

QUALITY OF EMPLOYMENT IN AN EMERGING ECONOMY: A MICRO LEVEL STUDY IN WEST BENGAL

Dr. Chitrita Bhowmick Chakrabarti
Assistant Professor, Department of Economics,
Victoria Institution (College), Kolkata

Samprit Chakrabarti
Faculty Member, IBS Business School, Kolkata

Abstract

The development status of an emerging economy is determined by the sectoral participation of workers and the related earnings there from. Employment strategy also depends on this development status. Presence of significant percentage of unemployment particularly in the rural areas of the emerging economy, demands much attention on rural employment generation. In the context of India, diversification in rural employment has gained significant importance over time which has been studied by several researchers over the past two decades. The studies based on the analysis of secondary data reveal that the excessive dependence on agriculture as a source of livelihood show a steady decline and the rural economy has witnessed a modest degree of diversification. By using micro level data, present paper makes an attempt to analyze the occupational choice of workers in non-farm sector and to measure the quality of employment. This paper emphasized mainly three aspects: i) workers choice of occupation, their employment, earnings per day and from different modes of employment ii) construction of Employment Quality Index (EQI). To compute EQI, not only the earned income of workers but also other aspects of economic security and individual functioning that influence employment conditions are taken into consideration using the information at the individual worker level. iii) Incidence of poverty comparison. Such analyses are important to provide proper policy measures at the micro level.

Key Words: Emerging economy, Employment Quality Index, Micro level data, Rural employment.

Introduction:

The development status of an economy is determined by the sectoral participation of workers and the related earnings there from. Employment strategy also depends on this development status. Presence of significant percentage of unemployment particularly in the rural areas demands much attention on rural employment generation. However, the presence of significant percentage of poor people in the rural areas also attracts attention to generate productive or qualitative employment.

Qualitative aspect of employment is as important as the quantity. The quality of employment can provide some valuable insight into the nature of poverty and vulnerability. Low pay, variable levels of income and the other factors that are not incorporated in the standard employment or occupation data may cause poverty. The measurement of quality of employment highlights the particular determinants of poverty and enables to address the core issue in poverty reduction strategies. Improving the quality of employment and raising level of living standard of workers are important as the central concerns of the growth process in India is to realize the dream of inclusive growth.

Considering the scenario, in this paper, we present the findings on employment and its related aspects from our primary survey data in the four villages of the district of Nadia. Occupational choice of the workers, their employment from the farm and the non-farm sector and from different modes of employment within the farm and the non-farm sector and their earnings are analyzed. However, our particular emphasis is on the non-farm sector. To measure the quality of employment at the micro level we used information of the non-farm workers¹ only. Their earnings from different non-farm activities and other conditions of work help to calculate Employment Quality Index (EQI).

Accordingly, this paper consists of seven broad sections. Section-II explains data source and methodology, Section-III discusses the issues such as sectoral distribution of workers, modes of employment, employment per worker and earnings per worker per day. Computations of earnings per man-day and also from different modes of employment are used to construct EQI. The present labour market conditions² and the incidence of poverty particularly in the rural area have raised new questions not only on the quantity of employment but also on the quality of employment. Therefore, Sections IV, V and VI attempts to identify the major non-farm activities in which the workers in the study regions are participated (Section-IV); Quality of employment and its measurement is presented in Section-V. Section VI analyses the incidence of poverty comparison in the studied region and finally, Section-VII summarizes the main findings and give some policy measures.

II. Data Base and Methodology:

This study is based on primary data collected from the Nadia district of West Bengal. The district of Nadia consists of 17 administrative divisions, called blocks. Two blocks (Krishnanagar-II and Nakashipara) out of seventeen blocks in the district are chosen for field survey. The percentage share of non-farm employment in total employment is same and it is nearly 48 percent. Consequently, the share of agriculture in total employment is also same. But, considering the percentage of households in the rural area, living below the poverty line, we can see that 29 percent of households in Krishnanagar-II in the rural areas are living below the poverty line and the corresponding figure for Nakashipara is 46

¹ in advanced region, for 160 workers non-farm employment is the principal occupation and in the backward region the corresponding figure is 212.

² increasing casualisation of workforce, increase in the percentage of workers in the unorganized sectors.

percent. Therefore, there is significant difference in the incidence of poverty (though they have the same sectoral distribution of workers between the farm and the non-farm sector).

From each block 2 villages are chosen randomly. Belpukur under Belpukur Gram Panchayat and Sonatala under Noapara-II Gram Panchayat are selected. These two villages are agriculturally advanced³ (and henceforth constitute advanced region of our study) and Muragacha under Muragacha Gram Panchayat and Dharmada under Dharmada Gram Panchayat are chosen and they are relatively agriculturally backward (and constitute backward region of our study)⁴.

We prepare a complete list of households for each village. The total households in each of the four villages have been classified into four categories:

- i) landless,
- ii) medium land owners i.e. owned 0.01 acres to 0.99 acres,
- iii) small land owners i.e. owned 1.00 acres to 2.49 acres.
- iv) we combine⁵ all land owners i.e. owned 2.50 acres and above.

At the final stage, households were randomly selected from each of these strata, in each of the villages. Each of the sample size is a weighted representation of their corresponding size of the strata. Therefore, the households are so chosen that they represent different landholding strata starting from landless to large landholders. Following this principle, 65 and 85 households were selected from the two villages, grouped under the advanced region. Similarly, 95 and 55 households were selected from the two villages, classified under the backward region. Therefore, in total, 300 households were selected for field survey. The sample households are surveys at two points of time during the agricultural year July 2010 to June 2011 (Once in December, 2010 and again in mid of May to June, 2011). This is done to achieve accuracy in data collection. We analyzed primary data both at the household level and at the individual worker level.

