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## Agrarian Crisis and industrialization in Rural India: The Case of Non-farm sector

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### Introduction

Despite more than 5 decades of planning, India predominantly remains an agricultural economy. Although agriculture now accounts for only 14 per cent of Gross Domestic Product (GDP), it is still the main source of livelihood for majority of the rural population (GOI, 2013). According to a Survey carried out by NSSO on Some Characteristics of Agricultural Households in India (GOI, 2015), agricultural activity was reported to be the principal source of income for 68.3 percent of agricultural households (Cultivation (63.5 percent), Livestock activity (3.7 percent) and other agricultural activities (1.1 percent)). The annual per capita income for the country was ₹ 71593 during 2012-13. This comes to ₹ 5966 per month per capita. With an average family size of 5.1 as per the report the average monthly per capita income of the agricultural rural household is ₹ 1260. Thus, the income of the agricultural household is significantly lower than the average income.

At all India level 50 percent of the members of the agricultural households were estimated to be either unemployed or out of labour force during July to December 2012. The share was 50.9 percent during January to June 2013. Estimated share of unemployed/ out of labour force during July to December 2012 was 34.7 percent among male members and 66 percent for female members of agricultural households. During the period January to June 2013, the corresponding shares were 35.3 percent and 67.4 percent for male and female members, respectively.

Indian agriculture has been passing through a phase of serious crisis. Fifteen years of economic liberalisation have adversely affected Indian agriculture. The most prominent manifestation of this is in the drastic decline in the growth rate of food grains. Secondly, unemployment in the agricultural sector increased during the reform period as agriculture was not profitable due to the fall in the price of farm products. As a result, the number of people who are employed in the primary sector and the area under cultivation decreased, which in turn caused a decline in rural employment. (Aerthavil, 2008). Many reports show that in 2016, nearly 7000 farmers had committed suicide in just five states.

According to Srijit Mishra(2008), features of the crisis in agriculture are many. First, there has been a decline in the trend growth rate of production as well as productivity for almost all crops from the mid-nineties. Further, the value of output from agriculture has been declining from late nineties. Second, there is an excessive dependence of a large section of the population on agriculture. According to him, non-farm employment opportunities in the rural areas are limited.

The crisis in Indian agriculture has many manifestations, of which suicides of farmers one. According to several reports, one farmer committed suicide every 32 minutes between 1997 and 2005. The suicide mortality rate (SMR, suicide death for 100,000 persons) for male farmers in India increased from 12.3 in 1996 to 19.2 in 2004 and then reduced to 18.2 in 2005 whereas SMR for male non-farmers increased from 11.9 in 1996 to a peak of 14.2 in 2000 and thereafter declined to 13.4 in 2005. During 2001-05, there were 86,922 farmers' suicides.

According to an NSS survey on Some Characteristics of Agricultural Households in India 50 percent of the members of the agricultural households were estimated to be either unemployed or out of labour force during 2011-12. Despite high overall economic growth rates in many Asian countries in the past two decades, many policy makers in Asia and in international organizations have become increasingly concerned that this growth has been too uneven and often accompanied by rising income inequality. In addition, it appeared that disadvantaged groups, people in remote rural locations, and women, have not benefited proportionately from this rapid economic growth.

What needs to be done to address this problem of unemployment? Can employment generation in the rural areas in the non-farm sector help to solve this problem? Can the growth of non-farm sector generate income and employment in the rural areas? It is in this light that the present paper aims at understanding the role of the non-farm sector in rural India.

Over the last three decades, the non-farm economy has been gaining a wider acceptance in issues of rural development. Participation in rural non-farm activities is one of the livelihood strategies among poor rural households in many developing countries (Mduma, 2005). The rural non-farm sector plays a vital role in promoting growth and welfare by slowing rural-urban migration, providing alternative employment for those left out of agriculture, and improving household security through diversification (Lanjouw and Lanjouw, 1995).

