ENHANCING PAKISTAN'S AGRICULTURAL SECTOR EXPORTS TO INDIA

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Abbreviations and Acronyms

AVE	Ad valorem equivalent
B2B	Business to Business
BIS	Bureau of Indian Standards
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FICCI	Federation of Indian Chambers and Commerce and Industry
FPCCI	Federation of Pakistan Chambers and Commerce Industry
FSSAI	Food Safety and Standards Authority of India
FTA	Free Trade Area
G2G	Government to Government
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
GR	Relative Growth Rates of Merchandise Exports and Imports
GST	General Sales Tax
HS	Harmonized System
ICP	Integrated Check Post
IIT	Index of Intra-industry Trade
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
L/C	Letter of Credit
LDC	Least Developed Country
MFAL	Ministry of Food and Agriculture
MFN	Most Favourite Nation
MoC	Ministry Of Commerce
MRP	Minimum Retail Price
MSP	Minimum Support Price
NABL	National Accreditation Board for Testing and Calibration Laboratories
NTBs	Non-Tariff Barrier
NTC	National Tariff Commission
NTMs	Non-Tariff Measures
OECD	Organization for Economic Co-Operation and Development
OIML	Organization Internationale de Métrologie Légale (International Organization of Legal Metrology)
P2P	People to People
PCSIR	Pakistan Council of Scientific and Industrial Research
PNAC	Pakistan National Accreditation Council
PSQCA	Pakistan Standards and Quality Control Authority

RBI	Reserve Bank of India
RCA	Revealed Comparative Advantage
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SAPTA	South Asian Preferential Trade Agreements
SATIS	South Asian Agreement on Trade in Services
SIP	Summary Indicators of Potential
SME	Small and Medium Enterprise
SOE	State-Owned Enterprise
SPS	Sanitary and Phytosanitary
SRO	Statutory Rule and Order
TBT	Technical Barriers to Trade
TCI	Trade Complementarity Index
TCP	Trading Corporation of Pakistan
TDAP	Trade Development Authority of Pakistan
TI	Trade Intensity Index
TS	Trade Similarity Index
TSI	Trade Specialization Index
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

EXECUTIVE SUMMARY

The study aims to identify potentially competitive agricultural products or product clusters for exports to India, probable challenges at the border, behind the border and beyond the border to exploit export opportunities. The study also sets out the defensive strategy to identify vulnerable agricultural product or clusters susceptible to import surges; and suggests recommendation for policy reform to make the vulnerable sector competitive in long run and stave off unfair trade practices during the transition phase.

The study employs analytical methodology using the 'Summary Indicators of Potential' (SIP) namely 'Relative Growth Rates of Merchandise Exports and Imports'; 'Revealed Comparative Advantage (RCA)'; 'Trade Similarity Index'; 'Trade Specialization Index'; 'Trade Intensity Index'; 'Index of Intra-industry Trade' and 'Trade Complementarity Index' at a disaggregated 6 digit level of the Harmonized Systems of Product Classification. Stakeholders' survey questionnaire, Public Sector Dialogue and Consultation process have also been integral part of this research. The major findings of the study are as under:

- The comparison of top importing agricultural products by India and Pakistan reveal import basket similarity as both tend to import vegetable oil crudes (Palm-oil, soya bean oil and sunflower oil), oil hydrogenated, cotton lint, sugar, tea, pulses, lentils, rubber and wheat. However, there is dissimilarity of import items also: India tends to import beans (dry), dry and fresh fruits, silk raw, dates and alcohol beverages; whereas, Pakistan tends to import chick peas, areca nuts (betel nut), jute, garlic, ginger, and food preparations items. While comparative analysis of top export products by India and Pakistan reveal that both are close competitors in rice, cotton lint, buffalo meat, sugar, vegetable products, sesame seed and mangoes.
- Pakistan has export competitive edge in tangerines, mandarins, potatoes, molasses, dates, goat and sheep meat, frozen vegetables and dried fruits whereas India has export competitive edge in tobacco (unmanufactured), tea, oil of castor beans, coffee (green), chillies and peppers (dry) and oil essentials. Pakistan can export dates, fresh and dry fruits and wool to India. Similarly, India can export tea, garlic, ginger and vegetables especially during seasonal shortages.

The study recommends that managed trade liberation in agricultural trade with India is more prudent policy option for Pakistan. Before transition to full trade liberalization in agricultural sector, the study suggests import quota regime (IQ) under the Pakistan Safeguard Ordinance 2002. The quantum of IQ may be fixed on the basis of average value of last five years import figures in each of tariff line in the agriculture sector. Non-transferable import quota may be awarded on first-come first serve basis on payment of 5 %of the value of quota. On exhaustion of Import Quota, MFN bound rate tariff will progressively be applied. For example, a 10 %increase in imports above IQ limits would entail an increase of MFN applied tariff by 10 %and so on.

