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An Analysis of Transformation of Trends of Food Basket in India

Shruti Chopra[1], Inderpreet Kaur[2*], Amandeep Kaur[1] and Amarpreet Kaur[1]

[1]Department of Economics & Sociology, PAU, Ludhiana, India
[2]Department of Dairy Economics and Business Management, GADVASU, Ludhiana, India

**Corresponding author*

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A B S T R A C T

The present study has been based on the data from five major quin-quennial rounds of the National Sample Survey on the Household Consumption Expenditure in India during 1993-94, to 2011-12, and proposed to bring out the temporal, spatial and cross sectional differences in the food consumption pattern of Indian households. The study revealed a considerable decline in the monthly per capita cereal consumption from 13.40 kg in 1993-94 to 11.23 kg in rural India in 2011-12, the corresponding figures for urban India being 10.63 kg and 9.32 kg. Apart from income and food prices, other structural shifts (not related to prices) have influenced the changes in food consumption pattern across different classes. The rural consumers were spending larger proportion of their food expenditure on cereals, pulses, sugar and edible oils as compared to their urban counterparts. On the other hand, the urban consumers as compared to rural were spending more on milk and milk products, egg, fish, meat, fruits and vegetables. The overtime changes in these proportions were relatively larger for the rural consumers than for the urban ones. The findings were in conformity with Engel's law and Bennett's law of consumption. Rural India exhibits a marginal, but gradual increase in expenses on high value food. The changing consumption and nutrition dynamics elucidated by the changing dietary pattern with marked diversity would play an instrumental role in nutrition-led marketing in India.

Introduction

India at present finds itself in the midst of a paradoxical situation of widespread under nutrition, coexisting with mounting food grain stocks. Despite an all-time high food grain production of about 281.37 million tonnes in 2018-19, ever rising population poses a big challenge to the objective of national food and nutritional security. The food grain productivity in recent years has not been able to keep pace with rising population due to which the per capita availability of food grains which escalated once again to highest level of 510.1 gram/day in 1991, declined to as low as 416.2 gram/day in 2001 and

escalated once again to 487 gram/day in 2018 with some recent recovery. As India with its strong buffer stock norms has the capacity to cope with yearly fluctuations in food production, the achievement of food grain security at national level did not percolate down to household level and the extent of chronic food and nutritional insecurity especially in rural India is still very high. The rapid rise in household income, sustained economic growth, increase in population and changing lifestyle especially during the last decade have brought diversity in food consumption which has shifted consumption towards high value foods. At the first sight, the changing food intake appears to be rather remote. However, its influence can be substantially high; although it works mostly through changing demand scenario, employment, incomes, prices, urbanization and the market influence of food preferences (Kumar and Mathur, 1996; Vepa, 2004).

Several scholars have studied the enigma of changing dietary consumption and the increase in diversification of food basket (Kumar and Mathur, 1996; Mittal 2006; Rao 2000).The per capita cereal consumption has been declining since the early 1970's despite a significant increase in per capita cereal production (Radhakrishna and Ravi, 1992: Rao, 2000). Within cereals, consumers seem to shift away from coarse cereals over time especially in rural India and this decline is compensated to a certain level by increased consumption of high value food items such as milk, fruits, vegetables, meat, fish, eggs, etc. The reduction in average cereal consumption may not be of concern as the decline is mostly driven by reduced consumption among the middle and top deciles of population. The substitution away from cereals to other foods is expected when income increases. But, in the recent years, there has been a decline in the cereal consumption amongst the poor which reflects the distress in their consumption and points towards their food insecurity in the recent times of rising food prices.

