F-01: A case study : some management aspects of fishermen in an irrigation reservoir of Sri Lanka - Victoria and Randenigala reservoirs

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Victoria reservoir impounded in 1984 has a surface area of 23.7 km^2 with a mean depth of 30.8 m while Randenigala Reservoir impounded in 1986 has a surface area and mean depth of 23.5 km^2 and 36.6 m respectively at full supply level. A main difference of the 2 reservoirs is that unlike in Victoria Reservoir, in Randenigala reservoir, a significant portion of the catchment area is under the jurisdiction of the Wild Life Department since it is bordered by the Randenigala Natural Park. Both reservoirs have been stocked with tilapia, common carp, rohu, mrigal and catla. Fishing is mainly by gill nets.

The objectives of this study were to identify the present management problems in the 2 reservoirs.

The socio-economic data of the fishermen at the Victoria as well as Randenigala reservoirs were obtained by the use of a pretested questionnaire on a random sample of the fishermen, by interviewing them.

The data in the Victoria reservoir was monitored from 1989 to the present while those of Randenigala from 1994 to the present.

From the survey, details of fishermen with respect to their, race, religion, education level, marital status, number of children were taken. In addition, whether the fishing activity was full time or whether they engage in other activities in addition to fishing was investigated.

Victoria and Randenigala reservoir fisheries cooperative societies were established when government was sponsoring inland fisheries activities.

There are 125 fishermen in the Victoria Reservoir Society, while there around 60 fishermen in the 2 cooperative societies of the Randenigala reservoir. The age of fishermen ranges from 20-60 years, while all are Buddhists. Only 19% of them have studied upto GCE ordinary level. 81% are married. Number of children per fisherman vary from nil to 4 and only 30% have more than 3 children. None has access to electricity and around 60% do farming in addition to fisheries.

Comparatively large shoreline, together with the restricted areas for human settlement, were some of the reasons authorities considered in the forming of 2 fisheries cooperative societies in this reservoir. This rather unusual management strategy together with natural restriction affected the development of an organized fishery in this reservoir with fishermen who are mainly Buddhists, when compared with that of Victoria reservoir, where fishermen are Sinhalese, Moors and Tamils is approximately equal numbers.

Since Randenigala reservoir registers a higher conductivity and has a higher catchment area to reservoir area, it should produce a higher fish yield, than Victoria reservoir. In addition, higher mean temperature together with more favourable physico-chemical parameters of fish growth in this reservoir warrants comparatively higher production. Therefore, low production and comparatively low progress in the development of the fisheries co-operative societies of the reservoir, stresses the importance of rational management of the fishery in a reservoir.

Financial assistance by CARP through research grant
no: 12/128/114 is acknowledged.