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Non-Farm Employment: Nature, Magnitude and Determinants in a Semi-Arid Village of Western India

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INTRODUCTION

The changing composition of rural labour force at the macro level since 1961 has been characterised by three major features. One, the share of non-farm activities in the total labour force has been increasing, albeit slowly; two, this increase has come mainly from the side of the tertiary sector; and three, the bulk of the increase in non-farm employment has been casual in nature (Visaria and Basant, 1994, p. 18). The increase in the non-farm component of the rural workforce has been attributed to both developmental and distress factors which sometimes have been operating in a mutually reinforcing way (Vaidyanathan, 1986). The developmental factors like agricultural modernisation and commercialisation, increased demand for non-crop goods and services, urbanisation, growing literacy and even welfare oriented policy interventions leading to increased job opportunities, etc., have tried to pull the labour force away from agriculture towards more lucrative non-farm activities. At the same time, distress factors like poverty, unemployment/under-employment due to the inability of agriculture to absorb the surplus labour, and even frequent natural calamities like drought have tried to push the rural households to go in search of various non-farm activities to supplement their farm income and employment. However, wide regional variations in the nature and composition of such labour force combined with serious data limitations have constrained the studies attempting to capture the said process in arriving at any definite conclusion. An increased emphasis, therefore, has now been laid on the need for conducting more focused micro level/village studies which can capture both the process and the determinants of the ongoing occupational diversification.

The present study is an attempt to understand the nature and extent of occupational diversification, with emphasis on non-farm employment that has taken place in a semi-arid village of western India. A study like this in semi-arid areas assumes additional significance when considered from the angle that such areas are not only characterised by low and uncertain rainfall and low crop productivity but also have the bulk of the poor and unemployed rural population.

The specific objectives of the paper are (i) to understand the changes taking place in the structure of occupation and the labour force composition in the semi-arid village chosen for the study along with its demographic changes and (ii) to study, keeping in view the changing structure, the nature, magnitude and determinants of non-farm employment.

METHODOLOGY

The study as mentioned above pertains to a semi-arid village called Mahudi located in the Jhalod taluka of the Panchmahals district in Gujarat. The paper forms part of a larger on-going collaborative research study called Rural Livelihood Systems and Sustainable

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Natural Resource Management in Semi-Arid Areas at the Institute of Rural Management, Anand (IRMA). The data for the paper come mainly from the information that has been collected through a baseline survey of 316 households (60 per cent of the total) on various dimensions of their livelihood. However, since the focus of the survey was not on the non-farm employment, there might be some limitations in rigorously defining and quantifying the labour force in the paper, particularly, under the non-farm activities. Nevertheless, the lacuna on the quantitative side has been made good by the qualitative insights that have been gained through many in-depth household case studies and group discussions.

MAHUDI - A DEMOGRAPHIC AND ECONOMIC PROFILE

The village is situated some 14 km away from the taluka town (Jhalod) and falls in the semi-arid tropical area of western India; the normal annual rainfall of the Panchmahals district is 989 mm. About one-third of the total area of the village is covered by degraded forests. Except five, almost all the 528 households or so own some land. However, the average size of land owned is very small with about two-thirds of the households owning less than 2.5 acres. Only a small proportion of the total cultivable land (about one-fifth) is irrigated. The major crops grown are local variety of maize, paddy and *tuvar* during rainy season, and high-yielding variety of wheat and gram during winter. The introduction of lift irrigation in 1992 in one of the hamlets has enabled those households to raise one more crop of groundnut and green gram during summer.

The village is inhabited by the Bhil tribes who have shed many of their tribal characteristics over the decades. There is nearly a four-fold increase in the population of the village in the last four and a half decades. The total number of households which was 154 in 1951 has increased to 528 in 1994. The total population has increased from 883 to 3,470 during the same period. These figures clearly tell us about the growing pressure of population and its impact on the carrying capacity of the land. While in 1951 every sq.km of land area had to support 129 persons, in 1994 the same area has to support 436 persons leading to a drastic decline in the per capita availability of cultivable land. At the same time, a qualitative change that has taken place in the village is the increase in the literate population from a mere 3.6 per cent in 1951 to about 30 per cent in 1994. Table I attempts to capture the impact of these changes on the occupational structure and labour force composition of Mahudi.

