

## **Regional Pattern of Agricultural Growth and Rural Employment in India: Have Small Farmers Benefitted?**

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### **Abstract**

This paper has analysed the recent trends in growth of agriculture, income and employment in India. Although agricultural growth recorded was 3 per cent per annum during 2005-06 to 2010-11, few states like Kerala continue to witness low growth. Although small farmers have benefitted from this growth, their income levels are still very low. In general, the income of rural households has increased by 24.97 per cent during the period 2004-05 to 2009-10, and the increase has been the highest for agricultural labours (31.97%), followed by self-employed in agriculture (25.12%) and self-employed in non-agricultural sector (21.80%). Across farm-size, the non-farm sector has played a major role in raising rural income and reducing income disparity across the states. The study has reported a shift from the households self-employed in agriculture and agricultural labours towards self-employed in non-agricultural sector and other labour-jobs, which has accentuated labour scarcity in the rural areas. The study has suggested that appropriate policies should be evolved to promote skill development and generate employment opportunities in the non-farm sector in the rural areas in order to increase livelihood, food and nutritional security, reduce the regional disparity and alleviate rural poverty in the country.

**Key words:** Agricultural growth, rural income disparity, employment, small farmers

**JEL Classification:** E240, Q120, R11

### **Introduction**

India has shown remarkable transformation from a food deficit to a food self-reliant and then to a food surplus country. The foodgrain production has increased from 74 million tonnes (Mt) in 1966-67 to 259 Mt in 2011-12. However, the share of agriculture in gross domestic product (GDP) has come down from over 50 per cent at the time of Independence to nearly 14 per cent currently (2011-12). On the other side, the share of workforce engaged in agriculture, which was about 70 per cent in 1951, is still more than 50 per cent. This has led to widening of gap between incomes in agricultural and non-agricultural sectors, and this is perceived to be one of the major reasons for the persistence of poverty in the country (Kumar *et al.*,

2011). To bridge this gap, concerted efforts are being made by the government since the mid-2000s to strengthen agricultural growth through various development programmes like the National Food Security Mission (NFSM), the *Rashtriya Krishi Vikas Yojana* (RKVY), etc. and also by providing greater flexibility to the state governments in allocation of resources to the priority areas of development. Many studies have highlighted the role of non-farm sector in providing employment and improving income and standard of living of rural population (Chadha, 1993; Kumar *et al.*, 2003; Samal *et al.*, 2006; Bhakar *et al.*, 2007), while some have observed farming to be still a major source of income (Rawal *et al.*, 2008). Keeping in view the importance of both farm and non-farm sectors, the present study has been under taken to analyse (i) the recent trends in agricultural growth at the regional level, (ii) input-use, productivity and

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income gain by different farm-sizes, and (iii) income from farm and non-farm employment.

### Data and Methodology

The study is based on the secondary data compiled from various reports published by the Central Statistical Organization (CSO), Directorate of Economics and Statistics (DES) and from websites of Government of India (GOI). Data on income and employment were culled from the NSSO survey reports on household consumption expenditure across socio-economic groups. Figures on the Monthly Per Capita Expenditure (MPCE) were converted into constant prices (2004-05) by using consumer price index for agricultural labour. The Gini coefficient was computed to study income disparity across the states of India.

## Results and Discussion

### Trends in Gross State Domestic Product and Agricultural Gross State Domestic Product

The growth in national real gross state domestic product (GSDP) has been 8.34 per cent per annum during 2005-06 to 2010-11, which has given a positive signal for the economy as a whole. The states like Uttarakhand, Bihar, Maharashtra, Haryana, Gujarat, Madhya Pradesh, Odisha, Chhattisgarh, Andhra Pradesh, Tamil Nadu and Karnataka are moving towards the growth rate at the national level, while rest of the states are still at less than 8 per cent (Table 1). During 2005-06 to 2010-11, the agricultural gross state domestic product (AgGSDP) in the country showed an increasing trend and grew at the rate of

**Table 1. Growth rates in gross state domestic product (GSDP), AgGSDP and per capita AgGSDP: 2005-06 to 2010-11 (at 2004-05 prices)**

