

## Executive Summary

Food prices, globally, have shown considerable rise and volatility in the last five years. Two food crises (of 2008 and 2011) in the last three- four years has caused considerable pain and suffering around the world. The condition in India is no different<sup>1</sup> and food price inflation is causing serious concerns among policy makers. The policy prescriptions to contain this food price inflation would have to increase agricultural productivity, integrate the agricultural markets, undertake reform measures in storage, and reduce food wastage. The analysis of official statistics show that food grain production, area under cultivation and yield is going down monotonically, while population is rising exponentially. Also poverty is reducing significantly. The economic growth of the last two decades and the consequent urbanization in the country has also resulted in greater demand for food. While fertilizer consumption has gone up, the net sown area has not gone up by a large margin. Irrigations project are not many and groundwater resources are depleting. Also, wastage of food due to lack of storage and proper logistics is a big issue. Some estimates peg food wastage at as high as 30% for perishable food. All these forces and some international forces like rising global food prices, rising oil prices, and the depreciating dollar is responsible for this high food inflation in India. *The analysis of official statistics also shows that the growth rates of production of key food-grains in India have declined with each passing decade since the 50's. Average growth rate in food-grain production was highest in 1950s and has declined in each subsequent decade. It registered an improvement in the 90's but has reached its lowest level in the 2000's. In fact, the growth rate of wheat and rice production has reached below 1% in the 2000's.*

Food is organic and by its very nature perishable but some foods like vegetables, fruits, meat and poultry, and fish perish at a much higher rate than food grains. The recent food inflation owes a lot to the rise in food prices of perishable food like vegetables and fruits. The problem with perishable food is that the available space for cold storage in the country is only 20 million tonnes, while the production is about 180 million tones. *Even though FDI in cold storage has been allowed as policy for more than 15 years now, not a single facility has been created in this mode of investment.* Since cold storage and efficient logistics are

---

<sup>1</sup> India is now in a inflationary phase from December 2009. Inflation peaked in India in April 2010 (at about 11%, which is much lesser than the historical peak of September 1974 when inflation was about 33%) and has since been difficult to control. One of the main causes of this overall double digit inflation in India is the high food inflation.

extremely important for longevity of such perishable foods and to ensure that the fresh produce reach the consumers in time, it is vital that more policy measures be taken to improve the state of affairs of these two factors. However, this requires very large investments and careful and long term planning. Promoting the use of fertilizer and using groundwater for irrigation were the most important policy measures<sup>2</sup> apart from the policy of using high yielding varieties of food grains since the 1960's. It is estimated that about 50 to 60 percent of the increase in food grain production the country since the days of food shortage in 1960s can be attributed to higher fertilizer and groundwater use. However, since 1991, almost all governments have been stressing on the need for reforms in fertilizer policies as the huge amount of subsidy given is causing serious troubles for fiscal consolidation and management. Food Corporation of India (FCI) and the Agricultural Prices Commission (APC) are important bodies that help the government to have monopoly control. Today the government sets a procurement price, at which it purchases grains from farmers, and a ration price which is lower than the retail price of the grain, at which it sells rationed quantities of grains as entitlements to food to households through Fair Price Shops (FPS). This mix of procurement, storage and distribution, and selling policy worked well for the last several decades and ensured that the interests of the farmers are protected and at the same time the citizens get a fair price for food.

Hence we find that the food price inflation is a symptom of the interplay of the following major forces:

1. Growth in demand
2. Stagnation in supply due to low productivity and growth
3. Huge wastage esp. in perishable foods
4. Low growth in cultivation area
5. Lack of innovation and adoption of best practices
6. Lack of irrigation facility and availability of cheap fertilizers
7. Lack of connection with farm and market
8. Global events

Now, the government has very little handle on the forces 1 and 8. It can however, take policy measures that increase supply by increasing

---

<sup>2</sup> However, subsidizing fertilizer and electricity for groundwater based irrigation has had its share of criticisms too. There is now increasing realization in the government that the manner, in which fertilizer is produced, distributed and sold needs reform. Also, indiscriminate use of groundwater has led to lowering of groundwater table and has created a shortage of drinking water in some regions.

- a. Productivity
- b. Area under cultivation
- c. Ensuring irrigation and availability of fertilizers at affordable costs
- d. Eliminating wastage
- e. Improving logistics to link farm and market
- f. Rewarding and encouraging innovation and technological intervention in agriculture

Of these 6 measures as listed above, some can be taken up on priority which will enable the government to have a better bang for the buck. Three policy measures can help the government achieve this. They are:

- i. Policy for Decentralized Food Reserves
  - a. Food grain Banks
  - b. Emergency Stocks/Buffer Stocks

In this measure the government can create a block level or district level grain bank to ensure that food that is grown in excess in certain years is stored in grain banks to be used later. This will also create a hedge against volatility. This grain bank may have some features of traditional money banks and strict regulatory regime is required to manage its operations properly. This will also reduce the cost of the government in procuring and distributing the grains as everything will be done locally instead of the centralized mechanism that exists today.

- ii. Policy for Arid and Semi Arid Climatic Regions
  - a. Drip Irrigation
  - b. Implementing Best Practices of Countries

These measures are already being implemented in certain states like Gujarat and Madhya Pradesh with remarkable results. This increases the area under cultivation, ensures better irrigation and also improves productivity.

- iii. Policy on Increasing Investments in Agriculture
  - a. Improving (Cold )Storage
  - b. Improving Information Management
  - c. Improving Logistics

- d. Improving Training
- e. Implementing Best Practices in Farming Techniques like SRI, farm bunding etc.
- f. Increase Mechanization
- g. Improving and Encouraging the Farming of (Genetically) Improved Varieties

This is a package of reforms that the government can take in conjunction with other initiatives that it already has like MGNREGA.

iv. Policy of Enhancing Innovations in Agriculture

- a. Technological Innovations
- b. Non Technological Innovation

A comprehensive policy on innovation in agriculture is required.

The above set of 4 policy measures can be taken up by the government in quick time and will ensure a very fast improvement on the ground. In conjunction to these measure, the government can then take up long term reform measures in fertilizer, power for irrigation, PPP in agriculture, bio fuel policy and other initiatives.