Agricultural Trade Liberalization Reforms: Effects on Indian Agriculture and Agricultural Marketing Institutions

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Introduction

The new world trading system resulting from the conclusion of the Uruguay Round and the WTO agreements or rules together with further liberalization efforts will strengthen the integration of the world economy. Worldwide, Governments have recognized the importance of liberalizing agriculture and agricultural markets. Various studies illustrate and nations have recognized the effect of globalization of agriculture. The heart of the agriculture reforms lies in the 'market place'. The biggest beneficiaries of the market reforms should be the major stakeholders in the agriculture business, the farmers. World Development Report (2000-1) points out that markets are central to the lives of poor people. World Development Report (2002) reported about special efforts of people in building institutions that support the development of markets. It provides a diagnostic framework for understanding how institutions support market activity. A study by IFPRI (2003) on agricultural market reforms indicates that the liberalization programs adopted by many developing countries in the past two decades have had limited success in developing private, efficient, and competitive agricultural markets. A major reason why past reforms have had limited impact is that institutional and structural issues have not been properly addressed.

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Bhatia (1995) stated that as the Indian agricultural sector has grown rapidly over the last decade with a considerable rise in productivity making it an important sector of the economy, the agricultural marketing structure has not developed sufficiently to benefit from this growth. Guru (2001) has reported that an efficient agricultural marketing is essential for the development of the agricultural sector. In as much as it provides outlets and incentives for increased production, the marketing system contributes greatly to the commercialization of subsistence farmers. Acharya (2003) reported that institutional framework for the marketing segment of the agricultural sector needs critical review in terms of both rules of the game and organizational structure.

India has a long history of regulating the agricultural markets. The regulated market model is in vogue for more than a century and this model will continue for many more years. In the liberalized era, the paradigm of agricultural marketing is changing and hence the emphasis should be on the improved performance of all marketing functions. The emphasis should now shift from collection of fees and associated policing to promotional marketing activities (Chengappa, 2003).

With the increasing surpluses in production, liberalization of domestic markets and opening of the trade in agricultural commodities, the mandate of the existing marketing organizations needs to be looked a fresh. There has been some kind of experimentation in evolving informal markets or agentless markets like Apnimandis, Ryatubazars and markets being controlled by Farmers Associations rather than by the regulated market committees. It is time we also analyse the performance of these markets before replicating these models on large scale for the benefit of the farmers. Similarly, the activities of some of the organisations, which should receive increasing attention are Agricultural Produce Marketing Committees (APMC's), State Agricultural Marketing Boards (SAMB's) and State Department of Agricultural Marketing (DOAM).

This paper illustrates, the effects of WTO agreements and trade liberalization in agriculture of developing countries in general and Indian agriculture in particular and examines the effects of reforms on existing mandates and functions of selected agricultural marketing institutions vis-à-vis the reforms happening in agricultural marketing sector in the context of trade liberalization regime in India. The specific objectives of the paper are:

1. To document the effects of trade liberalization and other reforms on agriculture

2. To list different marketing institutions, their mandate, and various marketing functions performed.
3. To evaluate selected existing marketing institutions along with their functions vis-à-vis what they should perform in the changed current and emerging context.
4. To suggest measures to address issues of marketing liberalization and help to overcome the constraints faced by agricultural marketing institutions.

Methodology

Sources of Data

The information on effects of WTO agreements and trade liberalization in agriculture of developing countries and Indian agriculture are compiled from various sources. Information on objectives, mandates, and functions of the agricultural marketing institutions in the country are collected from the respective institutions, websites and published secondary sources. The focus was on change in functions and mandate of marketing institutions over the years particularly pre and post market reforms. The reforms or changes in functions of agricultural marketing institutions in general and selected marketing institutions in particular are collected.

Analysis of Data

This is basically a quick, diagnostic study. The different marketing institutions, their functions, and mandates are scanned and put in matrix format. The major groups of agricultural marketing institutions in the country at the center and state level are suitably grouped and listed. From each group, a representative sample was selected for detailed study. The institutions selected were Directorate of Marketing and Inspection (DMI), GOI, NAFED, APEDA, MPEDA, Karnataka State Agril Marketing Board, Regulated markets, Mahagrapes, Ryatubazars, CWC, and Coffee board.

