



Research Article

FOOD CONSUMPTION PATTERN IN RURAL AND URBAN AREAS OF KARNATAKA STATE

CHOURAD R.* AND KIRESUR V.R.

Department of Agricultural Economics, College of Agriculture, University of Agricultural Sciences, Dharwad, 580 005, Karnataka, India

*Corresponding Author: Email - raghu0467@gmail.com

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Abstract: Consumption is the value of goods and services bought by people. Individual buying acts are aggregated over time and space. Consumption is normally the largest GDP component. Before Economic Reforms, consumption comprised of approximately 52% of the GDP, however after reforms, it has grown its share to more than 62%. In this regard, the present study is an attempt to analyse the food consumption pattern in rural and urban areas of Karnataka State. The study revealed that, the monthly per capita expenditure of the people of urban India and urban Karnataka on non-food items was much higher as compared to food items. In rural Karnataka and rural India, the people's monthly per capita expenditure was mainly on food items as compared to non-food items.

Keywords: Consumption, Expenditure, Food

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Introduction

The rapid expansion of non-cereal food in the consumption basket in spite of declining cereal consumption resulted in increase in food consumption during earlier period. However, during the nineties, the faster decline in the cereal consumption and near slowdown in the growth of non-cereal food consumption together has resulted in almost stagnant levels of food consumption. What are the implications of these trends on the nutritional security? At all India level, the average calorie intake levels decline steadily over time from 2268 Kcals/day/person (1972-73) to 2149 Kcals/day/person (1999-2000) in rural areas. However, for Karnataka, it showed an increasing trend from 1925 Kcals/day/person in 1972-73 to 2046 Kcals/day/person in 1999-2000. Between 1972-73 and 2004-05, the share of food in total consumer expenditure has fallen from 73% to 55% in rural areas and from 64% to 42% in urban areas. The share of cereals has fallen from 41% of consumer expenditure to 18% in rural India and from 23% to 10% in urban India over the same period. Quantity of cereals consumed per person per month has declined between 1993-94 and 2004-05, that is, from 13.4 kg to 12.1 kg in rural India and from 10.6 kg to 9.9 kg in urban India. In Karnataka the consumption of cereals declined from 13.2 kg to 10.73 kg during the same period [1]. Hence, present study was conducted with the objective to study the food consumption pattern in rural and urban areas of Karnataka State.

Material and Methods

To achieve the objective of present study, the secondary data were mainly collected from various published sources of Government of Karnataka, Government of India and National Sample Survey Organization (NSSO) from the year 1993-94 to 2009-10 [2,3].

Results and Discussion

The data on monthly per capita expenditure of food and non-food items in India (2009-10) are presented in [Table-1]. The change in quantities consumed as explained by demand theory were influenced by changes in income levels, relative prices and consumer preferences. The changes in per capita expenditure on individual commodities affect the relative importance, that commodity as

measured by the proportion in expenditure. The per capita expenditure of food and non-food items of Karnataka in rural and urban areas was almost coinciding with the percentage to India's total food and non-food items. It was observed that the individuals of rural areas of Karnataka as well as all India level utilized maximum income for food items as compared to non-food items. On the contrary in urban areas in Karnataka as well as at all India level, the consumers spent more of their income on non-food items as compared to food items. A perusal of data presented in [Table-2] on monthly per capita consumption and expenditure of food and non-food items in Karnataka. The share of consumption of food items in physical quantity was higher in urban areas when compared to rural areas. As majority of the urban individuals' expenditure is higher hence consumption is also found to be high. However, the people of rural Karnataka consumed more rice when compared to urban area. MPCE in urban area on food item was Rs. 869.6 while that on non-food item was Rs. 484.19. Study conducted a study at Chandigarh found that percentage expenditure on food was 35 percent while that on non-food items 65 percent [2]. The relative expenditure on food items decreased as income increased. The monthly per capita food consumption pattern in rural and urban areas of Karnataka is shown in [Table-3]. The decline in the quantity consumed for all food items except wheat and bajra was observed in urban area. Monthly per capita consumption of cereals in physical terms as declined from 13.10 (1993-94) to 10.03 kg (2009-10) for rural areas and corresponding figures of urban area were 10.87 to 9.71 kgs. Pavithra, (2008) [1] found that decline in the quantity consumed for cereals was observed in rural and urban areas of Karnataka. Wheat is the only cereal for which per capita consumption in urban area exceeded that in rural areas of Karnataka. The per person monthly consumption of wheat has increased from 0.85 (1993-94) to 1.10 kg (2009-10) for rural areas, the corresponding increase was 1.56 to 1.72 kg for urban areas. The reason was that wheat was rich in protein and less in fat content, consumer choices were shifting in favour of wheat, further wheat was supplied through PDS (Public Distribution System). Higher per capita consumption of cereals in rural area was attributed to the factors like higher prices milk, meat, vegetables etc. overall shift in terms of increased wheat consumption, greengram