Rural non-farm sector plays an important role in the rural economy. The non-farm economy has been gaining a wider acceptance in issues of rural development due to its positive implication in poverty reduction and employment generation. In most developing countries the bulk of the population lives in rural areas, and this population continues to grow at a substantial rate. Given limits to arable land, this growth in the rural labour force will not be productively absorbed in the agricultural sector. Either migration to urban areas or the development of non-farm employment in rural areas must take up the slack (Lanjouw & Lanjouw, 2001). In India, the Eleventh Five Year Plan viewed the generation of productive and gainful employment with decent working conditions on a sufficient scale to absorb the growing labour force as a critical element in the strategy for achieving inclusive growth (GOI, 2011). The expansion of employment that ensures adequate livelihood security and decent conditions of work ought to be the bottom line in the pursuit of economic development in a country like India (NCEUS,

2009). According to a World Bank report (2008) non-agricultural activities account for 30 percent to 50 percent of income in rural areas. In view of this it is important to understand role of the non-farm sector particularly in the rural areas in solving many of the problems of rural economy such as poverty, unemployment and rise in income. The present study is aimed at answering some of these questions.

### **Conceptual Framework**

According to the economic census, “an enterprise was defined as an undertaking engaged in production and/or distribution of goods and/or services not for the sole purpose of own consumption. An agricultural enterprise was defined as one engaged in livestock production and agricultural services including hunting, trapping and game propagation, forestry, logging and fishing (corresponding to Divisions 02, 03, 04, 05 and 06 of Section 1 of National Industrial Classification (NIC)-1987). Enterprises engaged in activities pertaining to agricultural production and plantation (Divisions 00 and 01 of Section 1 of NIC-1987) were not covered under the economic census. Enterprises engaged in all other activities were termed as non-agricultural enterprises. Enterprises engaged in economic activities with the assistance of at least one hired worker on a fairly regular basis were defined as Establishments. The enterprises operated with the help of household labour only were termed as Own-Account Enterprises”.

The definition by National Sample Survey organisation is a narrower definition and “all enterprises covered under Sections ‘C’ to ‘S’ of NIC-2008 are termed as "non-agricultural enterprises. The survey did not include construction sector.” Details are given in the appendices.

Empirical research found that non-farm sources contribute 40-50% to average rural household income across the developing world. For example, according to World Bank report (2008) non-agricultural activities account for 30 percent to 50 percent of income in rural areas. Recent literatures suggest increased importance of non-farm economic activities as a source of rural livelihoods in many Asian countries.

The development of various non-farm activities, offers great potential for creating additional rural jobs and hence for stimulating the further growth of rural economies. The establishment of rural-based industries, in particular, has often been very effective in creating new job opportunities and providing supplemental income. Diversified production and trade activities have also offered rural communities better employment prospects and accordingly more stable growth of their economies. (Janvry and Sadoulet 2005).

### **Review of literature**

There has been a proliferation of studies on the non-farm sector. Most of the studies focus mainly on the rural non-farm sector. Main focus of most of the studies is on heterogeneity, sectoral distribution, cyclical nature of the rural non-farm sector, contribution to income in the rural sector as a complement to farm income, etc. Many studies on rural non-farm employment in developing countries indicate a lively engagement of rural households in various kinds of non-farm activities. Though there is a proliferation of the studies, most of the studies concentrate on only a few aspects. Moreover, the concept

of non-farm sector adopted in the studies also differs. Thus, there is a need to evolve a clear definition of the non-farm sector. There is no holistic approach to the non-farm sector particularly from an inclusive growth perspective. The present study is an attempt in this direction. The paper focusses mainly on the rural non-farm sector.

### **Objectives of the study**

- To what extent can the growth of non-farm sector help in generation of employment in rural economy?
- Can the growth of rural non-farm sector bring a reduction in poverty levels in the rural areas?
- Can the non-farm sector activities help supplement rural income?

The paper is divided into five sections. Section one deals with introduction. Section two deals with the conceptual framework, objectives of the study and methodology. The data source is also discussed in the section. Section three deals with review of literature. Section four examines the findings of the study. Section five deals with conclusions and policy recommendations. Focus of the paper is mainly on the rural areas.

