

The Pakistan Development Review
40 : 4 Part II (Winter 2001) pp. 767–786

Globalisation and Its Implications for Agriculture, Food Security, and Poverty in Pakistan

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1. INTRODUCTION

The world trade liberalisation has been the major concern to almost all the international communities since very long due to the extensive trade restrictions imposed by the developed and industrial countries. These restrictions caused to create a very tough protectionist economic environment for all the countries [SESRTCIC (1995) and Chaudhary (2001)]. Pakistan is one of the founder members of the General Agreement on Tariffs and Trade (GATT) since 1948 and a signatory of Uruguay Round of Multilateral Trade Agreement (MTA) with World Trade Organisation (WTO). The Agreement made significant progress in three major areas i.e. market liberalisation which could add approximately one percent of world real GDP (US\$212–274 billion) and 10 percent to world trade upon full implementation of the Agreement, strengthening of rule and institutional structure, particularly the creation of WTO, which could decide on dispute and impairment of trade rules and principles, and integration of new areas into the multilateral trading system such as general agreements on trade in services (GATS) and trade-related intellectual property rights (TRIPs), trade-related investment measures (TRIMs) and the traditionally sensitive and contentious sectors (agriculture, and textile and clothing) [Abidin (1994); GATT (1994) and IMF (1994)]. The classical economists explained the welfare benefits of globalisation (by the specialisation and widening of markets through trade). Trade can bring settlement by allowing countries to take benefit of their comparative advantage, harvest the profit of scale economies and ensure competition, greater variety and potentially, more stable markets and prices. The free movement of capital directs resources towards their more productive use. Mainstream theories emphasise the role of demand in explaining the distribution of trade gains between countries [Khan (1998); FAO (2000) and Chaudhry (2001)].

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With the assistance of external capital inflow, a number of Asian and Latin American countries have been able to build vibrant economies and contemporary industrial bases. Technology, mass communication and market forces are unifying the world [Abdullah (1998)].

After signing of MTA and creating of the WTO the prospects of trade warfare and the threat of protection will not just fade away. The conditions of perfect competition are not met. The developed and industrial countries are not opening their economy fully and protecting themselves through the safe guards, anti-dumping, and countervailing measures [Abidin (1994) and Naqvi (1994)]. Globalisation and economic integration have, and will have, some adverse effects too. The gains from globalisations are not likely to be evenly distributed, either within or between countries [FAO (2000)]. Unemployment, poverty, inequality and alienation are increasing, partly (though not solely) as a result of globalisations process [Rodrik (1997)].

We are not yet prepared to face the challenges and avail the opportunities offered by the WTO. In Pakistan the consequences of trade liberalisation have been widely discussed [Low and Yeat (1994); Golden and Mensbrugge (1995); and Ingco and Winter (1995); Kemal, *et al.* (2001); Khan and Mahmood (1996); Low (1995) and PIDE (1995)].

Agriculture is the mainstay of the economy of Pakistan. It contributes 25 percent to Gross Domestic Product (GDP), employs 44 percent of country work force and contributes substantially to export earning. It also provides labours, raw materials for the industrial sector and market for industrial products. The performance of agriculture is extremely affected the overall growth of GDP [Pakistan (2001)]. The agriculture in developing countries as well as in Pakistan is subsistence, land holding are small, production is labour intensive with relatively low intensity of farm inputs, irrigation dependent on the vagaries of nature. Consequently, the farm productivity is low. During the last three decades, in spite of the significance of agriculture in the economy and involvement of major segment of population, most of the government policies are discriminatory toward agriculture. There have been declining shares of public investment in agricultural sector [Khan (1985); Hamid and Tims (1990); Aziz (1990); Chaudhry (1995); Faruqees (1998) and ADP (2001)]. No doubt these policies retarded growth depressed the value of agriculture and possibly also lowered rural wages, implicitly transferring income from rural to the urban areas. These resulted in migration from rural to urban centres, increase in unemployment whereas decrease in real wages, high dependency ratio etc. The urban industrial sector was not robust to absorb the flux of rural migrants. The situation becomes the worst in the rain fed and marginal areas where substantial small peasant are located. These all are considered as the major determinants of poverty in Pakistan [Amjad and Kemal (1997); Jafri (1999); Qureshi and Arif (1999); Zaidi (1999); Arif (2001) and Mustafa (2001)]. The investment in increasing agricultural productivity is the prerequisite to economic development.

