



# Endurance of Farmers and Farming (An Empirical Study of Andhra Pradesh)

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#### Abstract:

Agriculture provides the livelihood of more than 70 per cent of the rural labour force and as such, increases in farm income tend to stimulate demand for consumer goods. Farm profitability has witnessed a sharp decline due to land degradation, risk and uncertainty associated with agriculture. Rural-Non-Farm-Activities (RNFAs), thus, play an important role to provide supplementary employment to small and marginal farm households, reduce income inequalities and rural-urban migration. An attempt has been made in this paper to analyze the status of farmers and farming in Andhra Pradesh. Both quantitative and qualitative methods of research were applied in the study through the collection of data by household survey and in-depth interviews, site visits and field observations. The distribution of respondents as per social category shows that majority of them belong to Forward Caste category followed by Backward Castes. The Scheduled caste respondents account for 15.4 per cent and Scheduled Tribes constitute 1.5 per cent. The socially backward farmers have not as much of level of literacy as Forward Caste

farmers. Out of 600 respondents, marginal farmers constitute 21.5 per cent, while small farmers account for 33.17 per cent Semi-medium farmers constitute 30.17 per cent and medium farmers constitute 13.17 per cent while the representation of large farmers is 2.0 per cent. The proportionate size of male population is higher than that of female in all farming categories with 4.55 average size of the family. Cultivation is the main occupation for 95 per cent of farm households. Yet, nearly 47 per cent of farm households have agricultural wage labour as the subsidiary occupation. This scenario is more found in Marginal and Small farmers. While, 40 per cent of farmers don't have any subsidiary occupation. Many of the households depend on wage and other non-farm business to augment their incomes since their incomes is not be sufficient to meet basic necessities including health and education. Farm households are found to be struggling hard to meet the consumption expenditure out of cultivation. Farm households are spending on consumption less than the recommended minimum intake levels in the study area. Farmers have reported that they are repaying the loans taken from banks, cooperatives societies and self-help groups at the end of the year by borrowing from other non-institutional sources. So this debt burden gets enhanced year after year. It leads to a situation that debt gets accumulated over the years. Thus the debt brings out situation of debt trap among farm households. This clearly reveals the stress conditions among farm households. Majority of the respondents, whose economic status has remained the same and whose status has further deteriorated are belonging to marginal and small farming categories. Although, the respondent farmers are quite unwilling to give up their ancestral and traditional occupation and leave their villages though they get opportunities to leave their native village. And also the farmers are not willing to give up agriculture. But, a significant number of the farmers wish their children to shift from agriculture to other sectors in future if they get the opportunity. Farmers are in deep crisis, as farming alone is not able to generate sufficient income to small and marginal farmers.

Key words: farmers, farming, Andhra Pradesh

## Introduction:

Agriculture and its allied activities employ a major chunk of the total labour force in the different districts of the state. In Andhra Pradesh the participation of women in the labour force relatively higher as compared to other states. The is significance of the non-farm sector, as a potential source of employment generation, has been increasing over the years. In fact, the shift of employment from farm to non-farm sector is quite evident. The share of employment in the farm sector was as high as around 70 per cent during 1971 (Table-1). By 2001 it had declined to around 62 per cent. Consequently, the corresponding share of non-farm employment had registered an increase from around 12 to 17 per cent between 1971 and 2001. At the same time the percentage of non-workers is consistently increasing from per cent to. Male workforce dominates the nonfarm sector employment. Out of the total male workers their share in non-farm activities went up from around 37 per cent to 50 per cent between 1971 and 1991. In the case of females, on the other hand, the corresponding increase was from just below 4 per cent in 1971 to around 7 per cent in 1991. However, over the years, the concentration of women workforce has been increasing at much faster rate than the case of their male counterpart in non-farm employment. High levels of illiteracy in rural India have hampered the growth of the rural nonfarm sector. In the rural areas, lack of education leads to labor being stagnant in agriculture, or moving to casual work occupations in the nonfarm sector, and not to salaried employment with higher wages and benefits.

Table-1 Trends in Population and Non-Farm Employment in Andhra Pradesh (In lakhs)

|                       | 1961   | 1971   | 1981   | 1991   | 2001   |
|-----------------------|--------|--------|--------|--------|--------|
| Total Population      | 359.83 | 435.03 | 535.50 | 665.08 | 762.10 |
| Total workers         | 186.63 | 180.06 | 245.06 | 299.64 | 348.94 |
| % to total population | 51.87  | 41.39  | 45.76  | 45.05  | 45.79  |
| Male%                 | 62.22  | 58.22  | 57.68  | 55.48  | 56.23  |

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| Female%               | 41.32  | 24.16  | 33.54  | 34.32  | 35.11  |
|-----------------------|--------|--------|--------|--------|--------|
| Non workers           | 173.20 | 254.97 | 290.44 | 365.44 | 413.16 |
| % to total population | 48.13  | 58.61  | 54.24  | 54.95  | 54.21  |
| Agriculture           | 128.23 | 126.23 | 157.33 | 195.16 | 216.92 |
| % to total workers    | 68.71  | 70.10  | 64.20  | 65.13  | 62.17  |
| Non Agriculture       | 58.4   | 53.83  | 87.73  | 104.48 | 132.02 |
| % to total workers    | 31.29  | 29.90  | 35.80  | 34.87  | 37.83  |
| Urben population      | 297.09 | 351.00 | 410.62 | 486.21 | 554.01 |
|                       | 82.56  | 80.69  | 76.68  | 73.11  | 72.70  |
| Rural population      | 62.75  | 84.03  | 124.87 | 178.87 | 208.09 |
|                       | 17.44  | 19.31  | 23.32  | 26.89  | 27.30  |
| Literacy Rate         | 21.20  | 24.57  | 29.94  | 44.09  | 60.47  |

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Source: Directorate of Census Operations, Andhra Pradesh and computed.

