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Standard of Living of Rural Households Across the States: Pattern and Determinants

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ABSTRACT

Comparison of standard of living of rural population across the states of India is made on the basis of an exhaustive bundle of goods and services consumed or used. The bundle includes not only the consumption of non-durable goods, but also ownership and use of durable consumer goods and quality of housing and living facilities enjoyed by people. The rural population of Punjab, Haryana, Himachal Pradesh and Kerala enjoy the highest standard of living among the 20 states compared and rural population of Jharkhand, Orissa, Chhattisgarh and Madhya Pradesh subsist at the lowest standard. In all the 17 items of consumption/use compared, the gap between the top ranking states and the bottom ranking states was very wide. The level of agricultural development and remittances received by rural people had a positive significant impact on rural standard of living but level of development of non-agricultural sector did not significantly improve the standard of living of rural population.

Key Words: Standard of living, Non-durable goods, Durable goods
JEL Classification: 018, R11

INTRODUCTION

The slow percolation of benefits of growth to rural population is a well known and serious problem in developing countries. There are many barriers that slow down the percolation of benefits of economic growth to the rural population; their dependence on agriculture for livelihood being the most important one. However, in a country of India's size and diversity, the structure and severity of these barriers is bound to vary across the states. A comparison of standard of living of rural population across the states can throw considerable light on the structure and severity of these barriers. The focus of the present paper is on such a comparison. The methodology and data used are described later. Pattern of inter-state variation in rural standard of living has been pictured. The extent of inter-state variation in rural standard of living has been assessed. Also, the role of some plausible factors in causing the observed inter-state variation in rural standard of living has been analysed in the present paper.

METHODOLOGY

The standard of living of the people is indicated by the amount of goods and services consumed/used by them. It is determined not only by the non-durable goods daily consumed by them, but also by the set of durable consumer goods they

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use, and the quality of house in which they live and other living facilities they enjoy. The average per capita amount of goods and services consumed/used by rural people in a state gives a fairly reliable estimate of their standard of living. The bundle of goods and services consumed/used by people is quite diverse and consists of a large number of items. On the basis of nature and time pattern of consumption/use, this diverse bundle of goods and services can be divided into three broad groups, as: (1) Non-durable goods; (2) Durable consumer goods and (3) House and living facilities.

The non-durable goods are consumed almost immediately after purchase and their consumption results in their instantaneous destruction. The durable consumer goods are used over a fairly long period. The services of house and living facilities are used almost over the entire life span of a household. in the present study, threefold division of goods and services has been used, on which standard of living of people depends, to make inter-state comparison.

In view of these conceptual and empirical difficulties and given the nature of available data, heuristic procedure was adopted to compare the standard of living of the rural population across the states.

The inter-state comparison of rural standard of living was made separately for each of the three groups of goods and services mentioned above, and also by combining these all into a single composite index. The per capita amount of non-durable goods consumed was represented by per capita monthly expenditure of rural population on these goods. This figure was obtained by subtracting the monthly per capita expenditure on durable goods from total monthly per capita expenditure reported by NSSO. In the durable consumer goods group, ten durable goods were included on the basis of their importance and availability of data. These ten durable consumer goods included in comparison were: (1) Radio/Transistor, (2) Phone/Mobile, (3) Bicycle, (4) Sewing Machine, (5) TV, (6) Refrigerator, (7) Washing Machine, (8) Air Conditioner/Air Cooler, (9) Motor Cycle/Scooter, (10) Car/ Jeep/Van. In the house and living facilities group, house quality in terms of *pucca/ kutcha*, location of drinking water source and latrine in house premises, proper sewerage outlet for disposal of waste water, use of cooking gas and electricity for lighting were included. The inter-state comparison was made separately for each of the ten items in the durable goods group, as well as, by combining the ten into a single composite index. Similarly, in the housing group, inter-state comparison was made separately for each of the six items of the group, and also by combining the six into a single composite index. The composite index for consumer durable goods group and for the housing group was constructed by using the method employed for constructing the Human Development Index (UNDP, Human Development Report, 1990). For this purpose, the minimum and desirable values for each item in these two groups was set respectively at zero per centhouseholds owning/having an item and hundred per centhouseholds owning/having it. On the basis of these limit values, each state's rank score was fixed on the basis of actual proportion of households owning that item in a particular state.

