

GROWTH OF THE AGRICULTURAL SECTOR OF INDIA UNDER THE GLOBALISATION ERA

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Abstract

Agriculture sector provides employment to large number of people, raw materials to industrial units and food for survival to all. The introduction of scientific farm technology during mid-sixties has increased the agricultural production and the country turned out from a position of deficit in food grain production to surplus one. Globalization of the economy implies universalization of the process of production and trade. Globalization demands the formation of more open competitive society. It also means shedding primarily domestic orientation and adopting a more global out look. Globalization of agricultural sector opens the free market forces through free exports and imports of agricultural commodities. The main feature of World Trade Organisation (WTO)- Agreement on Agriculture (AoA) is opening up of world market for agricultural products. AoA contains provisions in the broad areas of trade and agricultural policies, market access, export subsidies and domestic support. As a matter of fact, WTO rules permit quantitative restriction to be retained in case of balance of payments difficulties. Out balance of trade is not showing any surplus for the post several years since our imports exceed exports. Under this situation, using the provisions of WTO rules, India can very well use quantitative restrictions also in cases where they are required. Moreover, the WTO agreement requires a reduction in Aggregate Measure of Support and export subsidies only and support under all other categories are exempted.

Key Words: *International Economics, Agriculture Output, Agriculture Trade, Total trade, Total Exports, Total Imports, World Trade Organization, Globalization, Agreement on Agriculture (AoA), and Gross National Product. JEL classification code - F0, F1, F2, & F4.*

Introduction

Agriculture is the backbone of Indian economy as major chunk of population of the country is engaged and dependent on agriculture. It provides employment to large number of people, raw materials to industrial units and food for survival to all. The introduction of scientific farm technology during mid-sixties has increased the agricultural production and the country turned out from a position of deficit in food grain production to surplus one.

The food grain production increased from about 74 million tonnes in 1966-67 to about 130 million tonnes in 1980-81. It further increased to 176 million tonnes in 1990-91 and then to 212 million tonnes in 2003-04. India is the second largest producer of wheat and rice in the world. It's share in case of rice and wheat is about 22 per cent and 11 per cent of the world rice and wheat production, respectively¹.

Globalization of the economy implies universalization of the process of production and trade. Globalization demands the formation of more open competitive society. It also means shedding primarily domestic orientation and adopting a more global outlook. Globalization of agricultural sector opens the free market forces through free exports and imports of agricultural commodities. Globalization of Indian agriculture on the one hand, will provide it with opportunities to share the international market and on the other hand, will expose it to competition from foreign supplies in the domestic production to adopt more efficient techniques of production².

The main feature of World Trade Organisation (WTO)- Agreement on Agriculture (AoA) is opening up of world market for agricultural products. This agreement provides for abolishing non-tariff barriers and restrictions, reduction in import duty, significant reduction in subsidies, price support and other measures of protection of domestic agriculture and rationalization of export subsidies and assistance. AoA contains provisions in the broad areas of trade and agricultural policies, market access, export subsidies and domestic support.

Objectives of the Study

1. To analyse the growth of agriculture sector of India
2. To study the extent of over all globalization in the agricultural sector of India.
3. To give measures from the analysis of data

Growth of Agricultural Output in India

The data on the value of agricultural output expressed in 1993-94 prices over the period from 1984-85 to 2009-10 are given in Table 1. For these periods, the index number and the annual growth rates of agricultural output have been worked out and they are also give in Table 1. The value of agricultural output in India was Rs.130298 crores in 1984-85, It increased with fluctuations and reached Rs.154439 crores in 1991-92 and touched the highest value of Rs.175037 crores in 1994-95. The agricultural output increased by 1.34 times in this period. The average value of output is Rs.148666 crores per year. The linear growth rate comes about 3.43 per cent. In 1995-96, the value of agricultural output was

¹M.S.Toor, Sukhpal Singh and Inderpreet Kaur (2006), "Changing Scenario of Indian Agriculture in the Wake of Globalization", *Southern Economist*, Vol.42, May, pp.103-105.