#### Linkages of Rural Farm and Non-Farm-Sector

Rural non-farm economy, in recent times, is considered as an effectual strategy for decentralization of economic activities to rural India. Farm activity means agricultural activity and nonfarm activity is used synonymously with non-agricultural activity. There are two alternative approaches to define ruralnon-farm activities (Saith, 1992). The first is the locative approach in which the primary criterion is that a RNF activity is performed in a location which falls within a designated rural area. The second is based on the linkage approach where an industrial enterprise generates significant development linkages with the rural areas. It includes all economic activities viz., household and non-household manufacturing, handicrafts, processing, repairs, construction, mining and quarrying, transport, trade, communication, community and personal etc. in rural areas. **Rural-Non-Farm-Activities** services (RNFAs). thus, play an important role to provide supplementary employment to small and marginal farm households, reduce income inequalities and rural-urban migration.

The findings of a large numbers of studies have revealed that there is a positive relationship between the growth of agricultural productivity and non-agricultural employment

across the regions of the country even within the states across the district level. The growth in agriculture is expected to influence positively the growth pattern and expansion of nonagricultural enterprises, by way of supplying adequate raw materials, creating greater demands for various inputs and allied services raising to local and external demands for consumption goods and creating the possibility of generating surplus for its further investment on different rural non-farm activities especially in activities relating to processing and trade. Expectations are that the expansion of non-farm activities so as to raise the income of rural households will lead to attract the surplus labourforce of agriculture to turn into non-farm activities. In fact, the unemployed labourforce and those are no way engaged in agriculture will also find the opportunities to get employment in non-agricultural activities (Vaidvanathan 1986, Bhalla 1990).

Although the RNFS has tremendous potential of removing unemployment in villages, the government has not been serious to address the basic problems plaguing this sector. Major bottlenecks in the holistic development of the RNFS are poor quality of employment and incomes, shortage of skilled manpower, unavailability of credit facilities, absence of marketing networks, poor transportation facilities, low public investment in villages, lack of basic amenities in rural areas, poor law and order scenario, erratic power supply, etc. Besides, not much has been done to develop technologies relevant for the sector. Entrepreneurs are by and large reluctant to invest in the rural non-farm sector. Not many NGOs and political groups are engaged in empowering the rural communities to be proactive and develop RNFS enterprises on their own.

At the same time, it has also been pointed out that the agricultural development may improve the efficiency of rural non-agricultural enterprises without necessarily increasing their numbers. Thus, the agricultural growth by itself leads to increase in rural non-agricultural employment is not validated.

The increasing trend of population and its sizeable addition in labourforce on one hand and increasing fragmentation of land holdings leading to decreasing availability of per household cultivated land area on the other, the agriculture sector alone is expected would hardly be in a position and to create additional employment opportunities according to the existing increasing rate of rural labourforce and to sustain the livelihood of the rural households, even in high growth and the agriculturally potentials states in India. In this context initiating for planning development of various potential rural non-farm activities in general and especially rural industrial activities those who are possessing certain area specific comparative advantage in terms of their development possibilities, has been viewed would be an instrumental approach for reducing the emerging problems of increasing un-employment and poverty in rural areas.

### Need for the study:

Agriculture and allied activities support livelihoods of nearly 70 percent of India's rural population. The rural non-farm economy is the backbone of numerous towns scattered throughout India as well as the primary source of income and employment for many of India's poor. The sector therefore plays a key role in determining future prospects for employment growth and poverty alleviation in the country. The RNFS is closely linked to agriculture. A large share of rural manufacturing involves agro-processing and the production and supply of farm inputs. Agricultural performance therefore tends to influence growth in the non-farm economy. A growing agriculture demands production inputs in addition to supplying raw materials to transport, processing and marketing firms. Moreover, agriculture provides the livelihood of more than 70 per cent of the rural labour force and as such, increases in farm income tend to stimulate demand for consumer goods.

The Andhra Pradesh agriculture reached a part of plateau in terms of living in agriculture. Farm profitability has witnessed a sharp decline due to land degradation, risk and uncertainty associated with agriculture. As farming alone is not able to generate sufficient income to small and marginal farmers, farmers are in deep crisis. In this context an attempt has been made in this paper to analyze the status of farm sector likelihood in response to rural non-farm sector in Andhra Pradesh.

# **Objective:**

Keeping this in view, the study examines the situation among farm families of Andhra Pradesh. Hence, it is proposed to analyze the status of farmers and farm sector likelihood in response to rural non-farm sector in Andhra Pradesh.

# Methodology:

This section describes the design and methodology applied. The methods of sampling and way of determining the sampling size is described, along with the methods and techniques employed in the data collection.

# **Research design:**

Both quantitative and qualitative methods of research were applied in the study through the collection of data by household survey and in-depth interviews, site visits and field observations. This paper is also based on Secondary data from Government agencies, NSSO reports and reputed Journals. The secondary data is collected from Directorate of Economic and Statistics, Government of Andhra Pradesh and from different reputed journals. Mandal and village level data is also collected from Mandal Revenue Offices in selected districts to select identify sample villages.

