WORLD TRADE AGREEMENT - ITS IMPACT ON INDIAN AGRICULTURE

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Introduction

India is a founder member of General Agreement on Tariffs and Trade (GATT) established in 1948 along with 22 other nations. World Trade Organization (WTO) was established on 1st January 1995 with 110 membership nations including India. The present membership strength is 144 and 30 other nations are actively considering membership. The 8th round summit of GATT at Uruguay (19986-91) finalized the draft, Agreement on Agriculture (AoA) which became effective from 1st July 1995.

Many expressed concerns and apprehensions fearing adverse impact of World Trade Agreement (WTA) signed by India. The present day ills of agriculture and crashing prices are being attributed to WTA. This is mainly due to the fact that the implications and consequences of WTA are not fully understood by many. No doubt, there are both advantages and disadvantages due to WTA. But the Agreement provides good opportunities for marketing the produce and products globally for the member countries. The main aim of WTA on agriculture was to encourage fair trade in agriculture by removing trade distortions resulting from differential levels of input subsidies, price and market support, export subsidy and other kinds of trade distorting support. This facility, can however, not be exploited by developing countries because developed and developing countries do not have the same level field for operations. So, in this context, it is thought appropriate by the researchers to study the implications of WTA on Indian agriculture, performance of agricultural exports during the structural reforms period, possible effects on

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different entities of Indian agriculture, performance of Indian agriculture after participating in WTA and measures to be followed by the Government of India in view of WTA-AoA.

Why India Should Participate in WTA

India's participation in the world trade is very important taking into consideration the following aspects:

- India's dependence on the rest of the world is very high rather than their dependence on India. Moreover, India is not exporting any crucial/critical item and if it did not export, other countries are ready to supply those items. In world trade, India does not have monopoly status and India's exports are merely surplus oriented exports.
- If India walks out of the Multilateral Trade Agreement, it has to opt for Bilateral Agreement, which is not favorable to meet to total domestic requirements. Hence, it is beneficial to have Multilateral Trade Agreement for good exposure and growth.
- In the WTA, all the member countries were given equal weightage (each country has one vote) to express their views regarding their activities in world trade, in contrast to World Bank / IMF, where weightage will be given with respect to subscription of capital paid by the member countries.
- The WTA is more transparent unlike the World Bank / IMF decisions, as the related issues can be discussed in parliaments of their respective countries.
- Provides Indian exporters "National Treatment" and "Most Favored Nation" treatment.
- 2/3rd majority for amendments, 3/4th for interpretation and consensus for changing basic provisions like MFN.

WTO Provisions and India's Position

Agreement on Agriculture (AoA)

The objective of AoA is to reform the agricultural sector trade and to make the policies market oriented so as to provide security for both importers and exporters alike. This AoA came into effect on 1st January 1995 and covers market access, domestic support and export competition as three major areas. The various commitments by member countries under AoA are presented in table 1. It is clear from the table that, the commitments made by the member countries are in respect of removing restrictions like, tariffs and tariff quotas, extent of domestic support, providing market access and reducing export subsidies and other incentives to make the exports artificially competitive.

Table 1: Commitments made by Member Countries under AoA

Particulars (period of commitment)	Developed Countries 6 years (1995-2000)	Developing Countries 10 years(1995-2004)
1. Tariffs		
a) Average cut for all agricultural products	-36%	-24%
b) Minimum cut per product	-15%	-10%
2. Domestic Support		
a) Total AMS cuts for sector (Base period: 1986-88)	-20%	-13.3%
3. Market Access	3-5%	3-5%
4. Export subsidies		
a) Value of Subsidies	-36%	-24%
b) Volume of subsidies	-21%	-14%

Tariffication

Prior to the Uruguay Round, the imports of some of the agricultural commodities were restricted by the imposition of non-tariff measures like quotas, variable levies, minimum import prices, state trading measures, voluntary restraint agreements etc. However, under this AoA, all the member countries are expected to convert the non-tariff measures to tariff measures through the process of tariffication. The newly committed tariffs and tariff quotas, covering all agricultural products took effect in 1995. *The developed countries would cut their tariffs by an average of 36% in equal steps over* *six years and developing countries would make 24% cuts over 10 years (Table1). Developing countries, which were maintaining Quantitative Restrictions (QRs) due to Balance of Payments (BoP) problems, were allowed to offer ceiling bindings instead of tariffication. Least developed countries do not have to cut their tariffs.*

