Growth and Diversification of Consumption Spending in Rural India: An Inter- State Analysis

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Abstract: *During the past two decades, the rural economy in India has grown expressively faster than the urban economy. The economic reforms of 1991 have explored the new job opportunities, increased the degree of urbanization, raised the level of education and enhanced the presence of media and exposure to it and have thus influenced the lifestyle of the consumers. As a result, the consumers' tastes and preferences have changed and the expenditure patterns on food and non-food items have changed in rural India as a whole and in the rural areas of the constituent states during 1983-2011/12. In this paper, the basic objective is to analyse the trend of monthly per capita consumption expenditure of food and non-food commodities and the degree of diversification of the consumption expenditure in rural India and its constituent states during the period of 1983 – 2011/12 using the five different rounds of NSSO data. Here, we have used Annual Compound Growth Rate and Theil entropy measure to show respectively the spending growth rate and the level of diversification of food and non-food baskets in India and its constituent states during the period under study. Our estimates reveal that the expenditure growth rate of food basket has declined whereas that of non-food one has increased in rural India and its constituent states. The degree of diversification is initially quite higher in non-food basket compared to food one but over time the reverse has happened in all the constituent states in rural India.*

Keywords: *Consumption expenditure, Growth rate, Spending Diversification Index.*

Introduction

During the past two decades, the rural economy (7.3%) in India has grown expressively faster than the urban one (5.4%). The share of rural economy to GDP has increased from 41% in 1981-82 to 46% in 1993-94 and to 49% in 2000-01, and thereafter it has decreased to 46% in 2011-12(CSO Report, 2016-17). Due to economic reforms of 1991 the rural economy has improved. As a result, the lifestyle of the rural households has changed due to improved market facility, better road connectivity to town and transport facility, etc. The rural households in India are now spending more on commodities like durables goods, health and personal care, food and beverages and services etc. The consumption pattern may shift from food to non-food products as well as cereal to non-cereal products. An increase in consumption of high-value products such as egg-fish-meat, dairy products, fruits and vegetables etc. in the non-cereal components results in major changes in the demand for food basket.

Literatures on spending diversification on commodities are very few both national and international levels. According to N. Surendran, and B. Mathavan (2015) the change in the demand for different commodities was necessary for economic planning and designing the appropriate policies related to production and distribution. The authors have examined the consumption expenditure and its changing pattern in rural and urban India using the NSSO data during 1972/73-2009/10 and observed that a continuous fall in the proportion of food expenditure accompanied by the increasing share of non-food expenditure in both rural and urban India. Using the primary data (mainly Lucknow city of Uttar Pradesh) Amir and Ghufran (2015) tried to examine how the change in lifestyle of rural households is affecting their consumption pattern bringing a noticeable change in their living standard. Using the NSSO data Basole and Basu (2015) focused on the expenditure distribution between food and non-food baskets as the trend of spending had significantly differ overtime.They found that though the inequality within food and non-food groups had declined but the overall expenditure inequality had increased overtime. The absolute inequality in food spending had stagnant whereas the expenditure on the non-food increased rapidly. Based on the NSSO data (1977/78 to 1983) on consumption expenditure for rural- urban India and its 17major states, Mishra and Parikh (1992) observed that between the states and indirectly within the state's disparity had been one of the major factors for inequality in India using the Theil index and Atkinson's index. Pal (1988) in his paper highlighted the differences between the household's demand, occupational structure, age-sex, living standard etc. in rural

Punjab on the basis of NSSO data as well as the primary survey data. Using the Lorenz curve, Gini Coefficient, Coefficient of Variation, Theil index and Atkinson's index he found that occupation had been an important influential factor for disparity in rural Punjab. Similarly, by using the NSSO data Sen (2009) in his study had shown the changing pattern of consumption expenditure in rural India during 1993-2004 based on Theil and Simpson's indices. He had examined the changing nature of consumption baskets across different income groups in rural India. Also, Chakraborty and Pal (2009) in their paper had verified the transition of consumption from luxury ones to the necessary ones during 1993-2004 in India by using the NSSO data. However, all these studies have not analysed the changes in the composition of baskets of food and non-food goods and the growth rate during 1983-2011/12.

