’ community. Some insights from the field suggest that unequal access to resources, lack of livelihood and response diversity, failure to transform resources and skills and local power dynamics constrain fishers to exercise their agency at Tedala-Hoglia-Chatol Beels.

### **Unequal access to resources**

While fishers of Tedala-Hoglia-Chatol *Beel* (local name for a small water reservoir) collectively manage the fisheries for equal benefits, their individual agency is not accordingly developed. Interviews and discussions with the fishers suggest that a sole dependence on a tiny and inconsistent yearly income from a small *Beel* (twenty-acre) at minimum efforts and resources put fifty-one fishers to a challenge for overcoming hardship and being self-reliant. Further, resource crises restricts many fishers to invest their revenues from the *Beel* in other

enterprises to generate further income. Importantly, participation in collective decision-making about fishing, fisheries and earning may not improve individual agency due to fishers' unequal access to resources and the absence of means to earn from other sources. A respondent explains his experiences about income and hardship:

"I have no other sources of income. On an average I earn from the Beel is 8000-30000tk per year, which is not sufficient to maintain my family. I am trying but not getting other means to earn. Some time, maybe four months during fishing period, I can sell my labor in the Beel. But rest of the time of the year I remain jobless. We are in a vicious cycle and it is hard to breach this cycle by the limited income from our only source of income. Our income from the Beel is not stable. We should try to earn from alternative sources."

Yet fishery yields some scope for the fishers to make an income, they need to invest their profits in other ventures to build self-reliance. Notably, social structure places people with unequal resources that largely shapes the practice of agency in a development intervention. Similarly, differential access to resources produces a varying degree of agency for individuals. For example, the fishers who owns property are able to utilize resources from the fisheries and to influence the regulations for managing the Beel. Individual agency, therefore, requires access to property along with a stable income from the Beel.

"Many of us have little property. We expect a better income from the Beel. All time we do not get good amount. That time it is harder for us to maintain life. Our condition is not good and we have no jobs to do. We give all our time to the Beel for a good earning"

An income from the Beel along with family property can improve the ability of individual fisherman to adapt to variations in the job market or the environment. Moreover, imbalanced interpersonal relationship between fishers for sharing resources and opportunities greatly configure agency. Some exercise agency, as a consequence, at the expense of others.

### **Lack of livelihood and Response Diversity**

Livelihood diversity consists of socioeconomic and ecological aspects of resource management that allow fishers to maneuver alternative ways to adapt with immediate environmental or market-related shocks. Notably, CBFM is designed to enable fishers to diversify fish species, income and occupation to achieve a sustainable living for present and future generations.

Essentially, diversity in income and occupation can provide fishers with a series of options to alternate livelihood. For example, the failure of making an income from fisheries must not narrow down their pathways to generate an income from other sources to survive. Though some fishers can earn wages as daylaborers predominantly in agricultural land during the dry season (December-March), many other face difficulty to make an income due to lack of job opportunities in a small localized job market especially during the rainy season (April-November). Some respondents give their opinion in response to questions about lack of occupational diversity this way:

“Most of us are poor and we hardly have land, money and other resources. Actually, we were wanderer and irregularly worked. There were no available jobs. Once we started to manage the Beel, we are investing all of our time here. We are not earning much from the Beel but our life is more or less going on. We do not have other better options to make an extra income.”

Lack of occupational diversity is likely to limit the development of individual agency. Furthermore, knowledge from diversified sources about fishing methods, ecosystem management and harvesting is presumed to enhance the capacity of fishers to respond to ecological and economic changes and troubles. For instance, the income from the Beel varies subject to variations in water level due to erratic rainfall. Although high rainfall or floods can bless fishers with bounty of fishes, a shallow body of water as a result of low rainfall reversely affects their chances of obtaining income from the Beel. Also, it is worth noting that only one sanctuary (built by LGED) can hardly foster variety of fishes across five different parts of the Beel despite regular training from LGED and Hillip (a partner NGO of Local Government and Engineering Department, Bangladesh) to foster biodiversity. Connecting all parts of the Beel and planting trees is another obstacle to set up an ideal breeding ground for fishes as well. But the fishers are reluctant to diversify their customary knowledge for optimizing earnings from the Beel because of a short-time leasing contract and uncertainty for being awarded the lease for the next period. One of the interviewees opines that:

“Our limited income restricts us to develop further sanctuary. We know it is better for us. Fish production can increase. Again, our short-term lease is a problem for us to dig in new sanctuaries. We dare to invest our valuable money. We are now not really planning to establish any sanctuary. We are not even planting any trees in the Beel. We expect

Hillip (an associate organization of LGED) to plant trees and improve more sanctuaries.”

Profit and fishers’ ability to cope with sudden environmental changes is likely to aggravate unless more sanctuaries are built in the fisheries. Therefore, biodiversity is imperative to pursuing earnings and raising productivity of the fisheries in the long run. Some fishers share their thoughts about the necessity of biodiversity in a focus group discussion:

“Although we do not understand biodiversity fully but one thing is clear to us is that if fish production does not increase we will be in trouble. In the early years we used to catch all fishes and over time we realized that our income from the *Beel* is decreasing gradually. At the beginning LGED and now Hillip are training us about how to increase our production. Now we do not catch mother fishes in the sanctuary. As a result, our fish production has increased over the years.”

However, it is vital to maintain biodiversity in the *Beel* to retain fish production and earnings on a sustainable basis.

