Rural Non-Farm Employment:
A Study in Gujarat

Institute of Applied Manpower Research
Planning Commission, Government of India

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Executive Summary

Whereas growth of rural non-farm employment (RNFE) is widely held as an important route for structural transformation thereby leading to poverty reduction and sustained high growth in the overall economy, growth of RNFE per se cannot be seen as a panacea or an unqualified boon for improving economic status among rural workforce. However, the high rate of economic growth in the past one and half decade may have exerted significant influence on the pattern of RNFE in the state. Three important features of the high economic growth in Gujarat may deserve special attention in this context: (i) high rate of growth of around 10 per cent for a fairly long period of time; (ii) the high growth in the state being contributed by both the farm as well as non-farm sectors especially since the mid-2000; and (iii) broadening of the base of industry-infrastructure development through creation of new corridors of growth, especially along the coasts in the western part of the state. All these factors, along with the higher rate of urbanization (of say about 42.58% as per the 2011 Census) may have led to a fairly different pattern of RNFE within the state. Given this context, the present study aims at examining the extent, pattern and proximate causes of rural non-farm employment in the contemporary scenario in Gujarat.

Objectives of the Study

1. To map the RNFE activity in the state Gujarat and to understand the factors which encourage RNFE in the villages.
2. To examine relative extent of farm and non-farm employment across regions in rural areas.
3. To understand differential pattern of RNFE across caste, class, and gender.
4. To assess intensity of and earnings from RNFE in various activities.
5. To examine link between resource base of the households and the extent, activity type and earnings from RNFE.
6. To capture the activity status among female members of the households.
7. To identify backward-forward linkages of the RNFE.
8. To ascertain the factors that facilitates and constrains in RNFE among households.

Methodology and Sampling Technique

The study is based on primary data collected from a sample of villages, households, and rural enterprises using structured and semi-structured questionnaires. In all, 1189 households were covered in 200 villages across four districts in the state. In addition to the primary surveys, focus group discussions were held with the district and *taluka* level functionaries dealing with skill promotion and rural enterprises in the state.

Findings of the Study

Almost half of the sample households have reported agriculture as the main source of income and another 12 per cent have reported agriculture labour as their main source. This suggests a majority of the sample households dependent on agrarian economy in the study villages. RNFE is found to be higher among STs and OBCs as compared to the SCs and other communities. Most of the STs, especially from Dahod, tend to migrate seasonally for labour work in both the farm and non-farm activities. A large majority of women in the working age groups have reported household work as their main activity, though several of them have reported subsidiary activity.

A preliminary analysis of the factors influencing RNFE among workers within the study villages suggest that higher level of education as compared to the illiterates and some level of technical education positively influence the participation in RNFE. The participation in RNFE was observed to be higher for those without the ownership assets and landholding.

It was found that much of the non-farm work takes place in urban/industrial agglomerates; Opportunities for non-farm employment within the rural areas mostly work as a residual segment, often driven by distress situation. This is particularly true in a situation like Gujarat where urban-industrial growth generally outpaces the agriculture sector. The recent spurt in the growth of agriculture sector seems to have increased the on-farm employment. The second round impact in terms of creation of non-farm employment opportunities within the rural areas seems to be somewhat dormant as of now. Increased connectivity and continued gaps in rural-urban infrastructure (especially power and other industrial infrastructure) may work as additional impediments for promoting non-farm activities in the rural hinterlands. This suggests that promotion of non-farm activities in rural areas, in the midst of highly industrialized and urbanized economy, may require reshaping the developmental polices at the macro-state level.

CHAPTER I

Introduction

1.1 The Context

Being one of the leading industrialized states in the country, workforce in Gujarat has undergone relatively faster pace of sectoral transformation as compared to several other major states in India. By the mid 2000 nearly half of the rural workers in Gujarat were engaged in non-farm activities as compared to 54 percent in all India (Hirway and Shah, 2011). Whereas growth of rural non-farm employment (RNFE) is widely held as an important route for structural transformation thereby leading to poverty reduction and sustained high growth in the overall economy, growth of RNFE per se cannot be seen as a panacea or an unqualified boon for improving economic status among rural workforce. For, diversification of rural workforce could be a manifestation of both distress as well as development induced processes-the phenomenon, which attracted significant attention among scholars way back in the late eighties (Vaidyanathan, 1997). The situation does not seem to have changed significantly over time. A study by Kundu, et al. (2003) suggests that much of the non-farm employment (NFE) has taken place in and around urban areas, and that the NFE in rural areas is largely characterized by low productivity and low income activities, thereby resembling distress type of situation.

It is, however, likely that the pattern in Gujarat is somewhat different from that in other parts of the country owing to the higher rate and spatially broad based industrial growth in the state. The high rate of economic growth in the past one and half decade may have exerted significant influence on the pattern of RNFE in the state. Three important features of the high economic growth in Gujarat may deserve special attention in this context: (i) high rate of growth of around 10 percent for a fairly long period of time; (ii) the high growth in the state being contributed by both the farm as well as non-farm sectors especially since the mid-2000; and (iii) broadening of the base of industry-infrastructure development through creation of new corridors of growth, especially along the coasts in the western part of the state. All these factors, along with the higher rate of urbanization (of say about 42.58% as per the 2011 Census) may have led to a fairly different pattern of RNFE within the state.

It is plausible that some of the factors noted above may have counter veiling effects on the growth of RNFE in Gujarat. For instance, the recent growth of industry-infrastructure sectors in the hitherto industrially lagging regions in the west coasts may not have generated significant additional employment in the rural hinterlands as the new employment opportunities may have remained confined mainly to towns and cities in the region. Similarly growth of urbanization may have worked as a pull factor for relocating non-farm employment from rural to urban areas. At the same time, a phenomenally high rate of agriculture growth (exceeding 10% in some of the years in the post 2003 period) may have created conducive environment for boosting up RNFE opportunities within the rural areas, following the widely acclaimed trajectory of agriculture-led

growth of rural non-farm economy in some of the largely populated agrarian economies like India (Mellor, 1976). On the down side of the growth induced non-farm employment in rural as well as urban economies lies a substantially large tracts of farm economy, especially in the eastern and parts of dry land regions in the state, which continues to suffer from low agronomic potential, thereby low and uncertain income from agriculture. People in these areas are often forced to seek alternative employment in non-farm activities within and outside rural areas.

Overall the scenario depicted above suggests a crisscross movements of workforce across spaces (rural-urban) and sectors, thereby creating a complex mix of distress as well as opportunity (development) driven shift rural workforce in the state. High rate of growth in agriculture may lead to more jobs on the farm, at the same time, it may lead to increased opportunity for work in the non-farm activities, which could be in rural or the urban areas or both. Seasonal migration from rural areas for non-farm employment may add yet another dimension to the already complex pattern of RNFE, which is difficult to comprehend within a binary framework for looking at farm and non-farm employment within the confines of the rural areas.

For a long period of time, the state economy has been driven significantly by industrial growth, which, in turn, had influenced the pattern of RNFE in general and rural industrialization in particular. The evidence in past had suggested that rural industrial activities tend to be closely linked with urban industrial centers across districts in Gujarat (Shah, 1986). The evidence may be further extended to imply that RNFE, especially those induced by developmental opportunities, is likely to be tilted more towards areas that are in the periphery of the already developed industrial centers or agglomerates within the state. And that those found in the areas farther away from such agglomerates are likely to be more of distress type. It is however, difficult to discern a complex phenomenon such as this, with the help of the official data sets provided by district industry centre, which do not provide information for industrial agglomerates that often cut across administrative boundaries of a district or *taluka*. In any case, the literature since the eighties has clearly indicated that the dichotomy between distress and development induced diversification in the rural workforce is often flawed as the two may co-exist and also impact the employment scenario within a well-defined space, household, and individual within a households.

Given this context, the present study aims at examining the extent, pattern and proximate causes of rural non-farm employment in the contemporary scenario in Gujarat. The analysis is placed in the backdrop of a select review of literature on RNFE in the specific context of Gujarat. The analysis is divided in six chapters including the introduction. The next section presents a brief review of evidence on RNFE with special focus on Gujarat. Chapter 3 presents profile of the study villages and households. This is followed by detailed analysis of the extent, pattern and proximate causes of RNFE among the sample households. Chapter 5 discusses main observations emerging from the primary survey of enterprises and discussions with informed persons in the district level agencies supporting micro and small enterprises in rural areas.

The last chapter provides a summary of the major findings and draws tentative policy implications.

1.2 Review of the Existing Literature: A Snapshot

A number of studies, especially since the mid-eighties, have examined the phenomenon of rural non-farm employment in Gujarat. Whereas, much of the research interest on the theme had stemmed from the growing concern about the slow pace of workforce diversification in rural areas, issues like decentralization of economic (industrial) activities, balanced regional development, and rural-urban linkages were among the important questions driving a number of researchers to conduct empirical studies into this important theme of enquiry.

The mid-eighties marked a watershed in the developmental discourse as the Indian economy was poised with a number of new challenges and policy responses thereof. Some of these include extension of Green Revolution strategy to some of the agriculturally lagging states like Gujarat, political imperatives for revisiting the approach of direct 'attack on poverty' launched during the mid-seventies, and a definite shift towards economic reforms at the macro level.

In a way all these policy triggers were informed by the growing concerns over the fact that the economic growth was not reaching out to the poor, especially the in rural areas. The stickiness in the sectoral diversification of rural workforce, despite the shift of gross domestic product (GDP) away from the primary sector, was a cause of serious concerns among planners and policy makers. This, essentially, was a pointer to the deep rooted structural problems that were overlooked by the pattern of growth attained till the mid-eighties. Ironically severe shocks like consecutive droughts during 1987-89, covering a large part of the country turned out to be a major booster to non-farm employment in several states including Gujarat. All these led to a significant increase in research interest after the mid-eighties that went into examining the size, causes, and outcomes of rural non-farm employment across the country (Chadha, 1986; Vaidyanathan, 1986; Basant, 1987; Bhalla, 1987; Basant, 1988; Basu and Kashyap, 1992). To a large extent, this stream of research was striving to understand the structural rigidities that, in some sense, questioned the very pattern or composition of overall growth within the economy.

Rural-Urban Linkages

By the mid-eighties, one-fourth of the rural male workers (usual principal and subsidiary-UPSS) were employed in non-farm activities, among rural female the proportion was about 10.6. The corresponding figures for all India were 24.6 and 13.8 percent for male and female workers respectively (Basant, et al., 1998). However, the proportion of rural non-farm to total non-farm workers in Gujarat was found to be lower than that at the all India level. This may suggest that much of the non-farm employment opportunities in Gujarat were getting linked and thereby shifted to urban areas. This was especially true of the employment in manufacturing activities.

This was substantiated by a study which tried to examining the issue of rural-urban linkages within manufacturing sector (Shah, 1986). Based on an inter-district analysis, the author noted that: (a) larger proportion of the employment in rural industrial sector had taken place in the districts that have a fairly high level of industrial growth, and (b) rural industrialization was influenced more by the industrial growth in urban areas rather than being significantly correlated with the growth in agriculture sector within a district. Overall the evidence suggested a significant presence of urban linked rural industrialization in the state.

Correlates of RNFE

Basant (1993) tried to examine the determinants of RNFE drawing from the primary data collected from 30 villages in five districts (Vadodara, Bhavnagar, Mehasana, Panchmahals and Valsad) in Gujarat. The study found that the proportion of non-agricultural households was higher in the villages reporting larger proportion of landless households. This implied that landlessness was one of the important correlates of households having their main source of income in non-farm activities. The study also observed that nearly three-fourths of the sample households had reported more than one sources of income. Access to land provided more possibilities of diversification. Further, the study found that the number of sources of income was inversely correlated with the proportion of landless households in a village.

Overall, the analysis vindicated the distress driven diversification in rural Gujarat during the mid-eighties. It was further noted that proportion of poor households was relatively higher among the households engaged in agriculture labour, drought relief work, and non-agriculture wage labour. These are also the households that had reported high work participation rate (WPR) and number of activities per worker (Basant, 1993).

Taking this forward Unni (1994) reiterated that the earlier findings through the help of a logit model, where she concluded that 'the chances of diversification into more than one economic activity are higher among agricultural households and individual agricultural workers. Access to land facilitates this process. Seasonality in agriculture, uncertainty and risks in production is also responsible for diversification. In far away and less developed villages, diversification is likely to be due to low and uncertain incomes from one economic activity' (p.17).

It may however be noted that the pattern of non-farm employment captured by the study of 30 villages in Gujarat was influenced by a drought year. Subsequently, a follow-up survey of some of the study villages during 1993 suggested that certain important changes like the decline in WPRs among female workers and also the decline in the number of sources of income in a normal year.

RNFE: A Multi-Patterned Reality

The findings from the above study thus depicted a mixed reality where the growth of RNFE (or lack of that) is influenced by a complex mix of factors and that there is no single reality obtaining across different segment of rural households.

In what one observes from a number of studies and also from the studies on rural-urban migration in Gujarat is a 'U' shaped curve where the RNFE (like migration) is found to be higher among the very poor or the landless and also among those having land and better economic status (Shah, 2005). Of course, the motivations as well as the outcomes across the two sets of households tend to vary significantly.

Examining the factors influencing high productivity/income jobs in non-farm sector and the actual earning thereof, Unni (2000) noted that whereas the level of education and a member of the family already in non-farm employment had positive impact on the non-farm salaried jobs, having a formal skill or size of the capital did not have any significant impact, the size of land was inversely related to the non-farm jobs. On the other hand, the factors having significant impact on the actual earnings from such jobs were: level of basic education, possession of formal skill and location. Non-farm jobs in a nearby town or village have a significant positive impact on the earnings (pp. 195-96).

The above observations from a selected set of studies in Gujarat seem to be suggesting that the growth of non-farm employment is relatively better linked with non-farm activities outside the rural areas, and that the link with agriculture is somewhat weak than what is borne out by the early writings on sectoral transformation in rural areas (Datta and Ravallion, 2010; Jha, 2011; Kundu et al., 2003). The deviation is likely to be particularly sharper in the case of a state like Gujarat where agriculture, till recently was at a low key, and industry-urban combine has been relatively stronger as compared to several other major states in the country.

The only departure from the above pattern is the story of high agricultural growth in the state. It is not clear as to how far this has influenced the job opportunities and the rural labour markets in different parts of the state. Earlier, the general experience was that an increase in agriculture income would lead to the growth of non-farm employment in the rural areas, mainly through the consumption linkages (Vyas, 1989). How far this has actually played out on the field is an issue that needs further probing.

The present study aims at examining some of the important dimensions of the RNFE and the likely explanations thereof in the light of the contemporary scenario of economic growth and employment in the state.

1.3 Objectives and Methodology

The main objective of the study is to map the RNFE activity in the state Gujarat and to understand the factors which encourage the employment in RNFE in the villages. The specific objectives are to:

1. Examine relative extent of farm and non-farm employment across regions in rural areas.
2. Understand differential pattern of RNFE across caste, class, and gender.
3. Assess intensity of and earning from RNFE in various activities.
4. Examine link between resource base of the households and the extent, activity type and earning from RNFE.
5. Capture the activity status among female members of the households.
6. Identify backward-forward linkages of the RNFE.
7. Ascertain the factors that facilitate and constrain RNFE among households.

Methodology

The study is based on primary data collected from a sample of villages, households, and rural enterprises using structured and semi-structured questionnaires. In all, 1,189 households were covered in 200 villages across four districts in the state. The analysis is based mainly on the frequency distribution and cross tabulation of some of the important indicators relevant for the analysis. In addition to the primary surveys, focus groups discussions were held with the district and *taluka* level functionaries dealing with skill promotion and rural enterprises in the state.

The Study Area

The study villages have been selected from two sets of agro-ecological and socio-economic situations in the state. First refers to Saurashtra region in Gujarat. This is mainly characterized by dry land agriculture experiencing and frequent droughts. In spite of (or because of) this, the region is known for the cultivation of commercial crops (including BT-cotton) and presence of a number of cities and small towns often housing small scale industries. The region is also known for the long distance migration. The second area refers to the central-south region, which is characterized by relatively stable agriculture served through canal irrigation and also high level of industrial activities in the famous 'golden corridor' between Ahmedabad and Valsad. In a sense, the two regions offer a good mix of factors that promote RNFE – be it distress or development driven in nature.

Two districts have been selected from each of the two regions. These include one with relatively higher proportion of RNFE and another with low RNFE as per the 2001 Census. In all, four districts have been selected for the study. These are: Bhavnagar and Surendranagar in Saurashtra region; and Bharuch and Dahod in the Central-Easter region. Of these, Bhavnagar and Baruch belong to the category of high-RNFE districts and Surenranagar and Dahod are in the category of

low RNFE-districts in the state. It may be noted that the districts selected for the study do not include those having larger metropolis in Gujarat. This, it is thought, should help capturing a more widely prevalent reality with respect to RNFE in the state.

Selection of Villages

Five villages from each of the four districts were selected for the survey. The villages were selected based on the proportion of non-farm employment, using the village level data from 2001Census. The first step was to work out the proportion of RNFE to the total workers in each village within the selected districts. Subsequently, the villages were arranged in ascending order with respect to the age of RNFE in each village. Using the district average as a cut-off, the villages were divided in high- and low-RNFE categories. The selected villages consist of two from the high- and low-RNFE categories and one village was selected around the median value of the proportion of RNF in a village. Only those villages were included where the total number of households was more than 200.

Household Selection

The next was to select households from the 20 villages. This was based on a house listing covering all the households in the sample villages whereby, information about RNFE-status was obtained for each household. The sample consisted of 20 of the total households enumerated during the house listing or a quota of 100 households (whichever was smaller). The sample was divided in equal proportion between households with and without RNFE worker within the household.

The sample of households with RNFE was further divided across different types of non-farm activities: (a) 40 from rural labour households, (b) 20 from self-employed in non-agriculture enterprises with hired labour, (c) another 20 of self-employed in non-agriculture enterprises without hired labour, (d) and the last 20 from the households with a member engaged in regular service. Since all the villages did not have households in each of the four categories, the sample was drawn from the available categories without changing the sample size in any village.

In addition to the household level information, primary data were also collected from a sample of 72 rural non-farm enterprises in the study area.