The status of reforms or changes in functions of agricultural marketing institutions in general and selected marketing institutions in particular is analysed. These changes were compared with requirements of WTO and trade liberalization. Finally, suggestions are made to integrate marketing functions and suitable marketing institutions mix for the future. The study used Delphi survey method to validate the results obtained through secondary data from concerned officials of institutions. It also suggests measures to address issues of marketing liberalization and help to overcome the constraints faced by agricultural marketing institutions.

Results and Discussions

WTO agreements and its implications on agriculture of developing countries have been reviewed and provided in Table1. It may be too early to assess the impacts of WTO. Data are also scanty. So our observations are mostly impressionistic and ex-ante impacts. The agreements on agriculture wrt market access, domestic support and export subsidies have adverse effect on agriculture of developing countries. TRIPS agreement may affect on formation of monopoly power and affect the domestic sector especially the medium and small size farms. Agreement on SPS is one of the potential non-tariff barriers to the export of developing countries. Agreement on Technical Barriers on Trade (TBT) may affect the export of developing countries since most of them are unaware of the technical issues related to this agreement.

The studies on Economic liberalization, its effects and implications on Indian agriculture have been reviewed and provided in Table 2. Over all, finance to agriculture has increased marginally, remain as stagnant in public sector and increased significantly in private sector in 1990's as compared to 1980's.Thus it affects creation of productive potential and agricultural sustainability (Ramesh Chand, 2000). Agricultural production of food grains, non-food grains and all crops depicted declining trend during 1981-89 compared to 1990-00 (GOI, 2003). This affected balance between supply and demand and domestic price stability. Supply growth remained higher than growth in demand of cereals, fruits, vegetables except pulses and oilseeds during 1990's (Ramesh Chand, 2003). Thus food security was not affected at the national level. It may be affected due to non-productive factors like, distribution, population growth and government policies. Marketed surplus of paddy and wheat has shown increasing trend during 1988-89 to 1990-91(Acharya and Agarwal, 1999). Thus it affects domestic price stability and increasing pressure on the distribution channel. Similarly, procurement prices of wheat and rice has shown increasing trend during 1990-2000 compared to 1981-90 (Ramesh Chand, 2003). Thus mounting food stocks increased carrying cost, and inefficient utilization of agricultural resources. Aggregate measure of support (AMS) has decreased during 94-95 compared to 1988-89 but the negative AMS remains high (Acharya and Chaudary, 2001). Thus, agricultural sector is now least protected and exposed to greater competitiveness and price volatility. Though the role of the private sector has become important but public sector's role in technological development, infrastructural support, institutional change, judicial reforms, market reforms and quality movement develop more and more quantitative basis for arguments while participating in future trade negotiations.

Table 1. WTO Agreements and Its Implications on Agriculture of Developing Countries.

S.No	WTO Agreements	Commitments by Developing Countries (10 yrs: 1995-2004)	Implications on Agricultural Sector in Developing Countries	Domestic Policy Initiatives
I	Agreement on Agriculture (AOA) Market Access Domestic Support Export Subsidies Value of subsidies Subsidised quantities (Base period 1986-90)	3-5% of total GDP Total AMS cuts for individual sector 13.3 % (Base period 1986-88) 24 % export value 14 % export volume	*Affects the prices at international and state levels and thus affect the Agricultural GDP.* *The states loose control on trade and thus, the domestic sector become less competitive.* It causes increase the cost of domestic firms and there by affect the balance between the supply and demand	*The domestic policies need to address the* following issues a) Agricultural prices stabilization and stabilization of growth of Agricultural GDP b) The states need to offer support to the cost cutting measures like -Technological development, -Infrastructure development, -Institutional development and reform, etc
II	TRIPS	Enactment of suitable patenting laws and protect the innovations	Formation of monopoly power and it may affect the domestic companies especially the medium and small size firms.	Governments need to take judicial measures to protect the domestic agricultural sectors and create institutions for TRIPS issues.
III	Agreement on SPS (Sanitary and Phyto Sanitary Measures)	The Exporting Countries are expected to adhere to the SPS standards specified by the importing countries	Potential non-tariff barriers to the export of developing countries	*The domestic policies must address the following issues* a) Standardization of all practices from production to export. b) Creation of awareness