State	GSDP	Per-capita GSDP	AgGSDP	Per agricultural worker AgGSDP	Per ha of GCA sector AgGSDP	(in per cent)
						Share of agriculture & allied in GSDP (%) (2011-12)
Andhra Pradesh	8.88	7.68	6.30	6.13	7.37	19.22
Assam	6.10	4.33	4.32	2.75	2.89	22.42
Bihar	12.47	9.72	3.27	0.86	3.38	19.83
Chhattisgarh	9.02	6.61	2.46	0.68	3.24	18.51
Gujarat	9.25	7.19	1.85	-1.21	0.76	12.70*
Haryana	9.52	7.39	4.14	3.11	4.54	16.31
Himachal Pradesh	8.27	6.90	2.17	0.91	2.50	15.81
Jammu & Kashmir	6.02	3.56	1.36	-0.6	0.64	19.35
Jharkhand	6.28	3.96	9.82	7.72	12.97	18.24
Karnataka	8.56	6.88	4.24	3.45	4.23	14.65
Kerala	7.90	7.98	-0.7	1.83	1.63	9.81
Madhya Pradesh	9.10	6.93	4.70	2.29	2.28	23.05*
Maharashtra	9.81	8.08	5.17	4.09	5.14	8.59*
Odisha	9.06	7.56	4.10	2.80	3.55	25.95
Punjab	7.53	6.08	2.37	1.60	2.33	22.67
Rajasthan	7.98	5.71	6.30	4.31	6.10	22.72
Tamil Nadu	8.61	6.94	1.69	1.04	3.27	7.67*
Uttar Pradesh	7.14	5.03	2.84	1.04	3.37	22.48
Uttarakhand	12.9	10.78	2.02	0.88	2.90	11.33
West Bengal	7.39	5.91	2.55	1.76	2.63	17.50
India	8.34	6.46	3.00	1.76	3.05	13.92

Source: Author's estimates from Central Statistical Organization and Directorate of Economics and Statistics (DES) (various years)

Notes: 1. Gross cropped area data were available only up to 2009-10

2. \*AgGSDP was not available for the year 2011-12; therefore 2010-11 data were used

3. AgGSDP consisted of agriculture and forestry

3 per cent per annum which is though appreciable is still below the target<sup>1</sup> set during the X and XI Five-Year Plans (1996-97 to 2009-10). Further, the trend in agricultural growth differs significantly (-0.7% in Kerala to 9.8% in Jharkhand) across the states. The states like Jharkhand, Assam, Andhra Pradesh, Bihar, Maharashtra, Haryana, Madhya Pradesh, Odisha and Karnataka have growth rates more than the national average, but rest of the states have depicted less than 3 per cent growth in AgGSDP.

Some states<sup>2</sup> though growing well have failed to achieve even 3 per cent growth in agriculture and it is a cause of concern. Interestingly, states like Jharkhand (9.82%), Rajasthan (6.3%) and Assam (4.32%) have shown an impressive performance in terms of agricultural growth rate, despite overall GSDP growth being lower than the national average (8.34%). The progress of these states is also reflected in terms of percentage share of agriculture and allied sector in GSDP in 2011-12 (18-22%). The agricultural sector in the states of Gujarat, Kerala, Jammu and Kashmir and Tamil Nadu needs special attention as their growth rates are either negative or very low.

Another measure to assess the growth performance is the trends in per capita GSDP, per agricultural worker AgGSDP and per hectare AgGSDP, which are shown in Table 1. The growth rates of these respective measures were 6.46 per cent, 1.76 per cent and 3.05 per cent per annum for the country as a whole. These growths for per agricultural worker and per hectare AgGSDP were the highest for the states of Jharkhand (7.72% and 6.13%, respectively), followed by Andhra Pradesh (6.13% and 7.37%, respectively). The growth in per-capita GSDP has been in line with GSDP growth in the sense that the states<sup>3</sup> with growth rate more than the national average (8.34%) in GSDP have recorded percentage growth above the national average in terms of per-capita GSDP (6.46%). A similar progress is not reflected in case of agriculture, where the states of Assam and Madhya Pradesh have lagged behind to grow in terms of per-hectare AgGSDP and Bihar has lagged in terms of per agricultural worker AgGSDP, despite state agriculture growing at more than 3 per cent, i.e. above the national average.

