

EDITORIAL

Estuarine related capture fisheries are estimated to contribute approximately 21 percent of the total marine capture fisheries in Southeast Asia. In the West African countries, between Senegal and Sierra Leone, estuarine fisheries catches average 100 tonnes per year per km of coastline. Estuarine and riverine fisheries have however received little attention from scientists and resource managers. These fisheries are perhaps the least managed of the aquatic resources in much of the developing world. In the developing world, threats to estuarine, riverine and coastal fish biodiversity are increasing. Development of coastal areas and river banks for human settlement, for industrial use, infrastructure development, mariculture and aquaculture pose the major threats. Often these activities result in the decline in habitats critical to marine organisms and contribute to declining water quality. The management of living marine resources in many developing countries has traditionally focused on the preservation of commercial stocks and the maintenance of maximum yields and social and economic benefits. It is only more recently that biodiversity has become a part of the objectives of resource managers and has been given attention by community leaders and discussed among community organizations.

The feature article in this issue of the NAGA explores the estuarine zones of West Africa and their rich biodiversity. Biodiversity is defined as the diversity within species, between species and of the ecosystem of which they are part. The fish biodiversity in estuarine waters holds significant social, economic, aesthetic and cultural values for the local population using the resources as well as for humankind and the planet as a whole. There is an urgent need to understand the impact of rapid changes in the population and economic development on the environments that support the high species richness observed in the estuarine areas. The quantitative and qualitative relationships between river runoff and coastal fish production in the tropics require more attention for designing better and more effective management schemes for these resource systems. Climate change is altering runoff patterns, and to predict its effects on fisheries we must also understand the links between runoff and fish. The livelihood of the poor dependent on these resources can only be protected through sustained and effective management of these resources.

The effective management of the estuarine zones may require a broader initiative such as a river basin management approach and greater community involvement in the planning and management of estuarine systems.

The research on community management and co-management of fisheries has shown that community participation in the decision-making process regarding boundaries, access and allowable exploitation levels and harvest methods is essential for developing and sustaining legitimate management institutions for the fisheries. ICLARM-The World Fish Center's work with many partners has provided inputs for the sustainable use and conservation of fish biodiversity by making key scientific information readily accessible through a computerized encyclopedia and research tool, FishBase. This information base is another aid to developing countries researchers and managers seeking to achieve sustainable management of their living aquatic resources and to increase the awareness of the importance of conserving aquatic biodiversity.

K. Kuperan Viswanathan

Why Naga?

The Naga is an underwater creature from Asian mythology. Superior to humans, it inhabits sub-aquatic paradises, living at the bottom of rivers, lakes and seas in resplendent palaces studded with gems and pearls. It is the keeper of the life-energy that is stored in the waters of springs, wells and ponds. It is also the guardian of the riches of the seas – corals, shells and pearls. Naga represents the very focus of ICLARM-The World Fish Center, namely protecting the wealth and productivity of tropical waters.



Cover photo by E. Baran: Sampling fish in the Fatala estuary (Guinea) by Seydouba Soumah.