

## FOOD INFLATION: A BIGGEST CONCERN FOR MIDDLE CLASS CONSUMERS TO MANAGE HOUSEHOLD CONSUMPTION EXPENDITURE ON FOOD GRAINS

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### Introduction:

India's economic growth in last two decades witnessed substantial improvements in livelihood among urban population. High rate of development and urbanization results in the increase in middle class consumers. Currently India has 31.4 million middle class households which represent 13 percent of India's population. The percentage of middle class in the country's total population will increase to 20.3 percent by 2015 and 37.2 percent by 2025 i.e. the number of middle class households in India is likely to more than double from the 2015-16 levels to 113.8 million households or 547 million individuals.

In 2006-10, the average WPI inflation and food inflation stood at 5.5 per cent and 9.2 per cent. Similarly in 2010-11, the WPI inflation and food inflation stood at 9.6 per cent and 15.8 per cent, which was above the tolerance limits. The food articles contribute to 14.337 % in Wholesale Price Index and food grains contribute to 4.09 % in food articles (as per WPI series 2004-05). Opinion survey in India reveals that inflation is the most important concern of the middle class people badly affects their consumption expenditure and standard of living. Inflation in food, by its very nature is the enemy of middle class consumers. The middle class in low and medium income economies in the world is increasingly demanding higher value agricultural produce and due to various constraints the prices of commodities have gone up.

As per latest estimates, India has produced the highest ever food grains of 235.88 million tones in 2010-11, surpassing the earlier record of 234.47 million tones achieved in 2008-09. Despite bumper crop production there exist a huge gap between the price received by the producer and the price paid by the consumer. According to government estimates, the daily per capita availability of food grains has gone up by 25.8 grams to 462.9 grams in 2011 compared to 437.1 grams/day in 2010. The daily per capita net availability of food grains was estimated at 444 grams per day in 2009, 436 grams per day in 2008, 442.8 grams per day in 2007 and 412.8 grams per day in 2006.

### Why Thane city?

Thane city is a part of Mumbai metropolitan region. As per provisional reports of Census India, population of Thane in 2011 is 1,818,872. Because of the huge residential boom, the city has witnessed a large number of immigrants from the city of Mumbai as well as from other parts of the state and country. In Thane, the cost of living is very high; a large percentage of household income spends on basic needs and the disposable income is very less. Food constitutes part of living cost and a persistent rise in food prices put heavy burden on the household consumption expenditure of middle class. Thane is a city where middle class population is approx. 30 per cent and therefore, it is possible to obtain new insights into the problem of household consumption of food grains.

### Concepts and Definitions:

**Reference Period:** The consumption of any good by a household or person and consumption expenditure on it occurs in the form of flow over time. Since, the research is based on the data which is approximate and easy to recall by the respondents, the period between 2006-2011 is considered as reference period.

**Household consumption expenditure:** The expenditure incurred by a household on domestic consumption during the reference period is the household's consumer expenditure.

**Household:** A group of person normally living together and taking food from a common kitchen constitutes a household.

**Household size:** The size of a household is the total number of persons in the household.

**Food inflation:** It is the persistent rise in the price of food articles included in the Wholesale Price Index over time.

### **Purpose**

1. To explore the various issues related to household consumption of food grains by middle class consumers in terms of quantity and quality alongside high food inflation.
2. To make understand the readers about how middle class consumers manage their consumption expenditure on food grains from the total household expenditure.

### **Scope Of The Research**

1. This research will help the apex body in taking their major policy decisions and to keep control over the prices of food grains.
2. It will give new insights into the problem of food grains consumption by middle class consumers in urban area.
3. It gives rise to scope for understanding the change in priority among the consumers from staple food to manufactured food products.
4. This research is conducted in Thane city; it can be extended further to other metro cities of India.

### **Hypotheses**

- Ho1: Household consumption expenditure on food grains do not differ significantly due to food inflation.  
Ha1: Household consumption expenditure on food grains differ significantly due to food inflation.  
Ho2: Consumption of food grains in terms of quantity do not differ significantly due to food inflation.  
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Ho3: Consumption of food grains in terms of quality do not differ significantly due to food inflation.  
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### **Methodology**

The present study is interdisciplinary and descriptive in nature. The data has been collected from secondary as well as primary source. For secondary data, more reliance is placed on referred journals, articles, NNSO rounds, websites etc. for the review purpose. Selection of the papers is done on the basis of their relevance and contribution to the body of knowledge. A sample size of 500 middle class households has been drawn randomly from the population of Thane city and filled up the questionnaire from the head of the family through structured interviews. During the survey; the middle class consumers were categorized on the basis of their household income from 3.4 Lakh to 17 Lakh per annum (at 2009-10 price level) and family size of 5 members. Household income constitutes the income of all the earning members in the family. This research is restricted to Thane city, Maharashtra, India.

