# Some Aspects of the Well-Being of India's Agricultural Labour in the Context of Contemporary Agrarian Crisis

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It is well-known that India's countryside has come under tremendous economic pressure in the recent years. Such a development is bound to impact on the well-being of the masses in the rural economy. This paper is an attempt to examine the key elements of the contemporary agrarian crisis and its possible consequences for agricultural labourers. It appear that their economic conditions, in any case quite fragile and vulnerable even in 'better' times, have taken quite a battering in the recent years.

#### Introduction

Observers of Indian economy would take it as an incontrovertible conclusion that the country is currently witnessing a serious agrarian crisis, in fact, the worst since independence. The most gruesome and chilling manifestation of the crisis has been farmer's suicides, (which started appearing as headline news even in the mainstream media in the late 1990s, but now gets passing mention occasionally); this extreme step that the peasantry has been driven to resort to, has been reported from several regions of the country including even prosperous states like Punjab, Kerala and Maharashtra. Factors like substantial compression of rural development expenditures, increasing input prices, vulnerability to world market price fluctuations due to greater openness, inadequate /non-existent crop insurance and substantial weakening of the provisioning for credit, along with the governments' apathy to the demand for remunerative prices for farm produce are among the obvious causal correlates of the contemporary agrarian crisis in the country.

It is commonsense wisdom that for a country like India, the importance of agriculture in facilitating decent livelihood continues to be critical, given that the majority of the country's population, almost 60 per cent, still depends primarily on it. As is well-known, among the obvious symptoms of agrarian crisis in the country has been a significant deceleration in the rate of agricultural growth, and marked increase

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in disparities between the agriculture and non-agricultural sectors since the early 1990s<sup>2</sup>. According to one estimate, between 1994-95 and 2003-04, per capita real income of agriculture-dependent population was virtually stagnant when per capita real income for the country as a whole increased at a rate of more than 4 per cent on an average.<sup>3</sup> The per capita production of food grains has witnessed an unprecedented decline, since independence, during the 1990s; in 1991, it was around 510 grams but the recent estimate puts it at around 427 grams. The all India absorption of food grains per capita per annum has fallen by 22 kilograms between the triennium 1995-98 and 2000-03. This would obviously imply that, a larger section of the population is further exposed to food vulnerability reflected in hunger and malnutrition.<sup>4</sup>

It is to be expected that in a period of agrarian distress, agricultural labourers are likely to be the worst hit, through adverse impacts on wages and employment opportunities directly in agriculture, and, through multiplier effects, indirectly in nonagriculture as well. Sure enough, even before the transition to the neoliberal economic policy regime in the early 1990s, the plight of agricultural labourers in most parts of the country was hardly enviable; however during the reform period the tide has turned for the worse. As per the NSS data, during 1990s, the share of agricultural labourers in officially defined total rural poor increased from 41 to 47 per cent and almost every aspect of their well-being was seriously dented, some of which are examined in this paper. Section I of this paper attempts to explore some of the key elements in an explanation towards the crisis. The emphasis of our explanation is on the transition in macroeconomic policy regime since the early 1990s and consequent withdrawal of the Sate, reflected in the compression of government expenditure, in areas such as investment in agriculture and allied activities, the drying up of formal credit etc. Section two looks at some aspects of the well being of agricultural labourers, such as the trends in employment, wages, consumption expenditure, indebtedness etc., based on the well-known large scale data systems. For reasons of space, most of the discussion is for the country as a whole, although occasionally and briefly, sub-national trends are also tracked.

# Some Key Elements of an Explanation for the Contemporary Agrarian Crisis.

Let us recall the most obvious indicators of the health of the agricultural sector, namely the production and yield growth rates, and these are summarised in the Table 1 below. The period since the early 1990s is much worse compared to any other period since independence; is as may be noted, this comparison is quite stark when compared to the preceding decade, i.e. 1980s. In the eighties, the rate of growth of agricultural output (all crops) was 3.19 per cent; this figure was halved to 1.58 per cent, in the subsequent period, and the yield growth rate was reduced to almost one-third over the comparable time frame.

Table-1: All India Compound Growth Rates of Area, Production and Yield of Major Crops

	CIO	P8										
	1949-50 to 1964-65		1967	1967-68 to 1980-81			1980-81 to 1990-91			1990-91 to 2003-04		
Crop	Area	Production	Yield									
Rice	1.21	3.5	2.25	0.77	2.22	1.46	0.4	3.56	3.47	0.15	1.14	0.99
Wheat	2.69	3.96	1.27	2.94	5.65	2.62	0.46	3.57	3.1	0.74	2.13	1.35
Coarse												
Cereals	0.9	2.25	1.23	-1	0.67	1.64	-1.3	0.4	1.62	-1.58	0.25	1.87
TCereal	1.25	3.21	1.77	0.37	2.61	1.7	-0.3	3.03	2.9	-0.25	1.32	1.58
T. Pulses	1.72	1.41	-0.2	0.44	-0.4	-0.7	-0.1	1.52	1.61	-0.87	-0.74	0.16
Food grain	1.35	2.82	1.36	0.38	2.15	1.33	-0.2	2.85	2.74	-0.44	1.16	1.11
Sugarcane	3.28	4.26	0.95	1.78	2.6	0.8	1.44	2.7	1.24	1.41	1.22	-0.16
Oilseeds	2.67	3.2	0.3	0.26	0.98	0.68	1.51	5.2	2.43	-1.07	0.18	1.26
Cotton	2.47	4.55	2.04	0.07	2.61	2.54	-1.3	2.8	4.1	0.82	0.15	-0.69
Non Food	2.44	3.74	0.89	0.94	2.26	1.19	1.12	3.77	2.31	-0.09	1.2	0.62
All Crops	1.58	3.15	1.21	0.51	2.19	1.28	0.1	3.19	2.56	-0.25	1.58	0.9

Source: Agricultural Statistics at Glance, Ministry of Agriculture, Government of India, 2004

Also, there is a small fall in the growth rates of area under major crops, and in the aggregate, since the early nineties compared to the eighties. The area under cultivation for all crops saw a negative growth of -0.25 per cent during 1990-91 to 2003-04, compared to the 0.1 per cent experienced during 1980-81 to 1990-91; this may, in part, reflect growing landlessness among the peasantry, and transfer of land for non-agricultural purposes. The declining trends in area, yield and production are witnessed

in the case of almost all crops, except for the marginal improvement in the growth rate of yield of coarse cereals and the growth rate of area cultivated of wheat. The decline in yields for most crops is quite dramatic and careful explanations are required to explain this; however, it may not be inappropriate to put one's finger on the dwindling of government research effort, in particular on seed varieties, along with the shrinking of public support in many other ways discussed below, as the more important elements in this story.

As hinted above, one of the likely consequence of agrarian distress has been an increase in landlessness and a decline in the proportion of cultivators; this may have added to the pressure on an already overcrowded agricultural labour market. As per the NSS data, the proportion of households without any access to land in the total rural households has increased from 38.7 per cent in 1993-94 to 40.9 per cent in 1999-00 and further to 43.1 per cent during 2004-05. A state wise disaggregation for the 1990s in this regard is given in table 2; except Haryana and Kerala, landlessness has been on the rise in all the major states.

Table-2: Proportion of rural landless households\*

Landlessness	s across v	arious sta	ates
	1987-	1993-	1999-
States	88	94	00
Andhra Pradesh	45.9	49.5	52.3
Assam	31.2	29.4	35.6
Bihar	34.7	37.5	41.5
Gujarat	47.2	46.3	43.8
Haryana	45.6	51.5	49.3
Karnataka	40	38.3	42.2
Kerala	19.6	69.4	36.1
Madhya Pradesh	25.8	24.9	28.6
Maharashtra	39.1	43	46
Orissa	35.7	35.4	38.4
Punjab	57.1	61.5	61.2
Rajasthan	21.9	18.9	21.8
Tamil Nadu	57.1	63.4	67
Uttar Pradesh	22.7	22.9	26.2
West Bengal	39.6	41.6	49.8
All India	35.4	38.7	40.9

Source: Ghosh and Chandrashekar 2004.

\* Landless households are defined as not operating any land.

Clearly, the lower end of the peasantry, many of whom are also in the agricultural labour market, may have been forced to sell or give up their land due to the growing difficulties of cultivation. Thus, it is hardly surprising, as may be seen from Table 3, that within agricultural labour households, there has been a very significant increase in landlessness between 1987-88 to 2004-05; also, it is worth noting that the trend in the 1980s was in the opposite direction.

Table 3: Agriculture labour Households with/without access to cultivable land

Agricultural Labour househo	Agricultural Labour households with/without access to any cultivable land										
1983   1987-88   1993-94   1999-00   2004-05											
Households without cultivable											
Land	55.9	52.2	57.0	57.3	62.1						
Households with some land	44.1	47.8	43	42.7	37.9						

Source: RLE, Report on General Characteristics of Rural Labour Households, 1999-00 and NSS 61<sup>st</sup> round

Apart from the above cited numbers, there are several other indicators which convey unambiguously a picture of agrarian distress and the consequent adverse implications for rural well-being. But, as noted right at the outset, most economists agree that the Indian agriculture is in the grips of crisis and one does not require to labour the point any further. However, as regards explanations for the contemporary agrarian crisis, the burden of emphasis, not unexpectedly, varies across researchers.<sup>5</sup> I do not wish to attempt a comprehensive survey of the contending arguments towards explaining the contemporary crisis; rather, my limited objective is to focus on, arguably, the most plausible trajectory of explanation. Furthermore, within such a trajectory, the paper does not get into discussion of the structural issues (such as inadequate attention to the land question soon after independence), or the interplay between the structural and conjuctural (such as the factors that have facilitated a transition from a dirigiste nationalist policy framework to a neo-liberal regime or the factors which may account for the gaps between the rhetoric and reality of the erstwhile dirigiste regime), but essentially on the conjunctural, in particular, the change in the macroeconomic policy regime since the early 1990s. The paper goes along with the view 'that the crisis of the countryside is intimately linked to the neo-liberal policies themselves, and that it cannot be overcome within a neo-liberal regime' (Patnaik, 2005, p. 4).

In the following, we briefly touch on the major components of such a neoliberal regime which have impacted adversely on the country's agrarian economy. Given the WTO commitments, a progressive opening up of the domestic agriculture to the world market since the second half of the 1990s has been a source of considerable distress for farmers in general, and in the recent years a very acute one for those growing cotton, spices, plantation crops, among others; by now, it is well acknowledged that as a result of liberalisation of imports several crops have been hit by unfavourable price trends, and may be more importantly, by violent fluctuations. In the recent years, from 1995 onwards and till a couple years ago, the agricultural commodity prices in world market has witnessed a secular downtrend, although within this, there have been significant fluctuations. For instance, between 1997 to 2002, most prices had taken a nosedive, but subsequently they started climbing. Obviously one requires careful and disaggregated accounts as regards the impact of long term price trends on India's farmers. However, it may be appropriate to argue that the increase openness, through price fluctuations has increased the vulnerability of a very large section of the peasantry, given severe limitations of their copping mechanism. Along with this, State intervention and support in domestic market for agricultural produce tended to weaken considerably, (e.g. to note a couple of policy measures in this regard: government procurement has been abandoned or scaled down; for crops covered by minimum support prices, such as paddy or wheat, MSP has not kept pace with rising costs), and private players, including multinational corporations, have been allowed to have a significant say in the course of events. In fact, the Indian government appears to have been more loyal to the emperor than the emperor himself, as it removed quantitative restrictions on agricultural imports in 2001 itself, that is, two years before the WTO stipulated date. Combination of these factors has increased the vulnerability of the Indian peasantry to the fluctuations in global markets, while also inflicting substantial losses on them. Coupled with increasing the openness, the neo-liberal regime has also pushed up the input prices, for instance through a curtailment of subsidies (e.g. fertilizer subsidies), cost of power for irrigation etc. Thus, as a direct consequence of the above noted policies, the peasantry has been squeezed from both sides; it is akin to getting trapped in a pincer.

