

Changing patterns of food consumption with special reference to Egg, Fish and Meat in India

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Abstract

An analysis of food consumption patterns and how they are likely to shift as a result of several factors is important to address the food security-related policy issues of any country. Real GDP growth which is outstripping population growth is making the average Indian per capita income to rise but this is accompanied by a fall in the per capita consumption of staple food. This decline indicates improvement in the welfare, as laid down by Engel's hypothesis.

The objectives of the study are to (1) analyse the pattern of food consumption (egg, fish, meat) among rural and urban sectors in 15 major states of India to reveal the trend and changes taking place in recent years. (2) To find out the impact of increasing average Indian Monthly Per Capita Expenditure (MPCE) over the cultural preferences of vegetarian and non-vegetarian food items.

The study was based on secondary data from National Sample Survey Organisation (NSSO)'s household consumer expenditure surveys (CES). The four quinquennial surveys (50th, 55th, 61st and 66th rounds corresponding to 1993 to 2010) were made use of for mapping the consumer expenditure on meat, egg and fish products in different states of India while the earlier 27th round survey data was used as a benchmark to map changes over the years. Based on Monthly Per Capita Expenditure (MPCE), 15 major states were classified into 3 groups namely High, Medium and Low MPCE States, and then comparison of their expenditure for egg, fish, meat for the past 20 years were made. Analysis was done using Microsoft Office Excel ver. 2007.

The study clearly indicated two important points related to Indian food consumption pattern over the decades. One, the proportion of expenditure for food items in total monthly per capita expenditure (MPCE) is declining gradually, whereas the share of expenditure for non-food items is vice-versa in both, rural as well as urban sector of all Indian states. 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 (NSSO, 2010). Two, decline in the expenditure towards food consumption is falling because of shift in consumption away from cereals to high calorie commodities such as meat, milk, fish etc, in other words from low value to high value commodities. Even though, there are several reasons claimed to be behind such a scenario, the impact of

Liberalization, Privatization, Globalization (LPG) reforms caused the major change, which led Indians to spend more lifestyle spends rather than regular spends. Changing income/MPCE levels as well as changes in taste/choices seems to impact the basket of food consumption (egg, fish, and meat). However, the deep rooted cultural preferences especially for non-vegetarian food still hold sway in rural areas in North Indian States of Haryana and Rajasthan though urban consumption trends are fast changing here as well. Further field-level studies are required to validate some of these inferences.

Key words: *Income, Food preference, Culture, MPCE*

Introduction

The National Sample Survey Office (NSSO) conducts nationwide household consumer expenditure surveys at regular intervals as part of its “rounds”; each round is normally of a year’s duration. The household consumer expenditure survey (HCES) is generally conducted as one of the main subjects of the NSS survey at quinquennial intervals which provides a series of CESs’. Table 1 shows the timeline of HCES conducted by NSSO over the years

Table 1: Timeline of HCES conducted by NSSO over the years

Duration	Household Consumer Expenditure Survey (HCES)
1st round (1950-51) to NSS 28 th round (1973-74)	Data collected in every round
After the NSS 26th round (Origin of "quinquennial" surveys)	Surveys on consumer expenditure and employment-unemployment situation undertaken together on a large scale once in every five years.
The 8 “quinquennial” surveys	conducted from the 27 th (Oct 1972-Sept 1973), 32nd, 38th, 43rd, 50th, 55th, 61stand 66th rounds of NSS, at roughly 5-year interval
From the mid 80’s (Origin of Annual Series)	From the 42nd (1986-87) round

Taking NSSO’s HCES as the major data source, this study will focus on the trend and the factors (in particular, Per Capita Income) that affect egg, fish & meat consumption in both the rural and urban sectors of 15 major states of India over the years.

Trend in consumption composition among Indians

Based on the NSSO's HCES, the consumption composition in the monthly per capita expenditure over the years has been analyzed using the past eight quinquennial surveys (27th – 61st round). The time trends for percentage expenditure on various food items as share of total expenditure (Figure 1) clearly showed that there has been a decline in the proportion of expenditure on food items in last three decades in both urban and rural areas. The proportion of expenditure on non-food items has increased from 24% to 37.7% whereas the expenditure on food remained higher in rural areas as compared to urban areas. 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.

