

**FISHERIES STATUS OF VALAICHCHENAI, SRI  
LANKA.**



A dissertation submitted to the  
Faculty of Animal Science and Export Agriculture  
Uva Wellassa University  
in partial fulfilment of the requirement of  
the degree of  
Bachelor of Aquatic Resources Technology.

By

**ZAGANA NAGANATHAN,**

**Department of Animal Science,  
Faculty of Animal Science and Export Agriculture,  
Uva Wellassa University.**

**2020/2021.**

## ABSTRACT.

Valaichchenai lagoon is one of the major inland fisheries sources in the Batticaloa district and its productivity has been estimated at approximately 3482.21 kg/ha/yr. However, the status of fishery and fishery resources has not been assessed in the past. Therefore, this study aimed to fulfil this research gap. Pilot survey, SWOT analysis and fish bone analysis were conducted. Primary data, including fishing practices, species, marketing system and supply chain, catch per unit effort, implementations and failures of sustainable fishery, and the environmental impacts of fisheries and related activities, were collected using a questionnaire from 242 individuals, group and individual interviews, and direct field observation from January to May 2021. Secondary data were obtained from the Fisheries Department of Batticaloa and from journal articles. Data were statistically analyzed. The study reveals that a total of 12 types of fishing gear and the outrigger lagoon canoe (Thoni) are used. A total number of 38 species were identified during the study period. Higher percentage of fishermen sell their harvest to intermediate vendors and a very small percentage directly sell to the final customer, and the supply chain includes both local and foreign market interventions. Fishers caught 0.009 to 0.027 kg/net square meter-day, and 0.75 to 3.1 kg/day using a gill net and cast net on average, respectively. Regulations for mesh sizes and certain unauthorized activities, licensing system, and seabass cage culture for sustainable fisheries are taking place in Valaichchenai lagoon, but enforcement and monitoring are lacking, no species or size limitations, and no off-season or time limitations. Irresponsible fisheries, shrimp farms/aquaculture, and Valaichchenai fishery harbor cause over-fishing and illegal fishing, seagrass and benthic environment destruction, shrimp farm effluent discharge, waste disposal from cage culture and harbor, visual pollution by seagoing boats and outrigger lagoon canoes (Thoni), fiberglass waste from boat repairing centers in the fisheries harbor, oil spilling, sound pollution, etc. Solutions and recommendations for improving sustainable fishery and lagoon environmental protection, such as introducing co-management system, implementing voluntary code of conducts, strengthening rules and regulations implementation, conducting awareness and training programmes and etc, will help to further management and development.

**Keywords:** Valaichchenai lagoon; Fishery sustainability; Catch per unit effort; Supply chain; Co-management.