As is well-known, the essence of neo-liberalism is a move towards expenditure deflating policies at the macroeconomic level, and some of the outcomes reported in the preceding paragraph were obvious fallouts of such policies. However, it is not only with respect to a couple of areas with respect to agriculture that such policies have unfolded, but in a pervasive and generalised manner for the rural economy as a whole. Following Patnaik (2006), I include the five expenditure heads of a) Agriculture, b) Rural development c) Village and small scale industry d) Irrigation and flood control, and e) Special areas programme, to have an aggregate head called Total Rural Development Expenditure, and examine the expenditure trends since 1990-91 under this head, for all the state governments, and for the Centre and the state governments together, in Tables 4 to 7. As may be seen from these tables, government expenditure has undergone a drastic decline in the country side.

In fact Plan expenses incurred on total rural development by all the state governments was 42.9 per cent of the total budget in 1990-91, but declined to a little over 30 per cent of the total budget in 2002-03; this means a drop of almost 25 per cent points. (see Table 4).

Table 4: Plan Expenses incurred by all the State governments on different heads of rural development (Rs. Lakhs)

10	rar ac verop	ment (Rs. La	akiisj					
				Major and Medium				Total Rural
	.Agriculture			Irrigation	Village			Development
			Special Area					as% of Total
	Activities	Development	Programmes	Control	Industries	Development	Budget	Budget
1990-91	279119	371884	49751	417769	58637	1177160	2743287	42.9
1991-92	294998	407744	56330	434949	56188	1250209	3108446	40.2
1992-93	342597	500390	58121	486353	57635	1445096	3339147	43.3
1993-94	356531	536502	67681	555323	60878	1576915	3673003	42.9
1994-95	386768	480941	70329	670573	79141	1687752	4451369	37.9
1995-96	425378	490073	79348	731831	95469	1822099	4844997	37.6
1996-97	473714	595405	98766	763964	105208	2037057	5304590	38.4
1997-98	419805	628089	107320	888405	75532	2119151	5926001	35.8
1998-99	492388	700260	130589	922252	88383	2333872	6487063	36.0
1999-00	587502	759847	125249	1037050	79373	2589021	7032057	36.8
2000-01	581370	742829	140227	950581	90127	2505134	7861564	31.9
2001-02	490495	862556	80869	989711	82928	2506559	8013887	31.3
2002-03 RE	747222	1068129	147821	1178442	123871	3265485	10534492	30.9

Source: Handbook of Statistics on State Government Finances, RBI, 2006.

Likewise, the non-plan expenses incurred by all the state governments on total rural development went down, as a percentage of budget, from 13.3 per cent during 1990-91 to 9.9 per cent during 2001-02and further to 8.4 per cent during 2002-03. (see Table 5)

Table-5: Non-Plan Expenses incurred by all the State governments on different heads of Rural Development (Rs. In Lakhs)

	.Agriculture			Major and Medium	Village and			Total Rural Development
		Rural	Special Area	8	Small	Total Rural	Total Non-	as% of Total
	Activities	Development	Programmes	Flood Control	Industries	Development	Plan Budget	Budget
1990-91	413672	107111	4904	293499	26266	845452	6365518	13.3
1991-92	428248	141380	5476	364262	39072	978438	7684499	12.7
1992-93	579283	154193	6334	429753	36499	1206062	8594318	14.0
1993-94	605385	205398	8198	484282	41299	1344562	9791852	13.7
1994-95	615112	228758	9432	560559	35944	1449805	11489245	12.6
1995-96	646363	186077	10991	641552	0	1484983	12913380	11.5
1996-97	639943	198404	11364	723682	43567	1616960	14972286	10.8
1997-98	865861	247590	16470	806048	54279	1990248	16887477	11.8
1998-99	1022090	382122	21470	916764	62387	2404833	20149023	11.9
1999-00	1198347	349153	21688	990244	62725	2622157	24369585	10.8
2000-01	1264869	389317	20698	1095554	67522	2837960	26858253	10.6
2001-02	1364694	386399	36430	1089721	72493	2949737	29717275	9.9
2002-03								
RE	1196240	411635	26797	1131364	70452	2836488	33729677	8.4

Source: Same as Table 4.

Taking both plan and non-plan heads together, the total expenses incurred on rural development went down from 22.2 per cent of the total budget to about 13.8 per cent during 2002-03.

Table 6: Total Expenses incurred by all the State governments on different heads of

Rural Development (Rs. In Lakhs)

	Rural Deve	поршени	(NS. III Le	ikiis)				
								Total
								Rural
				Major and	Village			Develop
	.Agricultu			Medium	and	Total		ment
		Rural		C	Small	Rural		as% of
	Allied	Develop	Program	and Flood	Industrie	Developm	Total	Total
	Activities	ment	mes	Control	S	ent	Budget	Budget
1990-91	692791	478995	54655	711268	84903	2022612	9108805	22.2
1991-92	723246	549124	61806	799211	95260	2228647	10792945	20.6
1992-93	921880	654583	64455	916106	94134	2651158	11933465	22.2
1993-94	961916	741900	75879	1039605	102177	2921477	13464855	21.7
1994-95	994604	693663	80288	1230604	113569	3112728	16155379	19.3
1995-96	1071741	676150	90339	1373383	133870	3345483	17758377	18.8
1996-97	1113657	793809	110130	1487645	148774	3654015	20276877	18.0
1997-98	1285665	875679	123790	1694453	129811	4109398	22813478	18.0
1998-99	1514478	1082382	152059	1839016	150770	4738705	26636086	17.8
1999-00	1784841	1108454	146815	2025449	141964	5207523	31388882	16.6
2000-01	1846239	1132146	160925	2046135	157649	5343094	34719817	15.4
2001-02	1855189	1248955	117299	2079432	155421	5456296	37731162	14.5
2002-03								
RE	1943462	1479764	174618	2309806	194323	6101973	44264169	13.8

Source: Same as Table 4.

Taking together the central and all the state governments, we have a similar story. Total Rural Development expenditure shows a drastic compression and as a proportion of NNP, it has come down from 3.6 per cent during the sixth plan to about 2.2 per cent during the ninth plan. (see Table 7).

Table-7: Trend of Public Expenditure on Rural Development by Central and State Governments as a Proportion of NNP at Factor Cost

						Ninth	
		Seventh			Eighth	Plan	
	Sixth Plan	Plan			Plan	(1997-	2002-
	(1980-85)	(1985-90)	1990-91	1991-92	(1992-97)	2002)	03RE
I. Agriculture & allied activities	6623.5	12792.6	3405.4	3850.5	22467.2	36818.1	10691.28
II. Rural development	6996.8	15246.5	4149.9	4141.6	34425.4	56427.5	21963.01
III. Special area programmes	1580.3	3470.3	986.3	1067.3	6750.1	5536.3	7698.97
IV. Irrigation and flood control	10929.9	16589.9	3974.1	4231.9	32525.3	63009.5	12164.42
Village and small scale Industries	1945.1	3249.3	877.9	941.2	6334.2	8088.7	2385.03
Total Rural Development	28075.6	51348.6	13393.6	14232.5	102502.2	169880.1	54902.71
Current NNP at Factor Cost	784255	1466896	450145	514607	4114780	7791187	2003282
Total Rural Development as% of							
NNP at Factor Cost	3.6	3.5	3.0	2.8	2.5	2.2	2.7

Economic Survey various issues.

If we focus specifically on the agricultural sector, then again a marked slowdown in capital formation and other important heads is evident. Investment in agriculture as a proportion of GDP has fallen from 1.92 per cent in 1990 to 1.31 per cent in 2003. The Gross Capital Formation in agriculture, as a percentage of GDP, has also declined from 3.8 per cent during 1980-81 to about 1.7 per cent during 2004-05.

Similarly, the expenditure on irrigation coverage and flood control has witnessed a declining trend during the reform period. Table 8 below provides a snapshot of the government expenditure on these couple of heads since the first five year plan period, and as may be seen, the recent years have seen a significant compression in the share of these heads.

Table 8: Share of Agriculture and Allied Activities, Irrigation and Flood Control in Plan Expenditure of Central, All States and Union Territories taken Together.

	Actual Expenditure on Agriculture, Irrigation and Flood control	Actuals, Total Plan Expenditure	2 as % of 3
1	2	3	4
First (1951-56)	724	1960	37
Second (1956-61)	979	4672	20.9
Third (1961-66)	1754	8577	20.5
Annual (1966-69)	1578	6625	23.8
Fourth (1969-74)	3674	15779	23.3
Fifth (1974-78)	8741	39426	22.1
Annual (1978-80)	3284	12177	26.9
Sixth (1980-85)	26130	109291	23.9
Seventh (1985-90)	48099	218730	22
Eighth (1992-97)	102729	495669	20.7
IX Plan (1997-02)	161791	813998	19.8
X Plan (2002-07)*	101525*	616700*	16.5

Source: Economic Survey, Various Years.

Apart from the drastic compression in government expenditure for agriculture in particular, and rural areas in general, there has been a drying up of institutional credit for agriculture, leading to an increased dependence on money lenders, traders etc. i.e. private sources of usurious credit. The percentage share of agricultural credit, in the total credit of all Scheduled Commercial Banks<sup>7</sup> since the early 1990s has taken a severe beating compared to the levels, reached in the 1980s, as may be seen from Table 9. It is true that in the last couple of years, since 2003, there has been a substantial increase in absolute amount of credit for agriculture, and it may have eased the pressure on the relatively better off farmers. However, it quite possible that for very large section of the peasantry, here has been no turn around in this respect.

Secondly, it is worth emphasizing that the share of indirect credit in the total agricultural credit showed a declining trend during the 1970s and the '80; however, from the mid-1990's onwards, the share of indirect credit in total agricultural credit is increasing. As is well-known, (and it should be quite clear from end-note 8), that a great deal of the indirect credit is outside the reach of farmers, and thus a shift in composition of credit for agriculture in favour of the indirect component may be considered a cause of concern from the point of view of the immediate well-being of

farmers, particularly so when almost every other aspect of the macroeconomic policy has put them in a tighter spot.

