**Optimal Production and Harvesting of Fish in Zarema May Day Dam**

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**Abstract**

The purpose of this study was optimizing the reproduction and harvesting of fish in “Zarema May Day Dam”. The study provides the optimal data for fishing with three harvesting strategies. The results showed that the dam can produce **40,721 tonne** of fish and the *maximum yield* of fish can be obtained if *the rate of harvesting* is properly managed near $\frac{r}{2}$ and the yield has to be determined depending on the initial population. Moreover, the periodic harvesting strategy is the most important to improve productivity.

***Keyword***: *Optimizing; fishing; Zarema May Day Dam; Logistic Growth Model; Stability, Fishery Management; Fishing Strategies*