CHAPTER 5

FOREIGN TRADE OF INDIAN AGRICULTURE PRODUCTS UNDER WTO REGIME

Purposes of this chapter are following:

1. General background on India’s position in world agricultural trade
2. Whether exports of Indian agricultural produce have increased post WTO period
3. Whether the signing of the WTO has opened the Indian markets to cheaper agricultural products from other countries
4. Some agenda for India for genuine protection of the domestic market and to take advantage of the external one.

This chapter analyses the performance of India’s agricultural exports and imports during post WTO period and identifies the products based on favourable/adverse and no effect on their trade as implementation of WTO agreement progressed. The chapter then identifies the main reasons for favourable/adverse effect on agricultural trade and draws lessons for future negotiations on AOA. Lastly an attempt has been made to examine the problems and prospects of India’s agricultural exports and imports since the establishment of WTO.

It is impossible for any country to be completely self-sufficient. If every country could be self-sufficient and produce all the things it needed (whether goods or services) with the same cost effectiveness and efficiency as another country, then there would be no need for trade and international markets. Since there are considerable differences between countries, it is more advantageous and beneficial for countries to enter into an exchange, with each one specializing in the production of those goods or services, in which it has a comparative
advantage and this holds good in agriculture too (Samuel). The agricultural sector has been playing an important role in international trade and in the changed market scenario under the WTO; and in the milieu of the AoA, international trade in agriculture has assumed a larger significance. (Samuel).

5.1. Foreign trade of Indian agricultural Products (in Since WTO)

Despite being an agrarian economy, where the agricultural sector provides employment to approximately 60 per cent of the population and contributes 25 per cent to the GDP of the country, India has remained a marginal player in world agricultural trade. Currently, it has a share of less than 1 per cent of the world trade in agriculture. The share of agricultural products including coffee, tea and fisheries in the total exports of India was around 10.95 per cent in the year 2005-06.

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. The establishment of the World Trade Organization (WTO) in 1994 has brought tremendous changes in the agricultural trade in India. It is also important for India’s development policy, to raise agriculture growth to contribute to increasing the country’s share in world trade. While the liberalization reforms during this period clearly mark a significant departure from the protectionist past, India has a long way to go in integrating its vast agricultural sector into world markets (Premachendra, 2005). In particular, recent efforts to reduce barriers to trade in agricultural and food products, including tariffs, quantitative restrictions and other trade barriers, through the Uruguay Round, provide opportunities for enhanced export performance for both traditional and nontraditional products.

World Trade Organization (WTO) has developed certain provisions related to agricultural sector to help in regulate trade between nations. With the
advent of WTO and its provisions in agriculture bring many opportunities and put many serious challenges as well.

However, India has a long way to go in integrating its vast agricultural sector into world markets. The chapter is structured as follows: the following section provides the general background on India’s position in world agricultural trade; the next section describes the reform process over the past decade, paying attention to issues in the implementation process and the unfinished reform agenda.

**Table 5.1.**

**Indicators of performance of agriculture trade, before, during and after WTO**

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Agricultural imports</td>
<td>1190</td>
<td>1996</td>
<td>3272</td>
<td>4087</td>
</tr>
<tr>
<td>Agricultural exports</td>
<td>3725</td>
<td>6530</td>
<td>6060</td>
<td>7141</td>
</tr>
<tr>
<td>Net trade</td>
<td>2534</td>
<td>4534</td>
<td>2788</td>
<td>3055</td>
</tr>
</tbody>
</table>

India lost market shares in a number of agricultural products in which it has comparative advantage (Athukorala 1998; Bhagwati 1993; Srinivasan 1998a). Agriculture is a key element of the overall Indian economy, accounting for 13.4 percent of total merchandise exports, Agricultural exports constitute an important segment of India’s exports. We need to have WTO provisions and more friendly developing countries, to derive benefits out of its provisions.

Agriculture, identified as one of the potential sectors for harnessing India’s competitive advantage in international trade, is geared towards achieving the
country’s overall trade target of 1 per cent or more share of world trade. While making the country self-sufficient in the last few decades, agriculture has also played a significant role in earning foreign exchange through export of traditional items like tobacco, tea, coffee, cashew spices, raw cotton, basmati rice, etc. Indian agriculture is highly export competitive and that trade would help the country to harness its vast export potential (Gulati et al. 1994). The following figure indicates the differences between total agriculture exports and total agricultural imports.

**Figure 5.1**

5.3. **Export of Agricultural Products in WTO regime: Prospects and Challenges**

Agricultural plays an important role in our international trade too. The main agricultural commodities which are exported are tea, oilcakes, fruits and vegetables, spices, tobacco, animal hair, and vegetable oils. There is a huge scope of international trade. Because it is now exporting rice and wheat to some
countries including China. There is a vast scope of exporting the cereals to various countries. By rising of exports of agricultural goods and the opening up of the domestic market rapidly. India will make its presence felt on the world trade scene. However, reforms in agriculture sector have been rather slow during the first phase of economic reforms. The government has been cautious since the debates on the impact of trade reforms on food security, small farm economy, environment, and so on, are inconclusive.

Nearly one-seventh of the country’s total export earnings accrue from the agricultural sector. Although Indian agriculture has grown at a reasonable pace, the majority of farmers are holding less than 2 hectares of land, net cropped area is stagnant assured irrigation system is highly inadequate and for a large number of farmers, the gains from application of the science and technology is yet to be realized. Therefore, it would be a challenging task to maintain the growth in agricultural production.

In terms of exports, India is not a major player in the world agricultural commodity market except in the case of a few commodities such as rice, spices, soya meal, cashew, tea and coffee. As there is persistently increasing trade deficit for the country as a whole, increasing net exports of agriculture is a significant contribution to the country’s economy. Hence, in the coming years, India has to focus on its agriculture not only to meet the domestic demand but also to increase its export to help the rest of the economy (NAAS, 2001).

India’s agri-exports can be divided into three broad categories. i.e

1. Export of raw products
2. Export of semi raw products
3. Export of processed and ready to eat products.
The export earnings from traditional export commodities like tea, coffee, spice and tobacco suffered mainly due to a sharp fall in international prices, as the quantum of exports in most cases did not drop. Global liberalization of agriculture following WTO was further seen as a great opportunity for promoting exports (Rajiv R. Thakur, 2005).

5.3.1 Major Export Markets of India

Table 5.2

Major destinations for export of Indian agricultural products (2006-07), include

<table>
<thead>
<tr>
<th>Product</th>
<th>Major Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floriculture</td>
<td>USA, Japan, UK, Netherlands &amp; Germany</td>
</tr>
<tr>
<td>Fruits &amp; Vegetable Seeds</td>
<td>Pakistan, Bangladesh, USA, Japan &amp; Netherlands</td>
</tr>
<tr>
<td>Fresh Onions</td>
<td>Bangladesh, Malaysia, Sri Lanka, UAE, Pakistan &amp; Nepal</td>
</tr>
<tr>
<td>Other Fresh Vegetables</td>
<td>UAE, Bangladesh, Pakistan, Nepal &amp; Sri Lanka</td>
</tr>
<tr>
<td>Walnuts</td>
<td>Spain, Egypt, Germany, UK &amp; Netherlands</td>
</tr>
<tr>
<td>Fresh Mangoes</td>
<td>UAE, Bangladesh, UK, Saudi Arabia &amp; Nepal</td>
</tr>
<tr>
<td>Fresh Grapes</td>
<td>Netherlands, UK, UAE, Bangladesh, Belgium</td>
</tr>
<tr>
<td>Other Fresh Fruits</td>
<td>Bangladesh, UAE, Netherlands, Nepal, Saudi Arabia</td>
</tr>
<tr>
<td>Dried &amp; Preserved Vegetables</td>
<td>Russia, France, USA, Germany &amp; Spain</td>
</tr>
<tr>
<td>Mango Pulp</td>
<td>Saudi Arabia, Netherlands, UAE, Yamen, Arab Republic &amp; Kuwait</td>
</tr>
<tr>
<td>Pickles &amp; Chutneys</td>
<td>Russia, USA, Belgium, Netherlands &amp; France</td>
</tr>
<tr>
<td>Other Processed Fruits</td>
<td>USA, Netherlands, UK, UAE &amp; Saudi Arabia</td>
</tr>
<tr>
<td>Buffalo Meat</td>
<td>Malaysia, Philippines, Saudi Arabia, Jordan &amp; Angola</td>
</tr>
<tr>
<td>Sheep / Goat Meat</td>
<td>Saudi Arabia, UAE, Qatar, Oman &amp; Kuwait</td>
</tr>
<tr>
<td>Category</td>
<td>Destinations</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Poultry Products</td>
<td>UAE, Kuwait, Oman, Germany &amp; Japan</td>
</tr>
<tr>
<td>Dairy Products</td>
<td>Bangladesh, Algeria, UAE, Yamen, Arab Republic &amp; Egypt</td>
</tr>
<tr>
<td>Animal Casings</td>
<td>Germany, Portugal, France, Spain &amp; Italy</td>
</tr>
<tr>
<td>Processed Meat</td>
<td>Seychelles, UAE, Hong Kong, Germany &amp; USA</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>Indonesia, Malaysia, Philippines, UK &amp; Singapore</td>
</tr>
<tr>
<td>Guar Gum</td>
<td>USA, China, Germany, Italy &amp; Netherlands</td>
</tr>
<tr>
<td>Jaggery &amp; Confectionery</td>
<td>Portugal, USA, Bangladesh, Pakistan &amp; Nepal</td>
</tr>
<tr>
<td>Cocoa Products</td>
<td>Nepal, Netherlands, Malaysia, Yamen Arab Republic &amp; UAE</td>
</tr>
<tr>
<td>Cereal Preparations</td>
<td>USA, UK, Nepal, Sri Lanka &amp; UAE</td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>Jamaica, Thailand, UAE, Angola &amp; Bhutan</td>
</tr>
<tr>
<td>Miscellaneous Preparations</td>
<td>UAE, Iran, USA, UK &amp; Indonesia</td>
</tr>
<tr>
<td>Milled Products</td>
<td>USA, UK, Indonesia, Maldives &amp; UAE</td>
</tr>
<tr>
<td>Basmati Rice</td>
<td>Saudi Arabia, Kuwait, UK, UAE &amp; Yamen Arab Rep.</td>
</tr>
<tr>
<td>Non Basmati Rice</td>
<td>Nigeria, Bangladesh, South Africa, UAE &amp; Ivory Coast</td>
</tr>
<tr>
<td>Wheat</td>
<td>Bangladesh, Philippines, UAE, Sudan &amp; Myanmar</td>
</tr>
<tr>
<td>Other Cereals</td>
<td>Bangladesh, Sri Lanka, Sudan, Benin, Thailand</td>
</tr>
<tr>
<td>Natural Honey</td>
<td>USA, Germany, Saudi Arabia, UK &amp; UAE</td>
</tr>
<tr>
<td>Pulses</td>
<td>Bangladesh, Sri Lanka, Pakistan, UAE &amp; Nepal</td>
</tr>
</tbody>
</table>

