Chapter 8. SPATIAL AND TEMPORAL ANALYSIS OF BASMATI RICE TRADE

This chapter attempts a comparative study of the spatial and temporal features of Basmati rice trade of India vis-à-vis Pakistan. Due to unavailability of systematic data on production, area and yield of Basmati, the analysis of international trade in Basmati has been based on some information gathered from APEDA as well as some secondary data sources like, FAO Trade Yearbook, DGCIS and CMIE. Lack of relevant statistical data of Pakistan also poses problems in examining the comparison of Pakistan’s competitiveness of Basmati rice with that of India. However, this information has been gathered from some reliable websites like www.oryza.com and www.statpak.gov.pk which is the website of the Federal Bureau of Statistics of Pakistan.

This chapter has been organised into four sections namely Basmati rice trade of India, Basmati rice trade of Pakistan, comparison of Basmati rice trade of India and Pakistan and problems faced by Basmati in India.

8.1. Basmati Rice Trade of India

Indian rice exports have shown a phenomenal growth in the last decade. Till 1994 India’s share in world rice trade was very low – only around 5 per cent but in 2005-06 it became 18 per cent (Economic Survey). In fact, rice promises to boost our export earnings substantially in times to come with the growing global rice markets.

Although precise information on domestic production of Basmati is not known due to non-availability of data, it is estimated that its production is around 2.5 Million MT on an area of 7.85 Lakh Hectares. The domestic consumption has been hovering around 0.5 Million MT over the years33. Hence, the export thrust on this high value commodity has been very high and exports have been growing at a trend rate of 5.33 per cent since 1980-81 to 2005-06.

The surge in Basmati exports has come mainly at the expense of long grain rice varieties from other countries, such as Thailand’s ‘Jasmine’ and ‘2473’ of the US. To illustrate, the traditional Brown Basmati of Indian origin quoted at $675 per tonne

33 Information obtained from APEDA
FOB and the premium varieties quoted $850 per tonne FOB. These were way above the corresponding rates of $445 per tonne for Thai Jasmine and $250 per tonne for US 2473. The Thai Jasmine rice is another aromatic variety, but it is gluttonous, while Basmati is non-sticky on being cooked. Therefore, both in terms of quality as well as prices, neither of these varieties can be compared to Basmati rice.

8.1.1. Rice Trade Policy of India

Until 1991, exportation and importation of selected commodities have been subjected to various kinds of regulations and restrictions. In the case of rice, different policies have been followed for Basmati and Non-Basmati rice. In this chapter the policies undertaken for both rice varieties have been discussed. Until 1991 the export of Basmati rice was under the Open General License (OGL). However, exports of Non-Basmati rice were subject to canalization, minimum export pricing and export quotas. There were also restrictions on stocking rice beyond a time limit unless there was export order in hand (Datta, 1996). Imports of rice have been subject to quantitative restrictions and were resorted to occasionally when domestic production dropped significantly. Since India is export competitive, these policies in an environment of fierce competition from countries like Pakistan (in case of Basmati rice) and Thailand (in case of Non-Basmati rice) were acting as impediments. The minimum export price for Basmati rice was, however, abolished in January 1994. Basmati rice produced in India was mostly exported and there was no restriction on its export.

Restrictions on exports of Non-Basmati rice were somewhat relaxed during 1992 following the initiation of economic reform programmes in June 1991. Until March 1991, India’s export of Non-Basmati rice was not significant mainly because India’s export price was not competitive against the world rice price. Devaluation of the Indian Rupee in 1991 changed the situation dramatically (Figure 8.1). Subsequently quota system on export of rice was also abolished which further improved possibility of rice export (Bhasin, 1996). Rice exports are free and there is no duty on imports.

A major boost to Non-Basmati rice export occurred during 1995-96, when under a major policy change; the government of India released 2 million tonnes of rice from its stock for exports. This was done to reduce excess stock holding of FCI that was swelling at a fast rate. Due to a comfortable situation on the food front till 2001, quantitative ceilings on rice exports had been abolished. To further enhance
exports, the Food Corporation of India (FCI) had been permitted to export larger quantities of rice (Chand and Jha, 2001 and Chand 2002).

However in recent years India has been heading towards a serious shortage of rice as its production declined from 93.34 (MT) in 2001-02 to 92.76 MT in 2006-07. Panic-struck, the government banned exports of Non-Basmati rice but partially revoked it during mid-October 2007. To augment local needs a temporary solution could be imports, but this would lead to a rise in global rice prices.
Figure 8.1: Rice Exports from India ('000 Tonnes)

Source: Export Statistics for Agriculture and Food Products, APEDA, Various Issues (Appendix Table G-I)

Chapter 8: Spatial and Temporal Analysis of Basmati Rice Trade
8.1.2. Shares of Values of Agricultural Commodity Exports in Total Agricultural Exports (%)

India is a major rice exporter and annually exports about 5 million tons, or about 17 percent of world trade (Appendix Table G-7). Among rice exports about 22 percent is Basmati rice. In the present decade there has been a remarkable increase in the country’s forex earnings from rice exports.

Table 8.1: Share of Value of Agricultural Commodities Exports in Total Agro-Exports of India (%)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basmati Rice</td>
<td>9.68</td>
<td>6.14</td>
<td>8.40</td>
<td>6.58</td>
<td>8.03</td>
<td>6.05</td>
<td>8.54</td>
<td>7.31</td>
<td>8.19</td>
</tr>
<tr>
<td>Non-Basmati Rice</td>
<td>3.02</td>
<td>0.38</td>
<td>0.42</td>
<td>2.63</td>
<td>2.26</td>
<td>11.90</td>
<td>9.80</td>
<td>9.04</td>
<td>11.31</td>
</tr>
<tr>
<td>Coffee</td>
<td>8.94</td>
<td>8.53</td>
<td>8.74</td>
<td>5.41</td>
<td>6.02</td>
<td>7.47</td>
<td>6.42</td>
<td>3.94</td>
<td>3.73</td>
</tr>
<tr>
<td>Tea &amp; Mate</td>
<td>19.42</td>
<td>24.79</td>
<td>18.30</td>
<td>18.33</td>
<td>9.22</td>
<td>6.55</td>
<td>8.87</td>
<td>6.21</td>
<td>5.01</td>
</tr>
<tr>
<td>Oil Cakes</td>
<td>6.32</td>
<td>5.57</td>
<td>8.16</td>
<td>12.10</td>
<td>17.32</td>
<td>14.91</td>
<td>8.26</td>
<td>9.28</td>
<td>11.30</td>
</tr>
<tr>
<td>Tobacco</td>
<td>9.94</td>
<td>6.90</td>
<td>4.60</td>
<td>4.56</td>
<td>3.65</td>
<td>3.63</td>
<td>3.88</td>
<td>3.63</td>
<td>3.62</td>
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<tr>
<td>Cashew Kernels</td>
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<td>9.46</td>
<td>8.34</td>
<td>9.30</td>
<td>6.35</td>
<td>8.77</td>
<td>6.69</td>
<td>7.12</td>
</tr>
<tr>
<td>Spices</td>
<td>3.16</td>
<td>7.71</td>
<td>9.16</td>
<td>5.18</td>
<td>4.81</td>
<td>5.46</td>
<td>7.35</td>
<td>5.82</td>
<td>5.61</td>
</tr>
<tr>
<td>Sugar &amp; Molasses</td>
<td>2.72</td>
<td>3.16</td>
<td>0.23</td>
<td>1.17</td>
<td>1.83</td>
<td>2.99</td>
<td>0.81</td>
<td>5.97</td>
<td>1.06</td>
</tr>
<tr>
<td>Raw Cotton</td>
<td>5.14</td>
<td>3.86</td>
<td>3.56</td>
<td>7.44</td>
<td>2.98</td>
<td>4.15</td>
<td>0.75</td>
<td>1.30</td>
<td>4.69</td>
</tr>
<tr>
<td>Fish &amp; Fish Preparations</td>
<td>13.81</td>
<td>15.08</td>
<td>17.38</td>
<td>17.17</td>
<td>23.91</td>
<td>19.12</td>
<td>23.19</td>
<td>23.44</td>
<td>18.93</td>
</tr>
<tr>
<td>Meat &amp; Meat Preparations</td>
<td>3.46</td>
<td>3.00</td>
<td>2.63</td>
<td>2.69</td>
<td>2.77</td>
<td>3.45</td>
<td>4.48</td>
<td>5.32</td>
<td>6.53</td>
</tr>
<tr>
<td>Fruits</td>
<td>5.39</td>
<td>4.78</td>
<td>4.63</td>
<td>4.31</td>
<td>4.46</td>
<td>4.34</td>
<td>5.52</td>
<td>6.97</td>
<td>8.89</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.59</td>
<td>2.89</td>
<td>4.33</td>
<td>4.11</td>
<td>3.44</td>
<td>3.65</td>
<td>3.36</td>
<td>5.11</td>
<td>4.02</td>
</tr>
</tbody>
</table>

Source: Calculated from data on Exports of Agriculture and Allied Activities, Economic Survey, Various Issues (Appendix Table G-2)

$^{34}$ TE – Triennium Ending
Figure 8.2: Share of Value of Agricultural Commodities Exports in Total Agro-Exports of India (%)
Some of the key trends that are noticed from Table 8.1 and Figure 8.2 are that the contribution of Basmati in India's agro-export has more or less remained constant over the years and has varied between ranges of 6 per cent to 10 per cent. Non-Basmati has shown significant increase post 1994. Most of the growth took place in one triennium (TE 1997) when it increased from around 3 per cent to more than 10 per cent. However since TE 1997 the contribution of Non-Basmati has been more or less constant and has hovered around 10 per cent. Since TE 1997 the contribution of Non-Basmati in agro exports of India has been higher than Basmati. For other commodities it is seen that over the years Tea has shown significant decline while Marine products have shown significant increase. Oil cakes had increased in mid nineties but have since fallen.

8.1.3. Rice Exports from India

In Figure 8.1 Basmati rice exports have been compared with Non-Basmati exports. Traditionally India was a producer of both Basmati and Non-Basmati rice but the surplus needed for exports of Non-Basmati rice was not enough and there were many restrictions on its exports. Since 1992-93 after devaluation of the rupee and further since 1995 after export of Non-Basmati rice was allowed as a result of change in the government policy towards Non-Basmati as well as higher surplus, Non-Basmati rice started dominating the rice exports. The jump in Non-Basmati exports is indicated by a high trend growth rate of 26.32 per cent from 1980-81 to 2005-06 that is statistically significant at 1 per cent level of significance. However, the fluctuations in Non-Basmati exports after 1995-96 are due to demand and supply factors. Rice exports are more whenever there is a sudden shortfall in world supply or a sudden rise in world demand coupled with surplus production at home (Datta, 2000). Basmati rice was mostly meant to be exported and hence there was no restriction on its export. Basmati rice exports have grown at a trend growth rate of 5.33 per cent from 1980-81 to 2005-06 and this growth rate is statistically significant at 1 per cent level of significance.

However, the quantum of Basmati exports from India is much less when compared to Non-Basmati especially in the decade of the nineties and this might be due to the fact that Basmati rice is cultivated in small pockets of the country whereas other common rice varieties are grown in many parts. Therefore, the production of Basmati is lesser than Non-Basmati. Secondly, most countries in the world may not be aware of the differences between both varieties of rice. Since Non-Basmati is
cheaper than Basmati, they mostly purchase Non-Basmati rice. Thirdly, some Middle-East countries like Saudi Arabia, United Arab Emirates (UAE) and Kuwait, who are major consumers of Basmati, might have a preference to trade with a fraternal Islamic country i.e., Pakistan.

8.1.4. Export Prices of Rice in India

Basmati rice fetches good export price in the international market for its three distinct qualities i.e., pleasant aroma, super fine grains and extreme grain elongation. Basmati rice is a high foreign exchange earner compared to Non-Basmati rice as it has always fetched higher export prices. Its export prices are about 3 times higher than that of Non-Basmati (Appendix Table G-1). The world price for Basmati is the Indian export price. The overall trend growth rate of Basmati export prices from 1980-81 to 2005-06 is 0.18 per cent that is not statistically significant.