### **Data Source**

Data for the present study has been collected mainly from the survey carried out by NSS entitled Key Results of Survey on Unincorporated Non-agricultural Enterprises (Excluding Construction) in India, NSS 67th Round in the year 2012. There were three such reports published by NSS. Other two reports are Operational Characteristics of Unincorporated Non-agricultural Enterprises (Excluding Construction) in India and Economic Characteristics of Unincorporated Non-agricultural Enterprises (Excluding Construction) in India. Other sources used in the paper are various economic surveys, Annual Survey of Industry, Socio-economic and caste Census carried out by Government of India and Data from Labour Bureau.

### **Sectoral Growth**

Simon Kuznets and other economists argue that, as the economy grows, the share of the primary sector in national income declines. These changes are both in terms of income and also employment. These changes in output and employment have been attributed to changes in the structure of demand with economic growth. With increased income levels, the demand for industrial products and services increases in relation to that for agricultural goods. The contribution of the agriculture sector to the country's GDP has declined from around 25% during 1990-91 to around 17% during 2016-17. What is true for income does not seem to be true for employment. Though in terms of GDP, the share of the agriculture sector has been declining over the years, this sector is still a dominant sector for employment. More than 50% of the population still depends on agriculture for employment. This is also reflected in the employment and income characteristics of Rural Economy in India. The proportion of households with monthly income of the highest earning household member of less than ₹ 5000 is nearly 75%. On the other hand, the proportion of households with monthly income of the highest

earning household member of less than ₹ 10000 or more is nearly 8.26%. The percentage of population below poverty line in the rural and the urban areas is 33.8 and 20.9 respectively. By 2011-12, the population below poverty line has declined to 25.7% and 13.7% respectively.

### **Results of the study**

Rural non-farm sector can play an important role in the rural economy of the country. Key Results of Survey on Unincorporated Non-agricultural Enterprises (Excluding Construction) in India, NSS 67th Round shows that during 2010-11, there were 57.7 million unincorporated non-agricultural enterprises excluding construction. Of the total number of unincorporated non-agricultural enterprises estimated, about 54 per cent were located in rural areas and 46 per cent were located in urban areas. Of the total, 85% of the enterprises were own account enterprises.

The survey also revealed that Uttar Pradesh had the highest share (14.5%) in total number of enterprises followed by West Bengal (12.6%), Andhra Pradesh (9.7%), Maharashtra (8.9%) and Tamil Nadu (7.8%). Thus, these five states accounted for 53.6 percent of enterprises at all-India level.

As per the results of the Sixth Economic Census (GOI,2014), there are 58.47 million establishments in the country engaged in different economic activities other than crop production, plantation, public administration, defence & compulsory social security services. Of these, 34.8 million establishments (59.48%) were in rural areas and 23.7 million establishments (40.52%) were located in urban areas. Growth rate in number of establishments over Fifth EC (2005) is 41.7%

There is a one year time lag between the data collected by NSS and the Economic Census. NSS data is for the period 2011-12 and that of the Economic Census pertains to the period 2013-14. Since there is no significant difference in the figures, there seems to be parity between the estimated number of enterprises in NSS survey and Sixth Economic Census. However, this needs further probing.

A comparable data from NSS is not available but considering the data from various Economic Censuses, compounded rate of growth of non-farm sector enterprises has been negative being -0.98% p.a. during 1980/1990, -2.39% during 1990/98, -4.48% during 1998/2005 and -3.65% during 2005/14. This is true for both the rural areas and also for the urban areas.

### **Type of Ownership**

Looking at the distribution of enterprises by type of ownership, a majority of the firms are proprietary firms and partnership firms are only 2%. Within the category of proprietary firms, 79.3 % firms are owned by males and share of females is only 17.5%. Situation is almost the same in both the rural and also the urban areas.



Table 1

## Percentage Distribution of non-farm enterprises by type of ownership

type of ownership	Rural	Urban
	proprietary male	77.6
female	17.2	17.5
partnership between members of same HH	1.3	1.8
different household	0.3	0.7
self-help Groups	3.5	0.5
trusts	0.1	0.2
others	0.1	0.1
all	100.0	100.0

Table 2

Comparison of growth rate of enterprises (CAGR)  
India

	1990	1998	2005	2014
Rural	-0.98	-0.02	-0.05	-0.03
Urban	-0.98	-0.03	-0.04	-0.04
Combined	-0.98	-2.39	-4.48	-3.65

Basic Source: Various Economic Census Reports

As per the Economic Census data, though in absolute terms, the number of establishments has increased but the compounded annual growth rate shows a negative growth rate. This may be a cause of concern and needs attention of the policy makers.