During this transitory protective regime, the study also recommends addressing structural issues in agricultural competitiveness like focussing on agricultural productivity, developing yield improvement and disease resistant varieties, improving irrigation and water usage efficiency and reducing water wastages, controlling water logging and salinity; improving ASC (Agricultural Supply Chain) and reducing the produce wastages during the sowing, harvesting, storage (cool chain) , and improving infrastructure for packaging and preservation and transportation (reefer and containerized cargo). The other policy recommendations include restructuring of the National Tariff Commission; incentives for cluster farming through legislative cover to facilitate the farmers to join a agri-cluster and get support for agricultural/ farming extension services, credit; and to initiate the Trade Adjustment schemes especially for small agricultural farms and farmers who may become uncompetitive due to trade liberalization with India. The research finding support the trade liberalization efforts with India in agricultural sector as counterfactual policy of insulating domestic agriculture from import competition would be poverty and mal-nutrition inducing for Pakistani consumers especially for those in lower two quintiles of population (poorest 40 %) who spend almost 50-70 % of their income on food.

INTRODUCTION

Agriculture sector is vital to Pakistan's economy, employment opportunities and food security. Agriculture employs 45 % of total labour force and 60 %of the rural population. Besides a major source of employment, agricultural sector help to meet food and nutritional requirements of population and provides raw-material to agro-based industries in general and textile, clothing and agri-commodities exports in particular. Agriculture exports comprise 21 % of Pakistan's total exports for the year 2011. The share of agricultural exports vis-à-vis non-agricultural exports registered almost a 100 % growth from just 14 % in 2007 to 27 % in 2011. Globally, Pakistan's agricultural profile is pretty impressive despite its structural weaknesses. According to United Nation's Food and Agriculture Organization (FAO) country ranking for global agricultural production, Pakistan ranks second in production of Indigenous buffalo meat, buffalo milk, oilseed; third for chillies and cottonseed; fourth for mango, pulses, goat milk, cotton lint, goat meat, roots and tubers; fifth for production of Chick peas and spices; sixth for wheat, sugarcane, apricots, spinach, okra, dates; seventh for cauliflowers and broccoli; eighth for tangerines, mandarins, fresh tropical fruits, tobacco, onions; eleventh in pistachios, oranges, and wools; thirteenth for rice and fourteenth in bird eggs and peas; and fifteenth in lentils.

Background

Despite common heritage in terms of a shared history, culture, languages, geography, climatic and agricultural zones, the two neighbouring countries were not engaged in normal trade relations since the 1965 war. Apart from political and military tensions, absence of trade facilitation infrastructure, banking channels and the closure of normal trading routes and communication increase the cost of doing business and transaction costs. The opening up of normal trade relations between Pakistan and India after a hiatus of close to 50 years entails psychological, logistic, structural, procedural, infrastructural constraints to surmount through establishing the sustained government to government (G2G), business to business (B2B) and people to people (P2P) contact.

Pakistan is in process of granting Most Favoured Nation (MFN) status to India. By the January 2013, the process of according the MFN status to India by Pakistan and removal of (perceived and real) non-tariff barriers by India on imports from Pakistan will mark the culmination of trade normalization process between Pakistan and India under the "Composite Dialogue".

Modern day industrialization is characterized by the fragmentation of the production paradigm. This new industrialization (FDI induced industrialization) is clustered around the countries where the inputs to the final products can be sourced in nearby countries freely and competitively. Pakistan and India can be partners in that new industrialization paradigm. The case for Pakistan-India trade should also be made in this context. Even with all the outstanding disputes with Islamabad, India is Pakistan's major trading partner. The direct trade between Pakistan and India, which can be around $10 billion, is meagrely at US$ 1.4 billion mark. Pakistan's and Indian industry can benefit from competitive inputs and raw-materials which then can then processed as final goods for export destination and domestic consumptions. Apart from that the informal and indirect Indian imports to Pakistan through mainly Gulf countries, imports are estimated to be reaching up to the $ 2 billion figure. Pakistan is not only paying premium by importing via third countries but also losing revenue and associated services employment opportunities. Similarly, in the event of the shortages of the staple food items and necessary medicines, opening of the trade with India can bring enormous relief to common people thus increasing the effective purchasing power and reach of the consumers.

Pakistan has competitive advantage in many of agricultural commodities for exports to India. Indian import appetite is very promising for agricultural export countries. India with its huge population (300 million plus middleclass) offers a lot of opportunities for export of value-added agricultural processed fresh and preserved food, dairy products, juices and vegetable food supplements (especially health conscious diets and supplements like vitamins, traditional spices, medicinal herbs, routes, salads, and seeds). Niche export market opportunities exist for vegetarian, halal, kosher and organic products. India's agricultural imports in year 2011 was US$ 22.56 billion compared to US$ 17.86 billion a year ago- registering an increase of 23.6 %. The share of Indian imports in India's total imports stood at 4.9 % registering a decrease of 7.5 %. Joint venture, franchise and investments opportunities will also facilitate the growth exports to India.