Sample Design of Surveyed Districts

In what follows we have presented the scheme of the sample selected for the survey.

```
                              Gujarat State
                  ┌─────────────────────┴─────────────────────┐
          Saurashtra Region                            Sourthern Region
        ┌────────┴────────┐                        ┌────────────┴────────────┐
 High-RNFE District   Low-RNFE District      High-RNFE              Low-RNFE District
   (Bhavnagar)        (Surengranagar)     District (Baruch)            (Dahod)
 ┌──┬──┬──┬──┐              │          ┌──┬──┬──┬──┐                       │
 V1 V2 V3 V4 V5            │         V11 V12 V13 V14 V15                  │
              ┌──┬──┬──┬──┐                        ┌──┬──┬──┬──┐
              V6 V7 V8 V9 V10                      V16 V17 V18 V19 V2
```
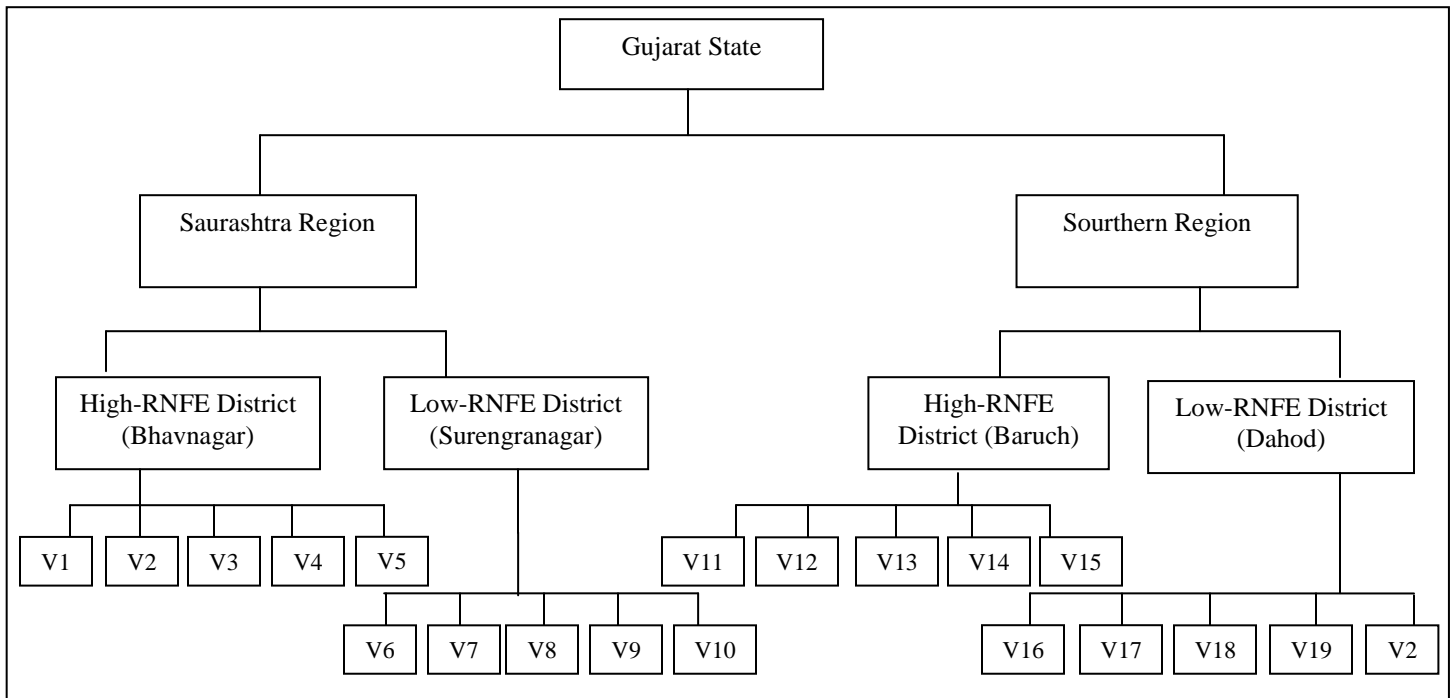
Note: V (1 to 20) represents the village: the 20 villages selected for the study i.e. five villages from each district.

CHAPTER II

RNFE in Gujarat: Recent Trends and Issues

The last decade has witnessed a significant upsurge in the economic growth in Gujarat. For the first time, the state had registered an impressive growth not only in the secondary sector, but also in primary sector, mainly crops and livestock. As a result, the growth performance of Gujarat has outpaced several of the comparable states in the country, and of course that of the country as a whole.

Table 2.1 presents a comparative picture of Gujarat's economy vis-à-vis all India. It is evident that Gujarat has achieved fairly higher rates of growth in both primary and secondary sectors during the period 2000-2008. As a result, the overall growth in GDP in the state was found to be 10.76 percent per annum as compared to 7.68 percent at the All India level.

Table 2.1: Growth Performance in Gujarat and India (2000-2008)

GSDP-Compound Annual Rate of Growth (in %)		
Industrial Group	Gujarat GSDP CARG	India GSDP CARG
	2000-08	2000-08
Agriculture	12.83	3.31
Primary	11.1	3.46
Manufacturing	11.06	7.64
Secondary	11.16	8.31
Service Industry	13.32	11.23
Tertiary	10.27	9.67
Total GSDP	10.76	7.68
Per Capita Income (Rs.)	8.95	6

Source: Obtained from Hirway and Shah, 2011

2.1 Employment Scenario in Gujarat

Some of the important segments of the economy having contributed significantly to the state's high growth trajectory are: (a) cultivation of high valued crops including fruits, vegetables and spices, and also livestock and dairying in the primary sector, (b) ports-based industrialization along with development of physical infrastructure, automobile, some of the export oriented industries like agro-processing, diamond cutting and polishing, and light engineering, besides chemical, petrochemicals and pharmaceutical products, and (c) real estate development. Incidentally, most of these segments, historically, are known to be labour intensive in a relative sense of the term.

As a result, the state had relatively larger proportion of the workforce in activities other than primary sector as compared to all India. Table 2.2 presents a comparative picture of the sectoral

distribution of workers in Gujarat and all India for the two pints of time. Two observations deserve special attention. First, the share of primary sector in total workforce in Gujarat was less than 50 percent in 2004-05. This was also substantially lower than that at the all India level. Second, in 2008-09 the share of primary sector increased in both Gujarat and all India, but the increase in the case was higher than that at the all India level. In 2008-09 Gujarat had about 54.4 percent of the workforce engaged in primary sector as compared to 57.3 percent at the all India level.

Table 2.2: Sectoral Shares in State Domestic Product and State Employment in 2004-05 and 2008-09

Sector	Gujarat: % Share in Employment (P+SS)		India: % Share in Employment	
	2004-05	2008-09	2004-05	2008-09
Primary	49.9	54.4	54.09	57.3
Secondary	24.4	22.3	19.64	18.7
Tertiary	25.7	23.3	26.29	24.1

Source: As in Table 1

A sharper increase in the share of primary sector in the total workers in Gujarat could be attributed to the phenomenon of high growth trajectory in the state's agriculture sector (Dholakia and Sapre, 2011). Alternatively, this could be interpreted as distress driven reversal from non-farm to farm sector as growth in the non-farm sector may not have absorbed the additional labour, perhaps due to the fact that the global financial crisis had started hitting the industry/investment in the state. It is difficult to ascertain this for the want of evidence from the field.

It may however, be noted that as per the latest data from the NSSO 66th Round for the year 2009-10, Gujarat continued to have higher work participation ratio (WPR) as compared all India and also as compared to the states like Punjab, Kerala and Madhya Pradesh (MP), the WPR in Gujarat was lower than Maharashtra (Table 2.3). The picture remains more or less same if we consider current weekly and daily status of employment.

Further, it is noted that the rate of unemployment is fairly low in Gujarat as compared to all India and also the selected states covered in Table 2.3. This once again could be interpreted both as development and also distress driven, considering that the poor cannot afford to remain unemployed.

If we consider the intensity of employment (days of employment) by current weekly status that rural male worked for larger number of days in Gujarat than most other states, but in terms of current daily status the situation is opposite. It is also observed that Gujarat has relatively larger proportion of the rural and also urban workforce as self-employed. The proportion of regular wage/salary earners in rural areas is found to be fairly low, only 67 out of 1,000 workers. This is quite low as compared to the all India estimate of 73.

Lastly, the estimates in Table 2.3 suggest that a worker in Gujarat earns lower income in Gujarat as compared to all India. The level of earning per day is higher only in comparison to that in Maharashtra, another state with high rate of growth, industrial development and urbanization.

Table 2.3: Employment Scenario in Gujarat (2009-10)

Area	Gujarat	Kerala	M.P.	Maharashtra	Punjab	All India
(I) WPR (Usual Status)						
1.WPR (principal status (ps))						
Rural	421	354	418	463	293	374
Urban	361	344	310	368	344	339
2. WPR (Usual principal and subsidiary status (upss)						
Rural	459	383	426	488	391	408
Urban	370	363	326	380	365	350
(II) WPR: Current Weekly & Daily Status						
Rural						
CWS	435	357	407	457	384	381
CDS	385	306	376	420	327	346
Urban						
CWS	367	344	316	370	360	343
CDS	351	307	304	361	346	329
(III) Type of Employment (upss)						
Rural						
SE	556	398	535	487	581	542
Reg	67	194	47	69	118	73
Casual	380	407	419	444	301	386
Urban						
SE	478	341	437	334	418	411
Reg	413	342	345	545	427	414
Casual	160	318	198	121	155	175
(IV) Unemployment Rate						
Rural						
PS	9	90	7	16	35	21
upss	8	75	7	6	26	16
Urabn						
Ps	20	83	29	36	53	37
upss	18	73	29	32	48	34
(V) Person days (of 1000) for Pass (For Male Worker)						
Rural						
CWS	971	954	975	969	980	968
CDS	916	835	924	920	945	916
Urban						
CWS	993	958	982	986	986	987
CDS	973	856	955	969	971	961
(VI) Earnings (Rs./ Day)						
Rural						

Regular Wage Salary	185.87	262.60	152.48	280.23	238.84	231.59
Casual Work (Empl.Persons)	83.25 (53.58)	206.29 (5744)	69.02 (7718)	75.19 (12067)	130.43 (3779)	93.06 (135078)
Urban						
Regular Wage Salary	318.96	399.29	306.78	430.59	347.62	364.95
Casual Work (Empl.Persons)	106.117 (3075)	217.66 (3766)	86.54 (3453)	109.90 (4616)	138.67 (1973)	121.83 (56176)

Source: NSSO, 66th Round, Employment and Unemployment Situation in India

It seems that the employment scenario presented in Table 2.3 is a pointer to the fact that a lot of churning is going underneath the rural labour market in general and in rapidly growing states like Gujarat and Maharashtra in particular. One of the possible scenarios taking place in Gujarat (and Maharashtra), especially during the past decade is that new opportunities are getting created, thereby attracting more workers (from within or outside the state). This results in a confluence of larger number of workers working at a lower wage rate both in regular and casual work in rural (and also urban) areas, thus suggesting a tradeoff between extent and quality (or earnings) from employment per worker.

Overall it appears that the rural employment scenario in Gujarat is driven by a mix of development and distress driven forces playing out differently in different parts of the state. And, that, much of the development related opportunities in RNFE are linked to the industry-urban dynamics rather than agriculture-rural dynamics. The recent upsurge in the state's agriculture sector seems to have created more opportunities within the sector, especially in the allied activities like livestock, fishery, cultivation of cash crops and their marketing etc.

2.2 RNFE among Districts in Gujarat

Non-farm activities employ about 28.8 percent of the total workers (main+marginal) in rural Gujarat. The proportion of RNFE has increased significantly from about 20 percent in 1961 to 28.8 percent in 2001. The map in Figure 2.1 depicts the level of RNFE across districts in Gujarat. Those districts having higher proportion of main workers in RNFE than the state average (i.e. 28.8%) are considered as high-RNFE districts, shown in green color.

It is observed that almost half of the districts in the state have higher proportion of RNFE than the state average. These include some of the major industrial-urban combine like Ahmedabad, Surat, Bharuch and Valsad. This however leaves out certain other industrially developed districts like Vadodara, Rajkot, and Jamnagar. At the same time the districts with high RNFE also include economically lagging districts like Sabarkantha, Bhavnagar, and also Kachchh, which had started growing fast during the past decade. Banaskantha and Patan also fall in this category of low economic development but substantial level of RNFE, almost on par with the state average. This once again reiterates the observations made earlier that RNFE is influenced by both high level of economic development in the district, and also by the lack of development.

Figure: 2.1: RNFE among Districts in Gujarat-2001 (% to total workers)

Note: The red marked districts represent the study area for the Project.
Source: Authors' calculation from Census, 2001

The proportion of RNFE varies significantly from 13 in Dahod to 47.6 percent in Gandhinagar. In fact, the two districts also capture very low and high level of urbanization in the state. While there are no systematic data base to examine links between the level of sectoral growth and RNFE at district level, we have tried to prepare a broad typology of districts indicating the (likely) main driver for RNFE within each district (Table 2.4). The typology presented in Table 2.4 suggests a mixed reality with respect to the main drivers for RNFE across the districts in Gujarat.

Table 2.4: Tentative Typology of Districts by Level of RNFE

High RNFE-Mainly Induced by Industrial Development		High-RNFE-Mainly Induced by Agriculture Development		RNFE-Mainly due to by Lack of Development		Other (Mixed situation - Indu./Agri. Development)	
Districts (6)	RNFE (%)	Districts (3)	RNFE (%)	Districts (9)	RNFE (%)	District (8)	RNFE (%)
Ahmedabad	33.2	Anand	33.5	Sabarkanatha	32.6	Rajkot	27.3
Surat	36.0	Kheda	34.3	Banaskanatha	28.7	Jamnagar	24.4
Valsad	34.5	Mehsana	44.5	Patan	27.1	Bhavanagar	**36.2**
Bharuch	32.4			Dahod	13.0	Junagadh	21.6
Vadodara	31.5			Panchmahals	16.5	Tapi	20.5
Navsari	28.8			Dangs	14.1	Gandhinagar	**47.6**
				Surendranagar	24.7	Narmada	16.2
				Kachchh	45.0	Porbandar	23.2
				Amreli	26.1		

Source: Authors' calculation from Census, 2001

We tried to examine the correlates of the proportion of RNFE across the districts in Gujarat. The idea was to examine whether RNFE is closely associated with the level of industrial growth within a district or not. This was examined with the help of rank correlation where three different indicators of industrial development were: number of registered factories, number of small scale units (SSI), and number of industrial workers in the district. It was observed that the proportion of RNFE was negatively correlated with all the three indicators of industrial development, and that the value of correlation coefficient was more than 0.8 in all the three cases. This implies that the proportion of RNFE is higher in a district where industrial development is relatively low. This may be due to the fact that the districts with higher level of industrial development would have pulled the workforce into the urban-industrial center, beside this there is a little spillover effect of such activities in the rural areas. The major exceptions appear to be major industrial centers like Ahmedabad, Surat, Bharuch, Vadodara, and Valsad as shown in Table 2.4.

It may however be noted that the situation may have changed significantly over the past decade. Since we do not have access to the district-wise data capturing the recent scenario, we have tried to follow the tentative typology where the four districts selected for the study represent different categories of the typology presented above. Whereas Bharuch may represent a situation of positive impact of the industrial development, Bhavnagar is in a mixed situation, and Dahod and Surendranagar are likely to represent the distress driven-RNFE in the state.

Chapter III

The Study Area: Villages and Households

This chapter presents a broad profile of the villages selected for the study. At the outset, it may be noted that the villages portray a fairly diverse situation within and across the districts hence, difficult to group them into the pre-decided categories with respect to RNFE in the state. Appendix 1 presents details about basic amenities obtaining in the study villages. It is observed that none of the villages had any of the important infrastructure or amenities such as railway station, industrial cluster, and educational establishments like collage, technical school and adult education centre within or nearby.

Table 3.1 presents village wise information pertaining to distance from the nearest town. Of the 20 villages covered by the study, two villages are situated within five km of the distance from the nearest town, whereas five villages are more than 30 km away from any town.

Table 3.1: Distance of Selected Villages from the Nearest Town

High RNFE		Low RNFE	
District-Village	Distance (km)	District-Village	Distance (km)
Bharuch		Dahod	
Karjan	15	Ranchhva	02
Sanhol	18	Ghada	07
Mota Sanja	33	Amali Menpur	09
Balota	45	Kaliawad	12
Anjoli	50	Vakota	15
Bhavnagar		Surendranagar	
Bharpara	05	Untadi	04
Karkolia	07	Liyad	13
Adapar	07	Khambhala	15
Pratappara	24	Zadiyana	45
Haliyad	25	Echhwada	45

Source: Village Census, 2001

All the villages were connected with metal road. Also, most of the villages had access to electricity for 6-12 hours, whereas 4 villages have the access for more than 12 hours and two villages reported availability of electricity for less than six hours (See Appendix 1).

As per the information obtained from the record of the village panchayat, a total of 6,080 households inhabited the 20 villages. Of these, we could cover 5,996 during the house listing carried for the study. Table 3.2 presents the distribution of households by social groups. Of the total enumerated households, 47.8 percent are Other Backward Classes (OBCs), whereas 31.4 percent are Scheduled Tribes (STs). The Schedule Cast (SC)-households accounted for eight and the remaining 12.7 percent belonged to the category of 'Other' social groups.

Table 3.2: Distribution of Households by Districts and Social Groups

Social groups	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	Total	Dahod	Surendranagar	Total	
ST	625	1	626 (24.2)	1256	1	1257 (36.8)	1883 (31.4)
SC	63	93	156 (6.1)	10	315	325 (9.5)	481 (8.0)
OBCs	244	1117	1361 (52.7)	469	1040	1509 (44.2)	2870 (47.8)
Others	147	293	440 (17.1)	1	321	322 (9.4)	762 (12.7)
Total	1079	1504	2583 (100)	1736	1677	3413 (100)	5996 (100)

Note: This data is from House Listing.
Source: Primary Survey, 2012

The communities living in these villages are predominantly Hindu and tribal people. If we exclude the tribal people, about two-thirds of the households are from Hindus and 75 are Muslims. No one from Other religions inhabits these villages (Table 3.3).

Table 3.3: Distribution of Households by Districts and Religion

Religion	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	Total	Dahod	Surendranagar	Total	
Hindu	1152	1526	2678	1663	1664	3327	6005
Muslim	75	0	75	0	0	0	75
Christian	0	0	0	0	0	0	0
Sikh	0	0	0	0	0	0	0
Buddhist	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0
Total	1227	1526	2753	1663	1664	3327	6080

Note: This table is created from the information given by the Sarpanch of the village.
Source: Secondary Source, 2012

Nearly 48 percent of the households lived in pucca houses and 43 percent of the households had access to toilet facilities. About 59 percent of the households have land and the rest are landless; this may however include some of those who may have land, but the land is not yet transformed to the head of the nearly formed households (Table 3.4).

Table 3.4: Distribution of Households by Types of Assets

Access to	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
Type of Houses	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Pucca	651	931	1582	105	1226	1331	2913
Kutcha	576	595	1171	1558	438	1996	3167
Total	1227	1526	2753	1663	1664	3327	6080
Toilet facility	530	755	1286	186	1159	1345	2631
Agriculture land	579	890	1629	1103	330	1959	3588

Note: This data is from house listing.
Source: Primary Survey, 2012

We tried to collect information about the households with respect to the size of the land holdings while conducting the house listing survey. Table 3.5 presents the information about 5,996 households covered in the house listing. It is observed that whereas about 42 percent of the households are landless, another 36 percent have land holdings size less than 2 hectares.

Table 3.5: Distribution of Households by Districts and Size of Landholdings

Type of landholdings	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Landless	650	247	897	978	642	1620	2517
Small & marginal	537	1308	1845	176	157	333	2178
Medium	175	146	321	187	137	324	645
Large	142	35	177	336	143	479	656
Total	1504	1736	3240	1677	1079	2756	5996

Note: This is from village listing.
Source: Primary Survey, 2012

Agricultural wage rate among 75 percent of the villages is less than Rs. 100 per day, for the remaining villages the wage rate is between Rs. 100-200. Surendranagar seems to have higher agriculture wage rate, which is generally true of dry land regions in the estate. For non-agriculture activities, the wage rate is higher than Rs. 100 in the case of 15 out of the 20 villages. In the remaining five villages, the wage rate is less than Rs. 100 per day (Table 3.6).

Table 3.6: Average Wage Rate prevailing in the Districts

Average Wage rate in Rs.	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
For Agriculture work							
100 & less	5(100)	4(80)	9(90)	4(80)	2(40)	6 (60)	15(75)
101-200	0(0)	1(20)	1(10)	1(20)	3(60)	4(40)	5(25)
Total	5(100)	5(100)	10(100)	5(100)	5(100)	10(100)	20(100)
For Non-agricultural work							
100 & less	1(20)	1(20)	2(20)	2(40)	0(0)	2(40)	4(40)
101-200	4(40)	4(40)	8(40)	3(60)	5(100)	8(40)	16(60)
201-300	0(0)	0(0)	0(0)	1(20)	0(0)	1(20)	0(0)
Total	5(100)	5(100)	10(100)	5(100)	5(100)	10 (100)	20 (100)

Note: Numbers in the parenthesis present the average wage rate.
Source: Primary Survey, 2012, Village Schedule

Tubewells and wells are the main sources of drinking water in the study villages, followed by hand pump that were reported in the case of six villages. Only three villages had access to piped water as a major source. Hand pumps were reported as the main source of drinking water in six villages; of these four are in Dahod (Table 3.7).