**Nature of activity in the non-farm sector**

The results of the NSS Survey show that during 2010-11, out of the total number of non-agricultural enterprises excluding construction, 30 percent enterprises were engaged in manufacturing, 36 percent enterprises were in trading and 34 percent enterprises were in service sector. While about 54 percent of such enterprises were located in rural areas, 46 percent were located in urban areas. Though in rural India, these enterprises were more or less equally (between 33 to 34 percent) distributed by broad activity category, enterprises engaged in trading sector had the dominant share (38.03%) of enterprises in urban area followed by service sector (33.7%) and manufacturing sector (26.5%).

Table 3

**Estimated number of enterprises by enterprise types and sector for each activity category**

activity	rural			urban			rural + urban		
	OAE	estt	all	OAE	estt	all	OAE	estt	all
Manufacturing	32.352	36.931	32.744	25.733	29.005	26.492	29.563	31.37	29.841
trade	35.240	23.089	34.200	38.272	37.244	38.033	36.517	33.020	35.980
other services	32.408	39.980	33.056	35.996	33.752	35.475	33.919	35.610	34.179
All	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: computed on the basis of data from NSSO

Within the category of trade, 88 percent of trading enterprises were engaged in retail trade and another 7% in wholesale trade.

Within the urban areas, Uttar Pradesh has the highest percentage of manufacturing enterprises as percentage of All India, followed by Maharashtra, Tamil Nadu and Gujarat.

Table 4

**% Distribution of proprietary enterprises by type and sex in India**

	All		manufacturing		Trading		other services	
	male	Female	male	Female	male	Female	male	Female
Rural	77.6	17.2	59.2	38.5	89.70	8.9	83.3	4.7
urban	79.3	17.5	58.4	39.3	88.00	9	85.4	10.4
Total	78.4	17.4	58.9	38.9	88.9	8.9	84.3	7.4

Source: computed on the basis of data from NSSO

A large number of females are in manufacturing both the rural areas and also the urban areas. A deeper look at the activity distribution of females within manufacturing sector reveals that majority of women are engaged in traditional activities either relating to textiles or food items.

**Duration and Nature of Operation**

The perennial enterprises are those which worked more or less regularly throughout the year. About 99 percent of the total unincorporated non-agricultural enterprises were perennial while the seasonal and casual enterprises together constituted a little more than 1 percent of the total number of enterprises. The distribution of unincorporated non-agricultural enterprises in respect of nature of operation does not differ significantly between rural and urban areas, or between OAE and establishments. About 93 percent of the unincorporated non-agricultural enterprises had worked for 9 months or more during the last 365 days while about 2 percent of the enterprises under survey coverage had operated for less than a quarter of the same period.

Most of the enterprises whether in the urban areas or the rural areas operate for more than 9 months during the year. The percentage is 94 for all enterprises. This is true for the rural areas and also for the urban areas. Hence, the non-farm sector is just not a source of income in the rural area during the off-agricultural season but during most part of the year. Unni (1989) claims that in the years of high growth of agricultural employment in rural areas, the growth of non-agricultural employment is low and vice versa. However,

there is no period when non-farm employment disappears completely. And, thus, nonfarm employment does compete with farm employment during periods of peak agricultural demand. According to Vaidyanathan (1986) far from generating a means of lucrative employment, the non-farm sector becomes a residual or 'sink' wherein excess labour, unable to find productive employment in the agricultural sector, is transferred. Labour does not move out of the agricultural sector due to higher wages, but is pushed out to low-wage non-agricultural employment when it is impossible to find agricultural employment.