Indian agriculture, due to economies of scale, cost-advantages due to the Indian government's huge agricultural input subsidies and favourable regulatory regime, has been viewed by many as a threat to Pakistan's Agricultural competitiveness and sustainability. The sheer size of agricultural production capacity is also a source of concern especially for small land-holding farmers. Due to the trade impasse, there is also a perceived notion that India has instituted non-tariff barriers to impede Pakistani exports. This notion was augmented when cumbersome Indian import regulations at the border due to non-conformity of standards and regulatory compliance mechanism stalled Pakistan export consignments. There is also a perception among some business and agricultural stakeholders that the normalization of trade relations with India coupled with trade liberalization under the SAFTA framework (which envisages bringing tariffs from zero to five %on all tariffs lines except the sensitive lists maintained by each SAFTA member country) will make Indian goods more competitive due to its economies of scale and scope. Indian exports destined for Pakistani markets especially in Punjab and Sindh also enjoys low transportation costs and travel time.

Scope of study

The study aims to identify potentially competitive agricultural products or product clusters for exports to India, probable challenges at the border, behind the border and beyond the border to exploit export opportunities. The study will make short term and long term offensive strategy and recommendations for domestic policy and regulatory reforms for sustainable export competitiveness. The study will also set out the defensive strategy to identify vulnerable agricultural product or clusters susceptible to import surges and suggest recommendation for policy reform to make the vulnerable sector competitive in long run and stave off unfair trade practices during the transition phase. For both offensive and defensive strategy any laws, regulations and policies which may need to be changed will be proposed for amendments. The policy analysis and recommendations would be based upon the analytical research and stakeholder consultations.

Research methodology

The study will use both analytical tools and stakeholder surveys to conduct the research. Standard set of indices and indicators, termed Summary Indicators of Potential (SIP) at a disaggregated HS 6 with a view to carry-out in-depth analysis and to identify strengths and weaknesses vis-à-vis the Indian agri-sector. Analysis of structure, composition, competitiveness and geography of regional economy along with the political economy considerations of trade policy formulation and implementations will help to assess behind, at the border and beyond the border challenges and opportunities in the agricultural sector. The following SIPs have been employed:

Relative Growth Rates (GR) of merchandise exports and imports

- Revealed Comparative Advantage (RCA)
- Trade Similarity (TS) Index
- Trade Specialization (ES) Index
- Trade Intensity (TI) Index
- Index of Intra-industry Trade (IIT)
- Trade Complementarity (TC) Index

The research study comprises of four sections. Sections one will assess Pakistan's agricultural sector supply side and export potential analysis. The section will cover the political economy of agricultural protection; structural issues in agricultural supply chain.

Section two analyses Indian agricultural market analysis and export opportunities and challenges for Pakistani exporters. Challenges at the border, behind the border and beyond the border for enhancing Pakistani exports to India will be dealt with in detail.

Section three executes an ex ante impact analysis using a standard set of indices and indicators, termed SIP, to determine Pakistan's comparative advantage in the agricultural sector vis-à-vis India.

Section four suggests the policy recommendations and regulatory reforms needed to enhance the competiveness of Pakistan's agricultural sector and boost potential agricultural sectors/products exports to India based on the analysis carried out in section three and the public private sector consultations dialogue held.

The study covers only the agricultural sector thus formulation of trade liberalization strategy with India should factor in the impact analysis of the other major industrial sectors and services sector. It would be necessary to analyse economy wide implications using General Equilibrium Analysis to assess the costs and benefits of trade liberalization with India and regional trade liberalization under the SAFTA framework.

