2nd International Symposium on Work in Agriculture
Thinking the future of work in agriculture

March 29th – April 1rst, 2021
Clermont-Ferrand (France)

WS 1
Employment

Agriculture and Rural Labour Markets in India: Evidence from a Village Resurvey in Rural Karnataka

B. Satheesha [a]

[a] *Indian Institute of Technology Delhi, Hauz Khas, New Delhi, India*

Abstract: *This paper examines the association between agriculture and rural labour markets in India. The study is based on a detailed household survey of one village, namely Alabujanahalli, in Karnataka in 2008-09 and 2018-19. The village is located in Mandya, a southern district of Karnataka, and well connected to the two largest cities of Karnataka, Mysore, and Bangalore. The prosperity of the agriculture sector was the main factor responsible for the low degree of non-farm diversification in Alabujanahalli for a long time despite its proximity to urban centers. However, the recent survey shows some signals of intensification of non-farm diversification in the village. Our findings pointed towards three key factors that contributed to the growth of non-farm employment in Alabujanahalli in the recent period a) deepening problems in the agriculture sector b) the proximity of rural towns and c) the expansion of higher education.*

Keywords: *agriculture, labour market, non-farm diversification*

Introduction

India is witnessing a 'stunted' structural transformation (Binswanger-Mkhize, 2013). The agriculture sector continues to employ 59.4 per cent of India's rural workforce (188 million of total 316 million workers in 2017-18) (National Statistical Office, 2019). It is said that the non-farm diversification of rural employment which the country is witnessing is fraught with many problems (Thomas, 2012; Himanshu *et al.*, 2013). This paper is an attempt to understand the microlevel dynamics of employment diversification in rural India, given the country's macro picture. The paper is based on a field survey in a village in the Indian state of Karnataka.

Going by the insights given by the macro data sets, India's employment diversification away from agriculture has intensified, particularly in the late 2000s. The NSSO surveys registered an absolute fall in the size of India's agricultural workforce for the first time only during the 2004-05 and 2011-12. For example, between 2004-05 and 2011-12, 32 million rural workers moved out of agriculture. During the same period, the proportion of the rural workforce employed in agriculture declined from 72.7 per cent to 64.1 per cent. An important question is does the structural transformation has begun in India as suggested by Arthur Lewis? Dorin *et al.* (2013) found that the Lewis Path is only followed by the industrialized countries. On the other hand, Asia, including India, entered a "Lewis Trap" with an increasing number of farmers and a widening income gap between farm and non-farm workers. The study argues that land constraints and the productivity dynamics outside agriculture may be the major factors that prevent the transition of workers from agriculture to non-agriculture (Lewis Path).

The recent Periodic Labour Force Survey (PLFS 2019) shows that between 2011-12 and 2017-18, the process of structural transformation has slowed down in India with the share of agricultural workforce registered only a 4.7 percentage points decline against 8.6 percentage points decline in the previous period. Mehrotra and Parida (2019) observe that the decline of employment in the manufacturing and non-manufacturing (mostly construction) sector slowed down the process of structural transformation

which began after 2004-05 in the Indian economy. We argue that the performance of the agriculture sector in the country plays an important role in the employment diversification which we observing in India, particularly in the recent period. The period 2004-05 and 2011-12 had been favourable for the rural economy of India as agricultural production and rural wages rose impressively. However, the period after 2011 witnessed a reversal of this trend with both agricultural production and wages decelerating (Thomas and Satheesha, 2019).

In this background, this paper is an attempt to understand the role of the agriculture sector in determining the labour market outcomes in rural India by using micro-level evidence. The study is based on a detailed household survey of one village, namely Alabujanahalli, in Karnataka in 2008-09 and 2018-19. A striking feature of Alabujanahalli is the dominance of the agriculture sector for a long period despite the village's proximity to the rural towns and metropolitan city of Bangalore which is a major hub of non-farm employment opportunities. It is only in the recent period the village exhibiting some signs of employment diversification towards the non-farm sector. So, we try to identify some possible explanations for this distinct feature of Alabujanahalli.