TABLE 9: Agricultural Credit of All scheduled Commercial Banks

Agricultural credit of All Scheduled Commercial Banks (in Rs Lakhs)												
(1)Year	(2)Direct	(3)Indirect	(4)Total	(5)Total Bank Credit	per cent of (2) in (4)	per cent of (3) in (4)	per cent of (4) in (5)					
1973	40943	16222	57165	633347	71.62	28.38	9.03					
1974	53765	17109	70874	799906	75.86	24.14	8.86					
1975	65791	31079	96870	901102	67.92	32.08	10.75					
1976	88834	32588	121422	1167831	73.16	26.84	10.4					
1977	109957	29985	139942	1345699	78.57	21.43	10.4					
1978	140503	55595	196098	1596113	71.65	28.35	12.29					
1979	194574	57540	252114	1916264	77.18	22.82	13.16					
1980	241779	73425	315204	2131161	76.71	23.29	14.79					
1981	303267	112755	416022	2487476	72.9	27.1	16.72					
1982	380306	127288	507594	2959038	74.92	25.08	17.15					
1983	425964	152635	578599	3502025	73.62	26.38	16.52					
1984	614351	151125	765477	4332570	80.26	19.74	17.67					
1985	733892	148132	882024	4999457	83.21	16.79	17.64					
1986	831223	145804	977027	5618178	85.08	14.92	17.39					
1987	931822	170053	1101875	6372739	84.57	15.43	17.29					
1988	1079266	172295	1251561	7128468	86.23	13.77	17.56					
1989	1338978	187602	1526580	8802707	87.71	12.29	17.34					
1990	1443532	219075	1662607	10431193	86.82	13.18	15.94					
1991	1597132	260206	1857338	12420293	85.99	14.01	14.95					
1992	1783555	240208	2023764	13670582	88.13	11.87	14.8					
1993	1949350	256672	2206022	16246729	88.36	11.64	13.58					
1994	1966974	320312	2287287	17589127	86	14	13					
1995	2142051	352750	2494802	21093912	85.86	14.14	11.83					
1996	2455613	425282	2880896	25469211	85.24	14.76	11.31					
1997	2721736	441680	3163415	28437330	86.04	13.96	11.12					
1998	3050890	475362	3526252	32994444	86.52	13.48	13.69					
1999	3394114	694812	4088926	32994444	83.01	16.99	12.39					
2000	3856079	707748	4563827	46008068	84.49	15.51	9.92					
2001	4342026	831008	5173035	53843379	83.94	16.06	9.61					
2002	4743042	1657812	6400855	65599308	74.1	25.9	9.76					
2003	5905756	1687766	7593522	75596882	77.77	22.23	10.04					
2004	7009873	2614631	9624504	88031203	72.83	27.17	10.93					
2005	9463537	2974950	12438487	115246793	76.08	23.92	10.79					

Source: BSR various issues.

Tables 1 to 6 in the Appendix I, gives disaggregated information for the flow of credit for agriculture from the major segments; as is evident, the trend is almost identical for every segment, except in terms of the tipping point. In case of SBI and associates, the share of indirect credit in total agricultural credit was just 13.5 per cent during 1989, but by 2005, it was over 20 per cent

.

For the Nationalised Banks as well, the share of indirect credit has gone up even more sharply; it was 14.14 per cent in 1990-91, but increased to 29.18 per cent in 2005. The prime mandate of the Regional Rural Banks is to facilitate rural development and provide agriculture credit although the scale of operations of these banks is much smaller than those of the SBI or Nationalised Bank; for RRBs, the direct credit to agriculture still constitutes the overwhelming proportion, but in the last five years the trend seems to changing. In case of other commercial banks (Private banks) not surprisingly, the share of indirect credit in total agriculture credit has seen a very significant increase; it was just about 8.36 per cent in 1989 but has accounted for almost a third of the total credit since 2000. However, the change in the portfolio of the co-operative banks during the 1990s is striking, given the significance of such banks for providing formal credit in rural areas. During the recent years more than half the total agricultural credit from co-operatives goes for indirect purposes. In sum, farmers have increasingly been left to the mercy of money lenders and traders, particularly since the second half of the 1990s, i.e. the period during which the socalled banking sector reforms were put in place. Thus, one of the major achievements of Bank Nationalization has been rolled back very significantly, and the small and marginal farmers must have been hit particularly hard by this change of course.

Another important factor contributing towards the deceleration of growth in agriculture since the early 1990s has been the weakening of scientific research and extension services by the government. By all accounts, the Agricultural Universities, which had played a critical role in the development and dissemination of better quality seeds, other inputs and improvement in agricultural practices, have been starved of funds, with obvious adverse consequences. As noted journalist P. Sainath has repeatedly pointed out, the agents of Multinational Seed Corporations have developed strangleholds in several regions of the country, and the peasantry has to pay exorbitant prices for seed varieties producing dubious results. Almost every link

in the chain of public provisioning, from the laboratory to the farm, has suffered seriously due to the withdrawal of the State in the recent years, and the consequences are not difficult to imagine. It is not only the petty capitalist agriculture that has suffered on this count, but the agricultural sector as a whole. In the long-run, the consequences of such a neglect may be perilous<sup>9</sup>, and leaving it to the private sector is more a problem than a solution.

To conclude this section: it should be evident from the foregoing discussion that there is strong basis to argue that India's contemporary crisis is organically connected with the neo-liberal regime that has been ascendant since the early 1990s. Agriculture, in a country like India, can hardly do without substantial State support and it is precisely this support that has been hit hard by neo-liberalism.

## Well-being of Agriculture Labour: Some Indicators

As regard the well being of agricultural labourers, there are a variety of indicators like employment, wages, consumption, indebtedness etc., on which very substantial information is provided by the well-known official data systems. There is a huge and sophisticated literature on the methodologies of these large scale data systems, quality of information emanating from these, the trends with reference to the above noted variables, and a host of other relevant issues. It is not my objective here to get into a discussion of most of these issues. The limited concern in this paper is to recall the significant developments with respect to the well-being of agricultural labourers, as emerging from the most frequently used data sources, which, prima-facie, are connected with the contemporary agrarian crisis discussed in the earlier section. For instance, whichever analytical perspective one adopts, a significant deceleration in the rate of growth of agricultural output is likely to impact adversely on wages, employment opportunities etc. for agricultural labourers. There is already a substantial literature that has tracked the trends, with reference to most of these aspects, during the reform period. I would only like to draw attention to the salient features, and that too, largely at the all-India level. But before that, a quick word on a couple of general features relating to the agricultural labour households may be in As per the NSS data, the number of rural households was 137.1 million in order. 1999-00, and the rural labour households (RLH) constituted about 40.2 per cent of this. Corresponding figure for agriculture labour household (ALH) was 32.3 per cent. During 1999-00 the average size i.e. the number of members in the household of ALH was 4.6 and for RLH was 4.7.

As may be seen from table 10, during the 1980s and '90, the average size of labour household roughly remained the same, whereas the average number of wage earners, both for ALH and RLH, went down significantly during the 1980s but went up subsequently, almost as significantly again.

TABLE 10: General Characteristics.

General	Charac	teristics		
Year	1983	1987-88	1993-94	1999-2000
No of Rural Households (in				
millions)	100.5	108.4	119.5	137.1
per cent of RLH	37.3	39.7	38.3	40.2
per cent of ALH	30.7	30.7	30.3	32.2
ALH(average size)	4.6	4.6	4.4	4.6
RLH(average size)	4.6	4.6	4.5	4.7
Average no of wage-earners ALH	1.9	1.4	1.7	1.8
average no of wage earners RLH	1.8	1.3	1.6	1.7

Source: 7<sup>th</sup> Rural Labour Enquiry Report (henceforth RLE)

As regards the figures for the quantum of employment, my sense is that our data systems do not provide reasonably accurate numbers, and generally tend overestimate it substantially.<sup>10</sup> Nonetheless, Table 11 and 12 provide some relevant information for the 'number of days worked and not worked', as per the NSS data, for the workers in the agricultural labour households.

TABLE 11: Number of Days Worked

	Number of Days worked												
	Wage Employment			Self-Employment			Salary Basis						
	Men	Women	Children	Men	Women	Children	Men	Women	Children				
1983	225	187	166	53	42	118	8	4	3				
1987-88	223	186	173	56	59	116	17	9	13				
1993-94	235	203	178	55	55	120	15	7	8				
1999-2000	222	192	182	52	55	93	24	9	12				

Source: 7<sup>th</sup> RLE

TABLE 12: Number of Days not worked

Number of Days not Worked												
		Due to Sicl	kness	Due to Want of Work								
	Men	Women	Women	Children								
1983	33	86	53	46	46	24						
1987-88	30	82	36	39	29	27						
1993-94	30	75	38	30	25	21						
1999-2000	31	77	43	36	32	32						

Source: 7<sup>th</sup> RLE

Thus for the workers in the agricultural labour households, as per the NSS data for the 1980s and 1990s, there is not too much of a story, except that during the second half of the '90s, there is a decline in work days, which fits in well with the picture of very significant deceleration in aggregate employment generation, particularly in rural India. However, the information for the 61<sup>st</sup> round of the NSS, covering 2004-05, have just been released, which suggest that the aggregate employment generation for the country as whole, and for the rural areas, has recovered substantially.

TABLE 13: Growth Rates of Agricultural Employment and Wages

	1993-94 to 1999-00	1999-00 to 2004-05	1993-94 to 2004-05
Agricultural Self Employment	-0.53	2.89	1.01
Agricultural wage Employment	1.06	-3.18	-0.89
Total agricultural Employment	0.03	0.85	0.4
Agricultural GDP	2.88	1.76	2.37
Implied employment elasticity	0.01	0.49	0.17
Real Agricultural wage			
rate(CPIAL deflated)	2.74	1.46	2.15

Source: 7<sup>th</sup> RLE and 61<sup>st</sup> NSS Survey.

Nonetheless, the most important component of employment for agricultural labourers, namely the agricultural wage employment has shrunk very substantially during the first half of this decade, as may be seen from Table 13. Total agricultural employment saw some upturn between 1999-00 to 2004-05, but it was due to higher self employment particularly by women. It may well be the case that the increase in self-employment, along with a contraction in wage employment, may simply reflect a distress – driven phenomenon. Such a possibility gets confirmed further if we look at the growth rates of real agricultural wages.

Given the inherent attributes of the different variables reflecting the well-being of labour households, the methodologies of information gathering, and several other related issues, the quality of information may not be uniform across the variables; further my own sense is that the wage data may provide relatively more significant and reliable pointers than the information on variables such as employment, indebtedness, consumption etc. Table 14 below summarises the recent wage trends for workers in the agricultural labour households in rural India.

In case of agricultural operations the rate of growth of earnings for male workers shows quite a disquieting picture in the recent years. The rate of growth of wages during the period 1983-1987 was a little over 60 per cent, which came down to about 28 per cent during 1987-88 to 1993-94; it further fell to 16 per cent for the period 1993-94 to 1999-2000, and was only 8 per cent for the period 1999-99 to 2004-05. Similarly trend is noticeable for the female and child workers in agricultural operations.