TABLE I. PROPORTION OF WORKING POPULATION ENGAGED IN AGRICULTURAL AND NON-AGRICULTURAL ACTIVITIES IN MAHUDI

Year	Total working population	Labour force in		Basic unit
		Agriculture (per cent)	Non-agriculture (per cent)	
(1)	(2)	(3)	(4)	(5)
1961	766	98.7	1.3	Total workers
1971	427	96.0	4.0	Total workers
1981	613	97.7	2.3	Main workers
1991	755	97.6	2.4	Main workers

Source: Various Census Documents.

Note: The decline in the working population in 1971 is mainly because of the restricted definition used for a worker as compared to 1961.

As per the various decadal census estimates, agriculture seems to have remained the mainstay of the households since 1961. Except for a very small proportion, the bulk of its workforce (above 96 per cent) is engaged in agriculture during 1961-91. The small decline in the proportion of workers engaged in agriculture during 1971 is more of a relative phenomenon attributable to definitional problem than because of any absolute increase in the non-agricultural working population. While almost the entire workforce reported under agriculture is constituted by the self-employed cultivators, whatever the small non-agricultural work population that is reported during the period is engaged mainly in trade and commerce and other services.

The census estimates thus suggest that there is very little of diversification since 1961 in the structure of workforce in Mahudi. But as the 1981 and 1991 census figures are only for main workers and also as the break-up for marginal workers is not available, it is not possible to say what is the overall change in the structure of total workforce, particularly those engaged in supplementary or secondary occupations. However, the study underway in Mahudi tells us that the occupational diversification particularly the growth of non-farm activities, whether as main or as subsidiary occupations, is not as dismal as conveyed by the census estimates. Either because of definitional problems or because of under- or mis-reporting the census estimates are unable to capture fully the real changes that have taken place in the occupational structure.

LIVELIHOOD SOURCES AND LABOUR FORCE COMPOSITION

Based mainly on the baseline survey conducted during 1994, an attempt is made below to understand the livelihood sources and in turn the occupational structure of the labour force in Mahudi. The source of livelihood here includes all activities providing food, fodder, fuelwood, draught power and cash. People of all ages who reported having worked under these activities have been considered as workers. However, it must be mentioned here that since the data on the extent of contribution of different activities to the income and employment of the households have not been collected, clear segregation of the households and the labour force by type of occupation has not been possible.

Except for a very few (5) landless households, agriculture is the mainstay of livelihood for the rest of the households (311) (Table II). Agriculture for these households is not only a source of food, fodder and fuel but also provides cash as many of them sell food as well as trees grown on their land. Along with agriculture, about 94 per cent of the households pursue animal husbandry both as a complementary and subsidiary activity. While bullocks and cows are maintained for meeting draught power, manure and milk needs, goats and poultry birds are reared for cash purposes. Since the income from agriculture is insufficient and land holdings being too small, most of the households also sell their surplus labour to supplement their meagre farm income. About 83 per cent of the households reported wage employment as one of their main sources of income. Since very little work is available within the village, the bulk of these households (92 per cent) migrate during lean periods to prosperous areas of Gujarat like Surat, Nadiad, Ahmedabad, etc., in search of unskilled manual jobs. The rest seek employment within the village as labourers either on farm, forests or under government wage employment programme.

Besides agriculture and wage employment, many of the households also pursued various types of non-farm occupations. While about 9 per cent of the households are found to be

TABLE II. MAJOR SOURCES OF LIVELIHOOD OF THE SAMPLE HOUSEHOLDS AND COMPOSITION OF LABOUR FORCE IN MAHUDI (1993-94)

Livelihood source (1)	Household		Labour force	
	Number (2)	Proportion (per cent) (3)	Number (4)	Proportion (per cent) (5)
1. Agriculture	311	98.4		
2. Animal husbandry	296	93.7	1,176	97.7
3. Wage labour	261	82.6	617	51.2
(a) Migrant	240	76.0	531	44.1
(b) Non-migrant	21	6.6	86	7.1
4. Artisan/Service	28	8.9		
5. Trade/Business	14	4.4	92	7.6
6. White collar and other jobs	31	9.8		
	(316)		(1,204)	

Figures in parentheses are actual number of households and the total labour force.

engaged in artisanal and service activities, about 4 per cent of them pursued various trade and business activities. And in about 9 per cent of the households some of their members are found employed in government departments or co-operative institutions or in various private sector jobs. In terms of labour force while about 98 per cent of it is self-employed in agriculture and allied activities, about 51.2 per cent also worked as wage labour, 44.1 per cent being migratory in nature. And about 7.6 per cent of the labour force is employed in the various non-farm activities mentioned above.