SECTION 1: ASSESSING PAKISTAN'S AGRICULTURE SECTOR EXPORT POTENTIAL

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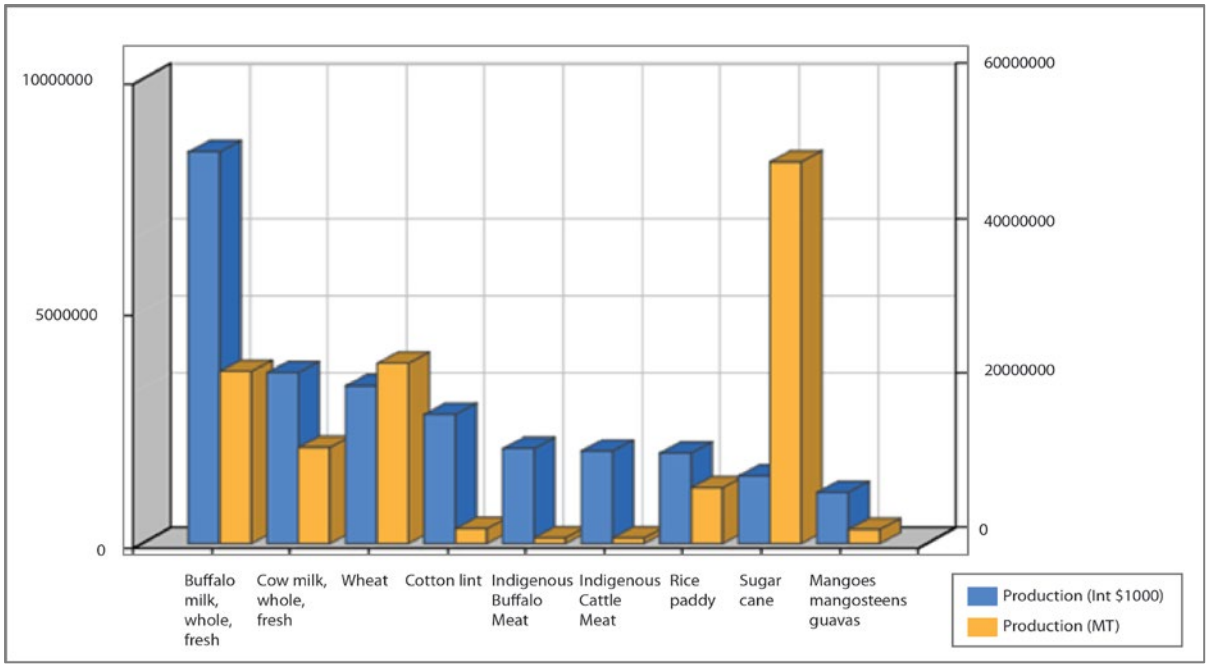
Profile of Pakistan's agricultural sector: supply side analysis

Agriculture is a mainstay of the Pakistan's economy, manufacturing industry, exports, employment, income generation and food security. The share of agriculture in Gross Domestic Product (GDP) constitutes 21 % and "agriculture generates productive employment opportunities for 45 % of the country's labour force, and 60 % of the rural population depends upon this sector for its livelihood."[1]

Pakistan's agricultural profile is pretty impressive despite its structural weaknesses. According to the FAO country ranking for global agricultural production detailed in Table 1 below, Pakistan ranks second in production of indigenous buffalo meat, buffalo milk, oilseed; third for chillies and cottonseed; fourth for mango, pulses, goat milk, cotton lint, goat meat, roots and tubers; fifth for production of chick peas and spices; sixth for wheat, sugarcane, apricots, spinach, okra, dates; seventh for cauliflowers and broccoli; eighth for tangerines, mandarins, fresh tropical fruits, tobacco, onions; eleventh in pistachios, oranges, and wools; thirteenth for rice and fourteenth in bird eggs and peas; and fifteenth in lentils.

Figure 1.1: Top Agricultural Production of Pakistan



Source : FAO Stat.

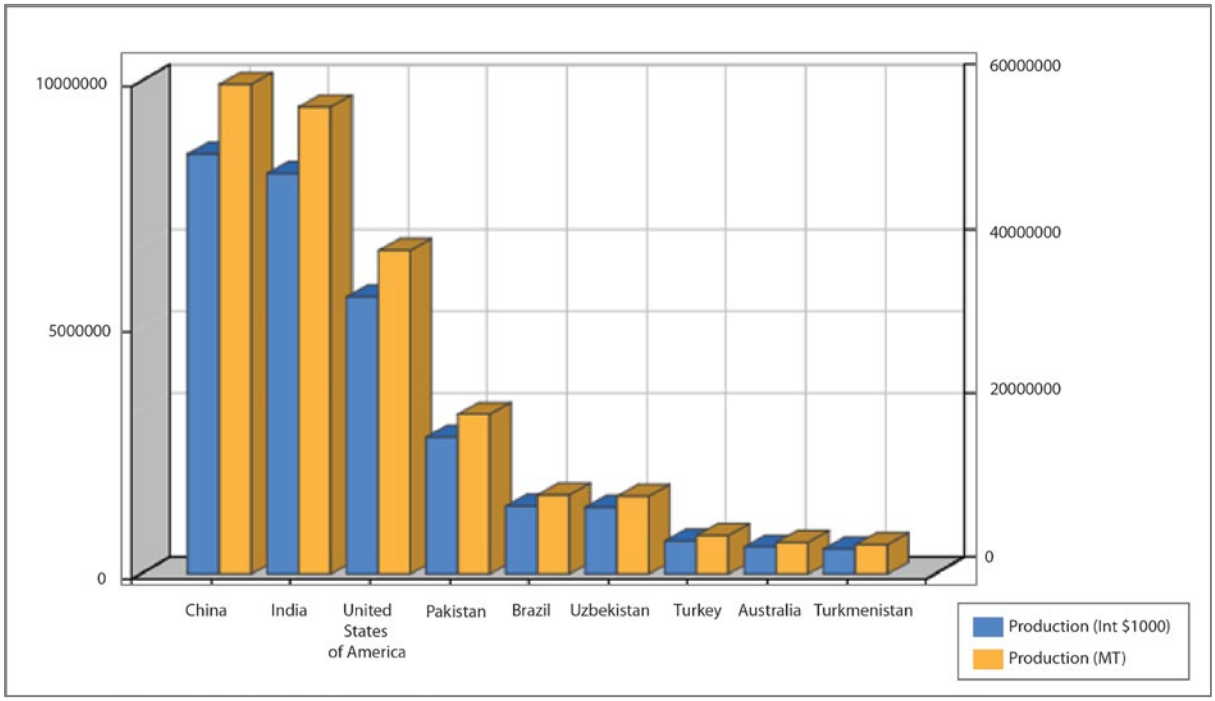
Table 1:1 Top 20 Agricultural Commodities of Pakistan

