Legal status of Bangladesh fisheries: Issues and Responses

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Based on secondary data, this paper examines the current legal status of Bangladesh fisheries and constraints in the implementation of fisheries laws. It is identified that twelve fisheries regulations are executed for the regulation and management of the fisheries resources in Bangladesh. Among these laws, a few are historically important for the regulating and managing of fisheries. These laws are implemented with some amendments for the development of legal mechanisms for fisheries development of Bangladesh. The implementations of these laws often met limited success due to a number of shortcomings in the legislations. The constraints in the implementation are the lack of clear policy guidelines and strategy; inadequacy of existing regulatory framework, non-enforcement of legislation and jurisdictional conflicts, the absence of regular law review and updating mechanism and formulation of by-laws, rules, orders etc. Finally, this study submits that for sustainable management of fisheries resources of Bangladesh a comprehensive legal framework is required.

Keywords: Bangladesh Fisheries, Fisheries Legal Framework, Sustainable Fisheries Management

Introduction

Fish and fisheries have been an essential part of the livelihoods of the people of Bangladesh from the time immemorial, and play a major role in nutrition, employment, foreign exchange earnings and other aspects of the economy. Fish is a natural complement to rice in the national diet of the people of Bangladesh which solely supplies about 60% of animal protein intake. Some 15 million people (out of a total population of 155 million) are estimated to be either directly or indirectly employed in the fisheries sector, 73 percent of rural households are involved in aquaculture. This accounts for 4.37% of national GDP, while providing more than 2% of export earnings and provides employment for more than 2 million people. The first fisheries legislation was enacted in the year of 1757 with the introduction of the permanent settlement, Act by the British colonial ruler in the Indian subcontinent. Till then, there are a number of laws, policies are enacted which is represented in a later section.

In terms of fishery policy, experts opined as an incomprehensible and temporary policy which is followed by inappropriate and inadequate legislation, institutional incoordination and weakness, conflicting and fluctuating decisions of the government. It is, therefore, necessary to examine the legal status and managerial procedure of the fisheries of Bangladesh and to identify the major issues which should be solved immediately for sustainable development of the fisheries of Bangladesh. The objectives of this paper are to examine legal aspects in the Bangladesh fisheries sectors, and to assess the problems constraining the maximum utilization of their potential.

Materials and Methods

This study was conducted using the information from different secondary sources. All the data were collected from scientific research and gray literature published in different forms (e.g. peer-reviewed journals, periodicals and government gazettes). ‘Fisheries resources’, ‘Inland fisheries’, ‘Marine fisheries resources’, ‘Legal issues’, ‘Fisheries policies, laws, ordinances in Bangladesh’ etc. were the keywords for searching the information. Further information was also collected through visiting different relevant institute e.g. Bangladesh Fisheries Development Corporation, Directorate of Fisheries of the Bangladesh Government. All of these gathered data were reviewed; synthesized, and relevant information was used.
Results and Discussion

The Status of Fisheries Resources in Bangladesh

Inland Fisheries Resources

Bangladesh is one of the largest deltas in the world with three major river systems, i.e. the Ganges, the Brahmaputra and the Meghna (GBM) that harbors diverse and rich fisheries resources. In a total of 939,073 ha of rivers, tributaries, and canals, there are 250,727 ha of ‘beel’, ‘haor’ and water saturated areas, 8,800,000 ha of agriculture land (partially flooded during the rainy season) and 51,739 ha of lake areas which all are important aquatic habitat having a rich fisheries biodiversity. Freshwater fishes of Bangladesh are the third richest in biodiversity in the world, following those of China and India. Total inland fish production in 2012-2013 was 2,821,266 MT, contributing about 83% of total fisheries production. Though there is steady growth observed in inland fish production (both in capture and culture activities) in the last three decades (from 0.75 million MT to 3.5 million MT) 11. Figure 1 showing district wise capture and culture fish productions.