70th Round report of NSS on Some Characteristics of Agricultural Households in India, (2013) shows that 'Non-agricultural enterprises' was principal source of income for only 4.7 percent of the agricultural households. Agricultural activity was reported to be the principal source of income for 68.3percent of agricultural households (Cultivation (63.5 percent), Livestock activity (3.7 percent) and other agricultural activities (1.1 percent)). Wage/salary employment was reported as the principal source of income by 22 percent of the agricultural households. This is also reflected in the nature of operation of the enterprises showing that majority of the enterprises are perennial rather than seasonal which is 98% in the rural areas and 93% in the urban areas. This seems to be in contravention to the existing thinking about the rural non-farm sector that far from generating a means of lucrative employment, the non-farm sector becomes a residual or 'sink' wherein excess labour, unable to find productive employment in the agricultural sector, is transferred. Labour does not move out of the agricultural sector due to higher wages, but is pushed out to low-wage non-agricultural employment when it is impossible to find agricultural employment (Vaidyanathan, 1986). In fact, during the agricultural season, non-farm sector is even competing with the farm sector in terms of employment.

**Table 5**  
**Percentage of enterprises receiving any assistance**

type of assistance received	rural			urban			rural + urban		
	OAE	estt	all	OAE	estt	all	OAE	estt	all
financial loan	1.8	2.5	1.8	0.7	1.3	0.8	1.3	1.7	1.4
subsidy	0.5	0.8	0.5	0.3	0.5	0.3	0.4	0.6	0.4
machinery/ equipment	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.1
training	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
marketing	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.1	0.0
raw materials	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
others	0.1	0.5	0.1	0.1	0.2	0.1	0.1	0.3	0.1
% of enterprises not receiving any assistance	97.7	96.3	97.6	99.0	97.9	98.7	98.3	97.4	98.1

Source: computed on the basis of data from NSSO

As is shown in the table, of all the enterprises, 98.1% of the enterprises do not receive any assistance from the government. Only 1.4% of the enterprises have received financial assistance and only 0.4% have received any kind of subsidy from the government. Training of any kind, assistance relating to marketing and procurement of raw material are some of the areas where no government assistance is received. Government assistance in this direction may perhaps help these enterprises in solving some of their problems relating to marketing and procurement of raw material as these are some



of the problems reported by 10.6% and 2.5% enterprises. As such, majority of the enterprises have no specific problem (nearly 66%). The use of information and communication technology among these enterprises is also very low being less than 5%. Perhaps the use of new technology may help in solving some of these problems of these enterprises.

### Ownership of Enterprises by Social Groups

Human beings are the ultimate ends and beneficiaries of the process of economic growth. Also, the process of growth needs to ensure that growth is broad based and is combined with programmes aimed at overcoming deficiencies in critical areas which affect large numbers of the vulnerable sections of our population. It is imperative that the disadvantaged groups also benefit proportionately from the rapid economic growth. Inclusive growth has to be adopted as a strategy to overcome the inequalities and disadvantages if there are any. All sections of the society have to be brought into the mainstream process of economic growth. According to the Socio-Economic and Caste Census, 2011, the percentage of SC population in India's total population is 18.46%, that of ST 10.97%.

**Table 6**

**Percentage distribution of proprietary and partnership enterprises by social group of their owner / managing partner separately for each sector and enterprise type all-India**

Social group	rural			urban			rural + urban		
	OAE	estt	all	OAE	estt	all	OAE	estt	all
scheduled tribe	6.5	4.2	6.3	1.6	0.8	1.4	4.4	1.8	4.0
scheduled caste	16.4	8.1	15.7	12.6	4.7	10.7	14.8	5.7	13.4
other backward classes	46.9	45.7	46.8	43.9	36.4	42.2	45.6	39.2	44.6
others	29.6	41.3	30.6	41.2	57.1	44.9	34.6	52.4	37.3
not known	0.6	0.7	0.6	0.7	1.0	0.8	0.6	0.9	0.7
<b>all-India</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: computed on the basis of data from NSSO

But the distribution of proprietary and partnership enterprises by social groups shows that the ownership of enterprises among scheduled caste is as low as 4%. Compared to scheduled caste, a higher percentage of enterprises are owned by scheduled tribe. This percentage is 13.4% among STs. Student's T-test was carried out to understand that the population means are equal for the two samples the absolute value of the test statistic is greater than the critical value, thus, the null hypothesis is rejected. Thus, so far as the non-farm sector is concerned, India seems to be on the path of inclusive growth.