The menace of poverty in Pakistan is in an increasing trend with all the measurements and international standards after 1990 [Mustafa (2000); Arif (2001) and Arif, *et al.* (2001)]. Under the new scenario of globalisation, role of Pakistan's agriculture in the international trade is quite marginal except in some crops where we have comparative advantages. Pakistan is a net food importing country. Therefore, even a small change in agricultural employment opportunities, or prices, can have major socio-economic effects in the country. There is a need to be focused on the perspective of agriculture under the WTO regime and poverty scenario in Pakistan.

The present study is designed to critically analyse the impacts of trade liberalisation on agriculture, food security and its social/welfare aspects with special references to poverty in Pakistan. The study is designed in to different sections. After the introduction section, the second section deals with the review of the WTO agreements in general and their impacts on agriculture in particular within the framework of Pakistan. Under this the provisions and implication of Agreement on Agriculture (AoA), green and blue boxes exempt measures; reform areas; TRIPs, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement); the Agreement on Technical Barriers to Trade (TBT Agreement) etc. are evaluated keeping in view the food security and poverty issues. In the third section the government policies influenced due to globalisation and external pressure especially related to de-regularisation of agricultural prices, expenditure on agriculture; exemption of subsidies; corporate farming; investment on agriculture (research, training and extension) etc. and their implications on food security and poverty are empirically analysed. In this section beside macro level implications, micro level affects are also carried out by comparing the cost of producing of wheat during 1990-91 and 1999-00 in Punjab. This case study helped to drag out the consequences of government policies influenced due to international financial institutes (The iron arms of WTO regime) on agriculture in general and small peasants in particular. In the last section conclusions, recommendation and suggestion were made to build our capacity according to the bindings under WTO agreements and cope with the menace of poverty in our country.

2. REVIEW OF WTO AGREEMENTS ON AND RELATED TO AGRICULTURE

Pakistan is bound under different rules and regulation (after signing different WTO agreements) which can tremendously affects the farming and other communities, food and agriculture related matters, exports imports, income, health etc. In this connection in order to develop a comprehensive and integrated system the WTO made a number of agreements. Out of these some of the important agreements associated with Agriculture and food related matters i.e. Agreement on Agriculture (AoA), TRIPs, SPS - Agreement, TRIMs etc.

2.1. Agreement on Agriculture (AoA)

The main provisions of AoA are summarised as below [Ongun (1994); FAO (2000); Abrar (2000) and Ahmad (2000)]:

- All non-tariff barriers to trade will be converted into tariffs. The dead line for this end in 2001 for developed and 2005 for developing countries. The least developed countries are free from this obligation.
- Tariffs are to be reduced by an average of 36 percent in the developed and 24 percent in the developing countries. This calculation is based on the difference between world and domestic prices. The domestic prices is calculated as Community's intervention prices plus 10 percent for the European Union for the years 1986-88. The tariff reduction will be at least 15 percent for each product. For agricultural products whole imports constitute less than 3 percent of domestic production lower tariff rates will be applied.
- On the other hand, under the "special safeguard clause", additional tariffs can be applied if the import volume exceeds relatively low ceiling (trigger level), or the import price falls below the average price (trigger price) for 1986-88. A "special treatment" clause also allows resorting to non-tariff barriers under special conditions.
- Industrialised countries will reduce their "aggregate measurement of support to agriculture by 20 percent within six years. This rate is 13.3 percent for developing countries. The base period for this reduction is 1986-88. Support provided by developed and developing countries that do not exceed the production value by 5 percent and 10 percent, respectively, do not have to be reduced.
- Export subsidies are to fall to 64 percent of the 1986-90 average, while the volume of agricultural exports subsidies are to fall to 79 percent of the same period's average in the developed countries. These ratios will respectively be 76 percent and 86 percent for the developing countries.
- Domestic support policies subject to reduction commitment of the 1986-88, should be reduced to 20 percent by developed and 13.3 percent by developing countries. Policies which amount to a small percentage transfer value to producer (less than 5 percent of the value of production for developed countries, less than 10 percent for developing countries) is excluded under the de minimis rule. Policies which have minimal or no effect on production on trade distorting effects (Green Box) are excluded. The reduction commitments re expressed in terms of a "total Aggregate Measurement of Supports" or "Total AMS". There is a provision of food aid in grant form, and credit guarantees for the least developed and food importing countries in case of anticipated increase in world food prices.

Under clause 20 of the AoA, the member countries can further negotiate on the agreement during ministerial conferences. The agreement would be implemented in different stages and extendable over a grace period of six years for the developed countries while 10 years for the developing countries starting from the January 1995.