Rank	Commodity	Rank	Commodity
2	Indigenous Buffalo Meat	11	Oranges
2	Buffalo milk, whole, fresh	11	Wool, greasy
2	Oilseeds,	12	Castor oil seed
3	Chillies and peppers, dry	12	Indigenous Sheep Meat
3	Cottonseed	12	Peas, dry
4	Mangoes, mangosteens, guavas	12	Cow milk, whole, fresh
4	Pulses,	12	Meat
4	Goat milk, whole, fresh	13	Rice, paddy

[1] The Economic Survey of Pakistan 2011-12, Government of Pakistan 2012

4	Cotton lint	14	Other bird eggs, in shell
4	Indigenous Goat Meat	14	Peas, green
4	Roots and Tubers,	14	Other Bastfibres
5	Chick peas	15	Millet
5	Spices,	15	Lentils
6	Wheat	15	Other melons (Inc. cantaloupes)
6	Sugar cane	16	Sunflower seed
6	Apricots	16	Pumpkins, squash and gourds
6	Spinach	17	Indigenous Cattle Meat
6	Okra	17	Almonds, with shell
6	Dates	17	Eggplants
7	Cauliflowers and broccoli	18	Jute
8	Tangerines, mandarins, clem.	19	Vegetables freshness
8	Fruit, tropical freshness	20	Maize
8	Tobacco, unmanufactured	20	Beeswax
8	Onions, dry	20	Potatoes
11	Pistachios	20	Garlic

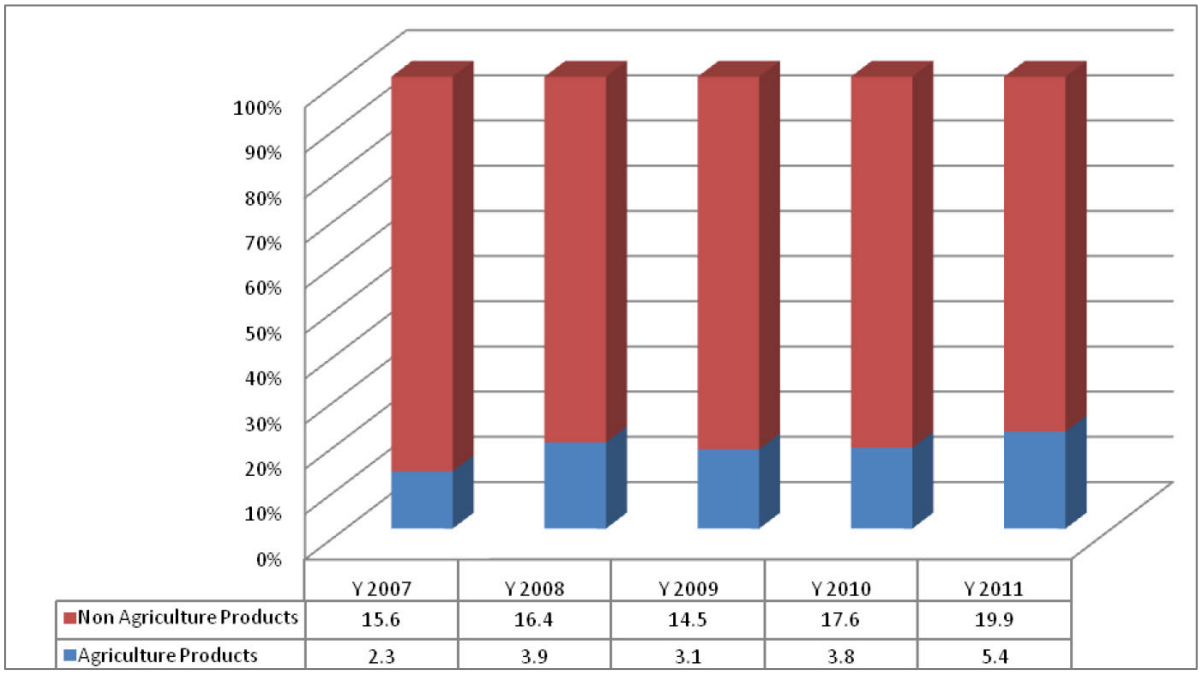
Figure 1.2: Top cotton producers in 2010



Source : FAO Stat.