In this paper we are to examine the growth rate and the compositional change in the monthly per capita consumption expenditure of food and non-food baskets in rural India and its constituent states during 1983-2011/12. Here, we have used the NSSO consumption expenditure data on five different rounds such as 38th, 50th, 56th, 60th and 68th which has covered the period of 1983 - 2011/12. As these data are at the current price so they are deflated to compensate the effect of price change by using the deflator such as Consumer price index (CPI), (i.e., CPI of agricultural labour (CPI-AL) for the rural area) in the base year 2011-12.

Methodology:

I. Annual Compound Growth Rate (ACGR):

Here we have used ACGR to measure the growth rate of the consumption basket over the multiple time periods. We can estimate the growth rate as:

$$G_t = [\{\ln (Y_t / Y_1)\}/n] *100,$$

Where, Y_t = current year per capita consumption expenditure, Y_1 = base year per capita consumption expenditure and n = number of years.

II. Spending Diversification Index:

Let us consider a commodity basket consists of i number of commodities, i = 1,2,3……n, and $x = (x_1, x_2, x_3…..x_n)$ be the expenditure vector of consumption corresponding to these i commodities (in terms of rupees).

Consider another variable E, $E = \sum_{i=1}^{n} x_i$: E is the total spending of all commodities and the share of i-th commodity : $p_i = x_i / E$, such as $0 \le p_i \le 1$ and $\sum_i p_i = 1$.

Therefore, Theil (1967) entropy measure is:

$$T = \sum_{i=1}^{n} \ln(1|p_i)\, p_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. (1).$$

As the upper bound of the index depends on n, i.e. the number of items consumed, so, to normalise it we will divide T by ln n, the maximum value. Therefore, the Spending Diversification Index (SDI) is given by

$$SDI = \frac{T}{\ln n} = \sum_{i=1}^{n} \frac{\ln(1|p_i)\, p_i}{\ln n} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. (2).$$

Now SDI lies between 0 to 1. So, SDI = 1 indicates that consumption basket consists of various items and expenditure is highly diversified (case of complete diversification as all the commodities are equally important). On the other hand, SDI = 0, means that only one item of the commodity basket shares the total expenditure and no other commodities are consumed at all (case of totally biased for one commodity).

Estimates:

I. Annual Compound Growth Rate of Food and Non-food Basket in Rural India: State wise analysis

The estimates of annual compound growth rate of food and non-food baskets are shown in Table 1 in rural India and its constituent states. Estimates reveal that at the all India level the annual compound growth rate of food basket has been lower than that of non-food basket during 1983- 1993/94. But during 1993/94-2000/01 the growth rate has been decelerated: food basket (-14.81%) and non-food basket (-11.90%). Again, the growth rate of food basket has been lower than that of non-food basket during 2000/01- 2004/05 and 2004/05- 2011-12. Also, the growth rate of food basket has been lower than that of non-food basket during 1983-2011/12. Thus, we observe that the growth rate of non-food basket is higher than that of food basket irrespective of time period.

The growth rate of food and non-food baskets has varied among the states in India during the period under study. The growth rate of food basket is highest in Kerala followed by Rajasthan, Uttar Pradesh, Tamil Nadu, Panjab, Tripura, Kerala, Jammu & Kashmir, Gujrat, Andhra Pradesh, and West Bengal and so on during 1983- 1993/94. It is lowest in both Orissa and Sikkim. It has been

decelerated in all the constituent states during 1993/94 – 2000/01 and the highest deterioration is observed in Madhya Pradesh (-14.29 %). During 2000/01-2004/05, the food consumption has improved and the highest growth rate of food spending is in Assam followed by Andhra Pradesh, Haryana, Madhya Pradesh, Panjab and Karnataka. The growth rate is negative in West Bengal, Tripura and Chhattisgarh. Now, for the period of 2004/05 – 2011/12, the growth rate of food basket is highest in both Maharashtra and Haryana followed by Karnataka, Andhra Pradesh, Madhya Pradesh, Tamil Nadu, Punjab and Rajasthan. Uttar Pradesh is in the lowest one. So, over the 30 years (1983-2011/12) the food consumption growth rate is highest in Andhra Pradesh followed by Haryana, Kerala, Maharashtra, Tamil Nadu, Panjab, Rajasthan, Gujrat, Jammu & Kashmir and Karnataka. The lowest rate is in Orissa.