### **Failure to Transform Resources and Skills**

Basically, the water reservoir serves as a primary source of livelihood for many fishers. Yet participation in collective decision-making allows fishers to mobilize common resources for equitable outcomes, unequal access to resources structures individual capacity to transform resources for obtaining family wellbeing. In particular, learning organizing and networking skills to marshal resources from collective resource management is assumed to improve fishers’ adaptive capacity to tackle economic and environmental adversities. Besides, LGED and Hillip’s demonstration to relocate income and skills from fisheries to poultry, fishing in the pond, tailoring and embroidering clothes, gardening vegetables and wage earnings is likely to strengthen their livelihood security. For instance, lessons about *Beel* management and ecology can be applied in fishing in the pond. But few fishers can reap the benefits from these training programs for exercising agency because of resource constraints. One respondent contributes to this research by giving her feelings in this regard:

“Regularly LGED and Hillip try to teach us how we can learn some skills important to earn money. For four months we are not allowed to catch fish in the *Beel*. This is hard time for us. It is not easy for us to open a new business. It takes time to learn about it. Most fishers are not easy with novel commercial activities. Few members prove that balancing between two or more activities give more available options for

maintaining life. But it is not possible for all. The activities are limited. All people tend to run poultry, rearing duck or hen or selling labor for planting, weeding or harvesting paddy. Most of us solely rely on the Beel”

However, entrepreneurial skills to operate a business can enhance fishers' individual ability to survive.

Additionally, lack of education is another important obstacle to fishers' individual agency. The general trend in the data describes that most of the fishers possess primary level education that impedes them to find jobs in other sectors (formal or informal) to supplement inadequate income from the Beel. Also, education for their children is offset by livelihood uncertainty and negligence of the families. Fishers' families, therefore, require both vocational and formal education to enhance socioeconomic independence for practicing agency in the long run through shifting occupation from fisheries to different areas. Few fishers exchange their views on the necessity of education in attaining agency in a focus group discussion:

“We are less educated people. We do not have opportunities to get educated now. We realize education is very important to improve life and secure our future. But it is not possible for all to provide education to their children. For that reason, we cannot change our fate. Only education can give you opportunities to sustain your life. Our income from the Beel is not steady. At least we should try to educate our children for future safety.”

Education can be a single most indicator to fight against obstacles to fishers' livelihood and their individual agency.

### **Local power dynamics**

Earlier, the government used to rent the fisheries to local fishers associations for a period of time, but the powerful persons would exploit the natural habitat of fishes in the name of those signboard-only associations. CBFM was, as a result, launched in Bangladesh in 1996 to replace conventional leasing system that unleashed an excessive profiteering tendency of leaseholders through unsustainable fishing practices. Since then, the conflict between the fishers (new leaseholders) and previous leaseholders (local powerful) has become a common phenomenon in water reservoirs in the country. Similarly, the fishers of Tedala-Chatol-Hoglia Beel have been facing challenges from former leaseholders and locally influential persons ever since the Beel was rented to them in 2004.

Although the scenario has now changed over the years, the powerful persons or groups always try to capture fisheries to realize profits. Thus, interference from the locality distract fishers' attempts to constitute ecological capacity and livelihood. Consequently, interruption erodes the possibility of flourishing agency. Some fishers share their experiences on this matter:

"Every year we face disturbances especially from locally powerful persons. They want to seize our profits from the *Beel*. Some people are desperately trying to cancel our lease. They try to divide us. We are now together. But it is a problem for us to give attention to managing fisheries and making profit."

External intrusion often distracts fishers' attention from fisheries to tension management that in the end obstructs fishers' agency.

### **Conclusion**

This research tries to explore the implications of participation in collective management for improving individual agency in the context of Tedala-Chatol-Hoglia water reservoir, Dakshin Sunamganj. It is clear that local CBO has remarkably improved fishers' access to resources in the fisheries, whereas they were not able to access the Beels before forming the CBO. All members participate in collective decision-making and share their labor to enhance the capacity of the sanctuary. Additionally, CBFM gradually improves fishers' ability to use resources and skills to extend further options to alternate livelihood. However, individual agency in relation to collective management has not enhanced fishers' ability to act meaningfully to generate a handsome income from the fisheries and to transform their socioeconomic condition by achieving and exploiting resources. The exercise of agency is mainly patterned by access to resources and alternative means to supplement livelihood from fisheries. Specifically, persisting social inequality advantage few to use resources and regulate decisions about fisheries at the exclusion of others. Collective management, therefore, produces different level of agency for fishers.

For many fishers, shortage of family resources, insufficient income from the Beel and lack of diversified income-generating opportunities constrain the possibility of developing agency. Again, the absence of reciprocal relationship between fishers to exchange resources and the weakness to muster properties from their social network further diminishes their ability to practice agency. Also, inadequate learning about ecology and livelihood training hardly improves fishers' capacity to

react to environmental and economic vulnerability. In addition to the failure of transferring skills from fisheries to other sectors, lack of education and constant interruption from local people pose a potent threat to fishers' individual agency. As a whole, chronic subsistence perpetuates fishers' agency.

In essence, variation in access to resources (from fisheries plus family), diversification of livelihood opportunities and environmental learning, resource sharing and vocational education enables agency for some and constrains for others simultaneously. This research leaves room for further studying the role of CBOs in facilitating agency within the complex socio-political arrangements and inclusionary approaches comprising of state, market and civil society to overcome the obstacles to human agency in Bangladesh.

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