

Subject: Geography CBCS HONOURS

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DSE 4T: EFFECTS OF GLOBALIZATION ON INDIAN AGRICULTURE

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EFFECTS OF GLOBALIZATION ON INDIAN AGRICULTURE

India is considered as one of the fastest growing economies in the world. Agriculture is the mother of any economy, whether it is rich or poor. Much of its influence is on the other sectors of economy - industry and service. India is the second largest in farm output. Hence, India's economic security continues to be predicated upon the agriculture sector, and the situation is not likely to change in the near future. Even today, the share of agriculture in employment is about 49% of the population, as against around 75% at the time of independence. In the same period, the contribution of agriculture and allied sector to the Gross Domestic Product (GDP) has fallen from 61% to 17% in 2015-16. Around 51% of India's geographical area is already under cultivation as compared to 11% of the world average. However, demand for agriculture is rising rapidly with increase in population and per capita income and growing demand from industry sector. There is, thus, an urgent need to identify severity of problem confronting agriculture sector to restore its vitality and put it back on higher growth trajectory. The problems, however, are surmountable, particularly when new tools of science and technology have started offering tremendous opportunities for application in agriculture. However, the country recorded impressive achievements in agriculture during three decades since the onset of green revolution in late sixties.

Impact of Globalization on Indian Agriculture:

Globalization integrated Indian economy with global economy in 1991. In India, economic growth improved significantly in the post-reform period. It is considered as one of the fastest growing economies in the world. However, the problems of globalization have not been seriously addressed by the government policies and strategies, especially with regard to agriculture sector. The experience of the economic reforms in the last 25 years indicate while there have been improvements in economic growth ,foreign exchange, IT revolution, export growth etc, the income distribution has been unequal and only some sections of the population benefited more from higher growth and prosperity. We have problems of poverty, unemployment, inequalities in access to health, education and poor performance in agriculture sector.

Cost of Cultivation:

A study by Sen and Bhatia (2004) based on cost of cultivation data indicates in the growth of farm business income (FBI) over time. This study shows that the all India rate of growth of real (deflated by Consumer Price Index for Agricultural Laborers) FBI per hectare declined sharply from 3.21% per annum during the 1980s to only 1.02% per annum during 1990s. However, farmer is interested in farm income rather than price-cost or FBI per hectare. Estimates of FBI per cultivator using growth of cultivators and cropped area revealed that the growth rate was 1.78% per annum in the 1980s but decelerated to 0.03% per annum in the 1990s- indicating almost stagnant FBI per cultivator in the later period.

Farmers' Suicides:

In India, according to National Crime Records Bureau (NCRB) on farmer's suicides in 1997, 14000 farmers committed suicides. From 2002 onwards every year not less than 17000 farmers committed suicides. In 2006, over 17000 farmers' suicides confirms this trend In our country per every half-an-hour one farmer is committing suicide.

Issues/Causes for Indian Agricultural Crisis:

There is a need for analyzing the reasons for the crisis to know what measures could be adopted to face this challenge.

Shifting in Cropping Pattern, Increasing Landlessness and Inequality in Landholdings:

India shifted its cropping pattern from less-remunerative food grains to high-value and export-oriented cash crops. Such a change in the cropping pattern required an endorsement of economies of scale in agriculture. Declining Productivity in Agriculture and Increasing Marginalization of Peasantry: Productivity Levels are very low

Diminishing Profitability of Agriculture: The post-reform phase has generally witnessed a fall in profitability of agriculture, notwithstanding a variation across crops and regions (Sen 2004; Sen and Bhatia 2004; Surjit 2008). **Declining Growth Rates of Agriculture:** Declining growth rate of agriculture in the early reform period (1991-92 to 1996-97) from 3.66% to 1.2% per annum in 2015-16

Slowdown of Exports and Increased Uncertainty vis-à-vis Cultivation: Contrary to the promise of economic reforms, India has witnessed a major rise in imports, rather than exports, of agricultural commodities after the mid-1990s. (Tables: (5&6). This has significantly narrowed down the difference between the rupee value of farm exports and imports.