Besides being a major source of employment, the agricultural sector help to meet food and nutritional requirements of the population and provides raw-materials to agro-based industries in general, and textile, clothing and agri-commodities exports in particular. Agriculture exports comprise 21 % of Pakistan's total exports for the year 2011. The share of agricultural exports vis-à-vis non-agricultural exports registered almost a 100 % growth from just 14 % in 2007 to 27 % in 2011. The following figure indicates the share of both agricultural and non-agricultural exports of Pakistan for the period from 2007 to 2011.

Figure 1.3: Share of agricultural and non-agricultural exports of Pakistan for the period from 2007 to 2011



	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Non Agriculture Products	15.6	16.4	14.5	17.6	19.9
Agriculture Products	2.3	3.9	3.1	3.8	5.4

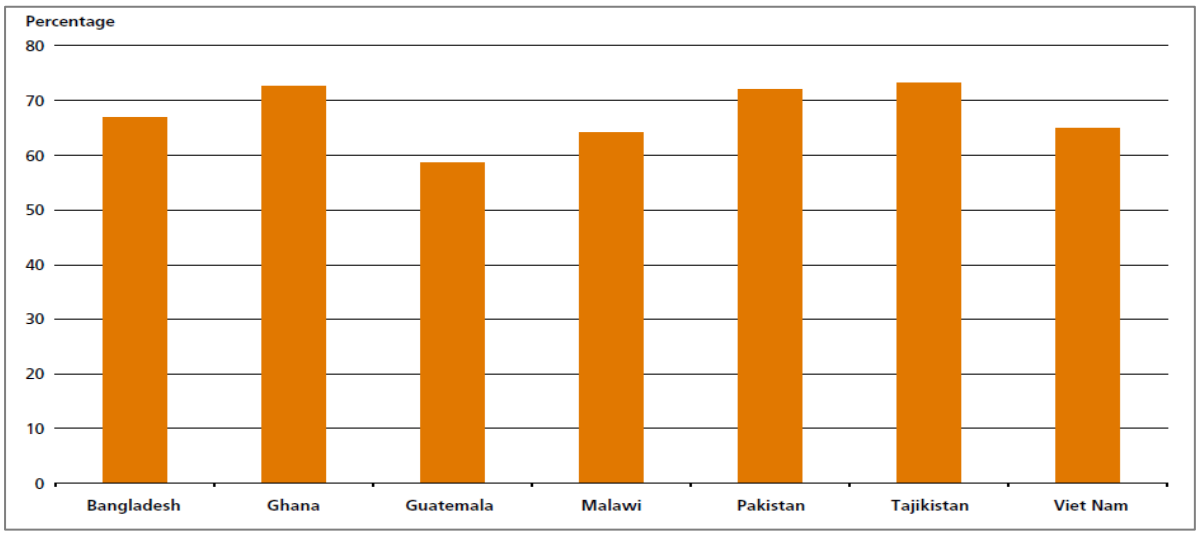
Source: Trade Map ITC Unit: Billion US $

Rice, cotton, wheat and vegetable fats and oils are top performing agricultural products. The share of the top ten agricultural products is around 74 % in total agriculture export of Pakistan to the world. Pakistan's exports competitiveness, especially in textiles and clothing, is highly dependent upon the agricultural inputs. Cotton is a major raw-material for textiles products. Cotton's share is 7.8 % of value added in agriculture and 1.6 % of GDP.

Wheat, cotton, sugarcane, rice, fruits and vegetable, livestock and dairy sectors are crucial for Pakistan's economic and food security. Food price inflation in Pakistan[2] is the highest in South Asia amounting to 20 % for the year 2007-08. India has relatively moderate food price inflation of about 7 % for the same period.[3] Food prices impact the purchasing power of vulnerable sections of the population, especially low income segments. Rising food prices inflation can suck substantial number of vulnerable segments of the population into the poverty bracket. A 2011 FAO report, *The State of Food Insecurity in the World: How does international price volatility affect domestic economies and food security,?* estimates that more than 70 % of household budget is spent on food by the lowest expenditure quintile of population in Pakistan (poorest 20 % of the population).

[2] Higher Food price inflation in Afghanistan also puts pressure on Pakistan's domestic supply as higher price margin may be lucrative proposition for food smugglers.
[3] Jansen, J. (2010), Food Price Increases in South Asia: National Responses and Regional Dimensions. World Bank report.

Figure 1.4: Poor people spend much on their income on food



Note: % of household budget spent on food by the lowest quintile of the population

Source: FAO (2011). The State of Food Insecurity in the World: How does international price volatility affect domestic economies and food security?

As the FAO report states: "this suggests that changes in food prices will have adverse effects on the welfare of both farmers (not engaged in farming of that crop) and poorer consumers." In contrast, in a study by Alberto Zezza, et al. *The Impact of Rising Food Prices on the Poor*, the authors concluded that the poor are hurt most:

> Especially landless labour in rural area and low-paid workers in urban areas. On the other hand, farmers who are net food sellers are likely to benefit from higher prices, which, other things being equal, will tend to increase their income. Since many farmers are poor, higher prices could help to alleviate poverty and improve food security.