Food Consumption Pattern in Rural and Urban Areas of Karnataka State

Table-1 Monthly per capita expenditure of food and non-food items in India (2009-10), Rs

Commodity	Karnataka		All India		% to India Total	
	Rural	Urban	Rural	Urban	Rural	Urban
Cereal	125.63	185.23	144.44	161.17	86.98	114.93
Gram	2.55	2.45	1.42	2.06	179.58	118.93
Cereal substitutes	0	0	0.68	0.77	0	0
Pulses and pulse products	40.08	53.12	33.6	47.6	119.29	111.6
Milk and milk products	60.91	98.47	80.55	137.01	75.62	71.87
Sugar	20.93	24.66	22.61	27.16	92.57	90.8
Salt	1.85	2.67	2.05	2.33	90.24	114.59
Edible oil	35.72	45.89	38.92	52.85	91.78	86.83
Egg fish and meat	54.96	75.95	49.89	71.98	110.16	105.52
Vegetables	62.12	83.47	87.33	112.44	71.13	74.24
Fruits (fresh)	31.43	56.49	20.36	50.33	154.37	112.24
Fruits (dry)	8.13	9.88	5.21	15.43	156.05	64.03
Spices	35.58	42.68	35.37	43.86	100.59	97.31
Beverages	97.27	190.22	77.92	159.37	124.83	119.36
Total food	574.61	868.73	600.35	884.36	95.71	98.23
Pan tobacco and intoxicants	33.56	22.77	31.11	30.45	107.88	74.78
Fuel and light	83.64	130.79	84.6	137.72	98.87	94.97
Clothing	56.16	96.8	55.82	96.2	100.61	100.62
Footwear	9.33	20.86	9.66	19.06	96.58	109.44
Miscellaneous goods and services	233.84	864.53	245.28	738.85	95.34	117.01
Durable goods	27.27	50.44	36.47	81.36	74.77	62
Total nonfood	443.8	1186.19	462.94	1103.64	95.87	107.48
Total expenditure	1018.41	2054.92	1063.29	1988	95.78	103.37

Table-2 Monthly per capita consumption and expenditure of food and non-food items in Karnataka (2009-10), Kg

Commodities	Consumption (Kg)		Expenditure (Rs)	
	Rural	Urban	Rural	Urban
Rice	5.51	5.4	69.46	123.27
Wheat	0.86	1.27	8.97	22.71
Arhar	0.28	0.35	19.85	27.45
Moong	0.07	0.09	4.82	5.92
Masur	0.01	0.02	0.46	0.97
Urd	0.06	0.01	3.89	8.49
Gramsplit	0.07	0.08	2.71	3.3
Milk (litre)	3.79	4.99	59.39	89.13
Eggs (no)	2.19	2.99	6.22	8.3
Fish	0.19	0.11	7.15	8.26
Goatmeat	0.09	0.12	17.15	25.29
Chicken	0.26	0.29	21.85	28.4
Groundnut oil	0.14	0.19	9	12.06
Mustardoil	0	0.01	0	0.97
Banana (no)	6.29	8.73	9.38	16.56
Coconut (no)	1.97	1.84	1.23	1.25
Groundnut	0.12	0.09	6	4.67
Potato	0.29	0.45	4.28	7.4
Onion	0.8	0.9	10.28	13.17
Brinjal	0.36	0.37	5.34	6.07
Cauliflower	0.01	0.1	0.21	1.6
Cabbage	0.14	0.22	1.62	2.97
Tomato	0.68	0.84	7.89	10.33
Total food	26.63	29.48	576.61	869.06
Pan Tobaccoand Ingredients	0.25	9.77	33.56	22.77
Fuel and light	-	-	83.64	13.79
Clothing	-	-	56.16	96.8
Footwear	-	-	9.33	20.86
Miscellaneous Goods and Services	-	-	259.94	862.53
Durable goods	-	-	27.27	50.44
Total Non-food	0.25	9.77	443.79	1184.19
Total Food consumption/expenditure	26.88	39.25	1020.4	2053.24

