



## IMPACT OF AGRICULTURAL LAND HOLDINGS ON OVERDUES OF TRIBAL FARMERS

Dr. T. Gopal<sup>1</sup> & Prof. G. Venkata Naidu<sup>2</sup>

<sup>1</sup>Post Doctoral Fellow , Department of Economics and Applied Economics,  
Sri Krishnadevaraya University, Anantapuramu.

<sup>2</sup>Department of Economics and Applied Economics,  
Sri Krishnadevaraya University, Anantapuramu.

### ABSTRACT

*Tribals constitute an important segment of Indian population constituting 7.6 percent to the total population of the country. Andhra Pradesh is the seventh largest tribal population states in India having 41.99 lakh of tribal population representing 6.3 percent of the total population of the State. More than 90 percent of the tribals are dependent an agriculture and allied activities.*



*and is also the only tangible asset of a tribal family, other possessions being extremely a meager in the present stages of their economy.*

**KEYWORDS:** *Agricultural Land, Tribal Farmers, Tribal Constitute, Indian Population.*

excluded, however, helped in the continuance the traditional tribal system of some time and delayed the extension of the new system. Moreover, many of the tribal areas were parts of the Indian princely states. The situation in these states was mixed-some continued with the traditional management systems, some developed their own system while some others adopted one of the newer systems of British India,

A number of important developments after Independence have had far-reaching implications for tribal land and their economy. Areas predominantly inhabited by tribals hitherto under the princely states were merged with the new states. One of the important consequences of this merger was that the laws and

### INTRODUCTION:

There are a number of social and religious rituals connected with land which establish emotional ties between the tribal and their land. Thus, land is much more than merely a source of livelihood to the tribal people. One of the important characteristics of a tribal community is its traditional association with a territory, Initially, the community subsisted on food gathering and hunting in the area under its command. As the pressure of population grew and the community acquired the new skill of agriculture they cleared the forest and brought land under cultivation. The individual tribal considers himself as owner of the land he occupies by virtue of his traditional association and his personal effort in making it cultivable.

The land ownership amongst the tribals broadly falls under three categories, viz., community land belonging to the village as a Whole, lands belonging to a clan and individual holdings. As the British administration consolidated its position in India, they established three main systems of land revenue and land rights, viz., zamindari, mahalvari and ryotwari. Some of the tribal areas also come under one of these new systems depending on the system adopted in particularly

the rules, many of which were enforced through administrative fiat of the ruler or by simple administrative orders and conventions became ineffective. The new centers of administrative authority were far away from these areas and it took considerable time before their problems could be appreciated at those levels. The vested interests took advantage of this period of uncertainty and indecision at the cost of the tribal interest in the land. The constitution envisaged scheduling of tribal areas and making special regulations for protection of tribal lands. The earlier regulations prevalent in the excluded and partially excluded areas continued to operate after those areas were scheduled.

**METHODOLOGY:**

The main objective of the study is to assess the impact of agricultural land on over dues of tribal farmers. The Ongole was purposively selected for the present study. The percentage of tribal population in total district population is 3.86 per cent. The tribal farmers grow mainly groundnut, paddy, chilly, cotton, red gram, castor, sunflower etc. All these crops are grown both irrigated and rain fed area. Tribal farming in the district is relatively very backward. So, the income of the tribal farms is relatively low as compared to other irrigated regions in the district.

Over dues is a burning problem. There are a number of factors that are responsible for the over dues. It is also attempted here to estimate the contribution of each of the selected factors in defining the amount of over dues. It is assumed that the amount of over dues is influenced by factors: total land holdings, percentage of irrigated area and percentage of amount used for productive purpose in borrowed amount. Therefore the proposed multiple regression equation is:

$$y = f(X_1, X_2, X_3) \text{-----(1)}$$

Where Y = Amount of-over dues (in rupees)

X<sub>1</sub> = Total land holdings (in acres)

X<sub>2</sub> = Percentage of irrigated area.

X<sub>3</sub> = Percentage of total amount used for productive purposes.

Both the linear and log-linear forms of the equation (1) are Y = a<sub>0</sub> + a<sub>1</sub>X<sub>1</sub> + a<sub>2</sub>X<sub>2</sub> + a<sub>3</sub>X<sub>3</sub> ---- (2)

Y = a<sub>0</sub> + a<sub>1</sub>X<sub>1</sub> + a<sub>2</sub>X<sub>2</sub> + a<sub>3</sub>X<sub>3</sub> [<sup>3</sup>]

i.e., log Y = log a<sub>0</sub> + a<sub>1</sub>logX<sub>1</sub> + a<sub>2</sub>logX<sub>2</sub> + a<sub>3</sub>logX<sub>3</sub> [4]

**Data**

The multistage sampling method was adopted for data collection. Initially, Prakasham district was divided into three revenue divisions namely Ongole, Kandukuru and Markapur. From each revenue division one mandal is selected, from each selected mandal four villages are selected the required information was collected through personal interviews with the help of pre-tested schedule. The present study was undertaken during 2005-06 in three revenue divisions, viz., Ongole, Kandukuru, Markapur of Prakasham district.