## Selection of study area:

Andhra Pradesh is a state with diversified regional dimensions where marked difference exists among the regions. Uneven distribution of rainfall. natural resources. irrigation infrastructure and agro-climatic conditions are the important characteristics of the agriculture in the study area which are critical to the performance of agriculture. To acquire comprehensive understanding of the problems prevailing in agriculture, a Multistage Random Sampling Method is employed. In the first step Andhra Pradesh is divided into three regions, namely Coastal Andhra, Telangana and Rayalaseema regions, two districts from each region is selected at random in fist stage. In the second stage, one mandal from each district is selected at random. In the third stage, one village from each of the selected mandal is selected at random. Finally a sample of six villages are selected for the study. Finally farm households in each of the selected village is listed. A sample of 100 farm households are selected randomly from the list of farm households whose main occupation is cultivation from each of the selected villages. The households are divided into five farming categories, namely, marginal farmers (less than 2.5 acres), small farmers (2.5 to 5 acres), semi-medium farmers (5 to 10 acres), medium farmers (10 to 25 acres) and large farmers (25 and above acres).

All the sample households were interviewed personally to collect the required primary data using structured questionnaire. The household survey was conducted to collect information on the socio-economic states which includes employment, income and consumption, expenditure and also access to basic amenities like safe drinking water sanitation, school, transport, market, communication facilities.

Further, the information regarding the households, demographic information, system of cropping pattern, farm income and expenditure, and off-farm income, input use, crop yield, cost and returns of different on-farm activities and availability of institutional credit and utilisation of Government schemes in the selected area. Perceptions of farmers on various issues relating to government schemes, programmes, loans and problems as well as measures for their upliftment are also included in the questionnaire. To estimate the changing status of farming community in the state the socio-economic variables and perceptions of farmers are analyzed.

## **Results and Discussion:**

# Distribution of respondents by size of land holding and social group

Table-2 gives information regarding farming category and social identities of social groups of the respondents. The total selected households of the sample are 408. These 408 respondents of the households are divided into five farming categories, namely, marginal farmers (less than 2.5 acres), small farmers (2.5 to 5 acres), semi-medium farmers (5 to 10 acres), medium farmers (10 to 25 acres) and large farmers (25 and above acres). In this way, of the total 600 respondents, marginal farmers constitute 21.5 per cent, while small farmers account for 33.17 per cent Semi-medium farmers constitute 30.17 per cent and medium farmers constitute 13.17 per cent while the representation of large farmers is 2.0 per cent. These farming categories based on land holdings are further divided in to Forward Caste (F.C), Backward Caste (B.C), Scheduled Caste (S.C) and Scheduled Tribe (S.T) on the basis of caste status to identify the relation between caste status and other economic variables. The distribution of respondents as per social category shows that majority of them constituting 43.1 per cent (176) belong to Forward Caste category while

Backward Castes constitute 40.0 per cent (163). The Scheduled caste respondents account for 15.4 per cent (63) and Scheduled Tribes constitute 1.5 per cent (6).

Thus the data indicates that major proportions of marginal farmers (45.0 per cent) and small farmers (51.3 per cent) belong to Backward Caste category. The highest proportion of semi-medium farmers (62.7 per cent), and medium farmers (77.8 per cent) belong to Forward Caste category. All the large farmers (9) do belong to the forward community. Among the Forward Caste category respondent farmers, majority are semi-medium farmers (36.4 per Cent) followed by small farmers (32.2 per cent). Majority of Scheduled Castes (54.0 per cent) are marginal farmers and majority of Scheduled Tribes are small farmers (66.7 per cent). In this connection, the total operational land sizes of all the social categories and their respective average land sizes are given in the table-2.

|             | Sub-cast o | f the respond | lent      |           |          |
|-------------|------------|---------------|-----------|-----------|----------|
| Farming     | Forward    | Backward      | Scheduled | Scheduled |          |
| Category    | caste      | castes        | Castes    | Tribes    | Total    |
| Marginal    | 39         | 54            | 35        | 1         | 129      |
| Marginai    | (30.23)    | (41.86)       | (27.13)   | (0.78)    | (100.00) |
|             | (13.73)    | (24.88)       | (37.23)   | (20.00)   | (21.50)  |
| Small       | 84         | 38            | 38        | 75        | 199      |
| Small       | (42.21)    | (19.10)       | (19.10)   | (37.69)   | (100.00) |
|             | (29.58)    | (40.43)       | (40.43)   | (34.56)   | (33.17)  |
| Semi-Medium | 99         | 62            | 19        | 1         | 181      |
| Semi-Medium | (54.70)    | (34.25)       | (10.50)   | (0.55)    | (100.00) |
|             | (34.86)    | (28.57)       | (20.21)   | (20.00)   | (30.17)  |
| Medium      | 53         | 23            | 2         | 1         | 79       |
| Medium      | (67.09)    | (29.11)       | (2.53)    | (1.27)    | (100.00) |
|             | (18.66)    | (10.60)       | (2.13)    | (20.00)   | (13.17)  |
| Lange       | 9          | 3             | 0         | 0         | 12       |
| Large       | (75.00)    | (25.00)       | (0.00)    | (0.00)    | (100.00) |
|             | (3.17)     | (1.38)        | (0.00)    | (0.00)    | (2.00)   |
| Total       | 284        | 217           | 94        | 5         | 600      |
| 10181       | (47.33)    | (36.17)       | (15.67)   | (0.83)    | (100.00) |
|             | (100.00)   | (100.00)      | (100.00)  | (100.00)  | (100.00) |

Table-2 Distribution of the Sample Households by Caste wise and Size wise

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#### Source: Primary data

**Note:** Figures in the parentheses indicate the percentage to the respective caste category.

Note: Forward caste: socially and economically forward communities

Backward caste: socially and economically backward communities.

Scheduled Caste: socially and economically depressed communities.