Table 14: Trends in Real Average Daily Earnings

Average daily earnings of workers in Agricultural Operation <sup>®</sup>							
Year	Men	Children					
1983	5.5	4.14	2.7				
	8.82(60.36 per	6.6(59.4 per	5.6(107.4 per				
1987-88	cent)	cent)	cent)				
	11.3(28 per		6.6(17.8 per				
1993-94	cent)	8(21 per cent)	cent)				
	13.11(16 per	9.27(15.8 per	7.9(19.7 per				
1999-2000	cent)	cent)	cent)				
	14.2(8.3 per						
2004-05	cent)	9.9(6.7 per cent)	NA				
Average D	aily Earnings of	Workers in Non-A	Agricultural				
	Oper	ations <sup>@</sup>					
Year	Men	Women	Children				
1983	6	3.47	3.3				
	9.6(60 per	7.4(113.25 per	5.9(78.8 per				
1987-88	cent)	cent)	cent)				
	14.4(50 per	8.6(16.2 per	7.9(33.9 per				
1993-94	cent)	cent)	cent)				
	17.7(22.9 per	11.13(29.4 per	7.9(0 per				
1999-2000	cent)	cent)	cent)				
	20.2(14 per	13.3 (19.4 per					
2004-05#	cent)	cent)	NA				

Source: 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> RLE

@ 1986-87 prices; deflator used is the All India Consumer Price Index for Agricultural Labour, The figures in brackets refer to percentage growth over the previous period.

The trends in the movement of real average daily earnings of workers in non-agricultural operations are along a similar track, as may be seen from Table 14. Essentially, the picture is one of the very significant declines in the rates of growth of average daily earnings since the early 1990s.

Several researchers have tracked the movement of agricultural wages since the 1980s, using a variety of available data sources, at the level of all-India as also at the level of states or even lower administrative units, (e.g. papers in IJLE, Vol. 43, No. 2, 2005, by Himanshu, Srivastava and Singh, Sharma among others). The unambiguous conclusion from the existing literature is that the growth rate of real agricultural wages declined substantially during the period designated as that of agrarian crisis in this paper, at the all-India as well as state levels. Appendix 2 provides information for wage trends major states, on the basis of two most frequently used data sources. The

<sup>#</sup> data for 2004-05 is from NSS 61st round.

decelerations in growth rates, to say the least, are dramatic; these rates were not even one-third during 1993-94 to 1999-00, compared to these achieved during 1983 to 1987-88, at the all India level, and in some states, these rates had turned negative during the second half of the 1990s. The fact of decline in absolute real wages, at miserable levels of living, is a stark message of the adverse impacts on agricultural labourers by the neo-liberalism driven agrarian crisis.

In fact a simple-minded exercise, based on the data provided by Agricultural Wages in India, suggests that at a disaggregated level, the decline in absolute real wages was rampant during the 1990s. Tables in Appendix 3 summarise the information on annual compound growth rates for real wages, for 1980s and 1990s, for different operations, gender-wise and district-wise. These tables convey quite a distressing story. For instance, in case of male field labourers 96 per cent of the districts all over India had experienced a positive growth rate of real wages during 1980s but during the 1990s, only 50 per cent of the districts experienced a positive growth of real wages. The decline is sharpest in Maharashtra where as many as 23 out of 29 districts experienced a decline in absolute wages. In case of female field labourers, 96 per cent of the districts had experienced a positive growth of real wages during the 1980s but during the 1990s only 53 per cent of the districts experienced an increase in real wages.

Essentially, we have a story for almost every operation, of very significant increases in the number of districts recording declines in real wages. Tables in Appendix 4 provide information on the rate of growth of wages, for 1990s compared to the 1980s, gender wise and operation wise. As it happens, there are very few districts which reported higher growth for the 1990s compared to 1980s. For instance in case of field labour for females 56 out of 61 reporting districts experienced a lower growth rate for 1990s compared to the '80, and for male field-labour, the number of such districts was 58 (out of 61). As may be seen from the relevant tables, across the operations, we have a similar story.

Thus, information on arguably the single-most important variable from the available data sources, with reference to the well-being of agricultural labourers, clearly suggests deeply disturbing developments. Infact, it is likely that the wage

earnings for agricultural labourers in the recent years are even lower than those suggested by the large-scale data systems, due to significant changes in the nature of wage contracts, which may have created upward biases in reporting an issue I have discussed in detail elsewhere (Jha, 2004, also, see Himanshu, 2005).

Thus, most vulnerable of India's workers appear to have been impacted very adversely since the early 1990s, and part of the explanation has to do with the generalised agrarian distress. Moving to some other indicators of their economic well-being, such as consumption and indebtedness, we have further confirmation of their dismal state. As may be seen from Table 15, the total per capita annual consumption levels are abysmally low. In fact, real daily per capita consumption, at 1986-87 prices, was in the horribly small range of Rs. 3.3 to Rs. 4.27 between 1983 to 1999-00. Obviously to keep afloat, a substantial number of labour households have to take recourse to debt.

TABLE 15: Real Per Capita Consumption Expenditure of ALH

Real Per Capita Consumption Expenditure of ALH <sup>@</sup>								
year	1983	87-88	93-94	99-00				
		912.6(9.5	935.8(2.54	971(3.76 per				
Food	833.34	per cent)	per cent)	cent)				
Clothing, Bedding and footwear	87.76	81.8	69.45	118.4				
Fuel and Light	99.14	120	117.3	126.7				
Stimulants and intoxicants	45.3	55.8	55.4	55.41				
House Rent	0	1.4	1.8	2.4				
Services and Miscellaneous	148.45	188	233.24	283.2				
Total per capita Consumption		1360(12 per	1413(3.89	1557.1(10				
Expenditure	1214	cent)	per cent)	per cent)				

Source: 7<sup>th</sup> RLE

@ @ 1986-87 prices; deflator used is the All India Consumer Price Index for Agricultural Labour, The figures in brackets refer to percentage growth over the previous period.

As may be seen from Table 16, by 1999-00, moneylenders had emerged as the single most important source of debt for these households. Clearly Banks have increasingly been shying away from lending to these households, and their share in the debt has reduced from more than 30 per cent during 1983 to about 16.6 per cent during 1999-00.

TABLE 16: Debt of Agricultural Labour Households by Source

Percentage of debt by source Agriculture Labour Households								
	1983	1987-88	1993-94	1999-00				
Government	2.9	3.6	8.2	4.1				
Co-operatives	7.9	10	7	10.3				
Employers	13.9	13	12.2	7.9				
Money Lenders	18.6	22	29.4	34				
Shop-Keepers	7.7	6.9	6.9	8.4				
Banks	33.3	21	20.7	16.6				
Relatives and Friends	10.8	13.7	12.9	16.1				
Others	8	9	2.8	4				

Source: 7<sup>th</sup> RLE

Not surprisingly, a large part of the debt goes into household consumption and ceremonial expenses (much of which are culturally sanctioned financially demanding rituals). In fact, more than half the debt of agricultural labour households is spent on these heads, as may be seen from Table 17. Only about 21.5 per cent of the total debt in 1999-00 was spent on productive purposes, which was quite a come down from 41.4 per cent of the total debt for the same purpose in 1983.

TABLE 17: Debt by Purpose

Percentage of debt by Purpose									
ALH	1983	1987-88	1993-94	1999-00					
Household consumption	30.4	34.3	32.3	31					
Ceremonial Expenses	14.7	13.8	17.1	24.1					
Productive Purposes	41.4	29.1	28.3	21.5					
Purchase of land/building construction	6.3	8.5	10	14.6					
Repayment of debt	-	102	1.7	1					
Others	7.2	13.1	10.6	7.8					

Source: NSSO 55<sup>th</sup> round

Tables 1 and 2 in Appendix 5 provide state wise disaggregated information, and it is evident that in most states the debt burden per indebted household increased at a faster pace during the second half of the 1990s. For the country as whole, the debt burden of indebted agricultural labour households, on an average, increased by 6.7 per cent between 1983 and 1993-94, but accelerated to 10.54 per cent between 1993-94 and 1999-00. Furthermore, the proportion of institutional sources in total debt owed by

these households declined from 44.06 per cent in 1983 to only about 31.07 per cent in 1999-00. and consequently the share of informal sources has increased from 55.94 per cent to 68.93 per cent over the same period.

In sum, the most obvious correlates of the economic well-being of agricultural labourers have certainly come under pressure during the period of neo-liberal economic reforms. In substantial measure, it is through the adverse mechanisms induced by such reforms in the country's agricultural sector; however, it is worth emphasizing again that the rural economy, in general, has been hard-hit by the neo-liberal economic regime and consequently, there are mechanisms outside agriculture as well that have impacted adversely on agricultural labour households.

As one may expect, it is not only the economic but other indicators of well-being of the vulnerable masses that may have suffered. To close this section, let me briefly look at only of these, which is however amongst the most critical, namely, access to basic education. Tables 18 and 19 convey significant pointers in this respect. As per the 1999-00 NSS Survey, almost 56 per cent of the male agricultural labourers were still illiterate at the all India level, and for female labourers this proportion was much higher at over 80 per cent. For the population of age 7 years and above the literacy rates improve somewhat, as may be seen from Table 18. However, for both groups, there are several states which have abysmally low levels of literacy and Bihar has the dubious distinction of being at the bottom of the heap. Other states like Andhra Pradesh, Punjab and Uttar Pradesh too have a large population of illiterate labourers. Kerala as is well-known, is almost like an outlier, with impressive achievements, but otherwise it is quite a dismal scenario, and more so for females.

Table 18: Literacy Rates amongst Agricultural Labour.

Literacy rates amongst workers and persons above 7 years of age, agricultural labour								
households, 1999-2000								
				All pe	ersons aged 7	years and		
		Worker	S		above			
	Male	Female	Persons	Male	Female	Persons		
Andhra Pradesh	35.5	15.2	25.9	46.1	27.9	37		
Assam	59	28.8	50.9	65.4	43.2	54.9		
Bihar	23.5	3.4	17.4	31.7	10.5	21.6		
Gujarat	59	26	44	64.7	36.1	50.4		
Haryana	47	5.4	35.9	62.5	39.8	52.1		
Himachal Pradesh	68.5	31	54	77.7	56.2	67.9		
Karnataka	40.3	16.6	29.9	51.3	33.8	42.3		
Kerala	87.8	70.1	81.8	89.9	79.4	84.5		
Madhya Pradesh	43	16.2	31.1	54	28.3	41.5		
Maharashtra	58.2	29.1	44.3	68	44	56.2		
Orissa	41.5	11.5	29.3	50.9	27.7	39.1		
Punjab	35.5	16.7	29.7	48.9	35	42.3		
Rajasthan	38.7	10.1	26.8	49.9	18.9	35.3		
Tamil Nadu	55.9	27.8	42.9	65.1	43.7	54.2		
Uttar Pradesh	34.6	5.4	24.8	47.6	17.7	33.2		
West Bengal	47.3	20.8	39.9	54.3	36.3	45.5		
All India	43.7	18.9	33.7	53.4	31.5	42.6		

Source: Estimates based on Unit-level data from the NSS Employment-Unemployment Surveys, Various Rounds.

However, the more disturbing development is the trend emerging from Table 19 which shows a considerable weakening of school attendance of children from agricultural labour households. The proportion of children from such households attending school in 1987-88, at the all-India level, was just over 30 per cent but it saw a very substantial jump of over 22 per cent points to reach 52.9 per cent in 1993-94. But, the rate of progress decelerated dramatically as in 1999-00 only 59.8 per cent children attended school. As the table shows the all India picture holds true more most states, and the worst performing ones are the so called BIMARU states. It may not be unwarranted to suggest that growing economic vulnerability of agricultural labour households is part of the explanation for the observed deceleration in the expansion of school attendance.

