A study on economy of fish harvesting in Sri Lanka

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In this work we were used Logistic Growth Model and Surplus Yield Model to inspect the economics of harvesting in Sri Lanka. The objective of this study is to determine an optimal harvesting quantity which fulfills the economic goal of the harvester while maintaining the population density over pre - specified minimum viable level throughout the harvest. That is how the farmers can get the maximum profit through the harvest by using their maximum effort by not damaging the fish population.

The statistics data for this paper are provided by Ministry of fisheries and Aquatic Resources Development and the boat owner who is working at Hikkaduwa fishing pier. According to the relevant calculations of the data sets during the period of 2009 to 2017 and graphs plotted, cost versus effort and revenue versus effort it can be concluded that, in Sri Lanka still unable to reach the maximum sustainable yield and if we can increase the effort then we can get maximum sustainable yield. The findings can accommodate fish farmers to increase the supply to meet the demand for fish.

Keywords: constant, proportional and periodic harvesting, continuous and discrete, logistic growth model and economic

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