				among producers and consumers on SPS. c) Creation and strengthening the institutional to monitor the SPS standards.
IV	Agreement on TBT (Technical Barriers to Trade) (e.g. Eco-labeling, child labours, environmental issues, etc.)	The exporters must adhere the norms related to the TBT defined by the Importers	Affect the export from developing countries since most of them unaware of the technical issues related to this agreement.	The Governments must give due concern to TBT issues in the forthcoming negotiations in the short run and make policies to address the TRIPS issues in the long run.

Source: The information presented in table is compiled by the researcher from various sources.

Table 2. Economic Liberalization and Indian Agriculture

S.No.	Content	Facts / Figures	Changes in Agriculture	Implications	Policy Initiatives
1	**Agricultural Finance** Overall Public Sector Private Sector	Growth rates of GCF*[1] 1980s 1990s -0.75 1..37 -4.41 -4.33 1.19 3.90	Increased marginally Remains Stagnant Increased significantly	Affects - Creation of productive potential -Agricultural sustainability	-Increased financial allocation for agriculture sector -Promote private investment
2	Agricultural Production All crops Food grains Non-food grains	Compound Growth rates[2] 1981-82 to 89-90 1990-91 to 00-01 3.2 2.0 2.8 1.7 3.8 2.4	All the three shows declining trend	Affects -Balance between supply and demand -Domestic price stability	-Strengthen R&D in agriculture -Appropriate crop promotion policies
3.	Demand & Supply of major crops Cereals Pulses Fruits	Growth rates [3] Demand Supply 1995-2000 1991-2000 1.88 2.16 2.98 0.06 5.75 2.91 4.79	Output growth remains higher than growth in demand of major crops except pulses	-Food security may not be affected -It may be affected due to non-production factors like distribution, population growth and Govt. policies	-Strengthen production and distribution systems -Reduce population growth -Promote post harvest management

	Vegetables				
4. A)	**Agricultural Marketing** Marketed surplus Paddy Wheat	Marketed surplus ratio[4] (1988-89 to 1990-91) 42.71 52.44	Increasing trend	**- Affects Domestic price stability** - Increase pressure on the distribution channels	-Appropriate pricing policy -Promotion of markets and market infrastructure
B)	Procurement prices Wheat **b) Rice**	Growth rate[5] 1990-2000 4..36 10.53 3.42 9.65	Increasing trend	-Mounting food stocks -Increased carrying cost -Inefficient utilization of agriculture resources	-Appropriate price policies -Promote Govt. procurement at open market prices -Creation of efficient food management system
C)	Domestic Consumption Food grains b) Cereals	Share of private final[6] consumption (%) 1950-51 1999-2000 58.5 31.9 22.1 8.7	Shows significant diversification in food basket	-Increase pressure on the production pattern -Alteration in existing balance between supply and demand	-Promotion of Agricultural diversification -Need based crop strategies -Creation of suitable infrastructure
5.	WTO -AOA Aggregate measure of support (AMS)	AMS[7] TE 88-89 TE 94-95 -22.5 -17.6	Decreased but the negative AMS remains high	-Reduce the protection of agricultural sector -Decrease the competitiveness of domestic agricultural produce	-Reassessment of AMS -Promotion of target based food subsidies -Withdrawal of input subsidies -Increase support to export-import subsidies

* **Gross Capital Formation, 1- Ramesh Chand (2000), 2- GOI (2003), 3 & 5- Ramesh Chand (2003), 4- Acharya and Agarwal (1999) 6-Kirit S. Parikt and R. Radhakrishna (2002) and 4&7-S.S. Acharya and D.P. Chaudhri (2001)**

The mandate and functions of different agricultural marketing institutions in the country has been scanned and shown in Table 3. The results show that many of the institutions functions are overlapping. For eg, APMC's, SMB's and State DOAM and foreign promoting agencies like APEDA, MPEDA etc. Many of the institutions mandates are similar particularly market regulation, development of infrastructure and body of administered prices.