The coefficient of variation (CV) of Basmati export price is 12.98 per cent from 1980-81 to 2005-06. Price fluctuations in Basmati are a result of production fluctuations at home and demand fluctuations in an importing country. Secondly, fluctuations in rice exports in certain years are also because of hoarding by importing countries when prices are low. Lastly, competition from Pakistan also cause such price fluctuations because the bulk of Basmati exports from India go to the Middle-East countries whose consumers are less demanding in terms of quality as compared to the European or the American customers. This poses stiff competition to Indian exporters from their Pakistani counterparts, as they are not very quality conscious too. As a result, many exporters compromise on quality to match low-values quotations of the importers and thus further complicate the problem by inducing a chain-effect – still lower valued quotations and further deterioration in quality. Moreover, as most of the Indian exporters are dependent on local distributors in this market segment, they are often forced to sell in the local distributors’ brand name and are thus deprived of the benefits of value addition. Since a large part of Indian exports of Basmati go to the Middle-East, fluctuations in unit price realization in this market segment consequent upon the above stated problems contribute to persistent fluctuations in unit price realization on Basmati exports in general (Datta, S.K, 2000).
Figure 8.3: Export Prices of Rice in India (US$/Tonne)

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues (Appendix Table G-1)

Chapter 8: Spatial and Temporal Analysis of Basmati Rice Trade

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8.1.5. Analysis of Overseas Markets of Basmati Rice of India

Uptil 2005-06 Basmati is being exported to 148 countries. However, destination wise exports of India’s Basmati rice reveal concentration of exports in a few countries. In the recent two years Saudi Arabia, Kuwait, UAE, UK and USA received about 81 per cent of India’s Basmati exports. Amongst these countries the share of the Middle-East countries is 70.67 per cent. In the Middle-East exports to Saudi Arabia has been the highest (57.33 per cent). Saudi Arabia, Kuwait and UAE are the countries, which have been among the top five major Basmati rice importing countries consistently in all the trienniums (Table 8.2). UK and USA came up in the major rice importing countries’ list during the 1990s. Incidentally all these countries also have a high Indian population which forms one of the basic demand factors for Basmati rice, the other factor being consumer preference for this particular rice variety. USSR had dominated Basmati imports during the 1980s. However, ever since it disintegration in the 1990s the imports of individual countries have been very low.

Table 8.2: Percentage Shares of Basmati Rice Exports in Quantity Terms to Major Buyers

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>11.34</td>
<td>27.40</td>
<td>22.35</td>
<td>49.55</td>
<td>62.48</td>
<td>54.68</td>
<td>62.98</td>
<td>56.27</td>
<td>57.33</td>
</tr>
<tr>
<td>Kuwait</td>
<td>4.42</td>
<td>11.21</td>
<td>9.51</td>
<td>5.32</td>
<td>8.44</td>
<td>9.93</td>
<td>7.74</td>
<td>8.25</td>
<td>8.04</td>
</tr>
<tr>
<td>UAE</td>
<td>3.15</td>
<td>11.74</td>
<td>6.86</td>
<td>6.36</td>
<td>8.05</td>
<td>5.36</td>
<td>3.94</td>
<td>3.86</td>
<td>5.30</td>
</tr>
<tr>
<td>UK</td>
<td>2.65</td>
<td>7.37</td>
<td>5.62</td>
<td>8.41</td>
<td>9.20</td>
<td>9.20</td>
<td>10.08</td>
<td>10.33</td>
<td>7.73</td>
</tr>
<tr>
<td>USA</td>
<td>0.45</td>
<td>2.56</td>
<td>3.03</td>
<td>3.07</td>
<td>2.56</td>
<td>10.05</td>
<td>2.75</td>
<td>3.92</td>
<td>2.60</td>
</tr>
<tr>
<td>USSR(^{35})</td>
<td>62.94</td>
<td>32.11</td>
<td>40.01</td>
<td>24.34</td>
<td>0.22</td>
<td>0.40</td>
<td>0.17</td>
<td>0.14</td>
<td>0.01</td>
</tr>
<tr>
<td>Others(^{36})</td>
<td>15.05</td>
<td>7.61</td>
<td>12.62</td>
<td>2.96</td>
<td>9.05</td>
<td>10.38</td>
<td>12.34</td>
<td>17.23</td>
<td>18.98</td>
</tr>
</tbody>
</table>

Source: Calculated from Data on Export Statistics for Agriculture and Food Products – APEDA, DGCI\& CMIE.

8.1.6. Global Competitiveness of India’s Basmati Rice

The rapid changes in the process of economic reform, globalization and liberalization have created greater compulsions for our agriculture to be productive and competitive than ever before. For understanding the global competitiveness of Basmati rice indices such as Domestic Resource Cost Ratio (DRCR) and the Nominal Protection Coefficients (NPC) have been worked out. NPC is a traditional index of

\(^{35}\) For USSR the figures from TE-1994 onwards belong to Russia.

\(^{36}\) Other shareholders like Africa, Oceania, South America etc.
competitiveness and it judges competitiveness from the viewpoint of the isolated trader or the trader-cum-processor while DRCR looks at it in an integrated manner i.e., from the perspective of the competitiveness of the Indian Basmati paddy farmer.

8.1.6.1. Domestic Resource Cost Ratio (DRCR)

Domestic Resource Cost Ratio (DRCR) measures the efficiency of domestic production of a particular commodity or its international competitiveness. DRCR is defined as the value of domestic resources needed to earn or save a unit of foreign exchange through the production of the commodity. The domestic resources broadly comprise primary, non-traded factors of production such as land, labour and non-traded capital. The traded final goods are evaluated at the border prices. The non-traded goods are divided into traded inputs and non-traded primary factors. The traded components of non-traded inputs are evaluated at the border price, while the non-traded components are evaluated at the shadow prices. Thus, the DRCR is measured as the ratio of the cost of domestic/primary resources evaluated at shadow prices to the net foreign exchange earnings i.e., traded output value minus value of traded inputs evaluated at border prices. Symbolically, it is defined as;

\[
DRC_i = \frac{\sum_{j=k+1}^{n} a_{ij} V_j}{P_i^b - \sum_{j=1}^{k} a_{ij} P_j^b}
\]

Where,

- \(DRC_i\) is the domestic resource cost of the \(i^{th}\) commodity
- \(a_{ij}\) is the quantity of \(j^{th}\) input required to produce \(i^{th}\) commodity
- \(V_j\) is the shadow price of \(j^{th}\) domestic resource or non-traded input
- \(P_i^b\) is the border price of the \(i^{th}\) commodity adjusted for transportation, handling and marketing charges
- \(P_j^b\) is the border price of the \(j^{th}\) traded input adjusted for transportation, handling and marketing charges
- \(j=1\) to \(k\) is the directly traded inputs and traded components of non-traded inputs
- \(j=k+1\) to \(n\) is the primary inputs and the non-traded components of non-traded inputs
In this study, DRCR is calculated for Basmati rice under exportable hypothesis. If DRCR<1 it means that for earning one unit of foreign exchange less than one units of domestic resources are required. This indicates that the commodity under consideration is competitive. The methodology used to calculate DRCR has been explained in detail in Appendix Table G-3.

The data adjustments that were required for this exercise have been mentioned as follows. As explained above, the domestic/primary resources are valued at the shadow prices, while the traded inputs are valued at the international prices converted into domestic currency by the appropriate exchange rate (border price). The shadow prices for various inputs have been calculated based on field survey data collected from Amritsar and Gurdaspur districts of Punjab and, Karnal and Panipat districts of Haryana. The technical coefficients (input-output) have also been derived from the survey data. The international prices data have been compiled from different published sources such as DGCIS, Fertilizer Statistics and FAO Trade Year Book.

The actual price is the actual value received by a producer by the sale of any commodity whereas the shadow price is the potential value that any non-tradable item can generate. Thus, the opportunity cost or shadow price of land is indicated by the prevailing rental value of land. The market wage rate is considered for opportunity cost of human labour. For use of power, the electricity charge is taken as the shadow price. For calculating the shadow prices for irrigation the canal water charges have been taken. The prices of tradable inputs such as seeds, fertilizers, insecticides and farm machinery have been valued at their border prices i.e., market prices divided by their respective NPCs. Seeds are valued at their border price equivalents by dividing the domestic price of seeds by the NPCs of their outputs. This presumes that the percentage deviation in the domestic and world reference price of a particular crop seed is the same as that in the prices of its output. That is the level of protection in the seed price and its output price is the same. Similarly fertilizers and insecticides are also valued at their border price equivalents by dividing their market rates by the NPCs of fertilizers and insecticides, respectively (Gulati and Kelly, 1999). For estimating the NPCs of fertilizers and insecticides in this study, the exercise has been carried out only for Urea (fertilizer) and Endosulfan (pesticide) because these are mostly used in paddy cultivation. Similarly, farm machinery has been approximated by tractors as this is the most dominant machinery on mechanized farms (Appendix Table G-3).
Table 8.3: Domestic Resource Cost Ratios for Paddy

<table>
<thead>
<tr>
<th>Rice Varieties</th>
<th>Punjab</th>
<th>Haryana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basmati</td>
<td>0.372</td>
<td>0.321</td>
</tr>
<tr>
<td>Non-Basmati</td>
<td>0.667</td>
<td>0.581</td>
</tr>
</tbody>
</table>

Source: Primary Field Survey (Appendix Table G-3)

The DRCR coefficients of Basmati are less than Non-Basmati indicating that Basmati is more internationally competitive than Non-Basmati in Punjab and Haryana (Table 8.3). Further, the Basmati from Haryana farms is more internationally competitive than Punjab. When these DRCR coefficients are compared with those calculated by Samar.K.Datta (2000), it is seen that the DRCR coefficients for Basmati rice has declined since 1998. This means that over the years the competitiveness of the Indian Basmati paddy has increased (Appendix Table G-4).

8.1.6.2. Nominal Protection Coefficient (NPC)

Another method to determine the export competitiveness of Basmati Rice is that of Nominal Protection Coefficient (NPC). The NPC is the ratio of Domestic price of a commodity to its Border price. Symbolically,

\[ NPC = \frac{P_d}{P_b} \]

Where,

\[ NPC = \text{Nominal Protection Coefficient of the commodity under consideration} \]

\[ P_d = \text{Domestic Price of the commodity} \]

\[ P_b = \text{Border or Reference price of the commodity after taking care of transportation and marketing expenses} \]

Under exportable hypothesis the commodity in question is treated as an exportable and competes with the domestically produced commodity at a foreign port. The variant of NPC reveals that a particular commodity is efficient to be exportable, if the NPC is less than unity i.e., one. For Indian Basmati rice, the domestic price has been taken to be its average wholesale price received from major grain markets in Punjab and Haryana. Indian Basmati prices rule the world market, as they are higher

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37 It is to be mentioned here that in the paper of Samar.K.Datta (2000), Basmati and three Non-Basmati varieties of Haryana were studied. The three Non-Basmati varieties were Haryana Gaurab, UP-71/12 and PR-106. The NPC and DRC were calculated for these three varieties.

than Pakistan. Thus, the Indian Basmati export prices have been taken to represent the border prices. The relevant border or reference price under this hypothesis is obtained after deducting the road transportation costs, marketing costs and port charges from the export prices (Chand, R., 2002).

The NPCs of Basmati rice for two major rice-exporting states of Punjab and Haryana have been given in Table 8.4. It shows that Basmati rice is competitive and exportable since its coefficients are lower than 1. The nominal protection coefficients of Punjab are greater than Haryana implying that the competitiveness of Basmati is less in Punjab than Haryana. However, the NPCs in both states have been increasing in the last two years implying that the export competitiveness of Basmati is declining and this decline is more evident in the state of Punjab. Thus, Basmati rice is more competitive especially from Haryana but its export competitiveness is declining as its coefficients have been increasing in the last two years. When the NPC figures are compared with those calculated by Samar.K.Datta (2000), it is seen that the NPC values for Basmati rice have increased since 1998 (Appendix Table G-4).