**Table 7**  
**Distribution of non-agricultural enterprises by social groups**

category	ST	SC	OBC	others
Manufacturing rural OAE Enterprise	74	171	475	5
Trade rural OAE Enterprise	72	149	463	6
Other Services rural OAE Enterprise	48	175	470	6
All OAE rural	65	164	469	6
Manufacturing rural Estt	39	85	472	6
Trade rural Estt	33	70	424	7
Other Services rural Estt	49	84	462	8
All rural Estt	42	81	457	7
Rural Manufacturing All Enterprise	70	163	475	5
Rural Trade All Enterprise	70	145	461	6
Rural Other Services All Enterprise	48	165	469	7
rural all	63	157	468	6

Source: computed on the basis of data from NSSO

As is shown in the table, the ownership of the own account enterprises is much higher than the establishment type enterprises both among SCs and STs. This is true for other backward communities as well. So far as the distribution of the social groups is concerned, it is nearly equal in all activities. NSS had carried out a survey on Some Characteristics of Agricultural Households in India during 70<sup>th</sup> round. The distribution of households in all social groups shows that cultivation remains principal source of income for all groups followed by wage and salaried employment. But a comparison across the groups shows that the dependence of the scheduled caste on agriculture is much lower compared to other groups. The dependence of SC on wage and salaried employment is much higher compared to all social groups. Other sources of income are non-agricultural enterprise and other agricultural activities. Between these two sources, contribution of non-agricultural enterprises is higher among all social groups. It remains to be seen if the non-agricultural sector can play a role in reducing the burden on the agricultural sector for employment.

**Table 8**  
**Per 1000 distribution of rural agricultural households by principal source of income for each social group (%)**

social group	cultivation	livestock	other agricultural activity	non-agricultural enterprises	wage/ salaried employment	others
ST	69.8	1.8	0.8	1.7	24.3	1.6
SC	51.8	3.4	1.0	4.0	33.5	6.3
OBC	63.9	4.7	1.1	5.3	20.0	4.9
Others	66.8	3.0	1.2	5.4	17.0	6.5
all	63.5	3.7	1.1	4.7	22.0	5.1

Source: NSS 70th Round report on Some Characteristics of Agricultural Households in India, (2013)

## Employment

According to the Sixth Economic Census, total number of persons employed in all the establishments (excluding crop production, plantation, public administration, defence and compulsory social security services activities) is about 127.71 million, out of which, 66.29 million persons (51.9%) are employed in rural areas and 61.42 million persons (48.1%) are employed in the urban areas. At the country level, hired workers account for about 45.69% of the total persons employed and corresponding figures in the rural and urban areas are 34.67% and 57.59% respectively. While female workers account for about 25.56% of the total persons employed, corresponding figures in the rural and urban areas are 30.90% and 19.80% respectively. The elasticity of employment with respect to the growth of establishment for All India is high and positive being 0.82. Though there are inter-state variations in this (Table 14).



Table 9

## ELASTICITY OF EMPLOYMENT (WRT growth of establishment)

States	RURAL	URBAN
Andhra Pradesh	0.469	0.609
Arunachal Pradesh	-1.194	0.811
Assam	0.789	0.798
Bihar	0.966	0.926
Chhattisgarh	1.243	1.474
Goa	1.528	1.152
<b>Gujarat</b>	<b>0.948</b>	<b>0.755</b>
Haryana	0.781	1.814
Himachal Pradesh	1.223	0.877
J&K	1.044	1.263
Jharkhand	0.958	1.063
Karnataka	0.138	1.153
Kerala	1.018	0.926
Madhya Pradesh	0.838	0.687
Maharashtra	0.795	0.937
Manipur	0.773	0.732
Meghalaya	1.382	1.217
Mizoram	3.198	1.978
Nagaland	0.372	0.399
Odisha	1.937	1.272
Punjab	0.983	1.089
Rajasthan	1.086	1.039
Sikkim	0.681	0.764
Tamil Nadu	-15.094	0.826
Telangana	0.339	0.469
Tripura	-0.319	0.919
Uttar Pradesh	1.027	1.401
Uttarakhand	2.284	2.006
WestBengal	0.343	0.524
A& N Islands	0.944	0.763
Chandigarh	0.970	0.752
D& N Haveli	0.474	1.499
Daman & Diu	1.070	5.208
Delhi	1.148	-0.539
Lakshadweep	1.043	0.994
Puducherry	1.731	1.219
<b>All India</b>	<b>0.804</b>	<b>0.822</b>

Source: computed on the basis of data from Economic Census (GOI, 2014).