For overall ranking of states on the basis of standard of living of rural population, these three groups of goods and services were combined by using their composite scores arrived at by the procedure described above. For this purpose, the score for non-durable goods consumed was calculated by setting the minimum value of consumption at the state

specific rural poverty line and the desirable value of consumption at three times the state rural poverty line pertained to year 2011-12. Each state's score was then estimated, between these two limits, on the basis of its actual per capita monthly expenditure on non-durable goods. The overall composite score was calculated by simply adding up the composite scores of the three components of consumption.

The extent of inter-state variation in the standard of living of rural population was estimated by using two indicators: (i) coefficient of variation, and (ii) range of variation, which was equal to the ratio of maximum proportion to minimum proportion. The extent of inter-state variation could not be measured in the overall rural standard of living index; it being an ordinal number. So, the extent of inter-state variation was measured separately for each of the seventeen component items of standard of living. The role of some important factors in determining the inter-state variation in rural standard of living was analysed with the help of standard regression models.

Pattern of Variation in Standard of Living of Rural Population Across the States

The pattern of variation in standard of living of rural population across the states was analysed separately for each of the three components of consumption, and also by combining these three components into a single composite index.

Non-durable Goods Consumption

The standard of living of people was affected not only by the quantity of non-durable goods consumed, but also by their quality. The monetary value of non-durable goods consumed takes care of both quantity consumed as well as the quality of goods consumed. Owing to a large number of non-durable goods consumed, it is customary to lump these together in value terms to get a single monetary value indicating the per capita amount of non-durable goods consumed. The information on per capita monthly expenditure on non-durable goods by rural population of 20 states in the year 2011-12 is presented in Table 1. The highest per capita consumption of non-durable goods was observed in the northern-western states of Punjab, Haryana and Himachal Pradesh and also in Kerala in the south; their respective ranks being first, third, fourth and second. On the other hand, Chhattisgarh, Jharkhand, Bihar and Madhya Pradesh had the rank at the bottom in terms of consumption of non-durable goods by their rural population at 20th, 19th, 18th and 17th rank respectively. In fact, Bihar, Jharkhand, Chhattisgarh and Orissa from a cluster in eastern India, characterised by low level of non-durable goods consumption by rural population. It may be noted that the expenditure on non-durable goods consumption by rural population in this eastern Indian pocket was less than half of the expenditure on non-durable goods consumption by rural population in the north-western India. Another, noteworthy feature of the pattern was that the two highest per capita state domestic product states, (Maharashtra and Gujarat), performed poorly in-terms of per capita consumption of non-durable goods by rural population while Maharashtra ranked ninth and Gujarat at 13th among the twenty.

Ownership/Use of Durable Consumer Goods

As the families rise above the subsistence level, they start acquiring and using modern durable consumer goods. The number and variety of durable consumer goods used by a household directly determines its standard of living.

TABLE 1: CONSUMPTION OF NON-DURABLE GOODS BY RURAL POPULATION

State	Monthly Per Capita Expenditure on Non-Durable Goods (₹)	Rural Poverty Line (₹)	Score out of 100 as Per HDI Method	Rank
Andhra Pradesh	1666	860	46.86	5
Assam	1184	878	21.50	15
Bihar	778	19.35	18.00	-
Chhattisgarh	969	738	15.65	20
Gujarat	1415	932	25.91	13
Haryana	2079	1015	52.41	3
Himachal Pradesh	1857	913	51.67	4
Jammu & Kashmir	1670	891	43.72	6
Jharkhand	986	748	15.90	19
Karnataka	1410	902	27.61	12
Kerala	2100	1018	53.14	2
Madhya Pradesh	1088	771	20.49	17
Maharashtra	1543	967	30.67	9
Orissa	981	695	2058	16
Punjab	2203	1054	54.51	1
Rajasthan	1529	905	28.52	11
Tamil Nadu	1611	880	41.53	7
Uttrakhand	1594	880	40.56	8
Uttar Pradesh	1114	768	22.53	14
West Bengal	1259	783	30.40	10