In our study farm sector employment is obtained by summing over employment for crop production, livestock, fishery etc and agricultural wage labour. Non-farm employment is obtained by summing regular employment, self-employment activities and casual employment in non-farm sector. Income from crop production is the difference between value of output and all paid out cost as well as imputed value of inputs (except family labour), we consider 'net income' for livestock, fishery etc. In case of agricultural labourers we consider their wage earnings less their transporting cost. On the other hand non-farm income is obtained by summing income from regular employment, self-employment and non-farm wage employment. Here, we also consider their 'net income'.

³ we consider agricultural performance of our study villages as agrarian structure is an important determinant of labour use option particularly in the rural areas. Agricultural performance is based on the productivity and yield rates of Principal crops.

⁴ These two villages are also identified as Backward villages by Rural Household Survey, 2005, undertaken by the Panchayet and Rural Development, Government of West Bengal.

⁵ We combine them as the numbers of large land owners are extremely low in our study region.

III. Distribution of workers by sectors and modes of employment:

This section analyses the distribution of 563 workers surveyed according to their source of employment (See Table-1). The distribution of workers (both in absolute terms and in percentage terms) for the advanced region and backward region in different modes employment is presented (see Table-2). We also examine data on days of employment per worker and earnings obtained per day per worker for advanced region and the backward region (Table-3). Table-3 provides information on the modes of employment, employment per worker and earnings per man-day for combined region. It is also important to note, in rural area, a worker is often involved in more than one kind of job, even in a day. This is particularly true for casual wage employment which is seasonal in nature or lasts for very short time in a year. Therefore, while distributing the workers between farm and non-farm sector and also in different status of employment, 'the major time spent' criteria is chosen.

1. Sectoral distribution of Workers

Workers choice of employment broadly divided between two sectors- farm and non-farm sector. Their participation in farm and non-farm sector is determined by many factors but in overall it determines by the characteristics of the concerned region. In agriculturally advanced region, it is generally expected to employ more workers in the farm sector compare to agriculturally backward region. Consequently, in this region non-farm sector are likely to employ more workers than the farm sector. To obtain an overall picture of the distribution of workers in study regions, in Table-1, we present the percentage distribution of workers (and also the absolute number) between the farm and the non-farm sector for male, female and persons. Data reveals that 57 percent of workers in the backward region is employed in non-farm sector and the corresponding figure for advanced is also significant and it is 43 percent. Therefore, both in the advanced and backward region, non-farm sector are an important source of employment for rural workers. Combining, advanced region and the backward region, out of 563 workers surveyed, a significant percentage (66 percentages) of the main workers is employed in the non-farm sector.

In rural areas, workers are involved in more than one work even in a day. This may due to the non-availability of sufficient earnings from their main source of occupation. They are, therefore, looking for some alternative source of employment. Percentage distribution of workers having secondary source of income (see Table-1) reveals that a significant percentage of workers (nearly 70 percent) in the backward region are multi-active. The corresponding figure in the advanced region is 49 percent.

2. Modes of employment of workers

In the farm sector workers are employed either as cultivators or as agricultural wage labour. Sometimes, small and marginal cultivators are participated in agricultural wage employment. However, here we categorise workers as cultivators or agricultural workers on the basis of 'major time spent' criteria. For all workers in the combined region, nearly 54 percent employment is generated through self-employment and 46 percent generated through wage labour in the farm sector (see Table-3). In the advanced region, percentage of self-employed worker is 51 percent and percentage share of agricultural wage labour is 49 percent. The corresponding figure in the backward region is 59 percent and 41 percent respectively. Combining all sources of employment, within the farm sector, 42 percent are employed in the advanced region and in the backward region; the corresponding figure is 26 percent.

Distribution of workers in the non-farm sector (see Table-2 and 4) reveals that wage employment or casual employment is the important source employment of workers. Considering all non-farm workers in the advanced region and backward region, 50 percent are employed as casual labour. The incidence of casual non-farm employment is higher in the backward region (74 percent) than that in advanced region (nearly 58 percent).

Second important source of non-farm employment in combined region is self-employment. Nearly 30 percent of workers are found to be self- employed. It is important to note that percentage of self-employed non-farm workers in the backward region (nearly 22 percent) is significantly lower than that in the advanced region (41 percent).

Regular employment is the most stable and viable form of employment for the workers. Combining advanced region and the backward region, 20 percent of workers are employed as regular workers. The percentage share of regular non-farm employment in advanced region (26 percent) is higher than that in the backward region (nearly 16 percent).

Now, we consider percentage distribution of workers within the non-farm sector for male and female workers separately. Table-4 reveals that overall participation of female workers in combined region is depressing. The percentage share of females in regular employment is only 3 percent and in self-employment the share is 4 percent. Nearly 16 percent of female workers are employed as casual workers. This trend of female work participation is also true if we consider their participation in advanced and backward region separately.

Lack of education, proper skill and training creates an obstacle to their participation in non-farm activities. It is important to note that, women are generally employed in household base non-farm activities. These activities are mainly regulated by Mahajans in the nearby villages or in the urban centre. Low pay, delay of payments pushes them to declare as unemployed rather than to participate in such low paid work.

For male workers, in the combined region, the important source of employment (in percentage term) is self-employment and only 17 percent of male non-farm workers are employed as regular workers. These percentage shares show the depressing features of labour market in our study region.

