Non-Farm Employment Challenges and Opportunities in Rural India - A Micro Level Study in Telangana State

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Abstract

This research paper examines the socio-demographic characteristics, educational status, family composition, and non-farm employment patterns of a sample village in Bhadradri Kothagudem district, Telangana. Field data reveals that Scheduled Tribes (STs) form the dominant community, followed by Backward Classes (BCs), with Scheduled Castes (SCs) and Other Castes (OCs) in smaller proportions. The age structure is youthful; with 95.0 percent are in productive age ranges of 21–60 years, indicating strong labor potential. The educational status as poor 47.36 percent are illiterate and only 5.26 percent have completed higher education. Family size analysis shows a predominance of medium-sized households 4.75 members, reflecting a shift toward nuclear family structures. Non-farm employment is a major livelihood source after agriculture in rural India, in the sample village 47.0 percent are in mining and construction are 25.0 percent these are dominating in non-farm sector in the sample village both together employing over 72.0 percent. Caste-based occupational patterns are evident that STs and SCs are concentrated in labor-intensive sectors, BCs have a mixed distribution across manual and entrepreneurial roles, and OCs is largely engaged in business while avoiding low-paying work. The findings highlight a rural economy heavily reliant on physically demanding and unstable jobs, compounded by educational backwardness and caste-based occupational segmentation. The study suggests the need for improved educational access, skill development, and diversification of employment opportunities to reduce dependency on extractive agriculture and promote sustainable rural livelihoods through non-farm activity.

Keywords: *Scheduled Tribes; non-farm employment; mining sector; construction work; caste-based occupations; educational status; family size; occupational diversification; rural development.*

1. Introduction

In the contemporary rural backdrop the non-farm employment has been emerging as an important pillar of economic sustenance and transformation of village economy. Naturally the rural livelihood activities were majorly depending on agriculture. In the current scenario day by day increasing pressure on land, declining agricultural productivity and profitability and rising desires of rural populations some of the rural masses feel that primary sector employment is not viable and secure in longtime, as the reasons the rural people searching for alternative sources of income as better than the farming activities. The **Non-farm employment** encompasses all income-generating activities that are not directly related to farming activities like, cultivation, livestock, forestry, or fisheries. The Non-farm activities include sectors such as manufacturing, construction, trade, transport, and various service-oriented enterprises. These activities

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are having both shades one is wage-based and second one is self-employment-based, these are significantly contributing to the socio-economic development in rural areas. The transition phase of last two decades (2000 to 2020) the non-farm employment sources in rural India increased about 39.0 percent and at the same time farm employment by the end of 2021 is 61.0 percent, during the two decades the non-farm employment has been spread only 15.5 percent. The structural transformation effected at significant urban areas than the rural areas in providing the non-farm activities because of poor inter-linkages in between agriculture and non agriculture in rural areas and the contemporary labour markets in urban areas attracting the rural masses.

2. Role of Non-farm Employment in Rural Development

Non-farm employment refers to all jobs and income-generating activities outside of agriculture. It includes a wide variety of work such as construction, mining, retail, tailoring, carpentry, food processing, transport, and more. These activities differ in size, skill requirements, and capital needs. While some are small, home-based, and run by families, others are larger businesses offering formal jobs and stable incomes. In rural India, agriculture alone cannot meet the growing employment needs. Land is limited, and farming depends heavily on the weather and seasons. Non-farm employment acts as a complementary source of income, offering rural people more stable earnings. It helps reduce poverty, supports rural industrialization, and strengthens the link between rural and urban economies.

One major benefit of non-farm jobs is income diversification. Farmers and landless laborers often face uncertain incomes due to crop failure, pests, or price crashes. Non-farm work provides an alternative during these difficult times, especially in lean seasons. With income from non-farm sources, families can spend more on healthcare, education, food, and housing, improving their overall quality of life. As land becomes more fragmented and mechanized, farming jobs are shrinking. The non-farm sector helps absorb surplus rural labor, especially the youth and women. Many find work in construction, transport, or as small business owners. This also helps control migration to cities, reducing urban overcrowding. The sector also offers seasonal jobs, keeping workers engaged during off-peak farming periods.

