

Fisheries Status of Valaichchenai Lagoon, Sri Lanka

Z. Naganathan^{1*}, I.U. Wickramaratne¹ and R.C. Croos²

¹*Department of Animal Science, Uva Wellassa University, Badulla, Sri Lanka*

²*Department of Fisheries and Aquatic Resources, Batticaloa, Sri Lanka*

*Corresponding Author E-mail: zagananaganathan@gmail.com, TP: +94766830313

Valaichchenai lagoon is one of the major inland fishery sources in the Batticaloa district where productivity has been estimated approximately 3482.21 kg ha⁻¹ yr⁻¹. However, status of fishery information were lacking in literature. Therefore, this study aimed to fulfil this research gap. Piolet survey was conducted, then as primary data, including fishing practices, species, marketing system and supply chain, catch per unit effort, sustainable fishery constraints, and environmental impacts of fishing & 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 Fisheries Department of Batticaloa and journal articles. Data were statistically analyzed. SWOT analysis & Fish Bone analysis were also performed. The study revealed that a total of 12 types of fishing gears and the outrigger lagoon canoes (Thoni) were used for fishing. Total number of 38 species were identified during study period. Higher percentage of fishermen sell their harvest to intermediate vendors and a very small percentage, directly sell fish catch to final consumers. Supply chain includes both local and foreign market interventions. Fishermen 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, respectively, on average. Regulations for mesh sizes and certain unauthorized activities, licensing system, and seabass cage culture for sustainable fisheries have been imposed in Valaichchenai lagoon, but there were no species/size limitations, off-season/time limitations with prevailing irresponsible fishing (IUU), seagrass/benthic environment destruction, shrimp farm effluent discharge, waste disposal from cage cultures, fishing harbor & adjacent boat repairing centers, oil spilling from canoes/boat and, sound pollution issues. It can be suggested that introducing co-management system, implementing voluntary code of conduct, proper rules & regulations, frequent monitoring, conducting awareness and training programmes for Valaichchenai lagoon fishery sustainability.

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