The share of agricultural exports, which constituted more than 30% of the total exports from the country during 1970-71 and 1980-81, have of late been declining consistently, more so in recent years. The declining trend is more noticeable in the post liberalization and post WTO periods. In 1990-91 agricultural exports constituted about 18 % of the total exports which in 2000-01 went down to 14 %. In 2003-04 agricultural exports constituted only 12.4 % of all exports.
The impact of the WTO on India's agriculture has been studied by Dr Ramesh Chand, acting director of the Delhi-based National Centre for Agricultural Economics and Policy Research (NCAP). He has found that the first three years, after the implementation of the WTO agreement, witnessed a major spurt in agriculture exports. The study attributes the slow-down on agro-exports and sharp rise in imports to the decline in global prices of almost all major agriculture commodities after 1997. This crash was due partly to the cyclical nature of international prices and partly due to increased global competition in agro-export because of liberalising trade. The situation was aggravated by an increase in the already high farm subsidies in the developed countries.

The Indian non-Basmati rice and wheat could not face global competition. The export of oilmeal, the second biggest export item after marine products, also suffered a setback due to a decline in global prices.

**Table 5.3**

**Export prices of primary agricultural commodities in post WTO period, base 1995=100.**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Cereals</td>
<td>100</td>
<td>119</td>
<td>67</td>
<td>85</td>
</tr>
<tr>
<td>02</td>
<td>Fish</td>
<td>100</td>
<td>86</td>
<td>76</td>
<td>85</td>
</tr>
<tr>
<td>03</td>
<td>Shrimp</td>
<td>100</td>
<td>97</td>
<td>113</td>
<td>63</td>
</tr>
<tr>
<td>04</td>
<td>Sugar</td>
<td>100</td>
<td>92</td>
<td>66</td>
<td>81</td>
</tr>
<tr>
<td>05</td>
<td>Beverages</td>
<td>100</td>
<td>85</td>
<td>65</td>
<td>83</td>
</tr>
<tr>
<td>06</td>
<td>Cotton</td>
<td>100</td>
<td>82</td>
<td>60</td>
<td>56</td>
</tr>
</tbody>
</table>

Source: WTO International Trade Statistics 2006
Though there is some recovery in the price cycle in the recent years, yet the current level of prices of above mentioned commodities is 15 to 44 percent lower than the prices prevailing in the beginning of WTO. Because of this decline in prices in post WTO period, developing countries’ exports were badly hit and several countries like India were taken aback by import influx of commodities, in which they thought they had strong competitive edge. This caused adverse impact on farmers’ income, employment and livelihood security. The decline in international prices happened contrary to the projections that implementation of WTO AOA would result in reduction in subsidies and thus, increase in cost of production and prices.

Indeed, one of the most important arguments put forward in support of trade liberalisation was that it would improve the prospects of an export-led growth process in agriculture (Ramakumar). But study says another result as the share of agricultural exports in total merchandise exports declined from 21 per cent in 1996-97 to 12 per cent in 2003-04.

There were considerable variations in export performance of various commodities. Non basmati rice and wheat could not face global competition. Export of oilmeal, which was the second biggest item of export after marine products, suffered serious setback due to decline in international prices and quantity of exports. Export earnings from traditional group consisting of tea, coffee, spices, tobacco suffered mainly due to sharp fall in international prices as quantity of export in most cases did not decline. Export (value in $) of marine products, and groups of livestock and horticultural products maintained the tempo of growth, continuing from pre WTO period. This shows that post WTO situation was favourable to export of high value food products. Export of cotton almost dried up in the post WTO period due to increased demand from domestic
textile industry and decline in domestic production. Sugar exports remained occasional as the surplus arose temporarily. This scenario of India’s agricultural exports indicate that future negotiations should focus on taking advantage in export of high value food products.

At present, India is a net food exporter. In fact, its share of exports in world exports is greater for agriculture than it is for manufactured products, the total export share being less than one per cent.

Global agri-trade in the post-WTO regime is full of challenges for developing nations like India. While the new regime promises opportunities out of the expected reduction in subsidies and decrease in quantitative restrictions (QRs), developing nations face threats from developed markets in form of non-trade barriers like Sanitary and Phyto sanitary Measures (SPS) and Technical Barriers to Trade (TBT). Addressing these challenges with the intention of harnessing the competitive advantage of its agriculture sector, India has initiated strategic plans which involve farmers, the private sector, and governmental and non-governmental agencies. All put together, these plans have shaped up in the form of Agri-export Processing Zones (AEZs).(Rajiv, 2005)
Table 5.4

India’s Total and major agricultural exports

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Exports (Million US$)</th>
<th>Agriculture’s Share (%)</th>
<th>Rice (all)</th>
<th>Wheat</th>
<th>Coffee, Tea &amp; Spices</th>
<th>Cashew &amp; Groundnuts</th>
<th>Marine Products</th>
<th>Oil &amp; Oil Meals</th>
<th>Meat Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-1996</td>
<td>31,842</td>
<td>19.2</td>
<td>22.3</td>
<td>1.8</td>
<td>17.0</td>
<td>7.2</td>
<td>16.5</td>
<td>15.1</td>
<td>3.4</td>
</tr>
<tr>
<td>1996-1997</td>
<td>33,498</td>
<td>20.5</td>
<td>13.0</td>
<td>2.9</td>
<td>15.0</td>
<td>6.6</td>
<td>16.4</td>
<td>16.9</td>
<td>3.4</td>
</tr>
<tr>
<td>1997-1998</td>
<td>35,049</td>
<td>18.9</td>
<td>13.7</td>
<td>0.0</td>
<td>20.2</td>
<td>8.0</td>
<td>18.2</td>
<td>16.3</td>
<td>3.8</td>
</tr>
<tr>
<td>1998-1999</td>
<td>33,211</td>
<td>18.2</td>
<td>24.7</td>
<td>0.0</td>
<td>22.2</td>
<td>7.0</td>
<td>17.2</td>
<td>10.3</td>
<td>3.5</td>
</tr>
<tr>
<td>1999-2000</td>
<td>36,760</td>
<td>15.3</td>
<td>12.9</td>
<td>0.0</td>
<td>20.5</td>
<td>11.6</td>
<td>21.1</td>
<td>11.1</td>
<td>4.4</td>
</tr>
<tr>
<td>2000-2001</td>
<td>44,147</td>
<td>13.6</td>
<td>10.7</td>
<td>1.5</td>
<td>16.8</td>
<td>8.7</td>
<td>23.3</td>
<td>11.0</td>
<td>6.9</td>
</tr>
<tr>
<td>2001-2002</td>
<td>43,958</td>
<td>13.5</td>
<td>11.3</td>
<td>4.7</td>
<td>15.3</td>
<td>7.2</td>
<td>21.0</td>
<td>10.3</td>
<td>6.8</td>
</tr>
<tr>
<td>2002-2003</td>
<td>52,823</td>
<td>12.7</td>
<td>18.0</td>
<td>5.4</td>
<td>13.2</td>
<td>6.9</td>
<td>21.3</td>
<td>6.5</td>
<td>6.4</td>
</tr>
<tr>
<td>2003-2004</td>
<td>60,886</td>
<td>11.8</td>
<td>12.0</td>
<td>6.9</td>
<td>12.3</td>
<td>6.5</td>
<td>17.6</td>
<td>11.6</td>
<td>7.4</td>
</tr>
<tr>
<td>2004-2005</td>
<td>83,502</td>
<td>10.1</td>
<td>17.8</td>
<td>3.8</td>
<td>12.6</td>
<td>7.9</td>
<td>17.0</td>
<td>11.2</td>
<td>8.9</td>
</tr>
<tr>
<td>2005-2006</td>
<td>103,075</td>
<td>9.9</td>
<td>13.8</td>
<td>1.2</td>
<td>12.0</td>
<td>6.9</td>
<td>15.6</td>
<td>12.9</td>
<td>11.0</td>
</tr>
<tr>
<td>Average</td>
<td>51,068</td>
<td>14.9</td>
<td>15.5</td>
<td>2.6</td>
<td>16.1</td>
<td>7.7</td>
<td>18.7</td>
<td>12.1</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Source: Government of India (Kolkata: Directorate General of Commercial Intelligence and Statistics, various years)

It was expected that under WTO, the entry of agricultural products from India in the world market would be without much restrictions owing to market predictability, reduction in aggregate measures of support (AMS) and export subsidies. Undoubtedly, there are significant improvements in India’s agriculture exports after the WTO(Kuljit) The reason for this impressive growth in farm export was that domestic prices of several agricultural commodities were below international prices and devaluation of Indian Rupee in June 1991 further increased the gap between domestic and international prices(Kuljit) This also led to view that Indian agriculture is highly export competitive and that freeing trade would help the country to harness its vast export potential(Gulati et all, 1994) However, the tempo of growth in agricultural export was short lived and could not be sustained after 1996-97. Agriculture exports took a downturn after 1996-97. In the case of agriculture exports it has declined after 1996-97.
Agriculture exports have declined from $ 6.86 billion in 1996-97 to $ 5.88 billion in 2000-02, i.e., 14.28% decline. It has resulted in decline in share of agriculture export.

