INDIAN AGRICULTURE UNDER TRADE LIBERALIZATION

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The low productivity and slower growth rate of agriculture have given rise to a higher incidence of poverty, malnutrition, illiteracy, food insecurity and deprivation in the rural areas than in the urban areas. The purpose of this paper is to analyze whether liberalization of trade in agriculture, although it is still on the partial scale, has benefited the Indian farmers. In process we may examine the impact of trade liberalization on the growth rate of Indian agriculture, public investment, prices of farm inputs and farm output.

Keywords : Agriculture trade, Liberalisation.

INTRODUCTION

Despite a relative decline in the importance of agriculture over the plan period, it continues to be the main sector of the Indian economy, employing 52% of country's workforce but disproportionately contributing a low share of 18.5% to the country's GDP[1]. This in itself reflects the low productivity of the workers employed in agriculture. Since 1950, the real per capita GDP per worker in the agricultural sector has increased by 75%, whereas in the country as a whole it has increased four-fold[2]. The rural and urban divide in the earning per worker has gone up from 1:2 in 1950 to 1:4 at present.

It may be noted that the majority of Indian farmers have their holdings below 1 hectare and the proportion of these holdings has increased from 56% in 1982 to 70% in 2003. The increasing marginalization of holdings has resulted from an increase in sub-division and fragmentation of holdings with the growth of population over time. With most of the holdings being so small, agriculture is carried as a means of livelihood by most of the farmers. The proportion of landless families to total rural families increased from 35% in 1987 to 45% in 1999 and further to 55% in 2005. Their economic condition depends on trends of employment and wage growth in the agricultural sector.

Liberalization and Agricultural Trade

The policy of liberalization and globalization adopted by India since 1991 has remained largely confined to manufacturing and other non-agricultural sectors of India which have reaped rich dividends from the new policy in terms of the rise in factor productivity, production growth and competitiveness of products as reflected in the annual growth rate of exports - above 20% for most of the years, they have also enjoyed the latest technology and capital inflows[3]. It was not until the Uruguay round of GATT (1986-94) that agriculture was included in the agenda for trade liberalization in the form of 'Agreement on Agriculture', briefly known as 'AOA'. Since then, some agreements have been made to liberalize agricultural trade, although full scale agreements are yet to come until the conclusion of the Doha Ministerial round of the WTO negotiation.

The benefits from the liberalization of agricultural trade has been summed up in the Draft Plan of Action for UN Food Summit, 2008[*]. It is supposed "to increase production of food, increase

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efficiency of food production, improve economic situation of farmers and improve pattern of consumption[4]".

IMPACT ON AGRICULTURAL GROWTH

Indian agriculture recorded a robust growth rate of 4.5% per annum in the Eighth Plan (1992-97) decreased to almost half, 2.2% in the Ninth Plan (1997-02), and stagnated at 2.3% in the 10th Plan (2002-07)[5].

A higher agricultural growth during the period 1984-96 was achieved by the adoption of HYV technology supported by higher public investment in agriculture and rural infrastructure, such as irrigation, rural roads, marketing, extension services etc. A higher growth rate of productivity of two major crops namely rice and wheat led to a higher growth rate of food grains production. But since then the growth rate of their yield has declined. (Table-1)

Table-1, Growth Rate in Area (A), Production (P) and Yield (Y) during 1989-90 to 2006-07 in %

	A	P	Y
Rice	0.14	1.17	1.02
Wheat	0.73	1.90	1.16
Pulses	-0.35	-0.03	0.32
Food grains	-0.26	1.18	1.43

Source : GOI, Economic Survey 2007-08

In a more recent period, 2002-08 the yield of rice has recorded a negative growth rate, while that of wheat, a low positive growth. The yield of most food grains' crops has almost plateued or recorded a low growth rate[6].

The growth rate of food grains production during the period 1950-07 had been 2.5% which was higher than the growth rate of population at 2.1% which has been lower than growth rate of population contradictory sentence at 1.9%[7]. As a result, the per capita availability of food grains has tended to decline and providing food security to the poor has become a challenging problem. (Table 2)

Table 2, Per Capita Availability of Food Grains in Gms.

Year	Cereals	Pulses	Food grains
1990-91	468	42	510
2005-06	412	33	445

Source : GOI, Economic Survey, 2007-08 Table 117

Impact on Farm Inputs

Since the policy of liberalization, the cost of farm inputs has increased due to the cut in government subsidies and concessional farm loans.

Cut in Government Subsidies

After adopting the policy of economic reforms the government has reduced subsidies on fertilizers and pesticides. The power tariff has also been revised upward in several states. As a result, there has been a rise in the prices of these inputs.