Source: Monthly consumption expenditure data taken from NSSO, 68th Round, and Rural Poverty Line information from Planning Commission Press Note on Poverty Estimates, 2011-12, July 2013.
Note: The score out of 100 was computed as follows: The state poverty line value was considered zero and three times the state poverty line value was considered desirable expenditure and was set equal to 100. Each state was than placed between zero and 100 on the basis of its MPCE on non-durable goods in 2011-12.

The proportion of rural households owning/ using various durable consumer goods reveals the level of their living standard. On the basis of availability of data and importance in improving the standard of living, ten durable consumer goods were selected for inter-state comparison of standard of living of the rural population. The information was available only on proportion of households owning and not on the value of durable consumer goods owned. Thus, the entire set of ten durable consumer goods could not be lumped together in value terms, on the pattern of non-durable goods. The inter-state comparison of the entire set of ten items as a whole was done by constructing a composite index of these by using the UNDP Human Development Index.

The pattern of variation across the states in the ownership of durable consumer goods (Table 2) was similar to that observed in the case of non-durable goods. In the overall composite index for the ten goods as a whole, Punjab, Haryana, Himachal Pradesh and Kerala were at the top with first, second, third and fourth ranks respectively. At the bottom, the study found

the rural population of West Bengal, Madhya Pradesh, Orissa and Chhattisgarh with 20th, 19th, 18th and 17th ranks respectively. Bihar and Jharkhand were also almost at the same level with 15th and 16th ranks. The rural population of the two highest per capita state domestic product states (Maharashtra and Gujarat) also did poorly in the ownership of durable consumer goods; Maharashtra ranking 12th and Gujarat 11th among the 20 states being compared. The broad regional pattern observed earlier in the case of non-durable goods consumption was also visible. The proportion of rural households owning durable goods was the highest in the north-western region and the lowest in the eastern region. Kerala in the south was the sole exception to this regional pattern.

House Quality and Living Facilities

The standard of living of people was also reflected by the quality of house in which they live and other life improving facilities they enjoy. The house quality had many dimensions and it was not possible to quantify and compress all these into a single number for comparison. In view of that difficulty, only the most important dimension, i.e. whether the house was a *pucca* structure or a mud/thatch/bamboo hut was taken into consideration. It was well known that most of the rural households in developing countries lived in mud houses or thatch/bamboo huts. Only the well off lived in *pucca* houses. The living facilities compared across the states were: (1) location of drinking water source within the house premises itself; (2) location of latrine within house premises itself; (3) proper drainage outlet for disposal of waste water; (4) use of LPG for cooking and (5) use of electricity for lighting.

The information on house quality and five living facilities given in Table 3 was in the form of proportion of households owning/using these. The pattern of inter-state variation in this third component of standard of living was almost similar to that in consumer durable goods ownership. In the overall combined index of the six items, Punjab, Kerala, Haryana and Himachal Pradesh were at the top of Indian states; ranking first, second, third and fourth respectively. On the other hand, Jharkhand, Orissa, Chhattisgarh and Madhya Pradesh were at the bottom with 20th, 19th, 18th and 17th ranks respectively. The performance of the two highest per capita state domestic states (Maharashtra and Gujarat) in ensuring decent housing and living facilities to rural population were quite poor. In this respect, Maharashtra ranked eighth and Gujarat was ninth among the major states compared under study.