India’s total exports of agricultural and allied products including plantations at US $ 10.5 billion in 2005-06 constitute 10.2 per cent of its export share, which is nearly one-seventh of the country’s total export earnings accrue from the agricultural sector.

India’s agri-exports face certain constraints that arise from conflicting domestic policies relating to production, storage, distribution, food security; pricing concerns etc. unwillingness to decide makes Indian supply sources unreliable. Higher domestic prices in comparison to international prices of products of bulk exports commercially less comparative. Market intelligence and creating awareness in international market about quality of products need to be strengthened to boost agricultural exports.

5.3.1 Case study :Export of rice, wheat, cotton and sugar

For India rice, wheat, cotton and sugar are the important agricultural commodities. India is the largest producer of these commodities in the world. Rice and wheat are the major staple food in the country.

A minimum support price (MSP) for rice and wheat is announced every year by the Commission for Agricultural Costs and Prices taking into account the cost of production and aiming at protecting the agricultural producers from any sharp fall in farm prices. India follows the procurement and stocking policy for public distribution of rice and wheat and the Central Government plays an important role in setting up the national agriculture policy in spite of the fact that agriculture is a state subject in the Constitution, therefore the state governments
have to give their concurrence to the prices and policies drawn up by the Central Government. Cotton production policy in India has been oriented towards promoting and supporting the textile industry. Thus, prior to the recent reforms, the producers were heavily taxed by export controls aimed at providing low cost cotton to domestic textile mills. To encourage producers, the Government of India (GoI) announces a minimum support price for each variety of seed cotton. India is also the largest consumer of sugar in the world. GoI had totally decontrolled the sugar industry in 2002-03 subject to futures trading becoming fully operational. A MSP is also annually announced for sugarcane. Gulati and Kelly (1999) estimated that India would be exporting tons of rice, wheat and cotton with globalization of agriculture. Gulati (2002) also found that India would be competitive in exporting sugar and cotton if trade liberalization takes place. Indian agriculture is getting connected to the world agriculture but the price fluctuations due to trade distortions are keeping the country away from being competitive (Mittal).

Subsidies in developed countries have affected the trading pattern of a number of Indian agricultural products. The example of rice can be pertinent here. During the early 1990s, India removed restrictions on rice exports. Following the removal of export restrictions, India emerged as a major rice exporting country. However, just after the Asian crisis, international price of rice started declining.

International prices of cereals towards the year 2000 and 2001 turned out to be almost half of what they were in the beginning of WTO. This happened when India was having very large stock of rice and wheat. Tariffs turned out inadequate to keep a check on import of cereals and India had to resort to QRs on imports of food grains to keep a check on cheap imports. Important lessons
from this experience are that India was not able to safeguard domestic production against imports with usual tariff when international prices went low. In order to deal with this kind of situations, India needs either high bound tariff, so that applied tariffs can be raised appropriately, or, special safeguards to regulate imports of sensitive products

5.3.3 Challenges in Exports of Agricultural Goods

After the introduction of economic reforms in 1990-91, the share of agriculture exports increased (with fluctuations) to 20.50 per cent in 1996-97. Thereafter it has continuously fallen down to 10.10 per cent in 2004-05. One of the reasons (among many others) has been the failure of poor quality Indian agri-products to clear the international standards of quality and control set by the CAC, by EU, Japan and US. Therefore, it is necessary that SPS clauses are properly understood and better quality and control are introduced in the agri-export of the country, otherwise the exports of this category will continue to fall even in the future.

Based on this logic net trade is an indicator of self reliance. Trend in agriculture trade shows that post WTO trade liberalisation did not help much in export growth but it resulted in sharp and continuous increase in import((Ramesh, 2005).

In practice India do not have enough capacities to produce and to fulfill the developed countries markets due to many reasons. Among the many reasons is that the India has lack of efficient technology and skills. These factors result in a high cost of production in the domestic market as well as in the world markets. Furthermore, India is producing similar products among themselves and even similar with the products produced by the developed countries where technologies are better developed and efficient. Consequently Indian output
prices become more expensive than those of the developed countries. Besides that, the qualities of the outputs are also better for the developed countries compared with India. As a final result, demands for the domestic products in the India become lower relative to the demand for the developed countries’ commodities.

Contingency trade policy and non-tariff measures (NTMs) continued to act as significant barriers to exports from developing countries, but with somewhat reduced intensity. Such barriers are considerably stiffer for products with lower value addition and lower technological content (e.g. agriculture, textile’s and leather products), which are of major interest to developing countries like India. With its diversified manufacturing and export base, India has been one of the major users as well as one of the major targets of anti-dumping measures in the world. During January-June 2006, 20 WTO members reported initiating a total of 87 new investigations, down from the 105 initiations in the corresponding period of 2005. India reported highest anti-dumping initiations with 20 new initiations (taking each country as one case) followed by European Communities (17) and Australia (9). As far as imposition of new final anti-dumping measures during the first half of 2006 is concerned, China reported applying the largest number (15) followed by Turkey (11), India (8) and Egypt (7).

5.4 India’s Import Possibility under WTO Regime

While increase in exports is of vital importance, we have also to facilitate those imports which are required to stimulate our economy.

The impact of W.T.O on agriculture was severely felt by India as cheap imports have frequently hit the Indian market, causing shock waves among the agriculture producers. Between 1998 and 2000-01, the average annual import of farm products rose by about 64 percent. Vegetable oils account for the largest
share of imports followed by vegetables, edible fruits and nuts, and inputs for the textile industry: cotton, wool, and silk. (Munisamy, 2008)

Table 5.5

Quantity and value of import of principal agricultural commodities including marine products

(Quantity: 000’t, Value: million Rs)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6079.56</td>
<td>58504.90</td>
<td>1793.21</td>
<td>26575.10</td>
</tr>
<tr>
<td>Rice</td>
<td>-</td>
<td>-</td>
<td>0.26</td>
<td>3.40</td>
<td>0.16</td>
<td>4.10</td>
<td>0.15</td>
<td>4.20</td>
</tr>
<tr>
<td>Other cereals</td>
<td>6.62</td>
<td>65.60</td>
<td>27.88</td>
<td>300.90</td>
<td>7.96</td>
<td>117.30</td>
<td>10.35</td>
<td>192.70</td>
</tr>
<tr>
<td>Cereal preparations</td>
<td>45.46</td>
<td>1121.60</td>
<td>42.40</td>
<td>1292.30</td>
<td>38.22</td>
<td>1329.20</td>
<td>43.84</td>
<td>1615.80</td>
</tr>
<tr>
<td>Pulses</td>
<td>1399.45</td>
<td>17775.80</td>
<td>1695.95</td>
<td>24762.50</td>
<td>2270.97</td>
<td>38919.10</td>
<td>2791.10</td>
<td>52780.20</td>
</tr>
<tr>
<td>Milk &amp; cream</td>
<td>2.21</td>
<td>128.70</td>
<td>1.63</td>
<td>142.00</td>
<td>3.09</td>
<td>289.00</td>
<td>2.06</td>
<td>295.90</td>
</tr>
<tr>
<td>Cashew nut</td>
<td>479.71</td>
<td>18049.60</td>
<td>543.94</td>
<td>20894.60</td>
<td>586.49</td>
<td>18207.50</td>
<td>591.61</td>
<td>17142.40</td>
</tr>
<tr>
<td>Fruits &amp; nuts excluding cashew nut</td>
<td>-</td>
<td>11008.30</td>
<td>-</td>
<td>13903.20</td>
<td>-</td>
<td>19131.10</td>
<td>-</td>
<td>18578.40</td>
</tr>
<tr>
<td>Spices</td>
<td>107.22</td>
<td>5938.30</td>
<td>108.93</td>
<td>6878.10</td>
<td>118.51</td>
<td>7389.00</td>
<td>140.45</td>
<td>9382.20</td>
</tr>
<tr>
<td>Sugar</td>
<td>932.74</td>
<td>9761.80</td>
<td>558.77</td>
<td>6515.90</td>
<td>1.05</td>
<td>34.80</td>
<td>0.51</td>
<td>22.90</td>
</tr>
<tr>
<td>Oil seeds</td>
<td>-</td>
<td>284.10</td>
<td>-</td>
<td>470.30</td>
<td>-</td>
<td>1044.70</td>
<td>-</td>
<td>1478.80</td>
</tr>
<tr>
<td>Veg. oils fixed</td>
<td>4751.19</td>
<td>110768.90</td>
<td>4288.10</td>
<td>89609.90</td>
<td>4269.38</td>
<td>95399.00</td>
<td>4902.81</td>
<td>102986.80</td>
</tr>
<tr>
<td>Veg. and animal fats</td>
<td>1.42</td>
<td>127.80</td>
<td>1.47</td>
<td>142.40</td>
<td>1.11</td>
<td>111.90</td>
<td>1.10</td>
<td>124.80</td>
</tr>
<tr>
<td>Tea</td>
<td>31.76</td>
<td>1469.20</td>
<td>18.75</td>
<td>1081.40</td>
<td>23.29</td>
<td>1270.60</td>
<td>19.84</td>
<td>1316.60</td>
</tr>
<tr>
<td>Total Agri. imports</td>
<td>-</td>
<td>228118.40</td>
<td>-</td>
<td>214992.20</td>
<td>-</td>
<td>296378.60</td>
<td>-</td>
<td>297770.10</td>
</tr>
<tr>
<td>Total imports</td>
<td>-</td>
<td>5010645.40</td>
<td>-</td>
<td>6604089.00</td>
<td>-</td>
<td>8405063.10</td>
<td>-</td>
<td>9648497.60</td>
</tr>
<tr>
<td>Agri. imports as % of all imports</td>
<td>-</td>
<td>4.55</td>
<td>-</td>
<td>3.26</td>
<td>-</td>
<td>3.53</td>
<td>-</td>
<td>3.09</td>
</tr>
</tbody>
</table>


In the case of imports, liberalisation of trade in the initial years of implementation of WTO agreement did not cause much difficulty because international prices of bulk products were quite high in the first three post WTO years. Subsequently, as international prices started falling, India’s imports...
started rising. Level of imports doubled in three years between 1996-97 and 1999-00 (Ramesh, 2005). In contrast to exports, agriculture imports witnessed 80 percent increase in $ value after 1996-97. The post WTO period showed increase in ratio of imports to GDP whereas ratio of exports to GDP for agriculture sector followed small decline. This shows that post WTO period has been adverse to export but favorable for imports (Neelamegam et al, 2008).