Like many developing countries, agriculture in Pakistan, is susceptible to the vagaries of nature and fluctuations in temperatures and precipitation (rain and its frequency) which have a direct impact on yields of agricultural output and growth. Rising population and depleting natural resources, especially the availability of clean water in South Asia (Pakistan and India); have placed the region in the category of a "water stressed" region.[4]

> The first decade of the 21stcentury saw several harbingers of a troubled future for global food security. The food price spike of 2008, with its consequent food riots and resulting political changes in several countries, awoke the world's leaders to the re-emergence of this threat to human well-being and social harmony. The excessive heat and drought in Russia that led to the 2010 wildfires and a grain embargo, as well as the unprecedented floods in Pakistan, signal more trouble ahead. But the warning signs could already be seen in the late 20thcentury, as the long-term decline in the number of the world's poor and hungry came to an end and as those numbers began to increase in the 1990s.

Thus, to address food and nutrition security challenges would largely depend upon improving productivity, especially of agricultural sector, and arresting structural inefficiencies.

A recent study conducted by the International Food Policy Research Institute (IFPRI), Pakistan Strategy Support Program by Debowicz, et al., *Implications of Productivity Growth in Pakistan: An Economy-Wide Analysis*, using the computable general equilibrium (CGE) model simulations and employing a new 2008 Social Accounting Matrix (SAM) for Pakistan show that:

> Achieving high productivity growth targets broadly consistent with the Framework for Economic Growth would imply a 9.3 % per year gain in average household income (compared to trend growth in household incomes of 5.8 %). Accelerating agricultural

[4] South Asia and Climate Change; Available at: lhttp://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/0,,contentMDK:21469804~menuPK:246552~pagePK:2865106~piPK:2865128~theSitePK:223547,00.html

> growth would as well result in even greater overall economic growth with an additional 2.6 % gain in average household income. Moreover, with accelerated agriculture growth, real incomes of poor household groups rise substantially, by an additional 2.9 to 4.5 %, as food-deficit urban poor and poor rural non-farm households' benefit from lower real food prices, and agricultural growth spurs rural non-farm output and incomes.

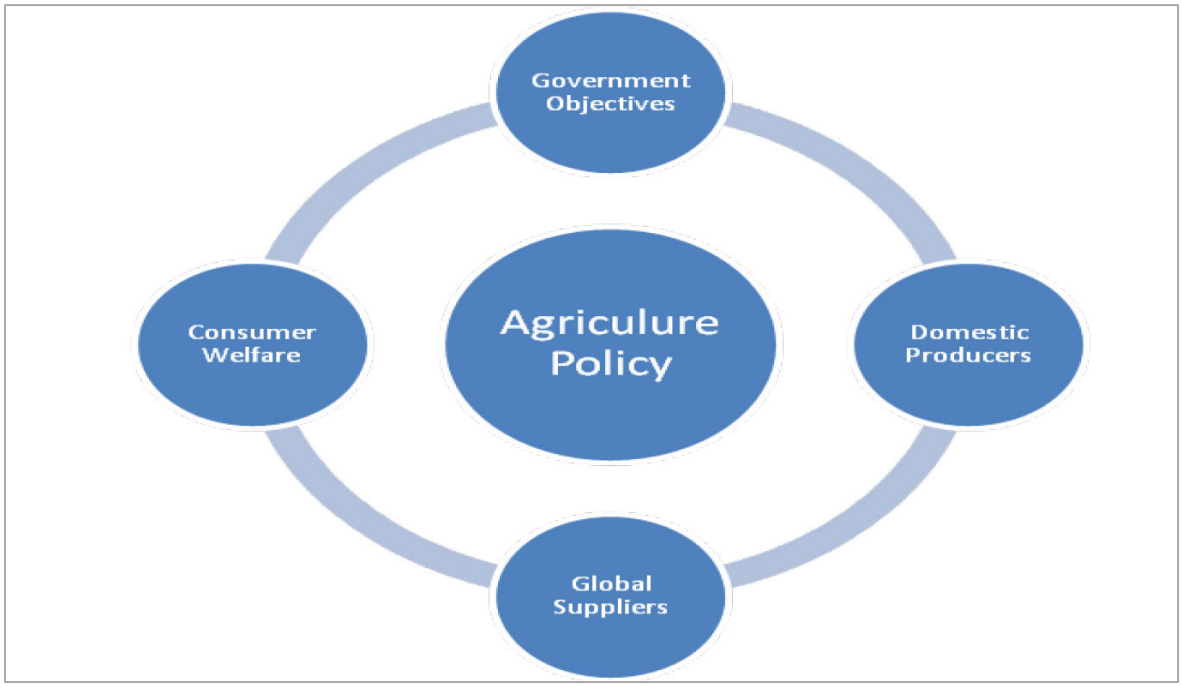
The CGE study envisages that:

> developing agricultural and rural labor markets (as part of efforts to develop markets) and increasing the efficiency of government institutions involved in raising crop and livestock productivity have the potential to ensure that accelerated economic growth in Pakistan results in major welfare benefits for the poor". The study estimates that "Farmers' average incomes would also rise sharply (11.7 % for medium-large farmers as compared to 5.9 % in the historical growth rate scenario). These household gains result in large part because of substantial increases in the real prices of livestock and crops (10.6 and 3.8 %, as compared to 1.8 % and -0.5 % in the historical growth rate scenario).

