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## ONE DAY STATE LEVEL SEMINAR

ON

## “Food Problem in India”

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**'A Review of Food Production in India'**

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**Introduction :-**

Ensuring food security ought to be an issue of great importance for a country like India where more than one-third of the population is estimated to be absolutely poor and one-half of all children malnourished in one way or another. There have been many emerging issues in the context of food security in India in the last two decades. These are: (i) economic liberalization in the 1990s and its impact on agriculture and food security; (ii) establishment of WTO: particularly the Agreement on Agriculture (AoA) under it; (iii) challenges of climate change; crisis of the three Fs, viz., food prices, fuel prices, and financial crisis; (iv) the phenomenon of hunger amidst plenty, i.e., accumulation of stocks in the early years of this decade and in 2008-09 along with high levels of poverty; (v) introduction of targeting in the Public Distribution System (PDS) for the first time in the 1990s; (vi) 'Right to Food' campaign for improving food security in the country and the Supreme Court Orders on mid-day meal schemes; (vii) proposal for National Food Security Law (Right to Food); and (viii) monitorable targets under the Tenth and Eleventh Five Year Plans similar to the Millennium Development Goals (MDGs) on poverty and women and child nutrition. These developments in the last two decades have provided both opportunities and challenges for food and nutrition security of the country.

It is, by now, well known that the question of food security has a number of dimensions that extend beyond the production, availability, and demand for food. There has been a paradigmatic shift in the concept of food security, from food availability and stability to household food insecurity, and from assessment of input measures like energy intake to output indicators such as anthropometric measures and clinical signs of malnutrition.

➤ **About Food Security :-**

**According to Food and Agriculture Organization (FAO)**

**"Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life."**

Food security has three components, viz., availability, access, and absorption (nutrition). The three are interconnected. Many studies have shown that improvement in nutrition is important, even for increase in productivity of workers. Thus, food security has intrinsic (for its own sake) as well as instrumental (for increasing productivity) value.

➤ **Reasons for Decline in Food Production :-**

The performance of the overall agriculture sector and the factors responsible for the slowdown provide an explanation for the decline in the growth of food production. It may be noted that foodgrains, pulses, oilseeds, sugar, fruits and vegetables, poultry, dairy, meat, fish, etc. constitute the bulk of the output in the agriculture sector. The performance of agriculture is important for availability and access to food as more than 55 per cent people in the country are dependent on this sector. Agricultural growth in India was high from the Fifth Plan period to the Ninth Plan period – highest being in the Sixth Plan period, at around 5.7 per cent. If we consider longer periods, growth of agriculture decelerated from 3.5 per cent between 1981-82 and 1996-97 to around 2 per cent between 1997-98 and 2004-05, although there have been signs of improvement in recent years. (GoI, 2008),

There are both short run and long run problems in Agriculture. Farmers' suicides continue unabated, even increasing in some states, as growth rate in yield is on the decline.



Farming is fast becoming a non-viable activity. Further scope for increase in net sown area is limited. Land degradation in the form of depletion of soil fertility, erosion, and water logging has increased. There has been decline in the surface irrigation expansion rate and a fall in the level of the ground water table. Exposure of domestic agriculture to international competition has resulted in a high order of volatility in prices. Disparities in productivity across regions and crops, and between rain fed and irrigated areas has increased. Long term factors like steeper decline in per capita land availability and shrinking of farm size are also responsible for the agrarian crisis. Land issues such as SEZs, land going to non-agriculture, alienation of tribal land etc. are becoming important.

The Steering Committee report on agriculture for the Eleventh Plan (GoI, 2007a) has identified the possible reasons for deceleration in agriculture since the mid-1990s. According to the report, the major sources of agricultural growth are: public and private investment in agriculture and rural infrastructure including irrigation, technological change, diversification of agriculture, and fertilizers. It seems that progress on all these fronts has slowed down since the mid-1990s (Table 2). Expansion has taken place only in the case of agricultural credit. There has, however, been some revival in agriculture in recent years, wherein agricultural growth of more than 4 per cent was recorded between 2003-04 and 2007-08.

#### ➤ Policies for Improving Availability of Cereals and Non-cereal Food

Since we do not have separate macro policies on food, we discuss here the policies for the entire agriculture sector. As mentioned above, food related agricultural activities constitute the bulk of the output in agriculture.

There are basically six factors which need to be focused upon in the short and medium term.

- (i) infrastructure
- (ii) land and water management
- (iii) research and extension
- (iv) inputs including credit
- (v) marketing including price policy
- (vi) diversification and development of the rural non-farm sector.