Table 3. Mandate and functions of different Agricultural Marketing Institutions in India

No	Mandate	Functions	Name
1	Regulation of primary agrl produce, market structure, conduct, performance	Market regulation, Storage, transportation, packing, processing, buying/selling and quality specification	SAMB, SDAM, APMC, DMI, regulated markets, Health departments, & Civil supplies departments of center and state
2	Development of Market infrastructure	Development & maintenance of yards, roads, cold storage, telecommunication, market information	SAMB, APMC, PWD, FCI, CWC, SWC, Cooperatives
3	Body of administered prices	Price stabilization	FCI, NAFED, CCI, JCI, CACP, FPS & state agencies
4	Marketing agricultural produce directly	Direct marketing	NAFED, TRIFED, SCMF, FA, TAPCMS, LAMPS, FSS & Apna mandis, Commodity boards, Producer & consumer cooperatives
5	Promotion of foreign trade	Export & Imports promotions thru offering consultancy, market information & market research	APEDA, MPEDA, Foreign agencies promoting their products in India NCTP, ITPO
6	Provide storage facilities	Storage	CWC/FCI, SWC, SCSC
7	To conduct research and training	Research and Training	NIAM, IIFT, DMI, Karnataka institute of agricultural marketing, Mysore.

SAMB – State Agrl Marketing Board, APMC – Agrl Produce Marketing Committee
SDAM – state Dept of Agrl Marketing, DMI – Directorate of Marketing and Inspection
PWD – public Works Department, FCI – Food Corporation of India
CWC – central Warehousing Corporation, SWC – State Warehousing Corporation
APEDA – Agricultural and Processed Food Export, JCI – Jute Corporation of India
MPEDA – Marine products Export Development Authority, FA – Farmers Associations
FSS – Farmers Service Societies, FPS – Fair Price Shops
CACP – Commission for Agricultural Costs & Prices
TAPCMS – Taluk Agricultural Produce Cooperative Marketing Society Ltd.
LAMPS – large Multipurpose Cooperative Societies
SCMF – State Cooperative Marketing Federation Ltd.
TRIFED – Tribal Federation of India, NIAM – National Institute of Agricultural marketing
IIFT – Indian Institute of Foreign Trade, NCTP – National Center for Trade Promotion
ITPO – Indian Trade Promotion Orgamization, SCSC – State civil Supply Corporation
NAFED- National Agricultural Cooperative Federation of India

Status of Reforms in Agril Marketing Institutions

The reforms in agril marketing sector in general and selected marketing institutions in particular are provided in Table 4 & 5 respectively. The reforms of selected marketing institutions were compared with the following requirements of WTO Trade liberalization viz; LPG – liberalization, privatization, globalization; opening up economy, delicensing, dereservation, removal of quantitative restrictions, tarrification, government role from controller to regulator, removal of exports and import restrictions, improved competitiveness due to exposure to international market,

Greater role to private sector, institutional reforms etc.

Table 4 reveals that reforms in major areas of agricultural marketing sector at country level are matching with WTO liberalization requirements particularly in domestic markets, export and import, regulated markets, sanitary and phytosanitary and TRIPS. Some of the typical informal liberalized model markets such as alternative markets viz, Rytubazar, Apnamandis, Farmers markets, Future markets & commodity exchanges, e- trading, food world are already in operation.

Table 4. Major areas of reforms in Agrl Marketing in India.

