



Munich Personal RePEc Archive

Aspects of Agrarian Distress and Rural Unemployment in West Bengal: A post reform analysis

Thapa, Rukmini

22 February 2015

Online at <https://mpra.ub.uni-muenchen.de/112952/>
MPRA Paper No. 112952, posted 06 May 2022 01:54 UTC

JOURNAL OF REGIONAL DEVELOPMENT AND PLANNING

Volume 4

Issue 2

December 2015

CONTENTS

		<i>Pages</i>
Articles		
Application of Stock Adjustment Model: Estimating Investment Adjustments for Canadian Industries	<i>Onur Tutulmaz</i>	1
Neighbourhood and Caste in Rural India: Analysing Structural Relationship	<i>Rajesh Raushan</i>	13
Aspects of Agrarian Distress and Rural Unemployment in West Bengal: A Post Reform Analysis	<i>Rukmini Thapa</i>	29
Technical Efficiency and Productivity Change in the Indian Manufacturing Industries: A Statewise Analysis	<i>Sandeep Kumar Baliyan , Kavita Baliyan and Pratima Ghosh</i>	45
Elementary Education in India: A Regional Analysis of Supply and Demand Situation	<i>P. Geetha Rani</i>	61
Research Perspective		
Access to Basic Amenities in India: Identifying Lagging Regions	<i>Arjun Kumar</i>	82
Book Review		
<i>Dalit Capital: State, Market and Civil Society in Urban India</i> ; Aseem Prakash	<i>Ankit Gupta</i>	85
<i>Obituary – Professor Trilok Singh Papola</i>	<i>Rajendra P Mamgain</i>	89

JOURNAL OF REGIONAL DEVELOPMENT AND PLANNING

Editorial Team

Chief Editor

Kalyanbrata Bhattacharya

formerly of Department of Economics, University of Burdwan

Editor

Rajarshi Majumder

Department of Economics, University of Burdwan

Managing Editor

Jhilam Ray

Department of Economics, University of Burdwan

Editorial Advisory Board

Aditya Chattopadhyay, *Calcutta University*

Ajit K Singh, *Giri Institute of Development Studies (formerly)*,

Amitabh Kundu, *Jawaharlal Nehru University (formerly)*

Alakh N Sharma, *Director, Institute for Human Development*

Biswajit Chatterjee, *Jadavpur University*

Dinesh C Sah, *MPISSR (formerly)*

Kausik Gupta, *Rabindra Bharati University*

Rabindranath Bhattacharya, *Kalyani University (formerly)*

Rajendra P Mamgain, *Giri Institute of Development Studies*

Shankar K Bhaumik, *Calcutta University*

Sibranjan Misra, *Viswa Bharati*

Tarun Kabiraj, *Indian Statistical Institute, Kolkata*

If you take care of the parts, the whole will take care of itself

ASPECTS OF AGRARIAN DISTRESS AND RURAL UNEMPLOYMENT IN WEST BENGAL: A POST REFORM ANALYSIS

*Rukmini Thapa*¹

Performance of agriculture and its effects on employment and wages in the recent decades underscores the marginalization of rural livelihoods. In West Bengal, where over 70 per cent of agricultural workers own less than one hectare of crop land, the importance of a vibrant state of agriculture cannot be emphasised more. This paper underscores some alarming findings such as deceleration in growth rate of production and yield levels of food grains, high and chronic rural unemployment rate and wide differences in real wages in agriculture and non-agriculture between West Bengal and other major states. Using these findings, it aims to suggest that these are essentially the underlying factors that have fuelled mass out migration in casual labour that is evident from macro surveys. As merits of the institutional initiatives taken over three decades ago in West Bengal are waning away, multi-pronged measures are needed again to break the economic 'impasse'.

INTRODUCTION

A falling share of agriculture in national income along with transition of labour out of agriculture into modern sectors is an obvious feature of structural change in an economy. However, the nature of these transitions in the Indian case must be interpreted with caution due to an overwhelming share of workers in the rural areas who primarily depend on agriculture. A report on marginal and small farmers states that of an estimated 457.5 million workers in 2004-05, 252.8 million were in agriculture. Among the latter, 89 million were agricultural labourers, 74.6 million marginal farmers, 39.9 million small farmers and the remaining were medium and large farmers (NCEUS, 2008). In an economy with a predominance of agrarian livelihoods, decline in growth rate of crop output between the immediate pre-liberalisation (1980-83 to 90-93) and post-liberalisation period (1993-2003-06) from 3.37 per cent to 1.74 per cent besides weakening the status of the nation's food security, bears significant ramifications on income and employment of the rural labour force (Bhalla, 2009). Declining elasticity of labour absorption in agriculture after reforms has been noted to have also adversely affected agricultural labourers through shrinking employment opportunities (Kalamkar and Narayanamurthy, 2006; Bhaumik, 2008; Chavan and Bedamatta, 2006; Bhalla, 2008). The debilitating effect this has on the livelihoods of the larger labouring poor needs to be recognised as a manifestation of the same malaise even though macro surveys do not categorically provide estimates of seasonal labour migration undertaken due to distress in agriculture. The experience of the 'agrarian crisis' thus makes it ambiguous to interpret the transfer of workers from agriculture to non-agriculture as a healthy feature of structural change because it is also an outcome of coercive transition due to economic distress. Moreover, as labour is diversifying away from agriculture, growth in the secondary sector characterised by a lopsided concentration in manufacturing and construction is also witnessing a steady decline. As of 2004-05, the share of the secondary sector in Gross State Domestic Product was around 22 per cent. This share has gradually declined to 19 per cent in 2011-12. Within the secondary sector,

¹ Research Scholar, Center for the Study of Regional Development, Jawaharlal Nehru University, New Delhi-110067. E-mail: thaparukmini@gmail.com.

manufacturing contributes around 55 per cent of the total share and comprises over 80 per cent of small scale unregistered enterprises. The public sector and public/private companies and industries on the other hand comprise only 15 per cent. The share of manufacturing sector itself has been declining with the growth rate registering just 2.7 per cent in 2011-12. While service sector is taking the lead, it is characterised by a similar state of proliferation of employment in the unorganized sector (IAMR, 2013). A major concern, therefore, is the inability of the secondary sector to provide 'gainful employment' to the overwhelming volume of workers exiting agriculture either permanently or temporarily under distress conditions. It makes the challenge of ensuring food security in the state more daunting and further underscores the importance of healthy performance in agriculture.¹