Table 3.7: Distribution of Village-wise Main Sources of Drinking Water

Source of water	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
Hand pump	1	1	2	4	0	4	6
River	1	0	1	0	0	0	1
Tube well	3	4	7	1	3	4	11
Well	0	2	2	2	3	5	7
Tap water	1	1	2	0	1	1	3
Total	6	8	14	7	7	14	28

Source: Primary Survey, 2012, Village Schedule

A wide range of non-farm activities have been undertaken in the study villages. Table 3.8 presents distribution of households having reported different types of RNFE by members of the households. It is observed that driving, masonry and diamond processing are the three most important RNFE activities reported in the study villages.

Table 3.8: Distribution of Households with Craftsmen and Workers by Districts

Type of craftsman	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
Spinners, Weavers, Knitters and Dyers	1	0	1	0	1	1	2
Carpenters	8	2	10	44	3	47	57
Blacksmith	5	5	10	11	5	16	26
Leather work	2	0	2	5	1	6	8
Tobacco Products	0	3	3	65	0	65	68
Stone cutters and carvers	0	5	5	0	0	0	5
Goldsmiths	0	0	0	0	5	5	5
Diamond Processing	55	93	148	26	20 (300 workers)	46	194
Potters	5	0	5	2	0	2	7
Tailors	13	8	21	9	17	26	47
Drivers	80	88	168	49	110	159	327
Bamboo Workers	16	1	17	0	0	0	17
Mason	53	22	75	137	36	173	248
Agricultural Product Processors	0	0	0	0	0	0	0
Grain milling	0	0	0	2	0	2	2
Crushing and Processing	0	0	0	0	0	0	0
Any other	0	0	0	0	0	0	0
Total	238	227	465	350	198	548	1013

Source: Primary Survey, 2012, House Listing

About 48 percent of the households have reported agriculture as the main activity; it seems for the landless and several of the marginal farmers and rural labour it is likely to be the main source of income (Table 3.9). Interestingly, Dahod has the largest number of persons/households with RNFE activities. This is mainly because of a fairly large number of carpenters, masons, and tobacco processors residing in the study villages in Dahod.

Table 3.9: Distribution of Households by Districts and Main Source of Income

Main source of income	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Agriculture & allied	693	1069	1762	701	412	1113	2875
Rural Labour	651	663	1314	864	630	1494	2808
Self Employed in non-agriculture with hired labour	26	0	26	34	9	43	69
Self Employed in non-agriculture without hired labour	134	4	138	78	28	106	244
Total	1504	1736	3240	1677	1079	2756	5996

Source: Primary Survey, 2012, House Listing

In all, there are 76 commercial establishments in the study villages. Of these, 58 are grocery shops (Table 3.10). Establishments of any other type of commercial shops were almost negligible.

Table 3.10: Distribution of Commercial Establishments by Districts

Type of commercial establishments	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	Bhavnaar	High RNFE	Dahod	Surendranagar	Low RNFE	
Repair shop	4	3	7	0	0	0	7
Grocery shop	18	14	32	9	17	26	58
Tea stall	1	0	1	4	0	4	5
Other shops	1	5	6	0	0	0	6
Total	24	22	46	13	17	30	76

Source: Primary Survey, 2012, Village Schedule

Only six out the 20 villages have functional self-help group (SHG) and eight villages have the milk collection center (Table 3.11).

Table 3.11: Distribution of SHGs by Districts

Villages having	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
SHGs	1(20)	2(40)	3(30)	3(60)	0(0)	3 (50)	6 (30)
Milk Collection Centre	2 (40)	4 (80)	6 (60)	1(20)	1(20)	2 (20)	08 (40)

Source: Secondary Source, 2012, Village Schedule

Among other major Government schemes, Mahatma Gandhi National Rural Employment Gurantee Act (MGNREGA) seems to have the largest presence i.e. in 16 out of the 20 villages. Other schemes like Indira Awaas Yojana (IAY) and Sardar Awaas Yojana (SAY) have been implemented in eight villages (Table 3.12). The facility of post office is available only in one village in Bharuch.

Table 3.12: No. of State/Union Government Schemes implemented in Villages by Districts

No. of schemes implemented	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
NREGA	4	3	7	5	4	9	16
IAY	4	1	5	0	3	3	8
SAY	4	1	5	0	3	3	8
Post office	1	0	1	0	0	0	1
Swarna Jayanti Sahari Rojagar Yojana (SGSRY)	0	0	0	0	1	0	1
Total	13	5	18	5	10	15	33

Source: Secondary Source, 2012, Village Schedule

Only diamond cutting and polishing industry is reported as an emerging RNFE activity in five villages, the remaining villages do not have such upcoming activities. Of the five villages with diamond related work, 2 each are located in Bhavnagar and Surendranagar whereas one village is located in Bharuch. Dahod does not have access to this activity in any of the five villages covered under the study (Table 3.13).

Table 3.13: Emerging Non-Farm Activities in the Villages by Districts

Name of the non-farm activities	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total (all villages)
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
None	4 (80)	3 (60)	7(70)	5 (100)	3 (60)	8(80)	15(75)
Diamond Work	1 (20)	2 (40)	3(30)	0 (0)	2 (40)	2(20)	5(25)
Total	5 (100)	5 (100)	10(100)	5 (100)	5 (100)	10(100)	20(100)

Source: Primary Survey, 2012

In and out-migration is found to be almost non-existent. This is mainly because most of the migration from the village is short duration/seasonal in nature (Table 3.14).

Table 3.14: Distribution of Emigrants from the Villages by Purpose, Duration of Stay, and Districts during Last Year

Purpose and duration of migration	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Agriculture works	0	0	0	0	0	0	0
Non-agriculture works	3	1	4	0	0	0	4
Duration of stay							
Up to 2 months	0	0	0	0	0	0	0
3-4 months	2	0	2	0	0	0	0
5-6 months	0	1	1	0	0	0	0
7 months & above	0	0	0	0	0	0	0
Total	2	1	3	0	0	0	3

Source: Secondary Source, 2012

CHAPTER IV

RNFE among Sample Households: Evidence and Patterns

This chapter presents evidence from the sample survey of 1189 households across 20 villages in Gujarat, this leaves 11 households for which complete data were not available. We start with presenting the basic profile of the sample households so as to be able to see the pattern of RNFE in a proper context.

4.1 Profile of the Sample Households

Family Size, Land Ownership and Principal Occupation

Average number of members in the sample households is found to be 5 persons. Whereas, about 53 percent of the sample households have a moderate size of 3-5 members of the family, about 35 percent of the households have a relatively larger family size of 6-9 members (Table 4.1).

Table 4.1: Distribution of Households by Districts and Size (% share)

Household size (members)	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	Total	Dahod	Surendranagar	Total	
Less than 3	7.8	5.0	6.2	6.7	7.8	7.3	6.8)
3-5	63.3	42.8	51.4	50.0	57.9	53.8	52.8
6-9	28.4	42.8	36.8	36.2	32.4	34.3	35.4
Above 9	0.4	9.3	5.6	7.1	1.81	4.5	4.9
Total	100 (218)	100 (301)	100 (519)	100 (340)	100 (330)	100 (670)	100 (1189)

Source: Primary Survey, 2012

Table 4.2 presents distribution of households by social groups. It is observed that 27.2 of the sample households belong to scheduled tribes (STs), and 11.6 percent scheduled castes (SCs). Other backward communities account for 46.8 percent, whereas rest of the communities have 14.2 percent of the sample households. It may be noted that about 69 percent of the sample households in Dahod and 39 percent in Bharuch belonged to the STs.

Table 4.2: Distribution of Households by Districts and Social Groups (% share)

Social groups	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Baruch	Bhavnagar	Total	Dahod	Surendranagar	Total	
SC	5.5	10.3	8.3	13.0	15.5	14.2	11.6
ST	39.0	1.0	17.0	68.7	0.9	35.3	27.2
OBCs	21.6	73.1	51.4	17.7	69.7	43.3	46.8
Others	33.9	15.6	23.3	0.6	13.9	7.2	14.2
Total	100 (218)	100 (301)	100 (519)	100 (340)	100 (330)	100 (670)	100 (1189)

Source: Primary survey, 2012

Almost all the households belonged to Hindu (and scheduled tribe) community. Muslims, Christians, and Jains together were only 4 out of the total sample of 1,189.

Table 4.3: Distribution of Households by Districts and Religion (% share)

Religion	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Hindu (including STs)	100	100	100	99.1	99.7	99.5	99.7
Muslim	-	-	-	0.3	0.3	0.3	0.2
Jain	-	-	-	0.3	-	0.1	0.1
Others	-	-	-	0.3	-	0.1	0.1
Grand Total	100 (218)	100 (301)	100 (519)	100 (340)	100 (330)	100 (670)	100 (1189)

Source: Primary Survey, 2012

Close to 50 percent of the households has reported agriculture as the main source of livelihood, and another 12 percent have agriculture labour as the main source of livelihood (Table 4.4). Together these households add up to 62 percent of the total sample households. Of the rest, 13.5 percent of the households reported self-employment (without hired labour), 13.7 percent are in casual labour in non-farm activities, and 8.7 percent are in service. Only 22 (1.9%) households have reported self-employed in enterprise with hired labour. The pattern of farm and non-farm employment however, does not depict any significant variations across the four districts. This is somewhat surprising.

Table 4.4: Distribution of Households by Districts and Principal Livelihood (% share)

Principal livelihood	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Agriculture	51.4	47.8	49.3	50.6	49.4	50.0	49.7
Animal husbandry	-	-	-	-	0.9	0.4	0.3
Agriculture labour	22.0	5.0	12.1	12.1	12.7	12.4	12.3
Non Agriculture labour	4.1	18.6	12.5	21.2	7.9	14.6	13.7
Services	9.6	9.3	9.4	6.8	9.7	8.2	8.7
Self-employment without hire labour	12.8	12.3	12.5	9.4	19.1	14.2	13.4
Self-employment with hired labour	-	7.0	4.0	-	0.3	0.1	1.9
Total	100 (218)	100 (301)	100 (519)	100 (340)	100 (330)	100 (670)	100 (1189)

Source: Primary Survey, 2012

Of the total sample, about 39 percent of the households are landless, whereas another about 30 percent has marginal holdings of less than 2.5 acres. Small farmers (with a land holding size between 2.5-5.0 acres) accounted for 13.4 percent of the sample households. Only 17 percent of the households have more than five acres of land.

In Surendranagar district close to one-third of the sample farmers had more than five acres of land; this is mainly because of the semi-arid condition in the district. Overall, Surendranagar represents a situation of high inequality in terms of land ownership. This is also accompanied by relatively higher proportion of SC households. Together the district depicts a fairly high level of socio-economic inequality as compared to the other districts under the study.

Of the four districts, Surendranagar has the highest proportion (46%) of landless households, followed by Bharuch (44%), next by Bhavnagar (41%). The proportion of landless households in Dahod is 27.6 percent (Table 4.5).

Table 4.5: Distribution of Households by Districts and Land Ownership (% share)

Land ownership (in acre)	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhav nagar	High RNFE	Dahod	Surend ranagar	Low RNFE	
Landless	44.0	40.9	42.2	46.4	27.6	36.9	39.2
Up to 2.5	22.0	31.9	27.7	9.4	54.7	32.4	30.4
2.5-5	17.4	11.3	13.9	12.4	13.6	13.0	13.4
5-10	11.0	9.0	9.8	17.3	3.5	10.3	10.0
Above 10	5.5	7.0	6.4	14.4	0.6	7.5	7.0
Total	100 (218)	100 (301)	100 (519)	100 (340)	100 (330)	100 (670)	100 (1189)

Source: Primary Survey, 2012

4.2 Average Landholding Size and Irrigation

The size of land holding varies significantly across the districts. Whereas farmers in Surendranagar have the highest size of landholdings (7.9 acres), those in Dahod own only 1.9 acres of land on an average. The two districts caricature the predominant characteristics of dry land and tribal regions respectively. In the rest of the two districts the average size of land holding is around 4.5 acres (Table 4.6).

Together the 723 sample farmers with land, own 3,267.5 acres of land. Of the total land owned by the farmers 1,784.2 acres of land has been irrigated. This irrigated land accounts for nearly 55 percent of the total land owned by the sample farmers. Farmers in Bharuch have the largest proportion of area under irrigation (about 70%). This is followed by that in Bhavnagar (56%). This may have substantial impact on the farmer's continued stake in agriculture in the two

districts. At the same time, favourable agriculture scenario may also give rise to more productive type of RNFE in these two districts as compared to the other two.

Table 4.6: Distribution of Households by Districts and Types of Landholding

District		Total land	Crop land	Homestead land	Leased in land	Leased out land	Irrigated land
Bharuch	Mean	4.37	4.28	0.02	0.00	0.08	5.53
	Sum	533	518	2	0	9	369.1
	N	122	121	120	122	122	121
Bhavnagar	Mean	4.80	4.62	0.02	0.00	0.27	2.68
	Sum	855	800	3	0	49	478.9
	N	178	173	173	178	178	177
Dahod	Mean	1.93	1.83	0.02	0.00	0.19	5.09
	Sum	476	449	4	1	48	241.9
	N	246	245	244	245	246	246
Surendranagar	Mean	7.93	8.21	0.38	0.07	1.14	3.92
	Sum	1404	1454	66	12	201	694.3
	N	177	177	175	177	177	177
Total	Mean	4.52	4.50	0.11	0.02	0.42	4.29
	Sum	3268	3221	76	13	306	1784.2
	N	723	716	712	722	723	721

Note: Mean: Average, Sum: Total, N: No of Households
Source: Primary Survey, 2012

Better access to irrigation in Bharuch and Bhavnagar districts seems to have exerted positive impact on the cropping pattern. Table 4.7 reveals that farmers in these two districts grow high valued crops like cotton (mainly BT cotton), beside wheat, groundnut, vegetables and sugarcane. Compared to this, the crops grown by the farmers in Dahod are mainly subsistence type i.e. maize and paddy. In Surendranagar, cotton, jowar and cumin are the main crops – all are high valued crops that have been grown in large parts of dry land areas in Saurashtra region. It may however be noted that agriculture in Surendranagar is constrained by limited access to ground water irrigation and also salinity. The district therefore, is historically more prone to droughts and crop failure. The situation however, seems to have changed when the district also face the wrath of heavy rainfall and flooding.

Table 4.7: Distribution of Households by Districts and Cropping Pattern

Crops grown	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Kharif							
Major Crop 1	Cotton (56)	Cotton (117)	Cotton	maize (228)	Cotton (156)	Cotton	Cotton
Major Crop 2	Paddy (26)	Bajra (113)	Bajra	paddy (59)	Jowar (44)	Paddy	Bajra
Rabi							
Major Crop 1	Wheat (44)	Wheat (51)	wheat	wheat (47)	Cotton (42)	wheat	Wheat
Major Crop 2	juvar (8)	vegetable (15)	Vegetable	maize (33)	Cumin (28)	Maize	Maize
Cash crop							
Major Crop 1	Cotton (58)	Cotton (108)	Cotton	Maize (46)	Cotton (137)	Cotton	Cotton
Major Crop 2	Sugarcane (10)	Groundnut (14)	Groundnut	Tur (4)	Castor (35)	Castor	Castor

Source: Primary Survey, 2012

4.3 Worker Population and Occupation

Nearly 50 percent of the population in the four districts is in the age group of 15-59 years. Essentially they constitute the effective labour force in the area (Table 4.8). The proportion of population in the age group of 15-24 is slightly lower in Bharuch and Surendranagar as compared to that of Bhavnagar and Dahod. A relatively smaller proportion of the population in the working age group in the study villages in Gujarat could be partly due to out-migration from the villages. The detail regarding the male and female division according to the age group is presented in the appendix 2.

Table: 4.8: District-wise Distribution of Household Members by Age and Gender

Age-groups	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
1-5	6.7	10.6	9.1	12.9	7.8	10.5	9.9
6-14	13.6	20.1	17.6	19.7	18	18.9	18.3
15-24	20.8	22.9	22.1	22.4	19.7	21.2	21.6
25-40	29.9	26.1	27.6	24.9	29.1	26.9	27.2
41-59	20.4	13.5	16.2	15.4	17.4	16.4	16.3
60 & above	8.6	6.8	7.5	4.7	7.8	6.2	6.7
Total	100 (1037)	100 (1658)	100 (2693)	100 (1867)	100 (1657)	100 (3522)	100 (6219)

Source: Primary Survey, 2012

Barring the child population, the proportion of illiterate people was about 19 among male and 37 percent among female in the sample households. The proportion of illiterate population was significantly higher in Dahod (36.7 %), followed by Bhavnagar (26.6%) and Surendranagar (24.6 %). In Bharuch the proportion of illiterate population (barring children) was 17 percent.

Table 4.9: District-wise Distribution of Household Members by Educational Level and Gender (% share)

Educational level	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Children	7.3	10.7	9.4	11.1	6.2	8.8	9.1
Illiterate	17.1	26.6	22.9	36.7	24.6	31.0	27.5
Primary	23.6	25.8	24.9	22.1	26.7	24.3	24.6
Upper Primary	7.7	9.5	8.8	8.6	7.9	8.3	8.5
Secondary	10.9	11.7	11.4	6.2	12.6	9.2	10.2
H. Secondary	20.8	9.3	13.8	8	13.8	10.7	12
Graduate	9.1	4.1	6.0	4.7	4.9	4.8	5.3
Post-graduate & above	3.5	2.3	2.7	2.5	3.3	2.8	2.8
Total	100 (1037)	100 (1658)	100 (2693)	100 (1867)	100 (1657)	100 (3522)	100 (6219)

Note: The no. of children is less than that in appendix: 3. this is due to the fact that some of the children below 5 years may have also joined the pre-primary centers.
Source: Primary Survey, 2012

More than 46 percent of the female in Dahod are illiterate, for the remaining three districts the proportion ranges from 23 percent in Bharuch and about 36-37 percent in the other two districts. Together children and illiterate population account for nearly 38 percent of the total population. Among the remaining population, about 23 percent had attained primary and upper primary level of education. About 22 percent have secondary and higher secondary level of education. The proportion of population with graduation is 5.3 percent, and 2.8 percent of the population studied beyond graduation.

Attainment of technical education is more or less absent, less than one (i.e. 40 persons) of the population has reported having undergone some kind of technical education. Once again, it is plausible that several of those having acquired technical education have moved out of the villages-conjecture, which requires further probing.

Table 4.10: District-wise Distribution of Household Members by Technical Education and Gender (% share)

Gender	Technical education	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
		Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Male	B.E./B.Tech	-	0.1	0.1	0.1	0.1	0.1	3(0.1)
	Poly Tech.	-	-	-	-	0.7	0.3	6(0.2)
	ITI	-	0.2	0.1	-	0.7	0.3	8(0.2)
	Other formal	-	1.3	0.8	0.1	0.3	0.3	15 (0.4)
	Informal	-	0.1	0.1	-	-	-	1(0.1)
Female	Poly Tech.	-	-	-	-	0.1	0.1	1(0.1)
	Other	-	0.5	0.3	0.1	-	0.1	5(0.2)
	Informal	-	0.1	0.1	-	-	-	1(0.03)
Total	B.E./B.Tech	-	0.1	0.1	0.1	0.1	0.1	3(0.04)
	Poly Tech.	-	-	-	-	0.4	0.2	7(0.1)
	ITI	-	0.1	0.1	-	0.4	0.2	8(0.1)
	Other	-	0.9	0.6	0.1	0.1	0.1	19(0.3)
	Other formal	-	-	-	-	0.1	0.02	1(0.01)
	Informal	-	0.1	0.1	-	-	-	2(0.03)

Note: Percentages calculated from the total male/female/ and both and those who does not attained any type of technical education are not presented in the table.
Source: Primary Survey, 2012

Table 4.11 presents distribution of population by various activities. It is observed whereas children account for about 11 percent of the population, about 27 percent of the people are in the category of other which also include student, old persons and the unemployed. Household activities accounted for 22 percent of the population. Together these add up to about 60 percent of the total population in the study villages. Of the remaining around 40 population, 22 percent reported mainly engaged in cultivation, agriculture labour and animal husbandry. The remaining 18 percent reported various kinds of non-farm work as their main activity (Table 4.11).

