

Conflict Resolution in the Fishery of Magalla Wewa, an Ancient Reservoir in Sri Lanka

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Magalla wewa in Nikawaratiya, Sri Lanka supports a small scale fishery and the main fishing methods are castnet fishing and gillnet fishing and sporadically beach seining, which is illegal. In this reservoir castnet fishermen increase the fishing efficiencies by driving fishes into net bag after throwing the net. As the fishing efficiency of cast netting is higher than gill netting, there is a certain degree of conflict among fishermen complaining that castnetting leads to overexploitation of the remaining stocks. In the present study, driving forces for these conflicts were investigated to find out possible measures for conflict resolution in the fishery. Thirty fishing families were interviewed using a structural questionnaire applying Likert scale for psychometric analysis of fishermen's opinions. Length frequency data, catch per unit effort (CPUE) data and proportion of under-sized cichlids (<20 cm) in the landings were collected. Mean water level data in the reservoir were obtained from the Irrigation Department. The proportion of under-sized *Oreochromis niloticus* in the landings were negatively related to water level indicating that at elevated water level, efficiency of catching small sized fish decreases in both fishing methods. As proportion of under sized fish was lower in castnet catches than in gillnet catches, castnetting might not have any biologically adverse impact on the fish stock. Ln CPUE in the castnet fishery (1.336 ± 0.85) was significantly higher than in the gillnet fishery (0.279 ± 0.029), which can be considered as the reason for apparent conflict between two groups of fishermen. The psychometric analysis of fishermen's opinions indicated that there were no significant differences between the two groups of fishermen about the existing fisheries management and possibilities of resolving conflict through collective agreement. The conflict between two groups of fishermen can therefore be resolved by strengthening fisheries society.