Table 19: Proportion of children (aged 5-14 years), attending school, from agricultural labour households

	Males			Females			All		
	1987-	1993-	1999-	1987-	1993-	1999-	1987-	1993-	1999-
	88	94	00	88	94	00	88	94	00
Andhra Pradesh	46.3	57.4	71.3	23.4	42.5	60.2	35.2	49.6	65.9
Assam	46	64.7	67.9	38.1	60.7	56.8	42.5	63.1	62.5
Bihar	15.7	42.5	35.5	4.1	19.7	20.7	10.7	32.8	28.8
Gujarat	59.3	70.7	73	38.2	50.6	63	49.4	61.7	68.3
Haryana	36.1	62.1	72.5	18.3	44.6	54	28.2	53.7	63.4
Himachal									
Pradesh	38.1	77.7	96.4	32.6	83.2	80.3	36	80.3	90
Karnataka	51.6	61.7	71	35.7	51.6	66.8	43.7	56.8	68.8
Kerala	85.1	91.1	95.7	80	91.5	94	82.6	91.3	94.8
Madhya									
Pradesh	25	51.7	61.5	6.9	34	51	16.8	43.3	56.6
Maharashtra	57.6	76.8	81.5	40.4	62.1	73.7	49.8	69.7	77.8
Orissa	20.5	56.4	63.9	10.9	39.1	52.7	15.8	47.8	58.3
Punjab	19.3	60.9	73.7	13.4	48.5	70.5	16.7	55.4	72.2
Rajasthan	24.9	60.8	63.1	4.7	15.4	41.3	16.5	39.7	52.9
Tamil Nadu	47.6	79.7	85	32.4	68.9	84	40.4	74.2	84.5
Uttar Pradesh	22.1	53.5	65.7	5.5	24.2	42.3	15	41.2	55
West Bengal	31.4	53.8	60.7	24.3	43.6	51.3	27.9	48.9	56.1
All India	36.4	60.3	64.9	22.7	44.6	54.3	30.1	52.9	59.8

Source: Compiled from unit-level data from the 55<sup>th</sup> round of NSS employment-Unemployment survey

#### A Concluding Remark

The socio-economic conditions of agricultural labourers obviously has complex linkages with the larger structure and pace of economic transformation, and specific public policies addressed at their well-being. However, it is only natural that in a predominantly agricultural country (in terms of occupational structure), well-being of labour in rural areas has a lot to do with the developments in the agricultural sector. It seems evident that the neo-liberal economic regime since the early 1990s has affected the rural economy in a number of adverse ways with ominous consequences for the well-being of agricultural labourers, who in any case are at the bottom of the heap; *it may not be an exaggeration to say that the agrarian proletariat is probably trapped for some time now, in one of the most distressing situations since independence.*True, the recent National Rural Employment Guarantee Act, whose implementation began in February 2006 on a limited scale, is a most welcome step by the current central government, and the reach of the programmes needs to be up scaled-up and expanded. Apart from its potential contribution to the well-being of rural labourers, its demand-side effect for the economy as a whole is obvious. However, it needs to

be kept in mind that the larger picture, in terms of overall economic policies, continues to be unfavourable for India's rural economy, as the neoliberal assault on it continues. The scramble for resources in rural India – land, forests, mines, water – by national and international capital continues unabated; infact, in the tribal dominated central India bet, comprising of parts of Maharashtra, Madhya Pradesh, Chhatisgarh, Orissa and Jharkhand, instances of dislocation, land alienation and loss of access to a variety of natural resources for the peasantry appears to have accelerated in the recent years, with obvious ominous consequences for those at the bottom of the rural economy.

#### References

- Chandrasekhar, C.P. and J. Ghosh (2002), The Market that Failed, Leftword.
- Ghosh, Jayati and C.P.Chandasekhar, "Employment growth: The latest trends", Macroscan.
- Government of India Labour Ministry, Labour Bureau, "Report on Wages and Earnings of Households" 7<sup>th</sup> Rural Labour Enquiry based on the 55<sup>th</sup> round of N.S.S 1999-2000.
- Government of India, Ministry of Finance Economic Survey, Various Issues.
- Government of India, Ministry of Agriculture, (2004), Agricultural Statistics at a Glance.
- Himanshu (2005), "Wages in Rural India: Sources, Trends and Comparability," *The Indian Journal of Labour Economics*. vol.48, no.2, April-June, page 375-406.
- Jha, Praveen (1997), Agricultural Labour in India, Vikas Publishing House, New Delhi.
- Jha, Praveen (2004), "Continuity and Change: Some Observations on the Land scope of Agricultural Labourers in North Bihar, India", Journal of Agrarian Change, Vol. 4, No. 4.
- Patnaik, Prabhat (2005), "The Crisis in India's Countryside", *Paper presented in a seminar* titled 'India: Implementing Pluralism and Democracy', organised by the department of Philosophy, University of Chicago, Nov 11 to 13.
- Patnaik, Utsa (2006), "Poverty and Neo-Liberalism," *Rao Bahadur Kale Memorial Lecture* delivered at Gokhale Institute of Politics and Economics, Pune Feb 03.
- Reserve Bank of India, Basic Statistical Returns (BSR), Various Issues.
- Reserve Bank of India (2206), Handbook of Statistics on State Government Finances.
- Sen, Abhijit (2003), "Globalization, Growth and Inequality in South Asia: The Evidence from Rural India" in *Work and well-Being in the age of Finance* in Ghosh and Chandrasekhar (ed), Tulika, New Delhi.
- Sharma.H.R (2005), "Economic Conditions of agricultural Labour Households in 1990s: A State Level Analysis of Wage Earnings and Indebtedness," *The Indian Journal of Labour Economics*. vol.48, no.2, April-June, Page 425-436.
- Sheila Bhalla (2005), "India's Rural Economy: Issues and Evidences," *Working Paper Series*, No.25, Institute for Human Development.
- Sometimes subsidies are opposed by progressive economists on ecological grounds. But it is elementary commonsense that to move farmers away from harmful chemical fertilizers to organic cultivation itself may necessitate incentives in the form of subsidies.
- Srivastava, R. and R. Singh (2005), 'Economic Reform and Agricultural Wages in India', The Indian Journal of Labour Economics, Vol. 48, No. 2.
- Vaidyanathan, A (2006), "Farmer's Suicides and the Agrarian Crisis," *Economic and Political Weekly*. Vol. XLI, No.38, Sep 23.
- Vyas.V.S (2006), "Agrarian Distress: Strategies to Protect Vulnerable Sections" *The Indian Journal of Labour Economics*. Vol.48.No.1, January-March.

## APPENDIX 1

TABLE 1:

	Agricultural Credit of SBI and Associates (in Rs Lakhs)							
				per cent of	per cent of			
Year	Direct(1)	indirect(2)	Total(3)	(1) in(3)	(2) in (3)			
1989	387452	58725	446187	86.84	13.16			
1990	NA	NA	NA	NA	NA			
1991	493173	99968	593141	83.15	16.85			
1992	554567	81447	636013	87.19	12.81			
1993	630312	80988	711300	88.64	11.39			
1994	601197	139015	740212	81.22	18.78			
1995	662181	141861	804043	82.36	17.64			
1996	752344	196649	914391	82.28	21.51			
1997	825428	136488	961916	85.81	14.19			
1998	926970	121965	1048935	88.37	11.63			
1999	1056264	224217	1280481	82.49	17.51			
2000	1194544	122744	1317287	90.68	9.32			
2001	1313184	143383	1456567	90.16	9.84			
2002	1454043	499233	1953275	74.44	25.56			
2003	1628284	413738	2042022	79.74	20.26			
2004	1902267	626372	2528668	75.23	24.77			
2005	2457732	648818	3106550	79.11	20.89			

Sources: BSR various issues

TABLE 2:

	Agricultural Credit of Nationalised Banks (in Rs Lakhs)							
				per cent of	per cent of			
Year	(1)Direct	(2)indirect	(3)total	(1) in (3)	(2) in (3)			
1991	882441	145326	1027767	85.86	14.14			
1992	976500	143096	1119597	87.22	12.78			
1993	1038999	160253	1199252	86.64	13.36			
1994	1050623	165073	1215695	86.42	13.58			
1995	1110668	191197	1301864	85.31	14.69			
1996	1265311	232632	1497943	84.47	15.53			
1997	1373242	267558	1640800	83.69	16.31			
1998	1496084	295821	1791905	83.49	16.51			
1999	1625040	406607	2031648	79.99	20.01			
2000	1842184	507572	2349756	78.4	21.6			
2001	2055569	593354	2648923	77.6	22.04			
2002	2225382	969369	3194752	69.66	30.34			
2003	2871716	1085484	3957200	72.57	27.43			
2004	3419219	1696591	5115804	66.84	33.16			
2005	4675639	1926639	6602279	70.82	29.18			

Source: BSR various issues

TABLE 3:

	Agricultural credit of Foreign Banks (in Rs Lakhs)							
				per cent of	per cent			
Year	(1)Direct	(2)indirect	(3)total	(1) in (3)	(2) in (3)			
1991	2112	1233	3345	63.14	36.86			
1992	5100	2582	7682	66.39	33.61			
1993	3835	3691	7526	50.96	49			
1994	5169	2004	7173	72.06	27.94			
1995	1964	964	2928	67.08	32.92			
1996	1312	5338	6712	19.55	79.53			
1997	1734	6167	7902	21.94	78.04			
1998	4536	4263	8799	51.55	48.45			
1999	11241	4097	15337	73.29	26.71			
2000	6171	7700	13870	44.49	55.52			
2001								
2002	2165	20213	22378	9.67	90.33			
2003	61989	5576	67569	91.74	8.25			
2004	58191	9592	67783	85.85	14.15			
2005	17456	38940	56396	30.95	69.05			

Source: BSR various issues

TABLE 4:

A	Agricultural Credit of Regional Rural Banks (in Rs Lakhs)								
				per cent of	per cent				
Year	(1)Direct	(2)indirect	(3)total	(1) in (3)	(2) in (3)				
1989	154933	4947	159881	96.91	3.09				
1990		NA	NA	NA	NA				
1991	178781	9935	188716	94.74	5.26				
1992	201463	9568	211030	95.47	4.53				
1993	224465	7711	232176	96.68	3.32				
1994	252533	8316	260848	96.81	3.19				
1995	296120	9592	303712	96.84	3.16				
1996	347036	9812	356848	97.25	2.75				
1997	399728	11333	411061	97.24	2.76				
1998	479439	12939	492378	97.37	5.63				
1999	451208	9475	460683	97.94	2.06				
2000	617044	14612	631656	97.69	2.31				
2001	749182	17322	766504	97.74	2.26				
2002	840260	33848	874108	96.13	3.87				
2003	1023942	40318	1064260	96.21	3.79				
2004	1178513	45239	1223751	96.3	3.7				
2005	1582391	63941	1646332	96.12	3.88				

Source: BSR Various issues

TABLE 5:

	Agricultural Credit of Other Scheduled Commercial Banks (in Rs								
Lakhs)									
				per cent of	per cent				
Year	(1)Direct	(2)indirect	(3)total	(1) in (3)	(2) in (3)				
1989	37452	3416	40867	91.64	8.36				
1990	NA	NA	NA	NA	NA				
1991	40624	3745	44370	91.56	8.44				
1992	45926	3516	49442	92.89	7.11				
1993	51740	4028	55769	92.78	7.22				
1994	57452	5905	63357	90.68	9.32				
1995	71118	9177	80255	88.62	11.43				
1996	89547	15453	105000	85.28	14.72				
1997	121603	20134	141737	85.79	14.21				
1998	143861	40375	184235	78.09	21.91				
1999	160387	47695	208082	77.08	22.92				
2000	196137	55121	251258	78.06	21.94				
2001	209238	65252	274490	76.23	23.77				
2002	221192	135150	356340	62.07	37.93				
2003	319825	142650	462475	69.16	30.84				
2004	451689	236838	688527	65.6	34.4				
2005	730318	296612	1026931	71.12	28.88				

Source: BSR various issues

TABLE 6:

IADLI		l Credit of C	o-operativ	e Banks (in Rs c	rores)
			•	per cent of	per cent
Year	(1)Direct	(2)indirect	(3)total	(1) in (3)	(2) in (3)
1973	957.9	486.6	1444.5	66.31	33.69
1974	876.7	430.5	1307.2	67.07	32.93
1975	1039.2	512	1551.2	66.99	33.01
1976	1186.7	556.8	1743.5	68.06	31.94
1977	1430.5	615.3	2045.8	69.92	30.08
1978	1444.4	569.3	2013.7	71.73	28.27
1979	1621	834.7	2455.7	66.01	33.99
1980	1821.1	894.9	2716	67.05	32.95
1981	2028.5	1154	3182.5	63.74	36.26
1982	2479	1497.4	3976.4	62.34	37.66
1983	2716.9	1955.6	4672.5	58.15	41.85
1984	2938	2400	5338	55.04	44.96
1985	3154.3	2993	6147.3	51.31	48.69
1986	3674	3744.2	7418.2	49.53	50.47
1987	3701	1863.7	5564.7	66.51	33.49
1988	4710.4	2452.5	7162.9	68.76	34.24
1989	4873.1	1942.2	6815.3	71.5	28.5
1990	5406.8	1687.7	7094.5	76.21	23.79
1991	4817.1	1727.3	6544.4	73.61	26.39
1992	5796.8	2002.3	7799.1	74.33	25.67
1993	6483.7	2072.7	8556.4	75.78	24.22
1994	8484	10076	18560	45.71	54.29
1995	9875.5	12337	22212.5	44.46	55.54
1996	12483	17371	29854	41.81	58.19
1997	13254	18927	32181	41.19	58.81
1998	14159	19972	34131	41.48	58.52
1999	15099	20818	35917	42.04	57.96
2000	16115	21857	37972	42.44	57.56
2001	17235	22952	40187	42.89	57.11
2002	18202	24108	42310	43.02	56.98

Source: Handbook of Statistics on The Indian Economy

## APPENDIX 2

Table 1: Real Wage Rates for Agricultural Labour Households (RLE) (1999-00 Prices)

## Males

		Wage F	Rates			Growth	Rates	
					1983-	1987-	1993-	1983-
		1987-	1993-	1999-	87-88	88-93-	94-99-	93-94
	1983	88	94	00	07-00	94	00	
Andhra Pradesh	16.63	25.42	30.73	39.76	9.89	3.21	4.39	6.02
Assam		34.80	41.02	45.51		2.78	1.74	
Bihar	15.21	24.30	26.07	35.04	10.97	1.18	5.05	5.27
Gujarat	20.07	25.73	31.69	38.98	5.68	3.54	3.51	4.45
Haryana		29.77	44.06	60.57		6.75	5.45	
Karnataka	13.76	24.81	31.59	39.75	13.99	4.11	3.91	8.23
Kerala	38.56	53.03	67.24	95.34	7.34	4.04	5.99	5.44
Madhya Pradesh	12.84	22.07	27.37	29.80	12.79	3.65	1.43	7.47
Maharashtra	14.96	25.64	32.34	37.47	12.73	3.94	2.48	7.62
Orissa	11.51	21.09	27.15	28.63	14.41	4.30	0.89	8.52
Punjab		46.81	64.18	63.44		5.40	-0.19	
Rajasthan	20.99	27.63	43.79	50.45	6.29	7.98	2.39	7.25
Tamilnadu	16.62	26.45	40.35	51.78	10.87	7.30	4.24	8.81
Uttar Pradesh	15.49	26.06	33.12	37.85	12.25	4.08	2.25	7.51
West Bengal	16.04	31.68	37.07	43.32	16.33	2.66	2.63	8.31
All India	16.81	26.38	33.86	40.15	10.53	4.25	2.88	6.90

Females

		Wage l	Rates		Growth Rates				
		1987-	1993-	1999-		1983-87- 88	1987- 88-93-	1993-94- 99-00	1983-93- 94
	1983	88	94	00		00	94		
Andhra									
Pradesh	12.99	17.63	22.06	26.53		7.02	3.81	3.12	5.17
Assam		32.08	34.46	39.07			1.20	2.12	
Bihar	13.00	21.36	22.80	30.98		11.66	1.09	5.24	5.49
Gujarat	15.80	25.31	30.73	33.30		11.04	3.28	1.35	6.54
Haryana		21.82	37.57	56.06			9.48	6.90	
Karnataka	11.56	17.97	23.48	26.77		10.30	4.55	2.21	6.98
Kerala	31.35	38.97	46.68	62.22		4.95	3.06	4.91	3.86
Madhya									
Pradesh	10.98	19.43	22.89	25.36		13.54	2.77	1.72	7.25
Maharashtra	10.24	16.82	20.15	24.24		11.66	3.05	3.13	6.65
Orissa	10.28	16.14	20.02	22.13		10.55	3.66	1.68	6.56
Punjab		27.25	54.68	78.70			12.31	6.26	
Rajasthan	20.38	26.31	36.61	39.51		5.83	5.66	1.28	5.74
Tamilnadu	17.87	16.66	24.39	30.43		-1.54	6.56	3.75	3.01
Uttar Pradesh	11.39	20.20	25.31	29.07		13.58	3.83	2.33	7.90
West Bengal	15.88	28.55	32.13	37.22		13.93	1.99	2.48	6.94
All India	12.68	19.60	24.09	28.38		10.16	3.50	2.77	6.30

Source: Himanshu (2005)

Table 2: Real Wage Rates (Male) from Agricultural Wages in India (1999-00 prices)

Table 2: Real Wage Rates (Male) from Agricultural Wages in India (1999-00 prices)												
	Tr	iennium <i>A</i>	Averages				Growth R	ates		1		
		1987-	1993-	1999-	1983-	1987-	1 1 1 1 1 1 1 1 1	94-	1983-	1987-		
	1983	88	94	00	87-88	88-93	- 99-0		93-94	88-99-		
		00	, ·	- 00	07 00	94	,,,,			00		
Andhra Pradesh	28.36	38.47	40.31	45.27	7.01	0.78	1.95	5	3.40	1.36		
Assam	37.75	51.07	52.20	51.83	6.95	0.37	-0.12	2	3.14	0.12		
Bihar	28.11	37.74	40.71	43.15	6.77	1.27	0.98	3	3.59	1.12		
Gujarat	33.40	40.23	40.10	56.97	4.22	-0.05	6.02	2	1.76	2.94		
Haryana	63.75	68.82	79.99	74.13	1.71	2.54	-1.2	6	2.19	0.62		
Karnataka	24.30	30.77	31.70	41.48	5.38	0.50	4.58	3	2.56	2.52		
Kerala	58.96	66.06	77.29	121.1	2.56	2.65	7.77	7	2.61	5.18		
Madhya Pradesh	23.91	31.17	37.35	41.85	6.07	3.06	1.91		4.34	2.48		
Maharashtra	22.85	30.87	36.83	42.83	6.92	2.98	2.55	5	4.65	2.77		
Orissa	20.63	28.33	35.89	36.81	7.31	4.02	0.42		5.42	2.20		
Punjab	56.78	67.77	83.00	76.91	4.01	3.43	-1.2	6	3.68	1.06		
Rajasthan	47.46	47.86	46.33	56.19	0.19	-0.54	3.27	7	-0.23	1.35		
Tamilnadu	26.06	29.79	37.13	57.10	3.02	3.74	7.43	3	3.43	5.57		
Uttar Pradesh	33.05	42.20	47.36	56.09	5.58	1.94	2.86	6	3.48	2.40		
West Bengal	32.98	50.29	60.14	65.36	9.82	3.03	1.40	)	5.89	2.21		
All India	30.58	39.94	44.86	51.44	6.12	1.95	2.31		3.72	2.13		
		Annual F	igures		•	•	Growth R	ates		•		
				1000	1983	1987-	1993-	100	22.02	1007.00		
	1983	1987- 88	1993- 94	1999- 00	-87-	88-93-	94-99-		83-93- 94	1987-88- 99-00		
		00	94	00	88	94	00		94	99-00		
Andhra Pradesh	31.21	38.82	42.77	45.96	4.97	1.63	1.21	3	3.05	1.42		
Assam	39.45	52.23	49.96	51.68	6.44	-0.74	0.57	2	2.27	-0.09		
Bihar	28.79	37.35	41.58	41.36	5.96	1.80	-0.09		3.56	0.85		
Gujarat	36.50	36.18	41.88	62.06	-0.20	2.47	6.78	1	1.32	4.60		
Haryana	68.41	67.25	81.90	73.03	-0.38	3.34	-1.89	1	1.73	0.69		
Karnataka	25.50	29.59	37.53	43.33	3.36	4.04	2.43		3.75	3.23		
Kerala	56.53	67.98	78.15	110.6	4.18	2.35	5.96	3	3.13	4.14		
Madhya Pradesh	27.01	31.46	37.89	42.99	3.44	3.15	2.13	3	3.27	2.64		
Maharashtra	26.10	29.82	42.70	38.85	3.01	6.16	-1.56	۷	4.80	2.23		
Orissa	21.41	27.94	37.09	36.83	6.10	4.83	-0.12		5.37	2.33		
Punjab	58.77	69.88	84.98	75.77	3.92	3.31	-1.89	3	3.57	0.68		
Rajasthan	49.18	56.69	43.36	58.57	3.21	-4.37	5.14	_	1.19	0.27		
Tamilnadu	24.84	29.00	41.46	63.68	3.51	6.14	7.42	4	5.00	6.77		
Uttar Pradesh	34.83	41.04	46.28	54.02	3.71	2.02	2.61	2	2.74	2.32		
West Bengal	32.39	54.13	61.59	64.94	12.0 9	2.17	0.89	6	5.31	1.53		
All India	31.96	40.02	47.03	50.92	5.13	2.73	1.33	3	3.75	2.03		
Source: Himan	alan (2004	<u> </u>										

Source: Himanshu (2005)

### **APPENDIX 3**

The tables in Appendix 3 provide the information on positive and negative growth rate of real wage in 1980s and 1990s (male and female) in various agricultural operations. The label 'positive' represent the number of districts in which the growth rate of real wage was positive and the label 'negative' represent the number of districts in which the growth rate of real wage was negative