Sl no.	Area of reforms	Reforms carried out
1.	Domestic markets	Restrictions on the movement of agricultural commodities withdrawn Licensing requirements and stocking limits for wholesale and retail trade removed Dereservation of milling industry from SSI's
2.	Export and Import	Export of all major Agril. Commodities, barring few such as niger seed, cotton liberalized Role of canalizing agencies diluted Quantitative restrictions removed Tariff structure modified Licensing requirements eased
3.	Regulated Markets	APMC Act amended to allow private sector participation in setting up regulated market eg; NDDB set up 'National integrated produce market' in Banglore, Karnataka. Model law on agricultural marketing formulated

4.	Sanitary and Phytosanitary related Measures	Export of fresh, frozen and processed fish and fishery products (quality control, inspection and monitoring) order and rules, 1995. National Codex Committee set up. Export Inspection Council and its agencies such as APEDA have started framing standards, etc.
5.	TRIPS	"Protection of plant varieties and farmers 'Right Act", 2002 passed The geographical indication of goods (Registration and Protection) Act, 1999 passed.
6.	Alternate Marketing Systems	Rayuthu Bazaar, Andhra Pradesh Apnamandis, Punjab Farmers markets, Tamilnadu Future markets and commodity exchanges E –trading in agricultural commodities Food world

The results of reforms or changes in selected marketing institutions reveals that all the selected marketing institutions have initiated reforms, using IT, and marching towards commercialization. The notable reforms are; DMI has framed Model act and introduction of Agmarknet, NAFED started nafed bazaars on commercial business line, APEDA has set up National Codex committee and widened export basket. It provides online information on international prices and export zones, and using services of private marketing agencies in making marketing strategies. Karnataka is the first state to initiate market reforms. Agricultural Produce Marketing Committee Act (APMC) was amended to allow the private players to set up regulated markets for marketing of agricultural produce. The agricultural policy resolution of the government of Karnataka stressed and initiated to bring in "Price and Market Reforms" in the agricultural sector. The state has formulated the draft model legislation to deal with regulated markets. Private sector participation in regulated market is allowed in Karnataka. Rayuthu bazaar is the product of reform process of liberalization and it facilitates direct interface between farmers and consumers. Mahagrapes is following corporate management principles and diversification of agriculture. Coffee board had a monopolistic control over the marketing of coffee in India but since 1995 marketing coffee is strictly a private sector activity. CWC has appointed a Steering committee in 1997 to consider the introduction of modern technology in handling and transportation of foodgarins.

In general, the nature of reforms introduced in these organizations is in right direction. But these have to be many and reforms have to be fast and in place soon.

Table 5. Agricultural Marketing Institutions and Trade Liberalization Reforms Status

Sno	**Agricultural Marketing Institutions**	Mandate/Objective	***Functions***	***Reforms Status***
1	DMI	To bring integrated development of marketing of agricultural and allied produce in the country.	Standardization and Grading Marketing and Research Training in Agricultural Marketing Market Development Market Extension Promotion of Cold Storages Marketing Research and information network	Marketing research and Information Network: Agmarknet - a nation-wide information network for speedy collection and dissemination of market information for its efficient utilization was started in 2000 It has evolved objective criteria to fix developmental priority of markets at state/regional level. Framed a model act (2003) to act as a guidance and to bring out uniformity in state legislations which deals with agricultural marketing

				Improved the AGMARK standard
2	NAFED	To promote cooperative marketing system in the country. To ensure/give remunerative prices to the farmers for their produce and realization of their payment on the spot. To stabilize prices of the agricultural commodities at reasonable level to the advantage of the farmers. To save farmers from making distress sale of their produce, and To reduce the price gap between the producer and consumer.	**Domestic Operations:** Consignment sale and purchase of various agricultural commodities Procurement through cooperatives at state, district, and taluk levels which are members of NAFED Operates cooperative cold stores Operates warehouses at town and village levels Deals with quality seeds and agricultural-inputs **Government Operations:** Price Support Scheme (PSS) – in respect of oilseeds and pulses Market Intervention Scheme (MIS) Buffer stocking operations MEP (Minimum Export Price) of onions for different destinations is fixed regularly by nafed **Industrial Activities:** Nafed Bazaars, Bio-fertilizer unit, Cold storages, etc.,	NAFED started many commercial business operations on competitive basis. e.g. NAFED Bazaars, Launched NAFED brand products in consumer packs National Multi-Commodity Exchange of India Ltd., was started, 26th November, 2002, for cash crops, food grains, plantations, spices, oilseeds, metals and bullion among others.
3	**APEDA**	**To build links between Indian producers and the**	Identifying new markets	`APEDA developed a