2.2. Agreement on Trade-related Intellectual Property Rights (TRIPs)

This Agreement was also negotiated at the UR of GATT and is now implemented and monitored by WTO regime. The TRIPs Agreement covers a wide range of issues dealing with Intellectual Property Rights (IPRs). IPRs essentially refer to the following three legal entities:

2.2.1. Patents

An exclusive right to make, use or sell an invention or creation, whether it is a product or a process, in exchange for full public disclosure. It is granted to the first applicant.

2.2.2. Copyright

These are the exclusive rights to print, publish, film or record literary, artistic or musical material, computer programmes etc. This is not very much relevant to food and agriculture.

2.2.3. Trademarks

The accord defines a trademark as sign, picture or logo, or any combination of signs, capable of distinguishing the goods or services of one entity from those of another.

The accord requires countries to have available enforcement procedures so as the permit effective action against any infringement of intellectual property right covered by the Agreement.

2.3. Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)

The Agreement deals with the enforcement of sanitary (related to human and animal life and health) and phytosanitary (related to plant life and health) laws. The Codex Alimentarius Commission (CAC) has developed the standards, guidelines and other recommendations as baseline for consumer protection. The SPS Agreement covers all food hygiene and food safety measures i.e. maximum level of plant protection chemical and veterinary medicines residues in plants and animals, food additives used in food etc. It can also be restriction of import from a disease free area, special treatment or processing of products etc.

2.4. Agreement on Technical Barriers to Trade (TBT Agreement)

The TBT Agreement is also known as standards code. The Agreement mainly concerns to prevent the member countries using national or regional technical requirement, or standards in general, as unjustified technical barriers to trade. It focused on the implementation of international standards. Under the Agreement there are a number of measures and ways to protect the consumers against deception and frauds. It also covers provisions for setting trade disputes arising from the application of food safety measures and other technical restrictions.

3. GOVERNMENT AGRICULTURAL POLICIES

The GoP is playing an extensive role in agriculture policy formulation. The public expenditure programme and public institutions are the key instruments used by the Government for influences and implementing agricultural policies. The major agricultural policy goals should includes efficient and sustainable agricultural production, boosting the exports, natural resources conservation and maintaining the bio-diversity, expanding the institutional development, socio-economic equity in the rural sector and alleviating the poverty.

The Government is bond as a signatory of WTO Agreements beside this there is also a tremendous pressure from the international financial institutions to bring a number of macro economic policy reforms/adjustment in the economy including the agricultural sector. It is difficult to judge policy reforms from a broad perspective. In the paper the concentration is mainly focused only in the government agricultural price policy, subsidies, credit, expenditures on agricultural research and development, corporate agricultural farming and their implications on food security and poverty.

3.1. Agricultural Price Policy

The prices of farm commodities are not so sensitive as of industrial product. They exhibit wide up and down trends due to low price elasticity of demand; low perish ability of a number of products; biological nature (longer time period to cover different adjustment); and seasonal nature of production [Salam (2001)]. Furthermore, agriculture production is not only an enterprise but it is livelihood of a large majority of the farming communities. They have to sell their product because they do not have enough money and storage capacity, even at lower prices in order to fulfil their urgent needs.

The, GoP is interviewing in the commodity market via deregulation of agricultural prices and removal of the subsidies. Only four agricultural crops i.e. wheat, cotton, sugarcane and rice are covered through the support price in Pakistan. The following are the favourable points for price support programme:

- Price stability.
- Time lag in adjustment.
- Seasonal nature – harvest time prices are low.
- Farmer protection.
- Middlemen exploitation.
- Food security There are following number of unfavourable points against the price support programme:
 - Distortion.
 - Free markets are not operating.
 - Government monopoly.
 - Procurement minimum prices become as upper limit of prices.
 - Depress producer prices.
 - Low prices resulted to over consumption.
 - Depressed private business. Lack of interest in storage building and business.
 - Government agencies are inefficient and corrupted.

Although government announces the support prices but in fact these prices in general are lower than the market prices and in real term these prices are not increased proportionally to the input prices (Tables 1 and 2).

Table 1

*Real Support and Market Prices of Wheat, Seed Cotton, and Rice (Basmati-385)
(Based on 1990-91 CPI)*

Year	Wheat		Seed Cotton		Rice (Basmati-385)	
	Support	Market	Support	Market	Support	Market
1990-91	112	121	245	330	144	141
1991-92	112	121	253	309	140	139
1992-93	107	114	247	318	144	156
1993-94	118	126	233	349	137	143
1994-95	105	115	262	530	138	124
1995-96	102	109	236	445	131	132
1996-97	127	144	264	461	135	150
1997-98	118	127	245	420	152	142
1998-99	111	121	–	435	153	172
1999-00	134	128	–	275	157	162
2000-01	128	–	307	405	163	127

Source: APC (Various Issues).