In case of non-food basket, the growth rate is highest in Jammu & Kashmir followed by West Bengal, Tripura, Madhya Pradesh, Tamil Nadu, Haryana, Karnataka, Sikkim, Orissa and so on during 1983 – 1993/94. Like the food consumption growth rate, the non-food consumption expenditure growth rate has been decelerated in all the states during 1993/94 – 2000/01. But some of the states have secured a positive growth rate during 2000/01 – 2004/05. Here the growth rate is highest in Arunachal Pradesh followed by Haryana, Kerala, Himachal Pradesh, Jammu& Kashmir, Assam, Maharashtra, Rajasthan, Madhya Pradesh and it is lowest in West Bengal. Now in the period of 2004/05 – 2011/12, the growth rate is highest in Karnataka followed by Bihar, Andhra Pradesh, Gujrat, Rajasthan, Tamil Nadu, Maharashtra, Punjab and it is lowest in Uttar Pradesh. Thus, we observe that over the 30 years, the growth rate of non-food basket is highest in Kerala followed by Tamil Nadu, Jammu & Kashmir, Bihar, Himachal Pradesh, West Bengal, Maharashtra, Gujarat, Karnataka, Andhra Pradesh, etc.

Thus we observe that the growths rate of food and non-food baskets have decreased from the period of 1983 – 1993/94 to 1993/94 – 2000/01 and thereafter it has continuously increased during 2004/05 – 2011/12 in rural India and its constituent states during 2004/05 – 2011/12.

Table 1: Annual Compound Growth Rate (%) of Food and Non-Food basket in **Rural** India during 1983--2011/12: State-wise analysis

States	Food					Non-food				
	1983-1993/1994	1993/94-2000/2001	2000/01-2004/2005	2004/05-2011/2012	1983-2011/12	1983-1993/1994	1993/94-2000/2001	2000/01-2004/2005	2004/05-2011/2012	1983-2011/2012
Andhra Pradesh	16.13	-11.90	6.92	19.76	8.97	16.41	-9.64	7.46	24.58	10.86
Arunachal	--	-10.76	6.49	15.10	--	--	-9.18	14.95	21.55	--

Pradesh										
Assam	15.27	-11.72	7.17	15.67	7.74	15.78	-7.26	6.72	20.95	10.22
Bihar	15.26	-12.01	5.26	17.86	7.92	16.46	-5.98	1.83	25.29	11.16
Chhattisgarh	--	--	-2.23	16.91	--	--	--	3.31	20.88	--
Gujarat	16.26	-10.91	2.65	18.74	8.42	15.87	-5.69	3.30	23.97	10.89
Haryana	15.85	-12.17	6.52	20.21	8.85	17.21	-7.95	10.71	18.83	10.63
Himachal Pradesh	15.13	-9.39	2.80	18.03	8.21	16.28	-7.52	9.61	22.52	11.12
Jammu and Kashmir	16.21	-9.86	4.45	16.68	8.41	19.39	-9.08	9.51	19.98	11.30
Karnataka	15.28	-10.70	2.27	19.92	8.33	15.87	-6.18	0.85	25.82	10.88
Kerala	16.71	-10.35	4.90	17.92	8.84	17.18	-4.08	9.57	23.62	12.55
Madya Pradesh	15.50	-14.29	5.57	19.28	7.85	17.61	-9.57	5.81	22.25	10.54
Jharkhand	--	--	4.50	17.38	--	--	--	-3.47	21.40	--
Maharashtra	15.82	-11.16	4.67	20.20	8.83	16.59	-7.69	6.53	22.97	10.88
Orissa	14.46	-11.36	2.61	17.66	7.36	16.93	-8.06	3.97	22.42	10.44
Punjab	16.25	-12.75	5.32	19.29	8.48	16.55	-7.42	4.79	22.81	10.66
Rajasthan	16.60	-12.54	4.23	19.17	8.48	16.01	-9.20	6.08	23.00	10.24
Sikkim	14.46	--	--	17.72	7.88	15.27	--	--	19.14	10.20
Tamil Nadu	16.33	-12.00	4.74	19.63	8.69	17.21	-7.56	7.71	23.23	11.37
Tripura	16.22	-10.79	-2.70	18.61	7.67	18.70	-8.03	-5.74	22.39	9.77
Uttar Pradesh	16.39	-7.36	1.23	14.48	8.11	17.11	-6.03	7.11	16.07	9.89
West Bengal	15.89	-6.47	-4.07	17.84	8.21	19.04	0.84	-8.13	19.42	10.99
All India	15.91	-14.81	9.95	18.43	8.28	16.85	-11.90	13.29	22.11	10.69