consumption and reduced coarse grain consumption during the study period was visible both in rural and urban areas. In the case of urban areas, consumption of bajra, bengalgram and redgram has slightly increased. Jowar being a coarse cereal exhibited decline in its consumption both in rural and urban areas of Karnataka State. The MPC consumption of bengalgram, redgram, greengram and other pulses have increased substantially in urban people. Consumption of redgram and bengalgram have decreased over the years in rural areas. The income group-wise changes in average quantity per capita monthly food

consumption pattern in rural and urban areas of Karnataka is presented in [Table-4]. The shift away from cereal consumption was prominent across all households in different income groups over time. The decline in cereal consumption was attributed to the diversification of food production, easy access of high value commodity, changed taste and preferences. Murthy, (2000) [4] and Rao, (2000) [5] have reported that rise in per capita income, urbanization, changing taste and preferences were dominating factors for change in the per capita consumption of cereals.

Table-3 Monthly per capita food consumption pattern in rural and urban areas of Karnataka, Kg

Food item	Rural			Urban		
	1993-94	2009-10	% change	1993-94	2009-10	% change
Rice	5.44	5.65	3.86	6.38	5.53	-13.32
Wheat	0.85	1.1	29.41	1.56	1.72	10.26
Jowar	4.01	1.79	-55.36	1.72	0.91	-47.09
Bajra	0.11	0.03	-76.36	0.01	0.01	40
Maize	0.2	0	-100	0.04	0	-100
Other cereals	2.54	1.44	-43.31	1.16	0.99	-14.66
Total cereals	13.15	10.01	-23.88	10.87	9.16	-15.73
Bengal gram	0.1	0.07	-33	0.12	0.78	550
Red gram	0.32	0.28	-12.5	0.41	0.99	141.46
Green gram	0.09	0.28	211.11	0.1	0.35	250
Black gram	0.05	0.06	12	0.12	0.12	0
Other pulses	0.22	0.7	218.18	0.13	0.79	507.69
Total Pulses	0.78	1.39	78.21	0.88	3.03	244.32

Table-4 Income group wise changes in average quantity per capita monthly food consumption pattern in rural and urban areas of Karnataka, Kg

Year	Rural				Urban			
	LIG*	MIG*	HIG*	All	LIG	MIG	HIG	All
Cereals								
1993-94	11.84	12.96	14.65	13.15	10.92	11.45	10.23	10.87
2009-10	8.14	10.36	11.54	10.01	8.53	8.97	9.96	9.16
% change	-31.25	-20.06	-21.23	-23.88	-21.89	-21.65	-26.39	-15.73
Pulses								
1993-94	0.67	0.94	0.73	0.78	0.7	0.9	1.05	0.88
2009-10	0.55	0.89	2.75	1.38	1.55	2.95	4.6	3.03
% change	-17.91	-5.32	276.71	78.21	121	227.78	338.1	244.32

*LIG=Low Income Group; MIG=Middle Income Group, HIG=High Income Group

Table-5 Changes in per capita monthly expenditure in rural and urban areas of Karnataka

