

Analisis daya dukung perairan untuk penetapan alokasi ruang dan kepadatan Karamba di Sungai Riam Kanan, Kalimantan Selatan

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Abstrak

The fish cage farming in Sungai Alang, Village, Riam Kanan River has been increasing and the excess numbers of cage per unit area and improper management of the cage replacement have decreased the river water quality. The study was conducted to calculate the carrying capacity of the river to support the cage fisheries based on the Total Nitrogen (TN) and Total Phosphorous (TP) loadings into the waters as well as the dissolved oxygen (DO) availability. The study was done by determining the organic waste load of two cages group where each consisted three units: A) Control cages (stocking rate: 50 fish m⁻²), and B) Public cages (stocking rate: 114 fish m⁻²). Cages size was 2.50 x 1.75 x 1.00 m³ unit⁻¹, the fish studied was *Cyprinus carpio* (fry size 5-7 cm) and the observation was 16 weeks. Waste load per unit cage in groups A and B respectively for organic matter were 18.7 g day⁻¹ and 200.1 g day⁻¹, the levels of TN were 1.94 g day⁻¹ and 11.35 g day⁻¹, and the levels of TP 0.035 g day⁻¹ and 0.207g day⁻¹. The carrying capacity per 100 m length of river for group A was 60-65 cages unit and group B was 16-18 cages unit.