India imports valued at $7.5 billion in IFY 2007/08. Imports are growing and include vegetable oils, wheat, pulses, raw cashews, dry fruits, cotton, wool, hides and skins, and fruits and vegetables. India is the largest global importer of pulses (beans, peas, and lentils) and soybean oil and second largest importer of palm oil. In 2006/07 India emerged as the third largest importer of wheat in the world, with total imports of around 6.2 million tons. Imports declined to around two million tons in 2007/08. However, no U.S. wheat was imported due to the Indian government’s unreasonable phytosanitary requirements. Total U.S. agricultural exports to India in CY 2007 were valued at $483 million, up 30 percent from 2006, driven mostly by almonds, apples, peas, cotton, and planting seeds. With pulse imports from the U.S. valued at a record $60 million in CY 2007, India is now the largest market for U.S. pulses. Imports of various consumer-oriented food products from the United States, including fruits like apples and grapes are increasing, reaching a record $265 million in CY 2007.

Composition of imports show that most of the increase in agriculture imports took place due to increase in import of edible oil. Vegetable oils accounted for more than three fourth of total increment in agriculture imports in the post WTO period. The other items whose imports increased significantly are pulses, spices, cotton, and wood and wood products (Ramesh, 2005).
In case of imports, liberalisation of trade in the initial years after the WTO did not result in any perceptible spurt because global prices were high. But subsequently, when global prices began to fall, India's imports started rising. The level of imports nearly doubled in the three years between 1996-97 and 1999-2000. This downturn in global prices continued even in subsequent years. The composition of items in the import basket indicates that edible oils accounted for the bulk of the increase in total agro-imports. The other items clocking significant increase in imports include pulses, spices, cotton, wood and wood products. The study has also revealed that the spurt in the imports of vegetable oils, and wood and its products has depressed their domestic prices, adversely impacting indigenous production.

By 2002, almost all quantitative restrictions on agricultural imports had been abolished. Tariffs are now the principal means by which India protects its domestic industries and agriculture (Prema-Chandra Athukorala, 2005)

5.5 Challenges and Problems of International Trade of Indian Trade of Indian Agricultural Products

1. Inefficient technology, lack of infrastructure, institutional bottlenecks, policy intervention by the government and other factors are also responsible that India’s surplus are not export competitive and deficit are not import competitive.

2. Water scarcity is growing, and is fostering conflicts. In many countries, developed water sources are almost fully utilized, even as agricultural demand for water is expected to increase drastically in the future. Thus, cooperation dominates but there have been numerous conflicts as well, mostly at the local level. Countries can resolve water shortages by importing food, and thus implicitly importing water. But with increased trade
protectionism, this efficient solution is undermined, and local water conflicts may increase. (Joachim, 2009).

The food price inflation in India has been traditionally much higher than those in developed countries such as the United States, Japan or Canada making it harder to export agricultural processed products. (Present data of food inflation here) The general inflation in India during 1998-2003 had been about 4.5 per cent and a similar trend continued during the later periods of 2004-2006. Clearly, if imports were going to reduce the food prices further, it would not be increasing the welfare of farmers, unless substantial gains are made through food based manufacturing export-enhancing strategies.

The primary cause of the recent food-price inflation was the severe drought of 2009, which caused a downturn in food production in the third quarter of 2009-10 and the expectation of the resultant price rise itself fed further into the inflation. Government reacted carefully by easing up imports of relevant food grains and sugar and also releasing wheat and rice from the stocks held by the Food Corporation onto the market. High fuel prices in the international market also contributed to the higher food prices by increasing transportation costs.
Mitigating the risks facing the low-income, resource-poor and subsistence farmers associated with price declines, price volatility and predatory competition and other market imperfections, including the huge amounts of production and trade-distorting subsidies provided by some developed countries to their agriculture sector, remains paramount. Therefore, along with other developing countries, particularly its alliance partners in the G-20 and G-33, India has been emphasizing that the Doha agricultural outcome must include at its core:

- removal of distorting subsidies and protection by developed countries to level the playing field, and
- appropriate provisions designed to safeguard food and/or livelihood security, and to meet the rural development needs in developing countries.

Subsidies in developed countries have affected the trading pattern of a number of Indian agricultural products. The example of rice can be pertinent here. During the early 1990s, India removed restrictions on rice exports. Following the removal of export restrictions, India emerged as a major rice
exporting country. However, just after the Asian crisis, international price of rice started declining.

When international prices are low there is deluge of imports into India, and, when international prices are high there is no symmetric spurt in exports due to quality problems. Therefore, quality competitiveness has never been so important as in the current liberalised trade environment. It is imperative that farmers and entrepreneurs engaged in post-harvest handling and food processing will have to commit themselves wholeheartedly to food quality management (Deodhar, 2001) The world is witnessing a sharp decline in food commodity prices. The FAO Food Price Index (FFPI) dropped by almost 13 percent (or 24 points) in October 2008, falling to its lowest level since August 2007. The sharp decline in the index reflected the rapid decrease in international prices of all major food commodities. This is quite worrying for Indian farmers because their cost of production keeps rising with the increasing corporatisation of agriculture while they are not getting good return for their produce.

Despite being blessed with the largest cultivable landmasses on Earth, India’s agricultural productivity is one of the lowest in the world. 70% farmers have no access to credit, extension services and technology. Half of India is susceptible to soil erosion and 80% of India is drought prone (Rahul).

**The Productivity Paradox**

The most striking paradox in Indian agriculture is the paradox of productivity. Although productivity gains were sustained in the 1990s after the liberalization process began, the yield rates for most of the crops in India are far below comparable rates in a number of other countries.

Except for tea, coffee and citrus, India’s yields are lower than the world average. We have huge areas under rice cultivation, but the average yields in
several countries are much more than ours. Egypt has over three times India’s yield rates in rice. In all major crops, India’s productivity performance seems to lag behind other nations.

Table 5.6

Comparison of 2004 Yields in kg/ha of Major crops

<table>
<thead>
<tr>
<th>Region</th>
<th>Wheat</th>
<th>Rice</th>
<th>Maize</th>
<th>G’nuts</th>
<th>S’cane</th>
<th>Tea</th>
<th>Citrus</th>
<th>Pulses</th>
<th>Coffee</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>2869</td>
<td>3970</td>
<td>4859</td>
<td>1367</td>
<td>65532</td>
<td>1299</td>
<td>14625</td>
<td>855</td>
<td>765</td>
</tr>
<tr>
<td>India</td>
<td>2640</td>
<td>2927</td>
<td>2059</td>
<td>938</td>
<td>59707</td>
<td>1899</td>
<td>17845</td>
<td>635</td>
<td>851</td>
</tr>
<tr>
<td>China</td>
<td>4203</td>
<td>6347</td>
<td>5154</td>
<td>2746</td>
<td>70821</td>
<td>870</td>
<td>9888</td>
<td>1587</td>
<td>1313</td>
</tr>
<tr>
<td>USA</td>
<td>2898</td>
<td>7581</td>
<td>10052</td>
<td>3393</td>
<td>70670</td>
<td>--</td>
<td>34663</td>
<td>1835</td>
<td>1542</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2418</td>
<td>3425</td>
<td>1895</td>
<td>750</td>
<td>49576</td>
<td>--</td>
<td>7925</td>
<td>593</td>
<td>--</td>
</tr>
<tr>
<td>Australia</td>
<td>1844</td>
<td>8231</td>
<td>4962</td>
<td>1600</td>
<td>88896</td>
<td>--</td>
<td>19317</td>
<td>1459</td>
<td>--</td>
</tr>
<tr>
<td>Thailand</td>
<td>615</td>
<td>2780</td>
<td>3779</td>
<td>1529</td>
<td>60674</td>
<td>295</td>
<td>11673</td>
<td>836</td>
<td>902</td>
</tr>
<tr>
<td>Indonesia</td>
<td>--</td>
<td>4518</td>
<td>3388</td>
<td>2065</td>
<td>72353</td>
<td>1367</td>
<td>22857</td>
<td>963</td>
<td>701</td>
</tr>
<tr>
<td>Srilanka</td>
<td>--</td>
<td>3322</td>
<td>1083</td>
<td>546</td>
<td>57504</td>
<td>1439</td>
<td>2307</td>
<td>927</td>
<td>674</td>
</tr>
<tr>
<td>Brazil</td>
<td>2202</td>
<td>3579</td>
<td>3373</td>
<td>2255</td>
<td>75344</td>
<td>2209</td>
<td>21871</td>
<td>753</td>
<td>1030</td>
</tr>
</tbody>
</table>

It is this Productivity paradox that is perhaps the most severe limiting factor in India’s competitive position vis-à-vis agricultural trade.

3. Adoption of modern agricultural practices and use of technology is inadequate, hampered by ignorance of such practices, high costs and impracticality in the case of small land holdings.

4. Illiteracy, general socio-economic backwardness, slow progress in implementing land reforms and inadequate or inefficient finance and marketing services for farm produce.

