CHAPTER 1

INTRODUCTION

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. Essentially, the WTO is a place where member governments go, to try to sort out the trade problems they face with each other. WTO came into effect on 1 January, 1995 with the support of at least 85 founding members, including India. They deal with: agriculture, textiles and clothing, banking, telecommunications, government purchases, industrial standards and product safety, food sanitation regulations, intellectual property, and much more. But a number of simple, fundamental principles run throughout all of these documents. These principles are the foundation of the multilateral trading system. They spell out the principles of liberalization, and the permitted exceptions. They require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted, and through regular reports by the secretariat on countries’ trade policies. The WTO oversees about 60 different agreements which have the status of international legal text and consists of 29 individual legal texts. By promoting the "free trade" agenda of multinational corporations above the interests of local communities, working families, and the environment, the WTO has systematically undermined democracy around the world. It is clear that the W.T.O provides opportunities for countries to grow and realize their export potentials, with appropriate domestic policies in place.

1.1.1 Significance of the Study
If transactions between parties could be spontaneous because they are mutually beneficial to the parties concerned, then where is the need for a multilateral institutional framework like the WTO with mutually agreed and enforceable rules? The simple answer is that countries differ not only in regard to the comparative advantage in producing various goods and services but also in respect of the level playing field (Hanumantha, 2009). There is hardly any corner of the world which is affluent in all kinds of resources. The demands of one country are fulfilled by the supply of the commodities from the other country. For example, the infrastructure of every country is dependent on the power, and mineral resources. Thus halt in the supply of the oil and crude petroleum products by the OPEC countries may cause a hullabaloo in the Indian economy. With the same token, if India refuses to supply the food products to the countries like Saudi Arabia, Iraq and Iran, the most obvious result will be starvation and famine in the later countries. To get rid of such a hard situation and to balance the international trade, we have an international trade; we have an international body that regulates the international trade, namely World Trade Organization (WTO). With all its limitations, the multilateral mechanism under the WTO is still a better option (Surendra, “n.d”).

India is a founder member of the General Agreement on Tariffs and Trade (GATT) 1947 and its successor, the World Trade Organization (WTO), which came into effect on 1.1.1995 after the conclusion of the Uruguay Round (UR) of Multilateral Trade Negotiations. India's participation in an increasingly rule based system in the governance of international trade is to ensure more stability and predictability, which ultimately would lead to more trade and prosperity for itself and the 153 other nations which now comprise the WTO. India also
automatically avails of MFN and national treatment for its exports to all WTO members.

A close examination of both the prospects and retrospect to Indian agriculture in the context of globalization and economic liberalization especially after introduction of WTO revealed that India holds a lot of promise in the liberalized trade regime as the world trade agreement would bring unfavorable changes to Indian economy as the country harbored valuable natural resources, diversified climatic and soil conditions, good experience in farming, variety of crops and a vast pool of trained scientific man power. However, it is not the right approach to politicize the trade related issues into positive and negative aspects, as there is no alternative but to adjust to the realities in the contemporary world situation. India has to convert the globalization aspects for its advantages. In this context that a study of the problems of Indian agricultural sector for the purpose of formulating appropriate remedial strategies assumes high significance, particularly in view of the globalization pressures sweeping across the globe. Here my research study has a lot of role to identify the problems facing by Indian farmers in the era of WTO agreement and their solution for it.