Table 2

*Average Farmer's Cost of Production and Return of Wheat in the Punjab, Pakistan, During 1990-91 and 1999-00**

Sr. No. (1)	Operations/Inputs/Outputs (2)	(Rs./Ac.)		Differences (Rs./Ac.) (4) - (3) = (6)	
		1990-91 (3)	2000-01 Real* (4)		Nominal+ (5)
1.	Land Preparation	213.68	313.84	701.07	100.16
2.	Seed and Planting	212.75	285.01	636.68	72.26
3.	Intercultural/Weeding/Plant Protection	12.89	29.85	32.96	16.96
4.	Irrigation	272.39	336.42	751.54	64.03
5.	Farmyard Manure	14.39	14.77	33.00	0.44
6.	Fertiliser	338.88	413.22	923.10	74.34
7.	Interest of Investment @ 12 Percent and 14 Percent per Year for 6 Months on Item 1-6 Excluding 4	62.60	94.79	211.75	32.19
8.	Harvesting and Threshing	514.25	620.43	1386.00	106.18
9.	Land Rent and Revenue for 6 Months	606.00	786.07	1756.00	180.07
10.	Management Charges for 6 Months	64.46	80.13	179.00	15.67
11.	Marketing Cost (Rs /40k)	4.00	4.48	10.00	0.48
12.	Gross Cost (Item 1 + 11)	2316.29	2964.33	6622.01	648.04
13.	Yield per Ac. (kgs)	872.88	872.88	872.88	-
14.	Support Price (Rs/kg)	3.025	3.19	7.125	0.165
15.	Returns (13 X 14)	2640.46	2784.04	6219.27	143.58
16.	Value of Wheat Straw	283.66	335.74	750.00	52.08
17.	Gross Returns (15+16)	2924.12	3119.78	6969.27	195.66
18.	Net Return per Ac. (17-12)	607.83	155.45	347.26	-452.38
19.	Gross Cost per kg. (12/13)	2.65	3.40	7.59	0.75
20.	Net Return per kg. (14/19)	1.14	0.94	0.94	-0.22

Sources: Pakistan (1990); Pakistan (2001) and Salam (2001).

*Prices are deflated with CPI based year of 1990-91.

In fact if we compare the cost and return during 1990-91 and 1999-00 in case of wheat the farmers are in worse off. Average Farmers cost of production and return of wheat in Punjab, Pakistan during 1990-91 and 1999-00 is presented in detail at Table 2. An average farmer is losing Rs 452.38 per acre as of 1990-91 to 1999-00. Even in other crops the situation is not good as of 1990-91 to 1999-00 the net profit per 40 kgs. was Rs 16 and 3.11, 46 and 34.25, 8 and -0.88, 2.02 and 1.88 in case of wheat, cotton, rice and sugarcane, respectively (Table 3).

Although there is a price support policy but in the near past the prices fell below the support price fixed by the government but its agencies were unable to intervene.

Table 3

*Net Profit of Wheat, Cotton, Rice, and Sugarcane in the Punjab (Rs/40 kgs)**

Years	Wheat	Cotton	Rice	Sugarcane
1990-91	16.00	46.00	8.00	2.02
1991-92	10.72	33.21	-11.93	1.27
1992-93	3.25	21.98	-1.74	0.91
1993-94	16.62	18.75	-5.07	0.05
1994-95	1.55	57.66	-5.74	0.76
1995-96	0.35	31.93	-6.70	0.77
1996-97	14.94	63.52	-5.08	0.92
1997-98	-5.55	-6.62	2.46	4.38
1998-99	-10.95	108.96	5.55	2.66
1999-00	3.11	34.25	-0.86	1.35

*Farm level costs were taken from APC (2001) of average growers. The prices are deflated with CPI 1990-91 as base years.

Consequences the prices were continued fall below the support prices in case of potatoes, gram, paddy, onion, etc. to the disadvantage of grower. In fact there is no effective institute available for implementing the support prices.

3.2. Government Expenditure on Agriculture, Subsidies, Credit and Research and Development

3.2.1. Government Expenditure

The government expenditure under Annual Development Programme (ADP) consolidated with the Public Sector Development Programme (PSDP) in different sectors constant rupees prices (1990-91) are present in Table 4. The table revealed that there is a substantial decrease in public sector in agriculture sector from 3043 to 242 million rupees from 1990-91 to 2000-01 although there is also a decrease in the total net expenditure during the same period but the decrease in agriculture sector is the highest.