Institutions have to be developed with regard to all these aspects. One major reform needed in the agriculture sector relates to reduction in subsidies and increase in investments. Agricultural subsidies are fiscally unsustainable and encourage misuse of resources, leading to environmentally malignant developments. There exists a trade-off between subsidies and investments. Public investment declined from 3.4 per cent of agricultural GDP in the early 1980s to 1.9 per cent in 2001-03. At the same time subsidies increased from 2.9 per cent to 7.4 per cent of agricultural GDP (GoI, 2007). Increase in public and private investment is crucial for enhancing agricultural growth. Several studies have shown that public investment in rural infrastructure, like roads, irrigation, etc is more important than other factors. Fortunately, gross capital formation in agriculture has increased from 12 per cent of agricultural GDP in 2004-05 to 14.2 per cent of agricultural GDP in 2007-08. Public sector investment has increased significantly during this period. However, we need 16 per cent of agricultural GDP as investment in order to achieve 4 per cent growth in agriculture.

The decline in growth of productivity is attributed, among other things, to deterioration in soil quality and water shortages, including ground water depletion. Therefore, land and water management should be given the first 11 priority. Both investment and efficiency in use of water are needed. Land issues are becoming important. Investment in irrigation, watershed development, and water conservation by the community are needed by way of water management. In order to improve soil quality, the government's nutrient based subsidy is a move in the right direction. Fertilizer subsidies will be restructured in such a way as to reduce the consumption of nitrogen (N) and encourage phosphatic (P) and potassic (K) fertilizers. As the National Commission on Farmers mentions, there is a knowledge gap in the existing technology. Therefore, extension becomes crucial for improving agricultural productivity. In view of the high variability in



agro-climatic conditions, particularly in unfavorable areas, research has to become increasingly location specific.

It is true that there have been some improvements in the flow of farm credit in recent years. However, four distributional aspects of agricultural credit are important. These are: (i) not much improvement in the share of small and marginal farmers; (ii) decline in credit-deposit (CD) ratios of rural and semi-urban branches; (iii) increase in the share of indirect credit in total agricultural credit; and (iv) significant regional inequalities in credit.

The most important problem for farmers is output price fluctuations. There is a big gap between producer prices and consumer prices. For example, sometimes farmers get 50 paise per kilogram of tomatoes, while the consumers pay Rs.15 in urban areas. In order to protect farmers from national and international price volatility, a price stabilization fund is needed. There are different models for marketing collectively by the small and marginal farmers. These are: (i) self-help group model; (ii) co-operative model; (iii) small producer co-operatives; and (iv) contract farming. Diversification of land into non-agricultural purposes and non-food crops may also threaten food security. However, if yields are increased on land growing foodgrains and food crops, some land can be safely diverted into non-food crops.

#### Climate Change:

One of the emerging issues in food security is climate change and its impact on agriculture. India has reasons to be concerned about climate change. The vast majority of India's population depends on climate-sensitive sectors like agriculture, forestry, and fishery for their livelihood. The adverse impact of climate change in the form of declining rainfall and rising temperatures, 12 and thus, increased severity of drought and flooding, is bound to threaten food security and livelihoods in the economy.

The National Action Plan on Climate Change provides a direction for changes at the national level in policy, planning, and public-private partnerships, and lays out a global vision for modifying longer time trends for sustainable development. Successful adaptation coupled with mitigation holds the key to food security and livelihoods for the 21st century and beyond in India.

To conclude, there are many policy challenges being faced by Indian agriculture. Both price and non-price factors are important. The differences between the Green Revolution period and the 'Second Green Revolution' are the following: (i) globalization challenges, volatility in prices; (ii) shrinking farm size; (iii) dry land farming challenges; and (iv) environmental stress. The six deficits in agriculture are: (i) investment, credit, and infrastructure deficit; (ii) research and extension (technology) deficit; (iii) market deficit; (iv) diversification deficit; (v) institutions deficit; and (vi) education/skill deficit. Deficiencies in agriculture and rural infrastructure are the biggest problems for agricultural development. Small farmers can respond positively only in the presence of adequate infrastructure. There is thus a need for massive increase in outlays for agricultural and rural infrastructure by simultaneously improving the delivery systems. The government is thinking of a big boost to education in the Eleventh Plan. Another such big push is needed for the agriculture sector as well.

#### ➤ Issues faced in India:—

In spite of surplus food-grains stock, it is also a reality that a vast number of people do not have enough money to feed themselves twice a day.