Source: Various rounds of NSSO, Govt. Of India

II. Indices of Spending Diversification of Food and Non-food baskets in Rural India: State-wise analysis

In the earlier section we have examined the growth rates of food and non-food commodity baskets in rural India and its constituent states during 1983-2011/12. Now we have to examine the extent of spending diversification of food and non-food baskets in rural India and its constituent states during the period of 1983 - 2011/12. The estimates are shown in Table 2.

Our estimates reveal that at all India level the SDI of food has continuously increased from 0.694 in 1983 to 0.801 in 2000-01 and to 0.836 both in 2004-05 and 2011-12. The non-food basket the index has also continuously risen from 0.566 in 1983 to 0.770 in 2000-01, to 0.857 in 2004-05 and to 0.872 in 2011-12. This clearly shows that food and non-food consumption expenditure have been diversified among the items in rural India during the period under study and the index value of food is more than that of non-food during 1983 - 2000/01 and thereafter the reverse trend has observed.

Extensive differences of the SDI among the states are observed during 1983 - 2011/12. In case of food basket, the SDI has increased in all the states excepting Assam during 1983 - 2011/12. In case of non-food basket, it has increased significantly in all the states during the period under study. In 1983, the SDI of

food basket is highest in Assam followed by Maharashtra, Gujarat, Punjab, Madhya Pradesh, Kerala etc. and it is lowest in Bihar. Whereas in case of non-food basket, the SDI is highest in Sikkim followed by Rajasthan, Tripura, Punjab, and Orissa so on and it is lowest in Kerala. In 1993-94, in case of food basket it is highest in Maharashtra and lowest in Orissa. But in case of non-food basket the index has relatively been lower than the food one. It is highest in Haryana and lowest in Tamil Nadu. After that with the changing consumers' choice and preference, the spending diversification of food and non-food baskets has significantly changed over time. As the plenty of new products has entered into the daily consumption basket, in most of the states the consumer's expenditure preference in food basket is pretty higher than non-food one. The SDI is higher in non-food basket than in food one in the states of Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Rajasthan, Haryana, Tripura and Uttar Pradesh. In 2011-12, in case of food basket the SDI is highest in Kerala and lowest in Rajasthan. However, in case of non-food basket the SDI is highest in Andhra Pradesh and lowest in Jharkhand.

- **Food vs. Non-food Baskets**

We are to examine a comparative analysis of spending diversification between food and non-food baskets in rural Indian states. We have estimated the ratio between the SDI of food and non-food baskets. If the ratio is greater (less) than unity, this indicates that the diversification of food basket has been higher (lower) than that of non-food basket. If it is equal to unity, food and non-food baskets are equally diversified. Our estimates (Tables 2) reveal that at the all India level, the ratio has been greater than unity in 1983, in 1993-94 and in 2000-01. But thereafter it has been less than unity in 2004-05 and in 2011-12. This shows that the food basket diversity has been higher than the non-food one during 1983- 2000/01 and the reverse has happened during 2004/05-2011/12.

In case of the state-level analysis we observe that the food basket has been more diversified compared to the non-food one in all the states excepting Orissa in 1983. However, the non-food basket has been more diversified as compared to food one in all the constituent states excepting Kerala in 2004/05 and two states namely Kerala and Madhya Pradesh in 2011-12.