5. The average size of land holdings is very small (less than 20,000 m²) and is subject to fragmentation, due to land ceiling acts and in some cases, family disputes. Such small holdings are often over-manned, resulting in disguised unemployment and low productivity of labor.

6. Since 1995 public investment in agriculture has experienced a secular decline, while input subsidies (on fertilizers, power, and canal irrigation)
have been rising. In the early years of economic reforms, an attempt was made to arrest and reverse these trends (see Figure 1), but this effort could not be sustained. As a result the gap between investments and subsidies kept widening. Today input subsidies, together with food subsidies, amount to roughly five to six times the public investment in agriculture. With a burgeoning subsidy bill and shrinking public investment, the growth impetus for agriculture has been declining. Private investment in agriculture has been increasing, yet it has not fully compensated for the loss from falling public investment. (Joachim et.al, 2005)

7. However, the food price inflation in India has been traditionally much higher than those in developed countries such as the United States, Japan or Canada making it harder to export agricultural processed products. After remaining at an average annual rate of 9 per cent during 1981-90 and almost 11 per cent during 1991-98, the food price inflation has come down to the level of these countries only recently (Figure 1). The general inflation in India during 1998-2003 has been about 4.5 per cent and a similar trend continued during the later periods of 2004-2006. Clearly, if imports were going to reduce the food prices further, it would not be increasing the welfare of farmers, unless substantial gains are made through food based manufacturing export-enhancing strategies.

8. The section on Horticulture and dairy products reveals the dominant position of India in fresh fruit and dairy production, and the huge export potential that remains to be tapped.

9. Perhaps the most significant impact that trade liberalisation had on Indian agriculture was the sharp fall in domestic prices of many commodities after the mid-1990s. In the background of greater integration between domestic and international markets, domestic prices of cotton, tea, coffee, spices and
many fruits and vegetables fell following a sharp fall in the corresponding international prices. Due to the absence of quota controls as in the pre-WTO period and the ineffectiveness of low tariffs, the surge in the imports of various crops contributed in different degrees to the decline in their domestic prices (Bhalla, 2004; Ghosh, 2005).

10. Developed Countries Creating Problems

However, with agriculture subsidies and export promotions, developed countries have dominated the world agriculture market historically. More than 67 per cent of world food exports during 2001-03 originated from the high-income countries, while countries such as India where more than 65 per cent people survive on agriculture, contributed only 1.1 per cent of food exports (Kaliappa et al., 2006).

Table 5.7

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Total Value of Production OECD</td>
<td>597.00</td>
<td>769.00</td>
<td>740.00</td>
</tr>
<tr>
<td>02</td>
<td>Producer Support Estimation OECD</td>
<td>243.00</td>
<td>252.00</td>
<td>254.00</td>
</tr>
<tr>
<td>03</td>
<td>Market Price Support: OECD</td>
<td>188.00</td>
<td>170.00</td>
<td>156.00</td>
</tr>
<tr>
<td>04</td>
<td>Percentage Producer Support Estimation</td>
<td>37.43</td>
<td>29.62</td>
<td>30.35</td>
</tr>
<tr>
<td>05</td>
<td>Producer Support Estimation in EU</td>
<td>101.70</td>
<td>117.60</td>
<td>114.27</td>
</tr>
<tr>
<td>06</td>
<td>Producer Support Estimation in USA</td>
<td>36.40</td>
<td>26.30</td>
<td>40.41</td>
</tr>
</tbody>
</table>


Industrialized countries systematically use subsidies to skew the benefits of agricultural trade in their favour. Various studies have consistently reported that
agricultural surpluses in rich countries, generated through protection and subsidies and then dumped onto world markets, have hurt agricultural development in developing countries. The actions of some of the developed countries were a serious cause of concern for India where agriculture is the largest private sector enterprise with over 110 million farmers and workers, contributing about 25 per cent of the country’s Gross Domestic Product. It is argued that WTO is now imposing rules which are costly to implement and inappropriate for existing infrastructure in developing countries like India.

11. Sanitary and Phyto-sanitary Measures (SPS) and Technical Barriers to Trade (TBT) on International Trade of Agricultural Goods.

12. While the new regime promises opportunities out of the expected reduction in subsidies and decrease in quantitative restrictions (QRs), developing nations face threats from developed markets in form of non-trade barriers like Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT).

13. SPS problems have been attributed to many causes, which can broadly be identified as the lack of quality regulatory and supervisory systems, as well as the lack of necessary guidelines for agricultural and food production. Regulations inconsistent with international standards are a basic flaw, which need to be addressed first. This results in producers often misusing chemical fertilizers, pesticides and antibiotics. (Rajiv, 2005).
CONCEPTUAL FRAMEWORK: Making Indian Agriculture Globally Competitive

WTO Agenda – Trade Liberalisation

Urgent need to Overcome the Productivity Paradox

Reduce Dependence on Monsoons

Interlinking India’s Rivers

Cultivation of crops with reduced water requirements

Adopt genetically modified, high yielding seed varieties

Integrated, Nutrient Management

Reduce use of pesticides

Adopt micro-irrigation systems

Add value to farm output

Food Processing

Contract farming

Planned land allocation for individual crops

Co-operative Agriculture

Specialization in agriculture

Diversify and Change cropping patterns

Increases output per unit of land area

Increases farm gate realisations

Improves the economics of farming

Provide access to information

Harnessing the power of technology

Revamping the domestic distribution of food stocks

Dismantling the subsidy regime

Respond to changes in eating habits
5.6. How to make Indian Agriculture globally competitive in the WTO regime

1. Facing the Challenge of improving Farm Productivity

One of the major reasons for the poor yields per unit of land area is the inefficiency in the use of fertilizers and poor cultivation practices leading to imbalanced nutrition. The use of modern farming practices on a wider scale and integrated nutrient management practices are essential if India’s farmers wish to produce crops in line with the observed global standards of quantity and quality. A consequent increase in Productive efficiency, upon following the best practices in crop nutrition, would enhance value-added activities in agriculture through agro-processing and exports of agricultural and agro-based products. These activities in turn would increase income and employment in the industrial processing sector. Thus globalizing agriculture has the potential to transform subsistence agriculture to commercialized agriculture and to improve the living conditions of the rural community. When addressing the need for balanced fertilization using specialty farming techniques, it must be borne in mind that the potential for increasing productivity of land already under cultivation is far greater than that for bringing more land under cultivation. The inherent limitation in this approach is that plant nutrient deficiencies in both irrigated and rain-fed farms will increase. The problem of eliminating these deficiencies is already a major problem today and it will aggravate in the future. Integrated nutrient management has spin-off benefits as well. The most crucial is the improvement in the plant physiology that builds levels of resistance and reduces the incidence of disease and pest attacks. Increasing resistance through efficient nutrition programmes can thus reduce the application of harmful (and expensive) pesticides and make farming more productive,
sustainable and environmentally friendly. Sanitary and Phytosanitary standards prescribed by developed nations prescribe very low permissible levels of pesticide and chemical residues. Thus, developing resistance makes the farm produce more ‘saleable’ in world markets.

2. With a view to making Indian agricultural produce more competitive in the global markets, the Union Cabinet today decided to remove the cess on exports. Former Union Commerce and Industry Minister Kamal Nath told that the decision to remove the cess on exports of agricultural produce would make our exports more competitive and profitable. He said a cess would only make the exports more expensive and uncompetitive. Agricultural exports already formed a significant proportion of India’s total exports and there still remained a vast untapped potential for exports from this sector.

3. *Growing usage of Genetically Modified Seeds*

It is commonly said that if the last decade was one of Information Technology (IT), then the next decade will be one of Bio Technology (BT). India is known as a potential future bio tech hub for the world. Seeds constitute, on average, 60% of the Input costs for farmers. Use of genetically modified (GM) high yielding varieties of seeds has the potential to usher in the ‘Next Green Revolution’. The farmers in the USA have adopted GM seeds on a large scale leading to an estimated benefit of USD 6 billion. Our neighbour, China, similar to us in most respects, has achieved remarkable productivity increases of 30 to 40% from the use of GM seeds. However, lack of political will, myopic views of scientists on the “perceived” ill effects instead of on demonstrated bio safety risks and cumbersome procedures have worked to ensure that India has effectively missed the Genetic
Revolution. Fortunately, the pendulum has finally swung in favour of adopting GM seeds starting with non edible cash crops (like Bt cotton) and then hopefully, Indian farmers will be allowed move with caution towards food crops. Uncertainties exist now more with regard to the speed and extent of adoption of new-generation seeds. Agri biotechnology has proved useful to farmers to increase yields, controlling pests, insects, weeds, creates drought resistance, flood resistance and allows cultivation in “stressed” soils. Genetically modified seeds promise high yields.

4. A major challenge confronting Indian agriculture is the development of transport infrastructure and processing systems to efficiently integrate agricultural production on millions of small farms with consumers and traders in cities and ports. Hoda and Gulati point out that for southern Indian states it is at times cheaper to import wheat by ship from Australia than overland from Punjab, illustrating the significance of a country’s size, location, and infrastructure with respect to agricultural production, trade, and consumption.

5. **Facing the Challenge of reducing the dependence on the Monsoons**

India’s agriculture is still completely at the mercy of the Rain Gods. Changing seasons are now more of a certainty. It is imperative that Indian agriculturists brace themselves to meet this ‘certain’ uncertainty. Overcoming this rain dependence is crucial to assure markets that India can continually supply farm output at cost effective prices. Recent campaigns by International organizations and government policy initiatives, including subsidies and extension services, have led to the slow but steady rise in practices like drip irrigation, hydroponics and greenhouse cultivation. This reduces phenomenally the need for water in agriculture and promotes
conservation of this scarce resource. It also makes farming more productive with the delivery of the right quantity of nutrients at the right time, in the least available cost, using the optimum volume of water. Moreover, rainwater harvesting projects are penetrating the hinterland. Recently, India has seen a few remarkable examples of successful micro-irrigation projects. Kuppam in Andhra Pradesh was developed as one such show-case by the A.P. Government and leading manufacturers of such systems from Israel. Despite having rocky topography, scanty rain over the past four years and poor soil, Kuppam has farms successfully producing almost every conceivable crop using drip irrigation systems. Agro-forestry initiatives, wasteland cultivation using hardy crops needing least quantity of water, are also underway to reduce the dependence on the monsoons, while at the same time, sustaining revenue from agricultural land.