1.1.2 Emergence of the New Multilateral Trade Order - from GATT to WTO

The General Agreement on Tariffs and Trade (GATT) signed in 1947 aimed at providing an international platform to improve market access on traded goods thereby ensuring freer trade between member countries. The GATT has its origin in the Anglo-American grand design for the post second world war reconstruction in 1947. It has set out to correct several aberrations which crept into the International Trade which were distorting the free flow of goods and services from one country to another. It was a treaty entered into by 146 countries of 191 member countries of the United Nations, of which 30 are
developed, 86 are developing and 30 are least developed nations. India was the founding member of this organization. The mechanism envisaged by GATT to promote trade liberalization is the so called “rounds” system. The process periodically gathers the contracting parties together to agree on a package of trade measures. There were seven rounds which preceded Uruguay round. The Uruguay Round has been the most complicated of all GATT rounds held so far with 118 countries having negotiated as 16 negotiated groups. Many topics addressed were new and fairly complicated. The outcome of this round which was long drawn (1986-94) was the creation of World Trade Organization (WTO). The three issues which were completely new to the UR are (1) Agreement on Agriculture (AoA), (2) Trade Related Investment Measures (TRIMS) and (3) Trade Related Intellectual Property Rights (TRIPS). The Uruguay Round of GATT negotiations (1986-94) further speeded up this process of world trade liberalization.

1.2.1 Objectives and Principles Of WTO

The WTO has 153 members, together accounting for 90 percent of world trade. These members are mostly country governments, but can also be customs territories. Only a quarter of the countries are developed countries. The rest are developing countries, least developed countries (LDCs) and customs territories. Customs territories are countries working together to form alliances such as customs unions, free trade areas or common markets. Often they have just one spokesman or negotiating team representing the alliance at the WTO. The biggest such group is the European Union (EU) and its 25 member-states. The EU is a WTO member in its own right, even though each of its member countries is also a member of the WTO. The main benefit of membership in the WTO is the right not to be discriminated against, in its trade with other members of the WTO.
The objectives of WTO, as spelt out in the preamble to the Agreement that established the organization, were:

1. Raise standards of living;
2. Ensure full employment;
3. Support a large and steadily growing volume of real income and effective demand;
4. Expand production of, and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development; and
5. Protect and preserve the environment.

It was further stated that the organization would seek to enhance the means of realizing the above-mentioned objectives “in a manner consistent with their respective needs and concerns at different levels of economic development” (WTO, 1995).

The WTO was born out of negotiations; everything the WTO does is the result of negotiations. The main principles of WTO are the following:

1. **Most-favoured-nation (MFN): treating other people equally** Under the WTO agreements, countries cannot normally discriminate between their trading partners. Grant someone a special favour (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members. But the agreements only permit some exceptions under strict conditions.

2. **National treatment: Treating foreigners and locals equally** Imported and locally produced goods should be treated equally — at least after the foreign goods have entered the market. Anyhow charging customs duty on an import is
not a violation of national treatment even if locally-produced products are not charged an equivalent tax.

1.3 WTO Provisions about Agriculture

Agriculture was among the most distorted sectors in international trade. The principal source of these distortions (which were in addition to those resulting from international market concentration) was the coexistence of very high level of domestic and export subsidies and almost impenetrable import barriers for temperate zone agricultural goods in developed countries. Although at least in theory the GATT covered trade in agricultural products, the Contracting Parties were unwilling to subject their domestic agricultural policies to the same disciplines as industrial products. As a result, distortions, in the form of high tariff and non-tariff barriers, characterized the international market for agricultural goods. Against the backdrop of the distortions that have accumulated over the decades primarily as a consequence of the barriers erected to afford protection to the domestic industries and later agriculture and to protect jobs, there has been growing realization among the nations that by establishing a fair and market-oriented commodity trading system throughout the world, would allow countries to specialize in the production of goods for which each country has a comparative advantage and thereby facilitate and help maximizing production. (Shyamasundaran, 2002).

Despite efforts in the various GATT trade rounds to reduce these distortions, success was not achieved until the Uruguay Round. Domestic support in developed countries led to low international commodity prices which have forced many developing countries out of farm trade. Though many of the developing countries are low cost producers of agricultural goods, they have not been able to compete with artificially cheap exports from developed countries.
Significant progress towards further agricultural trade liberalization has been made under the Doha Development Agenda (DDA), with an agreement to eliminate the most trade distorting export measures by 2013, and to reduce trade distorting domestic support and market access barriers in a meaningful, progressive manner, by modalities that are to be agreed.