Table 2: Indices of Spending Diversification of Food and Non-Food basket in Rural Indian States during 1983—2011/12

Year	1983			1993-94			2000-01			2004-05			2011-12		
States	Food	Non-food	F/ NF	Food	Non-food	F/ NF	Food	Non-food	F/ NF	Food	Non-food	F/ NF	Food	Non-food	F/ NF
Andhra Pradesh	0.695	0.377	1.844	0.759	0.398	1.907	0.774	0.645	1.200	0.795	0.874	0.910	0.843	0.894	0.943
Arunachal Pradesh	---	---	---	---	0.559	---	0.668	0.740	0.903	0.715	0.808	0.885	0.772	0.853	0.905
Assam	0.922	0.349	2.642	0.683	0.552	1.237	0.684	0.775	0.883	0.748	0.781	0.958	0.786	0.820	0.959
Bihar	0.545	0.333	1.637	0.660	0.383	1.723	0.701	0.741	0.946	0.735	0.745	0.987	0.799	0.807	0.990
Chhattisgarh	---	---	---	---	---	---	0.715	0.780	0.917	0.685	0.822	0.833	0.799	0.812	0.984
Gujarat	0.769	0.361	2.130	0.798	0.514	1.553	0.792	0.741	1.069	0.803	0.834	0.963	0.813	0.860	0.945
Haryana	0.673	0.239	2.816	0.694	0.570	1.218	0.698	0.776	0.899	0.722	0.882	0.819	0.691	0.868	0.796
Himachal Pradesh	0.713	0.369	1.932	0.774	0.394	1.964	0.778	0.768	1.013	0.789	0.872	0.905	0.804	0.873	0.921
Jammu and Kashmir	0.689	0.232	2.970	0.763	0.518	1.473	0.776	0.745	1.042	0.782	0.824	0.949	0.807	0.848	0.952
Jharkhand	---	---	---	---	---	---	0.780	0.756	1.032	0.724	0.787	0.920	0.789	0.811	0.973
Kerala	0.726	0.207	3.507	0.797	0.523	1.524	0.816	0.751	1.087	0.837	0.825	1.015	0.858	0.851	1.008
Madhya Pradesh	0.742	0.242	3.066	0.811	0.406	1.998	0.807	0.759	1.063	0.834	0.874	0.954	0.839	0.819	1.024
Karnataka	0.647	0.239	2.707	0.730	0.558	1.308	0.775	0.753	1.029	0.781	0.816	0.957	0.817	0.842	0.970
Maharashtra	0.760	0.545	1.394	0.830	0.512	1.621	0.829	0.756	1.097	0.836	0.854	0.979	0.856	0.889	0.963
Orissa	0.499	0.557	0.896	0.611	0.403	1.516	0.647	0.651	0.994	0.708	0.809	0.875	0.784	0.825	0.950
Punjab	0.757	0.567	1.335	0.767	0.539	1.423	0.767	0.761	1.008	0.757	0.831	0.911	0.770	0.847	0.909
Rajasthan	0.683	0.596	1.146	0.707	0.553	1.278	0.712	0.758	0.939	0.708	0.848	0.835	0.753	0.854	0.882
Sikkim	0.709	0.607	1.168	0.754	0.468	1.611	---	---	---	0.788	0.839	0.939	0.799	0.845	0.946
Tamil Nadu	0.661	0.559	1.182	0.772	0.354	2.181	0.814	0.617	1.319	0.772	0.879	0.878	0.814	0.882	0.923
Tripura	0.663	0.586	1.131	0.715	0.504	1.419	0.708	0.789	0.897	0.725	0.801	0.905	0.765	0.825	0.927

Uttar Pradesh	0.701	0.551	1.272	0.763	0.406	1.879	0.692	0.775	0.893	0.789	0.840	0.939	0.816	0.847	0.963
West Bengal	0.577	0.547	1.055	0.668	0.507	1.318	0.830	0.741	1.120	0.739	0.832	0.888	0.784	0.841	0.932
All India	0.694	0.566	1.226	0.646	0.536	1.205	0.801	0.770	1.040	0.836	0.857	0.975	0.836	0.872	0.959

Source: Various rounds of NSSO data, Govt. Of India
Note: F/NF is the ratio of Food / Non-food spending diversification

III. Indices of Overall Spending Diversification (Food and Non-Food items together) in Rural India: State-wise Analysis

Let us now examine the overall spending diversification in rural India and its constituent states during 1983-2011/12. Here we have considered the total consumption basket consisting of thirteen food and fifteen non-food commodities and tried to examine the SDI of the overall (food and non-food items together) consumption basket in rural India and its constituent states during the period under study. Our estimates (Table 3) reveal that at the all India level, the overall SDI has steadily increased during the period under study.