6. **Interlinking India’s Rivers**

The idea of linking India’s rivers which had been lying dormant for a long time, has acquired prominence recently with the Supreme Court having decreed that the rivers of India shall be linked within ten years. A task force has been set up to work out the modalities of this largest, most ambitious infrastructure project on Earth. The Court has also mandated the allocation of the Rs. 5,60,000 crores required for this project. However, the uncertainty in the entire issue stems from the vociferous debate raging in “green” lobbies that have christened this project as “technological arrogance of the worst kind” while making an attempt to alter India’s geography. Other constraints include finding a source for collecting the mandated funds, environmental impact assessment, cost benefit analyses and investment feasibility.
It is uncertain whether India’s rivers will be linked in as grandiose fashion as decreed by the Courts or thought of by planners. However, it is certain that limited links will be created in a definite time frame. For instance, work on the Krishna-Godavari river link within Andhra Pradesh has already begun. The benefits are obvious: water management, flood control, reduced dependence on the monsoons, growth of irrigation, drought resistance, increase in area under cultivation and employment generation. Irrigation is undoubtedly the key to India’s economic future. The linking of rivers will assure availability of water for agriculture, guarantee crop cycles, reduce uncertainties in agriculture, unify the country and ensure prosperity for generations to come.

7. Export of raw products like cotton, wheat, sugar, coffee and tea is likely to become very competitive and India would be required to relook into the benefit of promoting export of these commodities.

8. Change in eating habits of Indians and in the developed world

India is growing in affluence. This affluence is not just restricted to cities having a middle class with ever growing purchasing power, but also covers rural areas. The Indian Market Research Bureau (IMRB) estimates that 49% of Rural India figures in the middle/upper income segments. Increased affluence has led to an increased demand for more nutritive foods, including fruits and vegetables, in addition to staple cereals and pulses. Vegetarianism is also growing in popularity, as is the recent trend the world over. This is a trend increasing observed in the developed nations. This change in eating habits has made it feasible for farmers to diversify into horticultural crops. Horticultural crops have relatively high nutrient
requirements. Moreover, they are also labour intensive to cultivate and generate rural employment.

9. **Growing Access to information**

Awareness amongst India’s farming community is increasing, as a direct corollary to increasing literacy and open access to global information. 3% (1066 lakh households) are estimated to have at least 2 graduates. 16% have at least one member who is SSC/HSC+. This is equivalent to 5 times the population of Singapore, 3 times Israel and a little less than all of Australia. A wealth of scientific knowledge about soil chemistry and physics exists, as well as extensive geo-data on the distribution of soil types. Thanks to modern technology, telecommunication and satellite television, this information is being brought directly to the farming communities and through rural tele-centres, electronic information resources and other media including video presentations. The “digital divide” remains a very real constraint, but the rapid spread of mobile phones and satellite technologies opens new vistas for extending access to relevant knowledge. In fact, the communications revolution has comprehensively networked Rural India. Apart from leapfrogging directly into the era of mobile telephony, 70% of farmers have access to televisions and an even higher 86.8% listen to the radio. This has “opened up” the farmer’s world and has ensured growing access to relevant information.

10. **Challenge of revamping the domestic distribution of food stocks and dismantling the subsidy regime**: Domestic restrictions on the inter-state movement of farm products have created a situation where food grain stocks are piled up in warehouses of the government while parts of the country are starving. These food grain stocks are piled up to satisfy the fiscal orthodoxy of antiquated planning mechanisms which do not hold much
ground in today’s open, integrated markets. The original reform agenda had in fact envisaged increased public investment, to be financed by input subsidy cuts which were also expected to improve input-use efficiency and discourage environmentally unsustainable practices. Since this effectively meant taxing farmers in regions with better infrastructure, resistance was sought to be muted by increasing support prices to remove ‘negative subsidies’ in trade. In the event, subsidies have not reduced but support prices have become too high to be consistent with free international trade at present low world prices. With this option no longer available, the talk is again of freeing markets. But import controls have gone, very few restrictive orders are actually being invoked under the Essential Commodities Act, and removal of remaining export restrictions is unlikely to yield much in global market conditions. This leaves only thornier and earlier unthinkable options, such as dismantling the support price/PDS system and allowing the corporate sector to take over trade, processing and extension. It is this possibility, and implications for income distribution, that disturbs critics most. However, it remains true that in a small farm economy such as India’s, economies of scale require larger entities to provide critical inputs in technology, infrastructure, marketing and risk management. There are only three ways this can be done: by Governments, through cooperation among farmers, or by allowing corporate control. Much of the problems of the past decade stem from the fact that even as farmers have been exposed to new uncertainties from liberalization, the state has retreated from these responsibilities and left cooperatives sidelined without creating conditions for corporate entry. Rather than the current drift, many would prefer greater corporate involvement.

11. Development of new generation irrigation systems
There is a tremendous opportunity in the indigenous development of economical irrigation systems suited to local conditions. Most of the irrigation systems are currently imported from countries like Israel, Australia, Japan, etc. Few international companies specializing in the design and development of irrigation systems have set up subsidiaries in India. However a major hindrance is the high cost of installing these systems coupled with a phase out of government subsidy schemes supporting such installations. Even in areas where micro-irrigation systems were installed on full government subsidy or using ‘soft loans’ from Rural banks, inadequate and ineffective training to farmers have caused the systems to remain largely unused. This is a huge national waste and a well structured, co-ordinated effort to develop easy-to-use, low cost systems coupled with systematic training to agriculturists and farm labour would ensure the wide adoption of this technology.

12. **Development of new generation seeds**

   This is an area where several Indian companies have taken the lead. Research & Development focused on the introduction of hybrids suited to Indian conditions is underway in various parts of the country. However the opportunity of increasing harvests using genetically modified, hybrid seeds can be completely exploited only with a mass awareness campaign to negate the anti-propaganda that has plagued the growth of this concept.

13. **Diversification and change in cropping patterns**

   Progressively reduced support prices for cereal crops have made farmers to consider the cultivation of new generation crops. The change is widely observed in agriculturally progressive states like Andhra Pradesh and Maharashtra where land is being used to cultivate horticultural crops (fruits and vegetables), oilseeds and pulses. Some state governments like in
Andhra Pradesh, have even resorted to quasi-coercive tactics like denying the release of canal water to farms cultivating traditional cereal crops like paddy. Once the resistance to the change is overcome, cultivators realize a much higher realization from their land since these new crops are much more remunerative and even have export potential. Some cultivators have gone a step further and diversified into the cultivation of exotic crops including medicinal herbs and spices like turmeric and vanilla where the potential for revenue generation is enormous. Crop diversification is a strategy that emanates from the realization that it is makes ample economic sense for India to import cereals from other countries in South East Asia (like Thailand) where the cost of production is much lower and use its land and labour resources to produce crops like edible oil, fruits and vegetables that are more expensive to import. This exploits the competitive advantage of nations to improve agriculture’s balance of trade and makes farming in India more profitable.

Increasing farm productivity per unit of land area using the global best practices will necessitate intensive agriculture. Harvests can be sustained in the long term with intensive use of land only if crop nutrition is balanced. Add to this the specialized and enhanced nutrient needs of genetically modified seeds. These seeds promise high yields. However, to ensure bumper harvests, these crops need higher levels of nutrition. For crop productivity to be sustained, nutrition requirements are relatively much higher for GM seeds than traditional seed varieties. Nutrition solutions recommended are almost always specialties due to their demonstrated effectiveness the world over. Growing awareness towards using GM seeds
will directly affect the demand for specialty balanced fertilizers. Moreover, global markets expect an elimination of harmful chemical residues in farm output. This requires a reduction in the rampant over-use of pesticides. For this, the plant will need to be made healthy with balanced nutrients. This is the only way, other than biological control of pests, to decrease pesticide use through increasing resistance.

15. **Contract farming and Co-operative agriculture**

Land holdings in India are extremely fragmented. This fragmentation increases with every successive generation that inherits the land. Fragmentation also makes the land uneconomic in size and scope. It severely limits the adoption of mechanization and new age farming practices. Moreover, farmers with limited output have very little bargaining power while negotiating prices for their yield. Recognizing these problems, there is a move towards co-operative agriculture. Farmers in close proximity have started forming co-operatives, pooling their land and resources to jointly produce crops. This allows pooling of resources and gives rise to economies of scale. Moreover, it permits better utilization of land and joint efforts to improve productivity. In certain areas, companies have stepped in to organize farmers to adopt contract farming as a model to improve the economics of farming. Companies enter into forward contracts with the farmers, undertaking to lift the entire output of a specified quality and quantity at a price which is set well in advance. This effectively assures the farmers of a set price for their yields and effectively hedges them against price fluctuations. In turn, the companies are assured of their inputs of raw materials at fixed prices. In several cases, the companies provide all the inputs (seeds, fertilizers, pesticides, credit, technology, etc.) to the farmers to ensure the quality of the harvests in line with their specifications. This has
gone a long way in reducing some of the risks associated with agriculture and effectively improving productivity.

16. Planned allocation of land to cultivation of crops and specialization
A common tendency of Indian farmers is to blindly produce that crop which has been most remunerative in the previous season, with little or no consideration for future demand patterns. If a certain crop has been comparatively more remunerative to a farmer in the area, most farmers who become aware of this windfall change their own cropping pattern due to the “herd mentality”. This consequently leads to a glut in the market with over-supply of a particular crop in the following season, causing a crash in prices of that commodity.