India has maintained QRs for BoP reasons. Consequent to improvement in India's BoP position, the US contented that the QRs should be immediately removed and they resorted to the Dispute Settlement Procedures of the WTO. India lost the dispute both at the Panel and the Appellate Body Levels and consequently, as per the decision of the Dispute Settlement Body (DSB) of WTO, India had to remove all the QRs that were maintained on BoP grounds. As per the bilateral understanding with USA for the determination of a reasonable period of time for implementing the decision of DSB, India was required to remove all the QRs since the early 1990 as part of the reforms process of economic liberalization. Very recently, the Government of India has removed QRs in case of 825 commodities w.e.f. 1-4-2001. The removal of QRs need not be seen as a threat, since it provides an opportunity for India's farm sector to become competitive which is turn leads to increased exports. Only 4 or 5 countries like Bangladesh, Pakistan, Nigeria, Tanzania etc, out of 144 WTO member countries are presently maintaining QRs and that too with a pre-determined phase out period. The removal of QRs being an inevitable reality, India has to convert the challenge into an opportunity for increasing competitiveness and exports.

There is also another stipulation stating that the member countries should provide 3-5% market access for agricultural produce (Minimum market access equal to 3% of domestic consumption in 1986-88 will have to be established for the year 1995 rising to 5% at the end of the implementation period). This will create a wider international market for India for exporting the agricultural commodities/products. However, exploitation of this commitment is possible only if Indian goods are competitive in prices and of high quality to suit the specific requirements of the importing countries. Thus, India has to identity areas, crops and commodities and products of animal origin, which are having more comparative advantage in the international market.

Domestic Support

The issue of domestic support to the agricultural sector has been triggered mainly because, the developed countries (Table 2) have been heavily subsidising their farmers in order to have price advantage and to gain large share in the global market.

Table 2: Subsidies offered as % in total value of agricultural products by various countries.

Country	% share of subsidy in total value of agricultural products
Japan	72.5
Columbia	54.0
S.Korea	61.0
Europe	37.0
China	34.0
Pakistan	26.0
USA	28.8
India	03.0

Under domestic support, the AoA created 3 types of measures popularly known as 'Green Box', 'Blue Box', and 'Amber Box'. **Green Box** measures include those policies that have minimal trade distortive effort and hence they are exempted from reduction commitments. They can even be increased with out any financial limitation under the WTO, since these measures can be provided through public funded government programmes. These measures include research, extension, food security stocks, disaster payments, control of pests and diseases, structural adjustment programmes etc. **Blue Box** measures includes those policies which are related solely to income and not to either the level of production or prices (domestic or international) They are also not subjected to reduction commitments under AoA. They include direct payments under production limiting programmes, decoupled income support, Government financial participation in insurance, income safety net programmes etc. However, these measures do not have much relevance to Indian agriculture. **Amber Box** measures include those policies which have trade distortive effect and hence they are subjected to reduction commitments. These measures are disciplined through reductions in total Aggregate Measurement of Support (AMS). It refers to the extent of support (subsidies) a country can give to its farm sector. It includes 2 major items viz.; non-product specific support and product specific support.

Non-product specific support include subsidies provided for seeds, fertilizers, irrigation, pesticides, electricity, credit etc which are available for all crops. The product specific support (in India) include market price support given to agricultural commodities. In India, market price support was announced for 22 commodities, out of which 19 are included in the list of commitments. The market price support is measured by calculating the difference between domestic administered market price and external reference price (world price) multiplied by the quantity of production eligible to get applied administered price. If domestic price is lower than the world price, then market price support (product specific support) is negative and if it is higher than the input subsidies (non-product specific support), then AMS turns out be negative. In India, the total product specific support was (-) Rs.24,442 crores during the base period. The negative figure arises from the fact that, during the base period, except for tobacco and sugarcane, the domestic prices of all products were lower than world prices. During the base period, the non-product specific support was Rs.4581 crores. Taking both product specific and non-product specific supports into account, the total AMS was (-) Rs.19869 crores, i.e., (-) 18% of the value of total agricultural output.