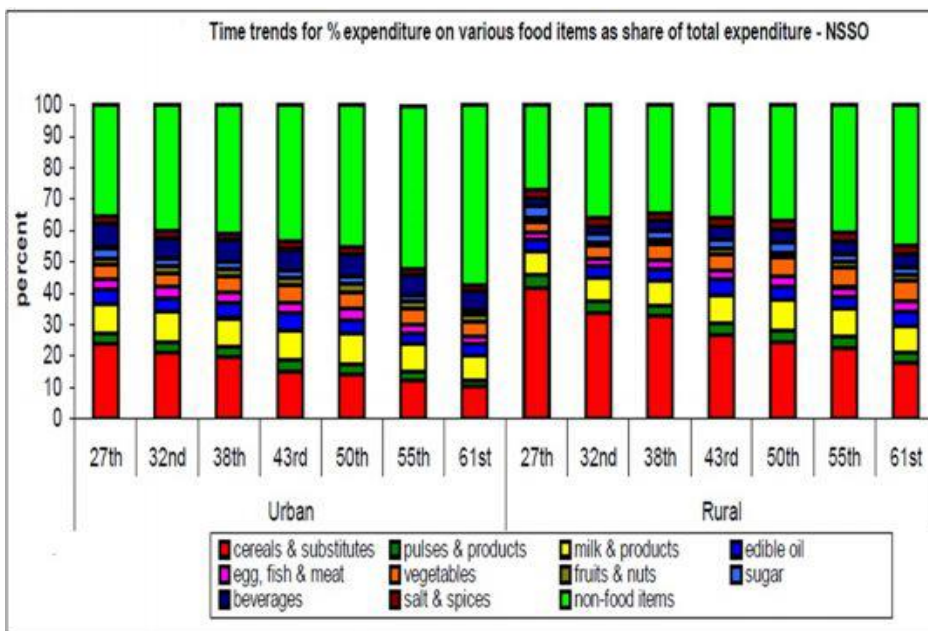


Figure 1: Time trend for % expenditure on various food items (Source: www.re-emergingworld.com)

The share of cereals has fallen from 41% to 18% in rural India and from 23% to 10% in urban India over the same period. The decline in consumption expenditure on food items has mainly due to increase in per capita income and decline in price of food items. The share of food items in total MPCE had decreased for all-India average gradually, i.e., it has reduced from 72.9% to 53.6% in rural sector and from 64.5% to 40.7% in urban sector. This also implies the growing share of non-food items in total MPCE over the years.

Factors affecting consumer spending in India:

In General, Consumer spending can be categorized into regular spends and lifestyle spends. Regular spends include grocery, eating out, books and music, personal care items, consumer durables, savings & investment, clothing, footwear, accessories, movies and theatre, entertainment, vacation, and home textiles whereas Lifestyle spends include payment for household help, gifts, furniture, computers/laptops, mobile phones, and Internet connections. The liberalization of the economy in 1991 has had a significant impact on the nature of spending among consumers in India. In 1991, an average Indian spends only on 8 product categories, whereas in 2007 the number of categories increased to 17, and included mobile handsets, gifts, and durables, among others. It has been observed that the spending habits of Indians are changing due to the following factors : growing disposable income, emphasis has changed from price consideration to design, quality and trendiness, Relative increase in the younger population, and the change in attitudes towards shopping (For instance, people in 20-24 years age group spend more on electronic / home appliances and movies, while people in the 45-48 years age group spend more on vacations), Increasing number of dual-income nuclear families, Changing attitudes toward consumption.

