Preliminary Investigation on Current Status of Freshwater Fishery Sector and Sensory Qualities of Selected Food Fish in Three Selected Reservoirs of Badulla District in Uva Province of Sri Lanka

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Sri Lanka is rich with large number of reservoirs which are highly useful for irrigational activities and inland fisheries. In Uva province, there is a high potential in expansion of freshwater fish production in reservoirs. Current status of inland fishery sector needs to be evaluated, prior to implement appropriate fishery management measures Also, assessment of organoleptic properties of food fish are useful to identify consumer acceptance for freshwater fish varieties. This study focused on 02 objectives: investigation of present situation of inland fishery sector and identification of organoleptic aspects of major fishery resources in 3 selected reservoirs of Badulla District. Sorabora, Ulhitiya, Rathkinda reservoirs were selected for the study considering production levels based on secondary data. A survey was conducted using pretested structured questionnaire to collect the data on fish production, harvesting methods, fishing gears, and food fish varieties focusing on 122 fishermen in 3 reservoirs. Food fish sources with highest demand and production were subjected to sensory assessment. Gill net (3.5" mesh) was the prominent fishing gear, while "manna" (kind of harpoon) and "karaka" (cover pot) was used into lesser extent for harvesting fishes. All fishermen used nonmechanized fiberglass canoes (length 15.5ft-18ft) as most common fishing craft during fishing operations. Fish yields in reservoirs were affected by climatic variation. Nile Tilapia: *Oreochromis niloticus* accounts for >80% of total fish production with high demand (80%) in 3 reservoirs. Thus, sensory assessment was conducted for Nile Tilapia samples only. Mozambique Tilapia: *Oreochromis mossambicus,* Malkorali: *Etroplus suratensis,* Catla*: Catla catla,* Rohu: *Labeo rohita,* Mrigal: *Cirrhinus mrigala* and freshwater prawn: *Macrobachium rosenbergii* were minor contributors to the total harvest. Based on sensory evaluation, Nile Tilapia samples from Sorabora reservoir recorded highest consumer acceptance as complying with survey results. At present, more than 60% of fishing community in 3 reservoirs has not engaged with processing of value added products. Current study revealed the organoleptic aspects of Nile Tilapia flesh and data on freshwater fishery is useful as baseline information in fishery management programmes of Uva province.

Keywords: Inland fishery, Tilapia fish, Seasonal and perennial reservoirs, Freshwater fish production