The primary data was used to the present study. The required data was collected through personal interviews. Totally 115 samples were selected, these samples are classified into small farmers, medium farmers and large farmers. Among these samples 45 are small farmers, 48 are the medium farmers and remain 22 are the large farmers. The size groups are divided on land holding.

- o - 2.5 hectares Small farmers 2.51 - 5.0
- hectares Medium farmers 5.1 and above hectares
- Large farmers

Among the selected 115 samples some farmers are having over dues to the financial institutions. According to the classification of farmers, 25 small farmers, 30 medium farmers and 20 large farmers having over dues. Hence the study on over dues carried out on these 75 samples only.

### Importance of Land in Tribal Agriculture

The adoption of new technology by farmers, among other things, shows effecting income. The quicker and greater the raise in income resulting from the use of new technology, the greater is the probability of its being adopted by cultivators. The technological breakthrough in agriculture benefited the farming community to a considerable extent. It helped in increasing the farm income, which ultimately effected the consumption and saving pattern of the farm families. The study of income. saving and investment in agriculture had assumed great significance in views of the Government's new policy that investment in agriculture would receive the highest priority in the economic development of the country. Side by side the farmers would be motivated to increase the efficiency of production and make such adjustment in their investment pattern. So as to meet fully the consumer's demand.

The particulars of land holdings in three size groups of Ongole are given in Table 1.

**Table 1**  
**AVERAGE/TOTAL LANDHOLDING IN SMALL, MARGINAL AND LARGE FARMS**

| S. No. | Particulars                                     | Small Farmers<br>[0.2.5] | Medium Farmers<br>[2.51 – 5.00] | Large Farmers<br>[5.01 and above] | Average/<br>Total |
|--------|---|--------------------------|---------------------------------|-----------------------------------|-------------------|
| 1.     | Number of cultivators                           | 45                       | 48                              | 22                                | 115               |
| 2.     | Average size of family                          | 6.18                     | 7.15                            | 7.64                              | 6.99              |
| 3.     | Total land                                      | 74.8                     | 164.6                           | 148                               | 387.40            |
| 4.     | Cultivated land                                 | 69.2                     | 17.2                            | 126.4                             | 114.27            |
| 5.     | Irrigated land                                  | 27.2                     | 63.8                            | 54.4                              | 48.47             |
| 6.     | Unirrigated land                                | 42                       | 83.4                            | 72                                | 65.80             |
| 7.     | Percentage of irrigated area to cultivated area | 37.79                    | 43.38                           | 39.74                             | 40.30             |
| 8.     | Percentage of cultivated area of total area     | 94.71                    | 90.55                           | 88.7                              | 91.32             |
| 9.     | Percentage of wet land to total area            | 34.94                    | 38.81                           | 34.28                             | 36.01             |
| 10.    | Percentage of dry land to total area            | 59.77                    | 51.74                           | 54.42                             | 55.31             |
| 11.    | Average size of holding [in acres]              | 0.61                     | 1.2                             | 2.2                               | 1.34              |

**Source:** Field Survey data.

### Medium Farmers

The coefficient of land holdings is 0.9922. It is positive and significant at 5 per cent probability level. It expresses that for everyone unit increase in land holdings will increase the amount of over dues by more than 0.99,units. The co-efficient of percentage of irrigated area is 0.0299. It is positive and significant at J 0 per cent probability level. Everyone unit increase in percentage of irrigated area will increase the amount of over dues by 0.03 units. That is, one per cent increase in irrigated area will increase the over dues by 0.03 per cent. The coefficient of X3, that is, percentage of total amount borrowed used for productive purposes is also positive but not significant. The regression co-efficient of XJ is 0.2361. Every one unit increase in percentage of total amount borrowed used for productive purposes will increase the amount of over dues by 0.24 units.

### Large farmers

The co-efficient of landholdings is 0.7595. It is positive and not significant. It expresses that everyone unit increase in land holding will increase the amount of over dues by nearly 0.76 units. This increase in over

dues is not a significant one. The coefficient of percentage of irrigated area is negative but not significant. Everyone unit increase in percentage of irrigated area will decrease the amount of over dues by 0.01 units that is one per cent increase in irrigated area will decrease 0.01 percentage of over dues. This decrease in over dues is almost negligible.

**Total farmers**

The log-linear' estimates of the multiple regression model are shown in the Table 2. The multiple correlation coefficient (R<sup>2</sup>) and the corresponding F-values, are given in the table. It is observed that the coefficient of land holdings is 0.4328. It is positive and significant at 5 per cent probability level. Thus it is estimated that everyone unit increase in land holdings will increase the amount of over dues by nearly 0.43 units. This increase in over dues is a significant one. Hence, it may be said that as the size of land holding increases the amount of over dues also significantly increases. It is inferred that the income from land may be used to other purposes and not for repaying the agricultural loans; it may mean that the income from the tribal farms may not be sufficient enough to meet their expenses. It may be due to lack of new agricultural technology in tribal farms. It may also suggested that by providing new agricultural technology, good quality of seeds, fertilizers and pesticides to tribal farmers, the productivity of tribal farms may be enhanced, thereby increasing the repayment capacity of tribal farmers and reducing the over dues.

