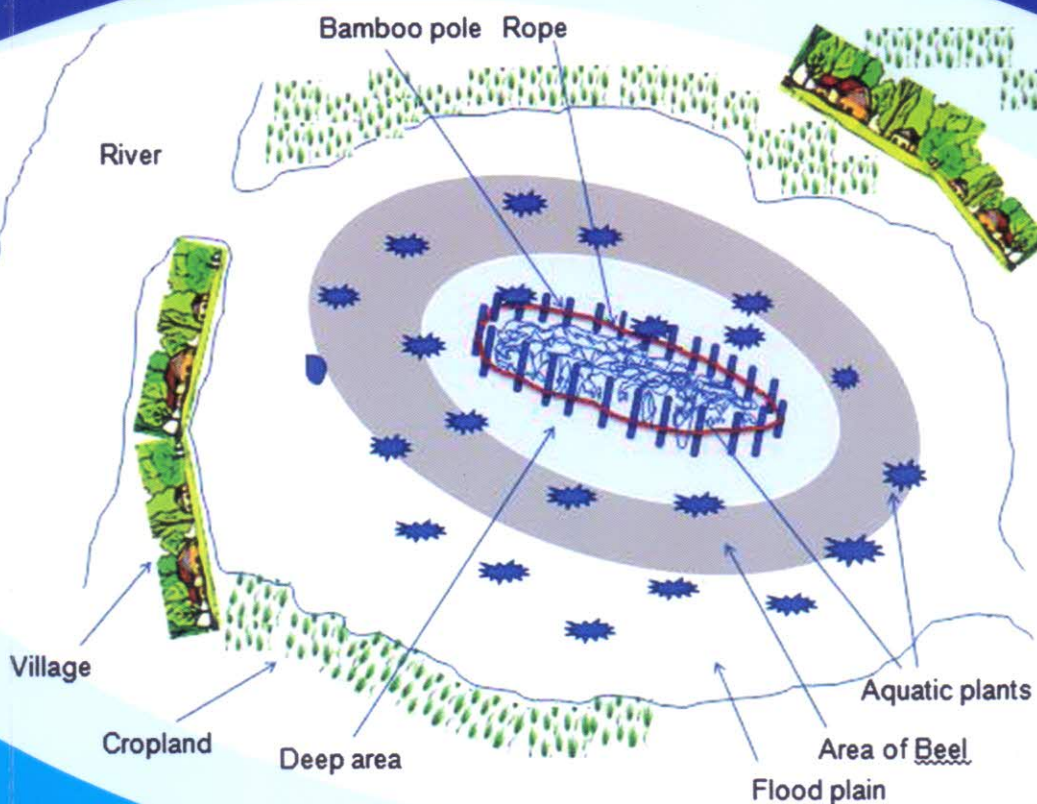


Role of Community Based Organization for the Management of Fish Sanctuaries in Chalan Beel Areas of Bangladesh

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Macksood Alam Khan was born on 1975 in a muslim family of Bogura district and presently serving as the Director (In-charge) of Praject Planning and Monitoring Division of Rural Development Academy (RDA), Bogura. He has completed B.Sc. Fisheries (Hons.) and M.S in Fisheries Management from Bangladesh Agricultural University, Mymensingh. Later on, he did second Masters's Degree from the University of Kent, UK on Conservation and Rural Development. He is also a PhD Research Fellow in Department of Fisheries Management under Bangladesh Agricultural University (BAU), Mymensingh. Title of the PhD research is - Reproductive biology of endangered mud eel *Monopterus cuchia* (Final dissertation accepted by CSAR, awaiting for approval of BAU Syndicate). At RDA, he is involved in planning, designing, and organizing training courses and conducting research and piloting projects, especially on fisheries and the rural development sector. Besides, he looks after the Fisheries Unit of the RDA Demonstration farm and supervises aquaculture, breeding, and spawn production of commercial fish species of carps, catfishes All Male (Mono-sex) Tilapia. He has also initiated several activities towards conserving the natural environment and launched Ecotourism program at RDA with the slogan 'Green RDA, Clean RDA'. So far, he has ten research publications, of which four are Journal articles, and the rest are research reports.