Coastal and Marine Fisheries

With the Bay of Bengal in the south, Bangladesh is blessed with rich coastal and marine ecosystems, hosting a wide range of aquatic biodiversity, such as fishes, shrimps, mollusks, crabs, mammals, seaweeds, etc. The harvest of marine capture fisheries was 379,497 MT during 2000-2001 that ramped up to 588,988 MT in 2012-2013 and sold as frozen (transported to large cities and overseas) or fresh in local markets. Hilsa shad (Tenualosa ilisha) is the largest and single most valuable species with an annual catch of 340,000 MT, and generates employment and income for 2.5 million people valued at $US 1.3 billion per year. Table 1 shows sector wise annual fish production in inland and marine fisheries of Bangladesh during 2013-2014.

Legal Status of the Fisheries Resources in Bangladesh

There are different regulatory management procedures for different types of fisheries in Bangladesh. In order to understand the legal status of the fisheries of Bangladesh, it is convenient to divide the fisheries into three categories, namely: inland open water (capture) fisheries, inland closed water (culture) fisheries and marine fisheries.

Inland Fisheries Legal Framework

Under the Permanent Settlement Regulation (No. 1 of 1793), proclaimed by the then Governor General of India, Zaminders (Landlords) in Bengal had obtained ownership of fisheries which were termed as ‘Jalmahals’. Zaminders used to keep the Jalmahals under their direct control and supervision. Fishing in these Jalmahals used to be managed by the Zaminders through a system of leasing for a certain period, which was usually one Bengali year. With the commencement of the State Acquisition and Tenancy Act of 1951, the Zamindari system was abolished and all Jalmahals were vested in the then East Pakistan Government. Under a presidential order, all Jalmahals were transferred from the Ministry of Land (MOL) to the Ministry of Fisheries and Livestock (MOFL). Though the fisheries is one the most important renewable natural resources of Bangladesh, the term was not legally defined till 16 February, 1995. At that time the Protection and Conservation of Fish Act 1950 was amended by the Protection and Conservation of Fish (Amendment) Act 1995.
At present, there are about 10,000 fisheries Jalmahals covering rivers and tributaries, estuaries, canals, haors, baors and beels which are all owned by the Ministry of Land (MoL)\textsuperscript{18,19}. These inland fisheries are classified into two categories; Inland open water (capture) fisheries and Inland closed water (culture) fisheries\textsuperscript{20}.

**Inland Open Water (Capture) Fisheries Management Strategies**

The open water fisheries have been defined as those fisheries which are not surrounded by the land and in which fishing cannot be regulated for a certain period for ensuring the minimum growth of the stock\textsuperscript{20}. The basic mechanism for managing fishery resources in inland open waters of Bangladesh have been based on the allocation of fishing rights through periodic leasing. The MoL directly owns the rivers, their tributaries and seasonal as well as perennial wetlands. For the sole purpose of revenue generation, the MoL leases out Jalmahals to Ijaradars through auction. Through the auction process, the lease is given to the highest bidder. The river fisheries and the seasonal beel fisheries are normally leased out for a term of one year, while the permanent beels are leased out for a 3-year term. Some beel fisheries and group fisheries are leased out to the same lessee for 6 years and in rare cases, up to 9 years. The government makes rules, policies, guidelines, circulars etc. time to time and regulates the open water fisheries of Bangladesh. The MoL in memorandum states that management of all open water fisheries would be treated as a source of income of Thana (sub-district) and such portion of the revenue would be distributed of different Thana on the basis of the area and population\textsuperscript{21}.

