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Role of Women in Paddy Cultivation: A Study in Pakala Mandal, Tirupati District, Andhra Pradesh

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ABSTRACT

Women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as economically active employment in national accounts but they are essential to the well-being of rural households. The paper presents the role of women in paddy cultivation in Pakala Mandal of Tirupati District of Andhra Pradesh.

Keywords: Women agriculturists, paddy cultivation, investment and income

INTRODUCTION

Agriculture is an engine of growth and poverty reduction in countries where it is the main occupation of the poor. But the agricultural sector in many developing countries is underperforming, in part because women, who represent a crucial resource in agriculture and the rural economy through their roles as farmers, labourers and entrepreneurs, almost everywhere, face myriad constraints than men in access to productive resources. Women make essential contributions to the agricultural and rural economies in all the developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as “Economically Active Employment” in national accounts but they are essential to the wellbeing of rural households.

Agriculture sector developed and emerged with the infusion of science and technology but it has not been accepted women as key labour yet. According to the Census of India, a worker is defined as a person whose main activity is participation either physical or mental in nature in any economically productive activity. Work involved is not only actual work but also effective supervision

and direction of work. Unpaid work on farm or in family enterprise is also included. Women in agricultural labour force are considered such as farmers on their own farms, as unpaid workers on family farms and as paid or unpaid labourers on others farms and agricultural enterprises. Their involvement in crop and livestock production as well as fishing farming on subsistence and commercial are also included in agricultural labour force. Women who are working or looking for work in formal or informal jobs and in paid or unpaid employment in agriculture are included in agricultural labourforce. Self-employed women as well as women working on family farms are also considered as agricultural labour force. Domestic chores such as fetching water and firewood, preparing food and caring for children and other family members are not defined as agricultural labourforce (**FAO 2022**).[1]

ROLE OF FARM WOMEN IN PADDY CULTIVATION PRACTICES

Women play a significant and crucial role not only in agriculture but also in agricultural allied activities. Over the years, there is a gradual realization of the key role of women in agriculture development and their vital contribution in the field of agriculture, food security, horticulture, livestock management, processing, nutrition, sericulture, fisheries, and other allied sectors. As cultivators, agricultural labourers, artisans and house wives they constitute sizable section of work force. Hence, an in-depth appraisal of role played by the women in agricultural operations need to be made by the extension agencies to plan extension activities for capacity building of the farm women and gender main streaming under extension reforms. Farm women play a significant and crucial role in agricultural development and allied fields. In the study area women participate numerous activities expect felling of trees and spraying of chemicals. In paddy cultivation totally fourteen agricultural practices were identified for the study.

AGRICULTURE WORKERS

Rural women perform numerous labor intensive jobs such as weeding, hoeing, grass cutting, picking, cotton stick collection, separation of seeds from fiber, keeping of livestock and its other associated activities like milking, milk processing, preparation of ghee, etc. Details of activities taken up by women in Agriculture and its allied activities are as follows. Agriculture Mainly rural women are engaged in agricultural activities in three different ways depending on the socio-economic status of their family and regional factors.

Agricultural activities taken up by women

- Nursery management
- Transplanting
- Weeding
- Irrigation
- Fertilizer application
- Plant protection
- Harvesting, winnowing, storing etc.

REVIEW OF LITERATURE

An attempt is made to present a review of select and recent studies relating to on women employment and labour utilization that are relevant to studies, the present topic. . It covers the review of different aspects such as women participation, concept, technology, cropping pattern, irrigation facilities, farm size, and economic contribution, and migration, land holding size, education, and burden of work, family

income, work force, seasonal variations, caste, and sex discrimination etc.

Bala (2010) cited in his working paper regarding engagement and participation of women workers in almost all activities of agriculture but there is discrimination in wages even if they do same type of work as male labour. Further despite of their extensive and active involvement in agriculture of India, they are not considered for decision making in farm activities. Women participation in agriculture will be acknowledged when women farmer will actively participate to build and improve their knowledge and gain access to new and necessary information to make use of most of them in their farming activities. By linking the knowledge and information flow amongst women socio economic progress can be achieved (Dhaka et al 2012).

Doss (2011) in his working paper observed that, the agriculture sector is underperforming in many countries because women, who are often a vital resource in agriculture and the rural economy, face constraints that reduce their productivity. With the help of time-use surveys, they have found that there is substantial heterogeneity among countries and within countries in women's contribution to agriculture. They show that female time-use in agriculture varies also by crop, production cycle, age and ethnic group. For these diversities, they have suggested that policies must be based on sound data and gender analysis.