Punjab, Kerala and Haryana are the states where growth in agricultural productivity, both per worker and per hectare, is low. These states have a higher

productivity level and therefore, the growth is likely to slow down unless new technological interventions are introduced. In this context, acceleration of agricultural growth is very important for the country, but a wide range of disparity exists in the growth rates in GSDP (both gross and across states), alerting a need for special attention and focused plan to bridge the regional productivity gaps.

### **Inputs Use and Productivity by Farm Size: The Case of Paddy**

Agriculture in India has witnessed progressive marginalization of farm holdings, leading to tiny operational area, and this trend is likely to continue in the near future also due to increasing population pressure on land. On the other hand, marginal and small farmers allocate a higher proportion of land to foodgrains, while medium and large farmers have diversified their cropping pattern to cash crops (Deshpande *et al.*, 2012). Productivity, input-use pattern and decision on choice of crop by these predominant small framers play a crucial role in accelerating growth in agriculture. The questions now arise are: whether small farmers still enjoy an advantage, and does the inverse relationship between farm size and productivity still prevail. This section has addressed these questions.

The data on input-use pattern and yield across farm-sizes<sup>4</sup> for the four largest paddy growing states are presented in Table 2. On an average, paddy yield was the highest for Punjab (60 q/ha), followed by Andhra Pradesh (55.5 q/ha), West Bengal (39.4 q/ha) and Uttar Pradesh (37.4 q/ha). Across farm-sizes, paddy yield of large farmers was lower than other farmers in West Bengal and Uttar Pradesh, showing inefficiency in crop management and lack of care or may be due do land diversion towards other commercial crops. Only in Punjab, the large farmers have depicted the highest yields. The total NPK use was 228.6 kg/ha in Andhra Pradesh and 201 kg/ha in Punjab, whereas it was much lower in West Bengal (141 kg/ha) and Uttar Pradesh (169 kg/ha). However fertilizer-use did not differ significantly across farm sizes in all the four states.

The percentage share of hired irrigation hours decreased with the increase in holding-size. Similarly, percentage share of hired machine hours in all the four states decreased with the increase in farm size, indicating lack of access of small farmers to own

**Table 2. Input use in paddy cultivation by farm-size groups in four paddy-growing states, 2009-10**

Farm size	Total fertilizers used (kg/ha)	Yield (q/ha)	Cost ('000 ₹/ha)	Net return ('000 ₹/ha)	Share of hired labour hours (%)	Share of hired machine hours (%)	Share of hired irrigation (%)
<b>Andhra Pradesh</b>							
Marginal	234	55	56.75	8.72	45	97	4
Small	228	56	55.29	10.49	42	97	11
Semi-medium	227	56	54.96	12.99	44	86	3
Medium	224	55	53.66	11.6	29	86	3
Large	230	56	53.03	13.2	30	74	1
<b>West Bengal</b>							
Marginal	126	39	40.23	1.31	40	92	53
Small	152	40	39.93	2.23	56	89	23
Semi-medium	147	41	38.53	5.01	65	84	24
Medium	134	38	35.51	3.34	70	35	0
Large	145	39	36.92	4.26	24	0	0
<b>Uttar Pradesh</b>							
Marginal	173	37	34.17	5.03	33	82	38
Small	162	37	34.29	4.76	44	63	29
Semi-medium	166	39	33.32	6.86	53	47	11
Medium	185	40	33.84	8.36	61	25	14
Large	160	34	26.02	9.19	75	13	7
<b>Punjab</b>							
Marginal	202	59	51.69	16.89	44	86	4
Small	195	59	53.27	16.41	49	62	1
Semi-medium	189	60	49.78	20.72	60	36	1
Medium	210	59	49.16	20.15	67	65	2
Large	209	63	68.21	24.24	73	14	1

Source: Plot level summary data under cost of cultivation, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India

machinery for farm operations. Consequently, input cost on small farms increased. On the other hand, net returns from paddy cultivation varied significantly across states and farm-sizes. The large farmers in Punjab realized high net income of ₹ 24,242/ha and the least was in West Bengal (₹ 4,260/ha). The marginal farmers in Punjab earned a net income of ₹ 16,893/ha, whereas their counterparts earned an income of ₹ 1310/ha in West Bengal and ₹ 5030/ha in Uttar Pradesh.