²Dr.N.Jeganathan (2004), "Impact of Globalization on Agriculture Sector in India", *Indian Economic Panorama*, Vol.14, No.1, April, p.28.

Rs.169651 crores. With fluctuations it touched the highest value of Rs.365780 crores in 2009-10. During 1995-96 to 2009-10, agricultural output increased by 1.15 times. The average value of output of this period is Rs.181846 crores per year. The linear growth rate works out to 1.78 per cent.

Table 1 Growth of Agricultural Sector in India

| Year | Output (Rs. Crore) | Index Number | Annual Growth Rate |
|----------------------------|--------------------|---------------------|--------------------|
| 1984-85 | 130298 | 100.00 | -- |
| 1985-86 | 131451 | 100.88 | 0.88 |
| 1986-87 | 126668 | 97.21 | -3.63 |
| 1987-88 | 125574 | 96.37 | -0.86 |
| 1988-89 | 152084 | 116.72 | 21.11 |
| 1989-90 | 153218 | 117.59 | 0.74 |
| 1990-91 | 158849 | 121.91 | 3.67 |
| 1991-92 | 154439 | 118.52 | -2.78 |
| 1992-93 | 161256 | 123.76 | 4.42 |
| 1993-94 | 166454 | 127.74 | 3.21 |
| 1994-95 | 175037 | 134.33 | 5.15 |
| Average = 148666.18 | | L.G.R. 3.43% | |
| 1995-96 | 169651 | 100.00 | -- |
| 1996-97 | 184378 | 108.68 | 8.68 |
| 1997-98 | 176789 | 104.20 | -4.12 |
| 1998-99 | 184378 | 108.68 | 4.29 |
| 1999-2000 | 187832 | 110.71 | 1.86 |
| 2000-01 | 176285 | 103.91 | -6.14 |
| 2001-02 | 189901 | 111.93 | 7.71 |
| 2002-03 | 162411 | 95.73 | -14.47 |
| 2003-04 | 190312 | 112.17 | 17.17 |
| 2004-05 | 196520 | 115.83 | 3.26 |
| 2005-06 | 201234 | 117.33 | 3.76 |
| 2006-07 | 243245 | 121.33 | 4.04 |
| 2007-08 | 276899 | 125.45 | 4.44 |
| 2008-09 | 334215 | 127.34 | 4.78 |
| 2009-10 | 365780 | 131.33 | 5.21 |
| Average = 181845.7 | | L.G.R. 1.78% | |

Source: Economic Survey 2009-10, GOI.

The average value of agricultural output in constant prices has increased under the WTO regime however, the linear growth rate has come down to 1.78 per cent from 3.43 per cent.

Extent of Over-all Globalization

The growth of agricultural output (expressed in constant prices), the extent of overall globalization, extent of globalization in the agricultural sector and the share of agricultural sector in the overall globalization have been analyzed in this section. To study the extent of overall globalization, globalization in the agricultural sector, and the contribution of agricultural sector in the globalization process, macro economic data on GNP, total exports, total imports, imports and exports of agricultural commodities have

been used. To compare the present position and position before the implementation of AoA of WTO, time series data for a period 25 years from 1985-86 to 2009-10 have been used. This period is divided into two sub-periods consisting of first ten years prior to the implementation of AoA of WTO, from 1985-86 to 1994-95 and the second fifteen years period, after the implementation of AoA of WTO from 1995-96 to 2009-10.

GNP (in current prices) increased by 2.67 times and trade increased by 3.83 times during 1995-96 to 2009-10. In the earlier decade, that is during 1985-86 to 1994-95, GNP in current prices increased by 3.64 times and trade increased by 5.64 times. Visibly, GNP and trade have registered a less growth in the period under WTO regime.