### **Review Of Literature**

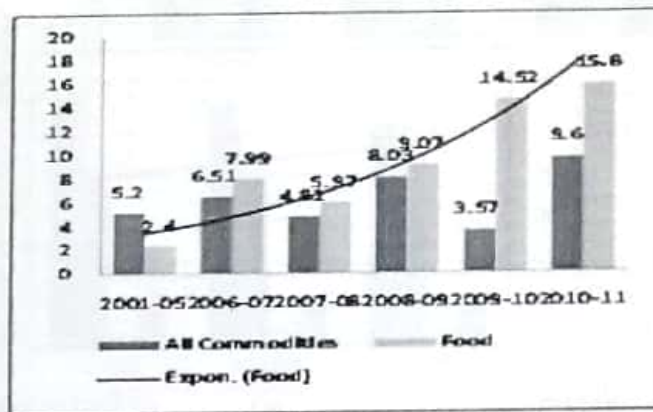
However number of studies has been conducted in the form of NSSO surveys and research work done on food inflation. An attempt has been made by the researcher to understand and acknowledge the work of various researchers in the field of food inflation and consumption expenditure.

#### **Reasons For High Food Inflation In India:**

There are various reasons causing high food inflation; of which there are four main reasons. The immediate reason for the spurt in prices of specific food items is hoarding. Hoarders are creating artificial shortages of food items. Secondly, the growing penetration of big corporate in the food economy, international trade in food items and speculative futures trading in agricultural commodities has weakened the government's capacity to control food prices. Thirdly, The Government is more interested in handing over the role to big agribusinesses and retail giants like Wal-Mart and Monsanto in the name of a 'second green revolution' which will further marginalize the small peasants. Finally, the cuts in subsidies and price hikes in diesel and fertilizer are also contributing to food inflation.

**Increasing trend in primary food articles in WPI inflation:**

Chart -1 represents the year wise trend in the primary food articles in India from year 2006- 2011.

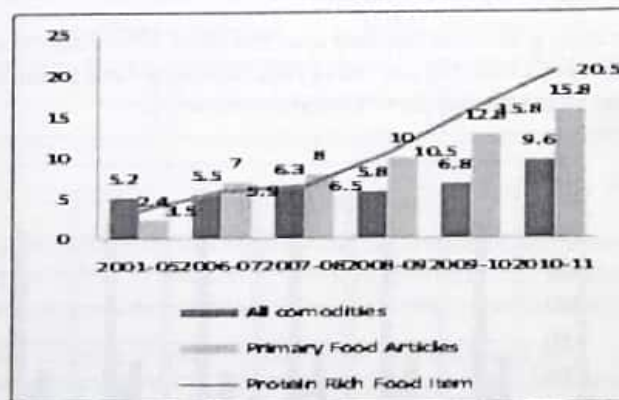


Source: Office of the Economic Adviser, Ministry of Commerce and Industry, GoI

Chart 1: WPI inflation and Food inflation (year on year)

**Shift in dietary habits towards protein foods:**

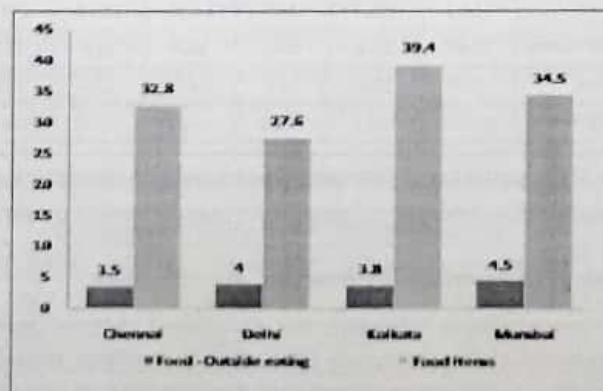
A distinct feature of recent food price inflation has been the sustained price pressure in protein rich items (milk, pulses, fish, meat and eggs). Inflation in protein rich items has generally exceeded both headline (WPI) inflation and inflation in primary food articles (Chart-2).