The agreements that significantly affect agricultural trade are, namely,

1. Agreements on Agriculture (AOA),
2. Agreement on Sanitary and Phytosanitary Measures (SPS),
3. Agreement on Technical Barriers to Trade (TBT) and
4. Agreement on Trade Related IPR (TRIPs).

1.3.1 Agreements on Agriculture (AOA)

The Agreement on Agriculture forms a part of the Final Act of the Uruguay Round of Multilateral Trade Negotiations, which was signed by the member countries in April 1994 at Marrakesh, Morocco and came into force on 1st January, 1995. The WTO's Agreement on Agriculture (AoA) incorporated three broad areas of commitments from member-states -- in market access, domestic support and export subsidies. The signing of the Uruguay Round (GATT 1994) Agreement along with the Agreement on Agriculture (AoA) marks a new chapter in the history of multilateral trade negotiations in so far as for the first time the Agreement was successful in bringing agriculture within the ambit of discipline on international trade(Bhalla,2004)Agreement on Agriculture is one of the agreements with objective of correcting and preventing restriction in world agricultural market.

1.3.2 Agreement on Sanitary and Phytosanitary Measures (SPS)
Some incidents in the following years caused a concern among the nations of the developed world, regarding the health of its residents. The sudden outburst of diseases like mad cow, plague etc. in certain parts of world, and accidents like the Bhopal gas tragedy in India, created an impression that the food imports coming from these countries may be infected by certain disease-causing agents. All these resulted in signing of the SPS Agreement by the member countries (Kajli). In the case of agricultural output, apart from the productivity and quality considerations at the production level, there are some necessary precautions that need to be taken when the product is stored and transported. Absence of such cautious measures would have adverse effects on the quality of the product, resulting in increased wastages and decreasing the market value. Further, this holds true for both raw and processed food products. Thus it is in the self interest of the producers as well as the exporters to ensure that certain hygienic and other safety conditions are met. At the international level, WTO has specified some Sanitary and Phyto-Sanitary measures that need to be followed for international trade of food products. The SPS Agreement under the WTO seeks to lay down the minimum sanitary and phytosanitary standards that the member countries must achieve. This is to ensure the safety of life and health of humans, animals and plants (Kajli). With an increase in the levels of health-safety awareness among the citizens of both developing and developed countries, this practice becomes imperative for the suppliers of these products. Recognizing the importance of the issue, each country has specified certain norms of processing, packaging and testing, and certain standards of quality that must be maintained. At the international level, WTO has specified some Sanitary and Phyto-Sanitary measures that need to be followed for international trade of food products. The SPS Agreement under the WTO seeks
to lay down the minimum sanitary and phytosanitary standards that the member countries must achieve.

1.3.3 Agreement on Technical Barriers to Trade (TBT)

The Agreement on Technical Barriers to Trade (TBT) - sometimes referred to as the Standards Code - aims to reduce impediments to trade resulting from differences between national regulations and standards. As far as international consensus-based standards are concerned, the Agreement invites the signatory governments to ensure that the standardizing bodies in their countries accept and comply with a "Code of good practice for the preparation, adoption and application of standards", embodied in Annex 3 to the Agreement and which is known as the WTO Code of Good Practice.

The agreement on TBT sets standards for labelling and packaging of agricultural products as recommended by CAC. Unless India keeps itself abreast of the emerging guidelines of CAC, it may face non-tariff-barriers in future. In this regard, WTO does encourage developing countries to take active part in the CAC activities to decide on various SPS and TBT related standards. Among developing countries, India has been active in its participation. This practice needs to be pursued on a continued basis to protect interests of Indian agriculture, without jeopardising the spirit of achieving uniform international standards (Deodhar)

1.3.4 Agreement on Trade Related aspect of IPR (TRIPS)

Under the Agreement, States must protect inventions of products and processes. All intellectual property rights are covered by legal instruments used to protect authors, inventors, trademarks and names from imitation and copying. The protection of plant species is established by article 27 of the TRIPS
Agreement which defines the scope of application of patents. The text also provides the possibility of protecting species by effective *sui generis* systems. In this case, each country can develop a protection system that corresponds to its culture and its type of agriculture. On traditional knowledge, India has a Plant Variety Protection Act that protects farmers’ rights and traditional knowledge. India may adopt UPOV which would erode some of the farmers’ rights contained in the present act.