State-wise analysis reveals that the overall SDI is highest in Kerala during 1983-1993/94 followed by Maharashtra, Karnataka, Punjab, Gujarat, Sikkim, Rajasthan, Himachal Pradesh, Andhra Pradesh, Uttar Pradesh etc. It is in Orissa during this period. In 2000-01, the overall SDI is highest in Maharashtra followed by Kerala, Karnataka, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Himachal Pradesh, West Bengal and so on. However, it is lowest in Arunachal Pradesh. In 2004-05, the highest SDI is again in Kerala but in 2011-12 it is in Maharashtra. On the other hand, the lowest spending diversity is in Bihar in 2004-05 and in Haryana in 2011-12.

Interestingly, we note that in rural area, over the period of almost 30 years all the 22 states have a significant increase in the spending pattern and thereby the SDI values has clearly shown the higher degree of diversification. The states like Maharashtra, Kerala, Gujarat, Karnataka, Andhra Pradesh, Himachal Pradesh, Jharkhand etc. have shown the higher SDI in the rural area during 1983 – 2011/12.

Table 3: Indices of Overall Spending Diversification (Food and Non-Food baskets together) in **Rural Indian States** during 1983 - 2011-12

Year / States	1983	1993-94	2000-01	2004-05	2011-12
Andhra Pradesh	0.704	0.724	0.824	0.862	0.898

Arunachal Pradesh	--	--	0.764	0.811	0.855
Assam	0.653	0.682	0.776	0.788	0.836
Bihar	0.597	0.661	0.777	0.774	0.836
Chhattisgarh	--	--	0.797	0.795	0.849
Gujarat	0.729	0.74	0.813	0.848	0.871
Haryana	0.691	0.708	0.796	0.847	0.825
Himachal Pradesh	0.715	0.737	0.82	0.866	0.875
Jammu and Kashmir	0.693	0.723	0.809	0.838	0.863
Jharkhand	--	--	0.814	0.788	0.839
Karnataka	0.716	0.741	0.826	0.867	0.893
Kerala	0.743	0.761	0.825	0.893	0.859
Madya Pradesh	0.682	0.722	0.812	0.839	0.867
Maharashtra	0.738	0.758	0.834	0.882	0.907
Orissa	0.577	0.649	0.768	0.788	0.842
Punjab	0.736	0.731	0.808	0.839	0.853
Rajasthan	0.711	0.707	0.792	0.818	0.847
Sikkim	0.718	0.643	--	0.849	0.859
Tamil Nadu	0.686	0.714	0.822	0.885	0.894
Tripura	0.682	0.694	0.8	0.791	0.831
Uttar Pradesh	0.704	0.729	0.791	0.854	0.867
West Bengal	0.618	0.672	0.822	0.817	0.844
All India	**0.705**	**0.734**	**0.776**	**0.861**	**0.886**

Source: Table 1.

IV. State-classification on the basis of Overall Spending Diversification: Rural India

Now in this section, we construct a 2× 2 classification of states on the basis of overall and food (or non-food) basket diversification at the all India level in rural area. Here, we consider four different cells (I, II, III and IV) based on two criteria: (a) whether the value of the overall SDI of the state is higher or lower than the all

India level and (b) whether the states' SDI of food (or non-food) basket is higher or lower than the all India level SDI. Our estimates are shown in Tables 4 highlighting the changing position of 22 states in terms of SDI values (overall, food and non-food baskets) during 1983-2011/12.