3.2.2. Subsidies

The total subsidies federal as well provincial are in decreasing trend. The major subsidies provided during the recent years are on wheat and sugar where there is substantial share is from the provincial governments. There is no subsidy on imported as well as on locally produced fertiliser. Only four crops, viz. wheat, cotton, rice, and sugarcane are covered under the support price system. The support provided under AMS of WTO agreement in case of Pakistan is negative. The domestic support prices have been considerably below their corresponding border

Table 4

*Expenditure under Annual Development Programme Consolidated
(ADP/PSDP), Classified by Sectors Millions Constant Rupees
(1990-91 Prices)**

Fiscal Years/ Sectors	Agri.	Water	Power	Industry	Rural Dev.	Total (Net)
1990-91	3043	6815	22204	2032	6405	88412
1991-92	3339	5023	24787	2396	4292	81053
1992-93	2852	6967	28336	1707	4408	98715
1993-94	1601	9075	27930	1210	5252	101480
1994-95	1312	9238	29582	1222	4810	100648
1995-96	922	8833	29986	3043	4278	102131
1996-97	640	8320	19057	2220	4220	73868
1997-98	461	5507	18514	307	2775	69374
1998-99	200	5712	11765	324	4744	70809
1999-00	242	5094	10833	345	4027	66596
2000-01	411	6605	15358	542	3186	79633

*Pakistan (2001).

ADP Annual Development Plan.

PSDP Public Sector Development Programme.

prices. Contrary to the developing countries the developed countries are continually providing support and subsidies to their farming communities e.g.:

“In 1998, 24 Organisation for Economic Co-operation. and Development. (OECD) provided total agriculture support of about \$335 billion, with producer support at \$ 251 billion. This makes total support to domestic agriculture. In these countries three times larger than the level of official aid flows”. “In 1997 in 24 OECD countries, producer support to rice and meat was, respectively, 4.11 and 6.18 times the value of world export of these products” [ActionAid (2001)]. “The USDA distributed a record \$28 billion in direct assistance to American farmers and ranchers in the fiscal year (Sep 1999-Sep 2000), which is about half of their income. W/o USDA assistance farm income would hit its lowest level since 1984 [Punjab Lok Sujag (2001)].

3.2.3. *Agricultural Credit*

There are four major agencies viz. Agricultural Development Bank of Pakistan (ADBP), Taccavi, Cooperatives and Commercial Banks distributing credit to the farming communities in the country. The nominal credit disbursed by these agencies as of 1990-91 to 2000-01 fiscal years seems very impressive i.e. 14,915.29 million rupees during 1990-91 to 29101.41 during 2000-01 but in real term (1990-91 as base year) it value was decreased by 2427.02 million rupees.

3.2.4. *Agricultural Research and Extension*

There was -42.2 percent less research expenditures allocation as of 1999-00 to 2000-01 but in case of extension it was 172 percent higher during the same period

[Pakistan (2001)]. The agricultural research system is funded, organised and managed at a level where only maintenance research is being achieved with little prospect for significant future boosting in crop yields and livestock production through research [Nagy and Quddus (1998)]. If any disaster i.e. dry span, infection of diseases, insect pests etc. appear there is no cushion for these.

The public funded Pakistan agricultural system is organised at both the federal and provincial levels. Management and control of research resources and information through the agricultural research system is vulnerable. Programme planning and budgeting, monitoring and evaluation and management information systems are not used effectively or, in most instances, not used at all [World Bank (1990)]. Pakistan Agriculture Research Council (PARC) is an apex research organisation at the national level. She works in close collaboration with the Provincial research Institute and the Universities. PARC prepared a National Master Agricultural and Research Plan to meet the national objectives and globalisation challenges during three years ago but due to lack of funds it was not implemented up to now.

3.2. Corporate Agricultural Farming: Issues and Challenges

After the green revolution the agriculture has shown a steady progress, however, rapidly increasing population still demands higher agricultural production. In order to compete with the international markets, boost the agricultural production and increase export earning the Government of Pakistan (GoP) invited multinational companies/individuals to invest in Pakistan's agricultural farming. The corporate agricultural farming will open window for multination to do entrepreneurship in country's agriculture. It is a globalisation phenomenon. In its wake, it will accompany splurge of agriculture development or inevitable epidemic of socio-cultural and economic inequalities. A comparison of Corporate Agricultural Farming and Current Agricultural Farming is presented in the Table 5. There is lots of controversial, equity, food security and other socio-economic issues related to agricultural corporate farming.