Item	Rural			Urban		
	1993-94	2009-10	% change	1993-94	2009-10	% change
Food items						
Rice	35.31	79.97	126.48	48.36	126.53	161.64
Wheat	4.5	17.79	295.33	10.12	39.5	290.32
Jowar	13.19	27.47	108.26	6.76	18.97	180.62
Bajra	0.31	0.3	-3.23	0.03	0.17	466.67
Maize	0.5	0	-100.00	0.12	0	-100.00
Other cereals	7.57	0.1	-98.68	3.82	0.06	-98.43
Total cereals	61.38	125.63	104.68	69.21	185.23	167.63
Bengal gram	1.59	2.53	59.12	1.94	2.45	26.29
Red gram	5.85	19.3	229.91	7.79	27.45	252.37
Green gram	1.36	2.7	98.53	1.6	3.3	106.25
Urd	0.78	4.8	515.38	1.99	5.92	197.49
Other pulses and pulse Products	2.52	10.75	326.59	2.13	14	557.28
Total Pulses	12.1	40.08	231.24	15.45	53.12	243.82
Milk and Milk Products	18.3	60.91	232.84	34.6	98.47	184.60
Edible oil	10.4	35.72	243.46	15.8	45.89	190.44
Meat ,fish, egg	9	54.96	510.67	14.4	75.95	427.43
Vegetable	13.1	62.12	374.20	17.6	83.47	374.26
Fruit sand nuts	8.6	39.56	360.00	13.5	66.37	391.63
Sugar	9.9	20.93	111.41	10.7	24.66	130.47
Salt	0.4	1.85	362.50	0.5	2.67	434.00
Spices	7.5	35.58	374.40	8.5	42.69	402.24
Beverages	16.1	97.27	504.16	35.6	190.22	434.33
Food total	166.78	408.9	145.17	151.2	630.39	316.92
Non-food items						
Pan, tobacco and intoxicants	11.3	33.56	196.99	19.27	22.77	18.16
Fuel and light	21.8	83.64	283.67	107.48	130.79	21.69
Clothing	15.9	56.16	253.21	29.55	96.8	227.58
Footwear	1.3	9.33	617.69	2.26	20.86	823.01
Miscellaneous goods and services	47.4	233.84	393.33	424.06	864.53	103.87
Durable good	4.8	27.27	468.13	4.11	50.44	1127.25
Total non-food	102.5	443.8	332.98	586.73	1186.19	102.17
Total Expenditure	269.28	1018.41	278.20	737.93	2053.24	178.24

Mechanization of agriculture improvement in infrastructure and medical facilities also contributed to the reduction in energy requirement and led to less cereal consumption [5]. The taste and preference were also moving towards high value commodities with the increase in income. Pulse consumption in rural areas has decreased over the years except for high income group. In case of HIG of rural

Karnataka, pulse consumption has increased with increase in income. In urban areas, the pulse consumption has decreased slightly from 0.88 (1993-94) to 0.78 kg (2009-10). The major pulses which find a place in dietary were redgram, bengalgram, blackgram, greengram etc. Rural people consumed more of cereals as compared to their urban counterpart.

Table-6 Income group wise changes in per capita monthly food expenditure in rural and urban areas of Karnataka

Commodity group/ Year	Rural			Urban				
	LIG*	MIG*	HIG*	All	LIG	MIG	HIG	All
Cereals								
1993-94	50.87	69.8	88.84	61.47	64.95	79.63	80.61	69.21
2009-10	78.44	117.18	178.68	125.63	98.5	150.13	229.28	185.23
% change	54.2	67.88	101.13	104.38	51.66	88.53	184.43	167.63
Pulses								
1993-94	9.59	12.31	20.19	12.1	11.13	17.85	21.54	15.45
2009-10	23.79	35.45	57.55	37.53	33.2	44.37	66.83	50.99
% change	148.07	187.98	185.04	210.17	198.29	148.57	210.26	230.03
Edible oil								
1993-94	8.21	10.38	20.5	10.4	11	18.34	28.71	15.8
2009-10	29.54	35.65	43.98	36.72	30.27	44.37	59.03	45.89
% change	259.81	243.45	114.54	253.08	175.18	141.93	105.61	190.44
Meat, fish, egg, milk and milk products								
1993-94	16.75	29.74	72.06	27.3	27.34	53.48	121.44	49.03
2009-10	19.66	41.05	121.26	54.96	31.71	79.64	141.26	87.21
% change	17.37	38.03	68.28	101.32	15.98	48.92	16.32	77.87
Vegetables, fruits and nuts								
1993-94	14.37	24.78	50.4	21.72	18.82	34.93	73.57	31.13
2009-10	42.25	74.42	167.64	81.6	32.93	65.18	129.91	71.16
% change	194.02	200.32	232.62	275.69	74.97	86.6	76.58	128.59
Sugar, salt, spices and beverages								
1993-94	23.4	36.21	83.32	33.95	32.99	55.73	191.29	55.07
2009-10	68.63	121.2	218.73	135.85	26.69	51.83	130.34	65
% change	193.29	234.71	162.52	300.15	-19.1	-7	-31.86	18.03
Pan, tobacco and intoxicants, fuel, light, clothing and footwear								
1993-94	26.74	47.88	223.55	50.27	35.1	64.95	227.05	62.75
2009-10	26.45	39.47	70.73	45.67	28.67	55.74	115.7	67.8
% change	-1.08	-17.56	-68.36	-9.15	-18.32	-14.18	-49.04	8.05
Miscellaneous goods, services and durable goods								
1993-94	15.19	47.88	263.11	52.19	46.05	12.21	706.25	124.66
2009-10	34.97	99.80s	307.14	130.7	61.51	52.57	1228.67	456.48
% change	130.22	108.44	16.73	150.43	33.57	330.55	73.97	266.18

