

INTISARI

PERBAIKAN HABITAT MANGROVE MELALUI REHABILITASI DI DESA SUWUNG KAUH, DENPASAR, BALI

Oleh :

Kadek Andina Widiastuti *

Erny Poedjirahajoe **

Pemerintah Provinsi Bali melalui Dinas Kehutanan Provinsi Bali telah melakukan rehabilitasi kawasan mangrove di *Mangrove Information Centre* (MIC), Desa Suwung Kauh, sejak tahun 1973, dan bekerjasama dengan *Japan Internasional Cooperation Agency* (JICA) dalam upaya pelestarian hutan mangrove pada tahun 1993 sampai dengan sekarang. Rehabilitasi tersebut mampu meningkatkan kualitas habitatnya. Penelitian ini bertujuan untuk mengetahui kerapatan, tinggi, diameter dan lebar perakaran vegetasi penyusun hutan mangrove serta menganalisis faktor habitat (suhu air, salinitas, oksigen terlarut, pH air, bahan organik tanah, serta ketebalan lumpur) pada tahun tanam 1973, 1993, dan 2005.

Pengambilan data dilaksanakan pada tanggal 28 April - 19 Mei 2008, dengan menggunakan metode *systematic plot sampling* dengan jarak untuk setiap petak ukur sepanjang 50 meter. Dengan metode ini dibuat petak ukur 5x5m, yang penempatan petak ukur juga didasarkan pada 3 zona tumbuh, dan diperoleh 30 petak ukur pada setiap tahun tanam. Komponen yang diteliti meliputi kerapatan, tinggi, diameter dan lebar perakaran vegetasi penyusun hutan mangrove, serta faktor fisik kimia (suhu air, salinitas, pH air, oksigen terlarut (DO), bahan organik ketebalan lumpur), dan dilakukan pada tiga tahun tanam yang berbeda.

Hasil penelitian menunjukkan bahwa pada tahun tanam 1973, rerata tinggi vegetasi adalah 7,867 m, rerata lebar perakaran 2,23 m, rerata diameter vegetasi 12 cm dan kerapatan jenis total 522.000 individu/ha. Tahun tanam 1993, rerata tinggi vegetasi adalah 5,3 m, rerata lebar perakaran 1,43 m, rerata diameter vegetasi 9 cm dan kerapatan jenis total 424.400 individu/ha. Sedangkan untuk tahun tanam 2005, rerata tinggi vegetasi adalah 0,606 m, rerata lebar perakaran 0,265 m, rerata diameter vegetasi 3,3 cm dan kerapatan jenis total 293.200 individu/ha. Tahun tanam 1973 rerata DO adalah 16,42 mg/l, suhu 29,03°C, salinitas 14,6‰, pH 7,7, BO 3,79%, dan ketebalan lumpur 192,8 cm. Tahun tanam 1993 rerata DO adalah 12,263 mg/l, suhu 30,03°C, salinitas 18,77‰, pH 7,7, BO 2,68%, dan ketebalan lumpur 52,567 cm. Sedangkan tahun tanam 2005 rerata DO adalah 8,467 mg/l, suhu 30,467°C, salinitas 21,09‰, pH 7,7, BO 1,651%, serta ketebalan lumpur 3,53 cm. Tahun tanam 1973 memiliki kualitas habitat yang lebih baik dari tahun tanam 1993 dan 2005 dapat disimpulkan terjadi peningkatan kualitas habitat dengan semakin tuanya umur mangrove.

Kata kunci : habitat, mangrove, rehabilitasi

* Mahasiswa Jurusan Konservasi Sumber Daya Hutan Fakultas Kehutanan, UGM

** Dosen, Staf Pengajar Fakultas Kehutanan UGM

ABSTRACT

MANGROVE HABITAT IMPROVEMENT THROUGH REHABILITATION IN SUWUNG KAUH VILLAGE. DENPASAR, BALI

By
Kadek Andina Widiastuti *
Erny Poedjirahajoe **

Bali Province Government through Forestry Office Department have made area rehabilitation in Mangrove Information Centre (MIC) in Suwung Kauh, since 1973, and in cooperation with the Japan International Cooperation Agency (JICA) conserve mangrove forest in 1993 continuously until now. The rehabilitation can increase its habitat quality. This research was aimed at knowing the density, height, diameter, and rooting width of mangrove vegetations, also analyzing the habitat factors (water temperature, salinity, dissolved oxygen, water pH, organic substance of the land also mud thickness) in the planting years of 1973, 1993 and 2005.

Data was collected from 28 April to 19 May 2008, using systematic plot sampling method with range for each partition was 50 meter. The partition of 5 x 5 m was made which placed based on 3 growth zone, and 30 partitions were obtained in each planting year. The research components included the density, height, diameter, and rooting width of mangrove vegetations, also chemical physic factors (water temperature, salinity, water pH, dissolved oxygen, organic substance, mud thickness), and plankton density (phytoplankton and zooplankton), and it was done in three different planting years.

Result revealed that in the planting years of 1973, the average height of total vegetation, the average of rooting width, and the average of diameter were 7,867m, 2,23m, and 12 cm, the total density was 522.000 individual/ha. In the planting years of 1993, the average height of total vegetation, the average of rooting width, and the average of diameter were 5,3m, 1,43m, and 9 cm, the total density was 424.400 individual/ha. In the planting years of 2005, the average height of total vegetation, the average of rooting width, and the average of diameter were 0,606m, 0,033m, and 3,3 cm, the total density was 293.200 individual/ha. In 1973 planting year, average DO was 16,42 mg/l, the temperature was 29,03°C, the salinity 14,6%, pH 7,7, BO 3,79%, and mud thickness 102,8 cm. In the planting year of 1993, average DO was 12,263 mg/l, the temperature 30,03°C, the salinity 18,77%, pH 7,7, BO 2,68%, and mud thickness 52,567 cm. While in the planting year of 2005, average DO was 8,467 mg/l, the temperature 30,467°C, the salinity 21,09%, pH 7,7, BO 1,651%, and mud thickness 3,53 cm. 1973 planting year had a better quality than the planting years of 1993 and 2005, it could be concluded that there was an habitat quality improvement because of an older age of the mangrove.

Keywords: habitat, mangrove, rehabilitation

* Student of Forest Resource Conservation Department, Forestry Faculty, UGM

** Staff collage of Forestry Faculty, UGM