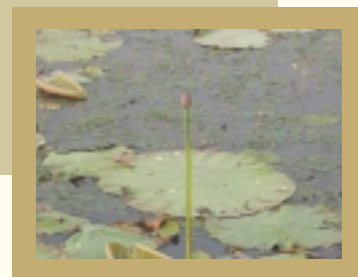
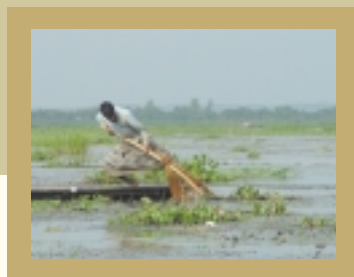




Management of Aquatic Ecosystems Through Community Husbandry (MACH)

AQUATIC FRUITS ARE ONCE AGAIN A PART OF OUR LIVELIHOODS



Improved wetland management practices have brought back many aquatic plants

Aquatic plants play a vital but unsung role in wetland ecosystems and the livelihoods of people dependent on wetlands. They have economic and nutritional value in addition to their value as a substrate for aquatic plant and animal attachment in the wetland ecosystem. Among the many aquatic plants of Bangladesh, *shingra* (*Trapa bispinosa* and *T. maximowiczii*) bears edible fruit that is a popular free food of rural people. In Baila Beel in Jhenagathi Upazila (Sherpur) *shingra* was plentiful a decade ago, but gradually disappeared due to the mismanagement of the beel fishery especially widespread use of *kheta jal* (fine mesh drag nets). Consequently, poor people in this remote area were hard hit when food was scarce, as they had once depended on *shingra* as a food and income source. With the decline in *shingra*, fish also lost a source of food - the plankton that attaches to the stems and leaves.

With support from MACH, the Dholi Baila Resource Management Organization (RMO) was formed and has helped to restore the wetland and its biodiversity. The RMO established six fish sanctuaries covering three acres within the 20-acre dry season water area of their beel. They also stopped using harmful fishing gears including *kheta jal*, universally regarded as one of the most harmful gear as it removes fish hatchlings as well as aquatic plants.



After the introduction of these management actions, *shingra* staged a comeback in the beel, especially in the sanctuaries and their vicinities. Growth of *shingra* is now uninterrupted and there are enough again to harvest. Besides local people collecting *shingra* casually for food, 40-50 poor families regularly collect *shingra* fruit from the beel for four months after the monsoon, each harvesting about 4-5 kg per day. They consume themselves about half of these aquatic fruits and either barter the rest for paddy, fish or vegetables with their neighbors or sell the balance in the local market where it fetches a price of 12-15 taka per kilogram. On average, in 2003, a family that harvested *shingra* earned more than 7,000 taka during the four-month season. This is a substantial contribution to their livelihoods.



Improved management of Baila Beel thus markedly contributed to the reappearance of *shingra* in the wetland and yielded a triple benefit to the locality. First of all it has contributed to food security, secondly it improved employment and earnings of the poor, and thirdly it has helped improve the fishery. The fully-grown *shingra* is a veritable barrier to easy fishing, and thus provides a shelter for fish. This provides additional security making poaching in the sanctuaries difficult. *Shingra* also both directly and indirectly helps to maintain good water quality, and many indigenous fish species rely on the stem and leaf surfaces to gather attached plankton, which are a highly nutritious food.



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