The Agreement does not envisage any reduction in the support (subsidies), if the total support is lower than 10 per cent (de minimis level) of the total value of agricultural production for developing countries are 5% for developed countries (base period: 1986 to 1988). If the AMS is higher than the de minimis level, it should be reduced by 20 per cent over six years by developed countries and 13.3 per cent over ten years by developing countries. The least developed countries have no reduction commitments. Since, the total AMS of India is negative and that too by a huge magnitude, the question of undertaking reduction commitments did not arise. The calculations for the marketing years, 1995-96 shows that the product specific support as (-) 38.47% and non-product specific support as 7.52% of total value of production. This still keeps the AMS of India, below the *de minimis* level of 10 per cent.

Export Subsidies

The AoA prohibits export subsidies on agricultural products, unless the subsidies are specified in a numbers list of commitments. Where they are listed, the Agreement requires WTO members to cut both the amount of money meant for export subsidies and the quantities of exports that receive subsidies. *Taking averages from 1986-90 as the base level, developed countries have agreed to cut the value of export subsidies by 36% over the six years starting in 1995 and 24% over the ten years for developing countries. Developed countries have also agreed to reduce the quantities of subsidized exports by 21% over six years and 14% over 10 years for developing countries. Least developed countries do not need to make any cuts.*

In India, the exporters of agricultural commodities do not get any direct subsidy. The only subsidies available to them are in the form of (a) exemption of export profit from income tax under section 80-HHC of the Income Tax Act and this is also not one of the listed subsidies as the entire income from agriculture is exempted from income tax *per se* and (b) subsidies on cost of freight on export shipments of certain products like fruits, vegetables and floricultural products. So, India need not reduce any export subsidies but at the same time, the reduction of export subsidies by developed countries offers greater scope for enhancing the exports based on the comparative advantage.

So, the AoA does not in any way, require India to reduce the existing subsidies for research, pest and disease control, marketing and promotion services, infrastructure support, services etc. More over, it calls for the replacement of non-tariff measures with tariffs and tariff quotas. It does not in any way effect our existing Public Distribution System. India has not taken any obligation for providing market access opportunities to other trading partners. It is free to allow its own agricultural policy for various domestic support programmes and for farmers. India is already importing several agriculture commodities and raw materials and hence, the commitment of providing market access to an extent of 3% of total domestic production is not a worrysome factor. The developed countries with their relative advantages over the developing countries, may dump their goods into India, which will adversely affect the domestic market and result in prices crash. However, indiscriminate dumping is not possible because of the restrictions in the Agreement under which the affected countries can invoke anti-dumping measures by way of increasing import duties subjected to bound tariffs prescribed in this regard.

Trade Related Intellectual Property Rights (Trips)

The TRIPs section of the Agreement covers nine types of intellectual property rights viz., copy rights, trade marks, trade secrets, geographical indications, industrial diagrams, integrated circuits, patents, micro-organisms and plant varieties. Of all these types, patents are considered to be most important as far as Indian agriculture is concerned. The new Patent Laws under the Agreement demand introduction of 'product' patents in lieu of the existing 'process' patent, extension of uniform patent period of 20 years, limited scope of compulsory licensing and lastly provisions for patenting of 'living forms'.

The patenting of seeds and other plant materials facilitate smooth trade and industrial relationship of India across the border. Moreover, there is no need to fear that long period of patent would create legalized monopolies, since there is a provision to exercise compulsory licensing under such circumstances. It is also important that, the long period of patents would also encourage inventions and productive research and India could benefit much from such a development.

However, long term patenting may seriously endanger many of the Indian medicinal plants through over exploitation and biopiracy and adversely affect the interests of researchers and farmers. Indian exports may face serious danger because of foreign patents. A classical example is the export of basmati rice from India. The prospects of millions of Indian farmers and thousands of exporters were seriously affected by Ricetec's basmati (Basmati 867) and Taxmati. Similarly, there is a possibility of exploiting one country's biological wealth by the other. For example, USA holds many patents on the plants extensively grown in India, such as pomogranate (as anti-viral agents), mustard and soapnut (as fire retardant) bitter-gourd (treatment of tumors and HIV infection), amla (for anti-viral activity and hepatitis), pepper (piperin for nutritional use), while India holds too few patents on them. Thus legally, India's biological wealth is open for global exploitation. Hence, India should view this matter very seriously and protect its own biological wealth either by patents or by a *Sui Generis* system.