In the backdrop of the wide implications of the weakening capacity of agriculture to sustain rural livelihoods, coupled with the existing trajectory of employment growth in the secondary sector, the paper attempts to review the case of West Bengal. The problem bears paramount significance due to the preponderance of 68 per cent of main workers in agriculture in West Bengal (Census, 2011) among which around 70 per cent own only up to one hectare land. A noteworthy feature of agriculture in West Bengal is that the trajectory of growth rate of food grains is found to have altered twice. After stagnating for three decades, from the 1950s to the first years of 1980s, it came out of the 'Agrarian Impasse' when agricultural output showed marked growth from the early eighties (Boyce, 1987). However, the decade of the 1990s has been characterised by a trend break showcasing deceleration in the growth of agricultural production and thereby indicating the onset of the 'Impasse' again (Rawal and Swaminathan, 1998; Chattopadhyay, 2006; Bhattacharya and Bhattacharya, 2007). A study estimated that a negative trend break occurred in 1992-93 which was the same year that India adopted the structural adjustment programme of the International Monetary Fund and embarked on a changed macro-economic policy. A sharp decline was noticed in the trend of production, yield and fertiliser use (Bhattacharya and Bhattacharya, 2007). Despite considerable decline in the production and yield levels, West Bengal is not considered to be among the most distressed regions in India. Its suicide rate that has been hovering around 19 during 1995 to 2012 does not apparently exhibit as alarming a situation in agriculture as that of Karnataka, Kerala, Maharashtra or Andhra Pradesh². As West Bengal is primarily a food grains producing region (mainly paddy) predominated by small and marginal farmers, it is possible that the suicide rates are relatively low because levels of investment in agriculture, experimentation with new crops and seeds, vulnerability to the fluctuations in international price levels of cash crops and vagaries of nature such as drought is low compared to other suicide prone regions. It is possible that although West Bengal experienced the brunt of the 'agrarian crisis', the impact of distress was more silently borne because small and marginal farmers obtain a major share of incomes from wages because cultivation on account of land holding size is mostly of the subsistence type. Recent data shows that over 53 per cent of the share in average monthly income of agricultural households in West Bengal comes from wages, with net receipts from cultivation contributing only 25 per cent (Situation of Agricultural Households, 70th Round). As the site for generation of wage employment is not reported, seasonal out-migration for employment is a strongly possible mode to combat falling incomes from cultivation and shrinking absorption of workers in agriculture.

In this regard, the paper examines recent data on the performance of selected indicators of agricultural growth, wages and rural employment using secondary data from the Employment and Unemployment Survey of the National Sample Survey Organisation (NSSO, various years), Census (1991, 2001, and 2011) data and Statistical Abstracts (various years) of West Bengal. The first section, after the introduction, reviews the growth rate of agricultural output in the case of rice and food-grains. The next one discusses aspects of employment by analysing the rate of unemployment. The third section deals with growth rates of real wages and compares the position of West Bengal vis-a-vis other major states in terms of real wages. The last section makes concluding remarks.

Table -1a
Growth Rate of Area, Production and Yield of Food Grains, by District, West Bengal (1980-81 to 2010-11)

Districts	1980-81 to 1991-92			1992-93 to 2002-03			2003-04 to 2010-11		
	A	P	Y	A	P	Y	A	P	Y
Burdwan	0.70*	5.82	5.19	1.34	2.26	0.94	-0.85*	-1.37*	-0.51*
Birbhum	0.20*	5.29	5.48	1.16	3.86	2.61	-2.99*	-3.12*	-0.12*
Bankura	1.35	7.16	5.77	-1.40	1.10*	2.51	-3.91*	-4.24*	-0.33*
Midnapore	0.96	6.7	6.13	0.25*	0.69*	2.0	0.12*	1.52	1.27*
Howrah	2.68	7.76	5.23	-0.50*	5.52*	2.62*	-2.83	-4.58*	-1.75*
Hoogly	0.75	4.22	3.50	0.19*	1.29*	0.92	-0.31*	1.23*	1.54
24 Parganas	0.78*	4.8	5.43	0.38*	2.67	1.80	-1.66	-1.35	0.45*
Nadia	1.34	7.05	5.70	1.29*	3.81	1.60	-3.74	-2.69	1.05
Murshidabad	-0.43	4.94	5.43	1.16*	2.38	1.21	-3.69	-2.57	1.12
Purulia	2.25	5.44	2.89*	-1.62*	2.04*	3.72	-5.58*	-7.01*	-1.44*
Dinajpur	-0.44	4.31	4.26	0.64	3.02	2.49	-1.09*	1.05*	2.06
Malda	1.42	5.18	3.59	-1.75	0.91*	2.66	-1.36*	0.32*	1.67
Jalpaiguri	0.05*	2.19*	1.83*	0.86	3.65	2.80	-1.31	2.78	4.08
Darjeeling	1.62	5.76	3.90*	-2.55	-6.04	-3.49	-0.82	3.50	4.30
Coochbehar	1.48	4.39	2.69	-0.58*	2.46	3.04	0.50*	3.62	3.12
West Bengal	0.80	5.46	4.64	0.29*	2.27	1.98	-1.63	-0.64*	0.99

Source: Computed from Statistical Abstracts of West Bengal (Various Issues) and Economic Review of West Bengal (2011-12).

Note: A: Area, P: Production, Y: Yield, * indicates estimates are not significant at even 10% level of confidence. All others are significant at 1%, 5% or 10 % level of confidence.

GROWTH RATE OF AGRICULTURAL OUTPUT

A major concern over the recent decades has been the continuous decline in the growth rates of production and yield levels which along with rising costs of cultivation has questioned the role of agriculture as a viable source of livelihood. Using exponential growth equation: $\text{Ln}Q_t = a + bt$, where Q_t = output, t = time, b = coefficient on time, and a = constant; growth rate of area, production and yield for food-grains and rice has been calculated for the constituent districts over three periods in Table 1a & b³. The first period covers the decade 1980-81 to 1991-92, the second and third periods cover 1992-93 to 2002-03 and 2003-04 to 2010-11 respectively.⁴

As indicated in Table 1a and 1b, the growth rate of area under food-grains and rice increased in the second period for Burdwan, Birbhum, Dinajpur and Jalpaiguri. The production and yield of food-grains declined for almost all districts to nearly half in the second period (1992-93 to 2002-03) compared to the first. The same has been with the case of rice, the principle crop of West Bengal, as shown in Table 1b.

