

## EVALUASI USAHA TUMPANG SARI EMPANG PARIT DI RPH CEMARA, BKPH INDRAMAYU, KPH INDRAMAYU

### INTISARI

Ekosistem mangrove mempunyai peranan penting, baik ditinjau dari segi ekologi maupun ekonomi. Namun saat ini keberadaan kawasan mangrove mulai terdesak dan mengalami degradasi akibat pertambahan penduduk dan kebutuhan lahan oleh sektor lain, terutama untuk pertambakan udang. Salah satu cara yang dipandang efisien dalam rehabilitasi mangrove adalah dengan pola empang parit. Tetapi empang ini hanya dapat menghasilkan produk perikanan dalam jumlah terbatas sehingga peningkatan kesejahteraan petani tambak tidak terlalu besar.

Penelitian ini dilakukan di lokasi tumpang sari empang parit di RPH Cemara, BKPH Indramayu, Jawa Barat, bertujuan untuk mengkaji faktor-faktor yang berpengaruh terhadap keberhasilan penanaman mangrove dan produktivitas akuakultur pola empang parit. Hasil kajian ini diharapkan dapat digunakan untuk mencari kemungkinan-kemungkinan pengembangan lebih lanjut pola empang parit yang ada, guna meningkatkan keberhasilan penanaman mangrove dan produktivitas akuakultur.

Analisis statistik dengan menggunakan proses pemilihan mundur (*the backward elimination procedure*), diperoleh hasil sbb.:

$$\hat{Y}_1 = 356,3168 - 2,2224X_3 + 8,8749X_6 - 33,7480X_{10} + 13,5417X_{12}$$

$$\hat{Y}_2 = 1000 \times (53,2830 + 13,6415X_7 + 894,4139 X_8 - 6,9272 X_9)$$

dimana :  $Y_1$  = persen tumbuh tanaman mangrove,  $Y_2$  = produktivitas akuakultur,  $X_3$  = tingkat keberhasilan selama mengelola parit,  $X_6$  = lebar parit,  $X_7$  = kedalaman parit,  $X_8$  = luas lahan empang parit yang dikelola,  $X_9$  = persen parit ternaung,  $X_{10}$  = nilai pH tanah tempat tumbuh tanaman mangrove, diukur dalam  $H_2O$ ,  $X_{12}$  = nilai pH tanah tempat tumbuh tanaman mangrove, diukur dalam  $H_2O_2$ .

Penilaian tumpang sari empang parit sebagai suatu bentuk agroforestry (*silvofishery*) dapat dilakukan melalui kriteria produktivitas, sustainabilitas (berkelanjutan /lestari), adoptabilitas (terpakai). Berdasarkan hasil penelitian, dapat disimpulkan bahwa usaha tumpang sari empang parit di RPH Cemara termasuk rancangan agroforestry yang baik kalau dinilai menurut kriteria produktivitas dan adoptabilitas, namun memiliki kelemahan dalam kelestarian.



**EVALUATION OF DICTH POND SILVOFISHERY SYSTEM  
IN RPH CEMARA, BKPH INDRAMAYU, KPH INDRAMAYU**

**ABSTRACT**

Mangrove ecosystem has important role ecologically as well as economically. At present, however, mangrove area is at its disadvantage level, it is degraded due to population pressure and demand of land by the other sector especially shrimp culture. One way for rehabilitating mangrove area which is considered efficient is through silvofishery practice by establishment of ditch pond in mangrove area. Although the expected fishery produce is somewhat limited. So that it yields only low income improvement for fishery farmer.

The study was done in silvofishery area of RPH Cemarara, BKPH Indramayu, KPH Indramayu, West Java with objective of determining factor(s) affecting the succes of mangrove planting and productivity of ditch pond aquaculture superimposed in mangrove area. It is expected that results of the study could be usefull for formulating new development of dictch pond silvofishery system in mangrove area, so that a succesfull mangrove tree planting and high aquaculture production could be materialized.

Regression analysis using backward elimination procedure was adopted to select model of best fit. It turn out the following equation :

$$\hat{Y}_1 = 356,3168 - 2,2224X_3 + 8,8749X_6 - 33,7480X_{10} + 13,5417X_{12}$$

$$\hat{Y}_2 = 1000 X (53,2830 + 13,6415X_7 + 894,4139 X_8 - 6,9272 X_9)$$

Where :  $Y_1$  = survival rate of mangrove planting,  $Y_2$  = productivity of aquaculture,  $X_3$  = successing rate in managing ditch pond,  $X_6$  = ditch pond width,  $X_7$  = ditch pond depth,  $X_8$  = area of forest-fishery culture,  $X_9$  = shading rate of ditch pond,  $X_{10}$  = pH of mangrove habitat measured as pH  $H_2O$ ,  $X_{12}$  = pH of mangrove habitat measured as pH  $H_2O_2$ .

Evaluation of ditch pond fishery as a form of agroforestry (*silvofishery*) may usually be based on productivity, sustainability, adoptability. Based on the result of the study, it can be concluded that ditch pond silvofishery system in RPH Cemara was a good practice of agroforestry based on its productivity and adoptability, however some weakness on sustainability was observed.