An opportunity exists to use effective demand forecasting techniques for various crops to allocate land most effectively to avoid peaks and valleys in farm output. This will keep farm gate prices relatively stable as supply will remain ‘managed’ in line with demand forecasts. Developed nations like the USA effectively use such a system of planned allocation of land to create pockets of excellence for producing certain crops in certain parts of the country. This creates regional specialization and increases efficiency in agriculture.

17. Harnessing the power of technology to improve the economics of farming
The spread of technology into the hinterland can be very effectively used to disseminate real time information to agriculturists on ruling international and domestic prices for various crops, forward prices in commodity exchanges, world demand forecasts, weather information, crop management practices, etc. ITC’s e-Choupal initiative is an experiment to harness the power of technology to link India’s farmers using an Infotech network. Farm productivity can be enhanced by using the information
available to make structured, meaningful and rational choices. There are
unlimited opportunities for similar initiatives to harness the power of
technology which will go a long way in improving the economics of
farming. In an inter-connected world, such information will certainly prove
invaluable to the farmers.

18. **Food processing**

Food processing is an opportunity for Indian agriculturists to move a step
up in the value chain. It allows the farm sector to effectively overcome the
‘commodity syndrome’ and add value to their output by processing the
output as per the requirements of the market prior to sale. This could entail
packaging, branding, processing into higher value products (like potatoes
into packaged chips, tomatoes into ketchup or ready-to-eat soup, etc.) that
permit much better realizations. Food processing is also an industry that can
provide employment opportunities.

19. To encourage exports of agricultural products, the government has set up
agricultural export processing zones.

20. FAO suggested that developing countries and less developed countries
should expand their range of agricultural exports. They continue to export a
narrow range of primary commodities that are highly vulnerable to
instability of demand and deteriorating terms of trade. Extension programs
should address the issue of expanding the range of agricultural exports
(FAO, 2001).

21. Indian public investment should increase higher manner. India currently
invests only about 0.5 percent of its agricultural GDP in agricultural
research, compared with 0.7 percent in the developing countries as a whole
and as much as 2–3 percent in the developed countries. These figures
suggest that government has been systematically under investing in a sector
that offers a high social return and that there is considerable scope for diverting incremental outlays to priority areas in research. In R&D, India had a successful record of importing high yielding seed varieties and adapting them to local conditions during the late 1960s and 1970s, an effort that led to the Green Revolution. Although there is still ample scope for increasing rice and wheat yields, especially in the water-abundant eastern belt, the Green Revolution has been stagnating in the northwest states of Punjab, Haryana, and western Uttar Pradesh, as well as in the southern states of Andhra Pradesh and Tamil Nadu. To keep pushing the production frontier outward, India must invest in new technologies and the institutions to accompany these technologies.

22. The new agricultural technologies on the horizon are largely biotechnologies. Indian policymakers, scientists, and regulators have long supported the development of biotechnology (including genetic modification) that provides new crops favorable to India’s climatic areas and is suitable for use by farmers in rural communities. One of the most important technologies in the Indian context is one that produces drought resistance. Developing biotechnology appropriately, however, will require effective research and reforms of the regulatory structure and process, duly recognizing the local and international debate on biotechnology, particularly regarding genetically modified (GM) crops. In this context, setting up a body like the National Biotechnology Regulatory Authority (NBRA) would enhance regulation of biotechnology in India. Investments in advanced crop technologies for Indian farmers will pay off only if there are accompanying investments in infrastructure. The connection of India’s villages to information and communications technology is an important component of these initiatives. The private sector can be the key driving force, and many
corporate giants have already entered rural areas with a view to expanding business. But public policy should facilitate these investments in rural areas by removing controls on private investment as well as by offering tax concessions for investing in rural areas, in order to improve poor communities’ access to education, market information for farmers and other small businesses, and service information.

5.7 Exim Policy

This is a set of guidelines and instructions established by the Directorate General of Foreign Trade (DGFT) in matters related to the import and export of goods in India. The Foreign Trade Policy of India is guided by the Export Import in known as in short EXIM Policy of the Indian Government and is regulated by the Foreign Trade Development and Regulation Act, 1992. EXIM Policy is the export import policy of the government that is announced every five years. It is also known as the Foreign Trade Policy. This policy consists of general provisions regarding exports and imports, promotional measures, duty exemption schemes, export promotion schemes, special economic zone programs and other details for different sectors. Every year the government announces a supplement to this policy.

DGFT (Directorate General of Foreign Trade) is the main governing body in matters related to Exim Policy. The main objective of the Foreign Trade (Development and Regulation) Act is to provide the development and regulation of foreign trade by facilitating imports into, and augmenting exports from India. Foreign Trade Act has replaced the earlier law known as the imports and Exports (Control) Act 1947.
The Export Import Policy (EXIM Policy) is updated every year on the 31st of March and the modifications, improvements and new schemes are effective w.e.f. 1st April of every year. Chapter 6 of the Exim policy deals with Export Oriented Units and Chapter 7 deals with units in the Special Economic Zones. Similarly, Govt. of India also release the Hand Book of Procedures detailing the procedures to be followed in each of the schemes covered in the Exim Policy.

EXIM Policy of 2002-2007 emphasized the importance of agricultural exports and announced measures like the setting up of agri export zones, removal of procedural restrictions and marketing cost assistance. Agri Export Zones are considered the most important creation of this policy.

Foreign Trade Policy 2004-09: The Special Focus Initiative for Agriculture in the new Policy includes:

1. A new scheme called Vishesh Krishi Upaj Yojana, which has been introduced to boost the exports of fruits, vegetables, flowers, minor forest produce and their value-added products.
2. Duty-free import of capital goods under the Export Promotion Capital Goods (EPCG) scheme.
3. Capital goods imported under EPCG for agriculture permitted to be installed anywhere in the agri export zones.
4. Assistance to States for Infrastructure Development of Exports (ASIDE) funds to be also utilized for the development of agri export zones.
5. Import of seeds, bulbs, tubers and planting material has been liberalized.
6. Export of plant portions, derivatives and extracts has been liberalized with a view to promote exports of medicinal plants and herbal products.

5.7.1. AEZ Role on Agricultural Exports
Agri Export Zones were formed as a result of this policy. These zones are meant to promote agricultural exports from the country and provide remunerative returns to the farming community regularly. They are to be identified by the State Government, which would evolve a comprehensive package of services to be provided by all State Government agencies, State Agriculture Universities and all institutions and agencies of the Union Government for intensive delivery in these zones. Corporate sector companies with proven credentials would be encouraged to sponsor new agri export zones or take over already notified agri export zones.

Developments in various AEZs confirm the various initiatives being implemented. In and around the Bangalore AEZ, the primary focus in gherkin production is towards pest and disease management, productivity enhancement and postharvest handling. Supported by APEDA (the designated nodal agency for AEZs), this project was conducted by the Shriram Institute of Agricultural Research, Bangalore. Similarly, the AEZ project for vegetables in Punjab focuses on product enhancement through contract farming and advanced nursery techniques supported by extension networks and post-harvest techniques like collection centres, mobile cooling units, reefer transportation, etc. Chittoor in Andhra Pradesh can be cited as another example of AEZs where things are moving in a positive direction in addressing the issues concerning technical barriers. It has set up agri-clinics, a common testing laboratory and an aseptic packaging unit, with visits by officials to USA and the Netherlands to study the systems adopted in the area of horticulture. This sufficiently confirms the seriousness behind these planned initiatives. This focused approach on promoting exports promises projected exports as high as Rs 103 bn in the next five years. The linkages in the value-chain would ensure a better price for
agricultural produce and increased employment opportunities, both in farm and linked non-farm activities, like processing packaging, storage and transportation. Besides, it would favourably affect professionals from the field of marketing and branding, research and consultancy, etc. The proposal for AEZs for vegetables in Punjab has an estimated increased benefit to the tune of Rs 640 mn per year, and it also promises saving of losses to the tune of Rs 60 mn per annum through post-harvest infrastructure. Additionally, the project is to benefit at least 1,500 farmers, create direct employment for about 500,700 people in processing and about 2,000 additional man-years in agricultural production. In a different proposal submitted for pomegranates in Maharashtra, the estimated increased benefit through export earnings is Rs 350 mn per year; moreover, it also assures direct benefits to 5,000 farmers and creating direct employment for about 500,750 people in packing houses, processing units and other facilities to be created under the AEZ. On an average, West Bengal accounts for 23 per cent of national pineapple production with a total production of 0.25 mn tonnes of fruits and over 10 mn tonnes of vegetables. In the submitted proposal for establishing the AEZ, it is estimated that the investment potential of the fruits and vegetables processing industry in the state will be around Rs 15.45 bn in the next decade, if processing level is increased from 2 per cent to 10 per cent. At this stage, it is relevant to understand how AEZs envisage such increased levels of investments which in the future are projected to enhance the export competitiveness of products. It is also important to understand whether the structure of AEZs is conducive to enhancing the cause of India.s agri-exports. The value-chain covers a majority of current issues concerning competitiveness, right from the input and pre-harvest stage through harvesting, post-harvest, transporting to marketing stage until the products reach their destinations. Significantly enough, this chain is a circular closed one, creating possibilities for the proper feedback loop as well.
What is more important is that at each stage, the respective challenges have been identified in order to highlight the focus points for actions (Rajiv, 2005).

5.6 Summary

Despite impressive gains and some milestone achievements in few select agricultural commodities, India still has a long way to go in making its agricultural exports making more competitive in the world market. Liberalisation and globalisation of world trade regimes in agriculture products has certainly opened many new opportunities for a country like India, with it’s near selfsufficiency in agricultural inputs, relatively low costs of labour and its diverse agroclimatic profile, which can support production of wide range of agricultural export products. However, India needs to raise the level of productivity and quality standards to international levels, which is one of the major challenges, following dismantling of quantitative restrictions on imports and with adoption of WTO agreement on agriculture.