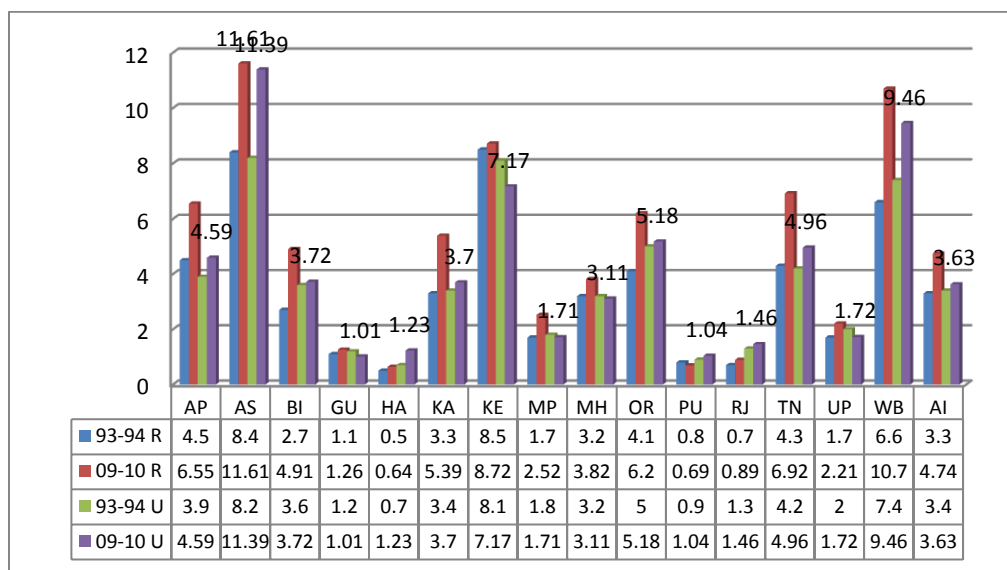


Figure 2: Egg, Fish and Meat Consumption (%) in total MPCE among the major states

Kerala is the state which ranks 1st in both rural (Rs.1850.68) and urban (Rs.2663.45) MPCE, while, Bihar ranks last in both the rural (Rs.681.03) and urban (Rs.1092.93) among the 15 major states of India. The All-India average of rural and urban MPCE is Rs.927.7 and Rs.1785.81 respectively. In Egg, Fish & Meat consumption, Urban Spends more than the rural sector in the entire major

states. The All-India average on expenditure for Egg, Fish & Meat consumption for Rural and Urban sector is Rs.32.23 and Rs.48.01 respectively for the year 2009-10. Assam, Kerala and West Bengal are the high Egg, Fish & Meat consuming states. While comparing the trend of Egg, Fish & Meat consumption for the past 2 decades (between 1993 and 2009) the consumption of E, F, M has increased gradually in the Rural sector (except Punjab) and Urban Sector (except Gujarat, Kerala, MP, UP) which is evident from the rise of the All-India average, from 3.3 to 4.74% for the rural sector and 3.4 to 3.63% in total MPCE for the urban sector respectively (Figure 2).

Difference in consumption behavior between Rural and Urban regions

There are several factors that contribute to the difference in consumption behavior between rural and urban regions, among which the following are considered to be the most important : Wider choice of available food in urban markets, Urban residents are exposed to the rich variety of dietary patterns of foreign cultures, Urban lifestyles may prefer the fast foods (which are mostly expensive), Urban occupations tends to be more sedentary and require a lower energy expenditure and so a lower calorie Intake; Urban residents typically do not grow their own food and thus their consumption choices are not constrained; Changes in consumption are more likely to happen in urban than in rural India as because urban population has the important concentration of wealthy people who are considered to introduce the new trend in consumption behavior.

Status of Egg, Fish and Meat consumption in the major states of India:

To compare the trend among the states in relation to its MPCE Based on the average MPCE of both Rural and Urban Sector of the country, the major 15 states are categorized into three groups, as following:

- (a) High MPCE states – Kerala , Punjab, Haryana , Andhra Pradesh, Maharashtra
- (b) Medium MPCE states – Rajasthan , Gujarat, Tamil Nadu, Assam, West Bengal
- (c) Low MPCE states – Uttar Pradesh , Karnataka , Madhya Pradesh , Odisha and Bihar