The above analysis of the livelihood sources and the labour force composition indicates that though agriculture remains the primary occupation of the households, a significant proportion of them supplement their farm income mainly by resorting to seasonal migration or by pursuing various non-farm activities. In other words, occupational diversification of a significant order is noticeable in the village. The share of non-farm sector in it and the factors explaining the same are discussed below.

NON-FARM SECTOR: TYPE, MAGNITUDE AND NATURE

There are broadly two categories of non-farm activities being pursued by the households of Mahudi. One is the non-farm proper (NFP) which includes the last three livelihood sources mentioned above (Table III), namely, artisan/service, trade and business, and white collar and other jobs. These are either activities which are being pursued by households on a regular or seasonal basis within the village to meet the local demand for various goods and services, or government/quasi-government jobs pursued regularly within or outside the village, or manufacturing or service sector jobs pursued outside the village regularly.

TABLE III. MAGNITUDE OF NON-FARM SECTOR AND EMPLOYMENT IN MAHUDI (1994)
(per cent)

Non-farm category (1)	Proportion to total households (2)	Proportion to total labour force		
		Male (3)	Female (4)	Total (5)
Non-farm proper (NFP)	21.8 (69)	12.9	2.6	7.6 (92)
Non-farm migratory (NFM)	69.6 (220)	50.9	30.9	40.7 (490)
Total (after adjusting for double counting)	89.2 (282)	62.5	33.4	47.7 (574)

Figures in parentheses are actual numbers.

The second form of non-farm activity is what may be called as non-farm migratory (NFM). This activity is reported under the wage labour category. The bulk of the households who opt for seasonal migration to various urban areas get employed in activities like construction, earth work, factory work, loading, etc.

In analysing the non-farm sources of livelihood, the above distinction becomes important as the conditions under which the income and employment are secured are vastly different. The NFM is highly seasonal and casual as compared to the NFP. The magnitude of these two non-farm sources of livelihood in terms of household and labour force participation may be seen from Table III. As regards NFP, adjusting for double counting, about 22 per cent of the households are engaged in it. In the case of NFM, out of the 260 migrating households 220 of them (70 per cent of the total) reportedly work under various urban-based non-farm activities. If both the types of non-farm activities are considered together, then about 89 per cent of the households are engaged in non-farm activities of both types.

In terms of labour force though only about 2.3 per cent is employed exclusively under NFP, by including those who pursued NFP along with agriculture, then the overall proportion of labour force employed in NFP came to about 7.6 per cent. Within the migratory labour about 92 per cent of them pursued various urban-based non-farm activities. This NFM labour accounted for about 40.8 of the total labour force. Adjusting for those who are employed both under NFP and NFM, in all about 47.7 per cent of the total labour force of Mahudi is employed in various non-farm activities. Thus about 90 per cent of the households and nearly one-half of the labour force of Mahudi derive its employment from different non-farm activities which are either seasonal or regular in nature, or available within or outside the village.

Having captured the magnitude of non-farm employment, an attempt is made below to understand the basic nature of both types of non-farm activities as well as some underlying factors explaining such type of occupational diversification.

Non-Farm Proper

The activities under NFM are mainly the result of increased local demand for different goods and services, or the expansion of governmental activities. In other words, various pull factors have enabled the labour force to take up or get employed under this non-farm category. Of course, it is possible that in many cases, the initial unemployment or under-employment might have pushed them to these activities.

Four major types of work may be seen under NFP (Table IV). While about 41 per cent under this category is employed in artisan/service activity, about 21 per cent could be seen in trade/business. The major activities being pursued under artisan/service are carpentry, broom-making, tailoring and traditional services like priest or drum beating. These are all skill-based activities and performed mostly on seasonal/irregular basis. The bulk of the female labour employed in non-farm proper in Mahudi could be seen under this activity. The trade and business includes activities like retail trade, grocery shop, livestock business, flour mill, etc., which are carried out mostly throughout the year. Another major activity under non-farm proper is doing jobs under government departments and programmes. Many with educational qualification have been able to get jobs like teacher, balwadi worker, clerk, soldier, driver, conductor, mechanic, attender, watchman, police, peon, postman, etc. These

are mostly regular jobs available outside the village and constituted about 27 per cent of the non-farm proper employment. The last category is that of factory workers or tractor drivers who are employed outside the village for most part of the year and accounted for about 11 per cent of the NFP labour force.