There have been evidences on sustained decline in per capita calorie consumption during the past two decades which also affirmed decreasing intake levels of proteins and many other nutrients except, fat. They have attributed this decline in calorie and nutrient intake to a general reduction in calorie/nutrient requirements of people due to better health, as well as lower activity levels. In this context, the pertinent question is that how this changing food consumption and nutrient intake pattern is affecting a particular low income household (Deaton and Dreze, 2009 and Joshi *et al.*, 2016).These shifts away from coarse cereals are expected to have caused calorie deficiency and malnutrition among poorer sections of Indian population (Murty, 2000).India ranks 103rd among 119 countries covered in the Global Hunger Index 2018, with the food security status designated as 'alarming'. There have been evidences that the food and nutritional insecurity prevails even in the food surplus areas, with low income households being more vulnerable to it (Sidhu,Vatta and Kaur, 2008). It also explained partly the decline in cereal demand over time despite rise in per capita income and fall in relative prices of cereals.

Thus even if economic growth in India is striking, it ignores nutritional security. Slothful growth in agriculture and allied sectors has intensified the disparity in the income and thus consumption pattern of rural and urban households in the country. The Human Development Report (2011) indicates that the poor in rural India were comparatively better fed about 30 years ago (India Today, 2011). In the retrospection of skewed income distribution, the consumption pattern and therefore nutritional status vary widely across income categories. Besides, the

food habits of the Indian households also differ across different regions because of large cultural diversity and consequent differences in food histories across different regions of the country (Minhas, 1991).

There have been many studies on the consumption patterns at all-India level which have examined consumption at the level of broad commodity groups like cereal, pulses, edible oils, other food (Radhakrishna and Ravi, 1994; Radhakrishna and Murty, 1999; Murty, 2000, Shrivastava *et al.*, 2013). The present study unwinds the changing trends in food consumption during 1993-94 to 2011-12. Apart from scrutinising overall change in the pattern of food consumption temporally, the study also makes an attempt to examine such changes across various income classes (cross-sectional), geographical regions(spatially) and demographic areas (rural and urban) appropriate food and nutritional security policies especially for rural India

Materials and Methods

The study is based on the data collected from five major rounds of the survey on Household Consumption Expenditure in India by the National Sample Survey Organization (NSSO), i.e., 50th round (1993-94), 55th round (1999-00), 61st round (2004-05), 66th round (2009-10) and 68th round (2011-12) . The information is compiled from various reports on the surveys published by the NSSO. The paper attempts to highlight long-term changes in consumption pattern since 1993-94 across various income classes and geographical regions in rural and urban India**.**

Regional demarcation

The regional variations in food consumption was examined by dividing India into five geographical regions, viz., North (Uttar Pradesh, Punjab, Haryana, Delhi, Chandigarh, Himachal Pradesh, Uttarakhand and Jammu and Kashmir), West (Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Goa, Dadra and Nagar Haveli and Daman and Diu), South (Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Pondicherry, Lakshadweep and Andaman and Nicobar Islands), East (West Bengal, Bihar, Odisha, Jharkhand and Chhattisgarh) and North-East (Assam, Arunachal Pradesh, Manipur, Nagaland, Sikkim, Meghalaya, Mizoram, and Tripura). It is to be noted that in the year 1993-94, Chhattisgarh was not separated from Madhya Pradesh. As Chhattisgarh is geographically close to the Eastern region with contiguous borders with Odisha and Jharkhand so it was aggregated to form the respective regions.

Income categories

Income category-wise food consumption pattern was examined by dividing households into four expenditure classes based on poverty line. The households were classified as, *very poor* with consumption expenditure of less than 75 per cent of poverty line, *poor* with consumption expenditure below poverty line up to 75 per cent of poverty line, *middle class* with consumption expenditure ranging from poverty line up to 150 per cent of poverty line and *rich* with consumption expenditure more than 150 per cent of poverty line (Radhakrishna and Ravi, 1990, Kumar *et al.*, 2011). Such an exercise was done for both the urban and rural India. Hence, the classification of the poor and rich is not absolute in this study but is the relative one.

The fine cereals include rice and wheat and the coarse cereals referred to barley, ragi, maize, bajra, jowar and small millets. The database, so obtained was treated as pooled time series of cross-section data, major states being cross-section and NSS rounds as time points (1993-94, 1999-00, 2004-05,2009-10 and 2001-12). Household expenditure was

used as a proxy for household income because information on household income was not available.