The low returns on small and marginal farmers might be due to high cost on machine hours and diseconomies of scale in case of irrigation (tube-well) of a small piece of land. However, on an average, small

and marginal farmers earned ₹ 3562/ha less than the medium and large farmers in all the four states. As there was not much difference in yield across land-sizes, accessibility and cost of inputs influenced the net return across farm-size. Thus, small farmers did not have any disadvantage in terms of use of inputs and yield, but their production cost was high, which gave them low returns.

#### State-Wise Income in Farm and Non-Farm Sectors

The role of non-farm income is important in improving the living standards and providing economic security. The average monthly per capita expenditure

(MPCE) was used as a proxy of income to study the change in income levels across farm and non-farm sectors during 2004-05 to 2009-10. The average MPCE (at 2004-05 prices) at all-India level increased for rural households. This increase was from ₹ 559 to ₹ 698 for all rural households, from ₹ 604 to ₹ 736 for self-employed in non-agriculture, from ₹ 416 to ₹ 549 for agricultural labours and from ₹ 583 to ₹ 730 for self-employed in agriculture (Table 3). The increase in income was the highest for agricultural labour (32.0%), followed by self-employed in agriculture (251%) and self-employed in non-agriculture (21.8%).

Across states, average MPCE in 2009-10 was the highest in Kerala for all the households and Bihar was the lowest (₹ 556) in case of self-employed in non-

agriculture, Odhisha (₹ 416) for agricultural labours and Jharkhand (₹ 539) for self-employed in agriculture. The increase in expenditure by agricultural labour has been recorded in all the states which reflect a gain in wage rate, but the disparity among them has increased, as is indicated by the increase in Gini ratio from 13 per cent in 2004-05 to 14 per cent in 2009-10. On the other hand, disparity in the case of self-employed in non-agriculture reduced by 25 per cent, from 16 per cent in 2004-05 to 12 per cent in 2009-10. This could be the reason for movement of people towards self-employment in non-agriculture sector. The disparity in the case of self-employed in agriculture did not show any change. The overall improvement in MPCE in the rural households has not changed the urban-rural MPCE ratio; however, the ratio is not same across the

**Table 3. State-wise average monthly per capita consumption expenditure for different household types in rural India (at constant prices: 2004-05)**

(in ₹)

State	Household types									
	Self employed in non-agriculture		Agricultural labour		Self employed in agriculture		All households		Urban to rural ratio	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Andhra Pradesh	650	860	471	676	632	850	586	818	1.74	1.81
Assam	529	680	445	502	560	674	543	665	1.95	1.75
Bihar	426	556	331	446	475	573	417	517	1.67	1.59
Chhattisgarh	440	621	347	434	455	578	425	519	2.33	2.1
Gujarat	706	782	459	600	654	799	425	519	1.87	1.72
Haryana	722	928	526	638	894	1166	863	1001	1.32	1.54
Himachal Pradesh	985	1100	565	996	748	973	798	1018	1.74	1.73
Jammu & Kashmir	841	897	624	771	799	875	793	891	1.35	1.31
Jharkhand	462	635	323	473	417	539	425	547	2.32	1.92
Karnataka	563	792	401	547	543	728	508	676	2.03	2.1
Kerala	1134	1257	691	930	1297	1595	1013	1216	1.27	1.31
Madhya Pradesh	462	793	341	440	478	693	439	598	2.06	1.85
Maharashtra	656	843	415	624	617	796	568	764	2.02	2.11
Odisha	460	617	313	416	390	532	399	542	1.9	1.89
Punjab	874	1088	556	692	1056	1401	847	1093	1.57	1.28
Rajasthan	616	762	472	598	610	849	591	782	1.63	1.41
Tamil Nadu	754	932	447	634	684	848	602	769	1.79	1.68
Uttar Pradesh	538	594	404	487	561	628	647	596	1.61	1.75
Uttarakhand	673	907	567	669	644	776	647	1158	1.51	1
West Bengal	618	674	438	542	595	681	562	631	2	2.06
All India	604	736	416	549	583	730	559	698	1.88	1.88
Gini coefficient (%)	16	12	13	14	17	17	16	16		

Source: Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)



states and Haryana, Maharashtra and Uttar Pradesh have witnessed notable increase in the urban-rural disparity.