**Scheduled Tribes:** aboriginal tribes officially in given some protection and privilege.

### **Composition of Population and Family Size**

The demographic profile of the selected sample households presented as per the farm sizes. As shown in the table-3, male population constitutes 49.43 per cent to the total composition of sample households and that of female constitutes 44.01 per cent and the children constitute 6.56 per cent. It is observed that the proportionate size of male population is higher than that of female in all farming categories and it is higher among semimedium farms when compared to other farm size groups. It is almost same with the medium (43.41per cent) and small farmers (43.65). As for children they constitute higher proportion among marginal (8.90 per cent) and small farms (7.14 per cent). With regard to female population, their proportion is higher among large farmers. The average size of the family is small for marginal and small farms when compared with the other farmers. Among all farming categories the average family size of large farms is high, which is '6.75'. The average size of the family of the total farm household is 4.55.

| Farming<br>Category | Male            | Female          | Male child    | Female Child   | Non Workers    | Workers         | Total population | Average family size |
|---------------------|-----------------|-----------------|---------------|----------------|----------------|-----------------|------------------|---------------------|
| Marginal            | 253<br>(47.92)  | 228<br>(43.18)  | 27<br>(5.11)  | 20<br>(3.79)   | 182<br>(34.47) | 346<br>(65.53)  | 528<br>(100.00)  | 4.09                |
| Small               | 434<br>(49.21)  | 385<br>(43.65)  | 38<br>(4.31)  | 25<br>(2.83)   | 340<br>(38.55) | 542<br>(61.45)  | 882<br>(100.00)  | 4.43                |
| Semi-Medium         | 418<br>(50.36)  | 369<br>(44.46)  | 29<br>(3.49)  | 14<br>(1.69)   | 303<br>(36.51) | 527<br>(63.49)  | 830<br>(100.00)  | 4.59                |
| Medium              | 211<br>(51.46)  | 178<br>(43.41)  | 14<br>(3.41)  | 7<br>(1.71)    | 132<br>(32.20) | 278<br>(67.80)  | 410<br>(100.00)  | 5.19                |
| Large               | 34<br>(41.98)   | 42<br>(51.85)   | 5<br>(6.17)   | 0.00<br>(0.00) | 32<br>(39.51)  | 49<br>(60.49)   | 81<br>(100.00)   | 6.75                |
| Total               | 1350<br>(49.43) | 1202<br>(44.01) | 113<br>(4.14) | 66<br>(2.42)   | 989<br>(36.21) | 1742<br>(63.79) | 2731<br>(100.00) | 4.55                |

Source: Primary data.

**Note:** Figures in the parentheses indicate the percentage to total population of the farming category.

### **Education Levels of the Farm Households**

Level of literacy is one of the important parameters that indicate the social and economic status of farm households. This in turn brings in change in economic status. The level of literacy among sample farm households by the size of the farms is presented in table-4.a. The data reveals that 46 per cent of heads of the farm households do not have any formal education. Of the remaining farm households, 16 per cent of the farmers have primary education, 25 percent of the farmers have school level education and 8 per cent of the farmers have got education

above 10<sup>th</sup> level. The data on literacy among the sample farmers in same proportion when compared to overall state rural population literacy, which is 47 per cent. The data reveals that 71 percent of scheduled caste farmers are found to have no formal education (table-4.b). Similarly 60 percent of scheduled tribes are also do not have formal education. Nearly 57 per cent of farmers belongs to backward caste community do not have formal education. Nearly 30 percent of forward caste farmers also do not have formal education. Only 4 per cent of the farmers have educated above graduation. This clearly reveals that there is a close relation between literacy and social hairachy that is socially backward farmers have less level of literacy.

### Subsidiary Occupation of the Farm Households

The occupational distribution of sample farm households across the farm size groups is presented in table-5.a and 5.b. Cultivation is the main occupation for 95 per cent of farm households. Among small farms 2.51 per cent have reported that their main income is from wage labour. The intra size group comparison reveals that about 8 per cent of large farm households, 5 per cent of medium farm households, 1 per cent of semi-medium farm households, 2 per cent of small households and 4 per cent of marginal farm households get their main income from employment either in government or in private organizations. That is one of the family members are working either in government or other organizations. Nearly 47 per cent of farm households have agricultural wage labour as the subsidiary occupation. To say category wise, 54 per cent of marginal, 55 per cent of small, 41 per cent of semi medium, 31 per cent of medium and 25 per cent large farms work as agricultural wage workers to meet their family needs. And 40 per cent farmers do not have any subsidiary occupation.

|                           | Farming C | ategory  |          |          |          |          |
|---------------------------|-----------|----------|----------|----------|----------|----------|
|                           | Marginal  | Small    | Semi-    | Medium   | Large    | Total    |
| Education level           |           |          | Medium   |          |          |          |
| Illiterate                | 69        | 97       | 83       | 24       | 4        | 277      |
| Interate                  | (53.49)   | (48.74)  | (45.86)  | (30.38)  | (33.33)  | (46.17)  |
| Primary                   | 28        | 36       | 23       | 5        | 3        | 95       |
| rimary                    | (21.71)   | (18.09)  | (12.71)  | (6.33)   | (25.00)  | (15.83)  |
| Middle and                | 22        | 48       | 53       | 26       | 2        | 151      |
| high school               | (17.05)   | (24.12)  | (29.28)  | (32.91)  | (16.67)  | (25.17)  |
| 10 <sup>th</sup> pass and | 7         | 14       | 14       | 13       | 2        | 50       |
| Inter                     | (5.43)    | (7.04)   | (7.73)   | (16.46)  | (16.67)  | (8.33)   |
| Graduation                | 3         | 4        | 7        | 11       | 1        | 26       |
| and above                 | (2.33)    | (2.01)   | (3.87)   | (13.92)  | (8.33)   | (4.33)   |
| P.G                       | 0         | 0        | 1        | 0        | 0        | 1        |
| 1.0                       | (0.0)     | (0.0)    | (0.55)   | (0.0)    | (0.0)    | (0.18)   |
| Total                     | 129       | 199      | 181      | 79       | 12       | 600      |
| 10(a)                     | (100.00)  | (100.00) | (100.00) | (100.00) | (100.00) | (100.00) |