4. IMPLICATIONS OF WTO AGREEMENTS vs. GOVERNMENT POLICIES ON AGRICULTURE, FOOD SECURITY, AND POVERTY IN PAKISTAN

Pakistan being the one of the founder and signatory member of WTO has to comply with the agreement. If we could not comply with these agreement we would be behind the competitive world. There would be junk of imported cheap goods and we will not be able to compete with the global but also suffered a lot especially the poor small peasants.

There is no doubt that Pakistan will be benefited from the globalisation or WTO Agreements if these are fully implemented. There is a lot of debate on the

consequences, unfair deal, pressure, different treatment of North with the South etc. in regards with WTO Agreements [ActionAid (1999, 2001)]. In Pakistan the international financing agencies i.e. IMF, World Bank and Asian Development Bank are exerting more pressure on our government for free economy as of WTO Agreements. We have already compiled all the requirements of WTO Agreements i.e. reduction of tariff rate, subsidies, AMS in case of Pakistan was negative. Contrary to Pakistan and developing countries the developed countries managed to maintain their existing level of protection and in some cases have even increased ratification using non-tariff barriers like use of child labour, dumping, patent, environment or codex measures.

Pakistan encountered economic difficulties because of internal and external reasons, which included the government to carry out structural reforms. In recent years, the liberalisation of merchandise trade, investment, and intellectual property rights and services are increasing resorted to either to meet the country own needs or in response to international pressures. The GATT/WTO Agreements concluded in 1992 forced many developing countries including Pakistan to accelerate the structural reforms in order either to comply with the agreements or to enhance the competitiveness of their domestic industries.

The new economic doctrine however deemed the government-sponsored interventions as factors that distort market and banned them. These WTO-enforced compulsory changes reflected negatively on the production side of agriculture at large. Contrary to this the farmers in the developed countries were fall out was offset by increases in direct income support programmes. These programmes “that are not designed to affect production” (green box measures) are not considered a market distorting factor by the WTO and thus it has no objection on these. In this way they are protecting their farming communities [Punjab Lok Sujag (2001)]. The poor governments like Pakistan now cannot legislate against global market forces on the one hand and on the other do not afford income support programmes.

The farming communities in Pakistan are worse off due to liberalisation. The input prices roses at a faster rate as of commodities prices. The farmers are getting less profit. The effect is more swear to the poor segment of the population. These reforms inevitably affect the agriculture, food security, small farms and increase poverty in the country.

Pakistan has comparative advantages, in the production of many agricultural commodities for export. Because of low cost of production mainly because of low labour costs, lower tariffs to be levied by the importing countries together with the gradual abolition of export subsidies will benefit commodity exports, particularly the high value crops. There is another view that this exposes the domestic markets to violent fluctuations in prices and often raises their value. The emerging export for high value products will not be broadly based and not necessarily benefit the small farmers and poor segment of the population.

The globalisation advocates deregulation and downsizing of public sector enterprises and increasing the role of private sector in economic activities. About 81 percent of total farms in Pakistan were below 12.5 acres and they are 39 percent of the total cultivated area, 49 percent of wheat, 54 percent of cotton and 48 percent of sugarcane acreage [Pakistan (1990)]. The prices, which are depressed at the harvest time, tend to rise in the off-season when farmers have sold their produce. Under such situation farmers in general and small farmers in particular need to have capital for the purchase of next crop inputs suffered a lot. In the situation of imperfect commodity markets, dominated by powerful vested interests, the country can ill afford the unbridled policies of free market economy, without adequate checks and balances [Salam (2001)].

The implications of multinational corporate farming on socio-economic and political issues are very complicated. These corporations will make profit and create monopolies, which can have serious repercussion for the food security, poverty and sovereignty of the country.

As we have observed due to liberalisation and pressure from the international financial institutes, government policies toward agriculture are heavily biased. There has been a declining share of public investment in agricultural sector. No doubt these policies retarded growth depressed the value of agriculture and possibly also lowered rural wages, implicitly transferring income from rural to the urban areas. These resulted in migration from rural to urban centres, increase in unemployment whereas decrease in real wages, high dependency ratio etc. The urban industrial sector was not robust to absorb the flux of rural migrants. The situation becomes the worst in the rain fed and marginal areas where substantial small peasant are located. These all are considered as the major determinants of poverty in Pakistan.