Source: NSSO Surveys Chart 2. Inflation in Primary Food Articles and Overall Inflation

**Outside food eating in Mumbai is highest among other metro cities in India:**

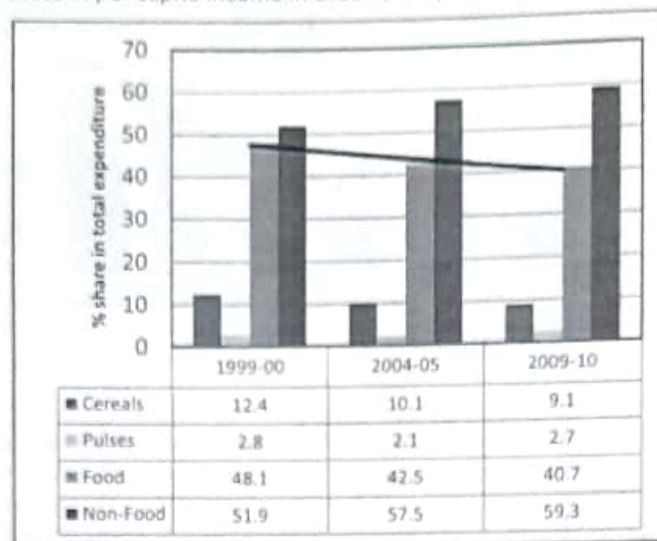
There are significant variations across cities. While the single largest expense across all location is food and population of Mumbai spends highest on outside food eating (Chart-3).



Source: www.atulvaid.com Chart 3. Outside food eating in metro cities in India

**Declining share of food in total expenditure in urban area:**

The share of food in total expenditure has declined and non-food expenditure has gone up over successive rounds of NSSO surveys alongside increases in per capita income in urban area (Chart-4).

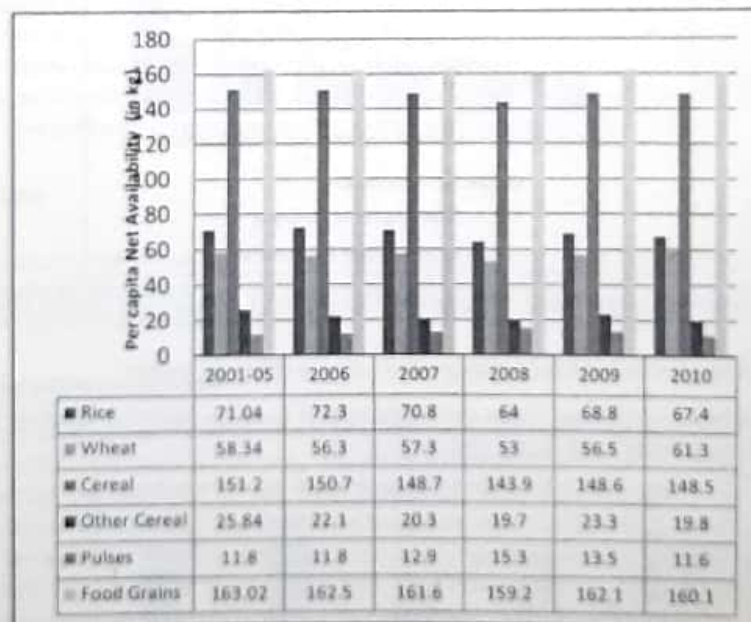


Source: NSSO, Ministry of Statistics & Programme Implementation

Chart 4. Share of food in total expenditure in urban area

**Food grains availability is at satisfactory level in India:**

The per capita net availability of food grains has declined over the years from 2006-10 and then sharply increased in 2011. On the other hand, a study reveals that, the per capita requirement of food grains in India is 140 kg to 160 kg per annum which is in the range of per capita availability of food grains (Chart-5).

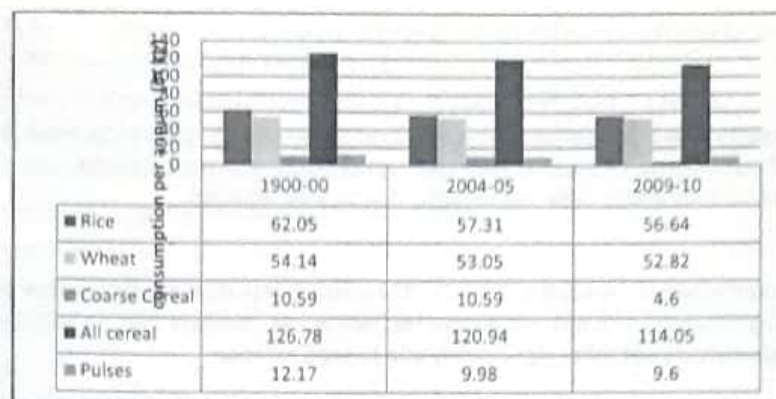


Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation

Chart 5. Per capita net availability of food grains (per annum) in urban area (India)

**Food grains consumption is below the availability in urban area in India:**

The Union Agriculture minister Sharad Pawar informed the Parliament that as per the Household Consumption Expenditure Survey carried out by National Sample Survey Office (NSSO) between 2004-05 and 2009-10, the per capita consumption of cereals and pulses declined in urban households. Pawar added, in order to augment availability of food grains for individuals, various incentives are being provided under different schemes like National Food Security Mission (NFSM), Rashtriya Krishi Vikas Yojna (RKVY) and National Horticulture Mission (NHM) to boost farm productivity (Chart-6).