Table 1b
Growth Rate of Area, Production and Yield of Rice, by District, West Bengal
(1980-81 to 2010-11)

<i>Districts</i>	<i>1980-81 to 1991-92</i>			<i>1992-93 to 2002-03</i>			<i>2003-04 to 2010-11</i>		
	<i>A</i>	<i>P</i>	<i>Y</i>	<i>A</i>	<i>P</i>	<i>Y</i>	<i>A</i>	<i>P</i>	<i>Y</i>
Burdwan	1.04	6.10	5.03	1.28	2.21	0.92	-0.78*	-1.32*	-0.53*
Birbhum	0.39*	5.83	5.34	0.89*	3.64	2.75	-3.65*	-3.72*	-0.07*
Bankura	1.40	7.45	5.89	-1.37*	1.17*	2.54	-3.63*	-4.10*	-0.47*
Midnapore	1.91	6.89	5.62	0.25*	2.32	2.06	0.27*	1.64	1.28*
Howrah	3.57	8.22	4.52	-0.44*	1.60*	2.04	-2.90	-4.59*	-1.69*
Hoogly	1.18	4.08	3.30	0.18*	1.11*	0.93	-0.29*	1.22	1.51
24 Parganas	0.76	6.34	5.67	0.29*	1.89	1.69	-1.87	-1.49	0.51
Nadia	2.05	9.48*	6.61	1.02*	2.84	1.82	-3.24	-2.63	0.60*
Murshidabad	1.06*	7.52	5.99	0.04*	1.75*	1.72	-2.96*	-3.04	-0.23*
Purulia	1.41	5.33	3.44*	-1.61	2.28*	3.89	-5.42*	-6.87*	-1.45*
Dinajpur	0.12	5.58	5.35	0.55	2.86	1.89	-1.62	-0.97	0.74*
Malda	1.79	5.76*	3.59	-1.44	0.72*	2.16	-0.34*	0.50*	0.84*
Jalpaiguri	-0.04*	2.15*	2.09*	0.48*	3.24	2.76	-1.30	3.89	3.97
Darjeeling	1.86	3.47	0.79*	-2.63	-1.31*	1.31*	-1.40	4.80	6.22
Coochbehar	1.34	4.39	3.19	-0.90	2.24	3.14	0.67*	2.91*	2.23*
West Bengal	1.06	6.24	5.00	0.15*	2.27	2.09	-1.47	-0.85*	0.62*

Source and Note: Same as in Table 1a

The fall in the rate of growth of production, in case of both food-grains and rice, has been steeper for regions which are known to be agriculturally advanced such as Burdwan, Bankura, 24 Parganas, Midnapore, Nadia and Malda⁵. In the period over 2003-04 to 2010-11, for most of the districts, growth rate of production and yield further fell to negative values although most values are not statistically significant even at 10% level. Studies attribute the rising cost of production in agriculture to withdrawal of subsidy, lack of institutional credit opportunities for the farmers and lack of agricultural marketing channels for the producers to sell their products at remunerative prices. At the same time, the decline in expenditure on rural infrastructure like storage facility, roads and communication, irrigation, electricity, regulated markets, low performance of research and development along with withdrawal of subsidy in food and public distribution system have found to exacerbate the penury of farmers (Bhattacharya and Basak, 2013). Almost 36 per cent of farmers in West Bengal (highest among major states) disliked farming because of its unprofitability (NSSO, 2005). The unprecedented achievement of land reforms under the left-front government had been its contribution in tilting the distribution of holdings in favour of small and marginal farmers and reducing the incidence of landlessness. A growth deceleration in agriculture in West Bengal is a grossly regressive phenomenon because it threatens to undo the achievements of pro-poor reforms by impairing food security and livelihood sources of an overwhelming mass of land poor cultivators and labourers. Table 2 shows how cultivation in West Bengal is dominated by marginal farmers who own holdings less than 1.01 hectares. Around 70 per cent households who were self-employed in agriculture owned only up to one hectare land and within this class over 40 per cent owned only up to half a hectare. Notwithstanding the merits of progressive reforms in the past, cultivation today under diminishing land size and escalating costs makes it challenging for farming households to meet the needs of social reproduction which essentially extends beyond basic food security⁶.

Table 2
Percentage Distribution of Land Owned, by Size Class and Household Type, West Bengal (Rural)

<i>Landholding Size (in hectares)</i>	<i>Self Employed</i>			<i>Self Employed In</i>		<i>Total</i>
	<i>in Non-Agriculture</i>	<i>Agricultural Labour</i>	<i>Other Labour</i>	<i>Agriculture</i>	<i>Others</i>	
0.001 to 0.5	88.23	99.05	96.90	40.44	85.69	82.19
0.51 to 1	6.91	0.64	1.99	29.23	8.21	9.41
1.01 to 2	3.79	0.16	1.11	22.59	4.58	6.34
Above 2	1.07	0.16	0.00	7.74	1.53	2.06

Source: Computed from National Sample Survey, 66th Round (2009-10).

Note: Figures denote column percentages

STATE OF RURAL EMPLOYMENT

Structural transformation of an economy requires that as economic development progresses, the share of agriculture in GDP and total employment decline in comparison with other sectors. Data on the share of total value of output of agriculture and allied activities in Net State Domestic Product (NSDP) and share of agriculture in rural employment for major 15 states in India, during 1999-00 to 2009-10 shows that it fell sharply in all states except Gujarat and Madhya Pradesh. In states like West Bengal, Tamil Nadu, Maharashtra, Kerala, Karnataka, Haryana, and Assam it was seen that despite a high decline in the share of agriculture and allied activities in NSDP, the commensurate fall in employment was lower indicating the persistence of a higher dependence on agriculture for employment (Table 3).

Table 3
State-wise Share of Total Value of Output of Agriculture and Allied Activities in NSDP and Share of Agriculture in Rural Employment (at 2004-05 prices)

<i>States</i>	<i>Change in share of total value of output of agriculture and allied activities in NSDP (% points)</i>	<i>Change in share of agriculture in rural employment (% points)</i>
	<i>1999-00 to 2008-09</i>	<i>1999-00 to 2009-10</i>
Andhra. P	-9.0	-10.1
Assam	-8.2	2.8
Bihar	-12.9	-13.7
Gujarat	-5.5	-1.5
Haryana	-17.8	-8.7
Karnataka	-21.3	-6.4
Kerala	-17.8	-12.6
Madhya. P	-5.3	-4.7
Maharashtra	-11.9	-3.2
Odisha	-11.3	-10.6
Punjab	-13.8	-10.8
Rajasthan	-8.0	-14.4
Tamil Nadu	-10.4	-4.2
Uttar. P	-9.3	-9.3
West Bengal	-12.2	-7.3
All-India	-11.9	-8.4

Source: Computed from key data on rural development from idfc India Rural Development Report, Agriculture and Allied Sectors, Ministry of Rural Development, Government of India.