The government of Bangladesh in the Ministry of Fisheries and Livestock (MOFL) in 1986 initiated the “New Fisheries Management Policy” (NFMP) to achieve a number of objectives such as diversion of maximum benefits arising out of fish harvesting in government owned fisheries to the actual fishermen toiling on the water from the middlemen leaseholders who have been, hitherto, taking away the lion’s share of the benefit’s from such fishing activates, and to develop and implement measures to ensure sustainability of living fisheries resources so that fishery productivity of inland open waters can be sustained\textsuperscript{20}. Access to fishing right in the Government owned fisheries brought under NFMP are to be given to fishermen residing within the Upazilla and District in which the concerned fishery is located. This will be done through issuing licenses directly to such fishermen. All genuine fishermen of the area around each fishery under NFMP are to be properly identified and enlisted\textsuperscript{22}. The committees should be composed of relevant officials and non-officials, including a local representative of the National Fishermen Society. These committees are to review and approve the list of fishermen to be prepared by the Upazilla Fisheries Officer and renewable annual licenses are to be issued to the fishermen whose names appear in
the list prepared by the Upazilla Fisheries Officer and approved by the Upazila and District Fisheries Management Coordination Committees. Each license will be subject to a license fee to be paid by the fisherman. The amount of fee is determined on the basis of ability and efficiency of fishing gears and devices, i.e., nets, traps etc. the collected fees will go towards the payment of total Government revenue which the MoL would otherwise have earned by leasing the fishery under its normal procedure. Although the NFMP addresses the problems of overfishing and exploitation of small-scale fishermen by the middlemen, its impact and success are less clear. Irregularities and malpractices in leasing fishing rights are widely reported, thus circumventing the intent of the policy.

Inland Closed Water (culture) Fisheries Management Strategies

The ‘Closed Water Fisheries’ has been defined as those fisheries which are confined within specific boundaries. For the settlement of a lease of closed water fisheries, it had been categorized in three classes, namely-Jalmahals having an area up to 3 ha, closed Jalmahals on less than 20 acres and closed jalmahals of above 20 acres. Different management procedures were followed to regulate those fisheries.

The jurisdiction to lease out closed water fisheries having the highest lease value of Tk. 30,000, based on the lease value received in a Bengali year, should be vested in the respective Union Parishad within which the fishery is situated. After holding the auction, the Union tender committee (constituted for leasing Hats and Bazaars) should submit a recommendation/opinion at the meeting of the Union Parishad for consideration and approval. The concerned Upazilla Nirbahi Officer (UNO), after holding an auction of water bodies having a lease value of more than Tk. 30,000 should submit his recommendation/opinion at the meeting of the Upazilla Development Coordinating Committee for consideration and approval. One or more Jalmahals, having lease value up to Tk. 30,000 would be vested for lashing out with the Union Parishad. If the lease value of more than one jalmahal exceeds Tk. 30,000 should lie with Union Parishad and others would be vested with Upazilla Nirbahi Officer (UNO) for leasing purpose. The Local Government Institutions such as the municipality/ city corporation shall lease jalmahals within their geographical boundary and income from the lease shall be deemed to be the income of concerned Paurashava/City Corporation. In the case of Jalmahals located in more than one Union, but in the same Thana, the UNO shall lease it out, with the approval of the concerned Upazilla Development Coordinating Committee. Similarly, Jalmahals expanded within more than one Thana will be leased out by District Commissioner. The leases of all Jalmahals have to be settled by fishermen cooperative society and indigent’s cooperative society, women cooperative society and indigent’s cooperative society. For this purpose a selection committee shall be constituted at Thana level in the following manner - UNO - Convener, Upazilla Cooperative Officer-Member, Upazilla Fisheries Officer-Member, Assistant Commissioner (Land) - Member, Two representatives nominated by the National Fisheries Co-operative Society and a distinguished person nominated by the convener. Such committee after considering and selection of genuine cooperative society shall prepare a list and send it to Chairman, Union Parishad and UNO. The concerned Union tender Committee/ UNO shall invite interested, cooperative societies to participate in the auction at 25% higher than the leasing value of last year. If the highest bid is not satisfactory, such as Jalmahals shall be leased out by open auction. The settlement of lease to transfer the Jalmahals can be made for three years.