3. Employment per worker

The extent of diversification by the workers can be analysed by looking into employment per worker and earnings per worker per man-day (in Rs) through the farm and non-farm sectors. It is also important to identify the significance of different modes of employment within the farm and the non-farm sectors. In our primary field survey, we collected such data on employment days⁶ generated by the farm and non-farm sector and also by different modes of employment within the farm and the non-farm sectors. Table-3 provide a comparison of employment per worker between sectors as well as between two study regions. In the advanced region, considering employment from both farm and non-farm sector and from all modes of employment, employment per worker is 237 man-days. If we consider farm and non-farm sector separately, farm sector generated 247 days of employment and non-farm sector generated 230 days of employment. Therefore, farm sector generated more employment days

⁶ 8 hours of work is equal to one employment day.

than the non-farm sector. In the backward region, 243 man-days of employment per worker are generated through farm and non-farm sector. Thus, employment per worker in the backward region is marginally higher than that in the advanced region. Non-farm sector, in the backward region, generated 231 man-days of employment per worker. Farm employment days per worker in the backward region are high due to small sample size.

Combining the advance region and the backward region and all sources of employment, each worker gets nearly 240 man-days of employment in a year. Man days of employment in the farm sector are higher than that in the non-farm sector. Farm sector in the combined region generates nearly 258 man-days of employment in a year, the non-farm sector, on the other hand, generates 231 man-days in a year.

Within the farm sector, both in the advanced region and in the backward region, annual employment day per worker is higher for cultivators than that for the agricultural wage labour (AW). Self-employed workers (cultivators) have worked for 12-13 hours per day during the period of harvest and therefore, the overall annual employment days for these workers are higher. In the backward region also, the annual employment days for self-employed workers is higher than that for agricultural workers. This signifies that in our study region land owners themselves are working for their land and they employ or hire labour during the peak season.

It is already mentioned that within the non-farm sector, casual wage employment is the important source of employment. However, in terms of man-days of employment, casual employment does not provide higher annual employment days to the workers within the non-farm sector, both in the advanced region and in the backward region. The second important source of employment within non-farm sector is self-employment and it provides maximum employment days to each worker in the backward region (291 man-days). In the advanced region, the corresponding figure is also significant and it is nearly 251 man-days. This is due to the fact that there are some self-employment activities both in the advanced region and in the backward region like self-employed weavers, village shop owners (particularly Grocery), potters and tour conductors, where they are engaged for at least 12-14 hours per day and this is equivalent to one and half man-days of work. Regular employment provides the maximum number of employment days to each worker in the advanced region compare to other modes of employment within the non-farm sector. In the advanced region; non-farm regular employment generates 268 man-days. It provides maximum number of employment days but its share (in percentage term) in total non-farm employment is 26 percent.

In overall, above analysis reveals that within farm sector, per worker employment days is higher mainly due to self-employed (cultivators) workers. They worked for 12-13 hours per day and therefore raise the total number of employment days. Non-farm sector, on the other hand, employ significant percentage of workers both in the advanced region and in the backward region and generates significant number of employment days. However, to study the importance of a particular sector and a specific mode of employment, it is also important to evaluate the earnings per worker from the different sectors and by different modes of employment. In the next section we examine earnings per worker.

4. Earnings per worker per day

In this section we analyse earnings per worker per day from the farm and the non-farm sector. It is found that earnings per worker from the non-farm sector is higher than the farm sector both in the advanced region and in the backward region (see Table-3). In the advanced region, earning from farm sector is nearly Rs 99 compare to Rs74 in the backward region. Per day earnings in the non-farm sector is significantly higher (Rs 172 per day) compare to the farm sector. It is also important to note that, though, per worker non-farm employment days in the backward region is higher than that in the advanced region, per worker earnings in the backward region (Rs 118) is lower than that in the advanced region (Rs 172). Therefore, in the backward region, higher non-farm employment days are not associated with the higher returns from the sector. In the advanced region, within the farm sector, earnings per day per worker from self-employment are much higher than that for the agricultural wage labour. For the self-employment workers in the farm sector, earning per day per worker is Rs 122 compare to Rs 75 for the agricultural wage labour. In the backward region, though employment per worker in man-days is significant for both self-employment and agricultural wage labour but it does not generate productive employment as earning per worker per day for cultivators is Rs71 and it is almost same as earned by the wage labourers (Rs78).

Within the non-farm sector, as we mentioned, casual employment is the important source of employment. However, in term of generating employment per worker (in man-days) and earnings per man-day (in Rs), the figure is depressing. It is only Rs 64 per man-day in the advanced region and Rs 71 per man-day in the backward region. Regular employment is the most remunerative form of employment within the non-farm sector. Earning per day for each regular worker in the advanced region is Rs 418 and in the backward region, the corresponding figure is Rs 329. Self-employment is the second important source of employment in terms of absorbing labour. Earnings, per man-day for self-employed workers in the advanced region are Rs100 and in the backward region are Rs 128. Therefore, self-employed workers are better off in terms of per day earning than the casual workers. Such analysis reveals that there are discriminations among the workers both in the advanced and in the backward region, in terms of earnings per man-day. Majority of workers surveyed both in the advanced region and in the backward region are employed as casual labour in the non-farm sector but it has lower return compare to the other modes of employment. This reflects the inability of the farm sector to generate productive employment. So to avail some alternative source of employment rural workers 'pushes' towards this low paid casual work. Table-3 also reveals that discrimination among workers in the backward region is more than that in the advanced region. In overall, considering farm and non-farm sector and all sources of non-farm employment, earnings per worker in the advanced region (Rs 141) is higher than that in the backward region (Rs107).