Table - 4
Percentage Share of Workers, by Sector and District (Rural)

District/Work	Cultivators			Agricultural Labourers			Others			
	2001	2011	% Change	2001	2011	% Change	2001	2011	% Change	
1	Main	21.02	16.32	-4.7	9.57	9.69	0.12	67.00	72.10	5.1
	Marginal	24.32	19.43	-4.89	33.62	27.45	-6.17	36.66	49.26	12.6
2	Main	24.54	21.43	-3.11	15.63	24.74	9.11	58.09	52.49	-5.6
	Marginal	22.77	10.3	-12.47	36.06	42.65	6.59	38.63	44.17	5.54
3	Main	42.27	39.06	-3.21	27.35	33.98	6.63	26.52	24.14	-2.38
	Marginal	34.31	22.72	-11.59	46.59	51.4	4.81	14.53	19.9	5.37
4	Main	36.30	31.18	-5.12	38.60	40.53	1.93	22.17	25.66	3.49
	Marginal	21.95	12.71	-9.24	59.17	61.4	2.23	12.9	19.53	6.63
5	Main	39.80	37.77	-2.03	34.17	38.48	4.31	22.04	20.01	-2.03
	Marginal	17.84	13.48	-4.36	57.81	63.21	5.4	18.09	17.01	-1.08
6	Main	27.36	24.41	-2.95	27.47	35.48	8.01	31.33	30.71	-0.62
	Marginal	9.05	7.88	-1.17	44.83	49.11	4.28	24.09	23.46	-0.63
7	Main	24.25	21.85	-2.4	31.54	39.41	7.87	30.25	28.99	-1.26
	Marginal	9.02	7.11	-1.91	35.88	44.24	8.36	23.15	27.58	4.43
8	Main	29.07	24.38	-4.69	33.13	44.44	11.31	32.69	27.77	-4.92
	Marginal	13.93	8.82	-5.11	56.85	64.78	7.93	18.42	19.26	0.84
9	Main	24.42	21.31	-3.11	36.03	43.34	7.31	34.64	31.50	-3.14
	Marginal	10.03	7.39	-2.64	58.64	65.48	6.84	24.16	21.55	-2.61
10	Main	26.12	25.56	-0.56	29.65	39.50	9.85	35.65	29.21	-6.44
	Marginal	18.26	7.78	-10.48	25.63	48.67	23.04	39.22	30.46	-8.76
11	Main	23.28	20.18	-3.1	26.20	33.35	7.15	45.35	42.33	-3.02
	Marginal	11.23	7.24	-3.99	40.06	47.45	7.39	36.28	34.73	-1.55
12	Main	23.02	21.65	-1.37	29.17	34.33	5.16	42.68	38.99	-3.69
	Marginal	14.31	7.47	-6.84	51.97	60.03	8.06	24.28	24.16	-0.12
13	Main	36.14	28.71	-7.43	30.24	36.46	6.22	28.98	31.67	2.69
	Marginal	25.99	13.35	-12.64	49.97	64.3	14.33	16.78	17.05	0.27
14	Main	41.65	31.79	-9.86	20.80	24.45	3.65	28.93	36.00	7.07
	Marginal	23.1	16.51	-6.59	59.99	58.93	-1.06	10.04	17.89	7.85
15	Main	33.40	29.18	-4.22	26.76	32.80	6.04	33.55	33.37	-0.18
	Marginal	24.39	15.51	-8.88	47.94	43.67	-4.27	16.85	27.18	10.33
16	Main	11.00	11.41	0.41	15.13	18.92	3.79	61.25	56.40	-4.85
	Marginal	7.26	5.48	-1.78	36.85	32.92	-3.93	36.85	37.3	0.45
17	Main	19.49	18.15	-1.34	23.61	26.25	2.64	51.63	49.53	-2.1
	Marginal	17.71	10.76	-6.95	48.49	49.16	0.67	25.52	28.21	2.69
18	Main	27.9	24.7	-3.2	27.60	34.21	6.61	37.74	35.74	-2
	Marginal	18.82	11.47	-7.35	48.34	55.36	7.02	21.9	23.54	1.64

Source: Computed from Census Data, 2001, 2011.

Note: 1:Darjeeling, 2:Jalpaiguri, 3:Koch Bihar, 4:Dinajpur(N) , 5:Dinajpur(S), 6:Malda, 7:Murshidabad, , 8:Birbhum, 9:Bardhaman, 10:Nadia, 11: 24Parganas (N), 12:Hugli, 13:Bankura, 14:Puruliya, 15:Medinipur, 16:Haora, 17: 24Parganas(S), 18:West Bengal. Koch Bihar spelled as Coochbehar in Statistical Abstract of West Bengal (in Table 1a &b) mean one and the same district.

However despite the bulk of the rural work force being engaged in agriculture, there have been perceivable shifts and changes in the volume and composition of workers after the reform period in West Bengal due to a clear decline in the number of those engaged in main work as cultivators compared to agricultural labourers⁷. A study by Jha (2006) suggests that the increase in the

number of the labouring households in India after the reforms could have occurred due to landlessness among the small peasants who were forced to sell off their land as a fall out of the agrarian distress. He considers this as an indication of increased pressure and overcrowding in the agricultural labour market. Census data on workers in West Bengal shows a similar trend where cultivation as main work fell from 37.3 per cent in 1991 to 24.7 per cent in 2011 indicating that the percentage of male cultivators engaged in agriculture for six months or more fell by over 12 percentage points during the three decades. The fall in male workers (from 41 per cent to 27 per cent) was sharper than for females (19 per cent to 10 per cent) and the decline in the first decade (10.5 per cent between 1991- 01) was higher compared to the second (3.2 per cent between 2001-11). The percentage of agricultural labourers in main work which had declined in 2001 increased again in 2011 for both male and female workers to a level that exceeds the figures of 1991, thereby indicating a similar form of distress as that pointed by Jha (2006). With main workers in the 'other' sector changing very slowly and in fact declining (from 38 per cent to 36 per cent during 2001-11) the pace of relieving the pressure on agricultural wage employment through absorption into non-farm activities appears sluggish if not stagnant in rural West Bengal. Disaggregating the state's picture regionally, the percentage of workers engaged in agriculture (cultivators and agricultural labourers) as main work in 2011 is above 50 per cent everywhere except in Haora and Darjeeling (Table 4)⁸. Koch Bihar and Dinajpur in the northern region continue to be dominantly agrarian districts with a much lower percentage of main workers in 'other' sector compared to the rest of the state. For most districts, as percentage increase of agricultural labourers in main work is higher than in 'other' work, agriculture continues to employ workers for a major part of the year. In marginal work too; although the percentage of 'other' workers has been increasing in most districts, the percentage increase is greater in the case of agricultural labourers than 'other' workers. Despite the continued higher percentage of workers in agriculture (for main and marginal work), the increase in percentage of marginal workers in 'other' work reflects a gradually increasing trend of employment in non-agricultural work for shorter duration. The data however does not indicate whether engagement in 'other' work has taken place within the state or outside it through out-migration. A reflection of distress in the rural labour market is the unemployment rate in West Bengal which is much higher by all three activity status compared to that of 15 major states measured together over 1993-94 to 2009-10 (Table 5)⁹. It was found that during the pre-reform period of 1983-84 to 1993-94, rural unemployment had decreased compared to the urban in West Bengal. This trend reversed during 1993-94 to 1999-00 making the problem of unemployment in rural areas severe than the urban (Bhaumik, 2003). Table 5 shows that although the unemployment rate (both chronic and intermittent reflected by usual status and daily status respectively) was higher in the urban sector in 1993-94, unemployment in the rural areas increased sharply during 1993-94 to 1999-00. Thereafter, rural unemployment rate by current daily status continued to remain higher than the urban right until 2009-10. Intermittent unemployment in the rural areas is clearly indicative of seasonal bouts of unemployment in agriculture. The extent of employment created in non-agriculture determines both the magnitude of structural transition of the rural economy and its capacity to absorb those seasonally unemployed in agriculture. A look at the net difference in persons employed in non-agriculture in West Bengal after the reforms taking the period 1993-94 to 2009-10 (see Table 6), shows that the increase in number of persons employed was highest for casual wage labour in the