Table 4.11: Distribution of Main Workers by District and Present Occupation (% share)

Present occupation	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	Total
Self-cultivation	15.5	14.3	14.8	16.1	15.7	15.9	15.4 (962)
Animal husbandry	0.7	0.2	0.4	1.0	0.7	0.8	0.6 (39)
Agricultural labour	7.7	4.8	5.9	8.9	4.2	6.2	6.4 (361)
Non-agricultural labour	7.2	12.1	10.2	9.4	9.3	9.4	9.8 (609)
Self-employed in	3.1	4.8	4.1	1.8	5.1	3.3	4.8

							(227)
Service(public)	1.1	1.8	1.6	0.3	1.6	0.96	1.2 (73)
Services(private)	3.2	1.4	2.1	1.4	1.16	1.2	1.6 (102)
Household activities	25.7	21.9	23.1	20.1	23.1	21.5	22.2 (1387)
Children	8.3	11.5	10.2	16.0	9.9	13.1	11.9 (741)
Unemployment	28.9	27.1	27.9	25.5	29.5	27.4	27.6 (1718)
Total	100 (1037)	100 (1658)	100 (2693)	100 (1867)	100 (1657)	100 (3522)	100 (6219)
Productive Employment	37.7 (391)	39.1 (649)	38.6 (1040)	38.1 (712)	37.4 (621)	37.8 (1333)	38.4 (2373)

Source: Primary Survey, 2012

It may however, be noted that the pattern of activities among the sample households has remained more or less same over the past five years. The major change has been in the proportion of persons in 'other' category, which has increased from about 16 to 26. This is mainly due to the fact that the proportion of children has declined and most of them would have been in the school. There has been a marginal increase in the proportion of people engaged in both the agriculture and non-agricultural activities as shown in Table 4.12.

Table 4.12: Distribution of Workers by District and Occupation before Five Years (% share)

Occupation	Baruch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	Total
Self-cultivation	16.8	14.8	15.5	17.8	16.4	17.1	14.6 (927)
Animal husbandry	0.3	0.3	0.3	0.8	0.7	0.8	0.5 (34)
Agricultural Labour	7.0	4.9	5.7	9.5	4.3	6.9	6.3 (361)
Non-agricultural labour	6.7	10.6	9.1	8.3	8.3	8.3	8.6 (488)
Self-employed in non-agriculture	3.1	5.1	4.3	2.2	4.8	3.5	3.8 (217)
Service public	1.1	1.8	1.7	0.3	1.7	0.9	1.2 (72)
Service private	3.1	1.2	2.0	1.5	1.1	1.2	1.7 (97)
Household activities	25.5	23.4	25.0	23.9	22.9	22.9	24.4 (1378)
Child, Unemployed and Student	33.9	37.7	36.2	35.6	38.6	36.1	36.7(2072)
Total	100 (966)	100 (1504)	100 (1616)	100 (1616)	100 (1558)	100 (3176)	100 (5644)

Note: A total 619 children who are below 5 year presently are not considered for the calculation of total population below 5 years.
Source: Primary Survey, 2012

A somewhat similar pattern has been observed when one looks the scenario 10 years back (Table 4.13). It may however be noted that the population and its composition would have been different than what we observe at present. Before This calls for a more careful analysis, this would be taken up at a later stage.

Table 4.13: Distribution of Workers by District and Occupation before 10 Years (% share)

Occupation	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Self-cultivation	17.8	17.3	17.5	20.4	17.1	18.8	18.2(907)
Animal husbandry	0.2	0.2	0.2	1.1	0.9	1.0	0.7 (33)
Agricultural labour	8.0	5.5	6.6	9.5	4.5	7.0	6.8(339)
Non-agricultural labour	5.5	8.9	7.5	9.1	11.5	10.3	9.1 (450)
Self-employed in non-agriculture	3.3	3.3	3.3	1.8	2.1	1.9	2.5(126)
Service(public)	1.0	2.6	1.9	0.9	1.7	1.3	1.6 (78)
Services(private)	3.0	(0.9	1.8	1.0	1.8	1.4	1.6 (78)
Household activities	29.4	24.9	26.8	25.7	24.6	25.2	25.9(1286)
Child, unemployed and students	31.7	36.3	34.4	30.6	35.7	33.1	33.7 (1674)
Total	100 (897)	100 (1286)	100 (2183)	100 (1414)	100 (1374)	100 (2788)	100 (4971)

Source: Primary Survey, 2012

We also tried to look at the distribution of population by subsidiary activities. It is observed that about 41 percent of the persons did not report any subsidiary activity for a number of reasons. Among the rest household activities are the most important subsidiary activity, followed by other activities (including studies) and self-cultivation (Table 4.14).

Table 4.14: Distribution of Household Members by District and Subsidiary Occupation

Subsidiary occupation	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			Total
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Self-cultivation	6.2	8.3	7.5	12.5	9.1	10.9	9.4 (586)
Animal husbandry	1.4	5.9	4.2	2.5	5.7	4.0	4.1 (254)
Agricultural labour	5.3	5.1	5.2	7.1	2.9	5.1	5.1 (319)
Non-agricultural labour	1.2	7.2	4.9	4.9	8.3	6.5	5.8 (361)
Self-employed in non-agriculture	1.3	1.4	1.3	0.4	0.9	0.6	0.9(58)

Service(pub)	0.1	2.1	1.3	1.3	1.1	1.2	1.2 (77)
Services(pvt)	1.5	1.1	1.3	0.7	1.7	1.2	1.3 (80)
Household activities	10.8	17.5	14.9	15.8	18.6	17.1	16.2(1005)
Not engaged in any type of other subsidiary activity	69.8	37.0	49.6	37.2	31.5	34.5	41.1 (2554)
Student	2.4	14.4	9.8	17.7	20.2	18.9	14.9 (925)
Total	100 (1037)	100 (1658)	100 (2693)	100 (1867)	100 (1657)	100 (3522)	100 (6219)

Source: Primary Survey, 2012

It may be noted that animal husbandry accounted for 4.1 percent of the subsidiary work, which is significantly higher than 0.6 percent in the case of main workers. Bhavnagar and Surendranagar have more than five of the people reporting animal husbandry as subsidiary activity, the latter, in any case, is traditionally known for the livestock economy as agriculture in the district faces severe agronomic potential, as noted earlier.

4.4 Non-Agriculture Labour

Earlier we had seen in Table 4.11 that 609 persons have reported non-agriculture labour as main activity (Table 4.11). This works out to be about 25 percent of the workers engaged in economic activities among the sample households. On further probing, we observed that a sub set of 133 out of the 609 workers were engaged in more than one non-agriculture activity for shorter spells. For these workers we could not obtain the details about the type and place of work, distance, income earned from non-farm activities etc.

Table 4.15: Distribution of Non-Agriculture Workers by Social Groups

Workers in Non-Ag. Labour	Social Groups				
	SC	ST	OBC	Others	Total
Numbers	96	185	310	18	609
% Share	15.7	30.3	50.9	2.9	100

Source: Primary Survey, 2012

It may be noted that SCs and STs have larger proportion of workers in non-agriculture labour as compared to their share in the total population in the state. Together SCs and STs account for 31 percent of the total non-agriculture workers among the sample households, considering the distribution of households by social group (as presented in Table 4.15), we find that SCs and STs have larger share in the non-agriculture workers (46) as compared to their share in the total households in the sample. This is not so surprising given the fact that landlessness is relatively higher among SCs, and land holdings among tribal are often very small. The pattern observed in

Table 4.16 confirms the widely observed phenomenon of high incidence of non-agriculture labour among the land poor communities.

About one-third of the workers in non-agriculture labour are illiterate and another 36 percent have received education at primary and upper primary level. The remaining 32 percent have attained higher levels of education beyond upper primary.

Table 4.16a presents distribution of the 609 workers engaged in non-agriculture activities by districts. As already noted, Bhavnagar has the largest number of non-farm workers and Bharuch has the least of these. It is likely that those engaged in industry and related activities in Bharuch may have shifted to towns in and around industrial estates/clusters in the district.

Table 4.16a: Persons employed in Non-Agricultural Labour by District

	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts Combined
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra-nagar	Low RNFE	
Number	75	202	277	177	155	332	609
age (out of total population)	7.2	12.1	10.2	9.4	9.3	9.4	9.7
% of productive employment	19.1	31.1	26.6	24.8	24.9	24.8	25.6

Source: Primary Survey, 2012

It may be noted that of the 609 workers, about 25 percent were in construction, 17 percent were in manufacturing and a fairly large chunk of them i.e. about 50 percent were in various other activities. This may include a number activities related trade and services (Table 4.16b). About two-thirds of these workers are STs and 15 percent belong to SC workers.

Table 4.16b: Distribution of a Sub-set of Workers in Non-Agricultural Labour (% share)

Sector	Social Groups				
	SC	ST	OBC	Others	Total
Mining	4.2	1.1	9.0	27.8	5.4
Manufacturing	6.3	14.1	20.0	44.4	16.7
Construction	31.3	36.8	18.7	11.1	25.6
Wholesale	0.0	0.0	1.3	0.0	0.3
Others	58.3	48.1	51.0	16.7	50.2
Total	100	100	100	100	100

Source: Primary Survey, 2012

It is observed that Bhavanagar district has the highest proportion of workers in manufacturing activity; much of these are likely to be in diamond cutting and polishing activities. On the other hand, about 62 percent of the non-agriculture labours in Surendranagar are found in the category of 'Other'. This may involve casual work in transport, petty establishment and miscellaneous

services etc. (Table 4.17). The two tribal districts viz. Bharuch and Dahod have the largest proportion of workers in construction; many of them may have migrated for undertaking this work in different part of the state as shown in Table 4.18.

Table 4.17: Distribution of Non-Agricultural Labour by Sector and District (% share)

Sector	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	Total
Mining & Quarrying	2.7	9.9	7.9	1.1	6.5	3.6	5.6 (34)
Manufacturing	18.7	28.2	25.6	9.6	9.7	9.6	16.9 (103)
Construction	52.0	19.3	28.2	37.9	7.7	23.8	25.8 (157)
Wholesale & Retail Trade	-	0.5	0.4	-	0.6	0.3	0.3 (2)
Others	26.7	42.1	37.9	51.4	75.5	62.7	51.4 (313)
Total	100	100	100	100	100	100	100 (609)

Source: Primary Survey, 2012

Table 4.18: Distribution of Non-Agricultural Labour by Sector and Place of Work (State as a whole) (% share)

Sector	Within Village	Outside Village	Outside District	Total
Mining & Quarrying	4.1	9.1	1.7	34(5.6)
Manufacturing	16.8	18.3	13.3	103 (16.9)
Construction	13.2	40.9	45.0	157 (25.8)
Wholesale & Retail Trade	0.3	0.5	-	2(0.3)
Others	65.6	31.3	41.7	313 (51.4)
Total	100 (340)	100 (208)	100 (60)	100 (609)

Source: Primary Survey, 2012 (mention % across place of work in each sector)

Overall 55.8 percent of these workers have been engaged in non-agriculture activities within the village, whereas about 34 percent present found the work outside the village in the same district, and about 10 percent had worked outside the district (Table 4.19).

Table 4.19: Distribution of Non-Agricultural Labour by District and Place of Work

Place of Work	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts Combined
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Within Village	50.7	53.5	52.7	39.0	80.6	58.4	55.8 (340)
Outside Village	49.3	40.6	43.0	33.9	18.7	26.8	34.2 (208)
Outside District	0.0	5.9	4.3	27.1	0.6	14.8	10.0 (61)
All categories	100 (75)	100 (202)	100 (277)	100 (177)	100 (155)	100 (332)	100 (609)

Source: Primary Survey, 2012 (mention % across place of work in each district)

Conversely, a majority (16.1%) of these workers found non-agriculture work within a distance of five km and within village (48.9%). On the other hand, 20 percent of them had to travel more than 20 km on an average [See Table 4.20]. This may include inter-district migration. It may be noted that close to 38 percent of these workers in Dahod had to travel beyond 20 km. Many of these may have gone for construction activities outside the district. It is important to bear in mind that people form Dahod and Panchmahals (the twin districts) are among the most mobile population engaged in seasonal casual labour (farm and non-farm) in the state. As per a rough estimate, nearly five lakh seasonal workers from these districts move to Saurasthra region as seasonal migrants to work on farms and construction sites.

Table 4.20: Distribution of Non-Agricultural Labour by District and Distance of Work

Distance of Work	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts Combined
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Within village	48.0	42.6	44.0	31.6	77.4	53.0	48.9 (298)
Up to 5 km.	32.0	22.2	24.9	6.8	11.0	8.7	16.1 (98)
5 - 10 km.	9.3	14.9	13.4	14.7	3.2	9.3	11.2 (68)
10 - 20 km.	0	1.5	1.1	8.5	3.9	6.3	3.9 (24)
20 km .and above	10.7	18.8	16.6	38.4	4.5	22.6	19.9 (121)
Total	100 (75)	100 (202)	100 (277)	100 (177)	100 (155)	100 (332)	100 (609)

Source: Primary Survey, 2012 (mention % across distance of work in each district in brackets)

Extent and Terms of Non-Agriculture Labour

What have been the terms of employment for the non-agriculture employment among the workers? As most of these are casual workers, the duration of work matters a lot. It is observed that one-third of these workers have been engaged for less than six months in a year. Only 4.2 percent of these workers reported that they have been employed in these activities since more than 12 months. For nearly 44 percent of these workers, the duration is between 6-12 months (Figure 4.21). This proportion is more or less same across the districts.

Figure 4.1: Distribution of Non-Agricultural Labour by District and Days of Employment
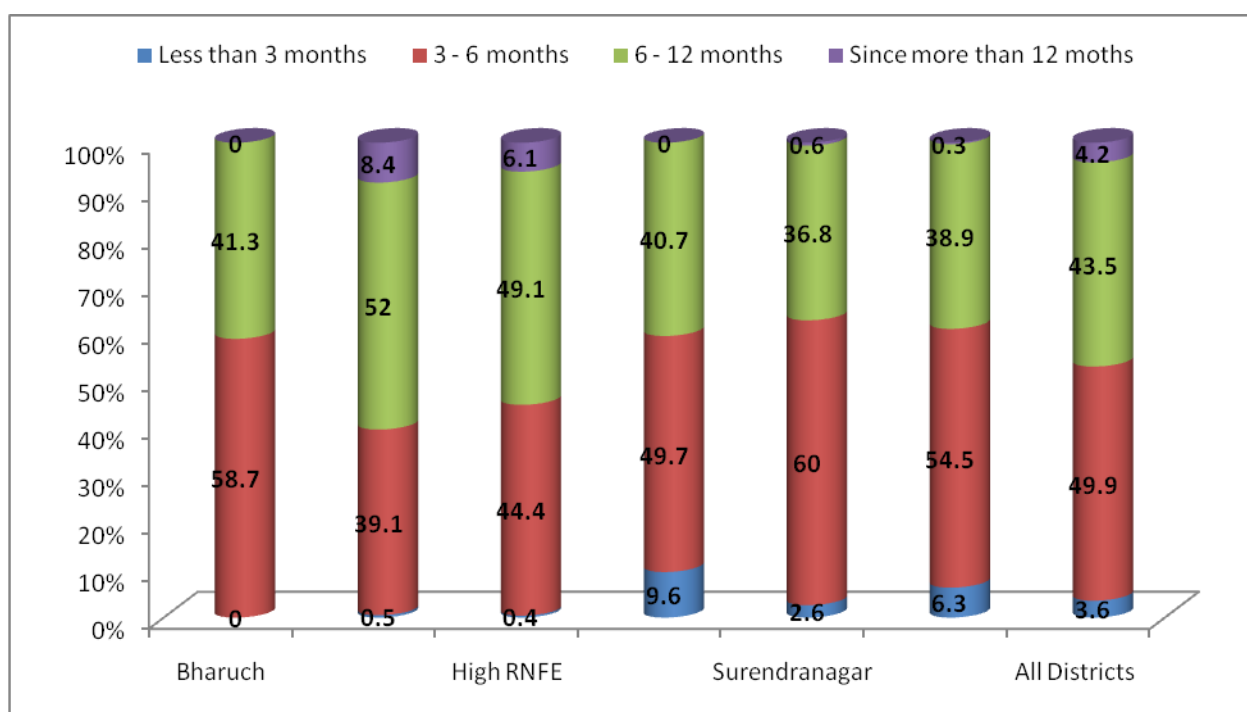
Source: Primary Survey, 2012 (mention % across days of employment in each district)

An overwhelmingly large proportion i.e. 85 percent of these workers worked between 4-8 hours (Figure 4.2). It may however, be noted that the details about the duration and hours of work is subjected to substantial amount of reporting errors as most of the work is fairly casual in nature hence, is subjected to variations across type of work, season and of course gender.

Figure 4.2: Distribution of Non-Agricultural Labour by District and Work Hours
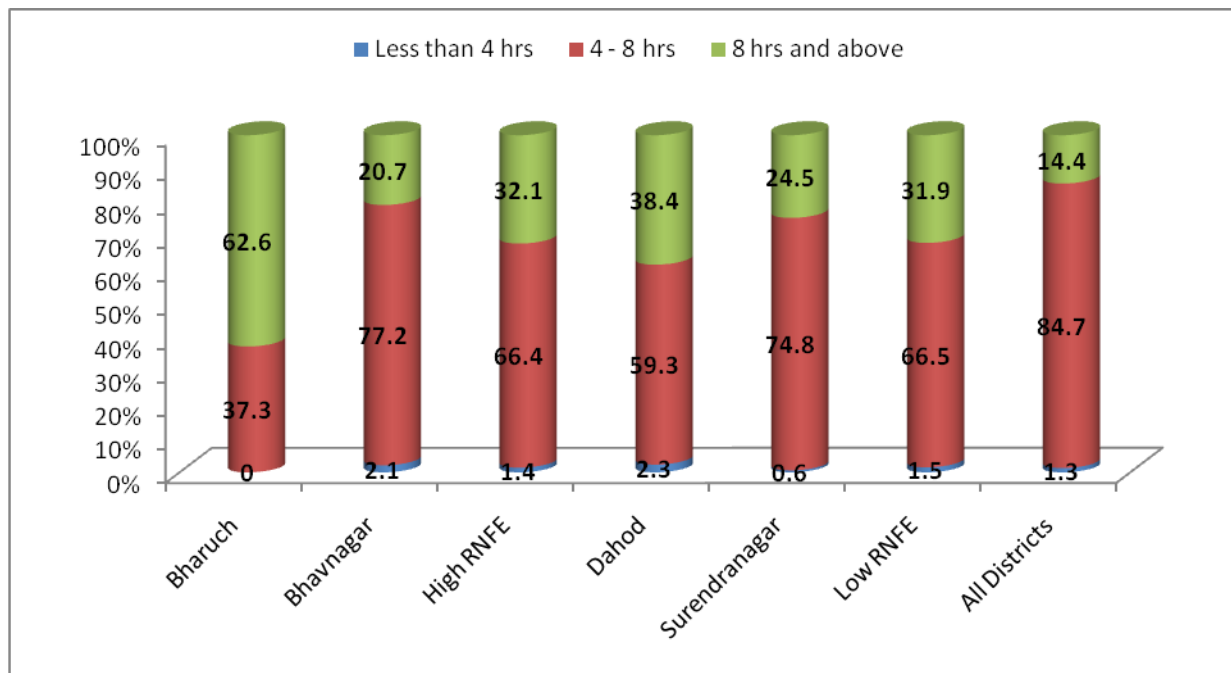
The point about the casual nature of the non-agriculture work is further substantiated by the fact that 97 percent these were casual workers (Figure 3). More than two-thirds (74%) of these workers were paid with daily wages, whereas 10.3 percent are paid on piece rate basis and the rest 13.6 on monthly basis (Figure 4.3).