Table - 1: Percentage Distribution of workers in Farm and Non-farm Sectors

Village	Total Population	Number of Workers									% of workers having secondary source of income
		MALE			FEMALE			PERSON			
		TW	F	NF	TW	F	NF	TW	F	NF	
BELPUKUR	6590	79.73 (118)	100.00 (36)	73.21 (82)	20.27 (30)	0 (0.00)	26.79 (30)	53.24 (148)	30.51 (36)	70.00 (112)	29.05
SONATALA	6693	96.15 (125)	100.00 (82)	89.58 (43)	3.85 (05)	0.00 (0)	10.42 (05)	46.76 (130)	69.49 (82)	30.00 (48)	71.54
ADVANCED REGION	13283	87.41 (243)	100.00 (118)	78.13 (125)	12.59 (35)	0.00 (0)	21.88 (35)	49.38 (278)	61.78 (118)	43.01 (160)	48.92
MURAGACHHA	9127	82.70 (153)	100.00 (52)	75.94 (101)	17.30 (32)	0.00 (0)	24.06 (32)	64.91 (185)	71.23 (52)	62.74 (133)	77.44
DHARMADA	3385	81.00 (81)	95.24 (20)	77.22 (61)	19.00 (19)	4.76 (01)	22.78 (18)	35.09 (100)	28.77 (21)	37.26 (79)	56.96
BACKWARD REGION	12512	82.46 (235)	100.00 (73)	76.42 (162)	17.54 (50)	1.37 (01)	23.58 (50)	50.62 (285)	38.22 (73)	56.99 (212)	69.81
COMBINED REGION		84.90 (478)	100.00 (191)	77.15 (287)	15.10 (86)	0.52 (01)	22.85 (85)	100.00 (563)	33.93 (191)	66.07 (372)	

Source: Computed from data from primary field survey.

Note: figures within bracket refer absolute number of workers.

TW-Total Worker, F-Farm, NF-Non-farm

Table - 2: Mode of Employment* in Study Regions

	Advanced Region			Backward Region		
		Sex of workers	Number of workers	% of workers	Number of workers	% of workers
Farm Sector	SE	MALE	60	50.85	42	57.53
		FEMALE	0	0	1	1.37
		PERSON	60	50.85	43	58.9
	AW	MALE	58	49.15	30	41.1
		FEMALE	0	0	0	0
		PERSON	58	49.15	30	41.1
	SE+AW	MALE	118	100	72	98.63
		FEMALE	0	0	1	1.37
		PERSON	118	42.45	73	25.61
Non-farm Sector	RE	MALE	37	23.13	27	12.74
		FEMALE	5	3.13	6	2.83
		PERSON	42	26.25	33	15.57
	SE	MALE	56	35	40	18.87
		FEMALE	9	5.62	6	2.83
		PERSON	65	40.63	46	21.7
	CL	MALE	32	20	95	44.81
		FEMALE	21	13.12	38	17.92
		PERSON	53	33.13	133	62.74
	RE+SE+CL	MALE	125	78.13	162	76.42
		FEMALE	35	21.88	50	23.58
		PERSON	160	57.55	212	74.39
Farm+ Non-farm Sector	RE	MALE	37	13.31	27	9.47
		FEMALE	5	1.8	6	2.11
	SE	PERSON	42	15.11	33	11.58
		MALE	116	41.73	82	28.77
		FEMALE	9	3.24	7	2.46
	CL	PERSON	125	44.96	89	31.23
		MALE	90	32.37	125	43.86
		FEMALE	21	7.55	38	13.33
	RE+SE+CL	PERSON	111	39.93	163	57.19
		MALE	243	87.41	234	82.11
		FEMALE	35	12.59	51	17.89
			PERSON	278	100.00	285

Source: Computed from data from primary field survey, ***Considering main workers employment**

Table - 3: Employment and Earnings* in Study Regions

	Sex of workers		Advanced Region		Backward Region		
			Employment Per Worker	Earnings per man-day	Employment Per Worker	Earnings per man-day	
			(in man days)	(in Rs)	(in man days)	(in Rs)	
Farm Sector	SE	MALE	304.33	121.74	328.45	70.36	
		FEMALE	0	0	188	94.95	
		PERSON	304.33	121.74	325.19	70.93	
	AW	MALE	187.24	75.2	205.67	77.72	
		FEMALE	0	0	0	0	
		PERSON	187.24	75.2	205.67	77.72	
	SE+AW	MALE	246.78	98.87	277.29	73.43	
		FEMALE	0.00	0.00	188.00	94.95	
		PERSON	246.78	98.87	276.07	73.72	
Non-farm Sector	RE	MALE	281.35	419.87	270.22	343.14	
		FEMALE	168	191.08	242.17	263.68	
		PERSON	267.86	418.15	265.12	328.69	
	SE	MALE	267.52	104.22	305.07	138.06	
		FEMALE	146.44	75.55	200.17	60.01	
		PERSON	250.75	100.25	291.39	127.88	
	CL	MALE	218.69	81.56	200.43	86.05	
		FEMALE	105.29	37.44	207.26	32.72	
		PERSON	173.75	64.08	202.38	70.81	
	RE+SE+CL	MALE	259.11	200.42	237.90	134.83	
		FEMALE	124.83	69.19	210.60	63.71	
		PERSON	229.74	171.72	231.46	118.06	
	Farm+ Non-farm Sector	RE	MALE	281.35	419.87	270.22	343.14
			FEMALE	168	191.08	242.17	263.68
			PERSON	267.86	418.15	265.12	328.69
SE		MALE	286.56	113.28	317.05	103.38	
		FEMALE	146.44	75.55	198.43	65	
		PERSON	276.47	110.57	307.72	100.37	
CL		MALE	198.42	77.46	201.69	84.05	
		FEMALE	105.29	37.44	207.26	32.72	
		PERSON	180.8	69.89	202.99	72.08	
RE+SE+CL		MALE	253.12	151.11	250.02	115.94	
		FEMALE	124.83	69.19	210.16	64.33	
		PERSON	236.97	140.80	242.89	106.70	

Source: Computed from data from primary field survey.