While a beginning has been made in partly freeing the global agricultural trade from the constraints of stifling tariff and nontariff barriers, considerable effort still needs to be taken up to neutralize the developed economies from resisting agricultural imports from the developing world and bring down the level of protection and subsidies to bring greater parity in terms of trade. India’s challenges on the global agricultural trade front are thus, both internal as also external in nature. While required changes in the external global trade environment will take longer time and greater collective effort of nations, India needs to initially focus on improving its internal situation in the agricultural sector, by rebuilding its competitive advantages so that it can present stronger positions when it comes to negotiating either with WTO or other developed countries.
FAO suggested that developing countries and less developed countries should expand their range of agricultural exports. They continue to export a narrow range of primary commodities that are highly vulnerable to instability of demand and deteriorating terms of trade. To increase the export of Indian agriculture farmers should know the maximum about the EXIM policy, programs & schemes, price policy, seed policy and statistics at the Indian agro portal and harvest benefits from India, world's second largest producer of food and a country with a billion people. From canned, dairy, processed, frozen food to fisheries, meat, poultry, food grains, alcoholic beverages & soft drinks, the Indian agro industry has dainty areas to choose for business. In India there is good prospect of increasing the trade because of huge customer for buying the agricultural products. An average Indian spends out about 50% of his/her household expenditure on food items. With a population of over 1 billion and a 350 million strong urban middle class and their changing food habits.

India needs to pay equal attention to what it agrees to do in its own market and economy and what other countries commit to do in their markets.

Instability of international prices has negatively affected export performance of a few crops in which India is internationally competitive. NPC based analysis carried out Hoda and Gulati highlights that India has demonstrated competitiveness in three temperate zone crops- rice, wheat and cotton. However, exports of these crops have been sporadic because of low international prices faced by these commodities since the mid 1990s. I can also point out that India can emerge as a competitive supplier of sugar and dairy products if international market distortions caused by the policies of support and protection pursued by some of the developed countries can be eliminated. There is a possibility that as a result of the sustained decline in commodity prices,
producers of some agricultural crops in India may become uncompetitive even at the domestic level. Higher returns from some export oriented cash crops like tobacco and sunflower have lured even smaller farms to undertake cash crop cultivation at the expense of traditional crops including foodgrains. This is a risky move because these farmers are now totally dependent upon the revenue form the cash crops even for their domestic consumption. International prices for cash crops are volatile and they fluctuate wildly from year to year. Every now and then, low prices of these commodities lead to heavy losses for farmers. The farmers who do not maintain a cushion of self-produced foodgrains to support them, such losses can create huge food security problems. In southern part of India, there have been numerous cases of farmer suicides because of this reason.

India is yet a developing country, India is still dependent upon the US and EU markets for exports and imports. No country can live in isolation and therefore international trade, exports and imports are part of the modern day economies. However generally, there has been a surplus in agricultural trade over the years. The trade surpluses in terms of value have been Rs 17805.82 crore in 2004-05, and Rs 28777.38 crore in 2005-06 respectively.

To face the WTO challenge, productivity has to be increased. It is estimated that there is a potential to increase productivity per unit of land area by 25% by using irrigation, balanced nutrition programmes and agri-technology, including genetically modified seeds. Moreover, to face the challenge of cheap imports, revenue per unit of land needs to be enhanced immediately along with a reduction in cost of production. This is possible by using global best practices in integrated crop management. To face the export challenge, similar economics will come into play. However, there is a further restriction placed on presence of pesticide and other chemical residues.
India needs to identify the major markets to which it can export its agricultural produce at maximum returns in terms of foreign exchange. The major markets for the Indian agricultural products are the developing counties and not the developed countries. We need to improve our exports to the existing large markets and also identify emerging markets. There is a need to constantly monitor the identified markets, which are existing or are emerging, to recognize their changing demands and accordingly modifying our domestic policies, taking into account the changes in the world markets, so as to gain through exports.

Export controls were maintained on agricultural raw materials such as cotton, timber, hides and skins, and leather in order to keep their domestic prices low and thus protect domestic industry.

As a net exporting country, India stands to gain from increase in international prices, which is possible only if we relentlessly fight for reduction of domestic subsidies and support and export subsidies in the developed countries. (Neelamegam). The global agriculture trade regime under the World Trade Organization (WTO), that came into force 10 years ago in 1995, has led to an increase in the import of farm products into India rather than boosting exports.

We need to make an effort to improve India’s price competitiveness, which would definitely help India capture a higher share in the world imports. There are various reasons why India lags behind in being price competitive. One of the factors, which contribute to the higher pricing of products, is that the farmer does not sell his products directly into the main market. Various intermediate steps are involved, before the produce finally comes to the ports for export, due to which, the price becomes higher and ultimately in the international markets,
Indian agricultural products are more expensive, thereby losing their competitiveness. There are restrictions on direct sales from farm to traders, sales outside regulated markets and disposal of forestry produce raised on farmlands. These need to be appropriately changed to reduce transaction costs, reduce the share of the middlemen and to give a wider choice to farmers in production and sale. We need to capture major markets of the world like the markets of EU, Japan and US, identify the top imports of these countries and evaluate our major exports to these countries.

It is expected that reduction in export subsidy and domestic support to the agricultural sector by the developed countries may lead to a decrease in production in those countries and, therefore, will give scope for expansion of exports from the developing countries. India, with its cheap labour, diverse agroclimatic conditions and large agricultural sector can definitely gain through expansion of international trade in agricultural products. However, the concerns relating to quality of products for seeking markets in the advanced countries needs to be addressed on an urgent basis.

India has to develop, diversify and add value to its agricultural production structure and become competitive, and thus compete in international markets including in exporting high value products. Some issues in this regard included the rising cost of inputs which impinged on competitiveness of agricultural production and exports; non-tariff barriers such as SPS; and constraints in financing and other instruments including measures identified, for example, by the Monterrey Conference on Financing for Development and the World Summit on Sustainable Development.

This chapter argues that India should engage more actively in the multilateral trading system. Because engagement can facilitate domestic reform
and enhance access for India’s exports. India is now at a critical juncture. It is an increasingly willing reformer, but confronted by opposition to reform domestically. At the same time, market access in areas of major export interest remains impeded. Multilateral engagement pits these two elements against each other constructively. On the one hand, domestic reform would be facilitated if the government could demonstrate that there were payoffs in terms of increased access abroad. The gainers from the increased access, be they exporters of textiles, software, professional services or other products, could represent a countervailing voice to groups that resist reform. On the other hand, the need to demonstrate external payoffs to secure greater openness at home makes India a credible bargainer, and could help induce trading partners to open their own markets.

India has a large potential to increase its agricultural exports in a liberalized world provided it can diversify a significant part of its agriculture into high-value crops and in agro processing. This would depend first on undertaking large infrastructure investment in agricultural and agro-processing as also in rural infrastructure and research and development. India has not only to create export surplus but also to become competitive through increased efficiency of production in agriculture. The potential for exports would also depend on freeing of agricultural markets by the developed countries (Malik).

India being a net exporter in agriculture products, it has more to gain from the trade reforms. It has sufficiently high bound rates on most of the products and therefore, flexibility can be ensured against unfair competition. India does not have to worry about its subsidy, as it is already below the required line and it also does not have any domestic support to recon with. All these place India in an advantageous position. Moreover, the ongoing negotiations are likely to yield
enough flexibility in product choice and tariff selection. Exports of agricultural commodities, particularly foodgrains, accelerated in this period. For example, for the first time since independence, India has been a net exporter of foodgrains consecutively for the last six years, net exports amounting, on an average, to around 1.8 million tonnes per annum [Government of India 2001]. In the light of this evidence, the fears being expressed in certain quarters that import of foodgrains under the new liberalised trade regime is having a dampening effect on the foodgrain prices in the country is totally misplaced. It is true that, recently, the post-harvest prices of wheat and rice have been ruling below the minimum support prices in certain markets. The present glut in the foodgrains market cannot be adequately explained by the import of wheat to the extent of 2.8 million tonnes during 1997-98 and 1998-99 when government had imposed a ban on wheat exports and opened up imports at zero import duty. A plausible explanation is that there has been a steep rise in procurement prices in the recent period, when there has in fact been a downward trend in international prices. The minimum support (procurement) prices of wheat, for example, were raised by 45 per cent within a period of three years ending 1999-2000 [Commission for Agricultural Costs and Prices 2000]. Procurement of foodgrains reached an all time high of 19.7 per cent of net production in the year 2000 [Government of India 2001]. Moreover, whereas the per capita availability of foodgrains was rising at the rate of 1.2 per cent per annum during the 1980s, it has declined at the rate of 0.28 per cent per annum during the 1990s [Government of India 2000]. This suggests that the trend of a decline in per capita consumption of foodgrains and the diversification of the consumption basket in the richer states and among the upper consumption groups, already in evidence in the 1970s and the 1980s according to the National Sample Survey data [Rao 2000], seems to have been reinforced in the post-reform period of 1990s owing to the availability of a wide
variety of non-agricultural goods and services as well as the rise in the relative prices of food grains. Whereas the consumption of food grains among the bottom 30 per cent of population was still rising in the 1980s, though slowly, the steep rise in food grain prices in the 1990s may have dampened consumption among these poorer sections. It almost appears that the country is caught in the 'advanced country syndrome' of support prices feeding on themselves leading to reduced consumption, embarrassing surpluses, reduced incentives for diversification of agriculture and for the adoption of cost-reducing technologies. This evidence does not lend credence to the view that trade liberalisation would endanger India's food security. Achievement of effective food security when enough stocks of foodgrains can be accumulated, thanks to India's comparative advantage in respect of major cereals, hinges basically on raising the purchasing power of the poor through the generation of employment opportunities. If the prices of foodgrains at the moment are out of the reach of the poor, it is not due to the rise in exports but to the steep rise in procure-ment and issue prices.

REFERENCE