Rural Standard of Living: Ranking of States

After comparing the states separately on each of the three components of consumption, the three components were combined to make an overall comparison of rural standard of living across the states. The combined score of each state was simple sum of its scores in each of the three components of consumption. The rural population of the three north-western states, Punjab, Haryana and Himachal Pradesh, enjoyed the highest standard of living in the country (Table 4). Their respective ranks were first, second and third. The only other state that cames close to these three north-western states was Kerala, with fourth rank. At the bottom, Jharkhand, Orissa and Chhattisgarh were at 20th, 19th and 18th ranks. The two highest per capita state domestic product states, Maharashtra and Gujarat, had a poor show in standard of living of rural population. Maharashtra ranked ninth and Gujarat eleventh among the states being compared. The broad regional pattern that emerged from study

TABLE-2: OWNERSHIP OF DURABLE CONSUMER GOODS BY RURAL HOUSEHOLDS

State	Radio/ Transistor	Mobile/ Phone	Bicycle	Sewing Machine	T.V.	Refrige-rator	Washing Machine	Air Conditioner/ Air Cooler	Motor Cycle/ Machine	Car/Van/ Jeep	Composite Rank
Andhra Pradesh	20	11	13	15	7	10	10	8	13	19	13
Assam	6	15	7	16	16	16	15	15	18	12	14
Bihar	3	14	8	9	20	18	17	14	19	14	15
Chhattisgarh	19	20	4	10	14	16	17	5	16	20	17
Gujarat	17	12	15	17	11	7	12	13	4	8	11
Haryana	10	4	10	3	5	3	1	2	2	4	2
Himachal Pradesh	4	2	19	1	3	4	4	9	11	3	3
Jammu & Kashmir	1	10	20	5	9	5	5	4	17	5	7
Jharkhand	9	16	3	11	19	17	18	13	15	16	16
Karnataka	8	9	11	13	8	11	14	14	8	9	10
Kerala	2	1	18	7	4	2	3	11	5	2	4
Madhya Pradesh	15	17	12	9	18	13	11	5	12	17	19
Maharashtra	16	13	14	12	16	9	13	7	6	10	12
Orissa	18	19	5	19	17	12	16	10	14	18	18
Punjab	12	3	1	2	2	1	2	1	1	1	1
Rajasthan	14	6	17	6	12	8	8	3	17	7	9
Tamil Nadu	7	7	9	14	1	9	7	12	3	13	5
Uttrakhand	11	5	16	4	6	6	6	6	10	6	6
Uttar Pradesh	5	8	2	8	13	13	9	9	9	11	8
West Bengal	13	18	6	18	15	15	19	15	20	15	20

Source: Census of India, 2011 and NSSO 68th Round.
Composite score is the simple sum of the ten figures of each state.

TABLE 3: HOUSE QUALITY AND LIVING FACILITIES OF RURAL HOUSEHOLDS

(Per cent of Households Owning/Having)