Our estimate (Table 4) reveals that during 1983-1993/94, five states namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, have marked in cell I (high, high) with the higher SDI in food, non-food and overall spending than the all India level whereas in Punjab and Rajasthan the spending in food baskets gradually has declined overtime. Likewise, other than Sikkim, the spending diversification in food baskets has increased in 8 states like, Assam, Bihar, Haryana, Jammu &Kashmir, Orissa, Tamil Nadu, Tripura and West Bengal during this period. Though, in case of non-food baskets all the other states including Punjab, Sikkim and Rajasthan have noted with higher spending during 1983-1993/94. In 2000-01, the situation improved and the spending diversification both in food and non-food baskets have increased in majority of the states excepting Orissa, Sikkim, Arunachal Pradesh in case of food and Orissa and Sikkim in case of non-food basket. They have noted in cell IV (low, low) with the lower SDI compare to the overall as well as food and non-food groups SDI at all India level. During this period, though all the other states in case of non-food basket have noted with the higher SDI but in food basket 7 states namely, Assam, Bihar, Chhattisgarh, Haryana, Rajasthan, Tripura and Uttar Pradesh are in cell II (high, low) with the lower spending in food basket but higher in the overall basket than the all India level. In 2004-05, the situation again has drastically changed and most of the states are now noted in cell III and cell IV. Now only 6 states namely, Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Maharashtra and Tamil Nadu have the higher SDI both in food and non-food and overall basket compare to the all India level. Here, all other states in case of non-food basket have noted with lower SDI in cell IV (low, low) but in case of food basket, Arunachal Pradesh, Orissa, Assam, Bihar, Chhattisgarh, Jharkhand, Rajasthan, Tripura and West Bengal are also added in cell IV. In 2011-12, only 4 states namely Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu have maintained their highest position in cell I both in food and non-food baskets. However, in case of non-food basket accompanied by Kerala, all the states have noted under cell IV and Himachal Pradesh under cell III. On the other hand, in case of food basket, Assam, Bihar, Tripura and Haryana have added in cell IV with the lower SDI compared to the all India level.

Overall, it is very interesting to note that although the expenditure as well as diversification of the non-food basket has increased overtime, in majority of the states the SDI has been higher in food basket than in non-food one in 2011-12.

Table 4: 2×2 State-classification on the basis of Overall Spending Diversification in **Rural India** during1983 - 2011-12

1983	**Food Group SDI (All India - 0.694)**		**Non-Food Group SDI (All India - 0.566)**	
Overall SDI (All India – 0.705)	**High**	**Low**	**High**	**Low**
High	**I.** Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab, Rajasthan, Sikkim	**II** ---	**I**. Gujarat, Himachal Pradesh, Karnataka, Kerala, Sikkim Maharashtra, Punjab, Rajasthan,	**II**. ---
Low	**III.** Andhra Pradesh, Uttar Pradesh	**IV**. Assam, Bihar, Haryana, Jammu &Kashmir, Orissa, Tamil Nadu, Tripura, West Bengal	**III**. Andhra Pradesh, Assam, Bihar, Haryana, Jammu& Kashmir, Orissa, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	**IV**. ---
1993-94	**Food Group SDI (All India - 0.646)**		**Non-Food Group SDI (All India - 0.821)**	
Overall SDI (All India – 0.734)	**High**	**Low**	**High**	**Low**
High	**I**. Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra	**II**. ---	**I**. Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra	**II**. ---
Low	**III**. Andhra Pradesh, Assam, Bihar, Haryana, Jammu& Kashmir, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	**IV.** Sikkim	**III**. Andhra Pradesh, Assam, Bihar, Haryana, Jammu& Kashmir, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	**IV**. ---
2000-01	**Food Group SDI (All India - 0.801)**		**Non-Food Group SDI (All India - 0.770)**	
Overall SDI (All India – 0.776)	**High**	**Low**	**High**	**Low**
High	**I**. Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu-Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra Madhya Pradesh, Punjab,	**II**. Assam, Bihar, Chhattisgarh, Haryana, Rajasthan, Tripura, Uttar Pradesh	**I**. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Haryana, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Punjab, Rajasthan,	**II.** ---