There are three states where this value is negative. In all other states, growth of establishment results into the growth of employment. As for Gujarat, these values are 0.948 and 0.755 for the rural and the urban areas. Hence, the growth of establishments will help in the generation of employment in the state.

A positive relationship between the growth of establishment and employment generation is also reflected in the regression statistics in table below.

Table 10

**Regression results showing impact of establishment on employment**

Regression statistics	Total employment	Female employment
Multiple R	0.978	0.393
R Square	0.956	0.154
Adjusted R Square	0.955	0.130
Standard Error	3.79	8.492
<b>ANOVA</b>		
Coefficient of intercept	0.176	19.354
t-value	0.096	4.744
<i>p- value</i>	0.923	3.475
Significance F	1.819	0.016

The value of  $R^2$  is 0.956 and hence one can say that 95 % of change in employment is explained by change in the number of establishments. This may also mean that the capital intensity of the rural non-farm sector is low. However, this requires further probing. The value of adjusted  $R^2$  is also quite high being 0.956 and hence a growth in employment is being attributed to establishments. The value of F is significant at 1.819. Thus, one can say that there is a very high relationship between the growth of establishment and employment. Thus, a growth of non-farm sector will result into generation of employment in the rural areas. Also, the growth of this sector will be a boon for the rural economy.

However, the scenario changes when one looks at the relationship between the establishment and female employment. The growth of establishment does not result into generation of employment for women. This substantiates the argument that women are the last to be hired in the process of industrialisation.

The value of  $R^2$  is 0.440 and hence one can say that 44 % of change in SGDP is explained by change in the number of establishments. The value of adjusted  $R^2$  is also 0.422 and hence a growth in SGDP is being attributed to establishments. The value of F is significant at 24.40 Thus, one can say that there is a positive relationship between the growth of establishment and growth of SGDP.

Thus, the growth of non-farm sector in the rural areas has a positive impact on the growth of employment though low female employment.

The NSS survey revealed that Uttar Pradesh had the highest share (14.5%) in total number of unincorporated non-agricultural enterprises followed by West Bengal (12.6%), Andhra Pradesh (9.7%), Maharashtra (8.9%) and Tamil Nadu (7.8%). These five states accounted for 53.6 percent of unincorporated non-agricultural enterprises at all-India level. About 10.8 crore workers were engaged in unincorporated non-agricultural enterprise activities excluding construction during 2010-11. Out of the total estimated number of workers, 51 percent were located in urban areas and 49 per cent were located in rural areas. OAEs had dominant share of workers under survey coverage in rural India. At all-India level, workers engaged in OAEs outnumber those engaged in establishments in all the three broad activity categories namely, manufacturing (60%), trade (72%) and service (63%). However,



urban areas recorded slightly higher share of workers in establishments over OAEs in 'Manufacturing' (53%) and 'Other Services' (51%). The sector 'Other Services' had the highest percentage of workers (36%) for rural, urban and also for rural & urban combined (36%) areas. At all India level 'Trade' and 'Manufacturing' had almost equal share (32%) of workers. Uttar Pradesh had the highest share in total number of workers (15%) followed by Andhra Pradesh (11%), West Bengal (11%), Maharashtra (9%), and Tamil Nadu (8%). These five states accounted for 54 percent of total workers of the unincorporated non-agricultural sector excluding construction.