State	*Pucca* House	Drinking Water Source in House Premises	Latrine in House Premises	Proper Sewerage Outlet for Disposal of Waste water	LPG for Cooking	Electricity for Lighting	Composite Score	Composite Rank
Andhra Pradesh	72.83 (7)	31.50 (12)	32.19 (11)	41.99 (9)	25.76 (5)	89.73 (5)	294.00	6
Assam	21.84 (20)	50.37 (5)	59.57 (4)	13.77 (18)	9.90 (15)	28.36 (17)	183.81	14
Bihar	48.48 (14)	47.08 (7)	17.60 (16)	38.86 (10)	3.39 (20)	10.37 (19)	165.78	16
Chhattisgarh	27.18 (18)	10.34 (20)	14.53 (17)	11.51 (20)	10.32 (13)	70.04 (12)	143.72	18
Gujarat	62.26 (12)	48.34 (6)	33.04 (10)	17.99 (15)	26.55 (4)	84.98 (8)	273.16	9
Haryana	94.40 (1)	56.27 (3)	56.07 (5)	82.83 (1)	24.15 (7)	87.16 (6)	400.88	3
Himachal Pradesh	78.50 (6)	51.85 (4)	66.58 (3)	61.61 (4)	32.68 (2)	96.59 (1)	378.81	4
Jammu & Kashmir	80.85 (5)	35.54 (11)	38.65 (8)	35.66 (11)	16.32 (10)	80.68 (10)	287.70	7
Jharkhand	27.09 (19)	11.72 (19)	7.63 (20)	16.31 (16)	6.21 (18)	32.31 (16)	101.22	20
Karnataka	64.51 (11)	26.60 (14)	28.41 (12)	42.54 (8)	13.44 (11)	86.72 (7)	262.22	10
Kerala	81.85 (4)	72.87 (2)	93.23 (1)	44.13 (7)	24.74 (6)	92.10 (3)	408.92	2
Madhya Pradesh	35.13 (17)	13.01 (18)	13.12 (19)	25.25 (14)	10.38 (12)	58.25 (13)	155.14	17
Maharashtra	57.47 (13)	42.89 (9)	38.00 (9)	47.81 (5)	21.39 (8)	73.79 (11)	281.35	8
Orissa	39.19 (15)	15.95 (17)	14.08 (18)	11.89 (19)	10.05 (14)	35.55 (15)	126.71	19
Punjab	92.99 (2)	81.82 (1)	70.57 (2)	81.18 (2)	38.85 (1)	95.50 (2)	460.91	1
Rajasthan	68.21 (9)	20.99 (15)	19.65 (15)	27.04 (13)	7.68 (16)	58.25 (13)	201.82	13
Tamil Nadu	64.66 (10)	17.00 (16)	23.22 (13)	27.20 (12)	17.66 (9)	90.79 (4)	240.53	11
Uttrakhand	91.60 (3)	45.42 (8)	54.06 (6)	47.33 (6)	29.10 (3)	83.05 (9)	350.96	5
Uttar Pradesh	69.58 (8)	40.06 (10)	21.77 (14)	61.80 (3)	6.39 (17)	23.77 (18)	223.37	12
West Bengal	37.01 (16)	30.53 (13)	46.74 (7)	15.31 (17)	3.96 (19)	40.31 (14)	173.86	15

Data Source: Census of India, 2011.

Figures in brackets are ranks.

Composite score is the simple sum of the ten figures of each state.

was that rural population in the north-western India enjoyed the highest and in eastern India subsisted at the lowest standard of living, Kerala in the south being the sole exception to this regional pattern.

Extent of Inter-State Variation

The ranking of states on the basis of standard of living of rural population was not safficient to describe about the extent of variation i.e. how much the standard of living in the top rank state and bottom rank state differ. To analyse the gap in the standard of living of the rural population in the top rank and bottom rank states, and to assess the extent of inter state variation in general, two statistical measures were used. The extent of overall variation across the states was measured by co-efficient of variation and the gap between the top rank and bottom rank states was given by ratio of the proportion of the relevant indicator in the two. The results of this exercise were presented in Table 5 for all the 17 items that were regained for the standard of living. The extent of inter-state variation indicated by the co-efficient of variation was not high in per capita consumption of non-durable goods and the ownership of phone/mobile sets; the coefficient of variation being 25.77 per cent and 30.39 per cent respectively. But in rest of the items, the coefficient of variation was quite high and in some of these it was indeed very high. The general conclusion that one could safely draw on the basis of coefficient of variation values presented in the table was that a fairly high inter-state variation in the standard of living of rural population existed in India.