Results and Discussion

Dietary diversification overtime

There has been significant decline in the consumption of cereals and pulses in the past. During 1993-94 to 2011-12, monthly per capita consumption of cereals declined considerably from 13.40 kg to 11.23 kg in rural India and from 10.63 kg to 9.32 kg in urban India (Table 1). Such a decline was evident even before 1990s. Per capita cereal consumption has been declining since the early 1970s despite a significant increase in per capita cereal production (Radhakrishna and Ravi, 1992; Rao, 2000).While this decline was more than 16 per cent in rural areas, it was 12.3 per cent in the urban areas. The decline in the consumption of coarse cereals is sharper than that in fine cereals.

While the quantity of coarse cereal consumption declined by whopping 66.5 per cent from 1.97 kg per capita per month (pcpm) to 0.66 kg pcpm in rural India, it halved from 0.64 kg pcpm to 0.32 kg pcpmin urban India during 1993-94 to 2011-12. While the wheat consumption did not decline much during this period, the consumption of rice came down from 7.02 kg pcpm to 5.98 kg pcpm in rural India (4.32%) and from 5.28 kg pcpm to 4.49 kg pcpm in urban India (8.05%) during the above period of comparatively faster decline in cereal consumption in rural areas also reflects the sedentary lifestyle creeping even in the rural India. After an increase in consumption from 0.76 kg pcpm in 1993-94 to 0.81 kg pcpm in 1999-2000 in rural India and from 0.86 kg pcpm to 0.96 kg pcpm in urban India during the same period, per capita consumption of pulses has also declined in the recent past and reached 0.78 kg pcpm in rural India and 0.90 kg pcpm in urban India in 2009-10.On the other hand, gains were noticed in the consumption of several other food items; such as edible oils, vegetables, fruits, milk and meat, fish & egg (MFE).The hike in consumption of edible oils has been quite high in both rural (81.08 %) and urban (51.79 %) areas. The consumption of milk and milk products increased moderately between 1993-94 and 2011-12. While in the same period, consumption of meat, fish & egg group commodities also increased stupendously in both urban and rural areas, the change being more visible in the rural areas.

The sharp decline in cereal consumption can be attributed to changes in consumer tastes, from food to non-food items, and within the food group from cereals to non-cereal food items and from ‘coarse’ to ‘fine’ cereals (Radhakrishna and Ravi, 1992).

Apart from that, sharp increase in food prices may be another important reason for the declining consumption, especially in the recent periods (Singh J and Vatta K, 2013). Other than the cereals and pulses, the consumption of sugar has also declined over time but that of edible oils and milk has increased considerably, which may be due to the rising incomes and increased preferences towards more nutritious food. Besides the changes over time, the per capita consumption of cereals always remained higher in rural India than that in urban India except the consumption of pulses, edible oils, milk and sugar. Both the income and price effects can explain such a difference in the food consumption between rural and urban areas. Larger consumption of cereals and lesser consumption of non-cereal food may largely be due to lower food prices in rural areas. The urban diets are relatively more diverse due to higher incomes(Chopra, 2014). The prevalence of in-kind payment of wages in

rural areas has also been cited as a reason for relatively higher consumption of cereals in rural areas (Minhas, 1991).

A further analysis of the changes in cereal consumption pattern across the poor and rich income classes was carried out to examine whether the decline in consumption is uniform across different classes or it was different and then to examine the possible causes and implications of such changes. There were two opposite things to be noted for consumption amongst the poor and rich classes in rural and urban India. The per capita consumption of cereals was considerably higher amongst the rich rural classes than their poor counterparts, same pattern was observed in urban areas (Table 2).

In the rural India, the gap in cereal consumption amongst the rich and poor classes was quite considerable, though the gap has narrowed down over time. The consumption of pulses and pulses products for rural poor was nearly half of what rich consumed relatively lower consumption by the rural poor classes reflects the distress among the poor classes owing to their lower income and relatively smaller land holdings (Chopra, 2015).

