

THE BIONOMIC POTENTIAL OF A FISHING TANK IN A POST-WAR SETTLEMENT IN MAHAWELI SYSTEM L, SRI LANKA

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Inland fishery sector in war affected areas has been recognized as an important income generation source for post-war livelihood improvements. Notably, inland fisheries are open access resources. Therefore, constraints are there to get the full potential of fishery resources. On this backdrop, this study was conducted to examine the bionomic sustainability of *Ehetugaswewa* fishing tank in *Ehatugaswewa Grama Niladhari* division, Mullaitivu district. Monthly fish harvest and fishing activity details were collected from secondary sources. A focus group discussion was conducted with 15 fishermen to examine the background information and triangulate the secondary data. Grainger and Garcia's linear regression approach was employed to get maximum bio-economic sustainable yield as fishing effort data were not available. According to the results, negative values were observed for Smooth Relative Rate of Catch Increase indicating non-bionomic sustainable yield as per the decision-making criteria of Grainger and Garcia's linear regression approach, where zero represents bionomic sustainability. Thus, it indicates signs of overfishing and tragedy of commons. The study recommends to promote sustainable fishing activities and advisory to ensure livelihood development targeting alleviation of poverty and ensuring food security. Therefore, government and community-based organizations should play a significant role in improving the governance systems for inland fishery sector via collaborative efforts. As viable options, developing the market structures, improving access to finance, controlling overfishing, increasing the quality of fishery products, strengthening community-based organizations and adding the ecosystem conservation into their agendas can be identified.

Keywords: Bionomic sustainability, Post-war settlement livelihoods, Smooth Relative Rate of Catch Increase, Tragedy of commons