#### Table-4.a Education Level of sample respondents

Source: Primary data

Note: Figures in the parentheses indicate the percentage to the size groups.

|                       | Sub-cast | of the respor       | ndent               |                 |          |          |
|-----------------------|----------|---------------------|---------------------|-----------------|----------|----------|
| Education<br>level    | General  | Scheduled<br>Castes | Scheduled<br>Tribes | Backward castes | Others   | Total    |
| Illiterate            | 84       | 66                  | 3                   | 124             | 0        | 277      |
|                       | (29.58)  | (70.97)             | (60.00)             | (57.14)         | (0.00)   | (46.17)  |
| Primary               | 42       | 11                  | 1                   | 41              | 0        | 95       |
|                       | (14.79)  | (11.83)             | (20.00)             | (18.89)         | (0.00)   | (15.83)  |
| Middle and            | 96       | 10                  | 1                   | 43              | 1        | 151      |
| high school           | (33.80)  | (10.75)             | (20.00)             | (19.82)         | (100.00) | (25.17)  |
| 10 <sup>th</sup> pass | 39       | 5                   | 0                   | 6               | 0        | 50       |
| and Inter             | (13.73)  | (5.38)              | (0.00)              | (2.76)          | (0.00)   | (8.33)   |
| Graduation            | 22       | 1                   | 0                   | 3               | 0        | 26       |
| and above             | (7.75)   | (1.08)              | (0.00               | (1.38)          | (0.00)   | (4.33)   |
| P.G                   | 1        | 0                   | 0                   | 0               | 0        | 1        |
|                       | (0.35)   | (0.00)              | (0.00)              | (0.00)          | (0.00)   | (0.17)   |
| Total                 | 284      | 93                  | 5                   | 217             | 1        | 600      |
|                       | (100.00) | (100.00)            | (100.00)            | (100.00)        | (100.00) | (100.00) |

Source: Primary data.

**Note:** Figures in the parentheses indicate the percentage to total population of the Caste category.

|                              | Farming C | ategory  |             |          |          | Total    |
|------------------------------|-----------|----------|-------------|----------|----------|----------|
| Main Occupation              | Marginal  | Small    | Semi-Medium | Medium   | Large    |          |
| Cultivation                  | 121       | 189      | 177         | 74       | 11       | 572      |
| Cultivation                  | **(93.80) | (94.97)  | (97.79)     | (93.67)  | (91.67)  | (95.33)  |
| Agricultural Laborer         | 1         | 5        | 3           | 0        | 0        | 9        |
|                              | (0.78)    | (2.51)   | (1.66)      | (0.00)   | (0.00)   | (1.50)   |
| Employed in                  | 5         | 4        | 1           | 4        | 1        | 15       |
| <b>Government or Private</b> | (3.88)    | (2.01)   | (0.55)      | (5.06)   | (8.33)   | (2.50)   |
| Other                        | 2         | 1        | 0           | 1        | 0        | 4        |
| Other                        | (1.55)    | (0.50)   | (0.00)      | (1.27)   | (0.00)   | (0.67)   |
| Total                        | 129       | 199      | 181         | 79       | 12       | 600      |
| Totai                        | (100.00)  | (100.00) | (100.00)    | (100.00) | (100.00) | (100.00) |

Table-5.a Distribution of Farm Households by Main Occupation

Source: Primary data

**Note 1:** Figures in the parentheses indicate the percentage to the size groups. **Note 2:** Here the main occupation of the head of the farm households only is taken into account

|                          | Farming C | ategory  |          |          |          |          |
|--------------------------|-----------|----------|----------|----------|----------|----------|
| Subsidiary               |           |          | Semi-    |          |          |          |
| Occupation               | Marginal  | Small    | Medium   | Medium   | Large    | Total    |
| Cultivation              | 7         | 8        | 4        | 5        | 1        | 25       |
| Cultivation              | **(5.43)  | (4.02)   | (2.21)   | (6.33)   | (8.33)   | (4.17)   |
| Agricultural Laborer     | 70        | 109      | 74       | 25       | 3        | 281      |
| Agricultural Laborer     | (54.26)   | (54.77)  | (40.88)  | (31.65)  | (25.00)  | (46.83)  |
| Server                   | 11        | 6        | 2        | 1        | 0        | 20       |
| Server                   | (8.53)    | (3.02)   | (1.10)   | (1.27)   | (0.00)   | (3.33)   |
| Technical worker         | 4         | 3        | 7        | 0        | 1        | 15       |
| rechnical worker         | (3.10)    | (1.51)   | (3.87)   | (0.00)   | (8.33)   | (2.50)   |
| No subsidiary occupation | 33        | 67       | 82       | 47       | 6        | 235      |
| No subsidiary occupation | (25.58)   | (33.67)  | (45.30)  | (59.49)  | (50.00)  | (39.17)  |
| Other                    | 4         | 6        | 12       | 1        | 1        | 24       |
| Other                    | (3.10)    | (3.02)   | (6.63)   | (1.27)   | (8.33)   | (4.00)   |
| Total                    | 129       | 199      | 181      | 79       | 12       | 600      |
| 10(a)                    | (100.00)  | (100.00) | (100.00) | (100.00) | (100.00) | (100.00) |

Table -5.b Subsidiary Occupation of the Farm Households

Source: Primary data

**Note 1:** Figures in the parentheses indicate the percentage to the total size groups.

**Note 2:** Here the subsidiary occupation of the head of the farm households only is taken into account

# Indebtedness among Farm Households

The indebtedness among farm households is the indication of distress among farm households. A farmer gets income from cultivation, farming other than cultivation, other agricultural allied activities, wage employment, non-farm employment, pension and other sources. A farm household is considered to be indebted if he could not repay the loan out of the total receipts from all sources of income at the end of the agricultural year.