While income and food prices strongly influence food consumption pattern, there are some other structural shifts unrelated to price and income effect like urban residents dietary exposure to foreign culture, more sedentary urban occupation and lifestyle leading to preference of food which requires less time to prepare. This has been highlighted by manyof the studies as the possible causes of changes in food consumption across different classes (Kumar and Mathur, 1996). At the same time, a wide choice of food available in urban markets and the fact that the urban residents typically do not grow their own food and thus their consumption choices are not restricted to food grains or what all they grow. More recently, it was found that the decline in cereal consumption was greater in the rural areas, where the improvement in rural infrastructure has made other food and non-food items available to rural households (Rao, 2000). It has been argued that a reduction in hard manual work in agriculture due to farm mechanization might have reduced the nutritional requirements.

Kumar *et al.,* (2007) have noted that the decline in per capita consumption of cereals, particularly coarse cereals, has worsened the nutritional status of the rural poor. This indicates that though at the aggregate level, the decline in calorie intake from cereals was to a certain extent compensated by higher intake of calories from milk, vegetables, fruits, meat, etc., it may not be true for all the sections of society. Probably, it is reflected in the ever increasing prevalence of under-nutrition in India as assessed on the basis of not only dietary nutrient intake but by several anthropometric indicators as well (Joshi *et al*., 2016). The contribution of cereals in 2011-12 was 58.5 per cent of total calories consumed by the household which was around 67.8 per cent in 1993-94. Furthermore, the diversification away from cereals towards high value commodities does not sufficiently get translated into nutrient improvement (Shrivastava, 2017).

Trends in expenditure on food-groups

There has been a significant increase in the overall per capita consumption expenditure in rural and urban India during 1993-94 to 2011-12. The per capita food consumption expenditure (at 2011-12 prices) increased from Rs 599 in 1993-94 to Rs 622 per month in rural India in 2011-12 and from Rs 914 to Rs 923 in urban India during said the period (Shrivastava, 2017). Owing to a faster increase in non-food expenditure, the share of

food expenditure in total consumption expenditure declined continuously during the above said period.

Income category-wise food consumption pattern in India

The consumption pattern of food commodities depends to a large extent on income of the household. The food basket in terms of variety of commodities consumed by the households broadened with rise in income status. The share of food expenditure in total income was found to be inversely related to the household income (Table 5). The very-poor household were found to spend 61.1 per cent of their income (MPCE) on food as compared to 36.2 per cent by their rich counterparts in rural India in 2011-12. The parallel figures for were 57.1 and 26.7 per cent for urban India. This trend was steady in both rural as well as urban areas all through.

The proportion of MPCE spent on food was comparatively higher for rural households than their urban counterparts for all the income categories. The inverse relationship between income and food budget (share) has been in conformity with the Engel's Law, which states that as income increases, the proportion of income spent on food items decreases notwithstanding the increase in actual expenditure.

Though the real MPCE increased in rural and urban sectors between 1993-94 and 2011-12, the share of food in total MPCE declined though at varying degree for different income categories during the same period. The decline in food share was comparatively higher for urban and middle income households than the rural and poor households. A similar shift in consumption expenditure of Indian households has been reported by several authors (Kumar, 1996; Meenakshi, 1996; Rao, 2000; Radhakrishna, 2005; Shrivastava *et al.*, 2013, Joshi *et al.*, 2016). Thus, an improvement in income prompts the consumers to diversify their consumption expenditure away from food products towards non-food items. However, the absolute consumption of food products increases with the improvement in income. Within the food basket, there existed contrasting variation in the consumption pattern across different income categories. The per capita consumption of all food groups increased with the increase in income, but their share in total food expenditure exhibited mixed trend depending upon the food group (Table 6). In case of cereals, pulses, edible oils and vegetables, the expenditure share reduced with the increase in income, while for MMP (Milk and milk products), non-vegetarian products and fruits, it increased in the rural as well as urban sectors.