Table - 4: Mode of Employment and Earnings in Combined Region

Sector	Status	Sex of workers	Number of workers	% of workers	Employment Per Worker (in man days)	Earnings per man-day (in Rs)	
FARM SECTOR	SE	MALE	102	53.4	314.26	100.58	
		FEMALE	1	0.52	188.00	94.95	
		PERSON	103	53.93	313.04	100.53	
	AW	MALE	88	46.07	193.52	76.06	
		FEMALE	0	0	0	0	
		PERSON	88	46.07	193.52	76.06	
	SE+AW	MALE	190	99.48	258.34	89.23	
		FEMALE	1	0.52	188.00	94.95	
		PERSON	191	33.93	257.97	89.26	
NON FARM SECTOR	RE	MALE	64	17.2	276.66	404.33	
		FEMALE	11	2.96	208.45	230.68	
		PERSON	75	20.16	266.65	378.79	
	SE	MALE	96	25.81	283.17	118.32	
		FEMALE	15	4.03	167.93	69.33	
		PERSON	111	29.84	267.59	111.7	
	CL	MALE	127	34.14	205.03	84.92	
		FEMALE	59	15.86	170.97	34.4	
		PERSON	186	50	194.23	68.89	
	RE+SE+CL	MALE	287	77.15	251.60	133.85	
		FEMALE	85	22.85	175.28	65.97	
		PERSON	372	66.07	230.72	141.14	
	FARM+NON-FARM SECTOR	RE	MALE	64	11.37	276.66	404.33
			FEMALE	11	1.95	208.45	230.68
			PERSON	75	13.32	266.65	378.79
SE		MALE	198	35.17	299.19	109.18	
		FEMALE	16	2.84	169.19	70.93	
		PERSON	214	38.01	289.47	106.32	
CL		MALE	215	38.19	200.32	81.29	
		FEMALE	59	10.48	170.97	34.41	
		PERSON	274	48.67	194	71.2	
RE+SE+CL		MALE	477	84.72	251.60	133.85	
		FEMALE	86	15.28	175.43	66.31	
		PERSON	563	100.00	239.97	123.54	

Source: Computed from data from primary field survey.

IV. Distribution of workers into different non-farm activities on the basis of their land-ownership

The distribution of workers into different non-farm activities on the basis of their land ownership are presented in Tables-5a and 5b. In the advanced region the landless workers, mainly participated in repair and processing industry followed by construction work and 'others' activities. Only 11 percent of them are employed as wage earners. For marginal land owners repair and processing industry and 'other' sectors are significant providers of employment. Incidence of regular employment like salaried workers is more among the medium and larger land owners. Therefore, workers from the medium and large land owners are capable to participate in high return non-farm activities.

In the backward region, construction sector is the dominant source of employment for land less, marginal and small land owners. In backward region also the incidence of salaried workers and wage earners is more among the medium and large land owners. Therefore, such analysis suggests that the participation of landless, marginal and small land owners in different non-farm activities are distress driven. They are pushed to participate in some casual activities or self-employed activities for their livelihoods and it is needless to say that such activities are low paid and the conditions of work are also poor.

Table - 5 a: Distribution of workers into different non-farm activities :Advanced Region

Activities	Land Ownership				
	Landless	0.01-0.99	1.00-2.49	2.50 & above	All Sizes
Business	0 (0.00)	23 (17.42)	03 (27.27)	02 (25.00)	29 (18.13)
Domestic Helper	01 (11.11)	01 (0.76)	0 (0.00)	0(0.00)	02 (1.25)
Construction Work	2 (22.22)	11 (8.33)	0 (0.00)	0 (0.00)	13 (8.13)
Repair and Processing Industry	3 (33.33)	31 (23.48)	0 (0.00)	0 (0.00)	34 (21.25)
Van Puller	0 (0.00)	07 (5.30)	0 (0.00)	0 (0.00)	07 (4.38)
Others	2 (22.22)	31 (22.73)	6 (54.55)	02 (25.00)	39 (24.38)
Wage Earners	1(11.11)	15 (11.36)	01 (9.09)	0 (0.00)	17 (10.63)
Salaried Workers	0(0.00)	14 (10.61)	01 (9.09)	04 (50.00)	19 (11.88)
All Workers	09 (100.00)	132 (100.00)	11 (100.00)	08 (100.00)	160 (100.00)

Source:Computed from primary field survey; figures within the bracket refer to percentages of column total

Note: Business includes activities like fish selling, grocery, wholesaler (saree), retailers, pharmacists, decorators, vegetable sellers, ration dealers, milk sellers, hawkers, Xerox shop owners, readymade garments shop owners etc.Repair and processing industry includes painter, plumber, weavers, carpenters, goldsmiths, bidi workers, bamboo workers, cycle repairing shops, clay modelling makers.Others include casual and self-employed activities like string making, tuition, woollen flower makers, LIC agents, Shelf Help Group members.

Wage workers include factory workers, workers in a particular shop, security guards and clerks etc.Salaried workers include government employee, accountants, bank employee etc.

Table - 5 b: Distribution of workers into different non-farm activities : Backward Region

Activities	Land Ownership				
	Landless	0.01-0.99	1.00-2.49	2.50 & above	All Sizes
Business	01 (3.57)	21 (12.57)	01 (8.33)	01 (20.00)	24 (11.32)
Domestic Helper	2 (7.14)	02 (1.20)	0 (0.00)	0(0.00)	04 (1.89)
Construction Work	12 (42.86)	57(34.13)	03 (25.00)	0(0.00)	72 (33.96)
Repair and Processing Industry	06 (21.43)	41 (24.55)	0 (0.00)	01(20.00)	48 (22.64)
Van Puller	01 (3.57)	11 (6.59)	0 (0.00)	0(0.00)	12 (5.66)
Others	04 (14.29)	12 (7.19)	02 (40.00)	0(0.00)	18 (8.49)
Wage Earners	01 (3.57)	13 (7.78)	01 (20.00)	02(40.00)	17 (8.02)
Salaried Workers	01 (3.57)	10 (5.99)	05 (41.67)	01(20.00)	17(8.02)
All Workers	28 (100.00)	167 (100.00)	12 (100.00)	05(100.00)	212 (100.00)

Source: Computed from primary field survey; figures within the bracket refer to percentages of column total

Note: Activities are defined as same as Table-6 a.