The indebtedness of farm households is presented in the table-6. Out of 600 farm households, 85 per cent are reported to be indebted. The indebtedness is increasing with the farm size. The percentage of indebted farm households is high among large and medium farms. About 79 per cent of the marginal, 84 per cent of small, 89 per cent of semi-medium, 87 per cent of medium. 92 per cent of large farms are reported to be indebted. A farm household on an average reported to be indebted an amount of Rs 13165/- per acre. Average outstanding debt among marginal, small, semi-medium, medium and large farms are found to be Rs 20936/-, 12499/-, Rs 11217/-, Rs 9023/- and Rs 5773/-respectively. Farmers have reported that they are repaying the loans taken from banks, cooperatives societies and self-help groups at the end of the year by borrowing from other non-institutional sources. So this debt burden gets enhanced year after year. It leads to a situation that debt gets accumulated over the years. Thus the debt brings out situation of debt trap among farm households. This clearly reveals the stress conditions among farm households.

| Farming<br>category | Number of<br>farm<br>households | Number of<br>Indebted<br>households | Percentage<br>of indebted<br>households | Outstanding<br>debt in<br>rupees |
|---------------------|---------------------------------|-------------------------------------|---|----------------------------------|
| Marginal            | 129                             | 102                                 | 79.07                                   | 20936                            |
| Small               | 199                             | 168                                 | 84.42                                   | 12499                            |
| Semi-Medium         | 181                             | 161                                 | 88.95                                   | 11217                            |
| Medium              | 79                              | 69                                  | 87.34                                   | 9023                             |
| Large               | 12                              | 11                                  | 91.67                                   | 5773                             |
| Total               | 600                             | 511                                 | 85.17                                   | 13165                            |

Table -6 Estimated Number of Total Indebted Farm Households by size wise

**Source :** Primary data

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## Average Monthly Income of the farm households

The average total monthly income of the households across farm size groups is presented in the table-7. The average monthly income of household is Rs. 4160/-.The table reveals that among the different sources consider, income from the hiring out labour is the most important source of income for farm household.

| Table-7 Average Monthly Income from the Agriculture and allied and |
|--|
| off- farm Activities of the Farm Households                        |
| (In rupees)  |

| Source of                       | Marginal | Small   | Semi-   | Medium  | Large   | Total |  |
|---------------------------------|----------|---------|---------|---------|---------|-------|--|
| Income                          | Farmers  | farmers | medium  | farmers | farmers |       |  |
|                                 |          |         | farmers |         |         |       |  |
| Agriculture. A                  | 256      | 218     | 443     | 180     | 271     | 290   |  |
| Dairy and Poultry               | 352      | 702     | 885     | 1108    | 1299    | 748   |  |
| Machinery and<br>Drought labour | 586      | 864     | 1533    | 1443    | 5264    | 1171  |  |
| Hiring out of<br>labour         | 654      | 602     | 454     | 416     | 806     | 548   |  |
| Other than<br>Agriculture       | 684      | 411     | 371     | 165     | 0       | 417   |  |
| Agriculture and allied. B       | 2272     | 2579    | 3243    | 3122    | 7368    | 2881  |  |
| Off-Farm<br>activities. C       | 471      | 1067    | 1008    | 1327    | 1458    | 963   |  |
| Total Income<br>(A+B+C)         | 3019     | 3864    | 4712    | 4758    | 9097    | 4160  |  |

Source: Primary data.

In the study area, average monthly income from cultivation is Rs. 290/-, while the monthly income from the hiring out of labour is Rs. 548/- Income from hiring out machinery and drought animals is Rs. 1171/-. Income generated from non-farm business is Rs. 843/- and income from dairy and poultry is Rs.

748/-. However there is a large difference in the total income across the size groups of farm households. The total income for marginal and small farms was much lower than that for the other size groups. Income from cultivation for marginal and small farm households is found to be very low. The share of monthly income from cultivation in total income is much lower among marginal, small and semi-medium farm households than that of the other size groups. The above analysis clearly reveals that the income from cultivation is not sufficient to meet all the basic necessities of the family. From cultivation an average household gets a net income of Rs. 290/-. In order to cross poverty line, one household needs more than Rs. 20000/- per annum. Incomes of marginal and small farms from cultivation are found to be much lower than that of the average farm household consumption accounting for 51 per cent and the remaining 27 per cent of the expenditure is spent on non-food expenditure. Many of the households depend on wage and other non-farm business to augment their incomes since their incomes is not be sufficient to meet basic necessities including health and education. The monthly average farmer household expenditure is Rs. 7127/- the average monthly income of the farmer is Rs. 4160/- which indicates that the income received is not sufficient to meet the minimum family needs.