Singh and Vinay (2012) briefed in their working paper about the significance of female labour in agriculture and allied activities. They further stated that the role of women in agriculture as female labour is not highlighted in India. Despite of their presence in activities sowing, transplanting and post-harvest operations they are considered as an invisibles workers.

Narasimha Reddy and Venkatanarayana (2013) have examined the changing nature of labour use in rice cultivation in the state Andhra Pradesh. Using NSS data they show that the number of females self-employed in agriculture has declined from 10.6 million in 1993-94 to 7.7 million in 2009–10. There was a sharp increase in casual labour engaged in agriculture. Family and casual labour used for per hectare of rice cultivation has also shown a declining trend in Andhra Pradesh during the period1990–91 and 2009–10. The trend in gender-wise labour use in rice cultivation in Andhra Pradesh between 2005 and 2011 indicate that both the male and female labour use is declining. However, the rate of decline is relatively faster with respect female labour than that of male counterpart. Two operations that have shown a noticeable decline in their share during the period are harvesting and threshing/winnowing. Increasing mechanization of female labour intense operations such as harvesting could be possible explanation for the declining share of female labour in rice cultivation.

According to **Krishnaraj and Shah (2014)** in patriarchal societies, men are assigned those types of activity which have direct exchange value and therefore the work of men is considered more useful and that of women is considered less prestigious in the social hierarchy. Such job segregation has several consequences for female workers as it creates a disparity in wage rate, brings down the bargaining power of women workers and reduces them to state of marginal, intermittent or reserve labour which is highly status of female in the family and society thereby affecting decision-making power of women within the household. In the early years of the green revolution in the country, scholars were concerned about the impact of the new technology and mechanization on female labour in agriculture.

Swamikannan (2015) identify the trend of women's participation in agriculture across various Indian states. The secondary data had been used to analyze growth trends of the agricultural workers from 1961-2001. The study briefed that women has been facing discrimination in our agrarian society where

their status in all aspects is below to their male workforce. Steps have been taken by the government through amending laws to reset their status.

Neelam Jaiswal (2016) revealed that majority of the respondents were involved 91.66 per cent in transplanting, 85.00per cent in weeding, 76.66 per cent in harvesting, 70.83 per cent storage and 66.66 per cent of them in threshing activities of farm. While the activities found after threshing, 62.50 per cent respondents in winnowing, 35.00 per cent in cleaning and seed selection, 29.16 per cent in sowing, where found involved in this farm activities. Only and 18.33 and 10.00 per cent were found involved in improved variety and seed treatment activities respectively.

Pattnaik et al. (2017) have examined the trends in participation of women in agriculture in India and its states using Census data. They find substantial variation in dependence on agricultural employment across states. A regression analysis across states shows that women's participation in agriculture is negatively related with the size of holding and positively related with poverty levels. They conclude that women's participation in agriculture is higher when the family and the agriculture are less advantageous for livelihoods. Scholars have also observed sex segregation in agricultural work.

S. Santhi et al (2018) felt that women are involved both in production as well as in processing of paddy crops. The role of farm women in paddy cultivation practices is remarkable. Female labourers contributed significantly to the economic well-being of their families, hence, the level of income and welfare of a household will depend on the degree of their effective participation. Hence, the study is on 'role of farm women in paddy cultivation practices'. The study was conducted in Orathanadu and Thiruvonam blocks of Orathanadu taluk in Thanjavur district with a sample of 120 farm women selected based on proportionate random sampling procedure. With regard to their role of farm women in paddy cultivation practices, high level of involvement was observed in were 'weed management', 'nursery management', 'time of sowing', 'harvesting', 'selection of season' and 'irrigation management'. Low level of involvement was observed in 'post-harvest operation', 'seed treatment', 'fertilizer management for main field', 'main field preparation', 'disease management', 'pest management', 'selection variety' and 'marketing'.

Rasheed et al (2020) Agriculture is an important engine for economic growth and a vigorous driver of poverty reduction in developing countries. In Pakistan, rice production is one of the most essential sectors. However, it has been underperforming, largely because of low women's participation, which is often a crucial resource in agriculture and the rural economy. Unfortunately, previous studies have seldom recognized and emphasized the role of women in triggering agricultural and rural development. We address this research gap using 300 farm households' survey data forms collected from Pakistan farmers by applying the stochastic frontier analysis. The results indicate that women's participation is associated with higher labor/land ratio, land productivity, and finally improved technical efficiency. Precisely, women's participation increased technical efficiency (TE) by 47.3%. Interestingly, in view of previous studies, this evidence is not sporadic. Overall, our study provides some evidence to promote women's participation in rice production, as such empowerment of women holds great potential to enhance agricultural production, which is consistent with the aim of sustainable development goals (SDGs).