Non-farm employment helps raise living standards. Families with multiple sources of income can better meet their needs and build a secure future. Importantly, this sector allows even landless laborers and marginalized groups to earn a decent income, helping bridge the rural economic gap. Over time, this leads to greater social mobility, empowerment, and dignity of labor.

Women are increasingly participating in non-farm work, often in areas like tailoring, food processing, teaching, and nursing. Though men usually take up physically demanding jobs like construction and mining, non-farm activities still open new opportunities for women. With proper training, access to credit, and market support, women can run successful businesses and contribute significantly to household income. Women's groups like Self-Help Groups (SHGs) also support these efforts.

3. Review of Literature:

For the justification of any study, first identified the research problem, the earlier reviews can show the way for the current research problem. The structural changes in the rural economy especially from the LPG inspection in India, the rural areas have been affected in all the dimensions particularly in employment, livelihoods, dynamic structures etc, these are all resulted an absolute decline in agriculture employment approximately about 5 million per annum and increasing number of construction, manufacturing especially in the low skilled labour intensive subsectors and service sector trade, communication and social services etc. employment not only in the urban but also in the countryside (Mehrotra et al.,2014). During this transition phase an increase of low skilled employment including informal workers within organized sectors is observed in all over the India the rural areas are not exempted for this case (Mehrotra et al., 2014). A positive sign by adopting the LPG, that led the participation in education in recent years as that result those are transferring from the farming sector to non-farm sector in the rural areas due to an increase of demand for non-agricultural jobs (Kannan and Ravendran et al., 2012). Indian economy has been experiencing a structural change in employment during the period of high growth, during this period 2004-5 and 2009-10, about 24 million (4.8 million

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per annum) workers have left agriculture and adopted the non-farm employment sources. On the other end, state owned enterprises have been declined and the individual shape of employment has been expand in not only urban but also in the rural India. These shift has been spread on workers in India are likely differentiated also by characteristics such as gender and caste (Deshpande, 2020). The joblessness rate among youths had risen to over 27.0 percent, most of the effect in rural areas concentrated in Rural Non-Farm Employment (CMIE, 2020). The survey on RNFE includes all rural economic activity outside of agriculture. It includes self-employment, wage employment, full-time, part-time, formal, informal, seasonal, and episodic nonfarm production. In rural India, where landlessness is widespread, RNFE offers important economic alternatives for the poor (Haggblade et al. (2013). In this context the present research paper shall be focus on the rural non-farm employment sources for various social categories, the above studies not mentioned the social category and even specific employment sources through non-farm activities, this study has been observed the social category wise non-farm employment sources and at the same time source of employment and social category wise analysis had been made.

4. Methodology:

The proposed study is to examine the 'Non-Farm Employment Challenges and Opportunities in Rural India - A Micro Level Study in Telangana State'. The relevant data has been collected purely on primary data. However, it is supplemented by secondary data drawn from Hand Book of Statistics Khammam district, Yellandu Mandal Gananka Drashini, Censes volumes and other related Books and Journals. The primary data was collected by administering a pre-tested questionnaire among 76 sample households, among the active involving in non-agricultural activities in sample village of Challasamudram in Yellandu mandal of Bhadradri Kothagudem district were randomly chosen. The village is predominantly agriculture based and at the same time the non-agriculture activities are also at considerable level mainly in the employment point of view.

5. Objectives:

Base on the profiles and theoretical evidences the study has been adopted the two objectives are as follows

1.   To analyze the demographic prospects of the respondents of the study area and
2.   To examine the non-farm employment status of the respondents in the study area.