**Table 11**

**Distribution of Workers in All Enterprises**

state	Hired workers		Non hired		All	
	Hired workers/ent	Women as%	Non hired workers/ent	Women as% of all	women as% of total	workers/ent
Gujarat Rural	0.54	23.27	1.50	42.73	37.55	2.04
India rural	0.66	28.32	1.24	32.26	29.00	0.00
Gujarat Urban	1.65	11.51	0.95	12.95	12.04	2.61
India Urban	1.51	20.53	1.11	18.81	19.80	2.62

Source: Calculated on the basis of data from Sixth Economic Census

The vulnerability of women's employment is also reflected in their employment status as shown in the above table which shows that the proportion of non-hired women workers is much higher compared to hired women workers. There is significant difference in the employment data from sixth Economic Census and NSS data. This may be either because of the coverage or because of the non-availability of separate data for non-farm sector for the Sixth Economic Census. Not just women, the non-hired workers (male and female) per enterprise is much higher than the hired workers per enterprise in the rural areas in Gujarat and also in India. Significantly, non-hired workers in enterprises in urban Gujarat is lower than that for India. In addition to employment, equally important is the gross value added by the workers in the process of production. The following table shows the GVA per worker in the enterprises.

**Table 12**  
**Regression results showing impact of establishment and SGDP**

Regression statistics	
Multiple R	0.663
R Square	0.440
Adjusted R Square	0.422
Standard Error	234
<b>ANOVA</b>	
Coefficient of	1029
t-value	7.537
<i>p</i> -value	1.730
Significance F	24.40

The value of  $R^2$  is 0.440 and hence one can say that 44 % of change in SGDP is explained by change in the number of establishments. The value of adjusted  $R^2$  is also 0.422 and hence a growth in SGDP is being attributed to establishments. The value of F is significant at 24.40 Thus, one can say that there is a positive relationship between the growth of establishment and growth of SGDP.

Thus, the growth of non-farm sector in the rural areas has a positive impact on the growth of income and employment though low female employment.

### **Growth Status of the Non-farm enterprises**

Growth status of enterprises: Growth status of an enterprise represents the overall Performance and sustainability of that enterprise over a period of time. NSS data on unincorporated non-agricultural enterprises shows the percentage distribution of enterprises by growth status for each type of enterprises and sectors. NSS has calculated the growth status of an enterprise on basis of its performance over last three years of operations. The survey revealed that at all India level, 43 percent enterprises were stagnating over last three years whereas around 31.9 percent enterprises were expanding. It has been observed that OAEs were more stagnating as compared to establishments in rural, urban and combined sector. In rural areas, 44.8 percent of enterprises were stagnating during last three years of operation while in urban areas 41 percent of enterprises were stagnating. 32.2 percent and 31.5 percent of enterprises were reported to be expanding during their last three years of operations in rural and urban areas respectively.

### **Conclusions and Policy Recommendations**

Kuznets hypothesis suggests that economic growth would lead to a shift in both income and employment from the primary sector to the secondary and tertiary sectors. While the Gujarat economy has certainly undergone a structural change in terms of the share of the sectors in state income, such a shift has not taken place in employment. Growth has been largely based on the secondary, and to some extent, the tertiary sector (Dixit,2009), The process of rural economic transformation is intrinsically linked with the expansion of non-farm activities within the rural economy. However, the rural non-farm sector is generally

characterized by an extraordinary degree of diversity, in terms of its composition, levels of earnings, types of skill required as well as backward and forward linkages with other sectors of the economy, including agriculture (Saikia, 2014).

Extent of participation in nonfarm activities is positively associated with credit access, workers average years of education and village infrastructure. These factors facilitate participation in nonfarm activities. On the other hand, amount of land ownership and extent of tenancy in the village have significant negative impact on extent of participation in nonfarm activities (Pramanik, et. al., 2014). To enable the artisans not only to sell the products in marketing events, but to market their artistry to the consumers and benefit directly from the market feedback for better value realization in future. Financial assistance by way of grant is provided on selective basis. Non-farm income activities should be encouraged among agricultural households as this would raise their income and hence, reduce poverty among them. However, it should be focused on value-added activities, especially on the lower income group. The findings of this study also suggest that a balanced development approach should not only focus on rural-urban divide, but also within the rural areas itself.

The growth of the non-farm sector will help in achieving some of the goals not only of inclusive growth but a source of income and employment for the rural agriculture class.

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