Poverty is measure on the basis on income and nutritional standard. All the above factors aggravate the poverty situation. The farmers especially the small one income is decreased as cost of production increased more proportionally to the commodity product. In the rural sector the milk production is one of the major small enterprise. Consumption of milk is one of the major sources of nutrition. In Pakistan per capita milk consumption is the highest among the world. Under the present scenario because there is a substantial decrease in income of the poor and they have to fill their bellies, they sold more milk to the emerging multination companies. This would reduce their per capita milk consumption and further decrease their nutritional status resulting an increase in the poverty level.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Policies governing agriculture sector are currently departing through a transformation in Pakistan as well as in the world over. Pakistan is making efforts to adjust her according to the commitments made by our government under WTO Agreements and other international financial institutions. These policies have profound impact on the food security and poverty issues in Pakistan. The AoA

commitments are required to be implemented by member countries by 2004, through reduction of import and export related tariffs and gradual dismantling of support and subsidies, by reducing public expenditure on agriculture. Through removing distortions in the economy would enhance the comparative and competitive advantage both for the developed and the developing world. In case of Pakistan the support provided under AMS of WTO agreement is negative.

The domestic support prices have been considerably below their corresponding border prices. There is a substantial decrease in the tariff rates. Out of ten crops fall under support prices, during 2001 in Pakistan only four crops viz. wheat, rice, cotton and sugarcane are covered under the support prices. But simply announcement of support prices without adequate institutional arrangements and logistic support for their implementation will adversely affect the growth of agriculture with serious implications for the economy and well being of the farmers in general and small/poor in particular. The public expenditure on agriculture was drastically decreased.

There is no one general approach or formula for determining appropriate level of tariff binding that would apply to all countries. It would depend upon particular economic circumstances, both current and prospective, affecting the commodity or the sub-sector in question. Moreover, unlike the case with applied tariff that are often set response to shorter-term developments, bound tariffs remain fixed for a much longer period and their determination requires some degree of strategic thinking. Such an analysis should be a high priority task for the next round of negotiations with WTO.

There is no question that the investment in increasing agricultural productivity is the prerequisite to economic development. It is also expected to contribute significantly toward poverty reductions and food security in Pakistan through increased productivity, lower production costs and food prices, and improved nutrition. It is very difficult to achieve these goals with the decreasing agricultural funds/support, with the present available technologies and challenges of globalisations. In order to compete with the word and alleviate the poverty menace and food security achieve the following measures are recommendations:

If international organisations and government is serious to alleviate poverty and trade expansion is to benefit the poor, the international rules of the game must be made fairer. A high priority is to eliminate the protectionism that is biased against developing countries. In this connection the civil societies both from the developed and developing countries may make a global alliance to fight for the right of poor people and remove the injustice biased and protectionism by the developed countries and they also open their economies.

The poor lack empowerment and organisation, the benefit of poverty programmes are unlikely to reach them or, if they do, to make a lasting difference. The reforming of the basic institutions through community participation is to build around social mobilisation approach. Communities are organised at grassroots level by the formulation of male and female community organisation.

Government should follow pro-poor policies or avoid policies having adverse consequences on income distribution if they want to faster the poverty reduction. As expected, growth in rural areas has been more pro-poor than in urban areas. As major segment of rural communities are engaged with agriculture in Pakistan. It is imperative to develop a long-term policy for agriculture development, including the support price programme backed with adequate institutional and financial arrangements for implementation.

The corporate farming has a number of pros and cons. Government should keep their role mainly in post harvest handling and marketing of products. Their task in production should be limited and closely watched.

Special attention should be focused on research and development in general and specifically in the field of agriculture following strategy should be adopted:

- Enact IPR laws that will protect the indigenous technologies as community property and stimulate private sector investment in R&D.
- Organise dialogue with nongovernmental organisations, consumers, and farmers on the benefits, risks, and opportunities in the use of new technologies including biotechnology.
- Seek assistance from international organisations and funding agencies on specific problems in technologies that cannot be addressed using domestic resources.
- Government should adopt policies to sustainable and efficient utilisation of natural resources including land, and water for addressing the issue of food security in the country. There should also be proper application of physical inputs. In this connection government should encourage private enterprises for the provision of pure seed, fertilisers, plant protection. Adequate credit facilities should be extended to farmers.
- For the access to food there is a need of identification and targeting the food insecure people. Enhancing productivity of small farmers for poverty alleviation. Diversification of on-farm and off-farm income generation activities. Stabilisation of input and output prices. The farmers should be ensured to get adequate prices of their products; there should not be any exploitation by the businessmen or intermediaries.
- Address the problem of small peasant in the rainfed and marginal area where the majority of the poor live in a very fragile environment. This does not mean that we neglect the problems and constraints of the small farmers in the irrigated areas.
- Special attention should be given to economically important but neglected crops, high value crops/vegetables, and livestock to increase their productivity. These are also labour-intensive enterprises, which not only increase the employment but also the income of the poor landless in the rural area.