TABLE 4: STANDARD OF LIVING OF RURAL POPULATION: RANKING OF STATES

State	Standard of living rank	Composite score	Rank in Components of Consumption		
			Non-Durable goods	Durable goods	House quality and living facilities
Punjab	1	1008.65	1	1	1
Haryana	2	838.29	2	2	3
Himachal Pradesh	3	776.10	4	3	4
Kerala	4	774.84	3	4	2
Uttrakhand	5	652.11	8	6	5
Jammu & Kashmir	6	568.75	6	7	7
Tamil Nadu	7	545.38	7	5	11
Andhra Pradesh	8	518.44	5	13	6
Maharashtra	9	494.82	11	12	8
Karnataka	10	485.66	12	10	10
Gujarat	11	483.22	13	11	9
Uttar Pradesh	12	473.66	14	8	12
Rajasthan	13	433.66	9	9	13
Assam	14	365.25	15	14	14
West Bengal	15	345.69	10	20	15
Bihar	16	343.44	18	15	16
Madhya Pradesh	17	319.17	17	19	17
Chhattisgarh	18	306.04	20	17	18
Orissa	19	291.99	16	18	19
Jharkhand	20	268.90	19	16	20

The comparison of the situation in the best performing state and the worst performing state in each of the 17 items showed a worrying degree of gap in the standard of living among the rural population across the states. The per capita consumption of non-durable goods by rural population of the best performing state Punjab was more than double than of that of the worst performing state (Chhattisgarh). In Kerala, 88.02 per cent of rural households owned mobile phone, but in Chhattisgarh, only 21.24 per cent rural households had mobile phone. In Punjab, 44.77 per centof rural households had a motor cycle/scooter but in West Bengal, only 5.75 per cent were so lucky. In Punjab 81.82 per cent of rural households were having drinking water source in their own house premises, but in Chhattisgarh, only 10.34 per cent were having it. In Himachal Pradesh, 95.59 per cent rural households were using electricity for lighting, but in Bihar, only 10.37 per cent had it. The gap in almost all the 17 items, that made up standard of living, between the best performing states' rural population and the worst performing states' rural population was indeed very high. Thus, the study found that there was quite a high degree of inter-state variation in the standard of living of the rural population in the country.

Determinants of Inter-State Variation

Out of the many factors that may had produced the observed inter-state variation in rural standard of living, the role of the following three was explored empirically: (1) Level of economic development; (2) Level of agricultural development and (3) Amount of rural remittances.

TABLE 5: EXTENT OF INTER-STATE VARIATION IN COMPONENT ITEMS OF STANDARD OF LIVING

Standard of Living Items	Co-efficient of Variation	Range of Variation (Highest to Lowest Ratio)
Per capita monthly expenditure on non-durable goods	25.77	2.28
Per cent of households owning/having	-	-
Radio/Transistor	45.47	7.26
Mobile/Phone	30.39	4.14
Bicycle	46.30	9.82
TV	56.88	8.37
Refrigerator	111.31	73.11
Air Conditioner/Air Cooler	128.11	198.00
Washing machine	133.52	110.50
Sewing machine	102.03	32.52
Motor cycle/Scooter	56.83	7.79
Car/Van/Jeep	80.77	11.24
Pucca house	37.18	4.32
Drinking water source in house premises	52.01	7.91
Latrine in house premises	60.02	12.02
Proper sewerage outlet for waste water	56.40	7.20
LPG for cooking	59.88	11.46
Electricity for lighting	41.04	9.31

Note: Highest to Lowest Ratio = proportion of the households owning a durable good in the top rank state divided by proportion of households owning it in the bottom rank.

The choice of these factors was dictated by their theoretical importance and availability of reliable data. The small number of observations (N=20) did not allow the use of more than three explanatory variables in the multivariate model. The benefits of higher level of development of a state will trickle down to the rural population to the extent of economic and social integration of the rural and urban sectors. The economic growth in an enclave type urban sector will almost completely by pass the surrounding rural population. The benefits of higher level of agricultural development flow to the rural population both directly as well as indirectly, it being their main source of livelihood. The size of impact on rural standard of living of a given level of agricultural development will depend on its nature in terms of capital intensity and technology and the size distribution of holdings. The amount of remittances flowing into the pockets of rural population from outside the rural sector will positively impact the rural standard of living. There was a considerable evidence showing that a major part of such remittances was spent on consumption by the recipient households (Singh, 2011). The size of this impact will depend upon both the amount of remittances received and how widely that amount was distributed among the rural population. The following three empirical variables were used to represent these factors: (1) Per capita state domestic product at 2004-05 constant prices; average for the triennium ending 2011-12; (2) Per capita agricultural income at 1999-00 prices: average for the triennium ending 2001-02 and (3) Per capita rural remittances during 2007-08.

