

## SHARES OF FIXED FACTORS OF PRODUCTION IN THE NET EARNINGS FROM AGRICULTURE IN WEST GODAVARI DISTRICT

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It will be quite interesting to know the relative shares of land, family labour and fixed investment in the net earnings from agriculture so as to assess whether the fixed factors of production are paid sufficiently or not. The present study is made from the data available at the Farm Management Studies, Andhra University, Waltair. This centre has surveyed about 107 farms in West Godavari District for three years, 57-58, 58-59, and 59-60. The present paper is prepared from the data of 58-59.

All costs except those of land, family labour and fixed investment are deducted from the gross income of each farm and these net earnings are equated to the three factors of production. A function of the Cobb-Douglas type is fitted to the data of 102 farms (five farms are omitted because of their negative earnings).

Thus the function is of the form

$$Y = A X_1^{b_1} X_2^{b_2} X_3^{b_3}$$

where

Y = Net earnings from the production of all crops arrived at by deducting all costs, imputed as well as incurred except those of land, family labour and fixed investment.

X<sub>1</sub> = Land in standard acres.<sup>1</sup>

X<sub>2</sub> = Family labour in eight-hour days.<sup>2</sup>

X<sub>3</sub> = Fixed investment excluding land. (This includes investment in agricultural implements, water engines and other machinery, carts, storage sheds, wells, investment in plough cattle and cattle sheds.)

The Cobb-Douglas type of function, which is linear in logarithms is fitted to the data by the method of least squares. The estimated regression equation in logarithms for net earnings for all the farms is :

<sup>1</sup> Standardized according to the formulae evolved by the Govt. of Andhra Pradesh, on the basis of land revenue.

<sup>2</sup> All days are converted into eight-hour man-days as follows :

8 hrs. worked by man = 1 man-day

8 hrs. worked by woman = 4/5 man-day

8 hrs. worked by child = 1/2 man-day

It may be noted here that in Farm Management Studies, management labour has not been included in either physical input or cost side. So the share of the family labour excludes the management earnings.