Source: National Sample Survey Organization (55, 61 & 66<sup>th</sup> round)

Chart 6. Per capita consumption of food grains (per annum) in urban area (India)

## Data Analysis And Interpretation

From table-1, in year 2006, the percentage of households showing consumption expenditure on food grains-not affected, moderately affected and highly affected from food inflation is 66.2%, 23.4% and 10.4%. Similarly, in year 2011, the percentage of households showing consumption expenditure on food grains not affected, moderately affected and highly affected from food inflation is 35.4%, 28% and 36.6%.

Table 1. Impact of food inflation on household consumption expenditure on food grains

Food inflation	Household consumption expenditure on food grains			Total no. of Households
	Not affected	Moderately affected	Highly affected	
(Year- 2006)	331	117	52	500
(Year- 2011)	177	140	183	500
	508	257	235	1000

Source: Survey data

From table-2, in year 2006, the percentage of households showing-no change, decrease and increase in consumption of food grains in terms of quantity is 72.2%, 21.8%, 6%. Similarly, in year 2011, the percentage of households showing-no change, decrease and increase in consumption of food grains in quantity is 69.6%, 26.6%, 3.8%.

Table 2. Food grain consumption 'in terms of quantity' during the year 2006 and 2011

Food inflation	Food grain consumption in terms of quantity			Total no. of Households
	No change	Decrease	Increase	
( Year- 2006)	361	109	30	500
(Year- 2011)	348	133	19	500
	709	242	49	1000

Source: Survey data

From table-3, in year 2006, the percentage of households showing consumption of food grains with no change in quality, decrease in quality and increase in quality is 69.4%, 17%, 13.6%. Similarly, in year 2011, the percentage of households showing consumption of food grains with no change in quality, decrease in quality and increase in quality is 43.8%, 40.4%, 15.8%.

Table 3. Food grain consumption 'in terms of quality' during the year 2006 and 2011

Food inflation	Food grain consumption in terms of quality			Total no. of Households
	No change	Inferior (Decrease)	Superior (Increase)	
( Year- 2006)	347	85	68	500
(Year- 2011)	219	202	79	500
	566	287	147	1000

Source: Survey data

### Test Of Hypotheses

#### Hypothesis 1:

From table-1, the computed value of chi-square ( $X^2$ ) is 121.7 which is more than the table value of  $X^2$  for two degree of freedom at 5% level of significance i.e. 5.991; we reject  $H_0$ . Hence, we conclude that, in middle class household consumption expenditure on food grains differ significantly due to food inflation.

#### Hypothesis 2:

From table-2, the computed value of chi-square ( $X^2$ ) is 5.0874 which is less than the table value of  $X^2$  for two degree of freedom at 5% level of significance i.e. 5.991; we accept  $H_0$ . Hence, we conclude that, in middle class consumption of food grains in terms of quantity do not differ significantly due to food inflation.

#### Hypothesis 3:

From table-3, the computed value of chi-square ( $X^2$ ) is 77.465 which is more than the table value of  $X^2$  for two degree of freedom at 5% level of significance i.e. 5.991; we reject  $H_0$ . Hence, we conclude that, in middle class consumption of food grains in terms of quality differ significantly due to food inflation.

### Findings And Conclusions

1. Over the years, there has been an increasing trend in inflation in primary food articles in India.
2. The share of food in total expenditure has declined alongside increase in per capita income; as the priority of consumer has changed from foods items to non-food items.
3. There has been a structural shift of consumers from carbohydrate rich item to protein rich item as they are becoming more conscious about their nutritional diet.
4. The consumers in Thane (Mumbai) are eating outside food in restaurants which leads to decline in household consumption of food grains.
5. The consumption of food grains in urban area is below the availability of food grains which indicates surplus availability of food grains in urban area.
6. In recent years, with the rise in household income the middle class consumers are inclined towards lifestyle stuffs and they are ready to pay any price for it. On the contrary, the food inflation is soaring above the tolerance limits and it is very difficult for them to manage the household expenditure on food. In order to get rid of it, they compromises on the household consumption expenditure on staple food item rather than on non-food items which are uncontrollable and symbol of status.
7. Finally, in middle class, the consumption of food grains is unaffected in terms of quantity but affected in terms of quality due to food inflation. In other words, they manage their household consumption expenditure on food by consuming inferior quality food grains.

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