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AN INSIGHT INTO SOCIO-ECONOMIC PROFILE OF RICE FARMERS: EXPLORATION FROM KURNOOL DISTRICT OF ANDHRA PRADESH

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ABSTRACT
Rice is of key importance to Andhra Pradesh's economy and its people. Rice is also the major staple food grain crop in the state. The study was conducted in the Kurnool district of Rayalseema region in Andhra Pradesh to investigate the socio-economic profile of rice farmers. Multistage stratified random sampling technique was adopted for selection of the sample with district as the first stage unit, mandals/tehsils as the second stage units, villages as the third stage units and farm holdings as the final and ultimate stage units. Socio-economic characteristics of the sample rice farmers viz., age, family size, type of the family, educational profile, experience in rice cultivation, tenurial status, contact with extension agency, occupational structure and access to formal credit were studied. The average age, education and experience of the sample farmers was 43.30, 6.73 and 17.67 year respectively. Majority of the farmers owned small and medium sized, nuclear families, cultivated rice on own lands, had contact with extension agencies and had access to institutional credit. Agriculture was the primary occupation of sample rice farmers.

Keywords: Socio-Economic Profile, Rice Farmers, Kurnool, Andhra Pradesh

INTRODUCTION
Rice is the most important and extensively grown food crop in the world. Because of its importance in providing national food security and generating employment and incomes for the low-income sectors of society, most Asian governments regard rice as a strategic commodity (Hossain and Narciso, 2004). Rice is a primary food source for more than one-third of the world's population and grown in 11 per cent of the world's cultivated area. India is one of the leading rice producing countries in the world.
Rice is of key importance to Andhra Pradesh's economy and its people. Rice is also the major staple food grain crop in the state. A large percentage of labour force earns a living from agriculture by cultivating rice. The state has significant strengths in rice production enjoying the right conditions for growing rice.
The present study was carried out in Rayalseema region of Andhra Pradesh which covers an area of 67,526 km^2 with a population of 15,184,908 and borders the state of Tamil Nadu to the south, Karnataka to the west, Telangana region to the north and the coastal Andhra region to the east and lies at an altitude of 1000 to 2000 feet above mean sea level. Rayalaseema is rich in minerals such as quartz, iron ore, lime stone and silica sand. It also has rich forest wealth like the rare red sandalwood which is highly economical, and main revenue source for the state, and other forest sources include non timber resources, medicinal plants etc.
For the present study highest rice producing district was selected from Rayalseema region. Accordingly, Kurnool district was selected for the purpose of investigating the socio-economic profile of rice farmers. Kurnool is known as the Gateway to Rayalseema with a geographical area of 17,658 square kilometers. The mandal map of Kurnool district is given in figure1. It lies on the banks of the Tungabhadra River with the Hundri and Neeva rivers flowing through the district. The K. C. Canal (Kurnool-Cuddapah) is a major source of irrigation. The Nallamalas and Erramalas mountain ranges in the district run parallel from

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North to South and divide the district into two tracts crossed by the Krishna and Pennar rivers. The climate is tropical with an average annual rainfall of about 705 mm. Rice, finger millet and pearl millet are the major food crops while groundnut, cotton and tobacco are the major cash crops cultivated in the district.

Figure 1: Mandal Map of Kurnool District

In the present study about rice farmers socio-economic characteristics such as age, family size, type of the family, educational profile, experience in rice cultivation, tenurial status, contacts with extension agency, occupational structure and access to institutional credit have been studied.

Social and economic profile is a key element of social assessment and portrays the state of well-being and quality of life. The results can be used to initiate sustainable planning, capacity building practices and to identify local assets and opportunities for growth. Socio-economic profile provides a birds-eye view of a community thus helping in formulating a community action plan.

Socio-economic analysis is basically required to have a clear-cut comprehensive idea about the composition of the respondents in the study area which will be useful to derive valid conclusions which may help the researcher to suggest better location-specific feasible solutions for the improvement of efficiency in the study area. Socioeconomic analysis focuses on identifying the adaptive capacity of individuals or communities based on their internal characteristics such as age, education etc.

MATERIALS AND METHODS
Multistage stratified random sampling technique was adopted for selection of the sample with district as the first stage units, mandals/tehsils as the second stage units, villages as the third stage units and farm holdings as the final and ultimate stage units.