Trend of Egg, Fish and Meat consumption (in Rupees) in High-MPCE States

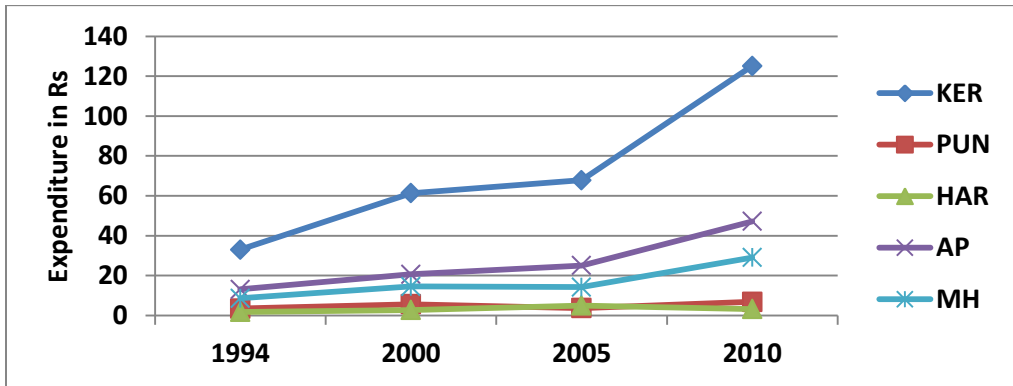


Figure 3: NSSO quinquennial rounds - Rural

From figure 3.1 and 3.2, it can be observed that, among the high-MPCE states (Kerala, Punjab, Haryana, Andhra Pradesh, Maharashtra) Punjab and Haryana (which are culturally vegetarian states) did not show any growth in the consumption of E, F, M over the past 2 decades, whereas the other 3 states has shown considerable growth in E, F, M consumption over the years in both sectors.