Among these different forms of intellectual property rights (IPRs), patent and geographical indication have profound implication to agriculture, and trademarks, copyrights and control of anti competitive practices have lesser implications.

### 1.4 Overview of Indian Agriculture

Agriculture forms the backbone of the Indian economy. Any change in the agriculture sector has a strong multiplier effect on the entire economy. The multiplier for food industry is much higher than that for industries such as power and telecom, reason being that the food industry directly and indirectly triggers growth in a number of other industries such as transport, refrigeration, pesticides and fertilizers.

This sector contributes to the Indian economy in a variety of ways:

- It provides direct employment to 65% of working people in the country and contributes about 29% of GDP of the country. In advanced nations like the US, agriculture accounts for a mere 2% of GDP, and employs 4% of the total labour force. The position is similar in other advanced countries. For example, agriculture contributed 2% of GDP in France with 6% share in labour force; in Germany the contribution of agriculture to GDP was 1%
with 3% share in labour force. The corresponding figures for UK were 2% and 3% (World Bank 2000).

- Agriculture also provides the foodgrains to feed the large population of the country.
- Indian agriculture is an important source of supply of raw materials to industries in the country.
- Agriculture contributes a sizeable share in India’s exports.
- Besides, it provides fodder for the large cattle population.
- Being the largest source of employment and income to millions of people, it provides a vast market for our industrial products.

In 2008, India had the world's third largest fishing industry. Although, agriculture contributes only 21% of India’s GDP, its importance in the country’s economic, social, and political fabric goes well beyond this indicator (Neelamegam et al., 2008). Agriculture has always been at the centre stage of socio-economic development in India and it will continue to remain so (Kuljit et al.). India ranks second worldwide in farm output. Agriculture and allied sectors like forestry, logging and fishing accounted for 15.7% of the GDP in 2009-10, employed 52.1% of the total workforce, and despite a steady decline of its share in the GDP, is still the largest economic sector and plays a significant role in the overall socio-economic development of India. Yields per unit area of all crops have grown since 1950, due to the special emphasis placed on agriculture in the five-year plans and steady improvements in irrigation, technology, application of modern agricultural practices and provision of agricultural credit and subsidies since the Green Revolution in India. However, international comparisons reveal the average yield in India is generally 30% to 50% of the
highest average yield in world. In Indian agriculture the factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post production management for value-addition and marketing, are responsible for higher yield as compared to most of the other countries. Through the five year plans, agricultural policy focused on raising public investment in irrigation, which was envisaged as the prime mover of farm growth.( Ramakumar). The following table indicates the production of food items in last years