The gain in income for both self-employed in non-agriculture (Annexure I) and self-employed in agriculture (Annexure II) was analysed by land-size across the states. As already mentioned, increase in income for households self-employed in non-agriculture during 2004-05 to 2009-10 (21.8%) is less than that of agriculture (25.1%), it has been found that the marginal farmers self-employed in agriculture gained 9.2 per cent more income than self-employed in non-agriculture. The state-wise difference in average MPCE during 2004-05 to 2009-10 for households self-employed in agriculture and non-agriculture is depicted for marginal farmers in Figure 1 and for all land-sizes in Figure 2. A look at Figure 1 revealed that the marginal farmers employed in non-agricultural sector witnessed income rise in all the states, except Andhra Pradesh and Tamil Nadu, whereas self-employed in agriculture pulled down the marginal farmers in Gujarat, Haryana, Jharkhand, Tamil Nadu and Punjab. The households self-employed in non-agriculture sector in Gujarat experienced gain in income, but for those self-

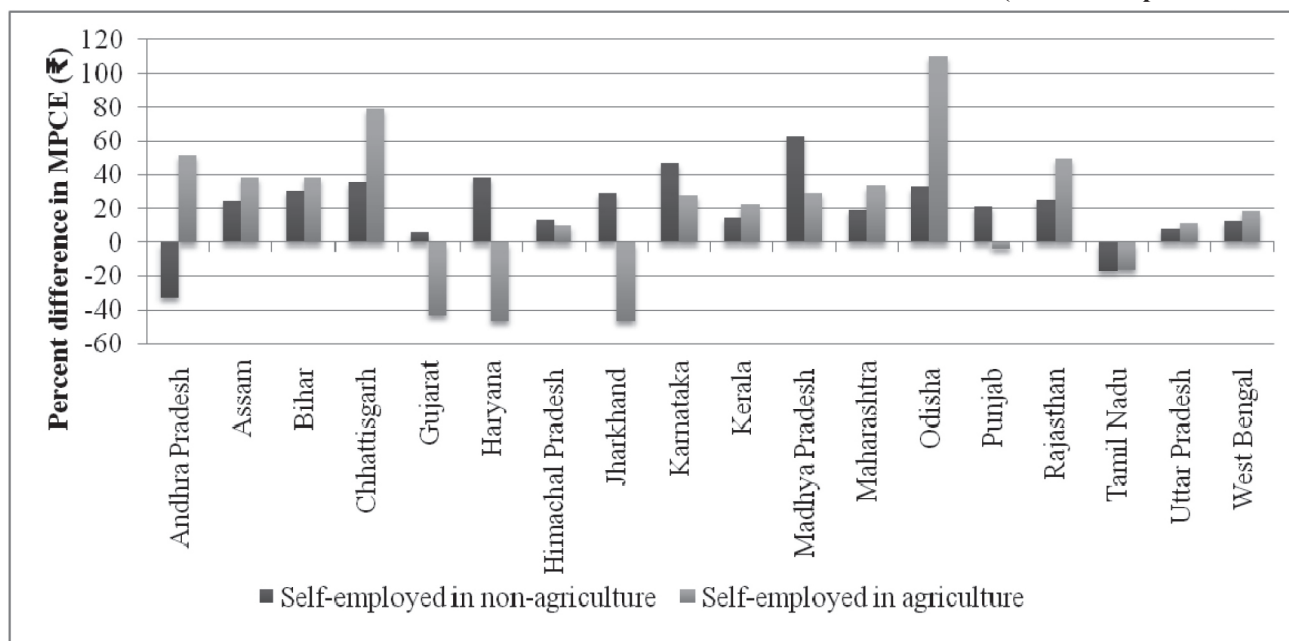
employed in agriculture, income reduced across all land-sizes and the reduction was more among marginal (43.5%) and small farmers (46.5%). The trend was also reflected by the negative growth rate in AgGSDP and per agriculture worker AgGSDP in these states. The trend in income raise for all the households self-employed in agriculture and non-agriculture sectors was similar and the highest increase was noticed in Odisha (Figure 2).

