



Geographical study based on the Nachchaduwa tank for sustainable livelihood development: inland fishery management to increase fish yield

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Abstract

Inland fisheries exist in a natural area such as streams, rivers, swamps, lakes, and inland seas, in temporary water bodies such as floodplain and seasonal ponds, and also in artificial and modified habitats such as irrigation systems, rice paddies, reservoirs, and enclosed natural water bodies. This study was an attempt to identify the effective methods of inland fishery management in the Nachchaduwa tank of North Central Province to increase fish yield. Both primary and secondary data used to fulfil the objective of the study. The primary data collection got three steps process; I) walk in the field and observe the data II) by using questionnaires from simple random sampling and III) from non- structured interviews. The secondary data were collected by the National Aquaculture Development Authority of Sri Lanka (NAQDA), The National Aquatic Resources Research and Development Agency (NARA) and Nachchaduwa tank society. The fish yield of the Nachchaduwa tank decreased directly through the illegal fishing methods, further non-organic fertilizers use in cultivation, use of Monofilament nets, Angle, seasonal changes of the climate and lack of knowledge among communities. Also, this has affected the yield of the fish species population. Hence, to increase the fish species population the essential fact is Fish Cultivation. The Nachchaduwa tank 1440 hectares and it can hold 10000 fish population per hectare. In total, this tank can be transferred to habitat for 14.4 Mn fish population. However, at present, the tank has provided for nearly 0.3 Mn fish population per year. But this is far below the potential's capacity of the tank. So, this indicates the needs of increasing the fish population and sustainable fisheries management of Nachchaduwa tank, Therefore, result of the study explain that the Water Base Mini Haturey (WBMH) is highly important in addition to awareness programs, Mud Ponds are affected to increase the fish yield of Nachchaduwa tank.

Keywords: Water Base Mini Haturey (WBMH), Inland Fisheries, Sustainable Fishery Management

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