Data and methods

Alabujanahalli is located in Maddur taluk in Mandya district, the prosperous agrarian region, and one of the most developed districts in the Southern Dry region of Karnataka. The nearest town to the village is K.M. Doddi, at a distance of 1.5 km. The nearest railway station is at a distance of 15 km, located in Maddur. The town of Mandya and the metropolitan city of Bangalore are located at a distance of 25 km and 95 km respectively from the village. The expansion of irrigation and the consequent change in cropping pattern explains largely the agricultural prosperity in the Mandya region and also its development as a major town.

Another important feature of Alabujanahalli is the development history of its location. The construction of the dam across the Cauvery river in the 1930s led to the expansion of irrigation and cultivation of sugarcane in a number of villages in Mandya including Alabujanahalli. Epstein (1962) well documented the role of irrigation in the development of Mandya as a major town and how it affected the socio-economic lives of two villages in Mandya, namely Wangala (which falls under the irrigation region of Cauvery) and Dalena (dry village). She argues that the expansion of irrigation leads to the transformation of Wangala from subsistence to cash economy. At the same time, it also strengthened the traditional agricultural economy of Wangala.

The major social groups in Alabujanahalli are "Backward Class" (BC) and "Scheduled Caste" (SC). The BC constitutes 88.2 per cent of the total population in 2018-19. Within the BC, we can find different sub-castes with a major proportion of the households belong to the Vokkaliga caste. The Adi Karnataka (SC) constituted 11.3 per cent of the total population in 2018-19.

The 2009 survey in Alabujanahalli was conducted by the Foundation for Agrarian Studies (FAS) as a part of its Project on Agrarian Relations in India (PARI). The resurvey of the village was carried out in two rounds, the first round in November-December 2018 and the second round in June-July 2019.

Agriculture in Alabujanahalli

Landownership

As per the Census of 2011, the total area of Alabujanahalli was 327 hectares. The net sown area of the village was 218 hectares with 94 per cent of the area under irrigation. In Alabujanahalli, the average size of operational holding among households was relatively low, 1.3 hectares in 2018-19.

Alabujanahalli is characterized by a low degree of landlessness with respect to operational holdings compared to rural Karnataka. In 2018-19, nearly 19 per cent of the total households did not have any operational holdings. In rural Karnataka, in 2012-13, 33.7 per cent of the total households did not have any operational holdings (Bansal *et al.*, 2018). The major proportion of households in Alabujanahalli belonged to marginal or small landholding size categories, 66.7 per cent of the total households in 2018-2019.

The caste-class nexus is very strong in Alabujanahalli. The average size of operational holding of Vokkaliga was 1.3 hectares and only 6.8 per cent of the households were landless in 2018-19. On the other hand, among sub-castes within BC excluding Vokkaliga, all the households belong to either landless or marginal landholding size class and the average size of operational holding was less than 1 hectare. Landlessness among SC households was 27.3 per cent in 2018-19 (Table 1).

	Vokkaliga	Besthar	Madivala	SC	Total
Landless	6.8	37.5	80.0	27.3	18.6
Marginal	45.2	62.5	20.0	72.7	46.1
Small	27.4	0.0	0.0	0.0	20.6
Semi-medium	16.4	0.0	0.0	0.0	11.8
Medium	4.1	0.0	0.0	0.0	2.9
Mean holding (in hectares)	1.3	0.3	0.0	0.3	1.0

Table 1. Distribution of households in different size-classes of operational holding by caste in Alabujanahalli, 2018-19, in per cent. *Source: Household sample survey, 2019.*

Cropping pattern and production

Sugarcane was the most remunerative crop in Alabujanahalli; in 2008-09 the net income was highest for sugarcane among all other crops. The main advantage of sugarcane cultivation is that after the first harvest of planted crops, farmers leave the roots and lower parts of the plants, this plant is called “sugarcane ratoon”. This could save the cost of preparing the field and planting. Also, ratoon sugarcane matures in 10 months while planted sugarcane takes 13 to 14 months to mature. However, after every harvest of ratoon sugarcane, the yield will decline and in Alabujanahalli, on average farmers continue to harvest ratoon sugarcane for 5 years, after that they plant sugarcane on their field (Sarkar, 2017). In 2018-19, 50.8 per cent of the gross cropped area was under the cultivation of annual crop sugarcane in Alabujanahalli. The *kharif* and *rabi* paddy had a combined share of 25.7 per cent in the gross cropped area followed by finger millet, 6.8 per cent, and mulberry, 6.3 per cent in 2018-19 (Table 2).