GNP in current prices, value of trade in crores of Rupees, Trade-GNP ratio, Agricultural Trade-GNP ratio and the share of the agricultural sector in the extent of globalization are given in Table 2.

Table 2 Extent of Over-All Globalization

| Year | Tot. Trade Rs. crores | GNP Rs. crores | Trade-GNP Ratio | Share of Agriculture |
|-----------|--------------------------|-------------------|-----------------|----------------------|
| 1985-86 | 30553 | 248118 | 12.31 | 1.43 |
| 1986-87 | 32540 | 276453 | 11.77 | 1.34 |
| 1987-88 | 37918 | 313374 | 12.09 | 1.53 |
| 1988-89 | 48467 | 373995 | 12.95 | 1.44 |
| 1989-90 | 62986 | 432289 | 14.57 | 1.31 |
| 1990-91 | 75751 | 503409 | 15.04 | 1.39 |
| 1991-92 | 91892 | 579009 | 15.87 | 1.48 |
| 1992-93 | 117063 | 661576 | 17.69 | 1.59 |
| 1993-94 | 142852 | 769265 | 18.56 | 1.77 |
| 1994-95 | 172645 | 903975 | 19.09 | 1.86 |
| 1995-96 | 229031 | 1059787 | 21.61 | 2.22 |
| 1996-97 | 257737 | 1230465 | 20.94 | 2.33 |
| 1997-98 | 284276 | 1376943 | 20.64 | 2.18 |
| 1998-99 | 318084 | 1583159 | 20.09 | 2.27 |
| 1999-2000 | 374797 | 1746407 | 21.46 | 1.99 |
| 2000-01 | 434444 | 1902682 | 22.83 | 1.78 |
| 2001-02 | 454218 | 2080119 | 21.83 | 1.82 |
| 2002-03 | 552243 | 2248614 | 24.56 | 1.96 |
| 2003-04 | 652475 | 2531168 | 25.77 | 1.92 |
| 2004-05 | 876404 | 2833558 | 30.92 | 1.83 |
| 2005-06 | 894506 | 3324567 | 31.34 | 2.01 |
| 2006-07 | 921345 | 3765421 | 33.45 | 2.35 |
| 2007-08 | 967832 | 3978650 | 36.88 | 2.56 |
| 2008-09 | 996745 | 4123452 | 37.23 | 2.74 |
| 2009-10 | 1024521 | 4456783 | 37.51 | 3.23 |

Source: Economic Survey (2009-10), Government of India, RBI (2010), Hand Book of Statistics on Indian Economy.

In the decade 1985-86 to 1994-95 Trade-GNP ratio was fluctuating around 12 per cent till 1987-88 and then started increasing from 12 to 19 per cent. Indeed, the highest Trade-GNP ratio recorded in this decade was 19.09 only. Thus, the trade could not exceed 19 per cent of GNP in this decade.

However, from 1995-96 onwards, Trade-GNP ratio started to exceed 20 per cent. However, it was varying between a narrow range of 20 to 22 per cent till 2001-02. The ratio started registering an increase since 2002-03. It had reached 30.92 per cent in 2004-05 from 24.56 per cent in 2002-03. The highest Trade-GNP ratio registered in this decade was 31 per cent. The average ratio worked out for five year periods depict an increasing trade. For the five year period 1985-86 to 1989-90, the ratio was 12.92 per cent. The ratio increased to 17.56 per cent during the second five year period, 1990-91 to 1994-95. It further increased to 20.92 per cent during 1995-96 to 1999-2000 and then to 25.49 per cent during 2000-01 to 2009-10. Hence, the trend of the extent of overall globalization had improved constantly in the liberalized era and at present the value of trade exceeds 30 per cent of GNP. The main inference to be derived from this observation is that globalization policies show a positive response in the economy and these policies are to be made more intensive and effective in the future.