Figure 4.3: Distribution of Non-Agricultural Labour by District and Type of Contract (% share)
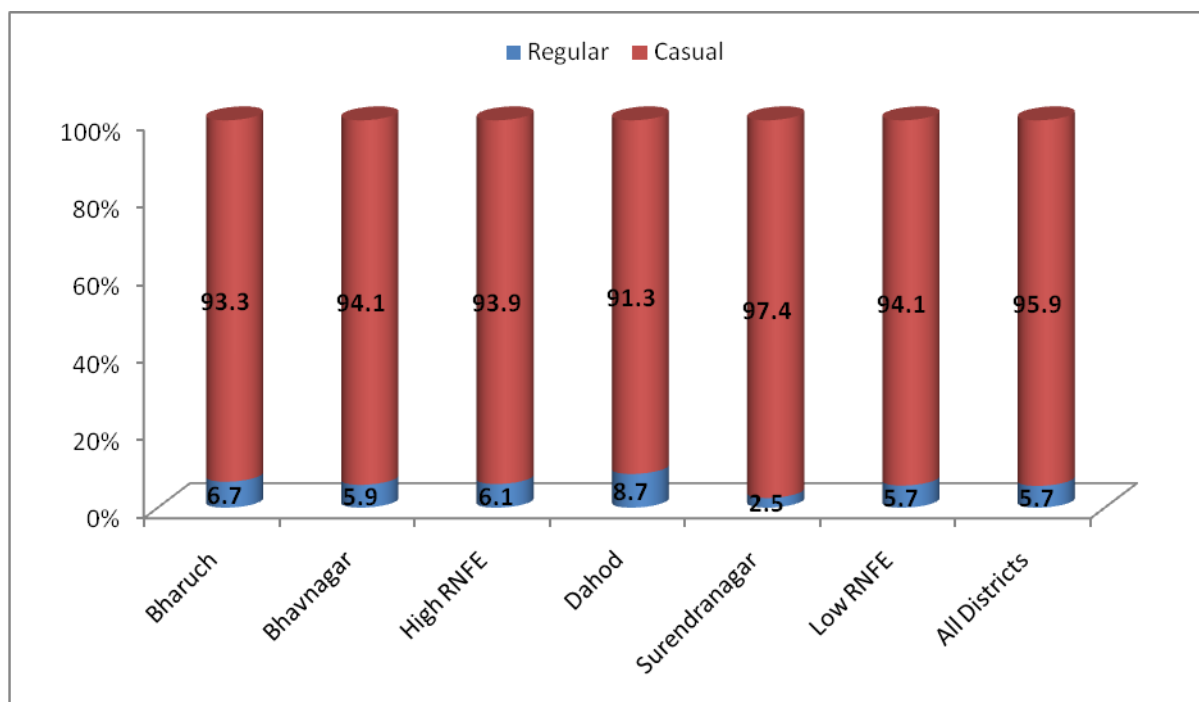
Source: Primary Survey, 2012 (mention % across type of contract in each district)

Figure 4.4 Distribution of Non-Agricultural Labour by District and Mode of Payment (% Share)
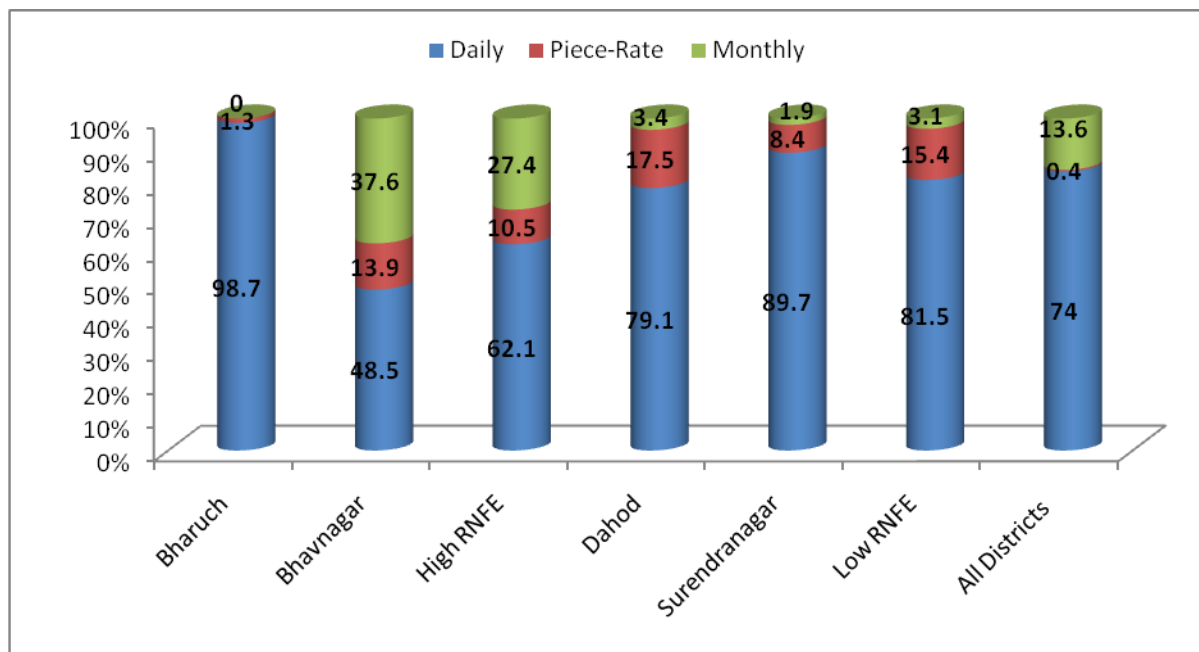
Source: Primary Survey, 2012 (mention % across mode of payment in each district)

Earning from Non-Agricultural Labour

The average of the workers earning per worker in non-agriculture activity is about Rs. 40,000 per annum. Strangely the earning in Surendranagar is more than most workers in other districts (Table 4.21). At the same time, the average earning in manufacturing in Bharuch is found to be the lowest. It is likely that the low earning is due to the slowing down of industrial growth in some parts of the state's industrial sector. This issue however needs further probing.

Table 4.21: Average Annual Earnings (Rs.) of Non-Agricultural Labour by District and Sector

Sector	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts Combined
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Mining & Quarrying	-	40833	40833	12500	66960	57058	46987
Manufacturing	12000	42079	41522	41412	84963	63188	49893
Construction	16856	35920	27842	42772	38328	42193	35578
Wholesale & Retail Trade	-	45000	45000	-	27000	27000	36000
Others	15826	43910	39068	40788	46180	43557	41873

Source: Primary Survey, 2012

What is noteworthy is that the average earning is found to be higher among the OBCs, especially in Surendranagar, Dahod and Bhavanagar (Table 4.22). Among STs, workers in Dahod earn more than those in Bharuch. In the remaining two districts the number of ST workers are negligible hence, should not be considered for analysis. In Dahod, the STs also earn higher income as compared to the SCs. Among the SCs, the highest income is found in Surendranagar where they have larger presence. SCs in Surendranagar also represent artisan community. It is likely that some of them have been engaged in manufacturing units, where the earning is relatively higher than the other activities.

Table 4.22: Average Annual Earnings (Rs.) of Non-Agricultural Labour by District and Sector

Sector	High Rural Non-Farm Employment Districts		Low Rural Non-Farm Employment Districts	
	Bharuch	Bhavnagar	Dahod	Surendranagar
Scheduled Tribe	15836	29500	33777	126480
Scheduled Caste	17467	37105	19953	53506
Other Backward Classes	17550	40903	72476	52037
Others	-	55285	-	40275
All Social Groups	16361	41534	4078	52281

Source: Primary Survey, 2012

Overall, we find that the pattern of non-agriculture labour is fairly diverse. Finding a systematic pattern is somewhat difficult as the activity profile covered by this sub-set of workers is wide and also varying across space, time and social groups. A more careful probing into the profile of non-agriculture work may throw better light on the wide variations in the type of work and economic returns thereof.

Participation in NREGS

Only 85 out of the 1,189 sample households were engaged in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Of this, Dahod had 41 households, whereas Bharuch had none (Table 4.23). By and large the households from 'other community' had abstained from participating in the MGNREGA. In a sense, this suggests a process of self-selection where households from weaker section of the society and poorer districts have 'chosen' to participate in the programme.

Table 4.23: Distribution of Households which got Work in NREGA by District and Social Group

Social Group	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts Combined
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Scheduled Tribe	-	39.1	39.1	26.8	23.8	25.8	29.4 (25)
Scheduled Caste	-	-	-	61.0	-	40.3	29.4 (25)
Other Backward Classes	-	47.8	47.8	12.2	66.7	30.6	35.3 (30)
Others	-	13.0		-	9.5	3.2	5.9 (5)
All Social Groups	-	100 (23)	100 (23)	100 (41)	100 (21)	100 (62)	100 (85)

Source: Primary Survey, 2012 (mention % of HHs in each social group in each district)

On an average, each household had got an employment for less than 54 days during the reference year. This ranged from 43 days in Bhavanagar, to 49 days in Surendranagar and 59 days in Dahod (Table 4.24).

Table 4.24: Average Days of Employment per Worker in NREGA by District and Social Group

Sector	High Rural Non-Farm Employment Districts		Low Rural Non-Farm Employment Districts	
	Bharuch	Bhavnagar	Dahod	Surendranagar
Scheduled Tribe	-	-	61	-
Scheduled Caste	-	38	65	76
Other Backward Classes	-	41	30	38
Others	-	66	-	60
All Social Groups	-	43	59	49

Source: Primary Survey, 2012

The average earning per day ranges from Rs. 50 to Rs. 72 across the three districts (Table 4.25).

Table 4.25: Average Earnings per Worker in NREGA by District and Social Group

Social Group	High Rural Non-Farm Employment Districts		High Rural Non-Farm Employment Districts	
	Bharuch	**Bhavnagar**	**Dahod**	**Surendranagar**
ST	-	-	4464	-
SC	-	1733.4	3545.5	5280
OBC	-	2027.3	1880	3085.7
Others	-	3666.7	-	3000
All	-	2126.1	3902.4	3600
		50.6	71.5	72.7

Source: Primary Survey, 2012

4.5 Self-Employed in Non-Agriculture Activity

Earlier we had noted (in Table 4.11) that 227 workers were engaged as self-employed in non-agriculture work. Several of them belong to the same household. Therefore, we have got information about 211 households whose family members were employed in this particular activity as their main occupation. Table 4.26 presents information on the 211 households by districts.

Table 4.26: Distribution of Self-Employed in Non-Agriculture by District

Self-Employed in Non-Agriculture	High Rural Non-Farm Employment Districts			High Rural Non-Farm Employment Districts			All Districts
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
Number	31	74	105	34	72	106	211
% (out of total pop.)	3.0	7.0	5.1	1.8	4.2	3.0	3.5
% of the Productive Employment	8.0	10.7	9.5	4.7	11.5	7.9	8.3

Source: Primary Survey, 2012

It is observed that Bharuch and Dahod have relatively smaller number of households of about 31-34 in this occupation, whereas that in Bhavanagar and Surendranagar, the number of households with self-employment in non-agriculture activities varies between 72 and 74. This once again indicates variations across the regions (tribal vs. Saurashtra) rather than across the level of RNFE. Overall, the proportion of self-employed in non-agriculture activities ranges from 4.7 to 10.7 percent across the four districts.

Table 4.27: Distribution of Self-employed in Non-agriculture by District and Activity

Activity	High Rural Non-Farm Employment Districts			High Rural Non-Farm Employment Districts			All Districts
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Shop	71.0	44.6	52.4	47.1	65.3	59.4	55.9 (118)
Auto	3.2	-	1.0	-	2.8	1.9	1.4(3)
Blacksmith	-	1.4	1.0	5.9	-	1.9	1.4 (3)
Carpenter	6.5	2.7	3.8	8.8	4.2	5.7	4.7 (10)
Construction	3.2	5.4	4.8	14.7	2.8	6.6	5.7 (12)
Contractor	3.2	-	1.0	-	2.8	1.9	1.4 (3)
Vegetable vendor	-	4.1	2.9	-	2.8	1.9	2.5(5)
Paan Parlour	3.2	6.8	5.7	-	-	-	2.8 (6)
Driving	-	10.8	7.6	2.9	-	0.9	4.3(9)
Diamond Factory	-	10.8	7.6	-	-	-	3.8(8)
Flour factory	3.2	2.7	2.9	5.9	-	1.9	2.4(5)
Garage	-	2.7	1.9	-	1.4	0.9	1.4(3)
Milk Dairy	-	-	-	-	4.2	2.8	1.4(3)
Tailor	-	6.8	4.8	-	8.3	5.7	5.2 (11)
Masonry work	3.2	1.4	1.9	14.7	1.4	5.7	3.8(8)
Priest	3.2	-	1.0	-	4.2	2.8	1.9(4)
Total	100 (31)	100 (74)	100 (105)	100 (34)	100 (72)	100 (106)	100 (211)

Source: Primary Survey, 2012

Close to 56 percent of these households have established shops, whereas the rest of the households are engaged in a number of other activities as shown in Table 4.27.   Most of the self-employment activity was found within the village. It ranges from 70 among the low RNFE districts to 85 in the high RNFE districts (Table 4.28).

Table 4.28: Distribution of Self-Employed in Non-Agriculture by District and Workplace

Place of Work	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	All Districts
Within village	83.7	85.1	84.8	52.9	77.8	69.8	79.1(163)
Outside village	16.1	14.9	15.2	47.1	20.9	29.2	22.4(47)
Outside district	-	-	-		1.3	0.9	0.6 (1)
total	100 (31)	100 (74)	100 (105)	100 (34)	100 (72)	100 (106)	100 (211)

Source: Primary Survey, 2012

Table 4.29: Distribution of Self-Employed in Non-Agriculture by Activity and Workplace
(State as a whole)

Activity	Within Village	Outside Village	Outside District	All Districts
Shop	64.4	27.7	-	55.9 (118)
Auto	-	4.3	100 (1)	1.4(3)
Blacksmith	0.6	4.3	-	1.4 (3)
Carpenter	3.7	8.5	-	4.7 (10)
Construction	1.2	21.3	-	5.7 (12)
Contractor	0.6	4.3	-	1.4 (3)
Vegetable vend0r	3.1	-	-	2.5(5)
Paan Parlour	3.7	-	-	2.8 (6)
Driving	-	19.1	-	4.3(9)
Diamond Factory	4.9	-	-	3.8(8)
Flour factory	2.5	2.1	-	2.4(5)
Garage	1.8	-	-	1.4(3)
Milk Dairy	1.8	-	-	1.4(3)
Tailor	6.7	-	-	5.2 (11)
Masonry work	3.1	6.4	-	3.8(8)
Priest	1.8	2.1	-	1.9(4)
Total	100 (163)	100(47)	100(1)	100(211)

Source: Primary Survey, 2012

On an average, a self-employed worker in non-agricultural activity earns Rs. 14, 578 per month. This ranges from Rs. 54,652 in a diamond unit to Rs. 4,166 in a garage (Table 4.30). Obviously, RNFE of this kind may hardly be seen as an adequate source of livelihood for the households. At best, such activities help supporting a number of other sources of income among the rural households.

Table 4.30: Average Annual Net Earnings (Rs.) per Household Self-Employed in Non-Agriculture by District and Activity

Activity	High Rural Non-Farm Employment Districts		Low Rural Non-Farm Employment Districts		All Districts
	Bharuch	Bhavnagar	Dahod	Surendranagar	
Shop	14431.8	10887.8	14993.75	9836.9	11702.5
Auto	4000	-	-	10500	8333.3
Blacksmith	-	5000	45000	-	31666.6
Carpenter	25000	7750	25000	5000	15550.0
Construction	36000	30875	8600	15000	19375.0
Contractor	15000	-	-	15000	15000.0
Vegetable Vendor	-	18333.3	-	3500	12400.0
Paan Parlour	30000	7000	-	-	10833.3
Driving	-	6125	24000	-	8111.1
Diamond Factory	-	54625	-	-	54625.0
Flour Factory	10000	6500	32500	-	17600.0
Garage	-	2750	-	7000	4166.6
Milk dairy	-	-	-	8666.6	8666.6
Tailor	-	26420	-	8600	17510.0
Mansory	30000	7500	12500	5000	13125.0
Priest	25000	-	-	18666.7	20250.0
Total	16693.5	16721.6	17629.41	9892.8	14577.9

Source: Primary Survey, 2012

It is important to note that the average earning per ST-households is the highest among the different categories of households in the sample (Table 4.31).

Table 4.31: Average Annual Net Earnings (Rs.) per Household Self-Employed in Non-Agriculture by District and Social Group

Social Group	High Rural Non-Farm Employment Districts		Low Rural Non-Farm Employment Districts		All Districts Combined
	Bharuch	Bhavnagar	Dahod	Surendranagar	
Scheduled Tribe	22142	-	19754	-	20293
Scheduled Caste	6200	14633	18750	8857	11303
Other Backward Classes	16944	17003	8383	9817	13540
Others	17900	17055		14500	16978
All Social Groups	16693	16721	17629	9892	14577

Source: Primary Survey, 2012

4.6 Services: Public and Private Sector

In all, 175 workers are engaged in service as the main activity. Of these almost 50 percent are in public and the remaining are in private sector (Table 4.32).

Table 4.32: Employment in Services Sector (% Share)

Sector of Employment	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts
	Bharuch	Bhavnagar	High RNFE	Dahod	Surendra nagar	Low RNFE	
Government	35.6	51.8	44.5	51.6	60.0	56.5	49.7(87)
Private	64.4	48.2	55.5	48.4	40.0	43.4	50.2 (88)
Total	100 (45)	100 (54)	100 (99)	100 (31)	100 (45)	100 (76)	100 (175)

Source: Primary survey, 2012

A majority of the workers in Government service reported access to the various benefits whereas those in private sector did not have the access to a large extent (Table 4.33).

**Table 4.33: Distribution of Salaried Household Members by Benefits received &
by Sector of Employment**

Benefits	High Rural Non-Farm Employment Districts				Low Rural Non-Farm Employment Districts			
	Bharuch		Bhavnagar		Dahod		Surendranagar	
	Yes	No	Yes	No	Yes	No	Yes	No
Government Sector								
PF/CPF	15	1	27	1	15	1	27	0
Medical	15	1	25	3	16	0	27	0
Insurance								
Retirement benefits (Pension)	13	3	23	5	14	2	26	1
Any other	0	16	0	27	1	15	4	23
Private Sector								
PF/CPF	5	24	0	29	3	12	2	14
Medical	3	26	0	29	3	12	2	14
Insurance	2	27	0	29	3	12	2	14
Retirement benefits	1	28	0	29	1	14	1	15
Any other	1	28	0	29	0	15	0	16

Source: Primary Survey, 2012

The average monthly earning from service is about Rs. 17,000 in the case of public sector and Rs. 5200 in the case of private sector. To a large extent, the employment in service sector is regular in nature, whereas that in private sector is contractual, as shown in Tables 4.34.