6. Profile of the Study Area:

Yellandu mandal is containing of 30 villages with the geographical area of 418.83 sqm, it is earlier in Khammam district after the bifurcation it is in the part of the new district of Bhadradri Kothagudam of Telangana state. Yellandu has an average elevation of 205 m (673 ft). A coal seam and open pits run through the town. According to 2011 census of India, the mandal has the total households 24563 of which 15642 are in rural and 9864 are in urban, the total population of 95394 people. Of the population about 62.0 (60338) percent are in the rural area and the rest of 38.0 (35056) percent are in the urban area and the density is 228 per sqkm. Of the population males 46626 and females 48768 and the sex ratio worked out as 1046 females per one thousand male population. Of the population literates are 59399 and it is equals to 62.26 percent, of the literates males and females are 54.13 (32157) and 45.86 percent (27242) respectively. Yellandu is a highly populated region in Bhadradri Kothagudem District, contributing significantly to the demographic profile of the area. Of the population Scheduled Tribal population is about 35600 and the Scheduled Caste population is about 14500 and it is equals to 37.0 and 15.0 percent to the total population of the mandal. The main activities are agriculture and its allied in rural areas and the non-farm activities are the main in the urban areas.

The sample village of **Challa Samudram** is one of the major village in the Yellandu mandal, according to 2011 census, the total geographical area is 5351 hectares. The village has 2355 households with the total population of 8765, of the population male and female is 4517 and 4248 and it is equals to 51.53 and 48.47 percent respectively coming to the sex ratio 940 females per thousand male population. The Tribal population is dominating in this village with 5337 it is constitutes as 61.0 percent and the SC population is very nominal as 6.0 percent only. The village is 8 km away to the mandal headquarters and 53 km to the district headquarters.

Table – 1
Social Category wise Distribution of the Respondents

Social Category	No. Respondents	Percentage
BC	26	34.21
OC	5	6.57
SC	6	7.89
ST	39	51.31
Total	76	100.0

Source: Filed Study

Table – 1 reveals that, in our study area of Bhadradri Kothagudem district sample village, we could see that there is ST domination, followed by BC, SC and OC community. The ST community possesses the highest percentage in the sample village and OC and SC representation is very nominal and the BC respondents are at significant level of the sample village. The sample respondents are not similar distribution but the demography conditions of the village has been directly reflecting on the sample distribution of the study.

Table - 2 clearly shows that, when we look into the details of the age groups, it is interesting to note that majority of the respondents i.e., 38 per cent are in the age group of 21-30 years, who are the prime workers in the villages. In the age group of 21 - 30 years, about 24.0 per cent, about 20 per cent from 41-50 years and 13.0 per cent and 5.0 per cent respondents from the age group of 51-60 years and above 61 years respectively. Of the respondents about 95.0 percent are in the productive age group of 21 to 60 years.

Table – 2
Age-wise Distribution of the Respondents

Age Groups	No. Respondents	Percentage
21 – 30	18	23.68
21 – 40	29	38.15
41 – 50	15	19.73
51 – 60	10	13.15
Above 60	4	5.26
Total	**76**	**100.0**

Source: Filed Study

The very active age groups (21 to 40) respondents are about 62.0 percent are in between 21 to 40 years and the middle age of 41 to 60 years as about 33.0 percent as considerable. However, a major share of the respondents are in the active age groups all together (21 to 50 years) about 88.0 percent Thus, they play a vital role in performing more productive and economic activities. As the data observe deeply and it is very good sign to dynamic transferring of the village economy.

Table – 3
Literacy Particulars of the Respondents

Education Status	No. Respondents	Percentage
Illiteracy	36	47.36
Primary Education	24	31.57
Secondary Education	12	15.78
Higher	4	5.26
Total	**76**	**100.0**

Source: Filed Study

Table – 3 reveals the literacy particulars of the respondents in the sample village of Challasamudram of Yellandu Mandal. Out of 76 respondents, 47.36 (36) percent are illiterate is dominating. This indicates a high rate of illiteracy

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among the studied population, pointing to limited access to formal education or early dropout rates. Of the total 31.57 (24) percent of respondents have completed primary education**,** showing that while many have had some schooling, progression beyond basic levels is limited. Only 15.78 (12) percent have completed secondary education, and a mere 5.26 (4) percent have completed the higher education. The overall data highlights educational backwardness has been clearly unaware of their education status, the status of education directly or indirectly implies on employment opportunities, awareness levels, health outcomes, and social mobility too. However it is welcoming trend that more than 52.0 percent of respondents were educators in the countryside village of Challa samudram.

