

DEMAND ANALYSIS OF HAND TRACTOR SERVICES FOR OWNERS AND  
RENTERS IN TWO DISTRICTS OF EAST JAVA, INDONESIA

by

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Submitted to the Faculty of the Institute of Graduate  
Studies, Central Luzon State University, Munoz,  
Nueva Ecija, Philippines, in partial  
fulfillment of the requirements  
for the degree of

MASTER OF SCIENCE  
(Rural Development)

OCTOBER 1989

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## ABSTRACT

Armanu, Institute of Graduate Studies, Central Luzon State University, Munoz, Nueva Ecija, May 1989. DEMAND ANALYSIS OF HAND TRACTOR SERVICES FOR OWNERS AND RENTERS IN TWO DISTRICTS OF EAST JAVA, INDONESIA.

Adviser : Dr. Jose C. Alonzo, SR.

The study was undertaken to investigate some demographic, economic and government policy factors affect the demand for hand tractor services in East Java. The analysis was based on primary data collected through personal interview with 47 farmer tractor owners and 168 farmer tractor renters. The descriptive analyses of variables were analyzed by frequency distribution, standard deviation and mean. Regression analysis was used to estimate the significant contribution of each of select variables on the demand for hand tractor services. The functional form of the equation was assumed to be linear.

The study found that tractor owners and tractor renters differed in social status, farm size and income. Tractor owners had larger farm size (2.32 ha) than tractor renters (.63 ha), higher income (Rp 1,939,644.48 wet season and Rp 2,719,731.70 dry season) than tractor renters (Rp 531,360.70 wet season and Rp 747,098.63 dry season).

The regression analysis showed that the demographic

factor, family size, significantly but negatively influenced the demand for hand tractor services used by tractor renters in the wet and dry seasons. Economic factors such as farm size and cropping intensity significantly influenced the number of hours of hand tractor services used by tractor owners and tractor renters in each season. For tractor renters, other economic factors such as hand tractor rental cost, average daily wage rate and farmers' income significantly influenced the demand for hand tractor services in each seasons. Credit policy significantly influenced the demand for hand tractor services used by tractor renters.

It is therefore suggested that (1) HYV, fertilizer, irrigation water and insecticide should be made readily available to the farmer in order to increase cropping intensity; (2) the efforts to maintain land area cultivated should be supported; (3) price stability should be maintained.

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