Table 1.1. Production of food items

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Rice</td>
<td>Final estimates</td>
<td></td>
<td></td>
<td>Target</td>
<td>Second estimates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kharif</td>
<td>78.6</td>
<td>72.2</td>
<td>78.3</td>
<td>80.8</td>
<td>77.4</td>
<td>80.2</td>
<td>80.0</td>
</tr>
<tr>
<td>Rabi</td>
<td>9.9</td>
<td>10.9</td>
<td>13.5</td>
<td>12.0</td>
<td>12.7</td>
<td>13.2</td>
<td>13.0</td>
</tr>
<tr>
<td>Wheat</td>
<td>72.2</td>
<td>68.6</td>
<td>69.4</td>
<td>75.5</td>
<td>72.5</td>
<td>75.8</td>
<td>75.5</td>
</tr>
<tr>
<td>Coarse Cereals</td>
<td>37.6</td>
<td>33.5</td>
<td>34.1</td>
<td>36.5</td>
<td>32.0</td>
<td>33.9</td>
<td>37.5</td>
</tr>
<tr>
<td>Kharif</td>
<td>32.2</td>
<td>26.4</td>
<td>26.7</td>
<td>28.7</td>
<td>24.5</td>
<td>25.6</td>
<td>28.7</td>
</tr>
<tr>
<td>Rabi</td>
<td>5.4</td>
<td>7.1</td>
<td>7.3</td>
<td>7.8</td>
<td>7.5</td>
<td>8.3</td>
<td>8.8</td>
</tr>
<tr>
<td>Pulses</td>
<td>14.9</td>
<td>13.1</td>
<td>13.4</td>
<td>15.2</td>
<td>14.5</td>
<td>14.2</td>
<td>15.5</td>
</tr>
<tr>
<td>Kharif</td>
<td>6.2</td>
<td>4.7</td>
<td>4.9</td>
<td>5.8</td>
<td>5.2</td>
<td>4.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Rabi</td>
<td>8.7</td>
<td>8.4</td>
<td>8.5</td>
<td>9.4</td>
<td>9.3</td>
<td>9.4</td>
<td>10.0</td>
</tr>
<tr>
<td>Total Foodgrains</td>
<td>213.2</td>
<td>198.4</td>
<td>208.6</td>
<td>220.0</td>
<td>209.2</td>
<td>217.3</td>
<td>221.5</td>
</tr>
<tr>
<td>Kharif</td>
<td>117.0</td>
<td>103.3</td>
<td>109.9</td>
<td>115.3</td>
<td>107.2</td>
<td>110.6</td>
<td>114.2</td>
</tr>
<tr>
<td>Rabi</td>
<td>96.2</td>
<td>95.1</td>
<td>98.7</td>
<td>104.8</td>
<td>102.0</td>
<td>106.7</td>
<td>107.3</td>
</tr>
<tr>
<td>Total Oilseeds</td>
<td>25.2</td>
<td>24.4</td>
<td>28.0</td>
<td>29.4</td>
<td>23.6</td>
<td>24.3</td>
<td>30.0</td>
</tr>
<tr>
<td>Kharif</td>
<td>18.7</td>
<td>14.1</td>
<td>16.8</td>
<td>18.1</td>
<td>13.7</td>
<td>14.0</td>
<td>18.5</td>
</tr>
<tr>
<td>Rabi</td>
<td>8.5</td>
<td>10.2</td>
<td>11.2</td>
<td>11.3</td>
<td>9.9</td>
<td>10.3</td>
<td>11.5</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>233.9</td>
<td>237.1</td>
<td>281.2</td>
<td>270.0</td>
<td>315.5</td>
<td>355.5</td>
<td>310.0</td>
</tr>
<tr>
<td>Cotton a</td>
<td>13.7</td>
<td>16.4</td>
<td>18.5</td>
<td>18.5</td>
<td>21.0</td>
<td>22.6</td>
<td>22.0</td>
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<tr>
<td>Jute and Mesta</td>
<td>11.2</td>
<td>10.3</td>
<td>10.8</td>
<td>11.3</td>
<td>11.4</td>
<td>11.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, Government of India.
Agriculture will continue to remain at the centre stage of socio-economic development in India. As MS Swaminathan, the director of India's National Commission on Farmers, who led the country's green revolution in the 1970s said "If the government were to agreed to something which will kill our agricultural sector, and then their political futures will be finished". Notwithstanding its outstanding performance in making the country self-sufficient in foodgrains, deceleration of its performance beginning with mid-nineties is of serious national concern.

Agriculture contributes to economic development of India in at least four ways:-

1) Product contribution i.e. making available food and raw materials; Major source of raw material like cotton textile industries, sugar and vanaspati ghee.