construction industry in case of rural areas. This was followed by self - employment in trade, hotels and restaurant and manufacturing. Increase in regular employment was either very low or negative.

Table 5
Unemployment Rates According to Activity Status over Various NSS Rounds, by Sector

NSS Round/Year	Usual Status (Adjusted)		Current Weekly Status		Current Daily Status		
	Rural	Urban	Rural	Urban	Rural	Urban	
15 Major States	50th (1993-94)	12	46	30	59	57	76
	55th (1999-00)	15	47	39	60	72	78
	61st (2004-05)	17	44	39	60	84	85
	66th (2009-10)	16	36	33	42	70	59
West Bengal	50th (1993-94)	18	79	46	97	91	121
	55th (1999-00)	28	76	107	87	170	106
	61st (2004-05)	25	62	57	75	112	105
	66th (2009-10)	19	41	32	52	72	65

Source: Computed from NSS unit level data (various rounds)

Table 6
Change in Number of Estimated Persons Employed by Usual Principal Activity in Industries over 1993/94 to 2009/10, West Bengal (in '000)

Sector/Industry	Self Employed	Regular /Salaried	Casual Wage Labour
Rural	1	506	-9
	2	202	97
	3	550	55
	4	426	-32
	5	88	2
	6	-91	-4
Urban	1	305	-234
	2	32	10
	3	631	103
	4	145	73
	5	60	6
	6	-29	110

Source: Computed from Unit Level Data NSS (Various Rounds).

Note: Manufacturing (1), Construction (2), Trade, Hotels & Restaurant (3), Transport, Storage & Communication (4), Financing, Real Estate & Business Service (5), Community, Social & Personal Services (6). Usual Principal Activity includes only Principal Activity to show engagement in industry and employment type over a major period of the reference year.

A high increase in the absorption of casual wage labour in construction reflects rural distress which makes employment even in such precarious industries more attractive. Persons from labouring households and marginal cultivators who are prone to facing intermittent unemployment during agricultural lean seasons are known to form the biggest percentage of seasonal migrants who undertake short duration migration (Srivastava, 2011). According to the NSS 64th round migration survey (2007-08), 68 per cent of households in West Bengal having short duration migrants belonged to labouring households (45 per cent in agricultural labour and 23 per cent in other labour). Out of the total short duration migrants in West Bengal who had engaged in non-agricultural work in destination areas, around 50 per cent had worked in the construction sector during their longest duration of work. In fact, migration data from the NSS also indicates that

West Bengal acquired the third highest position among major states with short duration migration which increased from 1.3 per cent to 2.5 per cent of total population in the 55th and 64th NSS rounds respectively¹⁰. The obvious question that emerges here is whether public works such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has been able to alleviate distress migration by providing large scale employment targeted to those who are involuntarily unemployed during the agricultural lean seasons. For MGNREGS to have such an impact, the volume of work offered under this scheme must be substantial enough to engage labourers for a fairly long time in the lean seasons. There have been cases where MGNREGS has been successful in stemming distress migration (MoRD, 2012a); however, in this front the performance of West Bengal has been dismal since the inception of the scheme. West Bengal generated only 14 days of work in 2006-07 and 22.5 person days of work per household in 2007-08, which was the lowest for any state (Mehrotra, 2008). More recent records show that 14, 25 and 21 average person days of work per household were generated in 2011-12, 2012 and 2013-14 respectively (MoRD, 2012b, 2013, and 2014)¹¹.

Table 7
Growth Rate of Real Wages in Agriculture, NSS (1999-00 prices)

State	93/94 to 1999/00		1999/00 to 04/05		2004/05 to 09/10	
	Male	Female	Male	Female	Male	Female
Punjab	-0.39	1.31	-0.25	-9.25	1.77	1.05
Haryana	3.25	4.5	2.17	0.06	0.88	0.45
Rajasthan	3.23	1.76	2.60	3.98	1.95	3.14
Uttar P.	2.37	2.5	2.40	3.28	2.84	1.72
Bihar	5.31	5.65	2.60	1.54	2.35	3.72
Assam	1.63	0.68	2.51	7.27	0.24	-0.94
West Bengal	2.8	2.22	-0.86	-0.12	4.13	3.70
Orissa	1.44	2.35	5.85	4.40	3.67	4.39
Madhya. P	0.63	1.19	3.02	2.28	3.56	4.17
Gujarat	3.75	1.67	0.32	1.61	1.50	1.48
Maharashtra	2.63	3.45	0.44	-0.48	2.20	5.04
Andhra. P	3.96	3.16	0.62	-0.03	7.64	10.16
Karnataka	3.59	2.74	1.34	1.59	5.13	4.68
Kerala	6.31	5.11	2.30	0.86	2.96	3.47
Tamil Nadu	4.4	4.2	1.66	-0.10	4.27	5.88
All India	2.8	2.95	1.33	1.10	4.22	5.41

Source: Computed from NSS Unit Level Data.

Note: Wage rates are calculated for 15-59 years age group. Growth Rate is Compound Annual Growth Rate. Nominal wages have been deflated using CPIAL at 1999-00 prices for all rounds.

GROWTH RATE OF REAL WAGES AND INTER-STATE WAGE DISPARITY

A slow or negative trend in the growth rate of agricultural wages directly affects incomes and coerces labour households into accepting precarious occupations to overcome financial distress. A particularly disquieting phenomenon highlighting the ill-health of the agricultural labour market was the decline in the growth of wages. (Chavan and Bedamatta, 2006) who examined the trends in agricultural wages in India found that compared to the period between 1983 and 1987-88, there had been a slowdown in the rate of growth of real daily wages for male and female agricultural labourers after the 1990s. Table 7 shows that after a decade of new economic reforms, growth in real wage rate for male agricultural workers in 1999-00 to 2004-05 steeply declined as a whole for

India. The same period was also recognised as one under nationwide rural distress by several studies¹².