Table 8.4: Nominal Protection Coefficients for Basmati Rice Exports in Punjab and Haryana

<table>
<thead>
<tr>
<th>Years</th>
<th>Punjab</th>
<th>Haryana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-01</td>
<td>0.83</td>
<td>0.77</td>
</tr>
<tr>
<td>2001-02</td>
<td>0.77</td>
<td>0.75</td>
</tr>
<tr>
<td>2002-03</td>
<td>0.98</td>
<td>0.77</td>
</tr>
<tr>
<td>2003-04</td>
<td>0.99</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Source: Calculated from Data received from APEDA, DGCIS and CMIE, Wholesale prices in major Grain Markets of Punjab and Haryana, Ramesh Chand, (2002)\(^{39}\).

Based on the analysis of export competitiveness of Basmati rice it has been brought out that Indian Basmati rice is slightly less competitive in terms of the traditional index of competitiveness i.e., the NPC when compared to the DRCR. India is quite comfortable in the relevant competitive index namely the DRCR. This means that if one looks at the Basmati paddy system as a whole, India’s export competitiveness has been more than what the traditional measures seem to suggest. This means that India can promote her Basmati exports without violating supply constraints at home and also without killing the domestic market; this assuming that India has remained the world leader in Basmati prices and shall always remain competitive.

8.2. Basmati Rice Trade of Pakistan

For Pakistan the other key rice exporting nation, and India's sole competitor in Basmati exports, rice is not the staple food of the majority of people but it is a very important foreign exchange earner. Pakistan annually exports about 2 million tons of rice, or about 10 per cent of world trade (Appendix Table G-7). Pakistan's main competitors in rice trade are Thailand, Vietnam, and India. Rice is Pakistan's second leading source of export earnings. Export earnings from rice formed about 1/5th of the total export earnings of the country (Bhasin, 1996). In the year 2005-06 rice exports formed 49 per cent of the total export earnings of Pakistan (FAO Trade Yearbook). Basmati rice constitutes about 25 per cent of its rice exports. In Pakistan too, just like India, Basmati rice is a high foreign exchange earner compared to Non-Basmati as its export prices are also about 3 times higher than that of Non-Basmati (Appendix Table G-5).

Before 1987-88, the Rice Export Corporation of Pakistan (RECP) was exclusively handling rice exports of Pakistan. It was the sole rice procurement agency in the country while Pakistan's Agriculture Storage and Supplies Corporation (PASSCO) procured very small quantities and the rest was obtained by the private sector for local consumption. In 1987-88 the government allowed rice export also by the private sector. Due to this a new body of people emerged in the shape of rice exporters. The rice exporters had no platform from which to interact with the government. So, in 1988-89, the Rice Exporters Association of Pakistan (REAP) came into existence and started interacting with the Ministry of Commerce and Ministry of Food, Agriculture and Livestock and also the Planning Division of the Government of Pakistan. With establishment of REAP, rice exports from Pakistan increased manifold (Appendix Table G-5).

8.2.1. Basmati Supply Constraints in Pakistan

Herein it is important to know that there are several supply constraints operating for Basmati cultivated in Pakistan. In Pakistan, Basmati rice is cultivated only in the province of Punjab while in India it is cultivated in a larger belt. Thus, production as well as exportable surplus of Basmati in Pakistan might be less than that of India. Secondly, Pakistan grows very few Basmati varieties namely ‘Kernel’ and ‘B-370’ which are traditional varieties as well as ‘Super’ and ‘B-385’ which are hybrid varieties. India on the other hand cultivates eleven approved varieties of Basmati.
Among Basmati varieties, Pakistan mainly cultivates the hybrid Super Basmati. Pakistan registered ‘Super Basmati’ in 1995 in the Official Gazette under its Seeds Act 1976. Incidentally, this does not conform to the international registration benchmarks but it has been producing and exporting rice since way back in 1985. Thirdly, the hybrid varieties that Pakistan mainly grows like ‘Super Basmati’ and ‘Basmati 385’ are priced around $470-490 per tonne FOB and $350-370 per tonne FOB respectively. India on the other hand mostly grows traditional Basmati varieties that quote around $850 per tone FOB. However, Super Basmati of Pakistan has always fetched a premium in international markets over Pusa Basmati of India, though not over traditional varieties. It quotes at $60-70 per tonne FOB over the hybrid Pusa Basmati of India. Fourthly, in recent years there have been shortages in supplies as crop yields are said to have declined due to old seeds and irrigation problems. Moreover, appreciation in the local currency against most currencies has been making Pakistani hybrid exports uncompetitive against Indian exports.

8.2.2. Basmati Exports from Pakistan

In Pakistan, despite several supply constraints as mentioned above, Basmati rice exports grew at nearly the same trend growth rate as that of India i.e., 5.36 per cent from 1980-81 to 2005-06 and this is statistically significant at 1 per cent level of significance. Basmati export prices show a negative trend growth rate of -1.68 per cent from 1980-81 to 2005-06 that too is statistically significant at 1 per cent. The export price trend growth rate has shown a decline probably due to higher exports of cheaper hybrid varieties than costlier traditional ones in recent years.
Figure 8.4: Export Prices of Basmati Rice (US $/Tonne)

Export Prices of Basmati Rice (US $/Tonne)

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues (Appendix Table G-1 and Appendix Table G-5)

Chapter 8: Spatial and Temporal Analysis of Basmati Rice Trade
From the Figure 8.4 it is seen that the export prices of Basmati rice are higher for Pakistan compared to India till 1989-90. After that India’s export prices are higher. Pakistan’s price plummeted during 1989-90 to 1990-91 from 685 US$/Tonne to 468.3 US$/Tonne. This is because as mentioned earlier, with establishment of Rice Exporters Association of Pakistan (REAP) in 1988-89, rice exports from Pakistan started to be handled by private traders which boosted rice exports especially that of Basmati which increased significantly from 2.07 MTs in 1989-90 to 4.66 MTs in 1990-91 (Appendix Table G-5). Due to this huge surge in supply Basmati export prices thereby plummeted between 1989-90 and 1990-91. This sudden decline in Basmati export prices of Pakistan is reflected in a high coefficient of variation of 21.08 per cent between 1980-81 and 2005-06.

Since 2000-01, prices between India and Pakistan have started to narrow down. Especially since 1999-2000 Indian prices have shown a decline in response to a bumper crop production while Pakistani prices are gradually increasing due to shortage of supplies mainly due to old seeds and irrigation problems. In the year 2004-05 Basmati rice prices in both countries were nearly the same and they diverged in following year, with India’s prices still remaining higher than Pakistan.

Ever since 1990-91 Basmati export prices of Pakistan have remained lower than India. The reason for this is that unlike earlier, and especially since the last decade Pakistan is mainly exporting more hybrid varieties that are cheaper as compared to India which might be exporting more traditional varieties that are costlier. Other possible reasons could be that, freight charges are also less in Pakistan compared to India, which might also result in low prices. Lastly, Pakistani exporters have to pay much less taxes compared to their Indian counterparts.

8.2.3. Overseas Markets of Basmati Rice of Pakistan

For Pakistan the major buyers are African nations, Afghanistan, Bangladesh, Indonesia, Middle-East and EU. Pakistan has a slight edge over India in Dubai. But in Saudi Arabia, India dominates by 80:20 (www.oryza.com).

8.3. Comparison of Basmati Rice Trade of India and Pakistan

A comparative picture on Basmati rice trade of India and Pakistan that emerges from the above sections is that the trend growth rates of Basmati exports from 1980-81 to 2005-06 for both countries is nearly the same i.e., around 5 per cent. However, for the
same time period, Basmati export price growth rates of India are positive while that of Pakistan is negative. In India export price fluctuations are much less than Pakistan. Till 1989-90 export prices of Basmati from Pakistan were higher than India after which it declined firstly because private traders under REAP were allowed to handle rice exports which resulted in a huge surge in exports which in turn reduced prices drastically. However, ever since 1990-91 export prices of Basmati of Pakistan have remained lower than India because Pakistan is mainly exporting more hybrid varieties that are cheaper compared to India which might be exporting more traditional varieties that are costlier. Lastly, Middle-East and EU are the main buyers of the sub-continent’s Basmati rice.

8.3.1. Basmati Rice Market Share

The market shares of Basmati rice in value terms show fluctuations in both India and Pakistan (Figure 8.5). After 1995-96 India’s share has been consistently higher. However, the world market share of Basmati from Pakistan started to increase since the year 2000-01 and caught on to the level of India in 2003-04. However, since 2004-05 there has once again been a divergence, though the differences in market shares between both countries seem to be narrowing over the recent years.
Figure 8.5: Market Share of Basmati Rice in Value Terms (%)

Market Share of Basmati Rice in Value Terms (%)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>41.30</td>
<td>60.54</td>
<td>55.72</td>
<td>30.96</td>
<td>56.15</td>
<td>47.74</td>
<td>53.10</td>
<td>60.38</td>
<td>58.84</td>
<td>63.11</td>
<td>43.07</td>
<td>43.55</td>
<td>53.39</td>
<td>72.87</td>
<td>60.00</td>
<td>46.27</td>
<td>63.17</td>
<td>64.15</td>
<td>61.16</td>
<td>58.58</td>
<td>66.72</td>
<td>60.51</td>
<td>55.42</td>
<td>51.12</td>
<td>58.91</td>
<td>57.47</td>
</tr>
<tr>
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<td>39.46</td>
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<td>69.04</td>
<td>43.85</td>
<td>52.26</td>
<td>46.90</td>
<td>39.62</td>
<td>41.16</td>
<td>36.89</td>
<td>56.93</td>
<td>56.45</td>
<td>46.61</td>
<td>27.13</td>
<td>40.00</td>
<td>53.73</td>
<td>36.83</td>
<td>35.85</td>
<td>38.84</td>
<td>41.42</td>
<td>33.28</td>
<td>39.49</td>
<td>44.58</td>
<td>48.88</td>
<td>41.09</td>
<td>42.53</td>
</tr>
</tbody>
</table>

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA and FAO Trade Yearbook, Various Issues (Appendix Table G-6)
8.3.2. Comparative Advantage of Rice Exports

For assessing the comparative advantage of India’s rice exports vis-à-vis Pakistan in the international market, Balassa’s Export Performance Ratios (EPRs) have been calculated. Symbolically, EPRs is defined as:

\[
EPR = \frac{X_k / X_r}{W_k / W_r}
\]

Where,

- \(X_k\) = Total value of export of a selected commodity from India / Pakistan
- \(X_r\) = Total value of merchandise exports from India/Pakistan
- \(W_k\) = Total value of world export of a selected commodity
- \(W_r\) = Total value of merchandise exports of the world

If \(EPR > 1\) the commodity under consideration is said to have comparative advantage in the international market.

Table 8.5: Export Performance Ratios of Rice Exports from India and Pakistan

<table>
<thead>
<tr>
<th>Years</th>
<th>Basmati</th>
<th>Non-Basmati</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>India</td>
<td>Pakistan</td>
</tr>
<tr>
<td>1985-86</td>
<td>104.98</td>
<td>405.16</td>
</tr>
<tr>
<td>1986-87</td>
<td>121.71</td>
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<tr>
<td>1987-88</td>
<td>124.89</td>
<td>262.36</td>
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<tr>
<td>1988-89</td>
<td>122.05</td>
<td>263.45</td>
</tr>
<tr>
<td>1989-90</td>
<td>117.12</td>
<td>240.11</td>
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<tr>
<td>1990-91</td>
<td>82.30</td>
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<td>1991-92</td>
<td>84.33</td>
<td>317.16</td>
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<td>1992-93</td>
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<td>1993-94</td>
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<td>1995-96</td>
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<td>1996-97</td>
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<td>1997-98</td>
<td>100.49</td>
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</tr>
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<td>1998-99</td>
<td>98.74</td>
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</tr>
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<td>1999-2000</td>
<td>89.63</td>
<td>295.15</td>
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<td>2000-01</td>
<td>93.99</td>
<td>235.19</td>
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<td>2001-02</td>
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<tr>
<td>2002-03</td>
<td>66.59</td>
<td>257.10</td>
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<td>2003-04</td>
<td>67.01</td>
<td>296.38</td>
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<tr>
<td>2004-05</td>
<td>60.42</td>
<td>244.60</td>
</tr>
<tr>
<td>2005-06</td>
<td>56.63</td>
<td>262.64</td>
</tr>
</tbody>
</table>

Source: Calculated from Rice exports data received from APEDA and FAO Trade Yearbook, Various Issues (Appendix Table G-6)
The EPRs are much higher than unity thereby showing high comparative advantage of Basmati vis-à-vis Non-Basmati rice. The contribution of Basmati rice exports in the total merchandise exports of India is substantially higher than the contribution of world Basmati rice exports to the total world merchandise exports. Pakistan has higher EPRs or in other words a greater comparative advantage than India because Basmati rice constitutes significantly larger portion of total merchandise exports of Pakistan compared to India. The comparative advantage of India’s Basmati has shown a gradual decline in the past couple of years while that of Pakistan has shown a slight increase. This is because in India the contribution of Basmati rice in the total merchandise trade has reduced while in Pakistan it is increasing (Table 8.5).