Globalization in the Agricultural Sector

An examination of the Agricultural Trade-GNP to agricultural output (agriculture) ratio for the Indian economy before and after the implementation of AoA of WTO will help to reveal the current position of the agricultural sector and the trend will indicate whether the position is improving or not.

In the decade 1985-86 to 1994-95 Agricultural Trade-GNP ratio was fluctuating around 4 per cent till 1990-91 and then started increasing from 5 per cent. The highest trade GNP ratio recorded in this decade was 7.12 per cent in 1994-95.

Table 3 Extent of globalization in agricultural sector

(in Current Prices)

| Year | Agricultural Trade | Agricultural Output | Agricultural Trade - Agricultural Output Ratio |
|---------|--------------------|---------------------|--|
| 1985-86 | 3561.61 | 76389 | 4.66 |
| 1986-87 | 3722.21 | 81268 | 4.58 |
| 1987-88 | 4799.03 | 88951 | 5.39 |
| 1988-89 | 5389.03 | 110327 | 4.88 |
| 1989-90 | 5675.47 | 117850 | 4.81 |
| 1990-91 | 7017.30 | 139822 | 5.01 |
| 1991-92 | 8572.05 | 162811 | 5.26 |
| 1992-93 | 10549.46 | 178658 | 5.90 |
| 1993-94 | 13657.25 | 204874 | 6.66 |
| 1994-95 | 16861.82 | 236608 | 7.12 |

| | | | |
|-----------|----------|--------|-------|
| 1995-96 | 23587.50 | 256698 | 9.18 |
| 1996-97 | 28672.27 | 302743 | 9.47 |
| 1997-98 | 30139.16 | 319586 | 9.43 |
| 1998-99 | 36006.73 | 370365 | 9.72 |
| 1999-2000 | 34774.27 | 384766 | 9.03 |
| 2000-01 | 33881.39 | 378712 | 8.94 |
| 2001-02 | 37887.99 | 412268 | 9.19 |
| 2002-03 | 44141.44 | 397870 | 11.09 |
| 2003-04 | 48735.83 | 470595 | 10.35 |
| 2004-05 | 52027.61 | 476953 | 10.90 |
| 2005-06 | 56141.12 | 486514 | 11.53 |
| 2006-07 | 57843.33 | 491257 | 11.77 |
| 2007-08 | 59457.65 | 481532 | 12.34 |
| 2008-09 | 62459.12 | 492150 | 12.69 |
| 2009-10 | 65412.53 | 512348 | 12.76 |

Source: Economic Survey (2009-10), Government of India, RBI (2010), Hand Book of Statistics on Indian Economy

Agriculture trade - output ratio was 4.66 per cent in the year 1985-86, had increased to 7.12 per cent in the year 1994-95. During the first ten years of the study period, the variation registered was up to 2.46 per cent.

However, from 1995-96 onwards, Agricultural Trade- Agricultural output ratio started exceeding 9 per cent. It was varying between a narrow range of 8 to 10 per cent till 2001-02. After touching 11.09 per cent in 2002-03, it has come down to 12.76 per cent in 2009-10. The average ratios worked out for five year periods depict an increasing trend. For the five year period 1985-86 to 1989-90, the ratio was 4.87 per cent. The ratio increased to 6.13 per cent during the second five year period 1990-91 to 1994-95. It further increased to 9.37 per cent during 1995-96 to 1999-2000 and then to 12.15 per cent during 2000-01 to 2009-10.

Hence, agricultural sector needs to be improved further for globalization and the progress recorded for the past ten years is marginal. Therefore, globalization policies should be geared up further in agricultural sector. Further development is required in this sector to stimulate the growth of output and trade. The extent of globalization in the agricultural sector cannot be graded as satisfactory. Agricultural sector needs to be given much more attention and coordination to increase the output and to expand the trade.