1. Inadequate and improper storage facilities for grains, which are often stored outside under tarps that provide little protection from humidity and pests.
2. Insufficient cold storage and cold chain transportation system is a major cause for fruits, vegetables and other perishable products to rot.
3. Poor roads and inefficient transport systems can cause massive delays. This in turn causes decay of temperature sensitive produce.
4. Limited reach of Mandis, which are currently the point of aggregation for agricultural produce. This poses problems for small farmers who don't have proper transport



- facilities at their disposal and have to travel an average of 12 km to the closest Mandi.
5. Multiple layers of middlemen between the farmer and the end consumer, driving up prices and reducing bargaining power and price transparency for the farmers. These intermediaries have led to a cost inflation of ~250% (over the cost of production).
  6. Lack of a well-developed agricultural banking sector, which forces farmers to take loans with high interest from commission agents.
  7. Lack of education and training on new techniques, technologies and agricultural products.
  8. There has been a gradual shift from cultivation of food crops to cultivation of fruits, vegetables, oil seeds, and crops which act also as industrial raw materials. This has led to the reduction in net sown area under cereals, millets and pulses.
  9. The use of more and more land for construction of factories, ware-houses and shelters has reduced the land under cultivation and now fertile land for farming, is no longer available.
  10. The productivity of land has started showing a declining trend. Fertilizers, pesticides and insecticides, which once showed dramatic results, are now being held responsible for reducing fertility of the soil

#### ➤ Recommendations

There is a need to shift from the existing expensive, inefficient and corruption ridden institutional arrangements to those that will ensure cheap delivery of requisite quality grains in a transparent manner and are self-targeting.

**Futures market and free trade:** The present system marked by input subsidies and high MSP should be phased out. To avoid wide fluctuations in prices and prevent distress selling by small farmers, futures market can be encouraged. Improved communication systems through the use of information technology may help farmers get a better deal for their produce. Crop insurance schemes can be promoted with government meeting a major part of the insurance premium to protect the farmers against natural calamities.

To start with, all restrictions on foodgrains regarding inter-State movement, stocking, exports and institutional credit and trade financing should be renounced. Free trade will help make-up the difference between production and consumption needs, reduce supply variability, increase efficiency in resource-use and permit production in regions more suited to it.

**Food-for-education programme:** To achieve cent per cent literacy, the food security need can be productively linked to increased enrolment in schools. With the phasing out of PDS, food coupons may be issued to poor people depending on their entitlement.

**Modified food-for-work scheme/ direct subsidies:** With rationalisation of input subsidies and MSP, the Central Government will be left with sufficient funds, which may be given as grants to each State depending on the number of poor.

The State government will in turn distribute the grants to the village bodies, which can decide on the list of essential infrastructure work the village needs and allow every needy villager to contribute through his labour and get paid in food coupons and cash.

**Community grain storage banks:** The FCI can be gradually dismantled and procurement decentralised through the creation of foodgrain banks in each block/ village of the district, from which people may get subsidised foodgrains against food coupons. The food coupons can be numbered serially to avoid frauds. The grain storage facilities can be created within two years under the existing rural development schemes and the initial lot of grains can come from the existing FCI stocks. If culturally acceptable, the possibility of relatively cheap coarse grains, like bajara and ragi and nutritional grains like millets and pulses meeting the nutritional needs of the people can also be explored. This will not only enlarge the food basket but also prevent such locally adapted grains from becoming extinct. The community can be authorised to manage the decentralised management will improve the delivery of entitlements, reduce handling and transport costs and eliminate corruption, thereby bringing down the issue price substantially. To enforce efficiency in grain banks



operation, people can also be given an option to obtain food grains against food coupons from the open market, if the rates in the grain banks are higher, quality is poor or services are deficient. A fund can be set up to reimburse the food retailers for the presented coupons. This competition will lead to constant improvement and lower prices. It must also be mandatory to maintain a small buffer stock at the State level, to deal with exigencies.

**Enhancing agriculture productivity:** The government, through investments in vital agriculture infrastructure, credit linkages and encouraging the use of latest techniques, motivate each district/ block to achieve local self-sufficiency in food grain production. However, instead of concentrating only on rice or wheat, the food crop with a potential in the area must be encouraged. Creation of necessary infrastructure like irrigation facilities will also simulate private investments in agriculture.

The focus on accelerated food grains production on a sustainable basis and free trade in grains would help create massive employment and reduce the incidence of poverty in rural areas. This will lead to faster economic growth and give purchasing power to the people.

A five-year transitory period may be allowed while implementing these. Thus, India can achieve food security in the real sense and in a realistic timeframe.

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