**Table 4.34: Average Monthly Earning of Households by Sector and Nature of Employment
(Rs./Month)**

Sector of Employment	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts
	Bharuch	Bhavnagar	Total	Dahod	Surendranagar	Total	
Sector of Employment							
Government	16846	15314	15812	17251	18695	18125	16939
Private	5743	5446	5585	4466	4778	4617	5225
Total	9752	10473	10182	10859	13429	12278	11082
Nature of Employment							
Regular	17076	15100	15776	16504	18291	17576	16699
Contractual	5613	6342	6013	4407	4453	4429	5465

Source: Primary Survey, 2012

4.7 Remittances and Migration

Only a total of 18 persons reported migrating out for the search of job. Most of the migration takes place only within the state. Only 18 households had reported receipt of remittances from migration of a family member outside the village. Most of them have gone to a destination outside the district but within the state. The amount of remittance received by the family is also fairly small (Table 4.35).

Table 4.35: Distribution of Migrants according to Destination of Migration

No. of Migrants	High Rural Non-Farm Employment Districts						Low Rural Non-Farm Employment Districts						Total
	Bharuch		Bhavnagar		Total		Dahod		Surendranagar		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	
Destination of migration													
Within the districts	2	-	1	-	3	-	-	-	-	-	-	-	3
Within the State	2	1	5	-	7	1	5	1	1	-	6	1	15
Total	4	1	6	-	10	1	5	1	1	-	6	1	18
Period of migration in year													
Less than 1	-	-	-	-	-	-	3	1	-	-	3	1	4
1-5	4	-	5	1	9	1	2	-	1	-	3	-	13
5-10	-	-	1	-	1	-	-	-	-	-	-	-	1
Total	4	-	6	1	10	1	5	1	1	-	6	1	18

Note: M= Male and F= Female
Source: Primary Survey, 2012

Table 4.36: Distribution of Household Members sending Remittances by Sector and Amount of Remittance

Sector	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts
	Bharuch	Bhavnagar	Total	Dahod	Surendranagar	Total	
Sector/No. of Migrants							
Manufacturing	2	2	4	-	1	1	5
Others	2	-	2	-	-	-	2
Agri and allied	-	5	5	6	-	6	11
Total	4	7	11	6	1	7	18
Annual remittance/ No. of Migrants							
Below 25000	4	7	11	4	2	6	17
25000-45000	-	-	-	-	-	-	-
Above 45000	-	-	-	1	-	1	1

Source: Primary Survey, 2012

4.8 Female Workers

We had noted that a significantly large proportion of the women had reported household work as their main activity. As Table 4.37 reveals, there were 1,945 female members above the age of 15 years. Of these, 1,564 women had reported household work as their main activity. It is however, likely that these women also work on their farm and livestock. Of the remaining women, 187 reported working on their farms as their main activity, followed by 47 in household's non-agriculture enterprises. Only 20 women had reported non-agriculture labour as their main activity.

Table 4.37: Distribution of Adult Female Members by District and Activity

Activity	High Rural Non-Farm Employment Districts			Low Rural Non-Farm Employment Districts			All Districts
	Bharuch	Bhavnagar	Total	Dahod	Surendra nagar	Total	
None	2.7	2.0	2.3	1.8	1.5	1.6	38 (2.0)
Only household work	81.3	71.7	75.5	84.0	85.3	84.7	1564 (80.4)
Family labour in agriculture	6.1	18.3	13.4	7.2	5.4	6.3	187 (9.6)
Family labour in non-agriculture	2.2	2.4	2.3	3.5	1.5	2.5	47 (2.4)
Self emp in non-agriculture	-	0.9	0.1	-	-	-	1 (0.1)
Wage labour	0.8	1.1	1.0	0.4	1.7	1.1	20 (1.0)
Others	6.9	4.2	5.3	3.1	4.6	3.9	88 (4.5)
Total	100 (363)	100 (545)	100 (908)	100 (514)	100 (523)	100 (1037)	100 (1945)

Source: Primary Survey, 2012 (mention % across activity in each district)

The average number of days worked by the female worker ranged significantly across activities. The number of days in agriculture was higher among tribal as compared to non-tribal districts (Table 4.38).

Table 4.38: Average Days of Employment of Adult Female Members (15 yrs and above) by District and Activity

Activity	High Rural Non-Farm Employment Districts		Low Rural Non-Farm Employment Districts	
	Bharuch	Bhavnagar	Dahod	Surendranagar
Family labour in agriculture	109	37	107	61
Family labour in non-agriculture	180	129	148	109
Self-employed in non-agriculture	-	150		
Wage labour	140	156	125	118
Others	67	98	53	73

Source: Primary Survey, 2012

Most of the women work within the households and within the village as revealed by Table 4.39. This, perhaps, has led to a situation where most of the female workers reported no problem at the

place of work. Only 74 women had responded positively to the question on problem at the worksite.

Table 4.39: Distribution of Adult Female Members (15 yrs and above) by District and Workplace

Work Place	High RNFE Dists.			Low RNFE Dists.			All Districts Combined
	Bharuch	Bhavnagar	Total	Dahod	Surendra nagar	Total	
None	3.3	2.6	2.8	2.3	1.9	0	2.5(46)
Within House	83.5	79.4	81.1	85.6	85.1	85.3	83.3(1621)
Within Village	10.7	16.0	13.9	8.6	10.7	9.6	11.6(226)
Within District	2.5	1.5	1.9	1.6	2.3	1.9	1.9(37)
Outside District	0	0.5	0.3	1.9	0	9.6	0.7
Total	100 (363)	100 (545)	100 (908)	100 (514)	100 (523)	100 (1037)	100 (1945)

Source: Primary Survey, 2012

4.9 RNFE and Factors leading to RNFE

Landholding Pattern and Cast-wise Main Source of Income of the Households

Households owning land more than 5 and 10 acre primarily earn their main source of income from agricultural activity. The share of household involved in non-farm activity is highest among the landless households. The figure 4.5 shows that with the increase in the landholding type, the share of households earning main income from non-farm activity declines. However, the type of non-farm activity varies from working as daily wage labours and services among the landless households [Table 4.40].

Figure 4.5: Land holding and Main Source of Income of the Households

Source: Primary Survey, 2012

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Most of the landless households claiming to earn their main source of income from non-agriculture, primarily work as non-agricultural labours and as self-employed without any hired labours (small business).

Table 4.40: Landholding Pattern and Main Income Source

Income Source	landless/tenant	Up to 2.5	2.5 to 5	5 to 10	above 10	Total
Agriculture	0.6	**72.6**	**86.8**	**91.7**	**94.0**	49.7
Agricultural Labour	**26.4**	6.4	0.0	0.0	0.0	12.3
Animal Husbandry	0.0	0.0	1.9	0.0	0.0	0.3
Self-employed without hair labour	**28.3**	4.7	4.4	1.7	2.4	13.5
Self-employed with hair labour	2.4	2.5	0.6	0.8	0.0	1.9
Services	17.8	2.8	3.1	3.3	2.4	8.7
Non-agricultural labour	**24.7**	**11.1**	3.1	2.5	0.0	13.7
Total	100	100	100	100	99	100

Source: Primary Survey, 2012

Income from agriculture and allied sector was the main source of income among the households irrespective of cast. However, income from agriculture as the main source of livelihood among the SC and ST household was comparatively lower than the households from the other cast category. Most of the SC and ST households earn their major income working as daily labour either in agricultural field or out-side (Figure 4.6). Households owning their income from services were lower among the backward cast compared to the others.

Figure 4.6: Cast-wise Main Source of Income of the Households

Source: Primary Survey, 2012

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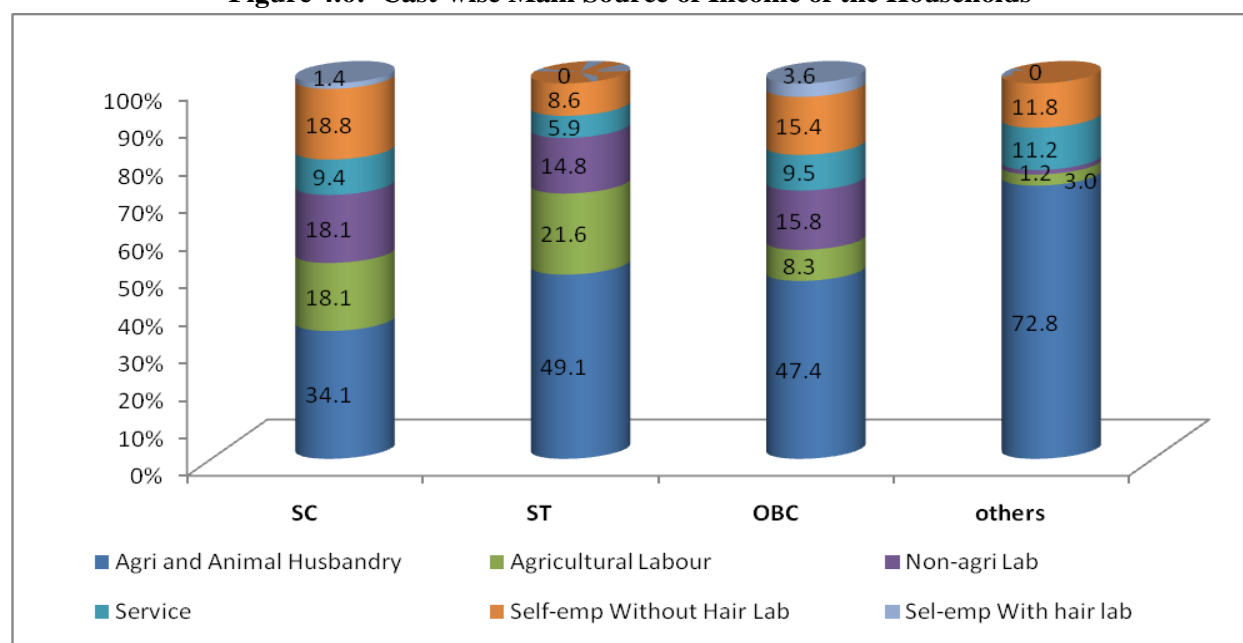
4.10 Individual Occupation Status in Agriculture and Non-agriculture

To recapitulate the evidence presented in this section, we have tried to present some of the important features of RNFE by working out the proportion among economically active population among the households. It may be noted that there are 2,373 workers engaged in economic activities (i.e. excluding the children, old people, students, and those in domestic work). Of these, 1,011 workers are engaged in RNFE activities. Of the total RNFE workers, about 60 percent are engaged in non-farm labour as their main activity. This is followed by 22.5 percent of the RNFE-workers in self-employed activities. The remaining 17 percent are in service (Table 4.41).

Table 4.41: Distribution of RNFE-Workers

RNFE-Workers	Frequency	Percent
Non-agricultural labour	609	60.2
Self employed	227	22.5
Service (Public)	73	7.2
Service (Private)	102	10.1
Total	1011	100

Source: Primary Survey, 2012

Gender-wise RNFE Activity

Hypothesis 1: RNFE activities would be related to gender.

Table 4.42: Gender-wise Classification of the Occupation Status (only those who are engaged in the economic activity) (% Share)

Occupation	Male	Female
Self cultivation	44.4	24.2
Animal husbandry	0.4	6.5
Agricultural labour	12.6	24.4
Non-agricultural labour	23.4	33.1
Self employed in non-agriculture	11.0	3.6
Service (public)	3.2	2.6
Service (private)	4.0	5.5
All RNFE	42.6	44.8
Total	**100**	**100**
Agriculture and allied	58.0	55.2
In RNFE	42.0	44.8

Source: Primary Survey, 2012

We tried to find out whether the gender-wise division of occupation is higher for the males as compared to that of the females. It was observed that the involvement of female workers as agricultural and non-agricultural labour was comparatively higher than male. The actual number of female workers (in any type of economic activity) was quite low compared to men but among

those who are engage in some economic activity the involvement in RNFE was quite high (Table 4.42).

Table 4.43: Involvement in RNFE Activities by Gender (% Share)

Region	Male	Female
High RNFE	**46.1**	**51.6**
Baruch	35.2	38.4
Bhavnagar	52.2	56.7
Low RNFE	**41.3**	**50.0**
Dahod	32.8	43.7
Surendranagar	50.2	57.4

Note: Share with reference to male and female engaged in any of the economic activity.
  For example: male engaged in RNFE as a share to total working male in the particular district.
Source: Primary Survey, 2012

At the outset, it may be noted that WPR among women is fairly low, most of the adult women have reported domestic work as their main activity (> six months in a year). Given this caveat, we find that proportion of RNFE among female main workers is higher than the male main workers. The second observation is that the high-RNFE districts have higher proportion of RNFE workers in the case of both female and male workers (Table 4.43).

Cast-wise RNFE Activity

Hypothesis 2: RNFE activities would be related to caste.

Table 4.44: Cast-wise Engagements in RNFE Activity

Districts	SC	ST	OBC	Others	Total
Baruch	66.7	42.9	35.6	29.2	38.6
Bhavnagar	58.7	60.0	53.3	37.5	51.9
High RNFE	**60.7**	**43.4**	**51.0**	**32.5**	**46.9**
Dahod	33.8	31.7	42.1	100.0	33.8
Surendranagar	61.8	20.0	44.7	28.0	45.5
Low RNFE	**50.0**	**31.6**	**44.1**	**28.9**	**39.2**
Total	**53.3**	**34.7**	**47.6**	**31.5**	**42.6**

Note: age calculated from the total population engaged in economic activity in
  each cast category, for example: total SC population engaged in RNFE as a share
  of total working SC population in each district.

Given the fact that the RNFE activities (combining both non-agricultural labour and self-employed) is a mix of both distress as well as development induced opportunities, we would expect the social groups at middle level of the caste hierarchy may have higher proportion of RNFE. This has been vindicated by the data which suggests the highest proportion of RNFE in SC and OBCs as compared to the ST and the 'other' communities (Table 4.44).

The RNFE-workers account for about 43 percent of those who are engaged in economic activities among the sample households. This is fairly substantial. The proportion of RNFE workers are relatively higher among SCs (53%), followed by OBC (47.6%) as compared to the rest of the communities (Table 4.45). Among the SC and STs the main occupation is mainly daily wage labours.

Table 4.45: Caste-wise Classification of the Occupation Status (only those who are engaged in the economic activity)

	SC	ST	OBC	Others	Total
Self cultivation	27.4	**38.8**	**39.3**	**63.0**	40.5
Animal husbandry	0.4	2.3	1.4	2.2	1.6
Agricultural labour	19.0	**24.2**	11.6	3.3	15.2
Non-agricultural labour	**35.0**	**26.5**	**27.6**	6.5	25.7
Self employed in non agriculture	12.8	4.3	11.7	**10.9**	9.6
Service (public)	2.9	0.9	3.5	7.2	3.1
Service (private)	2.6	3.0	4.9	6.9	4.3
Total	100	100	100	100	100

Source: Primary Survey, 2012

Hypothesis 3: Higher the level of education, higher will be the proportion of people in non-farm activities.

The share of population engaged in RNFE activity is comparatively higher among the educated population compared to the illiterate. The employment in RNFE ranges from 41.7 to 60.1 as compared to just 34.7 among the uneducated sample population.

Figure 4.7: Education-wise Employment in Agriculture and Non-Agriculture
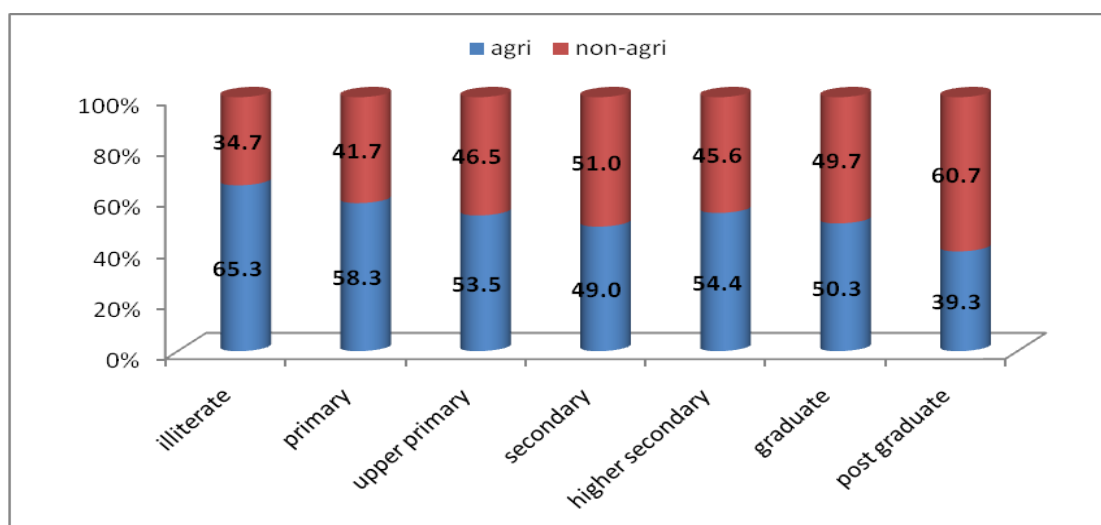
Source: Primary Survey, 2012

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Table 4.46: Education-wise Classification of the Occupation Status (only those who are engaged in the economic activity)

Occupation Status	Below Secondary	Secondary	Higher Secondary	Graduate and above	Total
Self cultivation	**40.3**	**34.7**	**44.6**	**46.7**	40.5
Animal husbandry	2.2	1.2	0.6	0.0	1.6
Agricultural labour	18.7	13.1	9.2	3.6	15.2
Non-agri. labour	**28.7**	**24.7**	**20.8**	15.6	25.7
Self employment in non-agri. labour	7.9	15.4	12.8	12.0	9.6
Service(public)	0.5	3.9	6.1	6.0	3.1
Service(private)	1.6	6.9	5.8	**16.2**	4.3
Total Working	100	100	100	100	100

Source: Primary Survey, 2012

We also tried to understand whether education has some impact on the occupation type. Table 4.46 shows the age of population engaged in cultivation activity is higher among all the education groups but highest among the graduates. It is obvious that a very few of the highly educated persons are working as wage labours compared to the others. Those who have obtained education below graduation level they mainly get engaged themselves as daily wage labours (either in agriculture or non-agriculture) apart from working in agricultural field.

Table 4.47: Persons involved in RNFE by Level of Education

	Below Secondary	Secondary	Higher Secondary	Graduate	Post Graduate & Above	Total
High RNFE	**17.5**	**23.8**	**26.1**	**27.8**	**47.3**	**21.2**
Bharuch	11.8	20.4	18.5	24.5	22.2	15.9
Bhavnagar	20.3	25.8	36.8	32.4	71.1	24.6
Low RNFE	**17.5**	**21.5**	**22.5**	**29.4**	**31.0**	**19.6**
Dahod	14.8	12.9	19.5	23.9	37.0	16.2
Surendranagar	21.0	26.3	24.6	35.4	25.9	23.2
Total	**17.5**	**22.2**	**24.3**	**28.6**	**37.9**	**20.2**

Note: ages calculated from the total number of person in the working age apart from the children.
　　Total number of person in RNFE in each education sub category as share to total number of working person in that same category

Table 4.47 presents the distribution of RNFE workers across the level of education. The study found that: (a) majority of the RNFE workers are in the highest category of education (i.e. post graduate), (b) the proportion is lowest among the below secondary level, (c) the proportion then goes up at the secondary, and (d) subsequently goes up in the next two categories. This may imply a higher concentration in the highest level of education but, the type of RNFE activity among the highest and the lowest education groups are different. Persons with lowest level of education mainly work as daily wage labours, whereas the highly educated individuals engaged themselves in different kind of jobs mainly in private sector.