Agreement on Sanitary and Phyto-Sanitary (SPS) Measures

The Uruguay Round has evolved this discipline of providing a system for food safety and for regulating animal and plant health. The Agreement states that the governments of the member nations have the right to take SPS measures, but they should not arbitrarily or unjustifiably discriminate the members. In order to harmonize SPS, the member countries are encouraged to base their measures on international standards, guidelines and recommendations where they exist.

Developing countries like India could not cope up with the quality standards of the importing (especially developed) countries, as they are often developed in a non-transparent manner. Moreover, the developed countries are fixing the international quality standards even with out participation of developing countries. As a result, the quality standards are being adopted with out taking into account the problems and constrains of developing countries. Besides this, the quality standards of the importing countries are rapidly increasing. The cost of testing and up gradation of technology are becoming prohibitively high for the developing countries. In this context, India should negotiate for more transparent standards and also should concentrate more on providing the commodities to attain the quality standards prescribed by the importing countries.

Indian Agricultural Trade

Though India has been importing food grains for quite sometime after Independence, it has also been exporting the primary agricultural products or the products of agro-based industries, thereby helping the country not only to pay for the food imports, but also for other imports which includes capital goods also. The table 3 shows the contribution of Indian agriculture to India's foreign trade.

Table 3: Share of agricultural exports in the total value of India's exports

(Rs.Crores)

Year	Agricultural Exports (A)	Total Exports (B)	% share (A/B)
1960-61	284.0	642.0	44.2
1965-66	334.9	805.6	41.6
1970-71	487.0	1535.2	31.7
1980-81	2057.0	6710.7	30.7
1985-86	3018.0	10895.6	27.7
1990-91	3521.0	18143.0	19.4
1991-92	8228.0	44041.0	18.7
1992-93	9457.0	53688.0	17.6
1993-94	13021.0	69751.0	18.7
1994-95	13710.0	82674.0	16.6
1995-96	21136.0	106353.0	19.8
1996-97	24241.0	118817.0	20.4
1997-98	23690.0	126290.0	18.8
1998-99	NA	NA	18.5
CGR (%)			
1990-91 to 1997-98	**28.72***	**28.04***	

Note: * - Significant at 1% level.

Raw Data Source: CMIE-Various Issues

It is clear from the table that, in terms of value, the exports of agricultural commodities from the country has increased from Rs 284 crores in 1960-61 to Rs 23690 crores in 1997-98. Compound growth rates were worked out to study the trends in value of agricultural exports and total exports from India for the period 1990-91 to 1997-88. It is heartening to note that, both agricultural exports and total exports were showing increasing trend at 28.72 and 28.04 per cents respectively (significant at 1% level). However, the performance of export of agricultural products can be best analysed with the help of their share in total exports from the country. As evident from the same table, the share of agricultural exports in total exports during 1960- 61 was as large as 44.2 per cent, which marginally decreased to 41.6 per cent during 1965-66. Since then, there has been a substantial fall in the proportion of agricultural exports to total exports of the country. Over the period, 1990-91 to 1998-99, the share of agricultural exports varied between 16.6 per cent (1994-95) and 20.4 per cent (1996-97). This reveals that the performance of agricultural exports during structural reforms period has not been very satisfactory.

The export performance of Indian agricultural commodities in terms of their share in world agricultural exports was also studied and the details are shown in table 4. A close perusal of the table reveals that, there has been a mixed trend showing both the increasing and decreasing tendencies in a majority of the agricultural commodities over the period, 1970 to 1996. The most potential items namely tea, spices, tobacco and fruits and vegetables have shown a declining trend. India's share in oilseeds exports has increased to 0.8 and 0.7 per cent in 1990 and 1994 from 0.3 per cent in 1980. However, it rose to 1.2 and 1.1 per cent in 1995 and 1996. Similarly, the share of rice exports has steadily increased from 0.6 per cent in 1970 to 18.9 per cent in 1995, but declined to 12.0 per cent in 1996. On the whole, the analytical results of India's share in world agricultural exports indicate that it has only an insignificant position in almost all agricultural commodities.