2) Market contribution i.e. providing market for goods produced by other sectors

3) Factor contribution i.e. making available labour and capital to the non-agricultural sector

4) Foreign exchange contribution i.e. by means of producing extra product to be export and to get the foreign money in lieu of that.

Agriculture sector provides food for one billion population of the country. The following table indicates this fact.
India is the second largest producer of food in the world: more than 200 million tonnes of foodgrains, 150 million tonnes of fruits and vegetables, 91 million tonnes of milk, 1.6 million tonnes of poultry meat, 417 million livestock, and 6.05 million tonnes of fish and fish products. The Indian agriculture has made great strides over the years. The foodgrain production has increased more than four fold - from 51 million tonnes in 1950-51 to 212 million tonnes during 2003-04 growing at an annual average rate of more than 2.4 percent per annum.

The recent deceleration of growth in Indian agriculture- both in production as well as in crop productivity- has however been a cause of worry. Unless this trend is reversed, India may not be able to take on the opportunities that may be made available to it in the wake of globalization and WTO Reversal of this trend would however require action on a number of fronts the most

Table: 1.2. Indai- A majore Agriculture Producer

<table>
<thead>
<tr>
<th>Product</th>
<th>Volume (millions of tons / heads)</th>
<th>Worldwide Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td>Livestock (cattle, buffalo, sheep and goats)</td>
<td>482</td>
<td>1</td>
</tr>
<tr>
<td>Millet 2</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Tea</td>
<td>0.831</td>
<td>1</td>
</tr>
<tr>
<td>Wheat</td>
<td>72</td>
<td>2</td>
</tr>
<tr>
<td>Rice</td>
<td>85.3</td>
<td>2</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>232.32</td>
<td>2</td>
</tr>
<tr>
<td>Cotton</td>
<td>7.5</td>
<td>3</td>
</tr>
<tr>
<td>Potatoes</td>
<td>25</td>
<td>3</td>
</tr>
</tbody>
</table>

important being reversing the trend of declining public investment in agriculture and extending the coverage of irrigation to a much larger cultivated area (Malik).

1.4.1 Challenges of Indian Agriculture

The country has made significant improvements in agricultural production, but the achievements have been mainly confined to a few areas. The major challenges for our agriculture system would always be increasing production and productivity to ensure food security for the rising population. Agriculture productivity in India is challenge because of fragmented land holding. Consolidation of land holding is one of the measures to get maximum out of it. Government has to take innovative steps to get farmer benefited with the subsidy schemes directly as applicable in other countries to make the farmers self reliant. Meeting this challenge means also ensuring food security and a better standard of living for the rural people. India’s performance in agriculture affects overall rural development and the extent of rural poverty. Therefore, the performance of the economy is crucially dependent upon that of agriculture.

Banking industry in India has to take suggestive measures to cover excluded or unbanked people get benefited to make them out of the rural indebtedness due to the private money lenders. India has a wide network of rural finance institutions, many of the rural poor remain excluded, due to inefficiencies in the formal finance institutions, the weak regulatory framework, high transaction costs, and risks associated with lending to agriculture.

Apart from occasional poor monsoons and some demand-related problems, the long term trend of agricultural production in India can largely be attributed to a variety of factors such as declining public investment; failure to carry out essential reforms to conserve water and soil; unabated degradation of natural resources, and weakened support systems due to financial problems of
state governments. While reversing the trend of declining investment in agriculture, often cited as the most important factor for deceleration in growth, especially during the 1990s, could contribute significantly to reversing the observed deceleration in the growth of agriculture, it will not, however, be prudent to expect that investment alone will reverse this trend. (Malik)

1.4.2 Food Security of India under WTO Regime

Ensuring food security that is the access of the population to sufficient food to meet its nutritional requirements is a basic objective of governmental policies in agrarian developing countries. Hence, food security issues cover not only issues related to the availability and stability of food supplies but also to issues of access to this supply i.e., related to the resources that may be needed to procure the required quantity of food.