Withering Away of Public Agencies Supplying Farm Inputs

After the economic reforms the public sector agencies (govt. depots) supplying farm inputs like; seeds, fertilizer and pesticides have withered away in several states. These agencies supplied quality seeds and other inputs at controlled prices. These inputs are now supplied by the private sector agencies that charge very high prices for these inputs. Sometimes, the quality of inputs supplied by them is poor. After the economic reforms, the states have reduced their role as suppliers of quality seeds and other inputs at controlled prices. Multinational companies like Monsonto, Cargill and Syn Genta are supplying seeds at very high prices.

A rise in the prices of farm inputs has caused a deceleration in the growth of consumption of farm inputs. The annual growth rate of consumption of NPK declined from 8.2% during 1980-91 to 2.5% during 1990-97 and further to 2.3% in 1996-06. The growth rate of electricity consumed in agriculture showed a deceleration from 14.1% to 9.4% and -0.5% in the respective periods[8].

Lack of Easy and Low Cost Loan to Farmers

The government has reduced the concessional loan facility to the farmers. The small and medium farmers can not get credit easily from institutional sources and fall prey to private moneylenders who charge exorbitant rates of interest. According to NSS 59th round data, only 27% of the total farm households have access to formal institutional credit (One-third of this group also borrows from non-formal sources). This implies that 73% of farmers take loans from private moneylenders or are financially excluded[9]. Those not taking loans from formal sources are mostly marginal farmers, SC & ST families.

Decline in Public Investment in Agriculture

After economic reforms, the public expenditure and investment in agriculture have drastically declined due to the policy of minimum intervention by the government, enunciated by the policy of globalization. The government expenditure in rural development, including agriculture, irrigation, flood control, village industry, energy and transport, declined from an average of 14.5 in 1986-1990 to 6% in 1995-2006. The table above shows that the annual growth rate of both public and private investment in agriculture has declined during 1996-2006 over the period 1980-91 and 1990-2006. (Table 3).

Table 3 , Growth Rate of Capital Formation in Agriculture in %

	1980-91	1990-97	1996-06
Public Sector Net Fixed Capital Stock	3.9	1.9	1.4
Pvt. Sector Net Fixed Capital Stock	0.6	2.2	1.2
Total Net Fixed Capital Stock	2.0	2.1	1.3

Private investment in agriculture was discouraged in the post-reform period due to reduced profitability of investment. The slowdown in growth of investment in agriculture has led to a fall in the growth rate of irrigated area, from 2.5% during 1980-97 to 0.5% during 1996-2006[10].

Impact on Farm Prices

Under the WTO system, the government has allowed a liberal import of farm products. The quantitative restrictions on imports have been lifted since April 1, 2001 and the import duty has been reduced. The liberal import of farm products has depressed the farm prices, particularly of cash crops. The farmers of regions growing cash crops such as cotton, pepper and oil have been more adversely affected. The production of these crops has become either unprofitable or less profitable.

After globalization, the Govt. of India reduced the import duty on tea & coffee from Sri Lanka & Malaysia. As a result their prices in the domestic market reduced drastically. Consequently the cultivation of such products became unprofitable and thus their production was reduced.

Globalization has exposed the farmers to the fluctuation of prices in the international market. For example, because of global slowdown, prices of imported RBO palmolein at present is 40% lower than in Nov. 2007. The prices of cotton and coffee have declined in the international market, affecting their exports and depressing domestic prices and production.

With the cost of production rising and farm prices falling or not rising proportionately, agriculture is becoming a loss making proposition. Unable to cover the cost of production and repay the loan to private moneylenders, farmers in large numbers have committed suicide in the post eco-reform period in states like; Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh and Chattisgarh which have large areas under cash crops. Sri Sharad Pawar, Union Agriculture Minister, revealed in the Parliament that over 1 lakh farmers committed suicide in 2004. The National Crime Records Bureau States that 17,060 farmers in 2006 and 16,600 farmers in 2007 committed suicide.

IPRS Controlling the Seed Market

Indian agriculture has also been affected by Intellectual Property Right under the WTO regime. Agreements on IPRS also covers living organisms (animals, plants, micro-organism, genes, etc.). Local seeds, geographical indications and traditional knowledge are, however, protected under IPRS.

The farmers can not use any part of their harvest from /patented seeds for future cultivation. They will be forced to buy the seeds every year. The farmers will be buying seeds not of their choice but those supplied by seed companies weeding control on the seed market as to which varieties are to be cultivated and at what price. This would also lead to a loss of biodiversity.

To prevent the farmers from using the seeds from the past harvest, the seed companies are developing 'terminating' seeds. The leading biotechnology companies have drawn up an inventory of plants used in agriculture all over the world. The plants and micro-organisms are genetically modified, patented and marketed.

Other Effects of Trade Liberalization

Indian farmers have been affected in other ways as well. The government has passed SEZ laws allowing companies to acquire land from the farmers for the creation of SEZ. As a result of this policy, farmers have lost their fertile land. There has been great resistance and revolt by farmers against land acquisition for SEZ in Singur in West Bengal. It is estimated that because of the government SEZ policy, Indian farmers have lost some 5 million hectares of land.