In sum, non-farm sector played a greater role in terms of raising rural income across farm-size and also reduced income disparity across the states. However, self-employment in agriculture sector continues to be the major income-generating source in the rural areas, but its performance at regional level is good only for a few states and most of them have yet to grow.

#### Employment Pattern in Farm and Rural Non-farm Sectors

The employment level in rural India has shown a considerable change during 2004-05 to 2009-10. The percentage distribution of rural households self-employed in non-agricultural sector increased marginally to 24 in 2009-10 from 22 in 2004-05 and

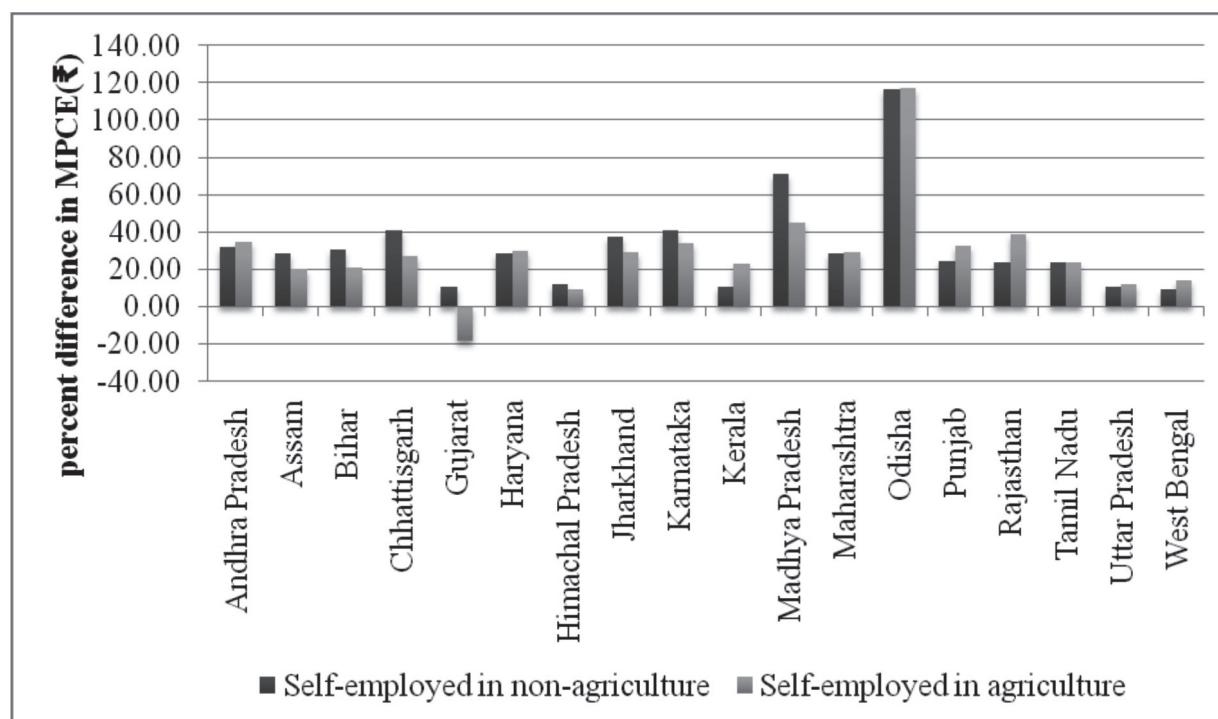
(at constant price 2004-05)



**Figure 1. State-wise percentage difference in average MPCE for households self-employed in agriculture and non-agriculture for marginal farmers during 2004-05 to 2009-10**

Source: Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)

(at constant price 2004-05)



**Figure 2. State-wise percentage difference in average MPCE for households self employed in agriculture and non-agriculture by all land size during 2004-05 to 2009-10**

*Source:* Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)

the percentage distribution of rural households self-employed in agriculture and of agricultural labour has reduced drastically, 7 per cent and 4 per cent, respectively (Table 4). This shift clearly has indicated that the rural labour is in search of better job or else decreased productivity and/or profitability is pushing them out of agriculture. This scenario is almost similar across all the states, except few (Tamil Nadu, Uttar Pradesh and Uttarakhand). These shufflings might be given the picture of migration or search for livelihood, but have outlined the existence of labour scarcity in farming.