Table – 4
Demographic Particulars of the Respondents

Family Size	No. Households	Population	Average
1 – 3	6 (7.89)	14 (3.86)	**2.3**
4 – 5	62 (81.57)	295 (81.49)	**4.75**
6 – 7	8 (10.52)	53 (14.64)	**6.62**
Total	**76 (100.0)**	**362 (100.0)**	**4.76**

Source: Filed Study

Table – 4 explains the demographic particulars of the respondent's households of the study. The main indicator is that size of the family and the average households in the respective family size. The respondent households distributed in three family sizes of 1 – 3, 4 – 5 and 6 – 7, of the households 81.57 (62) percent of respondents as the highest share followed by 10.52 (8) and 7.89 (6) percent of respondents are adjusting with the 4 to 5, 6 to 7 and 1 to 3 size of the family respectively. The population point of view the total 76 respondents are having the total population of 362 and they were distributed in the three sizes of the families, of the population 81.49 (295), 14.64 (53) and 3.86 (14) percent of population bifurcated in the sizes of the families 4 to 5, 6 to 7 and 1 to 3 according in that order. The average family size of the study is 4.76 and it is 6.62 in the 6 to 7 family size, 4.75 members in 4 to 5 family size and 2.3 members in 1 to 3 size of the family. However around 90.0 percent of the respondents have small families and 10.0 percent of the respondents have large family size of the study. The similar trend has been observed from the data that in the family size of 4 to 5 there are 81.57 percent of respondents and the population share is almost equal with 81.5 percent and the remaining family sizes are differ with the population shares .

From a research perspective, the demographic composition shows a strong concentration of medium-sized families**,** suggesting a shift toward stable nuclear family structures, with residual presence of joint/large households and a marginal number of small ones**.** These trends can be further analyzed in relation to variables such as income, education, occupation, landholding, and migration to draw deeper socio-economic inferences.

Table – 5 illustrates the distribution of respondents engaged in non-farm employment activities, which refers to all income-generating work outside the agricultural sector. In rural economies, non-farm employment plays a vital role in livelihood diversification, risk management, and income stabilization, especially when agriculture is uncertain or unviable.

Table – 5
Non-Farm Employments Sources of the Respondents

Sources of Non-Farm Employment	No. Respondents	Percentage
Construction	19	25.0

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Mining	36	47.36
Business	10	13.15
Service	6	7.89
Artisan	5	6.57
Total	**76**	**100.0**

Source: Filed Study

Of the respondents about 47.0 percent of respondents are engaging in mining activities, it is major source of non-farm employment in the study area. the main reasons behind that availability of local quarries of gravel and stone cutting etc and at the same time local mineral resources led to open cast mining operations are strongly encourage the local people in the mining areas of Yellandu. There are 19 respondents and its equal to 25.0 percent of respondents are engaging in construction activities it is the second best source of non-farm employment in the study area after the mining activities. The main construction activities are brickwork, house construction, road, wood cutting and carpentry etc, all these works mainly daily-wage or contract based works done by the respondents in the sample village, the main reason is that this village is near to yellandu town.

Out of, 10 respondents are involving in business activities and it is accounts 13.56 percent it is the third largest non-farm employment source to the respondent household of the study. The business activates include petty trading, shops, street vending have been observed from the study. Another 6 respondents have been engaging in services, such as clerical jobs, private employment, teaching, driving, etc are done by the 7.89 percent of the respondents in this village, but it is hired source by the private sector near by the mandal headquarter of Yellandu. Out of 76 respondents only 5 respondents its equal to 6.57 percent have been working artisan activities, these are including with weaving, blacksmiths, carpenter and washer men etc have been observed in the sample village. This is very marginal share of the total employment share of the village.