V. Quality of employment and the construction of Employment Quality Index

1. Quality of employment and its measurement

In India, predominance of the unorganized sector in total employment, increasing number of casual workers, low levels of wages and earnings and over all poor working conditions of most casual workers and a large part of self-employed workers have led to significantly high poverty ratio among the workers (Annual Report to the People on Employment, 2010).

Workers are generally imply a heterogeneous group and they received different levels of wages and earnings, avail different conditions of work and level of security in the labour market. Secondary data reveals that, across all the status of employment, like self employed, regular employed and casual employed, the head count ratio of poverty has declined. However, a significant percentage of casual workers are still remaining poor. There are also some self-employed workers, like small manufacturers, traders, hawkers, street vendors, forest produce gathers, rickshaw pullers, incidence of poverty among these workers are also significant.

Therefore, the mere existence of employment or being employed does not sufficiently define the economic condition or the ability of the workers to function in the capability space (see Messier and Floro, 2008). Therefore, there is a need to generate productive employment so that the workers meet their subsistence need and to provide them economic security so that they can continue their work in the face of income shortfall or any shock. Therefore, not only the growth of employment but also the generation of productive employment is an important issue.

The specific objective of this section is to explain varied dimensions of employment that influence quality of employment of rural workers. We use information at the individual workers level to measure quality of employment at the micro level. Like the National and State level trend, our analysis at the micro level also reveals that workers are getting different wages and earnings, there exists significant discrimination among the rural workers, casual employment is the dominant source of employment. Here, quality of employment is measured for the advanced region and backward region separately. Objective of such measurement is to make a relative comparison between two study regions to provide proper policy measures. This will in turn help to reduce poverty gap between the regions. Quality of employment is an important determinant of the incidence of poverty as high quality of employment can increase income and improve other conditions of work and hence reduce the percentage of people living below the poverty line.

However, it is already stated that measurement of quality of employment is not straightforward. Because of its multidimensional nature, the subjective nature of many of the characteristics (Roopali Johri, 2005) and the trade-offs involved among them, it becomes difficult to combine them in a single index. However, several attempts have been made by the past researchers to measure the quality of employment by i) using an indicator ii) by using a range of indicators iii) by using a single index (see for e.g. A.K.Ghosh, 1999 for India). Here, we make an attempt to develop a single index (EQI) for advanced region and backward region separately, that will be used to measure employment quality by using information on earnings of workers and other conditions of work and also help to make a relative comparison of the quality of employment between two study regions. Therefore, it is useful to provide a relative ranking across the different activities and also between two study regions.

2. Construction of Employment Quality Index (EQI) and its relative comparison

Here, we construct EQI⁷ that will be used to measure an individual worker's employment quality using information on the terms of employment and working conditions. The measure focuses four areas, namely i) Earnings ii) Decent hours iii) Stability of work and iv) Social Security. Suggested indicators to measure the quality of any particular activity or employment are:

- Earnings per employment day of workers.
- Hours of work.
- Number of jobs attends.
- Job location.
- Non-wage benefits

We define each of these categories as follows:

⁷ see also Messier, J and Floro, M, 2008 for informal sector.

Earnings: A starting point of measuring employment quality is the level of earnings. We propose a binary component where a zero is reported if earning per man day is below the National Floor Level Minimum Wage⁸ and 1 is reported if otherwise (see Table-6).

Hours of work: One of the consequences of low quality of employment is that workers are employed into long hours at low pay to meet their needs. This may create hardship on workers to balance family and employment responsibilities particularly for women. According to Labour Department, Government of West Bengal, a normal working day shall consist of eight hours of work and 6 days per week⁹. We, therefore, report a value of 1 if the individual reports for working 48 hours per week or less and '0' otherwise (see Table-6).

Number of jobs: Workers may hold multiple jobs for a variety of reasons. One reason is that the level of earnings in the main job is not sufficient or the earnings from their main jobs are highly variable. Individuals in the rural areas may also participate in more than one work even in a day to meet their need. Multiple activities may put some strain on the workers. Therefore, more jobs are associated with lower quality of employment. We propose a value of '1' if the individual reports only one work and '0' otherwise (see Table-6).

Job location: A value of '1' is recorded if the individual reports working in any permanent location detach from the house and '0' is recorded if the individual reported working from the household or in no permanent location (see Table-6).

Non-wage benefits: Improvement of living and working conditions of labour through implementation of labour laws and welfare schemes is an important objective for the State Government (Economic Review, Government of West Bengal, 2009-10). Accordingly, some important schemes like States Assisted Provident Fund Schemes for unorganized workers, welfare schemes for construction workers and welfare schemes for bidi workers has been undertaken by the Labour Department. The State assisted schemes of Provident Fund for Unorganised workers provide scope of provident fund to the workers of the unorganized sector. Under this scheme, each participant pay Rs20 per month and the State Government pays an equal amount and the interest on the total deposited amount. On reaching the age of 55 the total contribution of the workers and the Government with the interest on the accumulated amount is paid to the workers. We record a value of '1' if the individual avail the benefit of provident fund and '0' otherwise. Each of these is defined in Table-6.

The EQI is a composite index that includes the values of each component mentioned above. The EQI normalized (0, 1), similar to the procedure used by the UNDP with its HDI.

