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## Subject II

## **Trends in Food Consumption and Nutrition - Food Security Concerns**

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The session began with a brief presentation on the status of food security in the post-Independence period. This provided the background for discussion on the trends in food and nutrition security in the country. It was noted that the severe shortages of food and resulting heavy dependence on imports forced the country to adopt green revolution technology that offered very high potential for growth in output of cereals. India has come a long way since then and food situation has witnessed far-reaching quantitative and qualitative changes. The policy of self-efficiency paid rich dividends in improving the physical availability of food, as the total food production not only kept pace with increase in population but outstripped population growth. Since 1995, India remained the net exporter of cereals, and export of cereals for some of these years was as high as 8 million tonnes. Despite these achievements on production front, nutrition and food security continues to be a matter of serious concern because of inadequate nutrition and large proportion of population remaining undernourished.

The group deliberated upon several issues related to food and nutrition security. It was observed that food security can be studied from five types of data sets, namely (a) consumption pattern estimates of NSSO, (b) survey of National Nutrition Monitoring Board, (c) National Family Health Surveys and (d) estimates of food availability derived from aggregate data on food production adjusted for trade, seed, wastage and feed, etc. and (e) the other surveys conducted by individual scholars or institutions. Anthropometric studies are another source of examining the changes in nutritional status of children. The paper-writers made use of all these approaches except the last one to analyse the trends in food consumption and nutrition. As most of the paper-writers used NSSO data to prepare their papers, it was considered appropriate to resolve conflicting evidence revealed by NSSO data sets. For instance, cross section data for rural households, till 2004, show increase in consumption of cereals with increase in per capita expenditure, considered a proxy for income. For urban population the cereals consumption initially increased with income and then levelled off and subsequently declined in high income groups. In contrast to this, the time series data showed a decline in cereal consumption in both rural and urban

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population during last three decades up to 2004. Further, some of the states with high per capita income show lower per capita consumption of cereals as compared to low income states which show higher per capita consumption of cereals. Thus, cross section, time series and spatial patterns present contradictions in relationship between income and per capita consumption of cereals.

Another data inconsistency taken up for discussion was the rising gap between availability of food, based on production data, and NSSO consumption surveys. On this point, it was felt that the assumptions underlying the distribution of production into food and other uses have turned unrealistic over time. The estimates of net foodgrain availability assume that 12.5 per cent of food grain production goes as feed, seed, waste and for other uses and the remaining 87.5 per cent is used as food. This ratio was prepared around 1970 and the same ratio continues to be used till now. It was felt that over time the use of food grains as feed has been growing rapidly and net food availability would be much lower than that corresponding to 87.5 per cent of production. The group emphasised that in future, food and feed competition would tend to become more intense and the proportion of food grains available for food would decline. This was also considered imperative to sustain the increase in livestock production and consumption of livestock products.

There was almost unanimity about the changes in dietary pattern resulting into dietary diversification in favour of horticultural and livestock products in both rural as well as urban areas. However, there was no consensus on the implications of dietary diversification on calorie intake, food security and nutrition. In this context, the dietary changes of recent origin were considered more relevant and it is also pertinent to consider improvement in efficiency of calorie intake. Further, in this context the international experience was also seen. In other fast growing countries particularly in China, there is decline in cereal intake and dietary pattern was diversifying. This was resulting in a clear increase in calorie intake and protein intake, whereas, in India, dietary diversification was leading to decline in calorie intake. There is a need to examine this further as dietary diversification causing decline in calorie intake is not a healthy trend from nutrition point of view.

Dietary diversification in rich income groups is causing another concern. Even at higher income level, where there is no economic constraint to consume more food, some population shows undernutrition and there is decline in the average level of energy intake. It was revealed that young and child population in rich households eat more junk food, spicy food, readymade sweets and they are developing distaste for healthy food. This could be one of the causes for undernutrition among the rich households.

There is a lot of debate about the importance of food production at household level to provide food security. This was shown to vary according to situation. In one situation, it was found that the consumption of vegetables and milk depended entirely on the per capita income of the household and it was invariant to per capita production of these items at the household level. This seems to be more prevalent in a

situation closely linked to market. However, in households isolated from market for sale and purchase of food household production has a significant influence on consumption and thus nutrition. It was thought that the right incentives should be given where potential for food production is high and cost effective.

Global experience show that the dietary pattern among major regions of the world is converging. While the developed region show a decline in intake of livestock products, the developing region show an increase in intake of these products. The group felt the need to study the convergence in nutrition across states of India. It was also pointed out that some of the observed changes in the dietary intake at state level do not reflect income effect but the effect of changes in composition of population of that state.

Government policies play a vital role in influencing prices, consumption and nutrition. Empirical evidence shows that government intervention that causes distortions in prices are detrimental to the food security particularly of the vulnerable sections.

Per capita cereal consumption and percentage of population above poverty are significant factors in reducing under nourishment among cultivator and labour households in India. Cereals are the predominant source of calorie and protein for rural masses. They are also the cheapest source of energy and protein in the country. Due to low level of per capita income, rural masses are not in a position to compensate for the nutritional decline due to decline in cereals by increasing consumption of fruits and vegetables, milk, meat, etc. to get adequate nutrition. Thus, prices of cereals play an extremely important role in determining food and nutrition security of the India population. Any increase in real prices of cereals results in their reduced consumption, which might help in building up grain surplus but is detrimental to household food security. Dietary diversification away from cereals requires much bigger increase in intake on non-cereal foods to maintain the same level of nutrition. This does not seem to be affordable at present level of income in the country. Due importance should continue to be accorded to cereal and pulses for food and nutritional security in India.

## **Policy Implications**

- Despite the progress made in food production a sizeable proportion of the
  population in India remains undernourished and food insecure. Their food
  and nutrition security can be improved either by providing attractive avenues
  for earning income or through food safety network.
- There is a strong need to improve the awareness of general population about nutrition so that the households with adequate income do not suffer from undernutrition.

- Dietary diversification involving even a small decline in per capita intake of cereals requires a relatively large increase in intake of horticultural and livestock products to maintain or improve the level of nutrition. Therefore, any setback to cereal supply/consumption must be accompanied by large increases in supply of horticultural and livestock products.
- Cereals are the predominant and cheapest source of calorie and protein for rural masses in the country. Due to the low level of per capita income, rural masses are not in a position to compensate for nutritional decline due to decline in cereals by increasing consumption of fruits and vegetable, milk, meat, etc., to get adequate nutrition. Thus, prices of cereals play an extremely important role in determining food and nutrition security of India's population.
- Due importance should continue to be accorded to cereal and pulses for food and nutritional security in India until the level of per capita income is large enough to permit purchases and consumption of adequate amount of costly horticultural and livestock products.