The regression results to evaluate the impact of these three factors on rural standard of living have been reported in Table 6. Since the direction of impact of these three factors was known firmly, only a one-tailed test of significance was used. The positive significant impact of agricultural development and rural remittances emerged very clearly; their co-efficients being significant at 1% and 5% levels respectively in the multivariate model. The positive impact of higher level of development of a state on rural standard of living, however, was indicated but not confirmed by regression results; the relevant coefficient in the multivariate model being not significant even at 10% level for

TABLE 6: DETERMINANTS OF INTER-STATE VARIATION IN RURAL STANDARD OF LIVING: REGRESSION RESULTS

Dependent Variable: Rural Standard of Living Composite Score				N=20
Explanatory Variables	Estimated Models			
	I	II	III	IV
Per capita state domestic product	0.002	0.008[a]	-	-
	(1.21)	(2.85)		
Per capita income of agricultural Population	0.024[a]	-	0.0.34[a]	-
	(3.33)		(7.19)	
Per capita remittances received by rural population	0.021[b]	-	-	0.051[a]
	(1.78)			(3.92)
Intercept	157.98	229.18	208.83	369.93
R-Sqr	0.79	0.31	0.73	0.43

Note: Figures in brackets are t-values.

'a','b' and 'c' indicates significant at 1 per cent, 5 per cent and 10 per cent respectively for one tailed test.

a one-tailed test. Although, it has a positive sign and was significant at 1 per cent level in the univariate model. Since per capita agricultural income was a component of per capita state domestic product, the coefficient of the latter, (in a regression model in which both were entered as explanatory variables), indicated the impact of higher level of per capita income of the non-agricultural (urban) sector on rural standard of living. In view of that, one could say that higher level of development of the non-agricultural (urban) sector had no significant positive impact on rural standard of living. The positive significant coefficient of per capita state product variable in the univariate model, therefore, was mainly due the per capita agricultural income component of it. It means the benefits of higher level of non-agricultural (urban) sector development did not trickle down to the rural population to any significant extent. This seemed to be the main reason for the observed lower ranking of states like Maharashtra and Gujarat in rural standard of living despite their high per capita state domestic product. The high per capita state domestic product of these states was mainly the result of fast growth of their non-agricultural (urban) sector; the benefits of which have not trickled down to the rural population to any significant extent. The policy implication that emerges from these results was that only higher level of agricultural development and greater inflow of remittances from outside the rural sector help in raising the standard of living of the rural population. In the prevailing structure of society and economy in India, the fast growth of the non-agricultural (urban) sector can not help much in raising the rural standard of living.

CONCLUSION

The inter-state comparison of rural standard of living made on the basis of latest information available on various components of consumption, revealed that in terms of the three components of consumption as well as the total quantity of consumption/use of goods, Punjab, Haryana, Himachal Pradesh and Kerala were found at the top and Jharkhand, Orissa, Chhattisgarh and Madhya Pradesh at the bottom of the set of twenty major Indian states compared. In terms of broad regions, almost all the states in the north-western region showed the highest standard of living of the rural population and almost all the states in eastern region were at the lowest. Kerala was the lone exception to this broad regional pattern. Which ever the item of consumption one compared, considerable inter-state variation was found in the consumption/use by rural population. The gap in the consumption of rural population of top ranking states like Punjab and bottom ranking states like Jharkhand was indeed very high. The level of development of the non-agricultural (urban) sector of states did not improve the standard of living of their rural populations. Its benefits did not adequately percolate to the rural sector. The level of agricultural development and remittances received from out migrants significantly improved the rural standard of living.