In the first stage, district with highest production of rice was selected based on the average of five years' data on rice production i.e., from 2008-09 to 2012-13. Accordingly Kurnool district was chosen for the study. The criterion for selection of the district is shown in Table 1. Considering district as a unit, two prominent rice growing mandals namely Bandi Atmakur and Mahanandi were selected based on three years' average rice production i.e., from 2010-11 to 2012-13. From each mandal three villages were selected randomly. Thus a total of six villages were selected for the study. From each village 20 rice farmers were selected randomly. Thus the sample consisted of 1 district, two mandals, six villages (three villages from each mandal) and 120 rice farmers (twenty from each village).

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Table 1: District-Wise Average of 5 years Rice Production ('000 Tonnes) in Rayalaseema Region

District	2008-09	2009-10	2010-11	2011-12	2012-13	Average of 5 years
Kadapa	129	188	130	159	81	137.40
Kurnool	377	415	398	380	337	381.40
Anantapur	144	149	171	120	76	132.00
Chittoor	165	170	186	169	171	172.20

Source: Agricultural Statistics at a Glance: Andhra Pradesh

The data of the selected rice farmers were obtained through personal interview method with the help of pre-tested comprehensive interview schedule. The district level data were collected over a period of five years from 2008-09 to 2012-13 from "Agricultural Statistics at a Glance: Andhra Pradesh" of corresponding years published by Directorate of Economics and Statistics. Mandal level data for a period of three years (2010-11 to 2012-13) were collected from Directorate of Economics and Statistics, Hyderabad.

RESULTS AND DISCUSSION
Age of the Sample Farmers
The age structure of a population plays crucial role in bargaining for better price and negotiating agricultural price policy at national level. Age is one of the important factors that influence decision making of individuals and has a bearing on the farmers' risk taking attitude and innovativeness in adopting new technologies.
Majority (68.33%) of the sample rice farmers in the study area were middle aged whereas 23.33% belonged to old age group. However, the percentage of young farmers was very low with only 8.33%. The average age of the sample farmers was 43.30 years indicating that majority of the sample farmers were middle aged, agile and were actively taking part in paddy cultivation. It can also be inferred that youngsters might be less attracted to take up paddy farming as reflected by the low percentage of young farmers in the study area.
Family Size and Type of Family of the Sample Farmers
Participation in farm activities and related decision making depends on family size. Family size also has a great role to play in provision of family labour in agricultural sector.
From the Table 2 it can be noticed that majority (51.67%) of the farmers belonged to medium sized families compared to small (43.33%) and large (5%) families. Thus, majority (95.00%) of the farmers owned small and medium sized families. Medium sized families might serve as an insurance against shortfall in supply of farm labour.
Type of Family
A study of the type of family indicated that 56.67% of the farmers followed nuclear family system while 43.44% owned joint families. Nuclear families can play a vital role in the decision making process and adoption of new technology. The results showed the general inclination among the sample farmers towards having nuclear family where decision making would be quick and easier compared to joint family. These results also reflected the disintegration of typical Indian joint family system over a period of time.
Educational Profile
Educational profile of the farmers decides the relative exposure of the farmer to latest technologies. Farmers need a basic level of education to understand and read relevant news, rules and notices which can affect productivity significantly (Alam *et al.*, 2011).
The average years of schooling for sample farmers were 6.73 years. Majority of the farmers (39.17%) were educated up to SSC to intermediate level followed by those with primary education (28.33%). One-fourth (25%) of the sample farmers were found to be illiterates while 7.5% were graduates.

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Experience in Rice Cultivation

The number of years a farmer has spent in the farming business may give an indication of the practical knowledge he has acquired on how he can overcome certain inherent farm production and adoption problems. In order to have efficiency in crop management it is essential that farmers have experience in raising a particular crop (Onumadu and Osahan, 2014).

The average level of experience of sample rice farmers was 17.67 years. Majority (41.67%) of the sample farmers had an experience of 11 to 20 years followed by 33.33% who had up to 10 years of experience. Only 7.5% of the farmers had greater than 30 years of experience in rice cultivation.