Compared to 2008-09, the area under paddy in the gross cropped area declined significantly in 2018-19. This is mainly due to a decline in the water supply from the dam which forced the number of farmers to keep their land fallow, particularly land under paddy cultivation. The proportion of operational holding

under current fallow was only 2.1 per cent in 2008-09 and the corresponding figure for 2018-19 was 13.6 per cent. This has led to the overall decline in cropping intensity from 134 to 115 during the same period. At the same time, the cultivation of sugarcane was not affected much by the water shortage because the majority of the farmers have private irrigation facilities for the area under sugarcane.

	2008-09	**2018-19**
All *kharif* crops (rainy season)	26.7	20.6
Paddy	23.7	18.6
Finger millet	1.0	1.9
Other	1.8	-
All *rabi* crops (winter)	25.2	12
Paddy	15.9	7.1
Finger millet	6.3	4.9
All annual and perennial crops	48.1	67.4
Sugarcane	35.6	50.8
Mulberry	6.6	6.3
Coconut (orchard)	2.2	8.3
Other	2.2	2
Gross cropped area (GCA)	100	100

Table 2. Area under different crops as a proportion of Gross Cropped Area (GCA) (in per cent), Alabujanahalli. *Source: Household census survey, 2009 and Household sample survey, 2019.*

	2008-09	**2018-19**
Average yield of major crops (kg per hectare)		
Sugarcane	86919	117523
Paddy	3954	4608
Finger millet	3707	3232
Average gross value of output (Rs per hectare (deflated))		
Sugarcane	90297	89036
Paddy	26598	22140
Finger millet	18043	16857
Sale price per quintal (in Rs)		
Sugarcane	105	260
Paddy	875	1547
Finger millet	783	2600

Table 3. Yield and output of major crops. *Source: Household census survey, 2009 and Household sample survey, 2019.*

The major *rabi* crop in Alabujanahalli is finger millet and accounted for nearly 5 per cent of the gross cropped area in 2018-19. The finger millet is mainly grown for household consumption, 77 per cent of the total finger millet production used for self-consumption, in 2018-19.

Table 3 shows the average yield, output, and sale prices of major crops in Alabujanahalli. The average yield and output of sugarcane include both planted as well as ratoon crops. The information on paddy is for both *kharif* and *rabi* seasons yield and output. The finger millet (*ragi*) is a *rabi* crop. The productivity of sugarcane and paddy increased during the last ten years. However, the increase has been substantial for sugarcane, between 2008-09 and 2018-19, the average yield per hectare increased from 86919 to 117523 kilogram. The average gross value of output is deflated by the respective whole sale price indices. The average gross value of output is higher for sugarcane, rupees 89036 in 2018-19, followed by paddy and finger millet. Interestingly, during 2008-09 and 2018-19, the gross value of output registered a decline for all the crops.

Labour market changes

Agricultural employment and wages

The total population of Alabujanahalli was 1194 in 2018-19, among them 47.6 per cent were employed. The employment in Alabujanahalli is dominated by agriculture. The Census data for various years show that the share of agricultural workers in the total workforce was nearly 90 per cent or above during 1971 and 1991. In the subsequent period, *i.e.* between 1991 and 2001, there had been a large dip in the workforce in agriculture, the share declined to 74 per cent. But the Census of 2011 shows an intensification of agriculture with the share of the agricultural workforce in total workforce touched 90 per cent. The recent survey of 2019 exhibits signs of non-farm diversification in Alabujanahalli with the proportion of the workforce in agriculture declined to 67.1 per cent (Figure 1).