Food security, trade liberalisation and the World Trade Organisation (WTO) have all been at the centre of various public and expert debates, amongst academicians, policy makers, in the media and in the civil society at large, both at national and international levels. Ever since India became a signatory to the WTO Agreement on Agriculture (AOA) in 1995, a concern that has been raised repeatedly is whether agricultural trade liberalization would destroy India’s food security. This is a critical issue since a large section of the population is dependent on agriculture for their livelihood, and the poor consumers already spend an overwhelming share of their income on food (Hoda et al., 2002).

1.4.3 Foreign Trade of Agricultural Products under WTO

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

It was widely believed that the establishment of World Trade Organisation (WTO) would bring order and encourage fair competition in this hitherto highly distorted sector of the world trade. It would lead to opening up of the world agricultural market where every member country would be able to participate in the world agricultural market according to its comparative advantage. However, India has a long way to go in integrating its vast agricultural sector into world markets.

While making the country self sufficient in the last few decades, agriculture has also played a significant role in earning foreign exchange through export of traditional items like tobacco, tea, coffee, cashew spices, raw cotton, basmati rice, etc Indian agriculture is highly export competitive and that trade would help the country to harness its vast export potential (Gulati et al., 1994).

The impact of W.T.O on agriculture was severely felt by India as cheap imports have frequently hit the Indian market, causing shock waves among the agriculture producers. Between 1998 and 2000-01, the average annual import of farm products rose by about 64 percent, while exports declined by 7 per cent. The trend of impact on export and import showing in following table
1.5 Research Methodology

This thesis is based on qualitative method, and the information is gathered through the secondary data. Strauss and Corbin define qualitative research as any kind of research that produces findings that cannot be arrived by means of statistical procedures or by any other means of quantification. Representative of the qualitative method can be described that the data is “soft”, and difficult to measurable.

Plenty of statistical data is involved in this research, especially economical information, such as market share, rate of economic growth and percentage of foreign investment. The methodology that has been adopted for this study is doctrinal research. The resources accessed to being the books, scholarly opinions, and other articles of eminent jurists and agreement drafts.
The secondary data from various issues of National Accounts Statistics, Central Statistical Organization (CSO), Ministry of planning, website of World Trade Organization, (available at www.wto.org). The secondary information is usually comprised of writing material. These include newspaper, articles, Internet information, literature, brochures and so on. The advantages of the secondary data are convenient and easy to reach. In order to substantiate analytical requirements the researcher would use the advanced portfolio models along with suitable statistical tools. The study is needed use of software like MS EXCEL etc. in order to apply various statistical tools.

In the present era of planning, the importance of agricultural statistics as a prime mover becomes unequivocal. In the new strategy for agricultural Development the importance of agricultural statistics as a reflector of economic progress is very vital. Due to lack of sufficiently comprehensive and reliable data, the planning and execution of agricultural programme is often handicap as a planning in our country has hitherto been on an overall programme basis and that too for relatively larger administrative units.

In India, data on agricultural production are available from two major sources. First, the Ministry of Agriculture (MoA) releases the index numbers of area under cultivation, production and yield of a set of 46 crops, called as forecast crops. While this index can be used to study changes in area, production and yield of individual crops or crop groups, its exclusion of non-forecast crops in the estimation of the index for “all crops” is a major limitation. Secondly, the National Accounts Statistics, compiled by the Central Statistical Organisation (CSO), provides the Gross Value of Output (GVO) for a set of crops that include the non-forecast crops. Some of the other main government publications and others used in compiling the database are:
1.6 Objectives of the Study

Since the finalization of the URAA (15 March 1994) and inception of WTO on 1 January, 1995, a hot debate is on concerning their implications on agriculture, more so for developing countries. This debate is inconclusive till date (January, 2011). In such a scenario, the AoA seems to be in trouble, at least in the near future there seems to be no solution. This problem is so critical for the developing nations because agriculture sector is heavily protected in OECD countries.