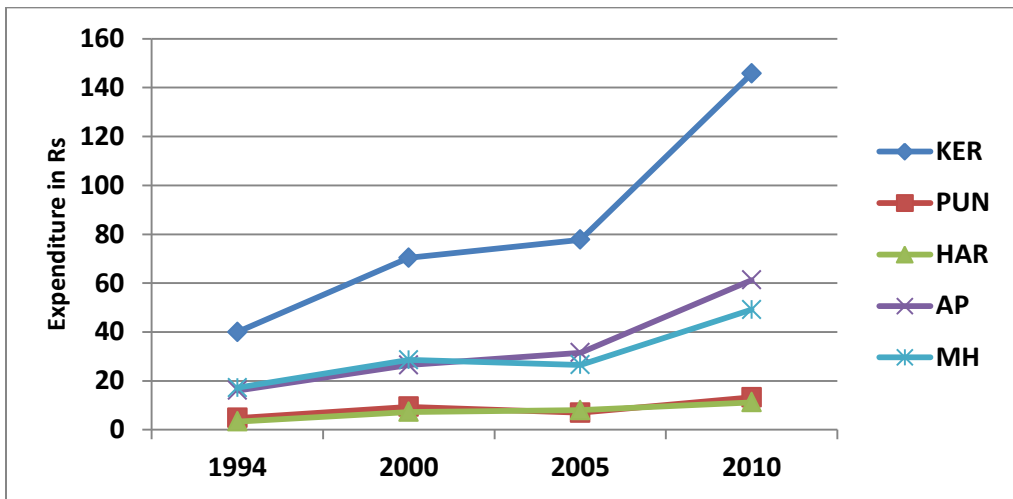


Figure 3.2: NSSO quinquennial rounds - Urban

Trend of Egg, Fish and Meat consumption (in Rupees) in Medium-MPCE States

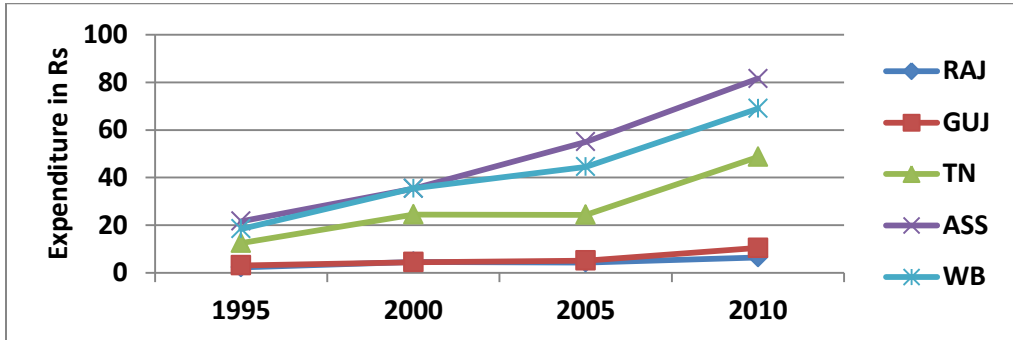


Figure 4.1 : NSSO quinquennial rounds - Rural

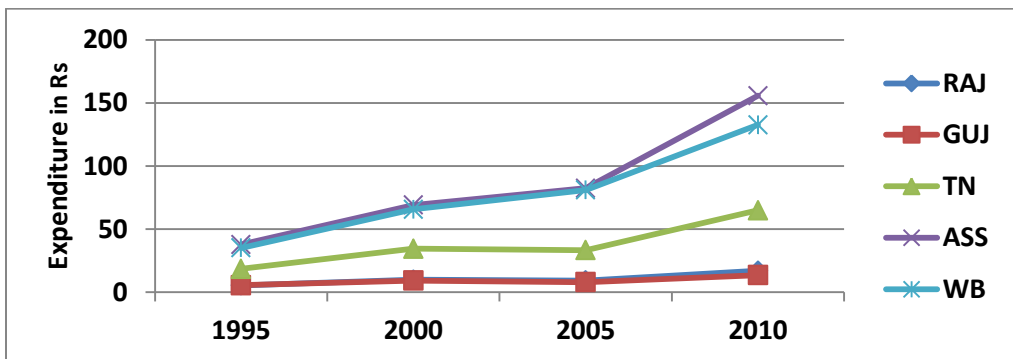


Figure 4.2: NSSO quinquennial rounds - Urban

From the figure 4.1 & 4.2, it can be understood that among the Medium-MPCE states (Rajasthan, Gujarat, Tamil Nadu, Assam, West Bengal) Gujarat and Rajasthan (which are culturally vegetarian states) did not show any growth in the consumption of E, F, M over the past 2 decades, whereas the other 3 states esp. Assam, West Bengal has gradual growth even though they rank low in this category

Trend of Egg, Fish and Meat consumption (Rs) in Low-MPCE States

From figure 5.1 & 5.2, it can be easily understood that, in this category all the states showed tremendous growth in the consumption of E,F,M between 2005-

2010. Odisha & Karnataka are the leading states in the E,F,M consumption whereas Madhya Pradesh has the lowest consumption followed by Uttar Pradesh.