Decreasing share of essential food commodities (cereals, pulses, edible oils and vegetables) and increasing share of high value agricultural commodities (HVACs) (MMP, non-vegetarian products and fruits) with the rise in income confirms empirically Bennett's Law of Consumption which states that as the income increases, the consumers typically switch to a more expensive diet, substituting quality for quantity. The shift in the dietary pattern away from cereals to more expensive milk, poultry and meat products is a consistent change associated with economic growth (Meenakshi, 1996). Interestingly, the growth in the consumption of HVACs with the rise in income was higher for rural households than their urban counterparts. This indicates that rural households have higher propensity to consume HVACs than their urban counterparts. Thus, any income generating opportunity in the rural areas would fuel the demand for HVACs more than that in the urban areas (Shrivastava *et al.*, 2013).

Table.1 Changes in dietary pattern in rural and urban India, 1993-2012 (Per capita/month)

Items groups	Rural					Change (%) from 1993-94 to 2011-12	Urban					Change(%) from 1993-94 to 2011-12
	1993-94	1999-00	2004-05	2009-10	2011-12		1993-94	1999-00	2004-05	2009-10	2011-12	
Total cereals (Kg)[a]	13.4	12.72	12.12	11.35	11.23	-16.19	10.63	10.42	9.94	9.39	9.32	-12.32
Rice (Kg)[a]	7.02	6.78	6.55	6.13	5.98	-14.81	5.28	5.22	4.85	4.66	4.49	-14.96
Wheat (Kg)[a]	4.4	4.55	4.29	4.34	4.21	-4.32	4.72	4.77	4.65	4.36	4.34	-8.05
Coarse cereals (Kg)[a]	1.97	1.39	1.27	0.87	0.66	-66.51	0.64	0.41	0.44	0.37	0.32	-50.00
Pulses and Pulses products (Kg)[a]	0.76	0.81	0.67	0.66	0.78	2.63	0.86	0.96	0.78	0.75	0.9	4.65
Edible Oils	0.37	NA	0.48	0.64	0.62	81.00	0.56	NA	0.66	0.72	0.85	51.79
Milk Liquid (lts)[a]	3.94	3.79	3.87	4.12	4.33	9.90	4.89	5.1	5.11	5.36	5.42	10.84
Sugar (Kg)	0.77	NA	0.74	0.71	0.7	-9.09	0.96	NA	0.87	0.82	0.86	-10.42
Egg (Number)[b]	0.64	1.09	1.01	1.73	1.94	203.13	1.48	2.06	1.72	2.67	3.18	114.86
Fish (Kg)[b]	0.18	0.21	0.2	0.27	0.27	50.00	0.2	0.22	0.21	0.24	0.25	25.00
Mutton (Kg)[b]	0.06	0.07	0.05	0.05	0.05	-16.67	0.11	0.1	0.07	0.09	0.08	-27.27
Chicken (Kg)[b]	0.02	0.04	0.05	0.12	0.18	800.00	0.03	0.6	0.85	0.18	0.24	700.00

Note: NA means not available. a: NSSO reports on Household Consumption Expenditure, various rounds, b: GOI (2017)

Table .2 Changes in cereal consumption since 1993-94 in different income classes(Kg/capita/month)

Years	Poor		Rich	
	Rural	Urban	Rural	Urban
1993-94	11.73	10.29	14.80	10.55
1999-00	11.45	10.02	13.69	10.28
2004-05	11.14	9.74	12.88	9.63
2009-10	10.62	9.49	11.96	9.05
2011-12	10.75	6.26	11.59	9.12

Source: Authors' calculations from various NSSO reports on Household Consumption Expenditure.