Table 8a
Ranking of Major States by Real Wages in Agriculture for Male Workers (1999-2000 Prices)

State	50 th (1993/94)		55 th (1999/00)		61 st (2004/05)		66 th (2009/10)	
	Rank	Wage	Rank	Wage	Rank	Wage	Rank	Wage
Kerala	1	66.37	1	99.56	1	111.53	1	129.01
Punjab	2	62.9	2	64.42	2	63.6	2	69.45
Haryana	3	45.92	3	56.69	3	63.13	4	65.95
Rajasthan	4	43.18	5	50.57	4	57.49	5	63.31
Assam	5	42.56	6	48.73	6	55.17	7	55.84
Tamil Nadu	6	40.44	4	51.25	5	55.66	3	68.59
West Bengal	7	36.96	7	43.65	8	41.81	9	51.18
Uttar. P	8	33.8	10	38.98	7	43.89	10	50.49
Maharashtra	9	31.6	12	37.64	14	38.48	14	42.9
Gujarat	10	31.38	9	39.71	12	40.35	13	43.46
Andhra. P	11	31.35	8	39.86	9	41.12	6	59.41
Karnataka	12	30.98	11	38.36	10	41	8	52.66
Madhya. P	13	27.39	15	28.57	15	33.15	15	39.49
Orissa	14	27.03	14	29.26	13	38.88	11	46.57
Bihar	15	25.96	13	35.6	11	40.47	12	45.46
India		33.09		39.37		42.05		51.7

Source: Same as in Table 7. Note: The real wages was calculated from NSS Unit Level data for workers in 15-59 years age group in agriculture. For all rounds, nominal wages were deflated using CPIAL to arrive at real wages at 1999-00 prices.

Table 8b
Ranking of Major States by Real Wages in Non- Agriculture for Male Workers (1999-2000 Prices)

State	50 th (1993/94)		55 th (1999/00)		61 st (2004/05)		66 th (2009/10)	
	Rank	Wage	Rank	Wage	Rank	Wage	Rank	Wage
Kerala	1	67.46	1	95.62	1	123.72	1	154.53
Haryana	2	65.34	2	64.31	5	67.39	3	86.85
Punjab	3	57.74	3	61.09	3	70.26	7	72.33
Tamil Nadu	4	41.42	4	58.97	2	71.63	2	93.12
Rajasthan	5	38.92	5	49.61	8	57.69	6	73.16
Assam	6	37.89	12	37.24	6	62.72	9	63.5
Maharashtra	7	37.25	9	40.96	13	50.92	13	55.7
West Bengal	8	37.07	7	43.69	10	54.76	15	54.88
Uttar. P	9	36.4	8	41.46	12	51.03	10	58.18
Karnataka	10	35.96	6	46.6	4	67.64	5	79.34
Gujarat	11	33.83	10	39.09	7	62.67	8	64.37
Andhra. P	12	31.69	11	38.28	10	53.81	4	81.31
Madhya. P	13	28.92	15	29.32	15	47.23	14	55.63
Orissa	14	27.94	14	32.56	14	48.48	11	57.81
Bihar	15	27.24	13	34.47	11	52.47	12	57.57
India		38.67		46.13		57.13		72.13

Source: Same as in Table 8a.

Note: The real wages was calculated from NSS Unit Level data for male workers in 15-59 years age group.

Casual labourers with activity status 51 have been taken. Rest same as in Table 8a

Among the major states, West Bengal recorded the lowest growth rate at -0.86 for male workers. Not only did the growth of real wages in agriculture dip sharply in West Bengal, the difference in

real wages in both agriculture and non- agriculture compared to other states was also high (see Tables. 8a and 8b). With states arranged in descending order of the wage rates (first rank for the highest wage), the position of West Bengal in real wages in agriculture fell from rank seventh to ninth between the 50th to 66th Rounds. Although real wages in non-agriculture was seventh highest in 1993/94, it fell sharply to acquire the last position among all states in 2009-10.

Such a wide gap in non-agricultural wages provides strong incentive to escape distress by out migrating to other states. Kerala, Tamil Nadu, Karnataka and Gujarat are becoming popular destinations for employment among poorer migrants. Although there has been an increase in real wage between 2004-05 and 2009-10 in all India level and for most of the states including West Bengal, there has been no increase in real wages in non-agriculture in West Bengal between the 61st and 66th round. Even backward states like Orissa, Bihar, Uttar Pradesh and Madhya Pradesh showed an increase in real wages in the non-agriculture sectors between the last two rounds. It is no surprise that from a labour receiving state, West Bengal over the years has turned into a labour sending state.

CONCLUDING REMARKS

In the backdrop of the changes seen in the performance of agriculture and its related effects on employment and wages, the development paradigm in the recent decades underscores marginalization of rural livelihoods. As the pattern of growth under globalization is on a path of structural transformation that has bypassed the agricultural sector; it has not been able to rescue rural unemployment by absorbing labour in remunerative and regular work in urban areas. The proponents of liberalisation had believed that the new impetus would boost the economy and unleash a wide array of job opportunities but urban-centric growth has alienated rural workers in two ways. First, dualism in the labour market has sharpened by concentration of job creation in employment opportunities requiring more skill and education which the bulk of rural workers lack. Second, with declining agricultural incomes and labour demand in the local economy, spatial reallocation of labour through commuting as well as temporary and semi-permanent internal migration has become an integral part of rural livelihoods. The question of labour and migration that is as old as civilization itself, has therefore resurfaced in the present times as a response to transitions in agriculture. Interestingly, the existing dynamics of rural labour migration, however, is a departure from the past as it creates numerous corridors for escaping seasonal unemployment without essentially charting out a path for sustainable development of the rural populace. Temporary shifts in occupation are reflected in the increasing magnitude of seasonal migration but these time bound contracts of casual work do not help rural migrants in gaining a 'foothold' in the urbanized world to avail a more regular stream of income.