In Alabujanahalli, the workforce is dominated by cultivators and this is common in southern districts of Karnataka. For example, in 2011, cultivators represented more than 40 per cent of the total workforce in southern districts and the corresponding figure for Mandya was more than 50 per cent (Census, 2011). In Alabujanahalli the share was 58.8 per cent in 2008-09. During 2008-09 and 2018-19 the workforce in agriculture registered a faster decline and this is true for both cultivators and casual employment. In 2008-09, cultivators and casual labourers in agriculture accounted for 58.8 and 21.2 per cent respectively in the total workforce and the share went down to 49.6 and 14.8 per cent by 2018-19. The caste-wise distribution of the workforce during 2008-09 and 2018-19 reveals that the share of the workforce dependant on agriculture has declined across all the castes in Alabujanahalli (except for Madivala) (Table 4 & 5).

In Alabujanahalli, Vokkaliga is the major landowning class and has a relatively high share of the workforce in agriculture, 85.5 per cent in 2008-09, largely cultivators. The last decade witnessed a diversification of employment away from agriculture among the Vokkaliga community with the employment share of the agricultural sector declined by 16.8 percentage points. However, agriculture continued to employ 68.7 per cent of the total employment in 2018-19. The Besthar and SC households in Alabujanahalli belong to the landless and marginal landholdings category with casual employment in agriculture as a major employment source. Though agriculture continues to dominate the total employment, during 2008-09 and 2018-19, Besthar and SC also experienced a movement of workforce away from agriculture.

Figure 1. Distribution of workforce by agriculture (cultivators+agricultural labourers) and other in Alabujanahalli, 1971 to 2019. *Source: Census of India, various years, and Household census survey, 2009, 2019.*

	2008-2009				2018-2019		
	Male	**Female**	**Person**		**Male**	**Female**	**Person**
Agriculture	81.4	81.6	81.5		67.9	64.6	67.1
a) Cultivators	66.1	39.5	58.8		57.0	28.6	49.6
b) Casual labour	14.1	40.1	21.2		10.2	27.9	14.8
Non-agriculture	18.6	18.4	18.5		32.1	35.4	32.9
a) Self-employed	7.4	5.9	7.0		8.1	5.4	7.4
b) Casual labour	1.5	2.6	1.8		1.7	2.7	1.9
c) Regular	9.7	9.9	9.7		22.3	27.2	23.6

Table 4. Distribution of workforce by activity status (in per cent), Alabujanahalli. *Source: Household census survey, 2009 and 2019.*

The Madivalas show a different picture from the broad trends observed in employment diversification in Alabujanahalli. Between 2008-09 and 2018-19, their employment share in agriculture has increased from 35.3 per cent to 50 per cent. Madivala households are land poor and traditionally engaged in laundry work. Households reported that laundry work is no more remunerative now, as a result, some of the households abandoned the traditional occupation permanently and either shifted to agriculture or migrated to Bangalore.

In line with the trends observed at the national level and in Karnataka, the growth of real wages in agriculture was not impressive in Alabujanahalli between 2008-09 and 2018-19. The real wages for agricultural labourers in Alabujanahalli increased only by Rs 1 for males and Rs 2 for females. In Alabujanahalli, rice and finger millet (*ragi*) are the staple foods and we measured nominal wage in terms of rice and *ragi* (for males). During 2008-09 and 2018-19, the rice wage rate increased by 4 kg per day while the *ragi* wage rate declined by 4.2 kg per day. This is due to a large increase in the sale price of ragi in the last decade. In 2008-09, the per kg price of *ragi* was 7.8 rupees and it rose to 26 rupees by 2018-19 (Table 6).