This raises a question that if Basmati grown in Pakistan is 20-25 per cent cheaper than India, its market share and comparative advantage in Pakistan is on the rise, then why is there such a stiff competition for Basmati exports between both countries (Figure 8.6)? This is could be because traditional Basmati varieties or pure line cultivars that India mostly cultivates could have greater international demand compared to the hybrid varieties that Pakistan mostly cultivated. So, the important point to be noted here is that despite several supply constraints Basmati exports from Pakistan are at par with India and there is stiff competition between both countries which shows that Pakistan has fared quite well in the Basmati exports sector.
Figure 8.6: Quantity of Basmati Rice Exports ('000 Tonne)

Source: Export Statistics for Agriculture and Food Products, APEDA, Various Issues, Federal Bureau of Statistics, Pakistan (Appendix Table G-1 and Appendix Table G-5)
8.3.3. Basmati Price Sensitivity

Since Basmati rice is a premium product it is less sensitive to small price changes and hence it was initially hypothesized that the demand level of Basmati rice from existing markets will continue to hold. Basmati price sensitivity has been tested by finding the price elasticity of export demand of Basmati rice for all the years from 1980-81 to 2005-06. The price elasticity of demand measures how much the quantity demanded of a good changes when its price changes. The coefficient of price elasticity is calculated numerically for each year according to the following formula.

\[
\text{Price elasticity of demand (E_d)} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}
\]

Table 8.6: Price Elasticity of Export Demand of Basmati Rice

<table>
<thead>
<tr>
<th>Years</th>
<th>India</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basmati Export Price (US$/Ton)</td>
<td>Basmati Quantity Demand ('000 Tonnes)</td>
<td>Basmati Export Price (US$/Ton)</td>
</tr>
<tr>
<td>1980-81</td>
<td>465.92</td>
<td>440.91</td>
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<tr>
<td>1981-82</td>
<td>528.47</td>
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<td>1982-83</td>
<td>534.95</td>
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<td>1983-84</td>
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<td>1984-85</td>
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<td>2003-04</td>
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<td>2004-05</td>
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</tr>
<tr>
<td>2005-06</td>
<td>543.56</td>
<td>1161.44</td>
</tr>
</tbody>
</table>

Price Elasticity

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues, Federal Bureau of Statistics, Pakistan (Appendix Table G-1 and Appendix Table G-5)
It is seen that in most years (i.e., 18 out of 25 years for which this exercise has been undertaken in India and 22 out of 25 years in Pakistan), 1 per cent change in Basmati prices calls forth more than a 1 per cent change in the export quantity demanded of Basmati. Thus, in most years Basmati rice has a price elastic demand. Only in 7 years in India and 3 years in Pakistan there is a price inelastic demand i.e., a 1 per cent change in price produces less than 1 per cent change in the quantity demanded for exports. Thus, the demand for Basmati rice is responsive to price changes in both countries.

The Figure 8.7 (i) and (ii) further show that when export prices are high, quantities of Basmati exported in both countries are low. From this viewpoint it seems that Basmati exports from both countries are sensitive to prices.
Figure 8.7: Relation between Basmati Rice Export Prices and Export Quantities

(i) India

Relation between Export Prices and Export Quantities - India

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues, Federal Bureau of Statistics, Pakistan (Appendix Table G-1)

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(ii) Pakistan

Relation between Export Prices and Export Quantities - Pakistan

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues, Federal Bureau of Statistics, Pakistan (Appendix Table G-5)
The price elasticity of demand for Basmati has also been calculated using double-log function for time series data of price and demand between 1980-81 and 2005-06. The overall price elasticity of demand for Basmati in India is 1.441 and that of Pakistan is 1.591. The price elasticity of demand for Basmati is statistically significant at 5 per cent level of significance in India and at 1 per cent level in Pakistan. Thus, the double log regression function also confirms the price elastic nature of demand of Basmati rice in both countries.

However, in India the price elasticity of demand for Basmati is statistically significant at 5 per cent level of significance which could mean that the demand for Basmati from India is less sensitive to price fluctuations compared to Pakistan because it is a premium product. It has already been stated that even when Basmati grown in Pakistan is cheaper than India, there is stiff competition for Basmati exports between both countries because traditional Basmati varieties or pure line cultivars that India mostly cultivates could have greater international demand compared to the hybrid varieties that Pakistan mostly cultivated. Further, it has been seen in the case of India that the Middle-East countries, UK and USA have been the major importers of India’s Basmati despite price fluctuations. Therefore, in India the demand for Basmati is not completely dependent upon price. It could also be dependent on other factors such as hoarding, preference of the Middle-East countries to trade with Pakistan because Pakistan has socio-cultural affinity with these countries, adulteration problems, and change in tastes for other aromatic varieties of rice. Therefore, from this viewpoint Basmati exports can be said to be less sensitive to price fluctuations because it is a premium product.

8.4. Problems faced by Basmati

To improve the export performance of Basmati further, certain inherent problems that have been identified in this chapter have to be eliminated. The first problem is that India’s Basmati export prospects are being lost to Pakistan because the average Basmati export price of India is higher than the average Basmati export price of Pakistan. Even though India’s Basmati rice is superior to Pakistan (India grows both traditional and hybrid varieties of Basmati while Pakistan grows only hybrid ones) but only due to very high prices, buyers are not always ready to pay the big difference in price. The need of the hour is better marketing of traditional Indian Basmati varieties that command higher price.
Thirdly there has been a decline in the international competitiveness of Basmati rice (measured by NPC) as well as in its comparative advantage. This trend needs to be taken cognizance of and arrested by concerted efforts through aggressive market promotion and public relations activities.

Finally the Basmati patent problem discussed before is a warning signal. The act of geographical indications has not being extended (as is presently available for wines and spirits) to all varieties of Basmati rice that are cultivated in India. India can be a major beneficiary if this act is extended to all Indian Basmati varieties.

8.5. Concluding Remarks

In this chapter Basmati rice trade statistics of India was analysed vis-à-vis Pakistan, the only competitor of India for Basmati.

Basmati rice exports had grown at trend growth rate of 5.33 per cent from 1980-81 to 2005-06. However, the quantum of its exports was much less than Non-Basmati. The share of Basmati Rice in total agro-exports had varied between 6 and 10 per cent over the last two decades.

Basmati rice export prices were 3 times higher than Non-Basmati. The Basmati export prices had grown from 1980-81 to 2005-06 at a trend growth rate of 0.18 per cent. The export price trends showed fluctuations and the coefficient of variation for price was 12.98 per cent between 1980-81 and 2005-06.

Over the years, India’s Basmati rice exports showed concentration in Saudi Arabia, Kuwait, UAE, UK and USA and the share of the Middle-East countries especially Saudi Arabia was the highest. Incidentally all these countries had high Indian population that formed the basic demand factor for Basmati.

The global competitiveness of Basmati measured by DRCR indicated that Basmati was more internationally competitive than Non-Basmati in Punjab and Haryana. Further, Basmati from Haryana farms was more internationally competitive than Punjab. The global competitiveness of Basmati measured by NPC showed that the export competitiveness of Basmati was on the decline in recent years more so in Punjab than Haryana.

Pakistan had several production constraints for Basmati. In Pakistan Basmati rice exports grew at a trend growth rate of 5.36 per cent from 1980-81 to 2005-06. Basmati export prices showed an overall negative trend growth rate of -1.68 per cent from 1980-81 to 2005-06. The export price trend growth rate showed a decline

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probably due to higher exports of hybrid varieties than traditional ones in recent years. Further, the coefficient of variation of Basmati export price of Pakistan was 21.08 per cent between 1980-81 and 2005-06.

Till 1989-90 export prices of Basmati from Pakistan were higher than India after which it declined firstly because private traders under REAP were allowed to handle rice exports which resulted in a huge surge in exports which in turn reduced prices drastically. However, ever since 1990-91 export prices of Basmati of Pakistan had been lower than India because, not only were the hybrid varieties that Pakistan mostly cultivated cheaper than traditional Indian Basmati varieties, freight charges and taxes were also less in Pakistan compared to India.

For Pakistan the major buyers of its Basmati rice were African nations, Afghanistan, Bangladesh, Indonesia, Middle-East and EU. Pakistan had a slight edge over India in Dubai. But in Saudi Arabia, India dominated by 80:20.

The market shares of Basmati rice in value terms showed that though after 1995-96 India’s share had been consistently higher, Pakistan’s share of Basmati in the world market started to increase since the year 2000-01 and the differences seemed to be narrowing over the recent years.

The Balassa’s EPRs showed a high comparative advantage of India’s Basmati vis-à-vis Non-Basmati rice. The EPRs of Pakistan’s Basmati were higher than India’s thereby showing high comparative advantage of Basmati for Pakistan.

It was observed that in spite of the fact that the Basmati grown in Pakistan was 20-25 per cent cheaper than India, its market share and comparative advantage in Pakistan was on the rise, there appeared to be a very stiff competition for Basmati exports between both countries. This might have been because India’s traditional Basmati varieties, which though costly, might have greater international demand, compared to the hybrid varieties that Pakistan cultivated. However, the important point to be noted here was that despite several supply constraints Basmati exports from Pakistan were at par with India which showed that Pakistan had fared quite well in the Basmati exports sector.

Basmati rice had a price elastic demand which meant that the demand for Basmati rice was responsive to price changes in both countries. In case of India it was stated that even when Basmati grown in Pakistan was cheaper than India, there was stiff competition for Basmati exports between both countries because the pure line cultivars that India mostly cultivated could have greater international demand.

Chapter 8: Spatial and Temporal Analysis of Basmati Rice Trade
compared to the hybrid varieties that Pakistan mostly cultivated. Further, it was seen in the case of India that the Middle-East countries, UK and USA were the major importers of India's Basmati despite price fluctuations. Therefore, in India the demand for Basmati was not completely dependent upon price but other factors such as hoarding, preference of the Middle-East countries to trade with Pakistan, adulteration problems, and change in tastes for other aromatic varieties of rice. Therefore, from this viewpoint Basmati exports was said to be less sensitive to price fluctuations because it was a premium product.

To improve the export performance of Basmati further, certain inherent problems were identified in this chapter. These problems were very high prices of India's Basmati compared to Pakistan, decline in its competitiveness measured through NPC as well as a lesser comparative advantage than Pakistan and lastly the act of geographical indications not being extended (as was presently available for wines and spirits) to all varieties of Basmati rice that were cultivated in India. Therefore, to improve its export performance further immediate steps had to be taken to find and implement solutions to its inherent problems.