Another major trend visible from Table 4 is the sharp decline in the share of households self-employed in agriculture and marginal increase in self-employed in non-agricultural sector. The share of agricultural labour households has also decreased. This trend affected other casual workers, mainly employed in the rural non-farm sector. Thus, casualization of labour force was strong in Karnataka, Odisha, Rajasthan, Tamil Nadu and Uttarakhand. In fact, in Kerala,

Himachal Pradesh, Odisha and Tamil Nadu, nearly half of the households were casual non-farm workers.

## Conclusions

The Indian agriculture has shown impressive growth (3.7% per annum) during the past five years, but this must be accelerated to achieve the target of 4 per cent per annum. The agricultural growth across the states has been diverged. On the positive side, many states have progressed well (compared with the national average), but a few states still in the slow growth stage. The study has revealed that small and marginal farmers are more efficient in getting yield per unit of land compared to medium and large farmers. However, these farmers have not realised adequate income. The pattern of input use and access to input in terms of hired labour, machine and irrigation hours have been found to add more cost and reduce net returns to both marginal and small farmers.

Across different types of rural households, high income has been observed for agricultural labours

**Table 4. Percentage distribution of households in rural India**

State	Household types							
	Self-employed in non agriculture		Agricultural labour		Self-employed in agriculture		Others	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Andhra Pradesh	27	29	24	19	24	21	25	32
Assam	25	31	8	7	39	32	29	31
Bihar	30	35	19	15	32	23	18	27
Chhattisgarh	21	24	22	22	33	25	25	29
Gujarat	22	23	21	14	30	30	28	33
Haryana	20	18	10	8	42	33	28	41
Himachal Pradesh	14	14	2	1	47	33	38	52
Jammu & Kashmir	22	26	4	6	45	25	30	43
Jharkhand	23	27	7	3	41	28	28	35
Karnataka	26	28	23	17	30	26	21	34
Kerala	18	20	15	10	24	16	43	54
Madhya Pradesh	19	20	18	16	42	38	21	26
Maharashtra	22	24	23	15	28	27	27	33
Odisha	25	28	19	12	29	25	27	49
Punjab	18	17	16	12	34	31	31	41
Rajasthan	20	20	5	4	48	37	11	39
Tamil Nadu	19	18	26	20	19	17	27	45
Uttar Pradesh	24	22	10	7	45	39	21	32
Uttarakhand	22	18	10	2	45	38	21	42
West Bengal	30	36	23	19	26	18	22	28
All India	22	24	15	11	35	28	28	36

Source: Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)

because of increase in wages, but the income disparity across the states has depicted an increasing trend among them. During 2005 to 2010, the households self-employed in non-agricultural sector have gained income across holding sizes, which has reduced income disparity across the states. At the same time, increase in the percentage distribution of these households has indicated a tendency among rural workforce to earn additional income.

The income of households self-employed in agriculture has also increased and it is more than that in self-employed in non-agriculture. But, it has failed to address the income disparity across the land size and income of marginal farmers reduced significantly for many states depicting shrinking profitability in

farming. The households self-employed in agriculture and agricultural labours have moved towards either non-agricultural sector or other jobs in the rural areas, clearly indicating continuation of migration and farm-labour scarcity. Therefore, appropriate policies should be evolved to generate employment in the non-farm sector and support skill development programmes in the rural areas in order to improve livelihood, food and nutritional security and reduce rural poverty in the country.