The Reduction of Input Subsidies: The provision for state subsidies on inputs is meant to enable farmers to modernize agriculture by adopting new technologies and inputs including seeds and to bear the associated risks

Low level of Income of Small Farmers: Overall, there is not much diversification and the income of an average farmer household from cultivation would hardly suffice to meet some basic day-to-day requirements.

Lack of Easy and Cheap Loan to Agriculture: Though, the money lenders are losing ground, but is still they single largest contributors of agricultural credit. Rural credit scenario has undergone a significant change and institutional agencies such as Central Cooperative Banks, State Cooperative Banks, Commercial Banks, Cooperative Credit Agencies and some Government Agencies are extending loans to farmers on easy terms, yet this is not sufficient.

Small and Fragmented Land-Holdings: The Indian agriculture is characterized by millions of marginal and small farmers. The most vulnerable groups at the bottom of the pyramid of the farming population in our country are marginal (less than one hectare of operational holding) and small (greater than one and less than two hectares of operational holding) farmers. A lot of time and labour is wasted in moving seeds, manure, implements and cattle from one piece of land to another. Irrigation becomes difficult on such small and fragmented fields. Further, a lot of fertile agricultural land is wasted in providing boundaries. Under such circumstances, the farmer cannot concentrate on improvement.

Shortage of Quality Seeds: Seed is a critical and basic input for attaining higher crop yields and sustained growth in agricultural production. Distribution of assured quality seed is as critical as the production of such seeds.

Manures, Fertilizers and Biocides: Indian soils have been used for growing crops over thousands of years without caring much for replenishing. This has led to depletion and exhaustion of soils resulting in their low productivity. The average yields of almost all the crops are among the lowest in the world.

Pests, Germs and Weeds: Pests, germs and weeds cause heavy loss to crops which amounted to about one third of the total field produce at the time of Independence. Biocides (pesticides, herbicides and weedicides) are used to save the crops and to avoid losses. The increased use of these inputs has saved a lot of crops, especially the food crops from unnecessary wastage. But indiscriminate use of biocides has resulted in wide spread environmental pollution which takes its own toll.

Inadequate Irrigation Facilities: Out of the gross sown area of 192 million ha, rain fed agriculture contributes to 60 per cent of the gross cropped area and 45 per cent of the total agricultural output. Although India is the second largest irrigated country of the world after China, only one-third of the cropped area is under irrigation. Irrigation is the most important agricultural input in a tropical monsoon country like India where rainfall is uncertain.

Competitiveness of Farmers- It is imperative to raise the agricultural competitiveness of farmers with small land holdings. Productivity improvement to increase the marketable surplus must be linked to assured and remunerative marketing opportunities.

Lack of Mechanization: In spite of the large scale mechanization of agriculture in some parts of the country, most of the agricultural operations in larger parts are carried on by human hand using simple and conventional tools and implements like wooden plough, sickle, etc. Little or no use of machines is made in ploughing, sowing, irrigating, thinning and pruning, weeding, harvesting threshing and transporting the crops. This is specially the case with small and marginal farmers. It results in huge wastage of human labour and in low yields per capita labour force.

Agricultural Marketing:

Agricultural marketing still continues to be in a bad shape in rural India. In the absence of sound marketing facilities, the farmers have to depend upon local traders and middlemen for the disposal of their farm produce which is sold at throw-away price. In most cases, these farmers are forced, under socio-economic conditions, to carry on distress sale of their produce locally only. In most of small villages, the farmers sell their produce to the money lender from whom they usually borrow money. According to an estimate 85 per cent of wheat and 75 per cent of oil seeds in Uttar Pradesh, 90 per cent of Jute in West Bengal, 70 per cent of oilseeds and 35 per cent of cotton in Punjab is sold by farmers in the village itself. Such a situation arises due to the inability of the poor farmers to wait for long after harvesting their crops.

Inadequate storage facilities:

Storage facilities in the rural areas are either totally absent or grossly inadequate. Under such conditions the farmers are compelled to sell their produce immediately after the harvest at the prevailing market prices which are bound to be low. Such distress sale deprives the farmers of their legitimate income. The Parse Committee estimated the post-harvest losses at 9.3 per cent of which nearly 6.6 per cent occurred due to poor storage conditions alone.