Table 4: Commodity-wise India's share (value) in World agricultural exports (%)

Commodity	1970	1980	1990	1994	1995	1996
1. Tea and mate	33.4	27.7	21.1	13.6	16.0	11.1
2. Spices	20.5	14.5	7.7	9.1	9.3	11.2
3. Tobacco	3.5	4.4	0.8	0.4	0.6	0.3
4. Coffee & its substitutes	1.0	2.1	1.7	2.4	2.8	2.7
5. Meat & its preparations	0.1	0.4	0.2	0.3	0.4	0.3
6. Fish & its preparations	—	2.0	1.6	2.7	2.0	2.3
7. Cereals & their prep.	0.1	0.5	0.6	0.9	2.7	1.6
8. Fruits and vegetables	1.2	1.1	0.8	1.7	1.0	1.0
9. Sugar & its prep, honey	1.0	0.3	0.1	0.2	0.8	2.0
10. Oilseeds	—	0.3	0.8	0.7	1.2	1.1
11. Rice	0.6	3.7	6.4	6.6	18.9	12.0

Source: Economic Survey, 1996-97 and 1998-99.

Agricultural Prices and Cost of Production

Profitability in agricultural business is often influenced by two major factors viz., cost of production and market prices realised for the produce. Hence, these two factors were taken into consideration for studying the profitability in agricultural business. Compound growth rates were worked out to study the growth in cost of production, commodity prices and the gap between prices realised and cost of production incurred for major agricultural commodities for the recent period, 1990-91 to 1997-98. The results are shown in table 5.

Table 5: Compound growth rates for studying the profitability of agricultural business with reference to selected commodities. (1990-91 to 1997-98)

Commodity	Compound Growth Rate (%)		
	Cost of production (A)	Commodity prices (B)	Gap(B-A)
1. Paddy	12.04*	8.71*	-8.03*
2. Wheat	13.49*	2.24 **NS**	-23.79**
3. Jowar	8.42*	10.72*	25.54**
4. Bajra	10.83*	9.37*	-7.04 **NS**
5. Maize	10.01*	8.95*	-5.94 **NS**
6. Gram	10.45*	17.60*	32.49**
7. Urad	11.85*	13.28*	25.79**
8. Groundnut	8.06*	8.70*	11.78 **NS**
9. Cotton	18.15*	15.04*	-3.21 **NS**

Note: * - Significant at 1% level, ** - Significant at 5% level, NS- Non-Significant

Raw Data Source: Agricultural Statistics at a Glance, 1999 and 2000.

The analytical results presented through the table 5 reveals a worry-some picture as the profitability of cultivating majority of the selected crops is declining (except for pulses, jowar and groundnut) during the reference period. Cereal crops, in particular, paddy and wheat showed high growth rates for cost of production than the prices realised for their produce. Thus, the growth rate for the gap between market prices of the produce and cost of production of these crops turned out to be negative and significant. This clearly implies declining profitability in cultivating these crops. Similar results were obtained for the growth rate of gap between market prices of the produce and cost of production in case of bajra, maize, and cotton crops, but non-significant. However, the cultivation of jowar, groundnut and the two selected pulse crops viz., bengal gram and urad showed profitability as the growth rate for the gap between market prices of the produce and cost of production of these commodities are positive. On the whole, the discussion reveals that the continuous increase in the cost of production of the selected commodities is posing dangerous signals to the farming community as far as the profitability of agricultural business is concerned.

Impact of WTA on Different Entities of Indian Agriculture

The time elapsed since the AoA came into effect is too short to reach firm conclusions. But, already sentiments are running high and they have started influencing different entities relating to the agricultural sector viz., Indian consumers, Indian farmers, Indian inputs business, Multi National Companies (MNCs) inputs business in India, traders, processors and service providers. Hence, the current sentiment and perceptions about the impact of WTO on different entities were studied and presented in table 6.

Performance of Indian Agricultural Sector after Participating in WTA

Over the past one decade, there has been a sea change in the Indian Economic policy. The turning point was noticed in July 1991, as the country entered the new era of globalisation and economic liberalisation. So, it is high time now to redesign the existing agricultural strategies and to make the country more competitive internationally. In this context, the progress made on the agricultural front was studied during nineties in the sense of country's preparedness to the global scenario. The details of progress achieved by the country after participation in WTA on several grounds were analysed and presented through the table 7.