Hazarika, Gautam (2022) felt that rice and wheat are India's staple cereal crops. Regional disparity in their respective yields makes for regional variation in the relative suitability to rice cultivation. The labor requirements of rice cultivation being much higher than that of wheat cultivation, women have traditionally contributed much more labor to rice farming than to wheat farming. This, it is argued,

supplies a cultural boost to female workforce participation that is proportional to the local relative suitability to rice cultivation. To distinguish between a cultural effect and the technical effect of the labor intensivity of rice cultivation, this study considers the workforce participation of urban women, spatially removed from agricultural operations. It is found that the district urban female workforce participation rate significantly increases in the district current relative suitability to rice cultivation, that is, the difference between the current district yield of rice per hectare and that of wheat. It increases as well in the district potential relative suitability to rice cultivation, the difference between the district potential yield of rice per hectare, modelled to reflect the rain fed and low input conditions of the past, and that of wheat. Finally, the district urban female workforce participation rate significantly increases in the difference between the potential caloric yield of rice per hectare, under rain fed and low input conditions, less that of wheat. Taken together, these findings suggest that rice cultivation has played a cultural role in Indian women's workforce participation. [17]

OBJECTIVES OF THE STUDY

1. To study the socio economic conditions of the respondent.
2. To Analyse the contributions of women laboures in paddy production.
3. To understand the challenges faced by the respondent.

METHODOLOGY

Women make essential contributions to the agricultural and rural economies in all developing countries like India and participation of women has been an interest for Agriculture. Agriculture Mainly rural women are engaged in agricultural activities in three different ways depending on the socio-economic status of their family and regional factors.

Purposively I have selected those who are depending on agriculture using census method. Socioeconomic situation plays a vital role in knowing the contribution of women in their farming activities. Therefore, the present study identified a number of socioeconomic variables which have great effect on the women's decision to anticipate. Socio economic status plays a major role in knowing the contributions of women in farming. Hence data is collected on profile of the respondents by age, education, income, type of Family, marital status, occupation etc. The data has been tabulated and analyzed keeping in view of the objectives and results have been examined. The data has been presented in the form of tables.

Table 1 Distribution of Respondents based on Age

Sl. No.	Age(Years)	No. of Respondents	Percentage
1	21-30	10	20
2	31–40	10	20
3	41-50	20	40
4	51-60	10	20
Total		**50**	**100**

Table 1 reveals the age of the respondents. As per the data, majority of them are in the age group of 41 to 50 years. As per the data, the respondents of the study are in the age group of 21 to 60 years.

Table 2 Educational Details of the Respondents

Sl. No.	Education	No. of Respondents	Percentage
1	Illiteracy	30	60
2	Up to 5th	10	20
4	Up to 10th	10	20
Total		**50**	**100**

Table 2 shows the educational details of the respondents. As per the data, Majority 60% of the respondents are Illiterates which shows that village people think that education doesn't required to do cultivation.

Table 3 Family Size of the Respondents

Sl. No.	Household size	No. of Respondents	Percentage
1	1-3 members	10	20
2	4-6 members	10	20
3	7-9 members	20	40
4	10-12 members	10	20
Total		**50**	**100**

Information about the family size, family type and marital status is essential to understand the background of the respondents. Women's education leads to reduction in family size, greater attention by mothers to health, education and character building of their children, greater participation of women in labour market and greater per capita income and better quality of human capital. Family profile is one of the key factors to decide the income and expenditure pattern. Size of the family is presented in table 3. Data reveals that, 40% of the respondents are having 7 – 9 members in their family. Since majority, i.e. .80 per cent of the respondents are having nuclear family, size of the family is relatively small. The family type of distribution shows that joint family respondents 10 member and the percentage is 20%. Nuclear family respondents 40 members and the percentage is 80 per cent.

Table 4 Categories of workers

Sl. No.	Categories of workers	No. of Respondents	Percentage
1	Cultivators	20	40
2	Agricultural labours	30	60
	Total	**50**	**100**

In the above table 4 categories of workers shows that majority agricultural labours of the respondents 30 members and the percentage is 60%. Cultivator's 20 members respondent and the percentage is 40 per cent.