Table 2: Age, Family Size, Type of Family, Education and Experience of Sample Rice Farmers

Variable	Category	Frequency	Percentage
Age (Years)	Young (<30)	10	8.33
	Middle (30-50)	82	68.33
	Old (>50)	28	23.33
Family Size (No.)	Small (1-4)	52	43.33
	Medium (5-7)	62	51.67
	Large (>8)	6	5.00
Type of Family	Nuclear	68	56.67
	Joint	52	43.33
Education (Years)	Illiterate	30	25.00
	Below SSC	34	28.33
	SSC to Intermediate	47	39.17
	Graduate and above	9	7.50
Experience in Rice Cultivation (Years)	Up to 10	40	33.33
	11 to 20	50	41.67
	21 to 30	21	17.5
	>30	9	7.5

Tenurial Status of Sample Farmers

The system of land tenure is generally considered to be one of the factors that affect farm productivity through managerial ability and investment potential of the farmers. In case of tenants the insecurity and financial stringency are the major restraining factors that inhibit more productive enterprising activities such as land improvement and other investment strategies as well as improvement in managerial capabilities.

Tenants generally operate on small land holdings and thus experience economic pressure in payment of rent, meeting production expenses and saving something for the families' survival (Ahmed and Qureshi, 1999).

Therefore, it is appropriate to examine the tenurial status of the respondents which is presented in Table 3. The sample was divided into three categories viz., owned, own cum tenant and tenant farms. Most of the farmers cultivated rice on own farms (64.17%) whereas 29.17% of them operated both own and leased-in farms. Only 6.67% of the farmers were exclusively tenants. Thus, it can be inferred that majority of the

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farmers cultivated rice on own lands which may be advantageous because owner farmers have the freedom for large capital investments in equipment and input.

Contact with Extension Agency

Batesse *et al.,* (1993) suggested that a good agricultural extension system was required to enhance the efficiency of farmers. Extension serves as a key linkage in the process of transferring technology from lab to land. For improving productivity, the contacts between farmers and extension network is crucial. Hence, the particulars of contact between farmers and extension agency were analyzed.

The proportion of the farmers with extension contact was 88.33% but 11.67% of the farmers were not maintain any contact. Thus, there is still need to create awareness about the benefits of having contacts with extension agency to those who were not having any contact.

Occupational Structure of Sample Farmers

The economy of study area was found to be predominantly agriculture-based. Agriculture was the sole occupation of 90% of the farmers while 10% of the farmers also had subsidiary occupations. Agriculture was the primary occupation of all the sample rice farmers in Kurnool.

Access to Institutional Credit

Access to institutional credit is identified as one of the key factors in improving rice production. Availability and access to adequate, timely and low cost credit from institutional sources is of great importance especially to small and marginal farmers. Easy access to financial services at affordable cost positively affects the productivity, asset formation, income and food security of the farmers. Credit access is important because of its ability to create access to other production factors (Oladeebo and Oladeebo, 2008).

Table 3 indicates that majority (83.33%) of the sample farmers had access to institutional credit while 16.67% did not. It can be concluded that farmers in the study area had access to institutional credit and hence, they will be able to use better inputs and achieve high production of rice. However, it is essential to create awareness about the institutional sources of credit to those who depend on non-institutional credit sources which charge exorbitant rates of interest.

Table 3: Tenurial Status, Contact with Extension Agency, Occupational Structure and Credit Access of Sample Rice Farmers

Variable	Category	Frequency	Percentage
Tenurial Status	Owned	77	64.17
	Own + Tenant	35	29.17
	Tenant	8	6.67
Contact with Extension Agency (ies)	Maintain Contact	106	88.33
	Don't Maintain Contact	14	11.67
Primary Occupation	Agriculture	120	100.00
	Others	-	-
Farmers having Secondary Occupation	Yes	10	8.33
	No	110	91.67
Access to Formal Credit (ies)	Yes	100	83.33
	No	20	16.67

Conclusion

The average age of the sample farmers was 43.30 years indicating that majority of the farmers in the study area were middle aged, agile and were actively taking part in paddy cultivation. Majority (95%) of the farmers were found to own small and medium sized families. The results showed the general inclination among the sample farmers towards having nuclear family. The average years of schooling for farmers were 6.73 years while the average level of experience of rice farmers was 17.67 years. Majority of the farmers cultivated rice on own lands which may be advantageous because owner farmers have the freedom for large capital investments in equipment and input.

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Most of the farmers were found to have contact with extension agencies. Agriculture was the primary occupation of sample rice farmers. Majority of the farmers were found to have access to formal credit and hence they will be able to use better inputs and achieve high production of rice.

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