Thus, from this chapter it was seen that despite some inherent problems, Basmati exports from India were growing steadily both temporally as well as spatially. Its exports were slightly price sensitive in each country but exports from India were higher than Pakistan in some years because of greater consumer preferences for traditional and pure line cultivars that India cultivated.
Chapter 9. BASMATI RICE TRADE AND WTO

Development of agriculture depends upon the prevalent physical and socio-economic conditions of a region. But in today's world, it is the economic factors that have started to assume a lot of importance. In the 1990s, market forces in all sectors including agriculture have emerged as an important factor in determining economic prospects. Today the World Trade Organisation (WTO) has an influence on most economic policies. India's economy over the years is under pressure from the WTO to open up to international markets and has thus taken major steps towards liberalization. However, this is a controversial process and many are still sceptical about the impact of globalization on India's economy especially for the agricultural sector. Since the aim of this study is to analyse the trends and features of the Indian Basmati rice trade in the context of globalization, therefore this chapter tries to assess the impact of the WTO on Basmati. Basmati rice trade statistics has been analysed using two main time periods wherein the establishment of the WTO in 1995 has been taken to be the benchmark. Thereby the two time periods have been named as Pre-WTO (1980 - 1994) and Post-WTO (1995 - 2005).

This chapter has been organised into three sections. The first section discusses the subject matter of the WTO wherein the issues under WTO have been studied with special reference to the agriculture and intellectual property rights. This is because they have a bearing on the impact of WTO on Basmati. The second section discusses the proceedings of all WTO Ministerial Conferences. The last section tries to assess whether the provisions of the WTO, namely the Agreement on Agriculture (AoA) and the Trade Related intellectual Property Rights (TRIPS) have had any impact on Basmati rice trade.

9.1. WTO – An Overview

For free and fair multilateral trading, countries are required to adhere by a set of international rules. The basic aim of these rules is to encourage countries to pursue open and liberal trade policies. This led to the setting up of the General Agreement on Tariffs and Trade (GATT) in 1948. Its rules applied to international trade in goods. Since its inception in 1948, and prior to 1986, member countries met no less than eight times, but agriculture was never under their purview. It was the group of
developed countries, primarily the US, who did not favour the inclusion of agriculture under the purview of the GATT in the 1950s. However, by the close of the 1980s when their agriculture had made considerable progress, developed countries like the US and the EU felt the need for markets for the export of their agricultural surplus. The rules of GATT and its associate agreements were further revised in the Uruguay Round of trade negotiations held from 1986 to 1994 to meet changing conditions of world trade. Accordingly, agriculture was introduced as a new agenda in the Uruguay Round of GATT in 1986. Further, this round had the central mission of eliminating non-tariff barriers to trade, or in other words, the riddance of protective trade legislation in its member countries. The success achieved in this area is widely seen to have held more benefit for developed countries than for less developed countries. A major achievement of the Uruguay Round was the establishment of the World Trade Organisation (WTO) in 1995 as its successor. The WTO system consists of the three main agreements viz., Multilateral Agreements on Trade in Goods including the GATT 1994, General Agreement on Trade in Services (GATS) and the Agreement on Trade Related Intellectual Property Rights (TRIPS). The Multilateral Agreements on Trade in Goods included the ‘Agreement of Agriculture’ (AoA) which establishes a programme for the gradual reform of trade in agriculture.

9.2. Clauses of the Agreement on Agriculture

The obligations and disciplines incorporated in the Agreement on Agriculture in the WTO related to three broad areas of agriculture and trade policy namely, Market Access, Domestic Support and Export Subsidies. Apart from these three clauses in the AoA, there is also an agreement on Trade Related Intellectual Property Rights (TRIPS). Several rounds of WTO trade negotiations have taken place so far.

9.2.1. Market Access

On this issue, it was decided in the AoA that member countries have to withdraw all quantitative restrictions (QRs) on their imports on a time bound basis. QRs can be in the form of a quota, a monopoly or any other quantitative means. In other words QRs refer to non-tariff measures, which are taken to regulate or prohibit international trade. In this all Non Trade Barriers (NTBs) were to be converted into an equivalent tariff barrier during the implementation period, i.e., from Jan 1, 1995 to 31st Dec, 2004. However a tariff-reduction programme was also taken up side by side. It was decided

Chapter 9: Basmati Rice Trade and WTO
that the developing countries would have to reduce the base tariff by 24 per cent over 10 years, whereas the developed countries would reduce it by 36 per cent over 6 years. Exemption was provided to least developed countries. Countries facing Balance of Payment (BOP) crises could retain QRs on some or more items, but this could not be endless. The minimum market access quota was to be expanded to 3 per cent of total domestic consumption by 31st Dec 2004. But then there are certain protection provisions in the form of ‘safety trigger’ such as custom duties, anti-dumping clauses and countervailing duties (CVDs)\(^{40}\) etc, available to India, as to other members in the WTO family (Ghuman, 1999).

The implication of the Market Access clause was that India announced a time schedule of 9 years for reduction in QRs. But there was opposition from the developed countries led by the US. The US disapproved India’s demand on the ground of an IMF report, which stated that India’s BOP situation was satisfactory. Finally a bilateral agreement was reached between the US and India, where the USA forced India to accept her demand regarding removal of QRs for 1429 items by March 31, 2001 (Bhukta, 2000). Out of these 825 related to agriculture and dairying. Already the 2000-01 EXIM policy had removed QRs for 714 items including 208 agricultural items. It was estimated that India’s imports were likely to increase by 8.7 per cent as a consequence of removal of QRs. Then Indian producers of all these items would have to face global competition in their own home market.

9.2.2. Domestic Support

The Aggregate Measure of Support (AMS) is the annual aggregate value of market price support, non-exempt direct payments, and any other subsidy not exempted from reduction commitments expressed in monetary terms extended to the agriculture sector. (Gulati and Kelly, 1999). Supports provided to the sector in India are of 2 types – product specific and non-product specific. Product specific supports are subsidies given to producers of specific crops through market price support known as

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\(^{40}\) Custom Duties: Duties of customs are levied on imported goods

Countervailing Duties: It is an extra duty charged on subsidized imports that are found to be hurting domestic producers.

Anti-dumping clauses: If a company exports a product at a price lower than the price it normally charges on its own home market, it is said to be ‘dumping’ the product. So many governments take action against dumping in order to defend their domestic industries by anti dumping clauses.
the Minimum Support Price (MSP). Non-product specific supports comprise subsidies on inputs like power, irrigation, fertilizer and credit. The third type of support that is non-exempt direct payments is not given to farmers in India. The AMS for agriculture is the annual aggregate product specific domestic market support plus annual aggregate value of non-product specific support.

The AMS for developing countries like India should not exceed 10 per cent of the total value of agricultural production. If it does, then it has to be reduced by 13 per cent over a period of 10 years. For developed countries the benchmark is 5 per cent. If it exceeds this limit it has to be reduced by 20 per cent over a period of 6 years. Least developed countries have been exempted from such reduction commitments. Reduction commitments refer to total levels of support and not to individual commodities.

In WTO terminology, subsidies in general are identified by ‘boxes’ which are given the colours of traffic lights: ‘green’ (permitted), ‘amber’ (slow down — i.e., be reduced) and ‘red’ (forbidden). In agriculture, things are, as usual, more complicated. The AoA has no ‘red box’, although domestic support exceeding the reduction commitment levels in the ‘amber box’ is prohibited; and there is a ‘blue box’ for subsidies that are tied to programmes that limit production. There are also exemptions for developing countries.

Policies which have no or at the most minimal trade distorting effects on production known as ‘green box’ policies are excluded from any reduction commitments. The green box subsidies have to be government-funded (not by charging consumers higher prices) and must not involve price support. They tend to be programmes that are not targeted at particular products, and include direct income supports for farmers that are not related to current production levels or prices. Such policies include general government services in area of research, disease control, and infrastructure and food security. They also include environmental protection and regional development programmes, inspection programs, domestic food aid including food stamps, and disaster relief. Policies creating distortive effects on trade are ‘amber box’ measures that are subject to reduction commitments. These include structural adjustment assistance, direct payments under environmental programmes, and regional assistance programmes. ‘Blue box’ is the ‘amber box with conditions’-conditions designed to reduce distortion. Any support that would normally be in the amber box is placed in the blue box if the support also requires farmers to limit
production. At present there are no limits on spending on ‘blue box’ subsidies. In the current negotiations, some countries want to keep the ‘blue box’ as it is because they see it as a crucial means of moving away from distorting ‘amber box’ subsidies without causing too much hardship. Others wanted to set limits or reduction commitments, some advocating moving these supports into the ‘amber box’. The disciplining of the domestic support area will result in a competitive environment in the importing country market, thereby ensuring entry of the developing country products into the developed world market.

Implications of the Domestic Support clause is that according to the ‘Trade Policy Review of India’ by WTO itself, India’s product specific AMS in 1995-96 stood at (-) 38.47 per cent of the value of production for 19 commodities, and non-product specific AMS stood at 7.52 per cent of the total value of agricultural production. Moreover the estimate for non-product specific AMS would be even lower, had the study taken into account the exemption allowed to ‘low income and resource poor producers’ (Bhukta 2000). India’s total AMS hence was (-) 18 per cent. In 2000 for 15 commodities the AMS was (-) 2.62 per cent (Gulati and Narayanan 2003). These figures are negative and so the question of our reducing subsidies does not arise. Earlier studies conducted to calculate the AMS also showed a negative AMS and the resulting ‘net taxation’ of Indian farmers (Gulati & Roy Choudhury, 1994 and Gulati & Kelly, 1999). The negative support or net taxation is due to the fact that prices of different crops are fixed by the government below international levels.

There has been a falling trend in global primary commodity prices, and thus the total AMS may exceed the upper limit over a period of time. That may tantamount to reduction of subsidies, which India has been doing for the last few years paving the way for the developed countries to enter into the Indian agricultural market virtually with no competition.

As has been discussed earlier the subsidy-protection to agriculture is very high in the developed countries. There is a provision that if subsidy exceeds 5 per cent of the total value of agricultural production, it would have to be reduced by 20 per cent in 6 years. But since subsidies are so high a mere 20 per cent reduction in the AMS will make no sense to the present situation. Moreover since reduction commitments are on total AMS, a country may offer huge subsidy to some products while extending little or no support to some others so that the total AMS does not exceed the commitment level. Similarly, according to the ‘blue/amber box’ measures, some kinds
of direct payment to producers like payments not linked to production, structural
adjustment assistance, government financial participation in income insurance and
income safety net programmes etc., are eligible for exemption from AMS calculation.
Using these measures the developed countries are increasingly substituting market
price support by direct payments.

Issues of food security as an aftermath of liberalization are assuming
importance. The AoA makes no distinction between subsidies to promote food
security and self-reliance and those meant to increase exports of farm products. As it
allows subsidy only up to 10 per cent of the value of production, it would become
increasingly difficult for the government to provide price support to particular
agricultural commodities. The subsidy given to consumers in the form of PDS may
also decline. All these would certainly hit the farmers and poor sections of the Indian
society (Singh & Nandkeoliyar, 2000).

9.2.3. Export Subsidies

When exports are subsidized, the international price gets depressed artificially
(Mukhopadhyay, 2000). This in turn makes the subsidized export products artificially
competitive in the international market thus, hurting the other exporters. The
underlying principle behind export subsidies is that those who export more will be
subsidized more. The agreement on export competition speaks of export subsidy
reduction. Developed countries are required to reduce their export subsidy
expenditure by 36 per cent and volume by 21 per cent in 6 years. For developing
countries the percentage cuts are 24 per cent and 14 per cent respectively in 10 years.

The less developed countries, on the other hand, are given total exemption.
The gradual cut in export subsidies is expected to result in a fair international market
for agro-products, thereby increasing export prospects of countries like India.

The implications of Export Subsidies clause are that in India no direct subsidy
is provided to agricultural exporters; rather, they are provided with income tax
exemptions on their export profit, which is not mentioned in the prohibitive list of
export subsidy. But the developed countries frequently and extensively make use of
different forms of export subsidy. This is a serious threat to agricultural exports of
developing countries. Because of this, India that has clear advantages in agricultural
export could not enjoy the fruits of her comparative advantages.
9.2.4. The Agreement on Trade Related Intellectual Property Rights (TRIPS)

The agreement on TRIPS has already been discussed in detail in Chapter 3. It covers seven types of Intellectual Property Rights (IPRs). Issues of Biopiracy, Farmers Rights and Food Security also come under the purview of TRIPs.