Changing Capital Formation in Agriculture and Allied Sectors

Capital is a crucial input for the proper development of any sector. During 1960-61 to 2002-03, it was not positive in the case of agriculture sector. The decline in capital formation in agriculture sector was more pronounced during 1960-61 and 1990-91. During 1960-61, the stress was laid on heavy industries and agriculture was ignored as far as

capital formation was concerned. Afterwards during 1970-71 and 1980-81, a slight upward shift was noticed in public sector investment because of foodgrain and export requirements of agricultural commodities. Since 1990-91, in the era of economic reforms, the proportion of capital formation in agricultural sector was on decline.

The share of agriculture in total capital formation declined from 8.5 per cent during 2000-01 to 6.5 per cent during 2002-03. Moreover this decline was observed more in the case of private sector investment from 9.7 per cent to 6.4 per cent during the above mentioned period. The decline in public sector investment was set in during the early eighties. The declining trend continued for most of the years after eighties. Several studies had shown that public investments have strong effect on agricultural productivity and growth in India (Chand 2001; Gulati and Bathal 2001). Therefore, public investment in agriculture sector should be encouraged to put the economy on higher growth path. India's agricultural exports consist of pulses, wheat, rice, cereals, tobacco, sugar and molasses, poultry and dairy products, fruits, vegetables and so on³. It is equally important to remember that India's exports of manufactured goods form over 75 per cent of India's total exports (Government of India, 2000).

The major reason of low export growth of agricultural products from India is the relatively high cost of agricultural production and poor quality of output. The cost of production is high and it is rising since the production of local varieties of rice and wheat has suffered a self-lack and are being increasingly replaced by HYV crops, which require the application of costly imported inputs. With rising prices of inputs, particularly imported fertilizers, frequent and larger use of such inputs, agricultural productivity has rendered many of India's farm products highly cost inefficient and their export internationally uncompetitive.

Agricultural exports from India would further suffer a set back due to the implementation of WTO norms. Lifting of quantitative restrictions on agricultural trade, and replacement of such controls by fiscal restrictions, would be inadequate to give a desired boost to agricultural exports. Besides, with the feared reduction of R & D subsidies and stringent restrictions on domestic R & D on imported agricultural inputs and seeds to produce cheaper substitutes, agricultural exports from India may become economically uncompetitive in the world markets.

There is a national urgency to promote research in agriculture, so as to produce cost effective methods of cultivation including cheaper agricultural inputs and seeds. That alone will enable us to produce agricultural crops at globally competitive prices and improve our comparative advantage in international markets.

The Scope for further Research

The Researchers can concentrate on following thrust areas

³Vikram Chadha (2003), WTO and the Imperative of an Exalted Agriculture Research in India, Chanda G.K. (ed.) *WTO and Indian Economy*, Deep & Deep Publications, Delhi, , pp.317-318.

- Intervention of WTO on Farmers' suicide in India
- Need for Export Processing Zone in India
- Public Investment in Agriculture in India

Conclusion

Even developed countries are very keen to seek self sufficiency in food and oil, whatever be the cost. Hence, India also need not give up its objective of self sufficiency in food and it becomes the responsibility of the government to safeguard the interest of the farmers and design policies to make farming activities economically viable. Agricultural sector in India does not gain much from the reform process and globalization policies. Under this circumstances, without studying the implications and consequences of WTO agreements on Indian Agriculture, we need not go for the reduction of subsidies and the abolition of other types of restrictions on a large scale. In a number of cases, we have gone far beyond the WTO rules in reducing subsidies. As a matter of fact, WTO rules permit quantitative restriction to be retained in case of balance of payments difficulties. Out balance of trade is not showing any surplus for the post several years since our imports exceed exports. Under this situation, using the provisions of WTO rules, India can very well use quantitative restrictions also in cases where they are required. Moreover, the WTO agreement requires a reduction in Aggregate Measure of Support and export subsidies only and support under all other categories are exempted. Hence, the government should provide all possible support under permissible different categories of AoA to the agricultural sector, to promote the development of this sector.

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