The data indicates that nearly three-fourths (72.36%) of the non-farm workforce is concentrated in mining and construction, and it is highlighting a skewed dependency on manual labor-intensive sectors**.** Even though about 28.0 percent are engaging in business, service, and artisan sectors, which tend to offer better employment conditions than the farming activities. The data highlights a heavy reliance on extractive and manual labor sectors, especially mining and construction, within the rural non-farm economy. While these sectors are able to provide immediate employment opportunities, but at the same time these sources are often associated with vulnerability, instability, and low returns**.**

Table – 6
Social Category-wise Distribution of the Respondents in Non-Farm Activities

Activity	OC	BC	SC	ST	Total
Construction	1 (5.26) [20.0]	9 (47.37) [34.62]	2 (10.53) [33.33]	7 (36.84) [17.95]	**19 (100.0) [25.0]**
Mining	0 (0.00) [0.00]	8 (22.22) [30.77]	2 (5.56) [33.33]	26 (72.22) [66.67]	**36 (100.0) [47.37]**
Business	4 (40.0) [80.00]	4 (40.0) [15.38]	0 (0.00) [0.00]	2 (20.0) [5.13]	**10 (100.0) [13.16]**
Service	0 (0.00) [0.00]	3 (50.0) [11.54]	1 (16.67) [16.67]	2 (33.33) [5.13]	**6 (100.0) [7.89]**
Artisan	0 (0.00) [0.00]	2 (40.0) [7.69]	1 (20.0) [16.67]	2 (40.0) [5.13]	**5 (100.0) [6.58]**

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	5	26	6	39	76
Total	(6.58) [100.0]	(34.21) [100.0]	(7.89) [100.0]	(51.32) [100.0]	(100.0) [100.0]

Source: Filed Study

Table 6 provides a disaggregated view of the respondents engaged in various non-farm employment sectors namely Construction, Mining, Business, Service, and Artisan based on their social category (OC, BC, SC, ST). The analysis not only reflects the occupational structure across castes but also reveals patterns of inclusion and marginalization in rural non-farm employment opportunities.

Out of 76 respondents 47.37 percent are involving in mining activity as the highest than the rest of non-farm activities, the remaining non-farm activities are construction, business, service and artisan are 25.0, 13.16, 7.89 and 6.58 percent respectively. The total 39 Scheduled Tribes (STs) account for 51.32 percent, of the 39 ST respondents about 67.0, 18.0, percent are engaging in mining and construction activities and the remaining activities like business, service and artisan each about 5.0 percent. In BC category of the 26 respondents its equals to 34.21 percent of the total respondents and those are working as non-farm activities construction, mining, business, service and artisan are around 35.0, 31.0, 15.0, 12.0 and 8.0 percent respectively. There are 6 respondents from SC category, constitutes as 7.89 percent, of them 33.3 percent are each in construction and mining and 17.0 percent each in service and artisan works done by the respondents in SC category. Coming to the OC category only 5 respondents and it is account for 6.58 percent to the total respondents of the study. Of the 5 respondents 80.0 and 20.0 percent are involving in business and construction activities respectively.

Of the 76 respondents a majority of 36 respondents constitutes as 47.37 percent are working in mining activities, of the 36 respondents about 72.0, 22.0 and 6.0 percent of the respondents are belongs to ST, BC and SC categories respectively. There are 19 respondents and its account for 25.0 percent are adopting as construction activities for their employment of the 19 respondents BC, ST, SC and OC social categories are were distributed as 47.0, 37.0, 11.0 and 5.0 percent respectively of the study. Business is one of the non-farm employment activity in the study area and it is third largest non-farm employment source to the respondents, the total 10 respondents are doing the business, of them BC and OC are with similar with 40.0 percent and the 20.0 percent are from ST category in the sample village. The service and artisan as the non-farm employment sources are very nominal, these both the activities ignored by the OC category, even though the rest of social categories not in the considerable in the number point of view.