Inadequate transport:

One of the main handicaps with Indian agriculture is the lack of cheap and efficient means of transportation. Even at present there are lakhs of villages which are not well connected with main roads or with market centers. Most roads in the rural areas are Kutcha (bullock- cart roads) and become useless in the rainy season. Under these circumstances the farmers cannot carry their produce to the main market and are forced to sell it in the local market at low price. Linking each village by metalled road is a gigantic task and it needs huge sums of money to complete this task.

Scarcity of Capital:

Agriculture is an important industry and like all other industries it also requires capital. The role of capital input is becoming more and more important with the advancement of farm technology. Since the agriculturists' capital is locked up in his lands and stocks, he is obliged to borrow money for stimulating the tempo of agricultural production. The main suppliers of money to the

farmer are the money-lenders, traders and commission agents who charge high rate of interest and purchase the agricultural produce at very low price.

Reduction in Food Crops:

China produces more than 600 million tonnes of food grain, compared to India's 251 million tonnes in FY2015, from a cropped area that is less than India's and with a holding size that is almost half of India's 1.15 hectares. As a result, per capita availability of food grains decreased; the growth rate of population became higher than that of food grains, and India started to import food grains at a much higher price than that in the domestic market.

Unemployment in the Agricultural Sector: Unemployment in the agricultural sector increased as agriculture was not considered as a profitable venture due to the fall in the price of farm products. As a result, the number of people who are employed in the primary sector and the area under cultivation decreased, which in turn caused a decline in rural employment.

Farmers' Suicides: When agriculture was not yielding remunerative income, the life of the farmers became very desperate. Many of them committed suicide as a last resort. In the last few years, a large number of farmers have committed suicide. Cases of suicides have been reported from states such as Andhra Pradesh, Karnataka, Maharashtra, Kerala, Punjab, Rajasthan, Orissa and Madhya Pradesh.

Remedial Measures:

Pro-active and Prompt Responses:

Agriculture in India is largely rain fed and therefore, heavily relies on nature. Factors like excessive monsoon or deficient rainfall, extremely hot and dry weather. Droughts have direct effect on the performance of the agriculture. While these risks can never be entirely eliminated, they can be reasonably addressed through pro-active and prompt responses.

Encouragement to Rural People:

Rural people must be encouraged to stay back in their rural areas and to start their enterprises to get the same degree of satisfaction, an urbanite gets while leading his day to day life. The dichotomy between urban and rural societies must diminish leading to total elimination. Modern industries could be split into various components which require simple industrial skills can be manufactured in rural areas by giving them training in addition to their own traditional skills. Planning for rural, urban growth should be such that dichotomy vanishes automatically.

Consolidation of Holdings:

The only answer to this ticklish problem is the consolidation of holdings which means the reallocation of holdings which are fragmented, the creation of farms which comprise only one or

a few parcels in place of multitude of patches formerly in the possession of each peasant. But unfortunately, this plan has not succeeded much.

Use of Manures and Fertilizers:

This is a serious problem which can be solved by using more manures and fertilizers. It has been estimated that about 70 per cent of growth in agricultural production can be attributed to increased fertilizer application. Thus increase in the consumption of fertilizers is a barometer of agricultural prosperity.

Extending Irrigation Facilities: Irrigation facilities should be extended by linking all the rivers in India, while doing so, care must be taken to safeguard against ill effects of over irrigation especially in areas irrigated by canals. Large tracts in Punjab and Haryana have been rendered useless (areas affected by salinity, alkalinity and water-logging), due to faulty irrigation. In the Indira Gandhi Canal command area also intensive irrigation has led to sharp rise in sub-soil water level, leading to water-logging, soil salinity and alkalinity.

Mechanization of Agriculture:

There is urgent need to mechanize the agricultural operations so that wastage of labour force is avoided and farming is made convenient and efficient. Agricultural implements and machinery are a crucial input for efficient and timely agricultural operations, facilitating multiple cropping and thereby increasing production. Some progress has been made for mechanizing agriculture in India after Independence. Need for mechanization was specially felt with the advent of Green Revolution in 1960s.