In the case of West Bengal, indicators such as deceleration in growth rate of production and yield levels of food grains, high chronic and intermittent rural unemployment rate and substantial real wage differences compared to other states strongly indicate the existence of push factors that has made distress migration indispensable. Employment creation in non- agricultural work has been dominantly of the casual type in precarious sectors mainly construction (discussed in Table 6) which thrives on the labour of rural migrants but is grossly lacking in conditions of 'decent work'. With a dismal performance even in public works such as the MGNREGS that does not contribute meaningfully to supplement household incomes, the pressure on households for meeting the basic and expanded needs of social reproduction is mounting. As the merits of interventions made in

agrarian reforms and land relations have now diminished, the need arises again for multi-pronged measures to enable its overwhelming mass of small and marginal cultivators to successfully break the 'impasse' of the present times. With the share of small holders in total holdings in West Bengal being at least 95 per cent in 2010-11 and average size at 0.65 hectares, the efficacy of initiatives to revive agriculture such as under Rashtriya Krishi Vikas Yojana (RKVY) be must be weighed in the back drop of limitations imposed by land size. Incentivising agriculture through initiatives targeted at small holder cultivators, in the juncture of deepening crisis in rural employment, warrants merit in order to at least ensure food security and strengthen resilience if not generate a marketable surplus. Only this, along with vibrant and remunerative non-farm employment opportunities even within rural areas, can ensure the possibility of social reproduction that lies severely challenged.

[Acknowledgement: This paper is closely based on a chapter of the author's PhD thesis submitted to Jawaharlal Nehru University in 2015. The author is grateful for the comments and suggestions given by Prof. Deepak K Mishra of Centre for the Study of Regional Development, Jawaharlal Nehru University and all the anonymous referees of JRDP.]

Notes

- 1 Census and NSSO surveys on situation assessment of farmers, employment and unemployment and migration are conducted separately in different time intervals. A reading of these data which focus on different indicators only suggest the possible linkages between agrarian crisis and labour migration in India but do not provide any estimate of out-migration that have occurred primarily as fallout of agrarian distress. Macro surveys also indicate an increase in non-farm employment among the rural work force but do not inform whether such employment opportunities are created within or outside the village/state. In its absence, the evidences from separate macro surveys and micro data must be compared and weaved in to argue that distress migration is essentially occurring in response to growth deceleration and declining viability of agriculture which in turn explains the increase in non-farm employment among rural workers.
- 2 Farmer suicide rate, which is the number of male farmer suicide deaths reported out of 100,000 people, has been reported from (Mishra, 2014).
- 3 The districts of 24 Parganas, Dinajpur and Midnapore are now bifurcated but aggregate data of the respective districts before and after bifurcation have been used to allow comparability across all the three periods.
- 4 According to (Datta Ray, 1994), any analysis to calculate the growth rate of agriculture in West Bengal must take care of the fact that biases have existed in the estimation of data on yield and area of the 1980s due to the quality difference in data collection systems and estimates given by two types of field investigators under Department of Agriculture (DOA) and Bureau of Applied Economic Statistics (BAES) respectively. In this paper, the data used in the analysis are directly taken as reported in the Statistical Abstracts published by the BAES for various years.
- 5 Darjeeling with less than 100,000 hectares under food-grains cultivation is not included in the comparison.
- 6 A survey carried out under Environmental and Social Safeguards and Management Framework (ESMF) where 30 Gram Panchayats (GP) were visited in West Bengal, around 70 per cent of the GPs reported low livelihood security from land and 53 per cent reported lack of employment. Lack of sufficient livelihood opportunities especially in the backward districts such as Purulia, DakshinDinajpur, Cooch Behar and Murshidabad were noticed along with a high rate of seasonal migration within and outside the state (ESMF, 2010).
- 7 Census India, distinguishes between main and marginal work by referring to a main worker as a person who had participated in an economically productive activity (defined as work) for 183 days or more during the past one year. Any worker whose main activity was participation in an economically productive work for less than 183 days in the past one year was a marginal worker.
- 8 District Kolkata is excluded in the analysis as it is entirely urban.

- 9 NSSO uses three broad activity statuses to identify the activity situation in which a person was found during a reference period. The employed and the unemployed are also captured using the concept of the three activity statuses viz. usual status, current daily status and current weekly status. Usual status is further categorized into principal and subsidiary status. Unemployment rate measured by Usual-Adjusted status, used in the paper, comprises those who were unemployed in the principle status minus those who are engaged in any subsidiary activity. It is considered to be a better representation of unemployment by involving only those who had not done any subsidiary work either. For detailed definitions of activity status, see any report of the National Sample Survey Organisation on the Employment and Unemployment Situation in India.
- 10 NSSO 64th Round defines a Short Term Migrant as a household member who stayed away from the place of residence for a period of at least 30 days but less than 6 months during the last 365 days preceding the date of survey for employment reasons. In its 55th Round NSSO defines a Short Term Migrant as a household member who stayed away from the place of residence for a period of at least 60 days but less than 6 months during the last 365 days preceding the date of survey for employment reasons.
- 11 The actual figures of person days generated per household could be lower than that reported by Management Information System(MIS) of Ministry of Rural Development as such discrepancies between data of MIS and NSSO have been found already (Usami and Rawal, 2012). This paper does not verify such discrepancies of data between the two sources but if they do exist it further pulls down the performance of West Bengal from its already low record compared to the rest of the states.
- 12 Himanshu (2011) and Abraham (2009) speculated that the upsurge in levels of workforce participation in India that they found during the same period had strong reasons to be distress driven. Increase in the participation of females, elderly and children to supplement household incomes had occurred due to a marked slowdown in GDP growth rates in agriculture. From the perspective of availability of wage employment, it is possible that as cultivators try to cut down expenditure by reducing hired labour the decline in employment and earnings of labouring households below subsistence levels can both trigger and aggravate spurts of seasonal out-migration from the village.

References

- Abraham, V. (2009) – “Employment Growth in Rural India: Distress-Driven?” *Economic & Political Weekly*, Vol. XLiv, Issue 16, pp. 95-104.
- Bhalla, G.S. (2008) – “Income, Consumption and Expenditure of farmers: Stunted Capitalist Development in Indian Agriculture” in Sankar Kumar Bhaumik, (ed.), *Reforming Indian Agriculture: Towards Employment Generation and Poverty Reduction*, Sage Publications India Pvt. Ltd, New Delhi.
- Bhattacharyya, S. and Basak, U. (2013) – “The Changing Employment Scenario during Market Reform and the Feminization of Distress in India”, in Sudipta Bhattacharyya (ed.) *Two Decades of Market Reform in India: Some Dissenting Views*, Anthem Press, 2013.
- Bhattacharya, M. and Bhattacharya, S. (2007) – “Agrarian impasse in West Bengal in the Liberalisation era”, *Economic and Political Weekly*, Vol. 52, Issue 42, pp 65-71.
- Bhaumik, S.K. (2002) – “Emerging employment and unemployment scenarios in West Bengal: Implications for Policy”, *Journal of Indian School of Political Economy: A Journal Devoted to the Study of Indian Economy, Polity, and Society*, Vol. 14, Issue 3, pp. 395-43.
- (2008) – “Rural Non-farm Employment, Poverty and Inequality in West Bengal”, in Sankar Kumar Bhaumik, (ed.), *Reforming Indian Agriculture: Towards Employment Generation and Poverty Reduction*, Sage Publications India Pvt. Ltd, New Delhi.
- Boyce, K. James. (1987) - *Agrarian Impasse in Bengal, Institutional Constraints to Technological Change*, Oxford University Press, Delhi
- Bureau of Applied Economics and Statistics (various years) - Statistical Abstract (various years) West Bengal, Government of West Bengal.
- Census of India (2001) - Provisional Population Totals, Paper 1 of 2001 India, Series-1, New Delhi: Office of the Registrar General & Census Commissioner.