The coefficient of percentage of irrigated area is 0.096. It is positive and not significant. Every one unit increase in percentage of irrigated area wilt increase the amount of over dues by 0.0 I per cent. This increase in over dues is not a significant increase. It is inferred that the income from irrigated area may be used to other purposes but not for repaying the agricultural loans. It may be suggested that by providing new

**Table 2**  
**ESTIMATED REGRESSION COEFFICIENTS BY TRIBAL FARMS**  
**[LOG LINEAR MODEL]**

| S.No. | Variables | Tribal farmers       |                      |                     | Total farmers       |
|-------|-----------|----------------------|----------------------|---------------------|---------------------|
|       |           | Small farmers        | Medium farmers       | Large farmers       |                     |
| 1.    | ao        | 10.3080              | 5.9690               | 6.213               | 8.036               |
| 2.    | al        | 0.7154*<br>[1.9656]  | 0.9922*<br>[1.9702]  | 0.7595<br>[1.1319]  | 0.4328*<br>[3.3388] |
| 3.    | a2        | -0.0104<br>[0.5726]  | 0.0299**<br>[1.6947] | -0.0132<br>[0.0319] | 0.0096<br>[0.7804]  |
| 4.    | a3        | -0.5711*<br>[1.9631] | 0.2361<br>[0.7102]   | 0.2681<br>[0.8151]  | 0.030<br>[0.1538]   |
| 5.    | R         | 0.5839               | 0.4562               | 0.3601              | 0.4277              |
| 6.    | F         | 3.6202*              | 2.2772**             | 0.7948              | 5.2982*             |

\* Significant at 5% probability level

\*\* Significant at 10% probability level -Figures in . the parentheses are t-values.

**Small Farmers**

Co-efficient of land holdings is 0.7154 and it is positive with 5 per cent significance, meaning that for every one unit increase in land holdings, over dues will increase by 0.72 units. The co-efficient of irrigated area is negative but not significant. One unit increase in percentage of irrigated area will decrease the amount of over dues by 0.01 units. The coefficient of X3, that is percentage of total amount borrowed used for productive purposes is negative and significant. The regression co-efficient of X3 is -0.5711. It is significant. For everyone unit increase in percentage of investment in borrowed amount will decrease the amount of over dues by 0.57 units, technology and also insurance facilities to the tribal farmers, the

productivity of tribal farms may be enhanced. So that repayment capacity of tribal farmers is increased.

The coefficient of X3 is negative and not significant. The regression coefficient of X3 is 0.030. Every one unit increase in percentage of investment in borrowed amount decreases the amount of over dues by 0.03 units. This decrease is a significant one. It may be observed that the increase in X3 variable will decrease the amount of over dues of tribal farmers through the increase in the repayment capacity and ultimately decrease the amount of over dues. Hence, it may be suggested that the total borrowed amount should not be paid in the form of cash, and it should be in the form of fertilizers, pesticides and manures.

The collective effect of selected three independent variables, viz: percentage of land holdings, percentage of irrigated area, percentage of total amount borrowed used for productive purposes, on the dependent variable, the amount of over dues is expressed by the multiple correlation coefficient (R). The value of  $R^2$  is 0.4277. From the value of  $R^2$ , it is observed that the selected three variables show 42.77 percentage of variation in the amount of over dues. Hence, the combined effect of the three variables on the amount of over dues is more than 42 per cent.  $R^2$  is significant.

## **CONCLUSION**

Comparing the estimates of the variables in three farm sizes, it is observed that the variable of total land holdings shows a positive and significant effect on the amount of over dues remaining unpaid back. It is not significant in case of large farmers. Similarly, the variable of irrigated area established negative effect with over dues in case of small and large farmers. It means as the irrigated area increases the over dues may decrease. Hence it is suggested that to reduce the amount of over dues, the irrigation facilities may be augmented. In case of medium farmers and total farmers irrigated areas effect is positive. Though the tribal farmers' farm income may increase through increasing the irrigation facilities, they are not repaying loan amount. Hence, overdue may be mounting. The farm income may be diverted to other purposes which may be for personal consumption. The coefficient of the variable, the amount used for productive purposes, is negative and significant in case of small farmers, where as it is positive in case of other farmers.

It is noticed that the amount of over dues may be reduced significantly by raising the percentage of total amount borrowed used for productive purposes in case of small farmers where as it is not so in the case of other farmers. The aggregate effect of the selected three variables is significant in almost all cases except large farmers. It is also noticed that the selected variables are not influencing the large farmers in reducing the over dues. Finally, it is inferred that to reduce the amount of over dues of the tribal farmers, the percentage of irrigated area may be enhanced. In case of small farmers, from the estimated coefficients, there is a scope to reduce the over dues by increasing the total amount borrowed used for productive purpose. The small farmers are not utilizing the entire borrowed amount to productive purpose, and it may be diverted to some other unproductive purposes.

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**IMPACT OF AGRICULTURAL LAND HOLDINGS ON OVERDUES OF TRIBAL FARMERS**

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