	2008-09					2018-19			
	Vokkaliga	**Besthar**	**Madivala**	**SC**		**Vokkaliga**	**Besthar**	**Madivala**	**SC**
Agriculture	85.5	90.0	35.3	79.5		68.7	72.5	50.0	59.7
a) Cultivators	74.8	30.0	5.9	36.1		59.9	32.5	10.0	16.9
b) Casual labour	9.1	60.0	26.5	42.2		6.7	37.5	30.0	40.3
Non-agriculture	14.5	10.0	64.7	20.5		31.3	27.5	50.0	40.3
a) Self-employed	4.8	2.5	47.1	0.0		6.4	12.5	30.0	3.9
b) Casual labour	0.5	0.0	2.9	7.2		1.2	2.5	5.0	3.9
c) Regular	9.1	7.5	14.7	13.3		23.6	12.5	15.0	32.5

Table 5. Distribution of workforce by activity status across different caste groups (in per cent), Alabujanahalli. *Source: Household census survey, 2009 and 2019.*

	2008-09		2018-19	
	Male	**Female**	**Male**	**Female**
Nominal wage (Rs per day)	113	51	264	131
Real wage (Rs per day at 1986-87 prices)	25	11	26	13
Rice wage (kg/day)	12.9	-	17.1	-
Ragi wage (kg/day)	14.4	-	10.2	-

Table 6. Wages for casual labour in agriculture, Alabujanahalli. *Source: Household census survey, 2009 and Household sample survey, 2019. Note: Rice and ragi wage calculated by dividing nominal wage by sale prices of rice and ragi in Alabujanahalli.*

We found that casual employment in agriculture is no more considered a major livelihood option by the local workers in Alabujanahalli. The field observation provides some possible explanations for the stagnation of real wage growth in Alabujanahalli. First, there are some cases of attached labour reported in Alabujanahalli. In one case the worker said that 6 years back he borrowed money from a rich farmer in the village to meet medical expenses and since then he has been working for him. The average wage rate is 300 rupees per day and the employer deducts 100 rupees from the wage as interest. The worker wants to look for other jobs, however, the employer is allowing him to neither work on others' farm nor move out of the village. The 2008-09 survey also reported the presence of bonded labour in Alabujanahalli. Second, an influx of migrant workers could also have depressed wage growth in the village. Third, low non-farm diversification and the absence of MGNREGA employment also would have resulted in lower reservation wages.

Non-farm diversification

Agriculture continues to be the major source of employment in Alabujanahalli, however, the recent survey exhibits some signals of the diversification of employment towards the non-farm sector. Strikingly, the workforce who exited from agriculture was largely absorbed in regular jobs in the non-farm sector. The relative share of regular employment in non-farm employment, which was already high

at 52.4 per cent in 2008-09, rose further to 71.2 per cent in 2018-19. Moreover, along with males, females also benefitted from the employment opportunities opened up in the non-farm sector.

The distribution of non-farm activities is varied across different caste groups. If you look at the dominant caste Vokkaliga, in 2008-09, the non-farm sector accounted for only 14.5 per cent of the total employment and the proportion increased to 31.3 per cent in 2018-19. The growth of non-farm employment was fueled by the rise in regular sector jobs. Between 2008-09 and 2018-19, non-farm sector employment increased by 16.8 percentage points, and 86 per cent of the total rise contributed by regular employment (Table 7).

During the period 2008-09 and 2018-19, the non-farm employment share in total employment for SC doubled, from 20.5 per cent to 40.3 per cent. The SC households succeeded in transferring their workforce from low-paid and unskilled occupations to relatively skilled occupations in the last decade, *i.e.* in 2018-19, nearly 81 per cent of the non-farm employment generated in the regular sector. At the same time, the workforce dependence on casual employment declined from 7.2 per cent to 3.9 per cent during the same period (Table 7).

For Besthar workforce, self-employed activities and regular employment emerged as a major non-farm employment source. The Madivala households are traditionally engaged in non-farm sector employment of laundry work. However, the share of the Madivala workforce that depends on laundry work declined between 2008-09 and 2018-19 due to low profitability and either migrated to cities in search of better employment or shifted to agricultural work. This led to a decline in the proportion of the workforce employed in the non-farm sector in the last decade.

	2008-2009	**2018-2019**
Professionals	20.4	31.6
Accountants & clerks	4.9	6.4
Service & sales workers	18.4	15.0
Business/shop owners	16.5	12.3
Transport related activities	3.9	7.0
Trades workers & operators	2.9	4.3
Manufacturing	13.6	15.5
Elementary occupations	19.4	8.0
Total	100	100

Table 7. Distribution of workers in various non-agricultural activities, Alabujanahalli.