- (2011) - Provisional Population Totals, Paper 1 of 2011 India, Series-1, New Delhi: Office of the Registrar General & Census Commissioner.
- Chattopadhyay, A.K. (2006) – “Distributive Impact of Agricultural Growth in Rural West Bengal”, *Economic and Political Weekly*, Vol. 40, Issue 53, pp: 5601-5610.
- Chavan, P and Bedamatta, R. (2006) - Trends in Agricultural Wages in India, 1964-65 to 1999-00”, *Economic and Political Weekly*, Vol. 41, Issue 38, pp: 4041-4051.
- Chand, Ramesh, S S. Raju and Pandey, L M. (2007) - “Growth Crisis in Agriculture: Severity and Options at National and State Levels”, *Economic and Political Weekly*, Vol. 42, Issue 26.
- Datta Ray, S. (1994) – “Agricultural Growth in West Bengal”, *Economic and Political Weekly*, Vol. 29, Issue 29, pp: 1883-1884.
- Government of West Bengal (2012) - West Bengal Economic Review, Bureau of Applied Economic and Statistics [Online] Available at www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf, [Accessed: 20 October 2014].
- Government of West Bengal - (2010) West Bengal Economic Review, Bureau of Applied Economic and Statistics [Online] Available at http://wbplan.gov.in/htm/ReportPub/EcoRev09-10/Econ_Review_2009-10.pdf [Accessed: 17 November 2013].
- Himanshu (2011) – “Employment Trends in India: A Re-examination”, *Economic and Political Weekly*, Vol. XLVI, Issue 37, pp: 43-59.
- Institute of Applied Manpower Research (2013) – ‘Factors Impacting Non-Agricultural Employment Growth: A Study in West Bengal, The Institute of Applied Manpower Research, Planning Commission, Government of India, IAMR Report No. 6/2013, Available [http://www.iamrindia.gov.in/iamrreports/report6_2013.pdf].
- Jha, P. (2006) – “Some Aspects of the Well Being of India’s Agricultural labour in the Context of Contemporary Agrarian Crisis”, *The Indian Journal of Labour Economics*, Vol. 49, Issue 4.
- Kalamkar, S. S. and A. Narayanamurthy. (2006)- “Impact of Liberalization on Domestic Agricultural Prices and Farm Income”, *Indian Journal of Agricultural Economics*, Vol. 58, Issue 3.
- Mehrotra, S. (2008) – “NREG Two Years on: Where Do We Go from Here?” *Economic and Political Weekly*, Vol. 43, Issue. 31, pp: 27-35.
- Ministry of Rural Development (MoRD) - Agriculture and Allied Sectors, Key Data on Rural Development from IDFC India Rural Development Report, Government of India, Available [<http://rural.nic.in/sites/idfc.asp>]
- (2012a) - “MGNREGA Sameeksha: An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (2006–2012)”, Orient Blackswan, New Delhi.
- (2012b) - “Mahatma Gandhi National Rural Employment Guarantee Act, 2005: Report to the People, 2nd February, 2012”, Ministry of Rural Development, Government of India, New Delhi, Available [http://nrega.nic.in/circular/Report%20to%20the%20people_english%20web.pdf].
- (2013) - “Mahatma Gandhi National Rural Employment Guarantee Act, 2005: Report to the People, 2nd February, 2013”, Ministry of Rural Development, Government of India, New Delhi, Available [http://nrega.nic.in/netnrega/WriteReaddata/circulars/Report_to_the_people_Englsh2013.pdf]
- (2014) - “Mahatma Gandhi National Rural Employment Guarantee Act, 2005: Report to the People, 2nd February, 2013”, Ministry of Rural Development, Government of India, New Delhi, Available [http://nrega.nic.in/netnrega/writereaddata/circulars/report_people_eng_jan_2014.pdf]
- Mishra, S. (2014) – “Farmers’ Suicides in India, 1995-2012: Measurement and interpretation”, Asia Research Centre Working Paper 62, Available [http://www.lse.ac.uk/asiaResearchCentre/_files/ARCWP62-Mishra.pdf]
- NCEUS (2008) – “A Special Programme for Marginal and Small Farmers”, National Commission for Enterprises in the Unorganised Sector, December 2008. Available [http://sanhati.com/wp-content/uploads/2013/10/Special_Programme_for_Marginal_and_Small_Farmers.pdf]

- NSSO (2014) – “Key Indicators of Situation of Agricultural Households in India”, NSS 70th Round, January – December 2013, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India, Available [http://mospi.nic.in/mospi_new/upload/KI_70_33_19dec14.pdf]
- NSSO (2005) - Situation Assessment Survey of Farmers, Some Aspects of Farming, Report No.496, NSS 59th Round, December-January 2003, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India. Available [http://planningcommission.gov.in/sectors/agri_html/some%20aspects%20offarming%2059%20trou nd%202003.pdf National Sample Survey Organisation (NSSO), NSS, Report No.496]
- Rawal, V. and Swaminathan, M. (1998) –“Changing Trajectories: Agricultural Growth in West Bengal, 1950 to 1996”, *Economic and Political Weekly*, Vol. 33, Issue 40.
- Saha, A. and Swaminathan, M. (1994) – “Agricultural growth in West Bengal in the 1980s: A disaggregation by districts and crops”, *Economic and Political Weekly*, Vol. 29, Issue 13, pp: A2-A11.
- Srivastava, R. (2011) – “Labour migration in India, recent trends, patterns and policy issues”, *The Indian Journal of Labour Economics*, Vol. 54, Issue 3, pp 411-440.
- Taru. (2010) - “Environmental and Social Safeguards and Planning in Panchayati Raj Institutions: Capacity Assessment and Management Plans”, Volume – I: Environmental and Social safeguards And Management Framework, Submitted to World Bank and Department for International Development, India. Available [[Http://www.Scribd.Com/Doc/50703188/Social-Management-Framework-For-Gps#Scribd](http://www.Scribd.Com/Doc/50703188/Social-Management-Framework-For-Gps#Scribd)]
- Usami, Y. and Rawal, V. (2012) – “ Some Aspects of the Implementation of India’s Employment Guarantee”, *Review of Agrarian Studies*, Vol. 2, Issue 2, Available [http://ras.org.in/some_aspects_of_performance_of_mgnrega]