### Average Monthly Household Expenditure

Income and proportion of income spent on consumption are indicators that are used in poverty and consumption studies. The monthly consumption expenditure here refers to food items like cereal and cereals products, pulses, edible oil, milk, curd and other milk products, eggs, fish, meat, vegetables and fruits, sugar, salt and other spices, and other food items. The non-food items like education, medical, clothing', soaps, detergents, toothpaste and other cosmetics, electricity, liquor, pan and tobacco, fuel and lighting, telephone, consumer durables, rent, and other miscellaneous goods and services. It is the consumption expenditure which measures the standard of living. The average consumption expenditure of different size groups are presented in the table-8.

| (In rupees)         |               |                      |         |           |        |                       |                                   |
|---------------------|---------------|----------------------|---------|-----------|--------|-----------------------|-----------------------------------|
| Farming<br>Category | Food<br>items | Non<br>food<br>items | Medical | Education | Liquor | Pan<br>and<br>tobacco | Total<br>household<br>expenditure |
| Marginal            | 3255          | 1616                 | 222     | 309       | 280    | 146                   | 5827                              |
|                     | (55.86)       | (27.73)              | (3.81)  | (5.30)    | (4.81) | (2.51)                | (100.00)                          |
| Small               | 3362          | 1767                 | 239     | 730       | 285    | 162                   | 6545                              |
| Sinun               | (51.37)       | (27.00)              | (3.65)  | (11.15)   | (4.35) | (2.48)                | (100.00)                          |
| Semi-               | 3735          | 2033                 | 243     | 846       | 230    | 127                   | 7213                              |
| Medium              | (51.78)       | (28.19)              | (3.37)  | (11.73)   | (3.19) | (1.76)                | (100.00)                          |
| Medium              | 4342          | 2359                 | 384     | 1894      | 325    | 163                   | 9466                              |
| mourum              | (45.87)       | (24.92)              | (4.06)  | (20.01)   | (3.43) | (1.72)                | (100.00)                          |
| Large               | 7025          | 3526                 | 175     | 3125      | 125    | 77                    | 14053                             |
| Laige               | (49.99)       | (25.09)              | (1.25)  | (22.24)   | (0.89) | (0.55)                | (100.00)                          |
| Total               | 3654          | 1928                 | 254     | 876       | 269    | 146                   | 7127                              |
|                     | (51.27)       | (27.05)              | (3.56)  | (12.29)   | (3.77) | (2.05)                | (100.00)                          |

 Table-8 Average Monthly Expenditure of the Farm Households

 (In rupees)

Source: Primary data

Note: Figures in the parentheses indicate the percentage to the total expenditure

Farmers find it difficult to meet their consumption needs from their income. Some of them have to borrow or spend less. In a normal crop year with no emergent expenses coming in between, the small farmers should be in a position to save a little. The medium farmers will normally have some surplus after meeting the family expenses. The large farmers will be in a position to save a considerable part of the income. The table shows that the large share of monthly per capita expenditure goes for food consumption accounting for 51 per cent and the remaining 27 per cent of the expenditure is spent on non-food expenditure.

The share of non- food expenditure is nearly 27 per cent, which includes household requirements like services. Nearly 12 per cent expenditure is spent on education, 5.82 per cent of the expenditure on pan and tobacco. And the remaining expenditure on medical expenses. The expenditure on non food items has increased in recent years. The expenditure on medical and education purposes has become essential expenditure. Farm households are found to be struggling hard to meet the consumption expenditure out of cultivation. This leads to the conclusion that the monthly consumption expenditure is greater than the monthly realized income and food taking the lion's share of expenditure. There is a greater probability that the households to consuming less than the recommended minimum nutrition intake levels. Though the monthly per capita consumption expenditure is increasing with the size of the land possessed, family size also found to be increasing with the size of the land possessed. i.e., even large and medium farm households are spending on consumption less than the recommended minimum intake levels in the study area.

### Changes in Economic status:

Table-9 explains whether the economic status of the household has improved over the past ten years. The data shows that about 40.5 per cent of the respondents have expressed improvement in their economic status, while 41 per cent of the respondents stated their economic status remained in the same condition without any improvement. Further it is observed that 16.2 per cent of respondents have noticed deterioration in their economic status. It is clearly evident in the table that majority of the respondents, whose economic status has remained the same and whose status has further deteriorated belong to marginal and small farming categories.

|                  | Economic       | Economic condition past 10 years |              |       |         |
|------------------|----------------|----------------------------------|--------------|-------|---------|
|                  | Remained Don't |                                  |              | Don't |         |
| Farming Category | Improved       | the same                         | Deteriorated | know  | Total   |
| Marginal         | 41             | 58                               | 23           | 7     | 129     |
| Marginai         | (31.8)         | (45.0)                           | (17.8)       | (5.4) | (100.0) |
| Small            | 81             | 87                               | 28           | 3     | 199     |
| Small            | (40.7)         | (43.7)                           | (14.1)       | (1.5) | (100.0) |
| Semi-Medium      | 81             | 68                               | 29           | 3     | 181     |
| Seini-Medium     | (44.8)         | (37.6)                           | (16.0)       | (1.7) | (100.0) |
| Medium           | 34             | 28                               | 16           | 1     | 79      |
| Meulum           | (43.0)         | (35.4)                           | (20.3)       | (1.3) | (100.0) |
| Large            | 6              | 5                                | 1            | 0     | 12      |
| Large            | (50.0)         | (41.7)                           | (8.3)        | (0.0) | (100.0) |
| Total            | 243            | 246                              | 97           | 14    | 600     |
| 10(a)            | (40.5)         | (41.0)                           | (16.2)       | (2.3) | (100.0) |

Table -9 Perceptions on Economic Status over past Tenyears (In percentage)

Source: Primary data.

