

THE STUDY OF LAND SUITABILITY
DEVELOPING IN COASTAL AREA
IN THE DISTRICT

ABSTRACT

This research was conducted in the coastal area of Kendal Regency with area objectives are to identify the potential of the land in order to develop shrimp pond, to know correlation between land unit and survival rate, to know the effect of land unit on the survival rate of the shrimp.

Land unit as an evaluation tool. The overlay of the landform, soil, and water. Primary data were collected using field observation method, land unit which is determined by the number of the land unit are variables consist of soil texture, soil permeability, total nitrogen, available potassium and soil pH. Secondary data (salinity, temperature, water quality) were used to determine the land suitability.

Result of the research is land suitability is classified into three categories: marginally suitable (S3) and not suitable (S1). Factors of the land quality are soil texture, total nitrogen, available potassium, soil pH, and water quality (salinity, COD, BOD, oxygen).

The regression analysis shows a significant influence between land unit and survival rate of the shrimp. Significant variables to the survival rate are soil texture, water transmissivity, soil permeability, temperature, soil pH, salinity, BOD, COD and phosphorus, available potassium. The regression coefficient to the survival rate of the shrimp are 0,54673, 0,4423, 0,2442, 0,0067, 0,5467 respectively.

ABILITY FOR SHRIMP CULTURE
A BETWEEN BODRI AND KUTO RIVER
CT KENDAL REGENCY

STRACT

ducted at the northern coastal
of 4480,94 Ha. The research's
physical and chemical environ-
to classify suitability of the
ation between land quality and
limited factor which affected
shrimp.

uation unit constructed using
oil type and landuse. The pri-
ing stratified random sampling
s chosen as its stratum. The
formed 16 types. The observed
quality variables (texture,
available phosphorus, availa-
) and water quality variables
ter pH, BOD, COD, oxygen, amo-
water transparency). Matching
ne the class and sub-class of

h showed that the class of the
ied into two; which were mar-
ot suitable (N1). The limiting
are soil texture, permeabili-
le phosphorus, available potas-
uality such as amonia, nitrit,
and the water trans-parancy.

sis revealed that there is a
een quality of the land to the
mp with r value : 0.9807. The
the survival rate are amonia,
parancy and nitrit with the r
0.6658, 0,6644 respectively.
ature, oxygen, water pH, soil
nd total nitrogen, available
ssium influence insignificantly
the shrimp with r value of
.1948, 0.0582, 0.0133, 0.0111,

INTISARI

Penelitian ini dilakukan di Wilayah Pesisir Kabupaten Dati II Kendal dengan luas wilayah 4480,94 Ha, yang bertujuan mengidentifikasi faktor lingkungan fisik dan kimia lahan dalam kaitannya dengan tingkat kesesuaian lahan tambak udang, mengetahui hubungan antara kualitas lahan dengan kelangsungan hidup dan mengetahui faktor pembatas yang berpengaruh terhadap tingkat kelangsungan hidup udang.

Satuan lahan sebagai satuan evaluasi di susun dari tumpang susun satuan bentuklahan, macam tanah dan penggunaan lahan. Pengambilan data primer dilakukan dengan cara *stratified random sampling* dan satuan lahan sebagai stratanya dan jumlah satuan lahan yang terbentuk ada 16 jenis. Variabel yang diamati adalah variabel kualitas tanah (tekstur, pH, N-total, P_2O_5 , K_2O permeabilitas) dan variabel kualitas air (salinitas, suhu, pH, BOD, COD, oksigen, amonia, nitrit, Fe dan kecerahan air). Dalam menentukan kelas dan sub-kelas kesesuaian lahan digunakan sistim *matching*.

Hasil penelitian menunjukkan bahwa kelas kesesuaian lahan untuk budidaya tambak pada daerah penelitian tergolong sesuai marginal (S3) dan tidak sesuai saat ini (N1). Kualitas lahan yang bersifat sebagai pembatas adalah tekstur tanah, pH tanah, permeabilitas, N-total, P_2O_5 , K_2O dan kualitas air (salinitas, pH air, oksigen terlarut, COD, BOD, amonia, nitrit dan kecerahan).

Hasil analisis regresi menunjukkan adanya pengaruh yang nyata antara kualitas lahan terhadap kelangsungan hidup dengan nilai $r = 0,9807$, Variabel yang berpengaruh nyata terhadap kelangsungan hidup adalah amonia, tekstur tanah, kecerahan, dan nitrit dengan nilai r berturut-turut 0,8505, 0,7554, 0,6658, 0,6644. Sedangkan permeabilitas, suhu, oksigen, pH air, pH tanah, salinitas, BOD, COD dan N-total, P_2O_5 , K_2O berpengaruh lemah terhadap kelangsungan hidup dengan nilai r berturut-turut 0,54673, 0,4223, 0,2442, 0,1948, 0,0582, 0,0133, 0,0111, 0,0067, 0,5467.