Hypothesis 4: Higher the level of education, higher will be the days of employment in non-farm activities.

Table 4.48: Average Number of Days Employed in RNFE Activities by Level of Education

Region	Below Secondary	Secondary	Higher Secondary	Graduate	Post Graduate & Above
Non-Agriculture					
High RNFE	**209**	**195**	**239**	**225**	**225**
Baruch	195	168	189	188	187
Bhavnagar	211	207	255	239	225
Low RNFE	**179**	**137**	**201**	**177**	**134**
Dahod	178	94	185	180	175
Surendranagar	182	152	211	174	118
Self-Employment					
High RNFE	**317**	**291**	**293**	**305**	**150**
Baruch	266	365	302	338	-
Bhavnagar	332	270	282	290	150
Low RNFE	**284**	**330**	**282**	**268**	**365**
Dahod	235	309	221	251	365
Surendranagar	312	339	297	279	

Primary Survey, 2012

We have presented these separately for non-agricultural Labour and self-employed, as the average days may vary substantially. For those in service, the employment is assumed to be round the year. Our data in Table 4.48 suggest no discernible pattern. However, if one looks at the binary distribution taking a cut-off of the higher secondary level of education, one finds that the average number of days is higher in the lower levels of education as compared to the higher levels of education with respect to the cut-off level of education.

Whereas, the above observation pertains to both the categories of RNFE, for the self-employed in RNFE one observes an additional feature, which is of importance. Here, the no. of days increases consistently till the level of graduation (post-graduates are in any case a very small sub-set) in three districts except Surendranagar.

Hypothesis 5: Better infrastructure (roads, communication and power) leads to diversification in RNFE.

Table 4.49: Number of Households involved in RNFE Activities by Distance from Nearest Town

Distance between Village and Nearest Town (km.)	High RNFE (2 Districts Combined)			Low RNFE (2 Districts Combined)		
	No. of Villages Surveyed	Total No. of Households (from house listing)	No. of Households involved in Non-Farm Activities	No. of Villages Surveyed	Total No. of Households (from house listing)	No. of Households involved in Non-Farm Activities
< 2 km.	-	-	-	1	311	20
2-5 km.	1	197	43	1	518	32
5-10 km.	2	631	96	2	742	80
> 10 km.	7	1756	526	6	1849	201

Source: Primary Survey, 2012

Table 4.50: Number of Persons involved in RNFE Activities by Distance from Nearest Town

Distance between Village and Nearest Town (km.)	High RNFE (2 Districts Combined)			Low RNFE (2 Districts Combined)		
	Total No. of Persons	No. of Persons in RNFE	Proportion of Persons in RNFE	Total No. of Persons	No. of Persons in RNFE	Proportion of Persons in RNFE
< 2 km.	-	-	-	310	43	13.9
2-5 km.	202	41	20.3	545	115	21.8
5-10 km.	756	203	26.9	781	147	19.2
> 10 km.	1737	274	15.8	1888	329	17.7

Source: Primary Survey, 2012

The largest numbers of villages are selected from the distance of less than 10 kms. In terms of absolute number of households per person in RNFE we find the larger concentration in the farthest villages.

Hypothesis 6: Days of Employment of women in RNFE is lower than that of men.

Table 4.51: Number of Persons and Days of Employment in RNFE Activities by Gender (for Non-agricultural Labour)

Non-Agricultural Labour	High RNFE	Baruch	Bhavnagar	Low RNFE	Dahod	Surendra nagar
No. of working Males	**844**	**323**	**521**	**1128**	**579**	**549**
No. of Males in Non-Agricultural Labour	196	40	156	272	117	155
Avg. Days per Male Workers	219	187	225	183	183	184

Median Days of Male Employment	200	180	200	180	182	180
No. of Females	**236**	**65**	**171**	**338**	**183**	**155**
No. of Females in Non-Agiricultural Labour	57	17	40	87	41	46
Avg. Days per Female Worker	187	188	187	165	157	173
Median Days of Female Employment	180	180	180	180	180	150
Average Earnings of Males	**40190**	**25455**	**43015**	**48344**	**42903**	**54626**
Average Earnings of Females	**25335**	**23558**	**26167**	**41758**	**35968**	**47400**

Note: Only with respect to the non-agricultural labour
Source: Primary Survey, 2012

The average number of days per male worker is higher than that of female workers in most cases. However, in Bharuch the number of days is same for both the males and females.

The average days of employment of the self-employed person (98 of the self-employed are males and 2 are females).

Table 4.52: Number of Persons and Days of Employment in RNFE Activities by Gender (for Self-Employed)

Self Employed	High RNFE	Baruch	Bhavnagar	Low RNFE	Dahod	Surendranagar
No. Male in Self-emp	109	35	74	123	54	69
Avg. Days of Male Employment	305	294	310	296	252	318
Median Days of Male Employment	360	325	360	300	250	365
Avg .Earning Male	16397	17083	16100	12539	17254	10216
No of female in self-emp	25	2	23	43	22	21
Avg. Days of Female Employment	313	365	303	241	300	226
Median Days of Female Employment	365	365	365	240	300	210
Avg. Eearning Female	21916	5000	25300	9500	30000	2666

Note: Only with respect to the self-employed
Source: Primary Survey, 2012

The average number of days per male worker is higher than that of female workers in most cases. However, in Bharuch the number of days is higher for female as compared to the male workers. It may be noted that female workers in the category of self-employed in non-agriculture is fairly low (Table 4.53).

Table 4.53: Number of Persons and Days of Employment in RNFE Activities by Gender

Region	All RNFE	
	Average Earnings of Males	Average Earnings of Females
High RNFE	22350	18799
Baruch	17608	11880
Bhavnagar	23237	20522
Low RNFE	24686	20300
Dahod	23910	25297
Surendranagar	26281	19597

Source: Primary Survey, 2012

The total earning per male workers in RNFE is higher than that among female workers.

4.11: Factors leading to RNFE: A Statistical Analysis

In order to examine the factors influencing the engagement in RNFE by the individual person, the **binary-logistic model** has been used. The logistic model is used when the dependent variable is binary which implies an even either occur or does not occur. In this case the dependent variable is the probability to work in non-farm sector, where two cases arises i.e. a person earn his or her main income from non-farm or from farm activity. Logistic regression model is widely used among the scholars in order to understand a behavior of the qualitative variable.

The binary logistic regression model is used to examine the factors affecting the source wise income of a person. The model helps to analyse the effect of some socio-economic indicators on the particular individual's decision making. The parameter of the logistic regression model was estimated with Maximum Likelihod Estimation (MLM) technique.

The specification of the model is presented below:

Since the above model estimate the probability of occurrence of an event for more than one independent variable i.e. k independent variables ($X_1, X_2 \ldots \ldots X_k$).

The model can be written as:

$$\ln\left[\left(\frac{pi}{1-pi}\right)\right] = \beta 0 + \beta 1\, X1 + \beta 2 X2 + \beta 3 X3 \ldots \ldots \beta n Xn$$

Where P = chance of a individual working in RNFE labour (i.e. probability of the event occurring)
1 - P = chance of a household for not working in RNFE (i.e. probability of an event not occurring)

Ln   Pi = is the probability or risk of the event occurring which is the odds 1- Pi of   individual working in RNFE.

X_i =   X1,X2,X3X4… … … .   Xn are the independent variable of model.

β_i =   β1,β2,β3,β4 …   b n are the regression coefficients indicating the magnitude of change (increased or decreased risk) in the independent variable.

As explained above, the parameter of logistic model estimated by using the MLM. The coefficient of that make the observed result "likely" is selected. In the logistic regression model, estimates of relative risk is computed either based on the odds ratios(which is defined as the ratio of the probability that the event will occur to the probability that it will not; $P/1-p = e^{b} * e^{b1X1} * e^{bnXn}$) or log of odds ratio (which is defined as the logarithm or logit of the ratio of the probability that the event will occur to the probability that it will not occur; $\log (P) = \beta_o + \beta_1 X_1 + \beta_2 X_2 …. \beta_n X_n$).

Table 4.54: Factors influencing Work in Non-Farm Sector

Variables	B	S.E.	Exp(B)
Education Level (Illiterate as RC)			
Below Secondary	0.3**	0.1	1.3
Higher Secondary	0.4**	0.1	1.5
Graduate and Above	0.7*	0.2	2.0
Technical Education (With technical education as RC)			
Without any Technical Education	-1.5*	0.5	0.2
Age of the Individual (Below 14 and above 70)			
Age between 15 to 30	0.4	0.3	1.5
Age between 31 to 45	0.3	0.3	1.3
Age between 46 to 69	-0.2	0.3	0.8
Distance of the Village from Town (1 km to 10 km.)			
Distance between 10 kms to 20 kms	0.1	0.1	1.1
Distance between 20 kms to 30 kms	-0.0**	0.2	0.8
Distance between 30 kms to 40 kms	-0.1**	0.3	0.9
Distance between 40 kms to 50 kms	0.0	0.1	1.0
Caste (SC as RC)			
ST	-0.8*	0.2	0.5
OBC	-0.3*	0.1	0.7
Others	-1.1*	0.2	0.3
Gender (Female as RC)			
Male	0.2**	0.1	1.2
Land Holding (Landless as RC)			
Land below 5 acre	-1.6*	0.10	0.18
Land above 5 acre	-2.4*	0.19	0.08
Constant	1.1	0.6	3.0

Notes: β = Regression Coefficient; SE= Standard Error; RC= Reference Category; * * = Significant at 0.05
       *= significant at 0.01; N = 2373; -2 log likelyhood ratio= 943.4; Overall classification = 88.2

As discussed above, the factors like cast, gender, education, technical education and age of the workers might influence the individual's decision making. The holding of some asset like land

also might affect the individual occupation pattern. The statistical analysis used seven independent variables like: age of the worker, gender, education level, cast, technical education, landholding and the distance of the village from the town in order to capture the infrastructure as an indicator.

The results of the logistic regression suggest that higher the level of education higher would be the probability of working in the RNFE sector. Also with some technical education an individual prefer to work in the RNFE sector. Age of the individual has no effect for the decision making to work in RNFE or in agriculture. The distance of the village from the town affects the individual decision making.

Compared to the SC community the probability of other cast category participation is lower.

Compared to the female workers the male workers decision towards working in RNFE was higher.

Land has a specific impact on the individual decision making. Higher the land ownership lower is the rate of participation in RNFE.

However, this analysis is a more preliminary one. The nature of RNFE being dual in nature it need more rigorous analysis to get a clear picture of the factor affecting the RNFE pattern.

CHAPTER V

Rural Non-Farm Enterprises

This section presents findings from a sample survey of rural non-farm enterprises among the sample households. For the purpose of the survey rural non-farm enterprises are defined as those activities/units that hire four or more workers. Earlier we had noted that 247 workers had reported self-employment in non-farm work as their main activity. A large majority of them did not engaged hired labour. Hence, it was difficult to find such enterprises that work with hired labour.

5.1 Enterprises under the Survey

Initially, the idea was to select about five such units in each village. Against this we have been able to find 42 units across 20 villages covered under the study. This section presents broad profile of the rural enterprises covered under the survey. Table 5.1 presents details about the village-wise number of rural enterprises covered under each district.

Table 5.1: Distribution of Rural Non-Farm Enterprises

High RNFE Area	No. of Enterprises	Low RNFE Area	No. of Enterprises
Bharuch Disrict	**07**	**Dahod District**	**10**
Anjoli	02	Menpur Ambli	05
Balota	01	Ghada	03
Motasancha	02	Kaliawad	01
Sahol	02	Vakot	01
Karjan	00	Ranchhva	00
Bhavngar District	**11**	**Surendranagar**	**14**
Adpar	02	Zadiana	08
Haliyad	02	Khambhla	02
Karkolia	04	Echhwada	02
Pratappara	03	Untadi	02
Bharpara	00	Liyad	00
Total	**18**	**Total**	**24**

Source: Primary Survey, 2012

5.2 Profile of the Enterprises

Most of the enterprises were engaged in trade/services or other activities like contracting work for specific kind of construction etc. Only 10 enterprises were in the category of manufacturing activity, most of them in diamond cutting and polishing sector located in Bhavanagar districts (Table 5.2).

Table 5.2: Activity-wise Enterprises across Districts

Districts	Manufacturing	Non-Manufacturing	Trade and Service	All
Bharuch		02	05	07
Bhavnagar	09	02	01	11
Dahod		04	06	10
Surendranagar	01	05	07	14
Total	10	13	19	42

Source: Primary Survey, 2012

Apart from diamond cutting and polishing, manufacturing of bricks, cotton ginning and machining were other activities in the category of manufacturing enterprises. Most of the enterprises in the non-manufacturing activities are contractors in the construction activity as noted earlier. Among services and trade there are five shops, and rest all are engaged in various activities like electrician, carpentry, and masonry services.

Obviously, all these enterprises, except for those in manufacturing sector, represent the basic trade and services and also construction related activities. Since most of the manufacturing units are located in Bhavnagar, a district in high RENFE area, it suggests a close correspondence between high RNFE status and development of manufacturing activities. Most of the diamonds units employ about 4-5 workers.

Conversely, Surendranagar district in the low-RNFE category has one cotton ginning unit with 10 regular employees. This gives the district a better status in terms of regular employment in the manufacturing activities.

Most of the units, i.e. 32 out of 42 have been set up after the year 2000.

The average monthly income from rural non-farm enterprises is about Rs.7-8000 per month. The major exception is the cotton ginning unit in Surendranagar where the income is Rs. 30,000 per month. This however, is a seasonal activity. About half of the units get the workers from the same village, whereas the rest of them are hired from other villages within the same districts.

Given the predominance of trade/service and contract related activities, a majority i.e. 34 out of 42 units sell their products within the village/district. Similarly 32 out 42 enterprises reported direct selling; the indirect selling is likely to be mainly among the contractors.

5.3 Difficulties and Constraints

An attempt was made to understand the constraints faced by the rural non-farm enterprises covered by the survey. It may however, be noted that a substantial proportion of the rural enterprises covered under the survey are in construction related activities and few more are in the shops. The rest of the enterprises also cover a range of activities including diamond cutting and polishing. Given the heterogeneous nature of the enterprise, we encountered a wide range of

responses pertaining to the constraint faced by enterprises. We have tried to summarise these responses as follows.

Table 5.3: Constraints faced by the Rural Enterprises

Type of the Constraints Faced	Name of the Village where the Rural Enterprises have Reported the Constraints
Market Related (10)	Anjoli, Balota, Mota Sanja, Sahol, Karkoliya, Pretapara, Menpur, Echhvada, Zadiyana
Space Constraint (3)	Anjoli, Sahol, Adapar
Scarcity Capital (6)	Anjoli, Sahol, Manpur, Kaliyavad, Khabhda, Untadai
Low Quality of Raw Material (9)	Balota, Mota Sanja, Adapar, Haliyad, Pretapara, Gadha, Vakota, Zadiyana
Difficulty in Procuring Raw Material (2)	Haliyad, Karkoliya
Non-availability of (Skilled) Workers (13)	Anjoli, Sahol, Adapar, Haliyad, Pretapara, Menpur, Gadha, Kaliyavad, Vakota, Echhvada, Khabhda, Untadai, Zadiyana
Demand for Higher Wage (6)	Anjoli, Adapar, Haliyad, Karkoliya, Echhvada, Zadiyana
Economic Crisis (4)	Sahol, Karkoliya, Menpur, Echhvada
Transportation (4)	Pretapara, Gadha, Untadai, Zadiyana
Scarcity of Water (2)	Gadha, Zadiyana
Suitability of Machine Equipments (3)	Khabhda, Untadai, Zadiyana
Absence of Subsidy (1)	Zadiyana

Source: Primary Survey, 2012

The pattern depicted in Table 5.4 by and large reflects the larger scenario of small and micro enterprise development, where the sector is poised with dual constraint of lack of adequate demand in the market or market competition, and non-availability of workers, especially skilled workers. A common thread running through this apparently contradictory situation is that of subsistence or petty production located within the overall demand constraints, within the rural economy. Since the market potential is faced with the demand stress, workers also tend to refrain from joining the sector where the terms of employment (i.e. duration and payment) are fairly adverse. This is reflected in a number of responses highlighting the demand for higher wages by the workers as a major problem. Difficulty in obtaining raw material is yet another important constraint reported by the enterprises.

On the other hand, not many issues were raised about Government support in terms of subsidy, information, or transportation etc.

Whereas, these are more or less well known situations, it is not clear as to how far supply side interventions could help strengthening such rural enterprises in future.

5.4 Insights from Discussions with the State Machinery at District Level

Gujarat represents one of the leading industrialized states where the Government has always played a fairly active role in promoting industrial growth across different regions in the state.

The state also occupies a place of pride in having a large number of small and medium enterprises (SME) clusters (about 80-85) spread over a number of districts in the state. The Government of Gujarat has a fairly good track record of proactively promoting SMEs right since the early phase of planning in the state. Some of the largest industrial estates in Gujarat have been outcomes of the promotional policies for SMES in the state.

A gamut of policy instruments have been in place over a long period of time. One of the important initiatives among these is the backward area development programme, implemented during the seventies and eighties in the state. Development of a number of industrial estates in Bharuch district is part of the prop-active policy for encouraging industrial units to shift to the erstwhile industrially backward region in the state.

A spatially broad based industrial development in the state along with higher rate of urbanization however, is likely to have worked as an impending factor for the growth of rural enterprises outside the well established clusters or industrial centers in the state. This may imply that the industrial activities, even in the rural hinterland may tend to concentrate around an existing cluster. It is perhaps this phenomenon that has shown up in terms of a subsistence type of production in the rural enterprises under the study. This leaves the construction and service sector as the core area of rural non-farm enterprises in the study region.

How to move forward from the present situation? This issue was discussed with the district level officials looking after industrial development in four districts in the study region. The information obtained from the district level authorities are presented in this section. In what follows we present some of the important features that emerged during the focus group discussions at the district level.

First of all, it may be noted that of the four districts, Bharuch is a hub of some of the largest industrial estates and industrial complexes, including a few SEZs. These kinds of industrial development are not likely to promote rural linkages, especially in the hinterlands in tribal dominated areas. As compared to this, Bhavnagar has an advantage of two important developments - first, is the large ship breaking yard at Alang and the other is very strong socio-economic linkages with the thriving diamond industry in Surat. Both these have potential for promoting SMEs in the district though not necessarily in the rural hinterland. Of the two diamond sector, is more footloose type hence, has better chance of getting located in rural areas as we have already seen in the previous section. As compared to this, Surendranagar district is industrially less developed, though the district has a few product specific clusters of rural enterprises viz. ceramic in Than, woolen weaving and dyeing, and dairy. Dahod is primarily a tribal and among the least developed district in the state.

Second, skill training programmes have been carried out in most of the districts. These training programmes however do not reach out to a large number of youth who may not have the required formal education. Those having attained formal education say, up to secondary level, may not be willing to take training for skills like plumbing, carpentry, masonry, electrification etc. as the job market does not treat this kind of skill training as a prerequisite. Alternatively, those having received such training may have to set up their own micro enterprise for which most of the youth do not have the financial wherewithal, leave alone entrepreneurial aptitude. As a result, many of the trained youth end up being an apprentice in an informal enterprise, and try to make their way forward as they gain experience as well as social and financial capital.

Lack of trained workers in construction activity is an important example in the specific case of the study area. Whereas, a number of initiatives have been taken up, especially by NGOS like SEWA and private companies, skill training and certification is still a distant dream for most of those involved in construction activities. At the same time, the recent upheaval in terms of technology upgradation and mechanization in the modern construction sector may have changed the pattern of demand for skill workers in the sector. In fact, most of the workers/micro enterprises in diamond sector in Surat and Bhavnagat have undergone this trajectory of informal training. How far the manpower planning in the state is taking care of the rapidly changing scenario for skill formation in the state is to be probed carefully.

