

**ANALISIS FOSFOR TOTAL, NITROGEN TOTAL DAN DAYA DUKUNG  
WADUK IR. H. DJUANDA, KECAMATAN JATILUHUR, KABUPATEN  
PURWAKARTA, PROVINSI JAWA BARAT UNTUK BUDIDAYA  
KARAMBA JARING APUNG**

Grace Sondang Yunika

12/334104/GE/07397

**ABSTRAK**

Waduk Ir. H. Djuanda merupakan waduk terbesar di Indonesia. Waduk ini memiliki fungsi penting bagi kehidupan masyarakat serta memiliki fungsi serbaguna terutama untuk aktivitas pengembangan budidaya ikan karamba jaring apung (KJA). Tujuan penelitian ini (1) mengetahui persebaran fosfor total, nitrogen total dan budidaya karamba jaring apung; (2) menganalisis kandungan fosfor total, nitrogen total dan dampak budidaya karamba jaring apung terhadap kualitas air Waduk Ir. H. Djuanda; dan (3) mengetahui nilai daya dukung waduk akibat aktivitas budidaya karamba jaring apung. Metode yang digunakan yaitu pengukuran langsung dengan pengambilan sampel acak bertujuan (*purposive random sampling*). Parameter yang digunakan berupa parameter kualitas air (DO, kekeruhan, nitrogen total, fosfor total, pH dan suhu) serta parameter fisik waduk (luas, kedalaman, dan volume waduk). Analisis kualitas air dilakukan dengan menggunakan standar Baku Mutu Air kelas II yang berdasar pada Peraturan Pemerintah Republik Indonesia No. 82 Tahun 2001 tentang Pengelolaan Kualitas Air dan Pengendalian Pencemaran Air. Analisis daya dukung waduk dilakukan dengan pemodelan statistik Dillon dan Rigler berdasarkan data empiris. Budidaya keramba jaring apung di Waduk Ir. H. Djuanda melebihi kapasitas daya dukung waduk. Kapasitas daya dukung Waduk Ir. H. Djuanda sebesar 55.856,3 ton. Namun, saat ini Waduk Ir. H. Djuanda telah menampung fosfor total sebesar 73.245 ton. Menurut baku mutu air kelas II kandungan fosfor total dan nitrogen total masih dalam batas normal.

Kata kunci: daya dukung, keramba jaring apung (KJA), Nitrogen total, Fosfor total, Waduk Ir. H. Djuanda (Waduk Jatiluhur)

***ANALYSIS OF TOTAL PHOSPHORUS, TOTAL NITROGEN AND  
CARRYING CAPACITY OF IR. H. DJUANDA RESERVOIR, DISTRICTS  
JATILUHUR, DISTRICT PURWAKARTA, WEST JAVA PROVINCE FOR  
FLOATING NET CAGE CULTURE***

Grace Sondang Yunika

12/334104/GE/07397

***ABSTRACT***

*Ir. H. Juanda is the largest reservoir in Indonesia. This reservoir has an important function for the community's life and has versatile functions primarily for the development of fish farming activity floating net (KJA). The purpose of this study (1) to determine the distribution of total phosphorus, total nitrogen and cultivation of floating net; (2) analyze the content of total phosphorus, total nitrogen and cultivation of floating net impact on reservoir water quality; and (3) to determine the value of the carrying capacity of the reservoir as a result of the cultivation of floating net activity. The method that being used is the direct measurement by purposive random sampling. Parameters that being used are water quality parameters (DO, turbidity, total nitrogen, total phosphorus, pH and temperature) as well as physical parameters reservoirs (area, depth and volume of the reservoir). The water quality is analyzed with Water Quality Standard Class II which is based on the Indonesian Government Regulation No. 82 of 2001 on the Management of Water Quality and Water Pollution Control. Carrying capacity analysis conducted using statistical modeling of Dillan and Rigler based on empirical data. Cultivation in floating cages of the reservoir exceed its carrying capacity. Its carrying capacity amounted to 55,856.3 tons. However, in recent times Ir. H. Juanda had been to accommodate a total of 73,245 tons of phosphorus. According to the Water Quality Standard Class II total phosphorus and total nitrogen are within normal limits.*

*Keywords: carrying capacity, floating cage net (KJA), total nitrogen, total phosphorus, Ir. H. Djuanda Reservoir (Jatiluhur Reservoir)*