Table 1: Growth of Real Wages for Agricultural Labour Households

	Field Labour										
	Male 1980			Male 1990s							
	No of			No of							
All States	Districts	Positive	Negative	Districts	Positive	Negative					
Andhra											
Pradesh	23	21	2	23	5	18					
Karnataka	10	9	1	10	3	7					
Maharashtra	28	28	0	29	23	6					
West-Bengal	17	17	0								
	78	75	3	62	31	31					
All India	(100%)	(96%)	(4%)	(100%)	(50%)	(50%)					
		F	emale								
Andhra											
Pradesh	23	22	1	23	6	17					
Karnataka	10	9	1	10	3	7					
Maharashtra	28	27	1	29	24	5					
West-Bengal	17	17	0	NA	NA	NA					
	78	75	3	62	33	29					
All India	(100%)	(96%)	(4%)	(100%)	(53%)	(47%)					

Table 2

P	loughman 19	80s		Plou	ghman 199	90s
	No of			No of		
All States	Districts	Positive	Negative	Districts	Positive	Negative
Assam	17	17	0	17	12	5
Bihar	40	36	4	51	44	7
Gujarat	20	15	5	20	15	5
Haryana	12	10	2	17	16	1
Himachal						
Pradesh	12	8	4	12	10	2
Kerala	13	11	2	14	14	0
Madhya Pradesh	45	44	1	45	24	21
Orissa	13	12	1	31	27	4
Punjab	12	6	6	16	13	3
Rajasthan	26	22	4	26	20	6
Tamil Nadu	28	25	3	28	26	2
Uttar Pradesh	10	10	0	10	10	0
West-Bengal	17	14	3	17	13	4
	265	230	35	304	244	60
All India	(100%)	(86%)	(14%)	(100%)	(80%)	(20%)

Table 3

Table 3		Sowin	ng-Male			
	1980s				1990s	
	No of			No of		
All States	Districts	Positive	Negative	Districts	Positive	Negative
Assam	17	16	1	17	12	5
Bihar	40	37	3	51	45	6
Gujarat	20	13	7	20	13	7
Haryana	12	12	0	17	16	1
Himachal Pradesh	12	8	4	12	9	3
Kerala	13	11	2	14	12	2
Madhya Pradesh	45	45	0	45	16	29
Orissa	13	12	1	31	27	4
Punjab	12	12	0	16	11	5
Rajasthan	26	17	9	26	21	5
Tamil Nadu	28	24	4	28	27	1
Uttar Pradesh	10	9	1	10	10	0
West-Bengal	17	14	3	17	15	2
All India	265	230	35	304	234	70
	(100%)	(87%)	(13%)	(100%)	(77%)	(23%)
		Sowing	g-Female			
Assam	17	15	2	17	11	6
Bihar	40	36	4	51	43	8
Gujarat	20	17	3	20	12	8
Haryana	12	11	1	17	17	0
Himachal Pradesh	12	8	4	12	9	3
Kerala	13	13	0	14	14	0
Madhya Pradesh	45	45	0	45	18	27
Orissa	13	12	1	31	29	2
Punjab	12	12	0	16	NA	NA
Rajasthan	26	24	2	26	26	0
Tamil Nadu	28	14	4	28	27	1
Uttar Pradesh	10	9	1	10	10	0
West-Bengal	17	15	2	17	14	3
	265	231	24	304	230	58
All India	(100%)	(87%)	(13%)	(100%)	(76%)	(24%)

Table 4

Table 4	Weeding-Male										
	1980s		8		1990s						
	No of			No of							
All States	Districts	Positive	Negative	Districts	Positive	Negative					
Assam	17	15	2	17	15	2					
Bihar	40	36	4	51	33	18					
Gujarat	20	12	8	20	NA	7					
Haryana	12	9	3	17	14	3					
Himachal											
Pradesh	12	8	4	12	10	2					
Kerala	13	13	0	14	14	0					
Madhya Pradesh	45	44	1	45	11	34					
Orissa	13	12	1	31	24	7					
Punjab	12	12	0	16	9	7					
Rajasthan	26	21	5	26	25	1					
Tamil Nadu	28	24	4	28	26	2					
Uttar Pradesh	10	10	0	10	9	1					
West-Bengal	17	13	4	17	15	2					
	265	229	36	304	205	99					
All India	(100%)	(86%)	(14%)	(100%)	(67%)	(33%)					
		Weedin	ng-Female								
Assam	17	16	1	17	15	2					
Bihar	40	37	3	51	37	14					
Gujarat	20	13	7	20	NA	11					
Haryana	12	8	4	17	15	2					
Himachal											
Pradesh	12	9	3	12	9	3					
Kerala	13	13	0	14	14	0					
Madhya Pradesh	45	45	0	45	15	30					
Orissa	13	13	0	31	29	2					
Punjab	12	8	4	16	11	5					
Rajasthan	26	23	3	26	26	0					
Tamil Nadu	28	24	4	28	24	4					
Uttar Pradesh	10	9	1	10	9	1					
West-Bengal	17	14	3	17	14	3					
	265	232	33	304	218	77					
All India	(100%)	(88%)	(12%)	(100%)	(72%)	(28%)					

Table 5

Table 3	R	Leaper and	Harvest-Ma	ale		
	1980s				1990s	
	No of			No of		
All States	Districts	Positive	Negative	Districts	Positive	Negative
Assam	17	16	1	17	11	6
Bihar	40	36	4	51	40	11
Gujarat	20	13	7	20	13	7
Haryana	12	2	10	17	17	0
Himachal Pradesh	12	8	4	12	9	3
Kerala	13	10	3	14	14	0
Madhya Pradesh	45	44	1	45	16	29
Orissa	13	12	1	31	25	6
Punjab	12	12	0	16	11	5
Rajasthan	26	17	9	26	26	0
Tamil Nadu	28	24	4	28	24	4
Uttar Pradesh	10	10	0	10	9	1
West-Bengal	17	15	2	17	15	2
	265	219	46	304	230	74
All India	(100%)	(83%)	(17%)	(100%)	(76%)	(24%)
	Re	eaper and H	Harvest-Fen	nale		
Assam	17	15	2	17	11	6
Bihar	40	34	6	51	43	8
Gujarat	20	13	7	20	13	7
Haryana	12	8	4	17	17	0
Himachal Pradesh	12	9	3	12	8	4
Kerala	13	11	2	14	13	1
Madhya Pradesh	45	44	1	45	15	30
Orissa	13	13	0	31	26	5
Punjab	12	11	1	16	NA	NA
Rajasthan	26	21	5	26	25	1
Tamil Nadu	28	27	1	28	26	2
Uttar Pradesh	10	10	0	10	10	0
West-Bengal	17	15	2	17	13	4
	265	231	34	304	220	68
All India	(100%)	(87%)	(13%)	(100%)	(72%)	(28%)

Table 6

	Other Agricultural Labour –Male									
	1980s				1990s					
	No of			No of						
All States	Districts	Positive	Negative	Districts	Positive	Negative				
Andhra Pradesh	23	23	0	23	8	15				
Assam	17	17	0	17	11	6				
Bihar	40	38	2	51	46	5				
Gujarat	20	17	3	20	13	7				
Haryana	12	12	0	17	14	3				
Himachal Pradesh	12	10	2	12	12	0				
Karnataka	10	9	1	10	5	5				
Kerala	13	12	1	14	14	0				
Madhya Pradesh	45	45	0	45	33	12				
Maharashtra	28	27	1	29	26	3				
Orissa	13	12	1	31	27	4				
Punjab	12	12	0	16	6	10				
Rajasthan	26	26	0	NA	NA	NA				
Tamil Nadu	28	27	1	28	27	1				
Uttar Pradesh	10	9	1	10	9	1				
West-Bengal	17	17	0	17	16	1				
	326	313	13	366	267	73				
All India	(100%)	(96%)	(4%)	(100%)	(73%)	(27%)				
	Other	Agricultur	al Labour –	Female						
Andhra Pradesh	23	22	1	23	13	10				
Assam	17	16	1	17	13	4				
Bihar	40	38	2	51	46	5				
Gujarat	20	18	2	20	10	10				
Haryana	12	10	2	17	14	3				
Himachal Pradesh	12	10	2	12	11	1				
Karnataka	10	9	1	10	5	5				
Kerala	13	12	1	14	14	0				
Madhya Pradesh	45	44	1	45	28	17				
Maharashtra	28	26	2	29	26	3				
Orissa	13	13	0	31	29	2				
Punjab	12	8	4	16	NA	NA				
Rajasthan	26	26	0	26	NA	NA				
Tamil Nadu	28	27	1	28	27	1				
Uttar Pradesh	10	9	1	10	9	1				
West-Bengal	17	17	0	17	14	3				
	326	305	21	366	259	65				
All India	(100%)	(94%)	(6%)	(100%)	(71%)	(29%)				

Table 7

Table /		Herdsm	an-Male			
	1980s				1990s	
	No of			No of		
All States	Districts	Positive	Negative	Districts	Positive	Negative
Andhra Pradesh	23	23	0	23	11	12
Assam	17	16	1	17	15	2
Bihar	40	37	3	51	47	4
Gujarat	20	17	3	20	20	0
Haryana	12	11	1	17	15	2
Himachal Pradesh	12	11	1	12	10	2
Karnataka	10	9	1	10	6	4
Kerala	13	13	0	14	14	0
Madhya Pradesh	45	44	1	45	28	17
Maharashtra	28	27	1	29	25	4
Orissa	13	10	3	31	24	7
Punjab	12	11	1	NA	NA	NA
Rajasthan	26	22	4	26	24	2
Tamil Nadu	28	28	0	NA	NA	NA
Uttar Pradesh	10	10	0	NA	NA	NA
West-Bengal	17	17	0	17	15	2
	326	306	20	312	254	58
All India	(100%)	(94%)	(6%)	(100%)	(81%)	(19%)
		Herdsma	n-Female			
Andhra Pradesh	23	22	1	23	15	8
Assam	17	17	0	NA	NA	NA
Bihar	40	38	2	51	47	4
Gujarat	20	15	5	20	20	0
Haryana	12	11	1	17	17	0
Himachal Pradesh	12	11	1	12	10	2
Karnataka	10	9	1	10	7	3
Kerala	13	13	0	14	14	0
Madhya Pradesh	45	44	1	45	29	16
Maharashtra	28	27	1	29	26	3
Orissa	13	12	1	31	24	7
Punjab	12	12	0	NA	NA	NA
Rajasthan	26	26	0	26	25	1
Tamil Nadu	28	28	0	NA	NA	NA
Uttar Pradesh	10	10	0	NA	NA	NA
West-Bengal	17	17	0	17	15	2
	326	312	14	295	249	46
All India	(100%)	(96%)	(4%)	(100%)	(84%)	(26%)

Note: NA –Not Available AWI-Agricultural Wages in India.

### **APPENDIX 4**

Tables in Appendix 4 provide information on annual growth rate for real wages district wise and operation wise. The decade of 1980s is compared to 1990s and a district is designated as *higher*, if the growth rate was higher in 1990s than 1980s, otherwise it is designated as *lower*.