This agreement requires that the government ensures the enforcement of IPR laws, so as to deter violations. Developed countries were given 1 year to ensure that their laws conformed to the TRIPs agreement. Developing countries and transitional economies were given 5 years and less developed countries 11 years.

If a developing country did not provide patent protection it has up to 10 years to introduce protection. For pharmaceutical, agriculture and chemical products, the country must start accepting the patent applications from the beginning of the transition period, pending grant of patent. If the government wants the relevant pharmaceutical/chemical products to be marketed during the transition period it must provide Exclusive Marketing Right (EMR) for the product for 5 years or till the grant of patent whichever is shorter.

An evaluation of TRIPs for India shows that India and other developing countries are losing out on account of patent illiteracy. India has amended the Indian Patent Act, 1970 through an ordinance in 1999 providing EMRs for a product to patent applicants. India needs to amend product patents in food, pharmaceuticals, agriculture and chemicals sector for 20 years. The Act already provides for process patents for 7 years.

Till the amendments are made, India will lose out with patents being obtained in the US and the EU. This is exactly how Rice Tec Inc of USA had been granted a patent for Basmati rice. Fortunately with timely legislation as discussed earlier in this chapter, India has won the Basmati patent case.

9.3. WTO Ministerial Conferences

Ministerial conferences are the WTO’s highest decision-making body, meeting at least once every two years and providing political direction for the organization. Several ministerial conferences have taken place after the formation of the WTO in 1995. Proceedings in each of these conferences have been discussed below (Table 9.1).
### Table 9.1: World Trade Organization Ministerial Conferences

<table>
<thead>
<tr>
<th>Summit Meetings</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Uruguay Round of GATT Negotiations</td>
<td>1995 Formation of WTO</td>
</tr>
<tr>
<td>1st Ministerial Conference at Singapore</td>
<td>9th - 13th December 1996</td>
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<tr>
<td>2nd Ministerial Conference at Geneva, Switzerland</td>
<td>18th - 20th May 1998</td>
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<tr>
<td>3rd Ministerial Conference at Seattle, USA</td>
<td>30th November to 3rd December 1999</td>
</tr>
<tr>
<td>Doha Development Round at Doha, Qatar</td>
<td>5th November to 10th November 2001</td>
</tr>
<tr>
<td>‘July Package’ at Geneva, Switzerland</td>
<td>10th to 14th September 2003</td>
</tr>
<tr>
<td>Negotiations in Paris, France</td>
<td>May 2005</td>
</tr>
<tr>
<td>6th Ministerial Conference at Hong Kong, China</td>
<td>13th-18th December 2005</td>
</tr>
<tr>
<td>Negotiations in Geneva, Switzerland</td>
<td>July 2006</td>
</tr>
<tr>
<td>Negotiations in Potsdam, Germany</td>
<td>June 2007</td>
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</tbody>
</table>

Source: [http://www.wto.org](http://www.wto.org)

The first ministerial conference of the WTO i.e., the **Singapore Ministerial Conference** (SMC) held in 1996 in Singapore saw the commencement of pressures to enlarge the agenda of WTO. It set up open-ended work program to study the relationship between trade and investment, trade and competition policy, to conduct a study on transparency in government procurement practices, and lastly to do analytical work on simplification of trade procedures (trade facilitation).

The concept of ‘Core Labour Standards’ was also sought to be introduced. India and the developing countries, which were already under the burden of fulfilling the commitments undertaken through the Uruguay Round Agreements, and who also perceived many of the new issues to be non-trade issues, resisted the introduction of these new subjects into WTO. They were partly successful.

The second ministerial conference of WTO i.e., the **Geneva Ministerial Conference** (GMC), held in May 1998, established a process to submit recommendations regarding the WTO's future work program, which would enable members to take decisions at the third ministerial conference at Seattle.

This conference declaration had identified certain issues for the General Council's work. Paragraph 9(a) of the declaration included issues such as those relating to implementation of existing agreements and decisions, to ensure that the negotiations already mandated at Marrakesh (Agriculture and Services) began on schedule and lastly to mandate reviews already provided for under other existing agreements and decisions taken at Marrakesh.

Paragraph 9(b) contained recommendations concerning other possible future work on the basis of the work program initiated at Singapore Ministerial Conference and consisted of recommendations on the follow-up to the high level meeting on least...
developed countries and also recommendations arising from consideration of other matters proposed and agreed to by members concerning their multilateral trade relations.

The third ministerial conference i.e., the Seattle Ministerial Conference held in 1999 was being looked up by many, especially in the developing countries, as a launching pad for a comprehensive round of negotiations concerning the Uruguay Round. During the preparatory process of this ministerial conference in the General Council of the WTO (September 1998 to September 1999), new issues which were proposed for the negotiating agenda by some members under paragraph 9(d) were on industrial tariffs, global electronic commerce, trade and labour standards, trade and environment and coherence in the interaction of WTO and other international organizations. Inside the meetings there had been movement towards the idea that WTO regulations should allow for a bottom-up process in which countries liberalized their trade not merely to gain concessions from other countries, but principally to reap the economic rewards of their own liberalization.

The outcome was that even before the commencement of the Seattle conference there were widespread protests and demonstrations in Seattle by a number of anti-WTO groups ranging from environmental activists to labour unions. The chairmen of various working groups tried to narrow down the differences in their respective groups with a view to arriving at a consensus in the draft Ministerial text that had been transmitted from the Geneva preparatory process. However, in view of the wide divergence of views, no group could present draft texts for inclusion in the ministerial declaration acceptable to all the members. The chairperson observed that divergences of opinion remained that would take time to be narrowed down. It was therefore, decided to suspend the work of the Seattle ministerial conference.

While the above constituted the overall outcome, the deliberations on agriculture were that, mandated negotiations on agriculture had to commence on 1st January, 2000. In the run-up to Seattle, however, the US and the Cairns Group\(^\text{41}\) of countries (19 countries having large export interest in agriculture) sought to secure a more rigorous negotiating mandate that would speed up elimination/reduction of their export/domestic subsidies. EC, Japan, Norway etc., resisted this to the very end.

\(^{41}\) Argentina, Australia, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Guatemala, Indonesia, Malaysia, New Zealand, Pakistan, Paraguay, Peru, Philippines, South Africa, Thailand and Uruguay.

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While EC appeared to display some flexibility on this issue, Japan put up stiff opposition on further inroads into elimination of domestic subsidies. As for India, our concerns relating to food security were adequately reflected.

Although most of the issues of the Uruguay Round were left unresolved, the brokered deal allowed the WTO to move on to the next round of discussions, called the 'Doha Development Round' launched in Doha, Qatar, in November 2001. The task at the forefront of this round was widely referred to as 'development' because it promised to place the development of poor countries at the heart of trade regulation by making trade rules fairer for developing countries. The objective of this round was to lower trade barriers around the world, permitting free trade between countries of varying prosperity. This ministerial declaration set a new mandate by making the objectives more explicit, building on the work carried out so far, and setting deadlines. Agriculture was now part of the single undertaking in which virtually all the linked negotiations were to end by January 1, 2005. The declaration reconfirmed the long-term objective to establish a fair and market-oriented trading system through a programme of fundamental reform. The declaration made special and differential treatment for developing countries integral throughout the negotiations.

Developing countries were active in agriculture negotiations. They argued that subsidies and protection are needed to ensure food security, to support small-scale farming, and to prevent the rural poor from migrating into already over-congested cities. Proposals of India and Nigeria were among those that emphasized food security issues for developing countries. A number of developing countries that depended on imports for their food supply were also concerned about possible rises in world food prices.

Many developing countries argued that their domestic producers were handicapped if they had to face imports whose prices were depressed because of export subsidies, or if they faced greater competition in their export markets for the same reason. India proposed additional flexibility for developing countries to allow subsidies on some products to increase when subsidies on other products are reduced. ASEAN and India, for example, proposed scrapping all developed countries' export subsidies while allowing developing countries to subsidize for specific purposes such as marketing. Some developing countries said they should be allowed to retain high tariff barriers or to adjust their current tariff limits, in order to protect their farmers unless export subsidies in rich countries are substantially reduced. Some other

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developing countries countered that the barriers would also hurt developing countries that want to export to fellow-developing countries.

In the WTO, agricultural products are protected only by tariffs. The tariffs cover both tariffs on quantities within quotas and those outside. A number of developing countries also complained that they face difficulty if they try to increase their incomes by processing the agricultural raw materials that they produce. This is because the countries they saw as potential export markets impose higher duties on processed imports than on the raw materials in order to protect their own processing industries. Some countries saw tariffs and other import barriers as necessary in order to protect domestic production and maintain food security.

Quota administration has a real impact on trade on whether a product exported from one country can gain access to the market of another country. Methods used for giving exporters access to quotas include first-come-first-served allocations, import licensing according to historical shares and other criteria, administering through state trading enterprise, bilateral agreements, and auctioning. The terms can also specify time periods for using the quotas, for example, periods of time for applying for licenses, or for delivering the products to the importing countries. Exporters are sometimes concerned that their ability to take advantage of tariff quotas can be handicapped because of the way the quotas are administered. Sometimes they also complain that the licensing timetables put them at a disadvantage when production is seasonal and the products have to be transported over long distances. Each method has advantages and disadvantages, and many WTO members acknowledged that it can be difficult to say conclusively whether one method is better than another.

According to Biswajit Dhar (2001), the developing countries perspective at Doha was on three major issues. Firstly, in the area of investment and competition wherein India had strong reservations on the issue of pre-establishment of national treatment, which takes away the right of the national governments to screen foreign investment. The second issue was concerning trade and environment wherein it was seen that the USA had shown an increasing tendency to use environment as a disguised form of protectionism in recent years. In this particular field the matters in which India and other developing countries had immediate interest were, the effect of environmental measures on market access, consideration of the relevant provisions of TRIPS insofar as it affects the environment, and lastly the increasing trade in genetically modified food that had made labelling an important issue. The third
developing countries perspective at Doha was on the issue of TRIPS and biodiversity wherein the developing countries said that this agreement must allow countries in which the biodiversity and associate knowledge originate, to exercise their rights to prevent misappropriation of these resources. One decision was regarding the extension of protection of geographical indications (as is presently available for wines and spirits) to other products. India could be a major beneficiary if this is done for products such as Basmati Rice and Darjeeling Tea.

The Doha round progressed slowly, with periodic crises and a string of missed deadlines. The explicit consensus at the conclusion of the Doha conference was reached only after some delegations of the developing nations had been forced to leave the country. The new trade agenda of the developed world was dubbed the ‘Doha Development Agenda’, and from there all countries were committed to negotiations opening agricultural and manufacturing markets, as well as services negotiations and expanded intellectual property regulation. The intent of the round, according to its proponents, was to make trade rules fairer for developing countries. Opponents charged that the round would expand a system of trade rules that were bad for development and interfered excessively with countries' domestic ‘policy space’. The round was set to be concluded in four years in December 2006 after two more Ministerial Conferences had produced a final draft declaration. However, the main event for trade in 2005, the Hong Kong WTO Ministerial in December avoided collapse, but other than a limited ‘development package’ saw little progress. At Hong Kong negotiators committed to completing the Doha development round by the end of 2006. A deadline of the end of April 2006 was set for ‘modalities’, essentially the framework of a final deal, in two key areas – agricultural support/market access, and non-agricultural (industrial) market access. This deadline was missed. Intensive consultations followed. A ‘triangle’ of three key issues emerged, which would require the US to further reduce agricultural subsidies, the EU to further reduce agricultural tariffs, and key industrial countries (particularly Brazil and India) to further lower tariffs and offering more services trade liberalisation. However, talks between the key G6 countries i.e., the countries mentioned above, plus Australia and Japan failed to overcome divisions. The Doha Round was then suspended at the end of July 2006.

It had been suggested that there was a six-month window of opportunity for reviving the talks between October 2006 and the end of March 2007. The US President’s ‘Trade Promotion Authority’ (TPA) expired in July 2007. TPA allows
trade deals to be submitted to Congress for a yes/no vote, without any amendments. This had provided the Round's effective end-date for some time, though there had been suggestions that TPA could be extended if the talks resumed and sufficient progress was made by March 2007. However, if the stalemate could not be broken in few months time, domestic political circumstances in the US and other key countries could mean the talks remain frozen for years, perhaps until 2009.