The important features of change in the nature of non-farm employment during 2008-09 and 2018-19 were, first, a rise in service-related employment such as skilled professional jobs, accountants & clerks, and transport-related activities. The combined share of these activities in non-farm employment (including service, shop/market sales workers) increased from 47.6 per cent in 2008-09 to 60 per cent in 2018-19. The workforce engaged in business-related activities including small shops registered a decline during the same time. Second, a rise in manufacturing-related employment, in particular, fitter, mechanic, and packing related activities in the factories. Thirdly, workers employed in low paying elementary occupations, in particular laundry work, declined from 19.4 per cent in 2008-09 to 8 per cent in 2018-19 (Table 7).

The villagers reported a complete absence of MGNREGA works from the last few years. NSS data also shows the poor record of Karnataka in implementing MGNREGA (Pattenden 2017).

Pluriactivity

Pluriactivity in Alabujanahalli registered a decline in the last decade. In 2008-09, 51.3 per cent of the total workforce engaged in more than one activity and the proportion declined to 44 per cent by 2018-19. However, there has been a rise in the pluriactivity among the agricultural workforce. Between 2008-09 and 2018-19, 53.5 per cent of cultivators and 57.3 per cent of casual labourers in agriculture depend on more than one activity and the share increased to 66.4 percent and 66.7 per cent respectively in 2018-19. In 2018-19, cultivators engaged in an average of 2 activities, and the corresponding figure for casual labour was 1.8.

The structure of pluriactivity has also been undergone considerable changes in the last decade. Allied activities of agriculture such as animal husbandry and sericulture emerged as major secondary sources of employment, particularly for cultivators (Table 8).

Primary activity	Secondary activity						Average number of activities
	Cultivation	Animal husbandry	Sericulture	CL in agriculture*	Non-agriculture	Total	
2008-2009							
Cultivation	0	6.4	19.9	16.2	11	53.5	1.73
CL in agriculture	12.8	2.6	2.6	0	39.3	57.3	1.74
Non-agriculture	13.6	1	1.9	8.7	10.7	35.9	1.44
2018-2019							
Cultivation	0	20.9	30.9	7.3	7.3	66.4	2.13
CL in agriculture	15.2	36.4	9.1	3	3	66.7	1.76
Non-agriculture	5.4	2.7	4.5	0.9	0.9	14.3	1.11

Table 8. Proportion of workforce reporting various second activity sources of employment by primary activity (in per cent), Alabujanahalli. **Note: Casual labour in agriculture.*

Explaining the labour market outcomes

Stock of workers in agriculture

Agriculture employs about 67 per cent of the total workforce in agriculture in Alabujanahalli. One of the important factors which explain the large stock of workers in agriculture in the village is its agrarian structure, *i.e.* cropping pattern and land distribution. Better access to irrigation facilitated the cultivation of sugarcane and paddy, the crops are not only water-intensive but also labour intensive. Dhar et. al (2017) note that the quantity of labour used in agriculture is very high in Alabujanahlli which is mainly due to the extensive and intensive cultivation. Around, 75 per cent of all the land in the village was allocated for crop cultivation and crop production in Alabujanahalli was intensive and was undertaken round the year. The major crops grown in the village are highly labour intensive crops, in particular sugarcane.

Another important feature of Alabujanahalli is the low level of landlessness and relatively small size of operational holdings. This is also reflected in the occupational structure of the village. The employment in the village is dominated by the cultivators, nearly 50 per cent of the total workforce. The share of casual labour in agriculture was 15 per cent. The major supply of local workers comes from landless

households which mainly belong to Besthar and SC. At the same time, the dominant caste Vokkaliga were largely owner-cultivators. In 2018-19, 60 per cent of the Vokkaliga workforce were cultivators.
The village's proximity to the rural towns and cities also caused the sustenance of agriculture in the village. The economy of Alabujanahalli is well integrated into the regional economy through the sale of sugarcane, supplying raw materials such as paddy and silkworm cocoons for agro-processing industries. Similarly, farmers also utilize the growing markets for coconut and milk. Purushothaman and The rich farmers owned townships and houses in K.M. Doddi and received rental incomes. Similarly, they also own a rice mill, cinema hall, marriage hall, finance, and printing press in nearby towns. Patil (2017) observe that the growth of Mandya town and connectivity to major cities provided supplementary sources of income for farmers of peri-urban villages around Mandya which helped them to sustain in agriculture.

