



Management of Aquatic Ecosystems Through Community Husbandry (MACH)

FISH SANCTUARIES WORK



National River Sanctuary at Lal Khar Kum in Turag Bangshi River, Kaliakoir.

The Turog-Bongshi River and its floodplain are located just north of Dhaka in Kaliakoir Upazila (Gazipur) and Mirzapur Upazila (Tangail). The MACH project initiated improved flood plain management along parts of the Turog River Basin through formation of four Resource Management Organizations (RMOs) that are comprised of local fishers and other resource users.

Since 1999 these RMOs have established 19 fish sanctuaries covering nearly 10 hectares of water area. The Ministry of Land has permanently established three sanctuaries in the Turag River, with their day-to-day co-management carried out by the Turag RMO and local government. Nine sanctuaries in Mokesh Beel floodplain and seven in Aowla Beel floodplain have been established by the local communities in parts of fisheries where they have fishing rights. Each sanctuary has its own committee from the surrounding community to protect it and the membership of the local committees makes up the general bodies of the four RMOs. In turn the RMO executive committees coordinate with one another to ensure that everyone observes the areas and times designated for no fishing.



With the aim of protecting fish in the dry season when water dwindles to only 7 % of its monsoon extent, the river sanctuaries are positioned in deep scour holes, locally called kum, and the beel sanctuaries were likewise located in the deepest points, locally known as doho. Where most of a beel was silted up, MACH supported excavation to deepen the pools of the sanctuaries and increase their water and fish holding capacity.

With the establishment of the sanctuaries, the restricting of fishing during the early monsoon, and the reduction in fishing effort by MACH supported resource users; fish catches in three large wetlands have increased markedly. This increase is borne out by data from regular monitoring of fishing in sample areas. Over four years (2000-2004) with the existence of sanctuaries and the advent of closed seasons, the average catch has remained nearly 200% higher than baseline figures. The baseline catch in 1999 was 57 kilograms per hectare whereas the average over the next 4 years was 171 kilograms per hectare.

Species diversity has also increased from a baseline (1999) average of 82 species of fish recorded in the sample catches to as many as 95 species since sanctuaries and improved habitat were established. Some of these additional fish species naturally returned when their habitat was restored and protected, but also the RMOs successfully reintroduced some key species that had been lost such as meni, foli, pabda, and kalibaush. The re-introduced species are in many cases breeding in the area and successfully maintaining a viable population.

Per capita daily fish consumption in the area has increased as well, from 27 grams in 1999 to 37 grams in 2003, a 36% increase. It is not only the rigorous monitoring program that tells the story, community members themselves testify that they can catch more fish in the floodplain to feed their families. Communities nearby have heard of these successes and are proposing and establishing sanctuaries in their own areas through the support of their local governments.



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