The suspension had raised fears that the potential gains from the 'development' dimension of the talks could be lost (although there have been controversial calls for development-focused parts of the Doha programme to be salvaged in a separate deal if the talks cannot be revived). Two further possible consequences of prolonged or permanent suspension were thought to be (1) a continuation and acceleration towards bilateral and regional trade deals, which some NGOs believed could be damaging for developing countries; and (2) an increase in the number of WTO dispute cases, particularly those issues that could have been addressed within the Doha Round talks, such as agricultural subsidies. Both these issues raised concerns over support for the multilateral trading system and the WTO itself.

The fifth ministerial conference i.e., the Cancun Ministerial Conference was held in Mexico in September 2003. Some of the milestones of the Doha round include the 2003 Cancun talks which intended to forge a concrete agreement on the Doha round objectives, which collapsed after four days because the members could not agree on farm subsidies and access to markets. The major issues of this conference were regarding the massive agricultural subsidies (estimated at around US$ 300 billion annually) given by developed countries, and the so-called Singapore issues (investment, competition policy, transparency in government procurement and trade facilitation). During the summit, developed countries were not only uncompromising on the issue of phasing out the current massive export subsidies and domestic assistance given to their farmers, but were also insistent on getting new concessions from developing countries in the form of negotiating a mandate on the Singapore issues. However, for the first time, in the Cancun summit, the emergence of G-20 (trade bloc of developing and industrialized nations) was an important trade development. The big five among G-20 i.e. Brazil, India, Argentina, South Africa and China lent weight to the voice of the developing world. Their argument was that unless trade distortions are removed by those who created them, in the first place, fair
trade is not possible. The deadlock was unfortunate but inevitable. The Cancun summit revealed the division between the North and the South once again, and will be remembered for the ability of developing countries to negotiate, or at least to resist till the end despite heavy pressure exerted by the world’s biggest economic and political powers. Though the summit wound up without a declaration, it nonetheless succeeded in showing the cause and strength of developing nations against developed ones.

In the WTO, India’s demand for liberalizing agricultural trade through reduction of subsidies carried moral legitimacy. What further reinforced this moral high ground was the fact that in terms of dollars, it is not Indian exports that would be major beneficiaries, but exports from countries like Brazil and Argentina where agriculture is an industry. In the long run the stalled negotiations at Cancun could prove unfavorable to developing countries as it would hinder better and freer market access to developed countries. Besides, the great fear and concern generated by the failure of the summit may strengthen bilateral negotiations, rather than multilateral negotiations (WTO).

During the negotiations at the ‘July Package’ at Geneva in July 2004, the issues of domestic support subsidies were a matter of extreme concern, as they constituted a large chunk of subsidies. The U.S., EU, Japan and Brazil agreed to reduce agricultural subsidies, end export subsidies, and lower tariff barriers. Developing nations agreed to reduce tariffs on manufactured goods, but gained the right to specially protect key industries.

Further, the draft text at Cancun, the ‘Derbex Text’, that sought to expand the trade distorting ‘blue box’ and the ‘green box’ was sought to be legitimized as non-trade distorting. However, the outcome at Geneva wasn’t encouraging for India, as both these Cancun proposals were accepted. India even left the details of market access to be negotiated later. Moreover, the agreement also provided for simplified customs and stricter rules for rural development aid. However, the detailed work of specifying exact target numbers was not completed.

Nor did this occur in November at the 2005 Paris talks. These talks began between a group of five countries U.S., Australia, the EU, Brazil and India. Trade negotiators wanted to make tangible progress in Paris before the December 2005 WTO summit meeting in Hong Kong. One reason for this was that in 2007 the U.S. fast-track trade negotiation legislation would expire. Without fast-track, it would be
much harder to get ratification of a trade deal from the U.S. Senate that is not protectionist of U.S. interests.

During the Paris talks ministers tried to resolve a dispute on the way to calculate import tariffs, rather than decide on how much to cut them by. Further, France protested moves to cut subsidies to farmers, while the U.S., Australia, the EU, Brazil and India failed to agree on issues relating to chicken, beef and rice. Australia and Brazil and India were seeking a big tariff cut for exports of poultry, beef and rice - all sensitive products in Europe's protected agricultural markets. Most of the sticking points were small technical issues, making trade negotiators fear that agreement on large politically risky issues will be substantially harder. Oxfam\(^{42}\) charged the EU with ‘delaying tactics’ which according to them had threatened to spoil the Doha round.

The sixth Round of Hong Kong summit negotiations i.e., the Hong Kong Ministerial Conference held in December 2005 originally was meant to draw up an outline for a global treaty by the end of 2006 to lower or eliminate trade barriers in agriculture, manufacturing and services. But negotiations got off to a rocky start as delegates from poorer countries accused the EU, US, Japan and other wealthy countries of offering insufficient cuts to their agricultural tariffs and farm subsidies. Trade Commissioner Peter Mandelson said the EU will not change its offer of an average 46 per cent cut in farm tariffs unless developing nations offer substantive reductions in their trade barriers on manufactured goods and services. But underscoring the limited nature of his ability to negotiate, French Prime Minister Dominique de Villepin said that France will not accept any EU budget accord that forces Europe to reform agricultural policy before 2013. The United States had offered to eliminate government export subsidies for U.S. farm products by 2010 and

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\(^{42}\) The name ‘Oxfam’ comes from the Oxford Committee for Famine Relief, founded in Britain during the Second World War in 1942. This group of Oxford citizens campaigned for grain ships to be sent through the allied naval blockade to provide relief for women and children in enemy-occupied Greece. Founded in 1995, Oxfam International is an international confederation, comprised of 13 independent non-government organizations dedicated to fighting poverty and related injustice around the world. The Oxfams are working to become part of a movement, which is capable of global responses to global issues. The thirteen Oxfam organizations are based in: Australia, Belgium, Canada, France, Germany, Great Britain, Hong Kong, Ireland, The Netherlands, New Zealand, Quebec, Spain and the United States.
to reduce by 60 per cent the amount of trade-distorting domestic support the government provides U.S. farmers over the next five years. Developing nations said that the U.S. offer was hollow because subsidy spending at current levels was continuing. India’s Commerce Minister Kamal Nath, a key figure in the talks, said that he did not foresee an outright collapse similar to what happened at the previous ministerial gathering in Cancun, Mexico, two years ago. But he also said that efforts will not necessarily translate into results.

The US and EU, meanwhile, sought to highlight a positive initiative by urging trading partners to help the world's poorest nations with money to help build their trade infrastructure and other services to help them better compete in world markets. Developing countries said that they needed rich-world aid so they could strengthen their ports, roads, schools and bridges. It would also help them implement new WTO rules, which were often expensive, and help compensate for the loss of the preferential trade access of their products into rich world markets.

On July 2006 talks were held in Geneva and even these talks failed to reach an agreement about reducing farming subsidies and lowering import taxes. In June 2007, negotiations within the Doha round broke down at a conference in Potsdam, as a major impasse occurred between the US, the EU, India and Brazil. The main disagreement was over opening up agricultural and industrial markets in various countries and also how to cut rich nation farm subsidies.

The negative aspect of all these WTO ministerial conferences is that the implementation issues have been meagre. So far even the Uruguay Round Agreements have not been fully and efficiently implemented. It is doubtful whether future negotiations will result even in a substantial reduction not to mention of elimination of agricultural subsidies.

9.4. Impact of WTO on Basmati

It has been established by many scholars that the root cause of distortion of international trade in agriculture has been the massive domestic subsidies given by the industrialized countries to the agricultural sector. This in turn has led to excessive production and dumping in the international markets as well as import restrictions to keep out foreign agricultural products from their domestic markets (Rupa Naik, and V.R.Panchamukhi, 2000). Thus, it had been prophesized by scholars that with implementation of WTO rules international prices of agricultural commodities would
increase in response to subsidy reduction, which in turn would make Indian agro-exports cheaper thereby boosting Indian exports (Bhalla & Singh., 1996, Gulati, Mehta and Narayanan., 1999).

The initial experience with trade liberalization, following economic reforms started in 1991, was very encouraging for agricultural exports (Table 9.2). There was spectacular increase in agro-exports between 1991 and 1996. The reason for this impressive growth in farm exports was that domestic prices of several agricultural commodities were below the international prices and the devaluation of the Indian rupee in 1991 further increased the gap between domestic and international prices (Chand, Ramesh 2002). This generated a lot of optimism about export prospects in a liberalized global trade, which was to follow implementation of the WTO provisions.

Table 9.2: India's Agricultural Trade in Post Reforms and Post WTO Period

<table>
<thead>
<tr>
<th>Years</th>
<th>Agro-Exports ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-93</td>
<td>3028</td>
</tr>
<tr>
<td>1993-94</td>
<td>4023</td>
</tr>
<tr>
<td>1994-95</td>
<td>4227</td>
</tr>
<tr>
<td>1995-96</td>
<td>6320</td>
</tr>
<tr>
<td>1996-97</td>
<td>6828</td>
</tr>
<tr>
<td>1997-98</td>
<td>6640</td>
</tr>
<tr>
<td>1998-99</td>
<td>6205</td>
</tr>
<tr>
<td>1999-00</td>
<td>5773</td>
</tr>
<tr>
<td>2000-01</td>
<td>6256</td>
</tr>
<tr>
<td>2001-02</td>
<td>6146</td>
</tr>
<tr>
<td>2002-03</td>
<td>6962</td>
</tr>
<tr>
<td>2003-04</td>
<td>7888</td>
</tr>
<tr>
<td>2004-05</td>
<td>8809</td>
</tr>
<tr>
<td>2005-06</td>
<td>10549</td>
</tr>
</tbody>
</table>

Source: Economic Survey, Ministry of Finance, GOI, Various Issues

Contrary to the expectations, the price situation changed dramatically after 1996. International prices of agricultural commodities fell, because of which domestic prices have turned higher than the international prices, and India became an attractive market for import of most agricultural commodities, while exports declined. Agro exports from India declined till 2001-02. These cheap imports posed a threat to several domestic commodities. The international prices of commodities actually got depressed due to the fact that developed countries kept providing hidden agricultural subsidies in one form or the other. So, the subsidy rules of the AoA in the WTO were not effective anywhere in the world. As these developments took place after the implementation of WTO agreement, it became quite common to put the blame on
WTO for the decline in exports and threat to domestic production from imports. However, this wouldn't have affected Basmati, as India does not import Basmati.

Coming to Basmati rice, it was thought that under a most likely scenario, after WTO rules became effective Basmati prices would also increase in response to subsidy reduction. But it is observed from Table 9.3 that the trend growth rates in Basmati export prices of India have declined from the Pre-WTO (2.39 per cent) to the Post-WTO (-2.84 per cent) period. This deceleration in growth rates is statistically significant at 1 per cent level of significance. Whereas, in Pakistan, the trend growth rates in Basmati export prices increased from the Pre-WTO (-4.08 per cent) to the Post-WTO (2.21 per cent) period. This acceleration in growth rates is also statistically significant at 1 per cent level of significance.

Table 9.3: Basmati Export Growth Rates using Semi-Log Function (%)

<table>
<thead>
<tr>
<th>Time Periods</th>
<th>India</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Export Quantities</td>
<td>Export Price</td>
</tr>
<tr>
<td>Pre-WTO Period (1980-1994)</td>
<td>0.39</td>
<td>2.39**</td>
</tr>
<tr>
<td>Post-WTO Period 1995-2005</td>
<td>9.57**</td>
<td>-2.84**</td>
</tr>
<tr>
<td>Overall Period 1980-2005</td>
<td>5.33**</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Source: Calculated from Export Statistics for Agriculture and Food Products, APEDA, Various Issues (Appendix Table G-1 and Appendix Table G-5)

\* CV-Coefficient of Variation
\*\* Statistically significant at 1 per cent level of significance

The deceleration in export prices of India's Basmati is mainly due to competition from Pakistan. Similarly, the acceleration in export prices of Pakistan in the Post-WTO period is not in response to subsidy reductions but due to shortages in supplies as crop yields are said to have declined due to old seeds and irrigation problems. Further, appreciation in the local currency against most currencies had been making Pakistani hybrid exports uncompetitive against Indian exports.