The data is indicating that the mining and construction as the main sources for the non-farm employment to the respondents in the study area. Business is considerable but it only in OC and BC categories, the service and artisan are not observed in OC category and at the same time these activities are not countable number in providing the non-farm employment of the study.

The data underscores a clear caste-based stratification in non-farm employment, STs and SCs are participating as the largest shares due to their low-levels of education and low-skill, and as such they are mostly involving in labor-intensive sectors like mining and construction. The BCs have a more balanced distribution in the non-farm activities; they are participating in both manual labor and business/service activities as per the data stated. In OCs dominate entrepreneurial roles, such as business, and at the same time they avoid manual or low-paying works like traditional services and artisan works it show their dominating the SC and ST categories.

7. Major Findings:

The study conducted in Challasamudram village of Bhadradri Kothagudem district, it provides a detailed understanding of the demographic structure of community and wise distribution, educational background and family composition. On the other end the sources of non-farm employment based on social category and social category and specific non-farm acidities of the study area has been discussed in detail manner. This reflects the actual demographic makeup of the village and directly influences the kind of occupations people take up.

The age structure reveals that the village has a young and economically active population with nearly 95.0 percent of the respondents being within the productive age range of 21 to 60 years. This is a good sign for economic activity, as the workforce is energetic and capable of contributing to different livelihood activities. The village is educationally backward. Nearly half of the respondents 47.36 percent are illiterate. Only about 32.0 have completed primary schooling, 15.78 percent have finished secondary education and higher education is not considerable. These educational facts indicates that while over half have little bit of educational status as the result they have adjust with limits job opportunities and awareness of non-farm employment. The average family size of the study is 4.76, indicating that the majority live in stable, medium-sized nuclear households, with fewer joint or very small families. The non-farm employment plays a major role in the village economy. Mining is the single largest source of employment, engaging about 47.0 percent. Construction is second with 25.0 percent and both together about 72.0 percent, followed by business, services, and artisan activities. Mining and construction are the non-farm activities have a strong dependence on labor-intensive work that may not always provide stable income. The study is also observed that social category and non-farm activity and these are closely associated. As per the study, STs are mostly engaged in mining and construction, BCs have a more balanced participation in manual labor and small business or service activities, SCs are concentrated in mining and construction with some involvement in services and artisanship, while OCs dominate business activities and avoid low-paying manual jobs. This pattern reflects how education, skills, and social status influence the type of work available to each group.

8.   Conclusion:

The study concludes that while the sample village has a young and active workforce simultaneously the respondents have been facing the serious challenges in education and skill development because of poor educational status. As such they are depending at large quantity on mining and construction activities are the non-farm employment sources. These are mainly demanding the manual or physical labour force, but these are not trustable in the aspect of stable employment and income. The study is also observed that there is also clear caste-based activity division, with marginalized groups like STs and SCs more likely to work in labor-intensive non-farm activities, while OCs tend to engage in business and entrepreneurial activities. Based on the facts the study has been recommended the following suggestions for the policy implications.

To improve livelihoods and ensure balanced development through the non-farm activities, there is a need for improve the better education that must be qualitative with skill based, because of poor educational status. The non-farm employment sources must be secure and ensure of income it is possible through recognized as the formal sector. On the other hand the Government and financial institutions have to support not only to the paying communities but also to vulnerable communities, the governments are surging always to the needy sections but they are inaccessible situation it should traced out and provide the basic infrastructure facilities in the villages especially in the agency areas. If these steps are taken, the village can harness its youthful population to build a stronger, more sustainable local economy that benefits all social groups through non-farm sector.

9.   Conflict of Interest

The authors declare that they have no conflict of interest.

10. Funding Declaration

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