		global market *To maximize foreign exchange earnings through increased agro exports* To provide better income to the farmers through higher unit value realization and To create employment opportunities in rural areas by encouraging value added exports of farm produce.	*Providing better support systems to exporters and manufacturers* Introducing new products in the international market. Strengthening the market intelligence and database through studies, survey, etc. Quality upgradation Development of infrastructure facilities Research and development Development of packing quality Organizing product promotions abroad and visits of Officials and trade delegations abroad Provides recommendatory, advisory and other support services to the trade and industry Problem solving in Govt. Agencies and Organizations, RBI, Customs, Import/Export procedures Problem solving with Importers through Indian Missions abroad. Participation in international trade fairs in India and abroad Organizing buyers-sellers meets and other business interactions	Certification mark/standard called "Quality produce of India" ('Made in India' logo) for agricultural products being exported Provide online information on international prices, agri-export zones international trade, European Union regulations on export, etc., Framed standards for processed food produce and agricultural produce for the export promotion Export basket widened. Liquor, medicinal plants and herbs are the new products that APEDA is planning to add to its export basket Services of private marketing

				agency 'lintas' has been availed to evolve a marketing strategy for India. APEDA has identified new markets such as China and Australia Thrust on Agricultural Processing Zones to achieve the targets Initiatives undertaken include integrated training programmes, development of infrastructure and pre and post-harvest protocols for specific varieties of fresh produce Advices farmers on hygienic standards for their produce Developing quality control

				standards for many processed foods National Codex Committee has been set up
4	**Karnataka State Agricultural Marketing Board KSAMB)**	*All-round development of agricultural marketing in the State.*	Grading and Standardization of agricultural produce. General improvement of regulated market in the state. Giving aid to the financially weak market committees in the form of loans and grants. Propagation and publicity on matters relating to regulated marketing of the agricultural produce. Imparting education in regulated marketing of agricultural produce. General improvement of the facilities for the transport of notified agricultural produce and the marketing thereof. Training the officers and staff of MCs in the state.	Agricultural Produce Marketing Committee Act (APMC) was amended to allow the private players to set up regulated market for the agricultural produce Established export promotion cell in 1994 Floor price scheme for agricultural/horticultural commodities, from 24th November, 1999 Computer wing is fully engaged in collection and dissemination of market information pertaining to

				arrivals, sales, minimum, maximum, model prices and value of important notified agricultural commodities The agricultural policy resolution of the government of Karnataka stressed to bring in "Price and Market Reforms" in the agricultural sector
5	**Rythu Bazaar**	To ensure remunerative prices to the farmers and provide fresh vegetables to consumers at reasonable rates fixed everyday Facilitates prompt realization of sale proceeds to farmers without any deductions Curb malpractices in weighments – provide vegetable with correct weighments to consumers Provide direct interface between farmers and consumers – elimination of intermediaries in trade	Provide infrastructure facilities Provide free transportation facilities Supply seed at subsidized rates Price fixation mechanism Organize training to vegetable growers	Rayuthu bazaar is the product of reform process Alternate form of agricultural marketing institutions Price fixation with the help of wholesale prices. It is done every day regularly.
6	**Regulated Markets**	To safeguard the interest of the producer seller s	Providing physical infrastructure (Market Yard)	The draft model