Migration into agriculture

Sugarcane occupies more than 50 per cent of the gross cropped area of Alabujanahalli. It is an annual crop and the cultivation requires a high amount of labourers. The rough estimates based on the information provided by the farmers reveal that on average 198 labour days (1 labour day is equal to 8 hours) are required for cultivating one hectare of sugarcane. The most labour-intensive operation in sugarcane cultivation is harvesting which consumes, on an average, 74 labour days per hectare. The available casual workers in the village are not sufficient to meet the labour demand and the workers are not willing to do the harvest due to the arduous nature of the work and the health risks associated with it. As result, the harvesting of sugarcane is majorly performed by the migrant workers from the dry regions of Karnataka, particularly from the district of Bellary. The seasonal immigration in Mandya is not a new phenomenon. Landy (1992) observed seasonal migration into the sugarcane cultivation in Mandya in the 1990s.

Movement of workers out of agriculture

The workforce who exited from agriculture in the last decade in Alabujanahalli is largely young workforce *i.e.* workforce belonging to the age group between 15 to 34. In 2008-09, the workforce between the age group 15 to 34 accounted for 36.4 per cent total agricultural employment and by 2018-19 the share declined to 22.6 per cent. All the caste groups experienced a diversification of employment towards the non-farm sector, however, diversification has been higher for SC. If you look at the location of non-farm employment, employment opportunities generated in a nearby town that are accessible through daily commuting contributed to the non-farm diversification among socially and economically backward sections of the society. On the other hand, migration from the village, particularly to Bangalore, constitutes a major part of the non-farm diversification of the dominant caste (Vokkaliga).
Alabujanahalli made notable improvements in higher education in the last decade and this could have enabled the younger workforce to access better employment in the non-farm sector. In the non-farm sector, nearly 94 per cent of the workforce were literate in 2018-19. Within that, the share of graduates registered a large increase between 2008-09 and 2018-19. The expansion of education, especially higher education, in Alabujanahalli is driven by the institutions located nearby towns rather than big cities.
Apart from the expansion of education and the village's vicinity to rural towns and metropolitan cities, deepening issues in agriculture also might have contributed to the non-farm diversification in the recent period in Alabujanahalli. Among them, important issues which farmers facing in the last few years are, delay in payment from the sugarcane factory, a decline in the water level and issues related to timely

releasing of water to canals, and labour availability, in particular local labourers. Similarly, casual employment in agriculture is not a preferred employment option.

Summary and conclusion

This study is an attempt to understand the importance of agriculture in rural development by using the evidence obtained from a detailed household survey of a single village, Alabujanahalli, in Southern Karnataka during 2009-10 and 2018-19. The village is largely an agrarian economy with a major proportion of the village's workforce being employed in agriculture. The cropping pattern, the structure of land ownership, and the village's good connectivity to towns, and the integration of markets played an important role in the sustenance of agriculture and its prosperity. However, in the recent survey, the labour market in Alabujanahalli has undergone some changes with an intensification of non-farm diversification, rise in pluriactivity, migration into agriculture, and low growth of agricultural wages. We also attempted to provide some possible explanations for the labour market changes in Alabujanahalli. The important question is does the development experience of Alabujanahalli is similar to the path described by Arther Lewis? Our answer is 'no'. Given the development history of the region and location of Alabujanahalli, it had all the opportunity to transfer its workforce to the non-farm sector. However, the village continues to remain largely agrarian. We found that the village's proximity to rural towns and cities ensured a market for agricultural produce and secondary sources of income for farmers. Moreover, the vicinity of towns also provided better access to education, in particular higher education, which helped the young workforce to find jobs in regular sectors of non-farm employment. The economic condition of all the sections of the society improved but dominant caste groups were more successful in raising their income and wealth. The experience of Alabujanahalli clearly shows that the village succeeded in achieving a better economic life without achieving broad structural transformation. The recent labour force survey shows that the absorption capacity of the non-farm sector in India declined significantly and a large increase in the unemployment rate. Given this background, the story of Alabujanahalli underlines the importance of investment in rural infrastructure such as road network and connectivity, education, irrigation, etc. which can provide alternative employment opportunities for rural households.