A close perusal of the analytical data presented in the table 7 revealed that, the country is making strenuous efforts in the right direction (except growth rate for demand and supply gap of Urea fertilizer) to face the challenges and opportunities offered by the global competition under WTA. However, the recent changes taking place in the Indian economy during nineties are more disturbing in the sense that the priority given to agricultural sector during nineties is far low, when compared to the service and industrial sectors (Table 8). It is clear from this table that, agriculture contributed major share in the National Income during fifties, but its share was drastically declined during nineties. Similarly, the share of industrial sector in the National Income also declined from 25.4 per cent in 1990-91 to 22.1 per cent in 1999-2000. It is very interesting to note that, service sector dominates the Indian economy today as it contributes more to the National Income (52.4

Table 6: Impact of WTA on different entities of Indian agriculture.

S.No	Entity	Possible impact
1	Indian Consumers	There is a shift from sellers market to buyers market Wider verity of goods can be available at lower prices Good quality goods are available
2	Indian farmers	They are undoubtedly a worried lot, because they are totally unaware of the terms, WTO, WTA, TRIPs, SPS etc.
		Scope for changing their cropping pattern from less profitable crops to more profitable crops.
		Shift from subsistence farming to export-oriented farming
		Shift their emphasis from productivity to profitability
		Possibility of bridging the knowledge gap between them and prospective international competitors.
3	Indian inputs business	They have to face stiff competition from the MNCs, which have strong financial, technical and administrative network. Develops quality consciousness among the traders
		Helps in spread of modern technology.
4	MNCs input business	Possibility of gaining monopoly status
		May lead to closure of domestic companies if these could not maintain quality standard
		They exploit the measures under AoA viz., lifting importing restric tions, reducing import tariffs and imposition of Intellectual Property Rights (IPRs), thus capturing the domestic market.
5	Traders	Increased business opportunities
		Their market gets widened due to internet, e-commerce etc.
6	Processors	They are highly benefited as they can import good quality raw material at cheaper prices.
		To survive competition, they have to reduce costs, adopt modern technology and enhance quality of products.
		Stiff competitions from imported finished goods
		Provides more employment opportunities
		Earn good amount of foreign exchange through the process of value addition
7	Service providers (Banks, Insurance companies, Consultancy and Technology Information organizations)	They will play a productive and mutually profitable role. Collaboration with foreign organization will increase, thereby, improve their service potential.

per cent) than agriculture and industry combined. Besides this declining prominence to agricultural sector in India, the export performance of agricultural products in the international market was also showing dismal performance (Tables 3 and 4).

Table 7: Progress of Indian agriculture after participation in WTA..

S.No	Item	Period	CGR (%)
1.	Progress of regulated markets	1990-91 to 1996-97	**0.94***
2.	No. of commodities under grading standards	1990-91 to 1996-97	**1.98***
3.	No. of cold storages	1990-91 to 1995-96	**2.12***
4.	Total value of agricultural exports	1990-91 to 1997-98	**28.72***
5.	***Irrigation Development***		
	a) Major and Medium	1990-91 to 1997-98	**1.65***
	b) Minor	1990-91 to 1997-98	**2.54***
	c) Total	1990-91 to 1997-98	**2.22***
6.	Flow of Institutional credit	1991-92 to 1998-99	**19.90***
7.	Total area under high yielding varieties	1990-91 to 1997-98	**2.74***
8.	Distribution of certified/quality seeds	1990-91 to 1997-98	**3.83***
9.	***Production of chemical fertilizers***		
	a) Urea	1990-91 to 1998-99	**5.23***
	b) DAP	1990-91 to 1998-99	**4.44***
	c) MOP	1990-91 to 1998-99	**5.05***
10.	***Demand-Supply gap in fertilizers***		
	a) Urea	1991-92 to 1997-98	**5.33 NS**
	b) DAP	1991-92 to 1997-98	**-13.02***
11.	Consumption of pesticides(M.T.)	1990-91 to 1996-97	**-4.67***
12.	Export of technical pesticides (Rs.Crores)	1990-91 to 1997-98	**26.26***
13.	Production of tractors	1990-91 to 1997-98	**9.66***

Note: * - Significant at 1% level, NS- Non-Significant

Source: Agricultural Statistics at a Glance- Various Issues

Table 8: Sector wise contribution to the National Income (% share).