Measures for Soil Erosion:

Large tracts of fertile land suffer from soil erosion by wind and water. This area must be properly treated and restored to its original fertility.

Need for Regulated Markets:

In order to save the farmer from the clutches of the money lenders and the middle men, the government has come out with regulated markets. These markets generally introduce a system of competitive buying, help in eradicating malpractices, ensure the use of standardized weights and measures and evolve suitable machinery for settlement of disputes thereby ensuring that the producers are not subjected to exploitation and receive remunerative prices.

Scientific Storage Facilities:

Scientific storage facilities are very essential to avoid losses and to benefit the farmers and the consumers alike. **In Telangana, farmers are encouraged to use solar cold storage facilities.**

Approach Roads:

There is a need for well-connected approach roads for farmers to sell their produce in the regulated markets.

Credit facilities:

Credit facilities should be easily made available to the farmers, especially since the input cost of agriculture has gone up. The government should seriously think of providing loans to farmers at low rate of interest by banks and other financial institutions. In fact, the M.S. Swaminathan Commission for Agriculture has recommended a low rate of four per cent interest for the farmers.

Increase in investment & Expenditure in Agriculture Sector by Government:

The government should increase its investment and expenditure in the agriculture sector. One reason for the agricultural stagnation is low government expenditure. Investment in agriculture and its allied sectors, including irrigation, transport, communication and farm research, should be significantly increased, and the government should aim at integrated development of the rural areas. Effective implementation of National Rural Employment Guarantee Scheme can also become a means of revival of the rural economy as agriculture is already overcrowded.

Support Price:

According to the Swaminathan Commission, unless agriculture is made a profitable enterprise, its present crisis cannot be solved. The Commission has suggested 50 per cent more of the total production cost as supportive price for food grains. So, there is a need for periodic revision of the procurement prices for farm produce. This will help the farmers to meet the increasing expenses for farm inputs and ensure at least remunerative income.

Revise SEZ Policy:

Governments are more interested in pleasing the corporate sector (e.g., SEZ policy) rather than helping agriculture sector which bears 50% of the burden, while the European Union is considering the release of additional land for agriculture-set aside under 1992 regulation to control excess capacity. The government should not acquire fertile agricultural land for SEZs and revise the policy on Special Economic Zones as it goes against the interest of farmers and the agricultural sector.

Implementation of Land Reforms: According to Amartya Sen, the Nobel Laureate, though the economic growth rate of India is impressive, India cannot play a significant role in the global economic scenario unless it completes land reforms. Steps should be taken to implement land reforms which were not implemented in most States.

Lack of crop insurance mechanism to Farmers – Despite having approximately 60 per cent of the gross cropped area rain fed, agricultural insurance mechanism in India is very weak. In India, the net sown area is around 140 million hectare and the gross cropped area hovers between 190-200 million hectare, but insured area is only 15 million hectare.

Revival of agriculture: (a) To achieve 4% growth and equity in agriculture, the supply and demand side constraints have to be removed. The support systems have to be tuned to improve productivity and incomes of farmers with emphasis on small and marginal farmers and dry land areas. (b) Agriculture policies have to keep in mind increasing risk and uncertainty due to liberalization, gender sensitive as the share of women is increasing and on cost of production. (c) Infrastructure including irrigation, natural resource management, research and extension, inputs including credit, diversification by maintaining food security, marketing, regional planning have to be focused for higher agriculture growth.

Subsidies: Developed countries, while they offer subsidies to their farmers and reluctant to cut them. At the same, they argue to cut subsidies to farmers in developing countries like us. Hence, India should stress on the implementation of Uruguay round agreements to reduce subsidies and other distortions caused by policies pursued by developed countries.

Demand Side Issues: (a) Adequate insurance is needed for those carrying out diversification with in agriculture or from agriculture to non- agriculture. (b) Social security should be provided for the unorganized workers also.

Rural Non-Farm Sector: The ultimate solution for reduction on land is to improve rural non-farm sector and planned urbanization. Chinese experience shows that Globalization with better initial conditions has increased employment and incomes for workers which in turn was due to rural diversification.