Contract Farming and Farmer's Exploitation

After globalization, the MNCs have been allowed to enter into contract farming which has subjected farmers to a loss of freedom and economic exploitation. The farmers have been asked to grow crops decided by the MNCs and sell the produce at pre-determined prices. It has been observed that prices offered to the farmers have been lower than the market prices. For example, the farmers in Punjab who were contracted by Pepsi to grow tomatoes received only Rs. 0.75 per Kg, whereas the market price was Rs. 2.00 per Kg. Further, Cargill and Continental bought wheat in Punjab at a price of $ 60 to $ 100 per tonne while they sold it in the International market at a price of $ 230-240 per tonne.

WTO's Ongoing Negotiation on Agricultural and NAMA

WTO's ongoing trade negotiation known as the Doha Round of Negotiation aims at increasing market access for agricultural and non-agricultural goods. Several ministerial-meetings have taken place but due to difference between the interests of developed and developing countries, the stalemate continues. The developed countries want market access for non-agricultural products through reduction in tariff. But before agreeing to it, developing countries, a group of 20 & further 33 nations led by India, China, Mexico etc., want the developed countries to provide market access for their farm products by reducing subsidies (which they are giving heavily) to their agriculture and also the right to defend the food security and livelihood of their farmers through special products. These are products which should not be subjected to agricultural tariffs cuts or (at most have minimal cuts) with special safe-guard mechanism. The developing countries can raise duties above the bound rates if so needed in the event of a fall in the price (or rise in the volume) of an import that could adversely affect food security, farmers' livelihoods or rural development[11]. As agriculture is a subsistence industry, the livelihood of the majority of farmers will be at stake unless India and developing countries protect their farmers' interest. The cheap imports of farm products would bring peril to the Indian farmers and lead to the closure of agricultural activities.

FUTURE STRATEGIES

Certain Measures need to be taken by the country to make Indian farm products globally competitive. What is most needed is to raise the crop yield which is very low compared to the international standard. (Table 4)

Table 4, Yield Per hectare (2003) in Kgs

Crop	China	Japan	Egypt	USA	India
Paddy	6074	5850	9431	7448	3011
Wheat	3907	-	6155	2974	2651
Maize	4854	-	7711	8924	2114
Groundnut	2624	2308	-	3540	938
Sugarcane	69558	-	90909	77515	62859

Source : FAO Yearbook, 2005

For raising crop yield, public investment in agriculture needs to be stepped up. The areas where investment needs to be increased are; irrigation, water management, soil conservation, market, cold storage chain, storage, research etc.

The National Commission on Farmers indicates that there exists a big gap between actual yield and potential yield in the demonstration farms. By using appropriate quantity of inputs and making their efficient use, productivity level can be greatly increased.

There exists a big regional disparity in crop yields in India, which must be bridged by extending HYV technology and farm investment. Over the last decade, agriculture growth has been low (less than 1%) and yields are low in states with greater proportion of rain fed areas[12]. The yield can be raised in these states by rain water harvesting technology and use of drought resistant seeds.

The yield raising potentiality of the current HYV technology has almost exhausted. Hence, research and development efforts have to be made for the discovery of new HYV seeds and appropriate technology for water logging, rain fed, drought prone and other agro-climatic regions to bring the second green revolution.

India has a rich potential for the export of horticulture products in processed form as the country is the second largest producer of horticultural products in the world. This potentiality needs to be fully utilized. India should further utilize the potential of export of flowers, herbal products, sea food etc.

NOTES :

1. GOI (2008), Economic Survey, 2007-08, Chapter 7
2. GOI, Planning Commission, Eleventh Five Year Plan
3. Goldman Sachs Research Paper no. 152, Jan 2007 says "In India Labor is nearly 4 times more productive in industry and 6 times more productive in services than in agriculture, where there is a surplus of labor."
4. Goldman Sachs, Global Economics Paper No. 152, GS Global Economic Website
5. The Draft Plan of Action for the UN Food Summit, Rome, November, 2008, Source: Chandrashekhar, 'Business Line, 7 May 2008'
6. Central Statistical Organization, Quoted from Eleventh Five Year Plan 2007-12
7. GOI (2008), Economic Survey, 2007-08, P.181
8. GOI (2008), Economic Survey, 2007-08, P.160
9. S. Mahendra Dev (2008), 'Agriculture: Absence of a Big Push', EPW, April 12, 2008, P.33
10. GOI, Economic Survey, 2007-08, P.160
11. Martin Khor (2008), "Imbalances Remain in WTO Text of 6 Dec. 2008", Economic & Political Weekly Dec.27, 2008.
12. S. Mahendra Deo (2008), "Agriculture: Absence of a Big Push", Economic & Pol. Weekly, April 12, 2008.