Table 8

Field Labour									
	Female								
All States	Districts	Lower	Higher	Lower	Higher				
Andhra Pradesh	ndhra Pradesh 23		0	23	0				
Karnataka	10	10	0	10	0				
Maharashtra	Maharashtra 28		3	23	5				
All India	61	58	3	56	5				

Source: AWI

Table 9

rable 9								
Ploughman								
All States	No of Districts	Lower	Higher					
Assam	17	16	1					
Bihar	40	36	4					
Gujarat	20	17	3					
Haryana	12	5	7					
Himachal Pradesh	12	4	8					
Kerala	13	0	13					
Madhya Pradesh	45	36	9					
Orissa	13	12	1					
Punjab	12	7	5					
Rajasthan	26	22	4					
Tamil Nadu	28	21	7					
Uttar Pradesh	10	6	4					
West-Bengal	NA	NA	NA					
All India	248	182	66					

Table 10

Sowing						
	Female					
	No of					
All States	Districts	Lower	Higher	Lower	Higher	
Assam	17	13	4	14	3	
Bihar	40	37	3	37	3	
Gujarat	20	17	3	17	3	
Haryana	12	8	4	8	4	
Himachal						
Pradesh	12	8	4	9	3	
Kerala	13	10	3	NA	NA	
Madhya Pradesh	45	42	3	41	4	
Orissa	13	10	3	10	3	
Punjab	12	12	0	NA	NA	
Rajasthan	26	19	7	NA	NA	
Tamil Nadu	28	23	5	23	5	
Uttar Pradesh	10	5	5	6	4	
West-Bengal	NA	NA	NA	NA	NA	
All India	248	204	44	165	32	

Table 11

14010-11							
Weeding							
	Fer	Female					
	No of						
All States	Districts	Lower	Higher	Lower	Higher		
Assam	17	14	3	15	2		
Bihar	40	38	2	37	3		
Gujarat	20	14	6	17	3		
Haryana	12	7	5	7	5		
Himachal							
Pradesh	12	9	3	9	3		
Kerala	13	7	6	NA	NA		
Madhya Pradesh	45	43	2	43	2		
Orissa	13	10	3	10	3		
Punjab	12	12	0	NA	NA		
Rajasthan	26	20	6	19	7		
Tamil Nadu	28	23	5	24	4		
Uttar Pradesh	10	7	3	NA	NA		
West-Bengal	NA	NA	NA	17	NA		
All India	248	204	44	198	32		

Table 12

Repair and Harvest							
	Female						
	No of						
All States	Districts	Lower	Higher	Lower	Higher		
Assam	17	16	1	16	1		
Bihar	40	37	3	37	3		
Gujarat	20	18	2	19	1		
Haryana	12	6	6	7	5		
Himachal Pradesh	12	9	3	9	3		
Kerala	13	6	7	7	6		
Madhya Pradesh	45	44	1	44	1		
Orissa	13	11	2	11	2		
Punjab	12	12	0	NA	NA		
Rajasthan	26	17	9	18	8		
Tamil Nadu	28	25	3	28	0		
Uttar Pradesh	10	6	4	6	4		
West-Bengal	NA	NA	NA	NA	NA		
All India	248	207	41	202	34		

Table 13

Other Agricultural Labour						
	Female					
	No of					
All States	Districts	Lower	Higher	Lower	Higher	
Andhra Pradesh	23	23	0	23	0	
Assam	17	15	2	17	0	
Bihar	40	37	3	36	4	
Gujarat	20	16	4	19	1	
Haryana	12	9	3	9	3	
Himachal Pradesh	12	10	2	9	3	
Karnataka	10	10	0	10	0	
Kerala	13	7	6	7	6	
Madhya Pradesh	45	43	2	42	3	
Maharashtra	28	28	0	28	0	
Orissa	13	11	2	11	2	
Punjab	12	11	1	NA	NA	
Rajasthan	NA	NA	NA	NA	NA	
Tamil Nadu	28	25	3	26	2	
Uttar Pradesh	10	6	4	7	3	
West-Bengal	17		7	14	3	
All India	300	251	39	258	30	

Table 14\_

Herdsman							
	Female						
	No of						
All States	Districts	Lower	Higher	Lower	Higher		
Andhra Pradesh	23	23	0	19	4		
Assam	17	17	0	17	0		
Bihar	40	38	2	37	3		
Gujarat	20	19	1	19	1		
Haryana	12	12	0	12	0		
Himachal							
Pradesh	12	8	4	8	4		
Karnataka	10	10	0	10	0		
Kerala	NA	NA	NA	NA	NA		
Madhya Pradesh	45	43	2	43	2		
Maharashtra	28	26	2	27	1		
Orissa	13	10	3	11	2		
Punjab	NA	NA	NA	NA	NA		
Rajasthan	26	20	6	20	6		
Tamil Nadu	NA	NA	NA	NA	NA		
Uttar Pradesh	NA	NA	NA	NA	NA		
West-Bengal	17	13	4	13	4		
All India	263	239	24	236	27		

Note: NA –Not Available

AWI- Agricultural Wages in India

# **APPENDIX 5**

TABLE 1: Average Indebtedness of Agricultural Labour Households

	Average In	debtedness o	f Agricultural	Labour Household	S	
States	Average debt per indebted households			Growth rate of debt per indebted household		
	1983	1993-94	1999-00	1983 & 1993-94	1993-94 &1999-00	
Andhra Pradesh	1206	3636	6478	11.67	10.32	
Assam	477	652	609	3.17	-0.68	
Bihar	779	1413	2613	6.13	11.02	
Gujarat	1313	2477	4933	6.55	12.42	
Haryana	26530	5496	10136	-14.56	10.96	
Himachal Pradesh	1698	7802	8475	16.47	1.42	
Jammu & Kashmir	3337	1479	2845	-7.81	11.76	
Karnataka	1236	2844	5797	8.69	12.87	
Kerala	1655	7171	10520	15.79	6.73	
Madhya Pradesh	1844	3593	7300	6.9	12.81	
Maharashtra	1006	3260	6523	12.48	12.51	
Orissa	838	2148	3382	9.86	8.02	
Punjab	1822	3904	6054	17.92	7.74	
Rajasthan	2041	3482	6286	5.49	10.56	
Tamil Nadu	1036	3097	7116	11.57	15.19	
Uttar Pradesh	1481	3223	6042	8.09	11.27	
West Bengal	589	1410	1527	9.12	1.36	
All India	1516	2901	5230	6.7	10.54	

Source: Sharma.H.R 2005

Table 2: Source of Debt of Agricultural Labour

Source of Debt							
	Institutional Sources			Non Ir	Non Institutional Sources		
States	1983	1993-94	1999-00	1983	1993-94	1999-00	
Andhra Pradesh	17.41	16.36	12.26	82.59	83.64	87.74	
Assam	8.6	4.14	1.64	91.4	95.86	98.36	
Bihar	6.55	29.3	13.05	93.45	70.7	86.95	
Gujarat	18.81	31.53	18.81	81.19	68.47	81.19	
Haryana	94.44	18.56	16.38	5.56	81.44	83.62	
Himachal Pradesh	56.12	21.09	86.18	43.88	78.91	13.82	
Jammu & Kashmir	35.18	34.48	9.6	64.82	65.52	90.04	
Karnataka	38.43	22.82	28.34	61.57	77.18	71.66	
Kerala	53.11	81.9	82.99	46.89	18.1	17.01	
Madhya Pradesh	32.7	57.47	35.33	67.3	42.53	64.67	
Maharashtra	43.74	62.21	49.24	56.26	37.79	50.76	
Orissa	63.48	49.63	33.09	36.52	50.37	66.91	
Punjab	17.29	17.55	10.26	82.71	82.45	89.74	
Rajasthan	18.57	4.16	16.56	81.43	95.84	83.44	
Tamil Nadu	24.23	26.99	27.91	75.77	73.01	72.09	
Uttar Pradesh	16.21	38.29	37.65	83.79	61.71	62.35	
West Bengal	30.9	39.93	27.31	69.1	60.07	72.69	
All India	44.06	35.85	31.07	55.94	64.15	68.93	

Source: Sharma.H.R 2005

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<sup>&</sup>lt;sup>1</sup> According to a recent statement made in the parliament by the agriculture minister, between 1998 to 2003, more than 1,00,000 farmers had committed suicide and the alarming number has continued to mount

<sup>&</sup>lt;sup>2</sup> For detailed accounts of these, see Sen,2003 and Bhalla,2005

<sup>&</sup>lt;sup>3</sup> To quote Patnaik, "Let us ask ourselves the question: how much has the command over specific bundle of goods, by an average person belonging to the 'agriculture-dependent population', increased over the last decade? As our 'benchmarks' bundle of goods, let us take that bundle which is actually supposed to be consumed by the average industrial worker according to official statistics. It turns out that between 1994-95 and 2003-04, the per capita command over this bundle of goods by the agriculture-dependent population increased by only 5 percent in absolute terms, which amounts to virtual stagnation" (Patnaik, 2005, p. 1).

<sup>&</sup>lt;sup>4</sup> For an a detailed discussion of these issues see Utsa Patnaik (2006)

<sup>&</sup>lt;sup>5</sup> Chandrasekhar and Ghosh (2002), Sen (2003), Bhalla (2005), Patnaik (2005), Patnaik (2006), Vyas (2006), Vaidyanathan (2006), among others, provide detailed discussions of some of the critical issues in alternative discourses.

<sup>&</sup>lt;sup>6</sup> Sometimes subsidies are opposed by even progressive economists on ecological grounds. But it is elementary commonsense that to move farmers away from harmful chemical fertilizers to organic cultivation itself may necessitate incentives in the form of subsidies.

<sup>&</sup>lt;sup>7</sup> All Scheduled Commercial Banks constitutes the nationalized banks, the regional rural banks, foreign banks and other scheduled commercial banks (private banks).

Indirect Credit includes financing the distribution of fertilizers, pesticides, seeds, etc, Loans upto Rs. 25 lakhs granted for financing distribution of inputs for the allied activities such as, cattle feed, poultry feed, etc, Loans to Electricity Boards for reimbursing the expenditure already incurred by them for providing low tension connection from step-down point to individual farmers for energizing their wells, Loans to State Electricity Boards for Systems Improvement Scheme under Special Project Agriculture (SI-SPA), Deposits held by the banks in Rural Infrastructure Development Fund (RIDF) maintained with NABARD, Subscription to bonds issued by Rural Electrification Corporation (REC) exclusively for financing pump-set energisation programme in rural and semi-urban areas and also for financing System Improvement Programme (SI-SPA), Subscriptions to bonds issued by NABARD with the objective of financing agriculture/allied activities, Finance extended to dealers in drip irrigation/sprinkler irrigation system/agricultural machinery, subject to some conditionality, Loans to Arthias (commission agents in rural/semi-urban areas) for meeting their working capital requirements on account of credit extended to farmers for supply of inputs and Lending to Non Banking Financial Companies (NBFCs) for on-lending to agriculture

The urgency of the issue is noted in the approach paper to the 11<sup>th</sup> plan document, "It calls for a well considered strategy for prioritised basic research, which is now all the more urgent in view of mounting pressure on scarce natural resource, climate change and also the shrinking availability of spill-over from international public research".

<sup>&</sup>lt;sup>10</sup> I have discussed this contention elsewhere, in some detail (Jha, 1997).