Table.3 Dietary Diversification and Nutritional Intake

Food group	Share in total *food* expenditure			Calorie (kg/capita/day)		
	1993-94	2011-12	Change	1993-94	2011-12	Change
Cereal	33.14	22.67	-10.47	1455	1222	-233
Pulses	5.53	6.42	0.90	87	95	8
Edible oil	7.09	7.43	0.34	125	198	73
Milk	15.45	19.24	3.80	148	168	20
Vegetables	9.40	11.05	1.66	80	103	23
Fruits	2.06	3.02	0.95	17	18	1
Egg/Fish/Meat	5.37	7.30	1.94	16	19	3
Others	21.97	22.87	0.88	219	265	46
Total	100.00	100.00	-	2146	2088	-58

Source: Shrivastava (2017)

Table.4 Trends in percentage composition of consumer expenditure since 1993-94 (per cent)

Item	Rural					Urban				
	1993-94	**1999-00**	**2004-05**	**2009-10**	**2011-12**	**1993-94**	**1999-00**	**2004-05**	**2009-10**	**2011-12**
Cereals	24.2	22.2	18.0	15.6	12.0	14.0	12.4	10.1	9.1	7.3
Gram	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Cereal substitutes	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
Pulses & Products	3.8	3.8	3.1	3.7	3.1	3	2.8	2.1	2.7	2.1
Milk & Products	9.5	8.8	8.5	8.6	9.1	9.8	8.7	7.9	7.8	7.8
Edible oil	4.4	3.7	4.6	3.7	3.8	4.4	3.1	3.5	2.6	2.7
Egg, Fish & Meat	3.3	3.3	3.3	3.5	3.6	3.4	3.1	2.7	2.7	2.8
Vegetables	6	6.2	6.1	6.2	4.8	5.5	5.1	4.5	4.3	3.4
Fruits & Nuts	1.7	1.7	1.9	1.6	1.9	2.7	2.4	2.2	2.1	2.3
Sugar	3.1	2.4	2.4	2.4	1.8	2.4	1.6	1.5	1.5	1.2
Salt & Spices	2.7	3.0	2.5	2.4	2.4	2	2.2	1.7	1.5	1.7
Beverages ,Etc.	4.2	4.2	4.5	5.6	5.8	7.2	6.4	6.2	6.3	7.1
Food Total	63.2	59.4	55	53.6	48.6	54.7	48.1	42.5	40.7	38.5
Non-Food	36.8	40.6	45	46.4	51.4	45.3	51.9	57.5	59.3	61.5
Total	100	100	100	100	100	100	100	100	100	100

Source: Various NSSO reports

Table.5 Expenditure Pattern across Different Income Classes in India

Income classes	Share of food in MPCE (%)				Change between 1993-94 to 2011-12	
	1993-94		2011-12			
	Rural	Urban	Rural	Urban	Rural	Urban
Very poor	73.0	70.2	61.1	57.1	-12.0	-13.2
Poor	71.4	65.9	57.7	50.5	-13.7	-15.4
Middle	67.3	58.7	53.0	43.2	-14.3	-15.5
Rich	50.9	42.0	36.2	26.7	-14.7	-15.3

Source: Author's calculations from various NSSO reports on Household Consumption Expenditure

Table.6 Income group wise Consumption pattern of Food Commodities in India in 2011-12 (Per cent)

Food Commodity	Very poor		Poor		Middle		Rich	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Cereal	34.4	28.7	28.6	22.6	24.3	19.1	18.0	13.2
Gram	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.3
Cereal substitutes	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1
Pulses & its products	7.6	7.4	7.0	6.5	6.4	5.7	5.4	4.2
Milk & its products	8.6	14.1	14.5	18.9	19.8	21.4	24.4	21.3
Sugar	3.7	4.0	3.8	3.6	3.9	3.0	3.7	2.2
Salt	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.2
Edible oil	9.2	9.0	8.6	8.1	7.8	7.1	6.4	5.0
Egg, Fish & Meat	5.4	6.7	6.9	7.8	7.3	7.5	8.5	6.6
Vegetables	12.7	11.0	11.1	9.9	9.8	9.1	8.2	6.9
Fruits Fresh	1.3	2.1	2.1	3.6	3.0	4.5	4.7	6.1
Fruits Dry	0.3	0.6	0.6	1.0	0.9	1.4	1.4	2.3
Spices	5.0	5.0	4.8	4.6	4.7	4.2	4.2	3.0
Beverages	11.0	10.6	11.1	12.4	11.2	16.1	14.4	28.6
Food Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations from various NSSO reports on Household Consumption Expenditure