- Distribution of state land to the landless along with a sustainable production packages and community based programme-ensuring empowerment, access to the resources and inputs can uplift them a lot.
- Develop low cost, appropriate technologies for small farmers, particularly the development of HYVs adapted to the rainfed and marginal areas.
- Strengthen the extension, delivery and regulatory systems to ensure that improved varieties and technologies will be disseminated widely to small farmers with little or no risk to consumers or the farmers.
- Government should demonstrate a strong commitment to agriculture and rural development by providing adequate budget and staffing to the sector in general and agricultural R & D in particular.
- Establish clear policies and priorities in R & D to ensure that it can contribute effectively and safely toward poverty reduction and food security.

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Comments

The authors should modify the title in accordance with the contents of the paper. It looks like a review of published material on WTO instead of a research paper. Therefore, the title should be changed accordingly and the piece be regarded as a note for publication. The details are available in Para 3 below.

The paper under reference undertakes an important issue that is faced by almost all developing countries at the time including Pakistan. In brief, major objectives of WTO are; trade liberalisation, privatisation, increased market access, reduction of domestic support for agriculture and export subsidies, raising the standard of living of people, standardised farm output, free international competitive agriculture trade, and multinational corporate foreign investment in farming. Many structural changes in the farm sector are anticipated such as; income, employment, poverty, rural migrations, etc. The WTO Agreement related to agriculture will significantly affect the farm sector. It is anticipated that WTO will adversely affect the small-scale dispersed farming units that have a limited resource base and competitiveness. Small holders would disappear in the long run due to the process of economic cannibalism. Multinational corporations will enjoy broad-based resources in credit, investment, inputs, machinery, large land ownership, high-valued output, and competitiveness. They will eventually swallow small. The existing small holders farming community would either opt for signing contracts for production for large corporations or serve as employees of these multinational corporations. On the other extreme is the possibility that the small holders may leave agriculture profession for the rest of their lives. Within next 3 years Pakistan needs to adopt the Agreement. It seems that enough homework has not been done in this regard by the policy-makers. Under these circumstances this paper is a timely exercise to draw the attention of farming community and policy-makers.

I was asked to serve as a discussant on the paper. In order to improve the paper few observations are forwarded. I have critically examined it and according to my understanding and judgment the paper lacks the standard of a research article. For example, the scientific method has not been followed. Neither the objective(s) nor methodology is/are clearly mentioned. Data are not mentioned or appended. Similarly, the validity of the contents of Tables 2 and 3 is not supported by any empirical method. The contents of tables are not even discussed. Results and discussion part is completely missing. Therefore, the paper needs change in title and a thorough revision.

The paper is divided into 5 parts. These are; introduction, review of WTO Agreement, government agricultural policy, implications of WTO Agreement, and

recommendations. The first two parts are in fact a thorough review of published material on WTO and undertake the scope, objectives, and other related matters of WTO backed by an elaborative 'bibliography'.

In part three writers have elaborated the role of public policy in agriculture sector of the country including support price programme. Few observations are forwarded for the improvement. In Table 2, it is not understood what are the basis of cost of production with trade liberalisation (COPTL). For example, gross COPTL (sr. 12) is Rs 2964.33 as compared to Rs 2316.29 without trade liberalisation. This shows an increase of about Rs 648.00 per acre in the cost (in fact cost should decline under corporate farming). It is interesting to note however that yield per acre has not changed (sr. 13). After WTO is implemented the yield(s) will tend to increase due to the use of more productive input package, profit orientation and biotechnology. Similarly, net return should carry a plus sign instead of a negative one as gross margins will tend to rise in response to high yield and market price coupled with quality output, skilled farming (refer to the findings Table 5), efficient storage and marketing network (this is the essence of corporate farming). All other numbers in the table including Table 3 need support, discussion and elaboration.

In part four few general implications are mentioned. These are important and should be given due consideration. In this regard, direct implications should have been discussed that are related to the farm sector particularly small-scale farming units. There are 81 percent farms under this category in the country. A mentioned above WTO will affect negatively to small holders dispersed farms that would disappear in the long run due to the process of economic cannibalism. This is a big and disastrous implication and needs attention of policy-makers. Similarly, few more concrete implications could have been identified and thoroughly discussed by taking their impacts on farm sector and economy of the country.

The final part is related to recommendations. These are general type of recommendations and are not directly based on scope of the study. My suggestion is either to discard or to limit these to three or four solid and more specific recommendations directly related to the impacts of WTO on agriculture and should be based on objectives (in case these are identified) and findings of the study.

In the end, I again express my view that this paper examines a very important issue and authors have put a good effort and labour by bringing an exhaustive literature and other information.

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