Period	Agriculture	Industry	Service
1950-51	55.4	12.8	31.8
1990-91	30.9	25.4	43.7
1999-2000	25.5	22.1	52.4

Source: Saran(2001)

This declining prominence to the agricultural sector during structural reforms period (after 1991), may lead to unsustainability of the growth process in the future. But, the experiences in the past shows that no economy with a weak agricultural base has ever grown. The transition has always been from agricultural to industry and then to services. This dictum applies to all Asian countries, Europe, North America, fast developing Latin American Economies etc. But, in India, the service sector is contributing more share to the National Income during nineties than agriculture and industry sectors. This trend should be reversed, as for smooth growth of the economy, the engine has to be agriculture and then industry – not services, as is the case now. Thus, at present, agricultural sector is on bumpy road. Hence, the Government must address all these problems through proper and well-defined strategies, so to make the agricultural sector more flourishing in the coming future.

Immediate Measures to be taken by the Government of India in view of WTA-AoA

1) Diversification of agriculture to farming systems by including dairying, sheep, goat, poultry, fisheries, apiculture, sericulture etc.

2) Agricultural research, extension and education systems should be totally re-oriented to meet the new requirements in the light of WTA. The major focus should be on the significant reduction in the cost of production of crops, increasing the yield, improvement in the quality of produce etc. The application of bio-technology for evolving pests and disease resistant varieties in short period of time, organic farming, encouraging private sector investment etc., are to be given special attention.

3) To reduce the cost of production and to increase profits to farmers, productivity should be first further increased. Research and inputs are to be managed and used judiciously. The latest ago-techniques to be followed.

4) India must make all-out efforts to gather more comparative strength through cross-comparing her strengths and weaknesses *vis-à-vis* her established rivals and should change the underlying policy parameters appropriately.

5) A long term policy is essential to promote agricultural exports on a sustainable basis. This policy should call for studying the export competitiveness of agricultural commodities from time to time across the countries under the changing scenarios of agricultural prices, food security concern etc. Proper selection of commodities for exports based on the needs of other countries should assume greater significance in the long term policy.

6) India's expenditure on agro-products export promotion is very low when compared to trading giants like USA and EU. Hence, the export promotion activities should be strengthened in India, as they do not go against the spirit of WTA, because they come under the Green Box provisions.

7) Contract farming should be encouraged to diversify the agricultural production and to enhance the agricultural exports.

8) There is a need to invest substantially for infrastructure development such as cold storages, grading facilities, processing facilities, market information network etc which will have positive impact on export marketing.

9) Export promotion organizations should be established/strengthened in each state. They should be entrusted to collect market information on international trade, production, prices, quality, marketable surplus etc., for analyzing and disseminating information among the producers and exporters. The export competitiveness of different agricultural commodities should be studied from time to time so as to encourage

the export of the commodities which are having more comparative advantage in the international market. This facilitates the full exploitation of market access opportunities provided by the WTA.

10) WTO cells should be established and strengthened in each state comprising members from Ministry of Agriculture, National Institutes of Agriculture, APEDA, NABARD, State Government etc to thoroughly assess the impact of WTA on Indian agriculture and to suggest steps to safeguard the interests of the sector, while exploiting the opportunities offered by this agreement.

Conclusions

A close examination of both the prospects and retrospects to Indian agriculture in the context of globalization and economic liberalization revealed that, India holds a lot of promise in the liberalized trade regime, as the WTA would bring in favorable changes to the 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 aspect for its advantages. Developed countries with their excessive money supply badly need places to invest the same and India should exploit this aspect for its development. The mentality that "beggars cannot be choosers" should go away from Indian's minds and they should encourage foreign investments. When India is considered as one of the leading countries in the world as far as the information technology sector is concerned, why not in agriculture! There are no dearth of resources in the country to take up the challenges and opportunities offered by the global trade. This global trade, in turn, benefit India to innovate, improve and compete, which is no longer ready to give concessions and relief under any condition. As it has been succinctly put 'WTO is good for those who want to grow and bad for those who are contest to stagnate".

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