Thus, to improve the standard of living of the rural people, the focus should be on agricultural development. Since the benefits of development of the non-agricultural (urban) sector were not adequately percolating to the rural sector at present, its nature and structure needs to be changed to make its growth more inclusive.

The choice of these factors was dictated by their theoretical importance and availability of reliable data. The small number of observations (N=20) did not allow the use of more than three explanatory variables in the multivariate model. The benefits of higher level of development of a state will trickle down to the rural population to the extent of economic and social integration of the rural and urban sectors. The economic growth in an enclave type urban sector will almost completely by pass the surrounding rural population. The benefits of higher level of agricultural development flow to the rural population both directly as well as indirectly, it being their main source of livelihood. The size of impact on rural standard of living of a given level of agricultural development will depend on its nature in terms of capital intensity and technology and the size distribution of holdings. The amount of remittances flowing into the pockets of rural population from outside the rural sector will positively impact the rural standard of living. There was a considerable evidence showing that a major part of such remittances was spent on consumption by the recipient households (Singh, 2011). The size of this impact will depend upon both the amount of remittances received and how widely that amount was distributed among the rural population. The following three empirical variables were used to represent these factors: (1) Per capita state domestic product at 2004-05 constant prices; average for the triennium ending 2011-12; (2) Per capita agricultural income at 1999-00 prices: average for the triennium ending 2001-02 and (3) Per capita rural remittances during 2007-08.

The regression results to evaluate the impact of these three factors on rural standard of living have been reported in Table 6. Since the direction of impact of these three factors was known firmly, only a one-tailed test of significance was used. The positive significant impact of agricultural development and rural remittances emerged very clearly; their co-efficients being significant at 1% and 5% levels respectively in the multivariate model. The positive impact of higher level of development of a state on rural standard of living, however, was indicated but not confirmed by regression results; the relevant coefficient in the multivariate model being not significant even at 10% level for

TABLE 6: DETERMINANTS OF INTER-STATE VARIATION IN RURAL STANDARD OF LIVING: REGRESSION RESULTS

Dependent Variable: Rural Standard of Living Composite Score				N=20
Explanatory Variables	Estimated Models			
	I	II	III	IV
Per capita state domestic product	0.002	0.008[a]	-	-
	(1.21)	(2.85)		
Per capita income of agricultural Population	0.024[a]	-	0.0.34[a]	-
	(3.33)		(7.19)	
Per capita remittances received by rural population	0.021[b]	-	-	0.051[a]
	(1.78)			(3.92)
Intercept	157.98	229.18	208.83	369.93
R-Sqr	0.79	0.31	0.73	0.43

Note: Figures in brackets are t-values.

'a','b' and 'c' indicates significant at 1 per cent, 5 per cent and 10 per cent respectively for one tailed test.

a one-tailed test. Although, it has a positive sign and was significant at 1 per cent level in the univariate model. Since per capita agricultural income was a component of per capita state domestic product, the coefficient of the latter, (in a regression model in which both were entered as explanatory variables), indicated the impact of higher level of per capita income of the non-agricultural (urban) sector on rural standard of living. In view of that, one could say that higher level of development of the non-agricultural (urban) sector had no significant positive impact on rural standard of living. The positive significant coefficient of per capita state product variable in the univariate model, therefore, was mainly due the per capita agricultural income component of it. It means the benefits of higher level of non-agricultural (urban) sector development did not trickle down to the rural population to any significant extent. This seemed to be the main reason for the observed lower ranking of states like Maharashtra and Gujarat in rural standard of living despite their high per capita state domestic product. The high per capita state domestic product of these states was mainly the result of fast growth of their non-agricultural (urban) sector; the benefits of which have not trickled down to the rural population to any significant extent. The policy implication that emerges from these results was that only higher level of agricultural development and greater inflow of remittances from outside the rural sector help in raising the standard of living of the rural population. In the prevailing structure of society and economy in India, the fast growth of the non-agricultural (urban) sector can not help much in raising the rural standard of living.

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