

ROLE OF MANGROVE ON INCREASE IN FISHPOND PRODUCTION IN MANGROVE AREA IN NORTH COAST OF REMBANG REGENCY, CENTRAL JAVA

By
Herlambang Kusuma Dwi Saputra¹
Emy Poedjirahajoe²

ABSTRACT

Mangrove ecosystem plays very important role in ecological and economic aspect. Existence of mangrove rehabilitation area is increasingly fewer. Conversion of forest area to be fishpond area is main problem for mangrove area. Today, silvofishery system is considered to be able to keep existence of mangrove because this system is combination between fishery and forestry.

This research was done in Pasar Banggi village, Rembang district, Rembang regency for three months, from March to July 2007. Objective of this research (1) was to fish weight gain of fishpond using silvofishery of komplangan pattern compared with conventional fishpond, (2) was to association between fish weight gain and density mangrove, plankton concentration, and environmental factor structuring mangrove forest shaper.

To know fish weight gain, it used komplangan type silvofishery system fishpond for 1993 and 1971 plant sessions and conventional fishpond. Each fishpond was equipped with net basket as observational plot with three repetitions. Plots were placed in left, right, and central sides of the basket to represent basket broadness. It used two-way analysis of variant (ANOVA), factorial design experiment and the Least Significant Difference (LSD) test to study influence of variables on fish weight gain. Multiple linear regression analysis was used to examine association of fish weight gain and existed variables.

Result of the research indicated that average gain of milkfish weight in komplangan fishpond 1993 and 1971 were 886,11 grams and 802,77 grams, respectively, while conventional fish pond yielded 577,78 grams. So, the different of the gains was 308,33 gram. Linear regression equation and physical and biotic factors of mangrove was $Y = 257,206 + 0,510 X_1 + 0,001 X_2 - 90,902 X_3 + 21,709 X_4 + 3,998 X_5 + 39,636 X_6$, with variables of plan density (X_1), plankton concentration (X_2), temperature (X_3), pH (X_4), salinity (X_5) and dissolved oxygen (X_6).

Keywords : Mangrove, silvofishery, rehabilitation.

1. Student of Forest Resource Conservation Department, Faculty of Forestry, Gadjah Mada University.
2. Advisor and lecturer of Forest Resource Conservation Department, Faculty of Forestry, Gadjah Mada University.



BAB I

PENDAHULUAN

1.1. Latar belakang

Indonesia merupakan negara kepulauan yang terdiri dari 17.508 buah pulau besar dan kecil yang secara keseluruhan memiliki panjang garis pantai sekitar 81.000 km. Sebagian daerah tersebut, pantai dan hutan mangrove ditumbuhi hutan mangrove dengan lebar beberapa meter sampai puluhan kilometer. Masing-masing kawasan pantai dan hutan mangrove memiliki historis perkembangan yang berbeda-beda. Perubahan kawasan hutan mangrove sangat dipengaruhi oleh faktor alam dan faktor campur tangan manusia. Diperkirakan 60 % penduduk Indonesia hidup dan bermukim di daerah pantai. 64.439 desa di Indonesia, terdapat 4.735 desa yang dapat dikategorikan sebagai desa pantai. Bahkan masyarakat yang bermukim di wilayah kota pantai sudah mencapai sekitar 100 juta orang (Wahyono, 1999).

Kawasan pantai merupakan suatu kawasan yang indah dengan pemandangan yang mempesona, misalnya garis batas pandang dan tenggelamnya matahari di waktu senja (*sunset*). Namun, jarang sekali orang memperhatikan tumbuh-tumbuhan yang ada di sekitar pantai, yang dari jauh sekilas hanya merupakan semak belukar yang tidak terawat dan tidak berfungsi. Kawasan pantai yang ditumbuhi jenis-jenis tumbuhan tersebut dikenal sebagai hutan mangrove. Kawasan mangrove sebenarnya mempunyai peranan yang sangat penting bagi manusia dan hewan yang hidup didalamnya atau di sekitarnya, bahkan bagi mahluk hidup yang hanya tinggal untuk sementara waktu (Arief, 2003).