From Figure 9.1 it is seen that Basmati rice prices of India showed a fluctuating trend throughout irrespective of the WTO. The coefficient of variation of Basmati rice prices indicating its price fluctuations did not vary much in the Pre-WTO and Post-WTO period. It declined from 13.69 per cent in the Pre-WTO period to only 12.55 per cent in the Post-WTO period. Compared to India, Pakistan has shown much higher price fluctuations. The coefficient of variation of Basmati rice prices in Pakistan declined from 21.77 per cent in the Pre-WTO period to 8.79 per cent in the

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Post-WTO period (Table 9.3). In Pakistan, it was observed that the export price of Basmati rice was higher than those of India till 1989-90. After that India’s export prices became higher. Pakistan’s price had plummeted during 1989-90 to 1990-91 from 685 US$/Tonne to 468.3 US$/Tonne. This decline was mainly because private traders under Rice Exporters Association of Pakistan (REAP) were allowed to handle rice exports which resulted in a huge surge in exports which in turn reduced prices drastically. This sudden decline in the export price of Basmati was reflected in the high coefficient of variation of 21.08 per cent in the Pre-WTO period. In the Post-WTO period, the coefficient of variation of Basmati export prices declined to 8.79 per cent.

The export prices of Basmati rice in India have remained higher than those of Pakistan since 1990-91. The reason for this is that Pakistan is mainly exporting more hybrid varieties that are cheaper as compared to India which might be exporting more traditional varieties that are costlier. Other possible reasons are that, freight charges are less in Pakistan compared to India, which might be also resulting in low prices. Lastly, Pakistani exporters have to pay much less taxes compared to their Indian counterparts. Therefore, it can be said that since Basmati is cultivated only in India and Pakistan, its prices are determined only by competition between both the countries.

Similarly, in the Pre-WTO period Basmati exports from India grew slowly, while in the Post-WTO period, it grew significantly at a trend growth rate of 9.57 per cent. In the initial period Basmati exports grew slowly probably due to strong competition from Pakistan as both countries were cultivating traditional Basmati varieties that were pure line cultivars. However off late Pakistan had started cultivating and exporting mainly hybrid Basmati varieties like ‘Super’, whereas India is still cultivating and exporting mainly traditional varieties. So, if Basmati export trend growth rates from Pakistan are much higher than India in the Pre-WTO period and just the opposite in the Post-WTO period (Table 9.3), apart from Basmati export constraints in Pakistan, it could also mean that there is greater international demand for traditional Basmati varieties than hybrid ones. Therefore, over the years the quantum of Basmati exports has not been affected by WTO rules.
Destination wise, the number of countries to which Basmati rice is exported from India has increased from a Pre-WTO figure of 95 to 148 countries in the Post-WTO period.

Table 9.4: Quantity Export Growth Rates to Major Basmati Rice Importing Countries (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>15.15**</td>
<td>9.72**</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1.70</td>
<td>8.22**</td>
</tr>
<tr>
<td>UAE</td>
<td>5.21</td>
<td>8.05**</td>
</tr>
<tr>
<td>UK</td>
<td>9.41**</td>
<td>8.75**</td>
</tr>
<tr>
<td>USA</td>
<td>11.66**</td>
<td>-0.46</td>
</tr>
</tbody>
</table>

Source: Calculated from Data on Export Statistics for Agriculture and Food Products – APEDA, DGCIS and CMIE.

** Statistically significant at 1 per cent level of significance

However, for India, the most disconcerting fact is that the trend growth rate of Basmati exports in the Post-WTO phase has reduced for the major importing country i.e., Saudi Arabia and this decline is statistically significant at 1 per cent level of significance (Table 9.4). It has also declined in UK and USA wherein the decline is statistically significant only in UK. It is learnt that the drop in Saudi imports of Indian Basmati rice is because of hoarding, besides this decline could also be attributed to the strategy adopted by our sole competitor, Pakistan. UK’s growth rate declined in the post WTO period probably due to problems of Basmati adulteration. USA showed a negative growth rate because among all the years its imports of Indian Basmati rice were exceptionally high in the TE 1995-1997 after which its imports became low, as they have started to grow their own non-aromatic long grain varieties.

43 Information obtained from APEDA

Chapter 9: Basmati Rice Trade and WTO
Figure 9.1: Basmati Rice Trade in the Pre and Post-WTO Periods (US$/Tonnes)

Prices of Basmati and Non-Basmati Rice in the Pre and Post-WTO Periods (US$/Tonnes)

Source: Export Statistics for Agriculture and Food Products, APEDA, Various Issues, Federal Bureau of Statistics, Pakistan (Appendix Table G-1 and Appendix Table G-5)

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The inability of the WTO to have an impact on Basmati exports can also be seen in terms of the clauses of the Agreement on Agriculture (AoA) as well as the TRIPs provisions. These have been discussed as follows;

On the issue of Market Access and Basmati, it was decided in the AoA that member countries have to withdraw all quantitative restrictions (QRs) on their imports on a time bound basis. For Indian Basmati a zero duty had been effective both before and after the WTO in all importing countries. In the Pre-WTO period Basmati rice from India was exported to 95 countries. In the Post-WTO period the number of countries to which Basmati rice was exported increased to 148. With a zero tariff duty throughout if the number of countries to which Basmati got exported increased from 95 in the Pre-WTO to 148 in the Post-WTO period it means that this particular clause of market access does not seem to affect the spatial expansion of Basmati exports. Basmati rice being a premium product is proliferating into newer markets as a result of better promotional activities and consumer preference.

On the issue of Domestic Support and Basmati, it has been envisaged in the WTO that the Aggregate Measure of Support (AMS) for developing countries like India should not exceed 10 per cent of the total value of agricultural production. If it does, then it has to be reduced. As already discussed in section 9.2.2 of this chapter, India’s product specific AMS in 1995-96 stood at (-) 38.47 per cent of the value of production for 19 commodities, and non-product specific AMS stood at 7.52 per cent of the total value of agricultural production. India’s total AMS hence was (-) 18 per cent. In 2000 for 15 commodities the AMS was (-) 2.62 per cent. Thus, the question of our reducing subsidies for any crop does not arise. The negative support or net taxation is due to the fact that the government fixes prices of different commodities below international levels.

Rice was one of the commodities taken up to calculate the AMS. The highest negative subsidy appeared to be in the case of Wheat to the tune of almost Rs.9000 Crores, with rice as the next least supported product with an AMS of Rs.7724 Crores (Gulati and Roy Choudhury, 1994). The total AMS for rice was calculated on the basis of support prices as Non-Basmati rice receives Minimum Support Price (MSP). AMS calculations were also based on farm harvest prices for crops, which did not receive any price support. For such crops the AMS was negative by (-) 8.66 per cent to the total value of agricultural production during the triennium ending 1994-95.

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(Gulati and Kelly, 1999). Thus, the subsidies or domestic support clause of the WTO does not seem to be affecting Basmati prices at all.

In case of Basmati it has been mentioned that the government does not regulate Basmati prices using the MSP. Thus, the subsidy provided through output pricing is not present in the case of Basmati. Input subsidies may be present just like any other agricultural commodity whose levels are much less than that specified by the WTO. However, domestic prices of Basmati are less than its international prices. This does not mean that Basmati rice is disprotected as Basmati international prices are the Indian Basmati export prices. It needs to be mentioned here that the world prices or international prices of Basmati rice are the Indian Basmati export prices because these are higher than those of Pakistan. Basmati NPCs in recent years have been closer to unity, which means that the difference between its domestic and international prices is very less.

On the issue of food security it is to be mentioned that as Basmati is a high value cereal crop, higher prices will not raise the question of food security because Basmati Rice is not a PDS product.

As for Export Competition and Basmati, the underlying principle behind export subsidies is that those who export more will be subsidized more. The agreement on export competition speaks of export subsidy reduction. In terms of this clause it needs to be stated that so far no export subsidy has ever been given to Basmati rice.

The only issue that had the potential for affecting Basmati exports adversely was the ‘Patents’ issue under the TRIPs agreement. Fortunately due to timely legislation by India even this threat was challenged. It has been argued in the case of farmers’ rights that if a country takes germplasm for a particular crop from another country the former has to pay royalty to the latter. No country can purchase germplasm of Basmati from India because Basmati Rice cannot be grown anywhere else in the world other than the Himalayan foothills. So, Basmati farmers in India can purchase or reuse seeds, because Basmati is a traditional crop thereby giving us a sole monopoly over its use.

Thus, it can be deduced that the WTO has had no impact on Indian Basmati exports. In fact during the field survey majority of the farmers’ perception regarding the patent issue was scant. Therefore, the increases in exports as well as their inherent problems are due to other reasons.
9.5. **Concluding Remarks**

This chapter provided an insight on issues of the WTO so as to assess the impact of WTO on Basmati. The WTO issues studied in this chapter were the clauses of the Agreement on Agriculture and TRIPs. Apart from this, proceedings of various WTO ministerial conferences were reviewed.

In the case of Basmati it was thought that with implementation of WTO rules its prices should have increased in response to subsidy reductions. But unlike what was thought earlier, Basmati prices in India actually decelerated after the WTO, but in Pakistan, they showed an increase. The deceleration in export prices of India's Basmati was mainly due to competition from Pakistan and the acceleration in export prices of Pakistan in the Post-WTO period was not in response to subsidy reductions but due to shortages in supplies as crop yields were said to have declined due to old seeds and irrigation problems. Further, appreciation in the local currency against most currencies had been making Pakistani hybrid exports uncompetitive against Indian exports. Further, Basmati rice prices of India had remained higher than Non-Basmati and Pakistan both before and after WTO.

In India, the coefficient of variation of Basmati rice prices indicating price fluctuations did not vary much in the Pre-WTO and Post-WTO period. In Pakistan, however, prices of Basmati rice fluctuated more than that of India as they had switched over from cultivation and thereby exports of costlier traditional varieties to cheaper hybrid varieties. Thus, in both countries Basmati rice prices showed a fluctuating trend throughout irrespective of the WTO. This was also the reason for lower prices of Basmati rice of Pakistan compared to India since 1990-91.

Further, Basmati exports from India grew at a higher rate than Pakistan in the Post-WTO period probably because Pakistan was mainly cultivating and exporting hybrid Basmati varieties as compared to India which was mainly cultivating and exporting traditional Basmati varieties that might be having greater international demand than Pakistan’s hybrids.

The trend growth rates of Basmati exports from India to some of the major importing countries had declined from the Pre to the Post-WTO period. It was learnt from APEDA that the drop in Saudi imports of Indian Basmati rice was because of hoarding, besides this decline could also be attributed to the strategy adopted by our sole competitor, Pakistan. UK’s growth rate declined probably due to problems of
Basmati adulteration. USA showed a negative growth rate because among all the years its imports of Indian Basmati rice were exceptionally high in the TE 1995-1997 after which its imports became low, as they had started to grow their own non-aromatic long grain varieties.

Regarding market access clause in the AoA, despite a zero tariff duty throughout, the number of countries to which India's Basmati was exported had increased from a Pre-WTO figure of 95 to 148 countries in the Post-WTO period. This increase was mostly due to better advertising and propaganda. Regarding domestic subsidies clause, India had been having a negative AMS for most agricultural commodities so our question of reducing subsidies for any crop let alone Basmati did not arise. Further, no export subsidies had been given for exports of Basmati rice.

On the matter of Trade Related Intellectual property Rights (TRIPs) the issue of Basmati Patents had created a lot of controversy in recent years. However, due to timely legislation by India on the grounds of the Act of Geographical Indications, this threat was done away with and this issue never affected Indian Basmati exports.

Thus, the clauses of the AoA as well as the TRIPs provisions in the WTO were unable to affect Basmati exports from India. So, the initial hypothesis that Basmati is a premium product and hence its existing markets would continue to hold had not only been proven right, but also despite some inherent problems Basmati exports had increased temporally and spatially irrespective of the WTO.