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### End-notes

1. The Government of India envisaged annual growth of 4 per cent per year in the agriculture sector in its National Agricultural Policy, 2000, and Eleventh Five Year Plan (2007-2012).
2. Uttarakhand, Gujarat, Chhattisgarh and Tamil Nadu
3. Uttarakhand, Bihar, Maharashtra, Haryana, Gujarat, Madhya Pradesh, Odisha, Chhattisgarh, Andhra Pradesh, Tamil Nadu and Karnataka
4. Marginal farmer (below 1.0 ha), Small farmers (1-2 ha), Semi-medium farmers (2.1-4 ha), Medium farmers (4.1-9 ha) and Large farmers (above 9 ha)

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## Annexure I

## State-wise average MPCE for self-employed in non-agriculture by land-size (at constant price 2004-05)

(in ₹)

State	Size of holding									
	Below 1 ha		1-2 ha		2.1- 4 ha		Above 4 ha		All households	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Andhra Pradesh	1193	800	684	879	757	1814	881	990	650	860
Assam	499	621	647	790	819	930	616	786	529	680
Bihar	429	561	509	682	536	792	777	759	426	556
Chhattisgarh	407	552	476	761	509	797	882	1239	440	621
Gujarat	747	789	681	784	735	833	1377	969	706	782
Haryana	714	984	650	959	859	1512	734	741	722	928
Himachal Pradesh	919	1039	1277	1102	1170	1139	1206	1531	985	1100
Jharkhand	453	587	543	700	662	1171	529	758	462	635
Karnataka	547	802	640	672	584	565	607	862	563	792
Kerala	1180	1352	1856	1998	1194	1822	2510	1808	1134	1257
Madhya Pradesh	455	740	442	564	513	530	580	887	462	792
Maharashtra	673	804	568	1037	750	989	1101	1222	656	843
Odisha	455	604	500	955	654	1197	606	1676	460	995
Punjab	837	1016	1029	782	1382	1574	1687	2076	874	1088
Rajasthan	606	758	597	768	662	704	724	826	616	762
Tamil Nadu	1095	912	986	1123	813	1330	730	2609	754	931
Uttar Pradesh	538	581	601	680	776	699	820	1223	538	594
West Bengal	615	690	763	904	891	972	804	1482	618	674
India	597	721	635	808	718	903	805	972	604	736
Gini coefficient (%)	20.0	14.0	21.3	15.6	15.8	20.3	23.7	21.9	15.9	12.8

Source: Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)

## Annexure II

## State-wise average MPCE for self-employed in agriculture by land-size (at constant price 2004-05)

(in ₹)

State	Size of holding									
	Below 1 ha		1-2 ha		2.1- 4 ha		Above 4 ha		All households	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Andhra Pradesh	583	884	630	747	630	964	709	1059	632	850
Assam	415	575	565	709	646	713	633	843	560	674
Bihar	390	539	483	570	575	623	697	695	475	573
Chhattisgarh	482	864	425	533	405	518	714	745	455	578
Gujarat	946	535	932	731	1035	1026	1049	1010	973	799
Haryana	1008	539	434	582	479	455	528	573	417	543
Himachal Pradesh	535	587	731	936	1026	921	1010	1545	799	875
Jharkhand	1008	541	434	535	479	488	528	591	417	539
Karnataka	539	688	582	739	455	726	573	741	543	728
Kerala	1158	1419	1279	1738	1729	3290	3061	1759	1297	1595
Madhya Pradesh	458	592	428	614	450	636	592	899	478	693
Maharashtra	544	728	562	751	595	808	769	908	617	796
Odisha	403	844	371	885	422	856	479	956	390	848
Punjab	950	917	954	1338	977	1426	1350	1790	1056	1401
Rajasthan	530	791	590	755	613	788	666	856	610	849
Tamil Nadu	1021	857	606	767	777	1006	996	1206	684	848
Uttar Pradesh	491	545	585	631	665	722	832	822	561	628
West Bengal	579	686	603	777	776	807	561	1066	595	681
All India	544	687	566	698	604	778	728	956	583	730
Gini coefficient (%)	20.2	14.8	17.9	16.8	22	26	26.2	18.5	19	16.2

Source: Authors' estimates based on NSSO survey report on household consumption expenditure across socio-economic groups (61<sup>st</sup> and 66<sup>th</sup> rounds)