	Tamil Nadu, West Bengal		Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	
Low	**III**. ---	**IV**. Arunachal Pradesh Orissa, Sikkim	**III**. ---	**IV**. Orissa, Sikkim
2004-05	**Food Group SDI (All India - 0.836)**		**Non-Food Group SDI (All India - 0.857)**	
Overall SDI (All India – 0.861)	**High**	**Low**	**High**	**Low**
High	**I**. Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu	**II**. ---	**I**. Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu	**II**. ---
Low	**III**. Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Punjab, Sikkim, Uttar Pradesh	**IV**. Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Orissa, Rajasthan, Tripura, West Bengal	**III**. ---	**IV**. Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu Kashmir, Jharkhand, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, West Bengal
2011-12	**Food Group SDI (All India - 0.836)**		**Non-Food Group SDI (All India - 0.872)**	
Overall SDI (All India – 0.886)	**High**	**Low**	**High**	**Low**
High	**I**. Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu	**II**. ---	**I.** Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu	**II**. ---
Low	**III**. Arunachal Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu &Kashmir, Jharkhand, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Uttar Pradesh, West Bengal	**IV**. Assam, Bihar, Haryana Tripura	**III**. Himachal Pradesh	**IV**. Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu & Kashmir, Jharkhand, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, West Bengal

Note: High indicate Greater than All India level of SDI, Low indicate lower than All India level of SDI

Conclusions

Rising per capita income and awareness are significantly boost up the per capita expenditure on food and beverages, health, education, communication, transport, entertainment etc. in the rural area during the period under study. Irrespective of states the growth rate of food basket has decreased and that of non-food basket has gradually increased in rural area at the all India level and its constituent states during 1983- 2011/12. The spending on food and non-food baskets has diversified irrespective of the regional boundary in India during the period under study. But the SDI of non-food basket is slightly higher than that of food one in rural area India and its constituent states during the period under study. The classification of states has shown that the states like Kerala, Maharashtra, Madhya Pradesh, Andhra Pradesh, Haryana, Gujarat etc. have higher spending diversification of food and non-food commodity baskets in rural India. On the other hand, the states like Bihar, Arunachal Pradesh, Uttar Pradesh, Punjab, Orissa etc. have the lower diversification in consumption. Thus we observe that the expenditure pattern and the degree of diversification of the consumption basket have been changing in the constituent states in rural India during 1983 - 2011/12.

References:

Amir, Z and Ali, G 2015. 'Changing Lifestyle and Consumption Pattern of Indian Rural Households: An Analytical study', *International Journal of Trade and Commerce.* 2277-5811.

Basole, Amit and Basu, Deepankar 2015. "Non-Food Expenditures and Consumption Inequality in India", University of Massachusetts Amherst.

Chakraborty, D & Pal, D. P 2009.'Changes in the Consumption Pattern in India: 1993-2000' in P. K. Pal(eds.*): Reforms and Structural Changes in India*. Regal Publications, New Delhi, 2009.

Government of India (1993-1994). Level and Pattern of Consumer Expenditures in India, NSSO, Report No. 402, 1993-94, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Government of India (2000-2001). Household Consumer Expenditure and Employment – Unemployment Situation in India, 2000 – 2001, Report No.476, 56th round, NSSO, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Government of India (2004-05a). Level and Pattern of Consumer Expenditures in India, NSSO, Report No. 508, 2004-05, Ministry of Statistics and Programme Implementation, Government of India, New Delhi

Government of India (2004-05b). Consumer Expenditure, Employment-Unemployment Survey (July 2004 – June 2005), 61st round, NSSO, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Government of India (2011-12), Key Indicator of Household Consumption Expenditure,68th round, June 2013.

Mishra, Padmaja and Parikh, Ashok 1992. 'Households Consumers Expenditure Inequality in India: A Decomposition Analysis', Review of Income and Wealth, June Series 38, No. 2.

Surendran, N and B. Mathavan, 2015. 'Changing Pattern of Consumption Expenditure, Language in India', 1930-2940

Pal, D.P. 1995. 'Decomposition of Theil's Measure of Equality'. Unpublished research paper.

Paul, Satya 1988. 'Household Composition and The Measurement of Disparity in Level of Living', Indian Economic Review, June, Vol. 23, No. 1.

Sen, Jyanta 2009.' Changing Pattern of Consumption Expenditure in Rural India during the Reform Period' in P.K. Pal (eds.): *Reforms and Structural Changes in India*, Regal Publications, New Delhi, 2009.

Theil, H. 1967. Economics and Information Theory, North Holland.

Tripathi, Sabyasachi 2016. 'Source of Inequality in Consumption Expenditure in India: A Regression Based Inequality Decomposition', Munch Personal RePEc Archive (MPRA), June. 72117.

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