Legal Issues Governing Marine Fisheries in Bangladesh

The marine capture fishery comprises two distinct subsections co-existing side by side each other: large scale commercially (commonly referred to as industrial fisheries in Bangladesh) and artisanal and subsistence fisheries. This dual structure clearly manifests itself in the fishing technology employed. According to Figure 2, Bangladesh's EEZ indicating competing and understandably conflicting uses of space in the sea, a scenario like which may act as an entry point for initiating Marine Spatial Planning (MSP) for Bay of Bengal. According to the United Nations Convention on The Law of the Sea, 1982 the breadth of the territorial sea is up to a limit not exceeding 12 nautical miles which are measured from baselines determined in accordance with the convention. Also in the Exclusive Economic Zone (EEZ), the jurisdiction over the law in respect to the management, conservation, and development of the living marine resources is being extended. The Territorial Waters and Maritime Zones Act, 1974
describes that the Government of Bangladesh (GoB) may by notification in the official Gazette, declare any zones of the high seas adjacent to the territorial waters to be the economic zone of Bangladesh. All natural living and non-living resources within the economic zone shall vest exclusively in the Republic. A license is issued under this Ordinance in accordance with the carrying capacity of a fishing vessel which is valid for a period of not more than one year and is subject to certain conditions. The foreign marine fishing operation is restricted in Bangladesh fisheries waters except with license. The Director may refuse, suspended or cancel any license in respect of a foreign fishing vessel on the ground of improper management, conservation, development etc. Until recently the definition function of fisheries management policies has been little if any vast development in reaching their goals (Table 2).

<table>
<thead>
<tr>
<th>Fisheries Laws</th>
<th>Main issues</th>
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<tbody>
<tr>
<td>The Private Fisheries Protection Act, 1889</td>
<td>This act provides for the protection of private rights for fishing.</td>
</tr>
<tr>
<td>The Protection and Conservation of Fish Act, 1950</td>
<td>Conservation of fisheries resources as a whole. The text of the Act consists of 9 sections: Short title, extent, and commencement</td>
</tr>
<tr>
<td>The Protection and Conservation Fish Rules, 1985</td>
<td>Regulations on protection and conservation of fish. The text contains 11 sections about various measures of protection and conservation</td>
</tr>
<tr>
<td>The Fish and Fish Product (Inspection and quality control) Ordinance, 1983</td>
<td>Quality control, fish and shrimp, mainly targeting export</td>
</tr>
<tr>
<td>The Fish and Fish Products (Inspection &amp; Quality Control) Rules, 1997</td>
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<tr>
<td>Marine Fisheries Ordinance, 1983</td>
<td>Marine fisheries conservation &amp; management</td>
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<td>Marine fisheries conservation &amp; management</td>
</tr>
<tr>
<td>Pond Development Act, 1939</td>
<td>The purposes of the Act are for irrigation and pisciculture</td>
</tr>
<tr>
<td>National Fisheries Policy, 1998</td>
<td>Conservation, management, exploitation, marketing, quality control and institutional development</td>
</tr>
<tr>
<td>National Shrimp Policy, 2014</td>
<td>Flourish the shrimp industry, raise employment opportunity, alleviate poverty, export earnings and meet up the nutritional demand of the people</td>
</tr>
<tr>
<td>Territorial Water and Maritime Zone Act, 1974</td>
<td>Conservation, management &amp; development of marine fisheries</td>
</tr>
<tr>
<td>Territorial Water and Maritime Zone Rules, 1977</td>
<td>Conservation of marine fisheries</td>
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**Major Problems and Recommendations for Proper Enforcement and Management**

There are a number of major problems and issues which are prevalent in the fisheries management in Bangladesh. There is a dearth of appropriate legislation from the management perspective except for the Marine Fisheries Ordinance, 1983. There are a few legislations bearing provisions on the protection of fish but these enactments were primarily attempted to protect the fishes and private fisheries but not specific regarding the management of the government fisheries. This sort of indefinite management procedure always creates inter and intra-sectoral confusion and the chaotic situation between lessor and lessee. Consequently, several litigations are filed in the courts. Most of the fisheries are owned by the Ministry of Land and the Ministry of Environment and Forest. The inter-sectoral incoordination regarding management results in a lot of inconvenience to the leaseholders. Institutional weakness is one of the causes for fisheries resource depletion. The lack of institutional accountability adds to the disarray. The diversified duties of protection, exploitation, planning and training should be assigned to a single professional cadre. Since the Department of Fisheries (DoF) is responsible for the protection and conservation of fishes, it seems better to have the managerial duty done by DoF.