Table 5 Distribution of Respondents Based on Farm Size

Sl. No.	Farm size in acres	No. of Respondents	Percentage
1	1-2	5	10

2	3-4	15	30
3	5-6	20	40
4	7-8	5	10
Total		**50**	**100**

L and is the key factor for rural economy. It provides foundation for economic activity. In fact, the size of land holding is the explanatory variable which influences the decisions of the women labourers to enter into paddy cultivation. The involvement of women labourers in paddy cultivation with the size of land holding is given in table 5. Among the total respondents, 70 per cent of the respondents are holding 3 to 6 acres. Only 10 percent of them are having only 1 to 2 acres of land.

Table 6 Ownership of Land

Sl. No.	Land details	No. of Respondents	Percentage
1	Own land	10	20
2	Rent land	40	80
	Total	**50**	**100**

In the study area majority ie.80% of the respondents are landless. They are taking land for lease from the landlords. Only 20 percent own the land.

Table 7 Distribution of respondents based on years of farming experience

Sl. No.	Years of farming experience	No. of Respondents	Percentage
1	1-9 years	5	10
2	10-19 years	10	20
3	20-29 years	15	30
4	30-39 years	20	40
Total		**50**	**100**

Table 7 reveals that 40% of the respondents are involving in agriculture since 30 to 39 years, 10 per cent are having 1-9 years and 20 members are having 20 to 29 years of experience in agriculture.

Annual Income

The annual income of the respondents is presented in the table 8.b

Table 8 Annual Agricultural Income of the Respondents

Sl. No.	Income in Rs.	No. of Respondents	Percentage
1	2 lakhs-4 lakhs	15	30
2	4 lakhs-5 lakhs	15	30
3	6 lakhs -8 lakhs	20	40
	Total	**50**	**100**

Income is the basic parameter for measuring so many social phenomena. It determines not only the social status but fulfills all the needs of human beings. Hence, it is needless to say that income determines one's economic activities. According to the data, majority of the respondents are getting 6 to

8 lakhs per annum from agriculture farming.

Table 9 Investment on Agriculture Per Crop

Sl. No.	Investment in Rs.	No. of Respondents	Percentage
1	20000-40000	10	20
2	50000-70000	10	20
3	80000-1,00,000	20	40
4	1,00,000 - 1,50,000	10	20
	Total	**50**	**100**

As per the data, farmers raise 2crops per annum. On an average they invest about Rs. 20, 000/- 1, 50,000/- on agricultural activities depending on the size of the land

Table 10 Source of Other Income of the Respondents

Sl. No.	Source of other income	No. of Respondents	Percentage
1	Livestock	40	80
2	Construction work	10	20
	Total	**50**	**100**

Besides, respondents are also getting income from other sources like livestock, construction work etc.

CONCLUSION

Agriculture can be an important engine of growth and poverty reduction. But the sector is underperforming in many countries in part because women, who are often a crucial resource in agriculture and the rural economy, face constraints that reduce their productivity. Women comprise about 43 percent of the agricultural labour force globally and in developing countries. Rural women of the study area had strong participation in activities such as crop production, livestock husbandry and home management but they have always been remained invisible. They were mostly involved in low grade activities, while their participation in land preparation, ploughing, manuring, irrigation, transplantation, water and pest management was zero. They were facing a lot of socio-economic and technological constraints like lack of facilities, unawareness about modern agricultural technologies and indifferent family attitude. So the concerted efforts such as improvement of agricultural extension system, starting educational programs, establishing training centers and provision of credit facilities by government and non-government bodies are required for the uplift of these rural women.

RECOMMENDATIONS

- Based on the findings of the study, the following recommendations have been formulated.
- Discrimination in wages of males and females should be removed through intervention by the Government and non-Government organizations.
- Various superstition and negligible attitude towards working women of people need to be changed. Comfortable, healthy and easy working environment should be ensured for women.
- For easy access and carrying rice from field to farmyard and farmyard to market, rural infrastructures with connecting roads need to be developed.

- Government should improve on the supply and access to improved and disease resistant rice varieties among women farmers in the study area.
- Women should be allowed to have access to land through the help of the government and land reform commission to encourage their efforts and ability to participate in food crop production
- Government should provide adequate finance to farmers. This will ensure their ability to purchase necessary farm inputs for increase productivity.
- Women should participate in agricultural production (rice faming).

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