References

Bansal V., Usami Y. and Rawal V., 2018. An Analytical Report and A Compendium of Statistical Tables based on NSSO Surveys of Land and Livestock Holdings, *Society for Social and Economic Research Monograph* 18/1, New Delhi.

Binswanger-Mkhize H. P., 2013) The stunted structural transformation of the Indian economy: Agriculture, manufacturing and the rural non-farm sector, *Economic and Political Weekly,* 48 (26/27).

Dhar N.S., Das A. and Sivamurugan, 2017. Manual Workers in Rural Karnataka: Evidence from Three Villages, *in* Swaminathan, Madhura and A. Das (2017) (edited), *Socio-economic Surveys of Three Villages in Karnataka: A Study of Agrarian Relations*, New Delhi, Tulika Books.

Dorin B., Hourcade J.-C. and Benoit-Cattin M., 2013. *A World without Farmers? The Lewis Path Revisited*, Nogent sur Marne, CIRED.

Epstein T.S., 1962. *Economic Development and Social Change in South India*, University of Manchester Press: England.

Himanshu, Lanjouw P., Murgai R. and Stern N., 2013. Nonfarm diversification, poverty, economic mobility, and income inequality: a case study in village India, *Agricultural Economics* 44(4-5).

Harriss J. and Jeyaranjan J., 2016. Rural Tamil Nadu in the Liberalization Era: What Do We Learn from Village Studies? *In* Himanshu, Praveen Jha and Gerry Rodgers (eds), *The Changing Village in India: Insights from Longitudinal Research*, United Kingdom: Oxford University Press.

Himanshu P.L., and Stern N., 2018. *How Lives Change: Palanpur, India and Development Economics*, United Kingdom, Oxford University Press.

Landy F., 1992. To Migrate or to Stay in the Maidan: A survey in two rural systems in South Karnataka, *Pondy Papers in Social Sciences* number 10, French Institute, Pondicherrry.

Lavanya B.T., and Manjunatha, 2018. The Grey Shades of Sugar Policies in India, *Economic and Political Weekly,* 53 (46).

Pattenden, J., 2016. *Labour*, *State and Society in Rural India: A Class-Relational Approach,* Manchester: Manchester University Press.

Ramakumar R., 2017. The Agrarian Economy of Karnataka, *In* Swaminathan, Madhura and A. Das (edited), *Socio-economic Surveys of Three Villages in Karnataka: A Study of Agrarian Relations*, New Delhi, Tulika Books.

Purushothaman S. and Sheetal Patil, 2017. Regional Economies and Small Farmers in Karnataka, *Economic and Political Weekly,* 52 (46).

Sarkar B., 2017. Cropping Pattern, Yields, and Crop Incomes: Findings from the Three Villages Surveyed in Karnataka, *In* Swaminathan M. and Das A. (2017) (edited), *Socio-economic Surveys of Three Villages in Karnataka: A Study of Agrarian Relations*, New Delhi, Tulika Books

Sharma N.K., and Rodgers G., 2015. Structural Change in Bihar's Rural Economy: Findings from a Longitudinal Study, *Economic and Political Weekly,* 50 (52).

Thomas J.J., 2012. India's Labour Market during the 2000s: Surveying the Changes", *Economic and Political Weekly* 48 (51).

Thomas J.J. and Satheesha B. (unpublished), 2019. *Wages, Internal Migration and Labour Markets: An Analysis of Indian States,* New Delhi, International Labour Organization.

Thomas J.J. and Satheesha B. (forthcoming), Agriculture and Rural Labour Markets in India, *In* Rajesh Raj S.N. and Komol Singha (eds.), *The Routledge handbook of Post-Reform Indian Economy:* Routledge.