On the one hand developing nations are being pressurized through various negotiations and agreements to lower the subsidies; on the other hand the developed countries are not ready to give in to demand of developing nations to curtail the subsidies in their economies.
In India, there are more than 106 million farm families and contribution of agriculture to GDP is 20 percent. Agriculture is the main driving force for the economy as highlighted in World Development Report (2008). Keeping this in mind, the issues of agriculture in WTO regime need to be discussed in detail so that the livelihood of more than half of the population is not challenged. Hence the present study “implication of WTO on Indian Agriculture-issues and challenges” evaluates the nature of agriculture in India, trends there in, whether they are WTO compatible are not and what can the future course of action be which is compatible with WTO norms without compromising on the agrarian set-up of the country. With manifold objectives like helping trade flow smoothly, freely, fairly and predictably it has become capable of organizing trade and commerce over the Globe through the mantra of liberalization, privatization and globalization. The specific objective behind undertaking this thesis is to understand the WTO and the interest of the Indian agriculture. The thesis also aims to study extensively WTO with the backdrop of Indian economy and the various helping hand and all such related aspects and issues so connected. It is stepping forward with objectives like:

1. To examine issues related to the WTO’s Agreement on Agriculture and other agreements like TRIPS, SPS and TBT etc. from India’s Point of view.
2. To analyze the benefits get by Indian farmers from WTO.
3. To identity major problems faced by Indian farmers.
4. To suggest various policy measures to make the agriculture sector more vibrant, strong and sustainable.
5. Makes a few strategies for the revival of Indian agricultural sector to ensure balanced economic development of the nation apart from making it globally
competitive. And suggest various policy measures to make the agriculture sector more vibrant, strong and sustainable.

1.7 Limitations of the Study

The present study “Implication of WTO on Indian Agriculture- Issues and Challenges-” attempts to fill some of the existing research gaps in the existing literature on the theme. However the present study will face some limitation. At the end, it may be said that although the study suffers from the above mentioned limitations, yet it paves the way for further research in the area. It is surely a beginning but not an end in the direction. The study has to be limited in its scope due to lack of adequate information and other resources. However following is the main limitations of this study. They are:

1. Lack of sufficient literature and information on this study field is the major limitation of the study.
2. Some studies measure only qualitative impact
3. Being a student time and resources are constraints.
4. Considering reliance on secondary sources, the research was further limited by the availability of literature and the information contained therein.

1.8 Disposition of the Thesis

This thesis is comprised with seven chapters.

Chapter 1: A brief introduction of this study, which primarily consists of background, problem discussion, problem formulation, purpose statement, limitation, and disposition of the thesis. And a brief discussion of the objectives of the study.
**Chapter 2:** A review of the main provisions of all WTO Agreements like Agreement on Agriculture (AoA), Trade related aspects of Intellectual Property Rights (TRIPS), SPS, TBT and impact of WTO on Indian international agricultural trade. Here there is in-depth analysis of the literature has been carried out so as to draw the inferences from the earlier studies concerning present study.

**Chapter 3:** A brief description of impact of Agreement on Agriculture of WTO on Indian agriculture. Here I also evaluate about impact of three pillars of AoA, Market access, domestic subsidy and export subsidy, on Indian farmers.

**Chapter 4:** A study on impact of TRIPS, Agreement on Sanitary and Phytosanitary (SPS) measures, Technical Barriers to Trade (TBT) of WTO on Indian farmers.

**Chapter 5:** I focus on the implication of an important theoretical consideration in the international agricultural trade after the establishment of WTO in 1995 is undertaken. Here I also try to analyze the impact of WTO on Indian exports and imports of agricultural products.

**Chapter 6:** This chapter is devoted to an analysis of the problem of food security in India in post-WTO period.

**Chapter 7:** Entitled Conclusions, is the final synopsis of what the thesis are actually pointing at. In other words it concludes the study and suggests some negotiating options for India.
Reference