*LIG=Low Income Group; MIG=Middle Income Group, HIG=High Income Group

The changes in per capita monthly expenditure in rural and urban areas of Karnataka is presented in [Table-5]. As far as individual food commodity concerned, it was observed that there was an increase in the proportion of expenditure spent on cereals, pulses, other food items and non-food items in rural and urban areas of Karnataka. Rice occupied a major share amongst cereals MPCE in rural and urban areas of Karnataka. Similarly, redgram occupied major share in the MPCE of rural and urban areas of Karnataka. Milk and milk products also occupied a significant position in MPCE. Sharma, (1997) [6] observed that a share of expenditure on cereals was the major items of food expenditure. During the study MPCE on cereals increased by 113.7 percent in rural India and 152.00 percent in urban India. Similarly, MPCE on pulses witnessed a rise in the expenditure to the extent of 220.00 percent in rural India and 240.30 percent in urban India. Expenditure on milk and milk products also increased by 200.00 percent in rural India and 209.00 percent in urban India. The income group-wise changes in per capita monthly food expenditure in rural and urban areas of Karnataka is presented in [Table-6]. With respect to cereals, MPCE was highest in HIG urban area (Rs. 229.28), while it was lowest (Rs. 78.44) in the LIG of rural areas during (2009-10). This implied that as income increased the consumption of cereals also increased. Similar trend was observed in case of cereals and pulses. On the contrary, MPCE on edible oil, meat, egg, milk and milk products, vegetables, fruits and nuts, sugar, salt, spices and beverages in rural areas has increased in both the periods with an increase in income levels. The expenditure made on pan, tobacco and intoxicants, fuel and light clothing, footwear has decreased in the study period across different income groups. However, expenditure on above items were higher in urban households as compared to rural households during 2009-10, reason was that urban households spent expenditure pan, tobacco, intoxicants, fuel and light, clothing and footwear at higher cost. On the contrary, the percent increase in the MPCE on miscellaneous goods and services, durable goods in rural and urban areas across the income groups differed. Pavitra (2008) found that with respect to cereals, MPCE was highest in high income group of urban area and it was lowest in LIG of rural area.

The study highlighted that the expenditure on different food and non-food items in the study period has increased with increase in the income both in rural and urban areas of Karnataka State.

Conclusion

The analysis of monthly per capita expenditure on food and non-food items in India and Karnataka for the year 2009-10 showed that the monthly per capita expenditure of the people of urban India and urban Karnataka on non-food items was much higher as compared to food items. On the contrary, in rural Karnataka and rural India, the people's monthly per capita expenditure was mainly on food items as compared to non-food items. The monthly per capita consumption expenditure on food and non-food items in Karnataka for the year 2009-10 revealed that the households of urban Karnataka consumed more food as compared to rural Karnataka. Monthly per capita food consumption pattern in physical quantities at rural and urban areas of Karnataka indicated that cereals consumption has declined in both rural and urban areas during the period 1993-94 to 2009-10. On the contrary, consumption of pulse as increased during the same period. Income group-wise analysis of average quantity per capita monthly food consumption pattern in rural and urban areas of Karnataka revealed that the monthly food consumption pattern of cereal in rural and urban Karnataka has declined for the period from 1993-94 to 2009-10. On the other hand, monthly per capita consumption of pulses in rural and urban areas of Karnataka has significantly increased during the same period except for low- and medium-income groups of rural area. There was drastic change in the expenditure pattern of rice, wheat, redgram, milk and milk products, meat, egg, fruits and nuts, beverages, and vegetables in rural and urban areas of Karnataka.

Application of research: The study helps in analyzing the food consumption pattern of rural and urban. The results can be used for policy regarding the consumption pattern and recommendations of consumption pattern in the Koppal district.

Research Category: Agriculture Economics

Abbreviations:

GDP- Gross Domestic Product, NSSO- National Sample Survey Organization

MPCE-Monthly Per Capita Expenditure, LIG- Low Income Group

HIG-High Income Group

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