Table.7 Region wise Consumption Pattern of Food Commodities in India (share in *food expenditure* Rural-Urban)

2011-12	NORTH		WEST		SOUTH		EAST		NORTH-EAST		All India	
Food groups	**R**	**U**	**R**	**U**	**R**	**U**	**R**	**U**	**R**	**U**	**R**	**U**
Cereal	18.2	16.6	20.1	16.7	17.0	16.2	33.3	26.0	31.8	27.1	24.6	19.0
Pulses and pulse products	6.5	5.5	7.0	5.3	5.7	5.2	5.9	5.4	4.0	3.8	6.4	5.6
Milk and milk products	32.6	29.7	18.9	23.5	10.0	12.4	8.6	12.2	8.6	10.0	18.7	20.2
Edible oil	6.8	6.2	8.9	7.8	6.5	6.0	8.1	7.2	5.4	5.3	7.8	6.9
Egg, fish & meat	3.2	3.7	8.5	7.2	17.3	15.4	8.9	9.9	17.8	17.6	7.3	7.3
Vegetables	8.5	8.6	9.5	8.0	9.8	9.0	13.1	11.5	13.0	12.7	9.9	8.8
Others	20.7	24.0	21.5	24.5	27.3	28.5	19.8	23.6	17.1	19.9	21.3	26.2
Food;Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: Author's calculations from various NSSO reports on Household Consumption Expenditure

Regional variations in food consumption pattern in India

A perusal of Table 7 reveals that food basket of the Indian households is predominated by cereals followed by MMP. However, the food habits of the Indian households varied across different geographical regions. The share of cereals in total food budget varied from 16.2 per cent in urban South to 42.82 per cent in rural East in 2011-12.The per capita consumption of cereals followed the similar trend. It is to be noted that the consumption of cereals was comparatively higher in the rural sector in all the regions. It might be due to easy and cheap availability as well as payment of wages in kind form (grains) for most of the labour activities in rural India.

In the case of MMPs, per capita consumption was the lowest in rural East and North-East region, while it was the highest in rural North region. On the contrary, the consumption of non-vegetarian products was the highest in North-Eastern region, while it was the least in Northern region. This indicated the sharp contrast in food preferences in different regions as MMP and non-vegetarian products (EFM) are preferred by different groups.

The regional variation in food consumption pattern might be due to diversity in cultural tradition as well as relative availability of food products in the respective region. As milk and milk products are mainly produced in Northern and Western parts of the country. Consequently,it became a major constituent of food basket of that region (Shrivastava *et al*., 2013).

The share of commodities such as pulses ranged from 3.8 to 7.0 per cent, edible oils from 5.3 to 8.9 per cent and vegetables in total food budget ranged from 8.0 to13.1 per cent, across different regions depending upon the relative availability at affordable prices in the respective regions.

The study has brought forth significant changes in the consumption patterns in the past owing to faster economic growth, household incomes and changing lifestyles. Quite striking differences in consumption pattern across income categories, geographical regions and rural and urban sectors have been observed. It was observed that the cereals continued to constitute the main source of calories in both rural and urban India, though there was a decline in their share over time.

Further, declining share of foodgrains and simultaneous diversification of food basket over the years is a sign of consumers' welfare. However, declining per capita consumption of foodgrains needs due consideration by the policy makers from food and nutritional security point of view.The changing nutrition dynamics elucidated by the changing dietary pattern with marked diversity would play an instrumental role in nutrition-led marketing in rural areas in long run.

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