Implementation of various water resources development projects has reduced and altered the fish habitats. These alterations have caused a serious threat to the continuation of fish production and maintenance of species diversity in the open waters. The Protection and Conservation of Fish Rules, 1985 contain provisions that no person shall construct bunds, weirs, dams, and embankments or any other structure, whether temporary or permanent, in, on across or over the rivers, canals, or beels (perennial waterbodies) for any purpose other than irrigation, flood control or drainage. But whatever the purpose may be any dam or cross dam always constraint the normal flow of the water and
affects the fisheries. So, the relevant amendment is necessary. Pollution of the open water aquatic environment caused by different pollutants has threatened the existence of fish, prawn, and other aquatic living organisms. The current fisheries management practices, as pursued by the GoB, are aimed at generating revenue. The basic mechanism for managing fishery resources in inland open waters of Bangladesh has been used introduced for these purpose in selected sites on an experimental basis, the traditional leasing system which is more revenue oriented than the fishermen or resources oriented policy is still the dominant management mechanism. The revenue oriented management systems have several drawbacks. First, with the purpose of obtaining the maximum benefit, the lessees tend to allow the harvesting of as much fish as possible without any consideration whatsoever for conservation, future production and resources sustenance. As a result, overfishing in Jalmahals over the years has become a common occurrence. Second, because of the short-term nature of the lease in most fisheries, leaseholders have no incentive to undertake conservation measures for rehabilitation of the stock removed annually or for the preservation of the water bodies and the third one, since DoF has no control over the fisheries, meaningful enforcement of the laws is difficult. Enforcement of fishing regulations or other such lease conditions is the responsibility of the leasing agencies (Department of Revenue, Department of Forests, etc.). The agencies show little interest to monitor adherence to lease agreements apartments apart from ensuring that the payment is made on schedule.

The following policies should be taken into consideration for sustained enhancement of fisheries production in open waters. Damage done to fish and fish habitats during the implementation of all development activities such as flood control, irrigation and drainage, agriculture, industries, road and urban projects, shall be kept at a minimal level and programmes for mitigation of such loss shall be undertaken. Production based management in the interest of genuine fishermen shall be introduced instead of the existing lease based management system to promote the conservation of open water fisheries resources. The harvesting of fish shall be kept at the Maximum Sustainable Yield (MSY) level. Priority should be given to fish culture in the low-lying lands of the country were 50 cm or more of water is retained or can be retained during the rainy season for more than three months. Steps should be taken to control the harvesting of gravid fish and fingerlings in order to enhance their breeding and propagation. The capture of the banned size of hilsa and other species should be prevented through the implementation of fisheries regulations. According to Ullah et al, 2014, the true catch of Bangladesh marine fisheries from 1950-2010 is 157% greater than the official landings reported to FAO. This is largely due to the ignorance of subsistence catch in the total reported catch. They suggested that Bangladesh’s growth will not be sustainable, especially if the government is managing marine populations based solely on reported landings. This aspect is completely missing in the legal aspects issues in managing coastal marine fisheries of Bangladesh. Water bodies are damaged and the environment is polluted due to the unplanned discharge of wastage. Therefore, discharge of harmful municipal and industrial wastes directly into the water bodies needs to be considered a punishable crime. In addition, to the existing enforcement agencies, the local government administration in co-operation with the fishermen's organizations shall be vested with the responsibility of implementing the regulations. Steps are required to create awareness of different regulations at the fishing community level. Finally, all water bodies of the country should be identified and their primary use as areas of fish production should be ensured.

Conclusion
The vision 2021 of the Bangladesh Government targeted to achieve its goals of self-sufficiency in food and thus increased food security, which includes attaining self-sufficiency in fish production for which a clear long-term policy is needed. In the development of fisheries policy, inter-government departmental coordination, coordination between Government and NGOs, and the stimulation of public response are important. Following the fisheries policy, the GoB must enact a comprehensive legal framework for the proper management and utilization of its resources for the purposes of the sustainable development of the country and well-being of its population.

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