Value of EQI = (Actual Value-Minimum Value) / (Maximum Value-Minimum Value)

Here, the actual value is the score attained by a particular employment. The minimum value is the lowest value any employment could attain and maximum value is the maximum any employment could attain. The estimated value of different indicators is presented in the Appendix. Table-7 provides the estimated average EQI both for advanced region and backward region.

⁸ National Floor Level Minimum Wage in 2009 is Rs 100 and we deflate it by the CPI for Agricultural Labourers for the year 2010-11 and 2009-10 to get the figure for 2010-2011 for rural workers.

⁹ it is also ILO Hours of work convention, 1919 (No. 1), hours of work should not exceed 48 hours per week.

Table - 6: Construction of Employment Quality Index for Study Region

Component	Definition	Threshold	Value in EQI
Earnings	Earnings per day must be higher than the National Floor Level Minimum Wage	Wage received by the workers >109 ¹⁰	1
		Wage received by the workers ≤109	0
Adequate Hours of Work	Number of hours worked per week in the job	≤48	1
		>48	0
Number of Jobs	Current number of jobs worked per day	Number of job=1	1
		Number of job≥2	0
Job Location	Physical Location where majority of work is performed	Any permanent location detached from house	1
		The household and no fixed location	0
Non-wage benefits	Availability of non-wage benefits like facility of Provident fund	Offers non-wage benefit	1
		No benefits	0

Source: Field Survey

Relative comparison of employment quality index is presented in Table-7. Importantly, this is a relative ranking. Therefore, the higher value of any particular EQI is not the ideal. For example, the EQI of domestic helper in our study region is high but it is not ideal. Higher value is obtained due the presence of some attributes.

¹⁰ (Consumer Price Index for Agricultural Labour in 2010-11)/ (Consumer Price Index for Agricultural Labour in 2009-10)*Rs 100= (577/530)*Rs 100=Rs 109, where Rs 100 is the National Floor Level Minimum Wage in India in 2009.

3. Relative comparison of EQI of Study Regions

Table -7: Mean of Employment Quality Index

ACTIVITY	EQI,AR	EQI,BR
BUISENESS	0.4279	0.4784
DOMESTIC HELPER	0.4000	0.3714
CONSTRUCTION WORK	0.4440	0.1841
REPAIR AND PROCESSING INDUSTRY	0.3161	0.2555
VANPULLER	0.0862	0.0936
OTHERS	0.4479	0.3506
WAGE EARNERS	0.5818	0.6891
SALARIED WORKERS	0.9053	0.9714
ALL	0.4659	0.3433

Note: AR: Advanced Region, BR: Backward Region **Source:** Field survey

Some Observations:

- For self-employed activities (like business), the value of EQI in advanced region is lower than that in backward region. Economic activities in the backward region were more business oriented than those in the advanced region. Therefore, expansion of such activities was more prominent in the backward region.
- In backward region nearly 28% of workers engaged in construction sector but the EQI shows a smaller value for this work and it is lower than that in advanced region. The construction workers got more facilities in terms of their activities, in advanced region as compared to the backward region.
- EQI for repair and processing industry shows lower value in both regions. This also indicates lack of proper skill and training programs for workers.
- As expected, workers with regular formal sector jobs like government employee, bank clerks, teachers etc have relatively high Employment Quality Index in both the regions.
- In overall, the EQI in advanced region is higher than that in the backward region.
- More dis-aggregation would reveal difference in terms of nature of job in advanced region and in backward region.

VI. Incidence of poverty in our study region

For computing poverty ratio of various groups of households, we computed the annual per capita income for each household during the year of survey (2010-11). Both farm and non-farm income of households are taken together to compute annual per capita income. From this, we calculated per capita monthly income, which has been compared with the 'poverty line'. The poverty line, as suggested by the Planning Commission, is Rs 356 per capita per month in rural India in the year 2004-05. Making

some adjustment¹¹, we re-estimated the poverty line for the year 2010-11 and it is Rs 601 per capita per month for rural India. Comparing the sample households per capita per month income with this poverty line in the year 2010-11, we have grouped the households into poor and non-poor categories.

Table-8 presents data on the incidence of poverty among the households belonging to different size group of land holdings. Percentage of poor households in the advanced region is 34 percent and for the backward region the corresponding figure found to be 42 percent. It is also observed from Table-8 that the incidence of poverty is extremely high among the households belonging to the smaller land holdings. 72 percent of landless households in the advanced region are found to be poor and the corresponding figure in the backward region is 58 percent. Higher incidence of poverty is evident among the marginal (42 percent) and small land owners (38 percent) in the backward region compare to that in the advanced region. Increasing cost of agricultural production, bad harvest affected marginal and small farmers badly in the backward region.

It is already mentioned that, a significant percentage of households among the landless are agricultural labourers in the advanced region. Their earnings are seasonal because of the volatility and seasonality of their work. Therefore, sometimes they participated in some low paid non-farm casual work for their alternative source of livelihood. Consequently, a significant percentage (72 percent) of households among landless remain poor. Incidence of poverty is relatively less among the marginal (35 percent) and small land owners (7 percent) compare to backward region. In overall, the incidence of poverty in backward region (42 percent) is higher than that in the advanced region (34 percent).

Table -8 : Incidence of poverty in our Study Regions:

Region	Size Group of Land Holding (in acres)	No. of households	Considering both Farm and Non-farm Incomes	
			Percent of poor	Percent of non-poor
Advanced	0.00	18	72.22	27.78
	0.01-0.99	101	34.65	65.35
	1.00-2.49	14	7.14	92.86
	2.50 & above	17	11.76	88.24
	All Sizes	150	34.00	66.00
Backward	0.00	19	57.89	42.11
	0.01-0.99	113	41.59	58.41
	1.00-2.49	13	38.46	61.54
	2.50 & above	05	0.00	100.00
	All Sizes	150	42.00	58.00
Combined	0.00	37	64.85	35.15
	0.01-0.99	214	38.32	61.68
	1.00-2.49	27	22.22	77.78
	2.50 & above	22	9.09	90.91
	All Sizes	300	38.00	62.00

Source: Computed from Primary field Survey

¹¹ (CPI for Agricultural Labour in the year 2010-11/ CPI for Agricultural Labour in the year 2004-05)*Rs 356=Rs 601(Revised Poverty line in 2010-11).