Political Economy of Agriculture: There is a feeling that governments (Central and State) promise a lot for agriculture without much allocations and implementation. Hence, the governments should come up to the expectations of farmers.

Direct Cash Transfer- We should reorient food and fertilizer subsidies by moving to cash transfers to identified beneficiaries. This will help in reducing leakages and will also help in curbing corruption and will make process more transparent.

Open Markets - Farmers must have the freedom to sell their produce to anyone, anywhere. Taxes, levies and commissions on agricultural commodities across states need to be rationalized to less than 4 per cent, currently it is ranging from less than 2 per cent in Gujarat to about 14.5 per cent in Punjab.

Special Agriculture Zones (SAZs) - SAZs should be designed to conserve prime farm land so that we do not revert to a ship-to-mouth existence.

Mandatory Rainwater Harvesting in all farms for crop-life-saving irrigation if there is a prolonged dry spell. Wherever farms are small, community rainwater harvesting can be promoted. Equity in water-sharing is essential for cooperation in water-saving. Some method of community management, like a **pani panchayat** (Pani Panchayat is a voluntary activity of a

group of farmers engaged in the collective management (harvesting and distribution) of surface water and groundwater (wells and percolation tanks), will be useful.

Seed Banks: In case there is a prolonged dry spell between rains, seedlings may wither. Therefore, **seed banks with alternative short-duration crops** should be built up and the choice of alternative crops could be according to both home needs and market demand.

To Tackle the Problem of Farmer's Suicides:

- Provide affordable health insurance and revitalize primary healthcare centres. The National Rural Health Mission should be extended to suicide hotspot locations on priority basis.
- Set up State level Farmers' Commission with representation of farmers for ensuring dynamic government response to farmers' problems.
- Restructure microfinance policies to serve as Livelihood Finance, i.e. credit coupled with support services in the areas of technology, management and markets.
- Set up Village Knowledge Centres (VKCs) or Gyan Chaupals in the farmers' distress hotspots. These can provide dynamic and demand driven information on all aspects of agricultural and non-farm livelihoods and also serve as guidance centres.
- Public awareness campaigns to make people identify early signs of suicidal behavior.

Government Policies:

- Last year budget 2016–17, planned several steps for the sustainable development of agriculture. It proposed a slew of measures to improve agriculture and increase farmers' welfare such as 2.85 million hectares to be brought under irrigation, Rs 287,000 crore grant in aid to be given to Gram Panchayats and municipalities and 100 per cent village electrification targeted by May 01, 2018.
- The Government of India recognizes the importance of micro irrigation, watershed development and Pradhan Mantri Krishi Sinchai Yojana'; thus, it allocated a sum of Rs 5,300 crore for it. It urged the states to focus on this key sector.
- The state governments are compelled to allocate adequate funds to develop the agriculture sector, take measures to achieve the targeted agricultural growth rate and address the problems of farmers.
- To improve soil fertility on a sustainable basis through the soil health card scheme.
- Other steps include improved access to irrigation through '**Pradhanmantri Gram Sinchai Yojana**', enhanced water efficiency through '**Per Drop More Crop**'.
- Continued support to MGNREGA
- The creation of a unified national agriculture market to boost the incomes of farmers.
- To raise the existing norms of **compensation by a 50 per cent**. Existing compensation amount is Rs 9,000 per hectare for irrigated crop, Rs 4,500 per ha for un-irrigated crop and Rs 12,000 per ha for perennial crop.

Future of Agriculture in India:

The prospects for Indian agriculture are good. The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. Factors such as reduced transaction costs and time, improved port gate management and better fiscal incentives would contribute to the sector's growth. And also, the growing use of genetically modified crops will likely improve the yield for Indian farmers. Demand will grow fast and if we create the correct incentive and organization systems the Indian farmer will not fail us as he has responded well in the past when our policies were supportive.

Conclusion:

The next of stage of reforms in agriculture has to focus on developing institutions for better delivery systems. **Agriculture can be ignored at our own peril.** If we want inclusive growth, both Central and State Governments have to focus on agriculture sector. Let us hope that Government has the political will to implement the policies effectively and help the farmers without testing their patience.

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