		To raise the standards of the local market To eliminate the unhealthy and unscrupulous practices To reduce the market charges To provide facilities to producer sellers in the market	Providing Storage and grading facilities to the farmer for their produce Perform selling function Agricultural input services also made available in the market yard	legislation titled the State Agricultural Produce (Development and Regulation) Act, 2003 was formulated (Model Act) Private sector participation in regulated market allowed in Karnataka Computerization of most of the regulated markets was completed
7	**MAHA GRAPES**	To boost the export of grapes of Maharastra Upliftment of farmers community Growth of co-operative movement Encourage and develop agricultural export Maximize foreign exchange earnings Update the farmers on latest technology in farming	To source and develop worldwide markets To provide quality control in post harvest activities Provide extension services to members of co-ops for production of export quality grapes Supply and supervise branded packaging Provide logistical support Provide advance payment to farmers for their produce	Following corporate management principles, which is professionalization of the management. Diversification of the business activity

			Obtain best price for produce Pass on benefits to Co-ops. Pre-cooling and cold-storages facilities at each grape grower co-operative society Also exporting pomegranates from 2002-03	
8	**Coffee Board**	To develop and promote cultivation, processing, marketing and consumption of coffee	Research, development, extension, quality upgradation, market information, and the domestic and external promotion of Indian coffee	Till 1995, coffee board had a monopolistic control over the marketing of coffee in India but since 1995 marketing coffee is strictly a private sector activity. Two-third of the coffee board employees were retired under Voluntary Retirement Scheme (Downsizing Programme)
9	**CWC**	To provide warehousing services for a wide range of products ranging from agricultural produce to sophisticated industrial products	To acquire and build warehouses at suitable places Provide food-grain warehousing Provide Custom bonded warehousing	Steering committee appointed in 1997 to consider the introduction of modern technology in handling and

			Provide Container Freight stations Inland clearance depots Air-cargo complexes Storage and handling Clearing and forwarding Handling and transportation Procurement and distribution Disinfestations services Fumigant services	transportation of foodgarins submitted its report in 1998 and government constituted a task force to implement the same. Department of Food and Civil Supplies prepared a sub-project for training and capacity building in the area of bulk grain management and implemented it with the help of Indian Australian Training and Capacity Building Project (IATCBP) Gramin Bhandaran Yojana (Rural Godowns Scheme), a capital investment subsidy scheme for construction/ renovation/

				expansion of rural godowns has been introduced

Conclusions

WTO agreements on agriculture relating to market access, domestic support and export subsidies have mixed effects on agriculture of developing countries. TRIPS agreement may affect on formation of monopoly power and affect the domestic sector especially the medium and small size farms. Agreement on SPS is one of the potential non-tariff barriers to the export of these countries. Agreement on Technical Barriers on Trade (TBT) may affect the export of these countries since most of them are unaware of the technical issues related to this agreement.

Economic liberalization, its effects and implications on Indian agriculture has shown that; Over all finance to agriculture increased marginally, remain as stagnant in public sector and increased significantly in private sector. Production of food grains, non-food grains and all crops have depicted declining trend. Thus balance between supply and demand and domestic price stability is affected. Supply growth remains higher than growth in demand of cereals, fruits, vegetables except pulses and oilseeds. Thus food security is not affected. Marketed surplus of paddy and wheat has shown increasing trend. Thus it affects domestic price stability and increasing pressure on the distribution channel. Similarly, procurement prices of these crops have been increasing. Thus mounting food stocks also increased. Aggregate measure of support (AMS) has decreased. Thus agriculture sector is least protected now and faces stiff competition and price risks.

The reforms in major areas of agricultural marketing sector are in general matching with WTO liberalization requirements particularly in domestic markets, export and import, regulated markets, sanitary and phytosanitary and TRIPS. Some of the typical informal liberalized model markets such as alternative markets are already in operation. But selected marketing institutions have initiated reforms and marching towards commercialization and using information technologies. But the reform canvas has to be widened and pace has to be accelerated.

The reforms in major areas of agricultural marketing sector at country level are tune with WTO liberalization requirements but selected marketing institutions are not progressing fast. The process of reforms in the selected marketing institutions is also not comprehensive. Hence, it is right time to relook the mandate and functions of agricultural marketing institutions in the context of trade liberalization regime. Government policy has to effectively address issues of marketing liberalization and help to overcome the constraints faced by various agril-marketing institutions including private sector involved in agri-marketing.

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