VI. Summary of findings and concluding observations:

In this paper we analysed field data at the individual workers level. Our study in this chapter emphasized mainly two aspects: i) workers choice of occupation, their employment, earnings per day and from different modes of employment ii) construction of EQI. To compute EQI, not only the earned income of workers but also other aspects of economic security and individual functioning that influence employment conditions are taken into consideration.

In the first part, present study reveals that 43 percent of workers in the advanced region and 57 percent of workers in the backward region are employed in the non-farm sector. Within the non-farm sector, casual employment is the important source of employment of workers. 74 percent of non-farm workers are casual workers in the backward region and the corresponding figure in the advanced region is 58 percent. Second important source of employment is self-employment. The incidence of self-employed non-farm workers in the backward region is lower than that in the advanced region. Only 16 percent of non-farm workers are regular wage earners in the backward region compare to 26 percent in the advanced region.

Considering, per workers employment days, in the advanced region, farm sector generates 247 days of employment and non-farm sector, in the backward region generated 231 man-days. Combining farm and non-farm sector, employment per worker is 237 man-days in the advanced region and in the backward region the corresponding figure is 243 man-days.

Within the farm sector, an annual employment day per worker is higher for cultivators than for the agricultural labourers in both the study regions. Within the non-farm sector, though casual employment is the important source, but in terms of employment days, casual employment does not provide higher annual employment days to the workers in both advanced region and in the backward region.

Considering earnings per worker per day, earnings from non-farm sector is significantly higher than the farm sector in both the regions. Per worker non-farm employment day is higher in the backward region but it is not associated with the higher return.

Now, non-farm sector consists of heterogeneous set of activities. Non-farm activities in our study regions include business activities, repair and processing industries, different self-employed activities, wage workers and salary earners. In the advanced region, landless workers mainly participated in repair and processing industry followed by construction work and other activities. Medium and large land owners are capable to participate in high return non-farm activities.

In the backward region, construction sector is the important source of employment for landless, small and marginal land owners. Incidence of rural non-farm employment is high among the medium and large land owners.

In this paper, we also attempt to make a relative comparison of employment quality index (EQI) between two study regions. The measurement of quality of employment is difficult, because of its multidimensional nature, and the subjective nature of many of the characteristics. However, by using five different indicators (presenting mainly four different areas namely earnings, decent hours, stability of work and social security) we construct EQI. Here we make a relative comparison of EQI between advanced region and the backward region. Our analysis reveals that, overall EQI in the backward region is lower than that in the advanced region.

Significant percentage of workers is dependent on non-farm sector. But in many cases, their conditions of work, earnings are not congenial to move them above the poverty line. Percentage of poor in the Backward Region (which shows lower EQI) is more than that in the Advanced Region.

Policy Measures:

- i) Significant percentage of workers is dependent on non-farm sector but workers are mainly employed as casual workers, which are often low paid. Expansion of self-employment activities may increase the income of the households and therefore reduces the incidence of poverty.
- ii) Special efforts would be needed to explain why two regions having similar percentage of non-farm employment have different incidence of poverty? The effect of the difference in the availability of resources or the utilization of resources needs to be analysed to explain the poverty gap.

References:

1. Bhaumik, S.K. (2002a), "Emerging Employment and Unemployment Scenarios in West Bengal; Implications for Policy", *Journal of Indian school of Political economy*, Vol-14, no. 3, July-September.
2. (2002b) "Employment Diversification in Rural India: A State Level Analysis", *The Indian Journal of Labour Economics*, Vol-45, no.4.
3. (2003a): "Unemployment in India in the Post Liberalisation Era", *The Indian Journal of Labour Economics*, Vol-46, No.1.
4. (2003b): "Casualisation of Workforce in India, 1983-2003", *The Indian Journal of Labour Economics*, Vol-46, No.4.
5. (2007a): "Growth and Composition of Rural Non-farm Employment in India in the Era of Economic Reforms", *The Indian Economic Journal*, Oct-Dec, 2007.
6. (2007b): "Diversification of Employment and Earnings by Rural Households in West Bengal", *Indian Journal of Agricultural Economics*, Vol-62, No.4, Oct-Dec.2007.
7. (2009): "Occupational Diversification of the Rural Workers: Some Results from Field Surveys in West Bengal" in *The Changing Identity of Rural India: A Socio-historic Analysis* edited by Elisabetta Basil and Ishita Mukhopadhyay.
8. Chadha, G.K. (1986), (1993), "Non Farm Employment for Rural Households in India; Evidence and Prognosis", *The Indian Journal Of Labour Economics*, Vol-36(3), pp 296-327.
9. (1994), *Employment, Earnings and Poverty: A Study of Rural India and Indonesia*, Sage, New Delhi.
10. Department of Panchayets and Rural Development, (2005), *Rural Households Survey, 2005*, Government of West Bengal.
11. Department of Planning (2004), *West Bengal Human Development Report, 2004*, Government of West Bengal.
12. Ghose, A.K. (1999), "Current Issues of Employment Policy in India", *Economic and Political Weekly*, September 4, Vol. 34, No. 3, pp-2592-2608.

13. Government of West Bengal (2009), *District Statistical Handbook*, Nadia, 2007.
14. Planning Commission (2011), *Faster, Sustainable and More Inclusive Growth: An Approach to the Twelfth Five Year Plan*, New Delhi, Planning Commission, October.