Note: Figures in the parentheses indicate the percentage to the total

#### Perception on living in village:

The respondents are asked a question if they get an opportunity, will they leave their native village and go to towns to settle there. The details of their responses is given in the table-10. It is observed that most of the respondents accounting for 65.7 per cent do not want to leave their native village, eventhough their economic conditions and living standards are not satisfactory. While, 8.4 per cent of the respondents are ready to leave their village to settle in towns, if they get on opportunity, respondents accounting for 15.9 per cent are in dilemma and are not sure of going out of their villages. From the above analysis, it is evidently clear that most of the respondent farmers are quite unwilling to give up their ancestral and traditional occupation and leave their villages.

| Table-10 Perceptions of the respondents on give up their village ( | In |
|--|----|
| percentage)  |    |

| Whether give                             | Farming category    |                  |                            |                   |                  |       |
|--|---------------------|------------------|----------------------------|-------------------|------------------|-------|
| up their<br>occupation of<br>agriculture | Marginal<br>farmers | Small<br>farmers | Semi-<br>medium<br>farmers | Medium<br>farmers | Large<br>farmers | Total |
| Certainly                                | 21.1                | 19.7             | 17.6                       | 11.1              |                  | 18.4  |
| Not sure                                 | 19.3                | 10.5             | 13.7                       | 19.4              | 77.8             | 15.9  |
| No                                       | 59.6                | 69.7             | 68.6                       | 69.4              | 22.2             | 65.7  |
| Total                                    | 100.0               | 100.0            | 100.0                      | 100.0             | 100.0            | 100.0 |

Source: Primary data.

#### Abandonment of cultivation:

It is observed from the table-11 whether the respondent farmers have any idea of giving up the cultivation. It is found that majority of the respondents, constituting 62.7 per cent do not want to give up their occupation of agriculture, while 23.3 per cent are willing to give up the activity. A few respondents, constituting 14.0 per cent are not sure whether to continue their agricultural occupation. From the above analysis, it is observed that majority of the respondents are not willing to give up agriculture, while a considerable number of them want to give up their agricultural profession.

|           | Farming category    |                  |                            |                   |                  |       |
|-----------|---------------------|------------------|----------------------------|-------------------|------------------|-------|
|           | Marginal<br>farmers | Small<br>farmers | Semi-<br>medium<br>farmers | Medium<br>farmers | Large<br>farmers | Total |
| Certainly | 30.3                | 23.2             | 20.6                       | 16.7              | 0.0              | 23.3  |
| Not sure  | 18.3                | 11.3             | 10.8                       | 8.3               | 66.7             | 14.0  |
| No        | 51.4                | 65.6             | 68.6                       | 75.0              | 33.3             | 62.7  |
| Total     | 100.0               | 100.0            | 100.0                      | 100.0             | 100.0            | 100.0 |

Table-11 Perceptions on abandonment of cultivation (In percentage)

Source: Primary data.

## Perception on Children's Future:

As observed from the data, most of the respondents do not have security for their livelihood in agriculture. The data from the table-12 shows that large number of respondents accounting for 72.67 per cent do not wish their children continue agricultural occupation.

|          | What do you |                 |            |            |          |
|----------|-------------|-----------------|------------|------------|----------|
| Farming  |             |                 | Get good   |            |          |
| Category | Continue    |                 | education  |            |          |
|          | in the      |                 | and        |            |          |
|          | village     | Look for        | settled at |            |          |
|          | and to do   | job/opportunity | better     | Not        |          |
|          | cultivation | in urban areas  | state      | Applicable | Total    |
| Marginal | (19.38)     | (29.46)         | (35.66)    | (15.50)    | (100.00) |
| farmers  | (19.56)     | (23.40)         | (55.00)    | (15.50)    | (100.00) |
| Small    | (14.57)     | (27.64)         | (47.74)    | (10.05)    | (100.00) |
| Farmers  | (14.57)     | (27.04)         | (47.74)    | (10.05)    | (100.00) |
| Semi-    |             |                 |            |            |          |
| Medium   | (16.57)     | (25.97)         | (49.72)    | (7.73)     | (100.00) |
| Farmers  |             |                 |            |            |          |
| Medium   | (20.25)     | (18.99)         | (49.37)    | (11.39)    | (100.00) |
| Farmers  | (20.20)     | (10.33)         | (43.37)    | (11.00)    | (100.00) |
| Large    | (8.33)      | (33.33)         | (58.33)    | (0.00)     | (100.00) |
| farmers  | (0.00)      | (00.00)         | (00.00)    | (0.00)     | (100.00) |
| Total    | (16.83)     | (26.50)         | (46.17)    | (10.50)    | (100.00) |

Table-12 Perception on Children's Future (In percentage)

Source: Primary data.

They wish to send their children to urban areas and get them educated and wish them to settle in better jobs and be prosperous. However, a negligible number of them constituting just 16.83 per cent wish their children to continue in the village itself and continue cultivation. This is a clear indication that most of the households would like to shift from agriculture to other sectors in future if they get the opportunity.

# **Conclusion:**

Farmers are in deep crisis as farming alone is not able to generate sufficient income to small and marginal farmers. Farm households are found to be struggling hard to meet the consumption expenditure out of cultivation. Farm households are spending on consumption less than the recommended minimum intake levels in the study area. However, the respondent farmers are quite unwilling to give up their ancestral and traditional occupation and leave their villages though they get opportunities to leave their native village. But, a significant number of the farmers wish their children to shift from agriculture to other sectors in future if they get the opportunity for better income and livelihood. This situation put doubt on endurance of agriculture in Andhra Pradesh for the next generations.

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