TABLE IV. DISTRIBUTION OF NON-FARM PROPER LABOUR FORCE
BY NATURE AND TYPE OF ACTIVITY

Activity (1)	Regular (2)	Seasonal (3)	Total (4)
1. Artisan/Service	7	31	38 (10)
2. Trade/Business	14	5	19 (1)
3. Government/Formal sector jobs	23	2	25 (3)
4. Factory workers/drivers/others	8	2	10 (2)
Total	52(6)	40(10)	92 (16)
Of which:			
I. Local	25	40	65 (13)
II. Self-employed	-	-	55 -

Figures in parentheses are data for female workers.

One major feature of the activities under NFP is that the bulk of the jobs (71 per cent) are within the village and are mostly regular (57 per cent) in nature. Further, nearly 60 per cent of them are self-employed. And interestingly, nearly 67 per cent of the households pursuing NFP do not opt for seasonal migration which probably speaks about its salutary effect.

Non-Farm Migratory

The NFM is the bigger of the two non-farm livelihood sources identified. As discussed earlier, about three-fourths of the households in Mahudi resort to seasonal migration in search of mainly unskilled jobs in the urban areas. Such migration is largely the result of distress factors like under-employment and compulsion to supplement the meagre farm income to meet both food and non-food needs. Because of lack of adequate employment opportunities within the village, both farm and non-farm, coupled with the growing surplus labour due to the small size of land and the burden of indebtedness, most of the households have been compelled to migrate during lean periods. Of course, the easy availability of unskilled jobs on a large scale in the towns and cities and also the developed transport facilities have lured a large number of workers from Mahudi as well as from all other neighbouring areas.

The seasonal migration is so rampant that in about two-thirds of the migrating households even female members migrated. Though on an average about 2.2 persons in a household migrate, the actual number varied according to the family size. Further, a little over two-thirds of the households migrated at least twice in a year, once during winter and once in summer.

The bulk (93 per cent) of the migratory labour force, both male and female, is engaged in various non-farm jobs like building construction, soil and road work, factory and loading work (Table V). These jobs are highly casual in nature with most of the workers entering into a daily-base contract. The wage rates varied from Rs.35 to Rs.60 depending upon the place and type of work done. On an average, a family worked for about 60-90 days and

earned anywhere between Rs.4,000 to Rs.10,000 in a year. The earning from seasonal migration has become such an important source of livelihood that even wage employment programmes like Jawahar Rozgar Yojana (JRY) or newly introduced irrigation in one of the hamlets have not been able to bring down seasonal migration on any significant scale (Shylendra, 1994).

TABLE V. DISTRIBUTION OF SEASONAL MIGRANT LABOUR BY NATURE OF WORK
(per cent)

Work (1)	Male (2)	Female (3)	Total (4)
Construction/soil and road work	80.2	85.5	82.1 (436)
Factory workers	6.8	3.4	5.5 (29)
Truck loaders	4.6	0.0	2.8 (15)
Agricultural labour	7.1	8.2	7.6 (40)
Others	1.5	2.9	2.1 (11)
Total	100.0 (324)	100.0 (207)	100.0 (531)

Figures in parentheses are actual numbers.

CONCLUSION

Thus growing population pressure, inability of rainfed agriculture to absorb surplus labour and general economic development have brought about occupational diversification of a significant order in a semi-arid village like Mahudi. Broadly, two types of non-farm activities have emerged in the process. One is that of non-farm proper which is largely the result of pull factors, and second is that of non-farm migratory which is largely the result of push or distress factors. Both these activities have now come to play a very significant role in the village economy touching about 90 per cent of the households and 48 per cent of the labour force. Given the reality of rapidly growing population, inability of NFP activities to expand faster and the inability of any intervention to bring about any drastic occupational changes, the NFM activity is therefore likely to remain as one of the major sources of employment and livelihood in the near future in Mahudi as well as in all other neighbouring areas.

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