Third, the state is proactively implementing the scheme for distribution of subsidy to poor families through 'Garib Mela'. The idea is to provide seed grant for a poor family who may like to use the grant for buying some tools or material to start a micro enterprise or establishment for self-employment. This aspect was however, missing during the discussion with the district level officials.

Fourth, seasonal out-migration from Dahod is an important feature that needs special attention. These migrants work on both farm and non-farm activities in the place of migration. Several of them have also started leasing-in land for cultivation. Also they work on the construction site. How to reach out this mobile population and make them benefit from a number of state-sponsored support programmes is an issue that needs immediate attention. In fact, the state government has committed a number of schemes to promote tribal development over the past one decade. One of the problems realized till the recent period, is that of lack of context specificity. For instance, training programmes are being designed and implemented, especially by involving private sector. These programmes are carried out in a routine manner, without adequate counseling, hand holding and support. A single most important factor that often obstructs tribal youth from market integration is that of cultural divide leading to lack of self-esteem. How far this aspect has been incorporated in the developmental programmes for tribal communities is yet another issue that may need special consideration.

Last, the discussion at the district level had very little to offer in terms of promotion of non-farm employment in rural areas. In fact, most of the discussion hovered around the presence of large scale industries, SEZs, and industrial complexes as major features of industrial growth. Also good infrastructure, connectivity and the financial support to SMEs was at the centre while discussing the policy support. Most of these do not seem to have any direct link with RNFE. On the other hand, the discussion about developmental schemes for rural areas, by and large, referred to rural amenities and local governance. This perhaps, brings us back to the point made earlier about the spatial concentration of non-farm activities, which often pulls the labour force out of rural areas; the NFE in rural areas is thus residual in nature hence, of distress type. Given this backdrop, promotion of NFE in rural areas in the midst of highly industrialized and urbanized economy, it may require reshaping the developmental polices at the macro-state level.

CHAPTER VI

Summary of Findings and Way Forward

The foregoing analysis seeks to understand the extent, pattern and correlates of rural non-farm employment in 20 villages spread over four districts in Gujarat. The field enquiry is based on a detailed investigation of a sample of about 1,200 households selected from the villages covered under the study. The central question addressed by the study is: what ails the growth of rural non-farm employment in different parts of the state with varying socio-economic and spatial characteristics. It is hoped that a field based enquiry such as this may help identifying the constraints thereby formulating policy measures to overcome the constraints faced in obtaining RNFE opportunities in the state.

Historical and Contemporary Scenarios: Being a leading industrial economy in India, Gujarat has witnessed relatively higher degree of workforce diversification in rural areas. In the mid-2000, the share of primary sector in total workforce was about 50 percent, which was significantly lower than that at the all India level. More recently, the proportion of the workers in the primary sector has increased to about 54 percent, which could be due to a significant increase in agriculture, but still lower than the national average.

The contemporary situation in the state therefore, represents a unique scenario of high growth in both the industries as in the well as agriculture sector in the state. Closely related to the sectoral dynamics of growth is – rapid urbanization; by 2011 about 43 percent of the state population leaves in urban areas and many more are likely to be directly linked to the urban economies for their employment and livelihood. How far this situation has influenced the employment scenarios, especially in rural areas? This, indeed, is a fairly complex issue to be investigated through a somewhat quick field enquiry such as this.

Thus, the study region covered two districts viz. Bharuch and Bhavanagar in high RNFE areas, and two districts viz. Dahod and Surendranagar in low RNFE areas. Of these, Bharuch and Dahod are mainly tribal regions and Bhavanagar and Surendranagar are mainly dry land regions (Box below].

Level of RNFE	Tribal Region	Dry Region
High	Bharuch	Bhavnagar
Low	Dahod	Surendranagar

RNFE in Study Villages

The sample consists of 1189 households. Of these, about 12 percent are STs, 27 percent SCs, 47 percent OBCs and the remaining 14 percent from other social groups. Close to 40 percent of the households are landless and another 30 percent have marginal size of land holdings. Almost half of the sample households have reported agriculture as the main source of income

and another 12 percent have reported agriculture labour as the main source. This suggests a majority of the sample households dependent on agrarian economy in the study villages.

The sample households have 6219 persons. Of these, 28 percent are below the age of 14 years and another 6.7 percent are above 60 years. This leaves about 65 percent of the population in the working age group. Of the total population, about 27 percent are illiterate, and about 20 percent have obtained education beyond secondary level.

Main workers account for about 40 percent of the total population in the sample households. Of these, about 23 percent are in agriculture and about 17 percent are in non-farm employment. The remaining 60 percent of the population consists of about 12 percent as children, another 28 percent as students/retired/non-working and unemployed and 22 percent (mainly) involved in household work as their main activity.

If we consider only worker population, RNFE accounts for about 43.6 percent which is quite substantial. Almost half of the RNFE-workers are in casual labour, 4.8 percent are self-employed and 2.8 percent in service. Most of the RNFE labour work is in the same district. The average income from RNFE is in the range of Rs.40 - 42,000 per annum. Among those in self employed the average income per month is Rs. 15,000.

RNFE is found to be higher among STs and OBCs as compared to the SCs and other communities. Most of the STs, especially from Dahod, tend to migrate seasonally for labour work in both the farm and non-farm activities. A large majority of women in the working age groups have reported household work as their main activity, though several of them have reported subsidiary activity. Work on MGNREGA is not very common among the sample households. Only 18 households have reported remittances as source of income.

A preliminary analysis of the factors influencing RNFE among workers within the study villages suggest that higher level of education as compared to the illiterates and some level of technical education positively influence the participation in RNFE. Without the ownership of any asset and landholding, the participation in RNFE was also observed higher. Out of the total working sample, participation of SCs in RNFE was higher as compared to the others. But SCs mainly work as daily wage labours as compared to the other non-farm activities.

6.1 Micro Enterprises

RNFE-establishments with 4-5 hired workers are very few in the study villages. A survey of 42 such establishments suggests that only 10 are manufacturing units, mainly diamond units, located in Bhavnagar districts. The rest are in construction and trade related activities. Most of these units operate at a fairly subsistence level.

The pattern depicted in the analysis by and large reflects the larger scenario of small and micro enterprise development, where the sector is poised with dual constraint of lack of adequate

demand in the market or market competition, and non-availability of workers, especially skilled workers. A common thread running through this apparently contradictory situation is that of subsistence or petty production located within the overall demand constraints, within the rural economy. Since the market potential is faced with the demand stress, workers also tend to refrain from joining the sector where the terms of employment (i.e. duration and payment) are fairly adverse. This is reflected in a number of responses highlighting demand for higher wages by the workers as a major problem. Difficulty in obtaining raw material is yet another important constraint reported by the enterprises.

The discussion at the district level had very little to offer in terms of promotion of non-farm employment in rural areas. In fact, most of the discussion hovered around the presence of large scale industries, SEZs, and industrial complexes as major features of industrial growth. Also, good infrastructure, connectivity and the financial support to SMEs was at the centre while discussing the policy support. Most of these do not seem to have any direct link with RNFE.

The evidence presented above brings us back to the point made earlier about the spatial concentration of non-farm activities in areas having larger industrial clusters and/or fairly stable agricultural growth. Since much of the non-farm work takes place in urban/industrial agglomerates, opportunities for non-farm employment within the rural areas often work as a residual segment, often driven by distress situation. This is particularly true in a situation like Gujarat where urban-industrial growth is generally out pace in the agriculture sector. The recent spurt in the growth of agriculture sector seems to have increased the on-farm employment. The second round impact in terms of creation of non-farm employment opportunities within the rural areas seems to be somewhat dormant as of now. Increased connectivity and continued gaps in rural-urban infrastructure (especially power and other industrial infrastructure) may work as additional impediments for promoting non-farm activities in the rural hinterlands. This suggests that promotion of non-farm activities in rural areas, in the midst of highly industrialized and urbanized economy, may require reshaping the developmental polices at the macro-state level.

Basic Amenities among Villages

Amenities	High Rural Non Farm Employment Districts			Low Rural Non Farm Employment Districts			Total
	Bharuch	**Bhavnagar**	**High RNFE**	**Dahod**	**Surendranagar**	**Low RNFE**	
Having Bus Stand							
Yes	3	5	8	2	4	6	14
Distance (No)	16(2)	0(0)	16(2)	9 (3)	7 (1)	16 (4)	32 (6)
Having Railway station							
Yes	0	0	0	0	0	0	0
Distance (No)	96(5)	77(5)	173(10)	121(5)	86(5)	207(10)	380(20)
Having MajorTown							
Yes	0	0	0	0	0	0	0
Distance (No)	96 (5)	68 (5)	164 (10)	46 (5)	86 (5)	132 (10)	296 (20)
Having Industrial Cluster							
Yes	0	0	0	0	0	0	0
Distance (No)	126 (5)	83 (5)	209 (10)	250(5)	186 (5)	436 (10)	645 (20)
Having Pakka Road, Panchayat Office, Drinking Water, Anganwadi and Primary School.							
Yes	5	5	10	5	5	10	20
Distance (No)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Having Secondary School							
Yes	1	0	1	1	2	3	4
Distance (No)	31 (4)	40 (5)	71 (9)	37 (4)	25 (3)	62 (7)	133 (16)
Having College							
Yes	0	0	0	0	0	0	0
Distance (No)	76 (5)	44 (5)	120 (10)	123 (5)	49 (5)	172 (10)	292 (20)
Having TechnicalSchool and Technical Training Centre							
Yes	0	0	0	0	0	0	0
Distance (No)	76 (5)	71 (5)	147 (10)	81 (5)	49 (5)	130 (10)	277 (20)
Having Ghodiya Ghar/ Community Centre							
Yes	0	0	0	0	0	0	0
Distance (No)	42 (5)	44 (5)	86 (10)	79 (5)	44 (5)	123 (10)	209 (20)
Having Adult Education centre							
Yes	0	0	0	0	0	0	0
Distance (No)	76 (5)	62 (5)	138 (10)	79 (5)	44 (5)	123 (10)	261 (20)
Having Balwadi							

Yes	4	4	8	1	3	4	12
Distance (No)	7 (1)	5 (1)	12 (2)	38 (4)	25 (2)	63 (6)	75 (8)

Having Primary Health Care

Yes	0	0	0	0	1	1	1
Distance (No)	42 (5)	53 (5)	95 (10)	60 (5)	42 (4)	102 (9)	197 (19)

Having Private Hospital

Yes	0	0	0	0	0	0	0
Distance (No)	68 (5)	53 (5)	121 (10)	85 (5)	49 (5)	134 (10)	255 (20)

Having Government Hospital

Yes	0	0	0	0	0	0	0
Distance (No)	68 (5)	53 (5)	121 (10)	90 (5)	49 (5)	139 (10)	260 (20)

Having Bank

Yes	0	0	0	0	1	1	1
Distance (No)	42 (5)	44 (5)	86 (10)	50 (5)	29 (4)	79 (9)	165 (19)

Having Co-operative Bank

Yes	0	0	0	0	0	0	0
Distance (No)	58 (5)	44 (5)	102 (10)	41 (5)	44 (5)	85 (10)	187 (20)

Having Flour Mill

Yes	5	4	9	2	5	7	16
Distance (No)	0 (0)	5 (1)	5 (1)	7 (3)	0 (0)	7 (3)	12 (4)

Having Rice and Oil Mill

Yes	0	0	0	0	0	0	0
Distance (No)	102 (5)	86 (5)	188 (10)	139 (5)	86 (5)	225 (10)	413 (20)

Having Hat Bazaar

Yes	0	0	0	0	0	0	0
Distance (No)	58 (5)	42 (5)	100 (10)	54 (5)	44 (5)	98 (10)	198 (20)

Having Wholesale Market

Yes	0	0	0	0	0	0	0
Distance (No)	58 (5)	59 (5)	117 (10)	105 (5)	86 (5)	191 (10)	308 (20)

Having Fair Price Shop

Yes	4	3	7	0	2	2	9
Distance (No)	7 (1)	12 (2)	19 (3)	18 (5)	26 (3)	44 (8)	63 (11)
Total	5	5	10	5	5	10	20

Note: Yes shows number of those villages which have these amenities whereas, distance (no) shows the distance of the amenity and number in parentheses shows village which do not have these amenities.

District-wise Distribution of Household Members by Age and Gender

Gender	Age-groups	High Rural Non Farm Employment Districts			Low Rural Non Farm Employment Districts			Total
		Bharuch	Bhavnagar	High Rnfe	Dahod	Surendranagar	Low RNFE	
Male	1-5	30 (5.4)	91 (10.4)	121 (8.5)	116 (11.7)	70 (7.8)	186 (9.8)	307 (9.2)
	6-14	83 (15)	178 (20.5)	261 (18.4)	189 (19.2)	171 (19)	360 (19.1)	621 (18.8)
	15-24	134 (24.2)	200 (23.1)	334 (23.5)	224 (22.8)	173 (19.2)	397 (21.1)	731 (22.1)
	25-40	143 (25.9)	216 (24.8)	359 (25.2)	251 (25.5)	252 (28)	503 (26.7)	862 (26.1)
	41-59	119 (21.5)	122 (14.1)	241 (17)	153 (15.5)	165 (18.3)	318 (16.9)	559 (16.9)
	60 & above	44 (8)	61 (7.2)	105 (7.5)	52 (5.3)	70 (7.8)	122 (6.5)	227 (6.9)
	Total	553 (100)	868 (100)	1420 (100)	984 (100)	901 (100)	1886 (100)	3307 (100)
Female	1-5	39 (8.1)	87 (10.9)	126 (9.8)	126 (14.2)	60 (7.9)	186 (11.3)	312 (10.7)
	6-14	58 (12)	155 (19.6)	213 (16.7)	178 (20.2)	127 (16.8)	305 (18.6)	518 (17.8)
	15-24	82 (16.9)	180 (22.8)	262 (20.6)	194 (22)	154 (20.4)	348 (21.3)	610 (21)
	25-40	167 (34.5)	217 (27.5)	384 (30.2)	214 (24.3)	231 (30.6)	445 (27.2)	829 (28.5)
	41-59	94 (19.2)	101 (12.8)	195 (15.2)	134 (15.2)	124 (16.4)	258 (15.8)	453 (15.5)
	60 & above	44 (9.3)	50 (6.3)	94 (7.5)	36 (4.1)	60 (7.9)	96 (5.9)	190 (6.6)
	Total	484 (100)	790 (100)	1273 (100)	882 (100)	756 (100)	1638 (100)	2912 (100)
Total	1-5	69 (6.7)	178 (10.6)	245 (9.1)	242 (12.9)	130 (7.8)	370 (10.5)	619 (9.9)
	6-14	141 (13.6)	333 (20.1)	474 (17.6)	367 (19.7)	298 (18)	665 (18.9)	1139 (18.3)
	15-24	216 (20.8)	380 (22.9)	596 (22.1)	418 (22.4)	327 (19.7)	745 (21.2)	1341 (21.6)
	25-40	310 (29.9)	433 (26.1)	742 (27.6)	465 (24.9)	483 (29.1)	948 (26.9)	1691 (27.2)
	41-59	213 (20.4)	223 (13.5)	435 (16.2)	287 (15.4)	289 (17.4)	576 (16.4)	1012 (16.3)
	60 & above	88 (8.6)	111 (6.8)	201 (7.5)	88 (4.7)	130 (7.8)	218 (6.2)	417 (6.7)
	Total	1037 (100)	1658 (100)	2693 (100)	1867 (100)	1657 (100)	3522 (100)	6219 (100)

District-wise Level of Education

Gender	Educational level	High Rural Non Farm Employment Districts			Low Rural Non Farm Employment Districts			Total
		Bharuch	Bhavnagar	High RNFE	Dahod	Surendranagar	Low RNFE	
Male	Children	38 (6.9)	92 (10.6)	130 (9.2)	104 (10.6)	55 (6.1)	159 (8.4)	289 (8.7)
	Illiterate	63 (11.2)	147 (16.9)	210 (14.7)	279 (28.3)	135 (15)	414 (22)	623 (18.8)
	Primary	119 (21.6)	241 (27.8)	360 (25.4)	232 (23.6)	244 (27.1)	476 (25.2)	836 (25.3)
	Upper Primary	42 (7.6)	90 (10.4)	132 (9.3)	104 (10.6)	85 (9.4)	189 (10)	321 (9.7)
	Secondary	64 (11.6)	114 (13.1)	178 (12.5)	74 (7.5)	127 (14.1)	201 (10.7)	379 (11.5)
	H. Secondary	138 (25)	108 (12.4)	246 (17.3)	95 (9.6)	145 (16.1)	240 (12.7)	486 (14.7)
	Graduate	68 (12.3)	54 (6.2)	122 (8.6)	61 (6.2)	67 (7.4)	128 (6.8)	250 (7.6)
	Post-graduate & above	21 (3.8)	22 (2.5)	43 (3)	36 (3.7)	43 (4.8)	79 (4.2)	122 (3.7)
	Total	553 (100)	868 (100)	1420 (100)	985 (100)	901 (100)	1886 (100)	3306 (100)
Female	Children	38 (7.9)	85 (10.8)	123 (9.7)	104 (11.8)	48 (6.3)	152 (9.3)	275 (9.4)
	Illiterate	115 (23.8)	294 (37.2)	409 (32.1)	407 (46.1)	272 (36)	679 (41.5)	1088 (37.4)
	Primary	125 (25.8)	186 (23.5)	311 (24.4)	181 (20.5)	199 (26.3)	380 (23.2)	691 (23.7)
	Upper Primary	38 (7.9)	68 (8.6)	106 (8.3)	57 (6.5)	46 (6.1)	103 (6.3)	209 (7.2)
	Secondary	49 (10.1)	80 (10.1)	129 (10.1)	42 (4.8)	82 (10.8)	124 (7.6)	253 (8.7)
	H. Secondary	78 (16.1)	47 (5.9)	125 (9.8)	54 (6.1)	83 (11)	137 (8.4)	262 (9)
	Graduate	26 (5.4)	14 (1.8)	40 (3.1)	27 (3.1)	15 (2)	42 (2.6)	82 (2.8)
	Post-graduate & above	15 (3.1)	16 (2)	31 (2.4)	10 (1.1)	11 (1.5)	21 (1.3)	52 (1.8)
	Total	484 (100)	790 (100)	1274 (100)	882 (100)	756 (100)	1638 (100)	2912 (100)
Total	Children	76 (7.3)	177 (10.7)	253 (9.4)	208 (11.1)	103 (6.2)	311 (8.8)	564 (9.1)
	Illiterate	178 (17.1)	441 (26.6)	619 (22.9)	686 (36.7)	407 (24.6)	1093 (31)	1712 (27.5)
	Primary	244	427	671	413	443	856	1527

	(23.6)	(25.8)	(24.9)	(22.1)	(26.7)	(24.3)	(24.6)
Upper Primary	80 (7.7)	158 (9.5)	238 (8.8)	161 (8.6)	131 (7.9)	292 (8.3)	530 (8.5)
Secondary	113 (10.9)	194 (11.7)	307 (11.4)	116 (6.2)	209 (12.6)	325 (9.2)	632 (10.2)
H. Secondary	216 (20.8)	155 (9.3)	371 (13.8)	149 (8)	228 (13.8)	377 (10.7)	748 (12)
Graduate	94 (9.1)	68 (4.1)	162 (6)	88 (4.7)	82 (4.9)	170 (4.8)	332 (5.3)
Post-graduate & above	36 (3.5)	38 (2.3)	74 (2.7)	46 (2.5)	54 (3.3)	100 (2.8)	174 (2.8)
Total	1037 (100)	1658 (100)	2695 (100)	1867 (100)	1657 (100)	3524 (100)	6219 (100)

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