Md. Khalid Aurangozeb has been serving at the Rural Development Academy (RDA), Bogura from 2004 to date. His present position in RDA is Joint Director. His tenure of service he has proved himself worthy and innovative in design and implementation of action research related to seed production, processing, and storage by farmer's participatory approach. Further, the track record during his service period in the academy proved that he has sufficient skill and expertise in conducting training programs on farm management, nursery development, and soil health management for the different levels of participants. He is also involved in action research activities in the field of plant health (Rural plant clinic), Community biogas, women in seed enterprise (WISE) and Fostering Women Voices through Videos in Bangladesh. His educational background is B.Sc (Hons) in Agriculture and M.Sc in Agricultural Extension Education from Bangladesh Agricultural University (BAU), Mymensingh. He did his second Master degree from Khon Kane University, Thailand in Rural Development Management (MRDM). He has also received training in the field of soil and water management from (EICA) Egypt, Rice breeding course from International rice research institute (IRRI), Philippine. He has a lot of publications related to agriculture and rural development.

Abstract

The objectives of this study were to explore the formation and nature of CBO involved in management of fish sanctuary; assess the responsibilities and decision making process of CBOs in management of fish sanctuary; know the level of co-operation between the stakeholders of community based organization; document the process and problems of fish sanctuary management by CBOs; know the pattern of fish biodiversity conservation by the community based organization. Data were collected from Kurulia beel, Ruhul beel, Isamoti-Kup Nodi and Dikshi beel under Chatmohor and Vangura Upazila of Panba district for this study where large numbers of sanctuaries are run under active community based organization (CBO). Both qualitative and quantitative data were collected to address the research objectives. Qualitative data were collected through focus groups, unstructured interviews, use of PRA tools and personal observations; and the quantitative data were collected through a structured questionnaire. Fish production from the year 2013 to 2015 was observed also through recall method. A total of 120 respondents (30 respondents /sanctuary) were selected by purposive sampling for data collection of the study during January 2016 to July 2016. Government has established sanctuary at the deepest part of these waterbodies and formed a new CBO in each area as the prescription of Department of Fisheries for the co-management of the sanctuary based waterbody. Co-management was exist for several years and then was handed over the sanctuary based waterbody to the CBO by lease agreement (co-management period and leasing period varied from project to project). Results showed that sanctuary establishment has a substantial impact on fish production and biodiversity conservation. Fish production both in quality and quantity was found increased significantly after the establishment of sanctuary. Therefore the income, fish consumption, sell etc of the fishers have also increased. Socioeconomic conditions of the fishers have been improved in the studied areas. In case of Ruhul and Kurulia beel, leaders of the CBO's were elected through a democratic process, but leaders were selected through a non-democratic process in case of two other waterbodies. For this reason, active members were seen increasing in case of, but the number of the members was decreasing in case of two other beels. In

Ruhul and Kurulia beel the decision making process was found through democratic discussion, whereas nondemocratic were found in case of two other beels. In Dikshi beel, only the six executive members were found active and active 20-40 members were found in three other beels. Democratic decision making process of the CBO's might be the main reason behind active membership and such average production of fish from the waterbodies. All the four CBO took various steps for increasing the fish production. Another main factor might be the time of left leasing period. The CBO of Dikshi beel knows that the leasing period will be terminated this year, so they started over exploitation rather than conservation. Other major problems of these sanctuary based waterbodies management were - inadequate monitoring by Department of fisheries, lack of financial support by the government, lack of fish sanctuary equipments in the waterbody, no re-excavation and renovation of sanctuaries etc. Fishers of the waterbodies are dissatisfied with several issues with the independent management of these sanctuary based waterbodies by the local CBO. The most common dissatisfaction is about the 'distribution of benefit'. Finally, the study identified several factors that influence the management success of fish sanctuary by the CBO like, i) Government project and incentives, ii) Selection of leader for CBO management by democratic system, iii) Transparent management, regular meeting, democratic practice in meeting, iv) Good relationship among members of the managing CBO, v) Area of sanctuary and the water body, vi) Monitoring by the Department of Fisheries. Sanctuary is now a proven model for biodiversity conservation and increased fish production. Lesson learnt from the study is that if the community people participation in a democratic way in the CBO and monitoring of lead agency that are the key factors for the management of common properties like sanctuary based water body in Bangladesh.