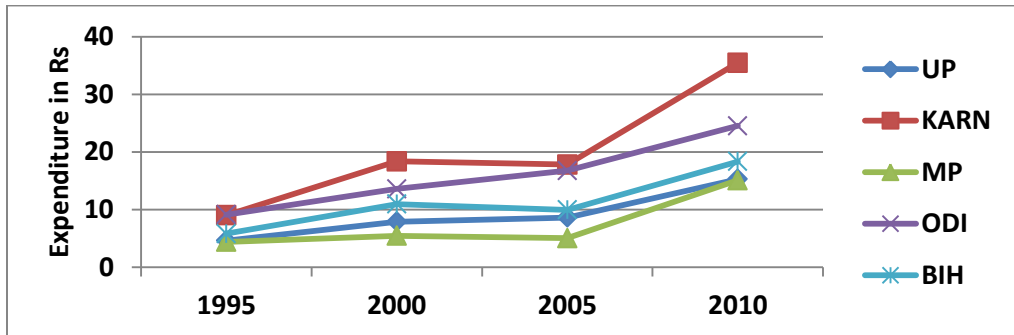


Figure 5.1 : NSSO quinquennial rounds – Rural

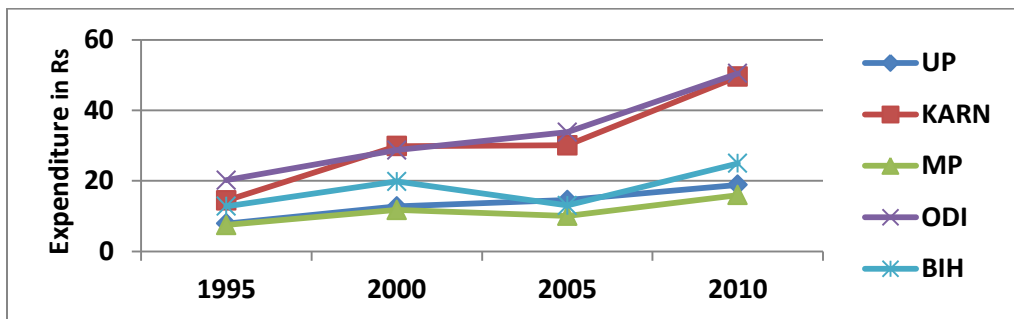


Figure 5.2 : NSSO quinquennial rounds - Urban

Trend of Per Capita Income (Rs) among major States

All the major states had almost tripled their per capita income during 2000 - 2010. The average growth rate is about 60%. Haryana ranks 1st, while Bihar ranks last among the 15 major states. To know whether there is any relationship between Per Capita Income (PCI) and egg, fish & meat consumption, the major states are ranked according to their PCI & MPCE and compared to know their relationship.

Table 2: Ranking of Major States based on PCI, MPCE and E, F, M Consumption

Rank (2009-10)	Based on Per capita Income (PCI)	Based on Monthly Per Capita Expenditure (MPCE)	Based on Egg , Fish ,Meat consumption
1	Haryana	Kerala	Assam
2	Maharashtra	Punjab	West Bengal
3	Gujarat	Haryana	Kerala
4	Tamil Nadu	Andhra Pradesh	Tamil Nadu
5	Kerala	Maharashtra	Andhra Pradesh
6	Karnataka	Rajasthan	Odisha
7	Punjab	Gujarat	Karnataka
8	Andhra Pradesh	Tamil Nadu	Bihar
9	West Bengal	Assam	Maharashtra
10	Rajasthan	West Bengal	Madhya Pradesh
11	Odisha	Uttar Pradesh	Uttar Pradesh
12	Madhya Pradesh	Karnataka	Gujarat
13	Assam	Madhya Pradesh	Rajasthan
14	Uttar Pradesh	Odisha	Punjab
15	Bihar	Bihar	Haryana

Table 2 clearly showed that neither the Per Capita Income (PCI) nor the Monthly Per Capita Consumption (MPCE) has much impact on the egg, fish, and meat consumption. The states with high PCI & MPCE have low Egg, Fish, and Meat consumption whereas the states with low PCI & MPCE have high consumption.

Conclusion

From the study the following major conclusions can be made:

- A. The trend of fall in food share in total MPCE make us remember the Engel's law of consumption {the consumers increase their expenditures for food products (in % terms) less than their increases in income}.
- B. The proportion of expenditure for food items in total monthly per capita expenditure (MPCE) is declining gradually, whereas the share of expenditure for non-food items is vice-versa in both, rural as well as urban sector of all Indian states (For instance, 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).
- C. It is inferred from the study that decline in the expenditure towards food consumption is falling because of shift in consumption away from cereals to high calorie commodities such as meat, milk, fish etc, in other words from low value to high value commodities. Even though, there are several reasons claimed to be behind such a scenario, the impact of Liberalization, Privatization, Globalization (LPG) reforms caused the major change, which led Indians to spend more lifestyle spends rather than regular spends. Changing income/MPCE levels as well as changes in taste/choices seems to impact the basket of food consumption (egg, fish, and meat). However, the deep rooted cultural preferences especially for non-vegetarian food still hold sway in rural areas in North Indian States of Punjab, Haryana and Rajasthan though urban consumption trends are fast changing here as well. Further field-level studies are required to validate some of these inferences.

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