Thus, addressing not only structural deficiency in agricultural economy but also developing agricultural and rural labour markets and capacity building of farmers and public sector service delivery institutions should be key elements of policy to enhance agricultural productivity, attaining food security and competitiveness of agricultural economy[5].

Political economy of agricultural protection

Figure 1.5: Political Economy of Protection: Competing forces



Four distinct competing factors are at play in formulating the Pakistan's Agriculture policy: Government Policy Objectives (Revenue, containing food inflation, employment, food security, climate change and strategic considerations), Consumers and civil society advocacy groups, domestic growers and suppliers (farmers and distribution value chain) and importers (global suppliers - seeking liberalization as per multilateral and regional agreements). All these competing forces interact,

[5]Storage, logistic, storage and marketing inefficiencies and market imperfections coupled with low-yield render the agriculture sector a policy challenge and puzzle. Any policy fix that attempts to restrict competition or insulate domestic agriculture from import competition without targeting and addressing these structural constraints, market imperfections and infra-structural and marketing challenges would not be an optimal solution. Rather, it would be counterproductive.

impinging upon the policy space. Intense lobbying, pressure tactics and political expediencies often hamper economical rational decision making. Consumers are often silent players, especially where civil society is not vocal or organized. Consumers' powerlessness or indifference can be explained by the fact that marginal increases in prices will often not hurt an individual common consumer. On the other hand, a marginal increase in price will generate extra profits and induce the smaller groups of producer, growers or middleman to coalesce for championing and instituting (sustaining) price escalations mechanisms. Mancur Olson, Jr. explains the political economy of lobbying especially where benefits are concentrated and the costs are diffused.[6] In present scenario, the political economic theory would help us to understand the interplay and responses of various actors and players. The possible responses may be narrated as under:

- Import-competing producers would lobby for protectionist policies;
- Importers would lobby for trade liberalization;
- Regulatory and public sector response would be ambiguous and depend on host of factors. Transparent and accountable institutional mechanism helps to minimize the chances of 'regulatory capture[7]'.
- Consumers, if marginally impacted, would be indifferent and government might succumb to powerful advocacy coalitions and interest groups aligned with its constituent support base. Consumers' inertia can be broken only if the price increase or protectionist policies hurt substantially consumers' purchasing power or constraint consumption choices[8].

Domestic demand, supply, import, export and storage and packaging shelf life

Agricultural production supply potential is not sufficient to cater for the expected demand. A recent study, *Supply and Demand for Cereals in Pakistan, 2010–2030*, Nazli et al. for IFPRI states that:

> Pakistan's population has a high dependence on cereals to meet the daily requirement of food energy. Cereals account for 47 % of total calorie supply per capita, and the contribution of cereals to protein supply per capita is 46 % (FAO 2011). Since the year 2000, Pakistan's population has been growing at 2.42 % per year, a rate that is higher than the growth of domestic food grain production (1.5 % per year). This finding suggests that the current rate of growth of food grain production may not be adequate to feed Pakistan's increasing population. Worldwide food price inflation and frequent natural disasters in the country have also had a negative impact on Pakistan's food security situation[9]

The report further estimates that "demand for wheat and rice will more than double by 2030[10]" and Pakistan "is likely to face a deficit in wheat and surplus in rice"[11]. International demand pressures for food are also "expected to increase by 60 % by 2050. Given climate change, natural resource constraints and competing demands, especially for the production of bio-fuels, among other factors, this presents a considerable challenge for the agriculture and food systems worldwide.

Pakistan and India fall in the same category where food self-sufficiency is highly dependent upon stable harvest of major crops and the weather conditions. Inadequate and inefficient storage facilities

[6] Olsen, Mancur J. (1965). The Logic of Collective Action: Public Goods and the Theory of Groups
[7] Nobel Laureate George Stigler and other public choice theorist view that the 'regulation regulation is borne from private groups with political power attempting to capture' (Stigler 1971) and "the outcome of private interests using the coercive power of the state to extract rents from other groups, highlighting the endogeneity of financial development and growth" (Benmelech 2008).
[8] Stiglitz, Joseph E. "Governments failures vs. Market Failures: Principles of Regulation." The Tobin Project. Cambridge University Press, New York, 2010.
[9] Nazli et al.,(2012) Supply and Demand for Cereals in Pakistan, 2010–2030. IFPRI Discussion Paper. Available at: http://www.ifpri.org/sites/default/files/publications/ifpridp01222.pdf
[10] "The projections of supply show an increase in the output of wheat and rice by 2030. From 2008 to 2030, the demand for wheat will increase from 19 million tons to 30 million tons. Projection estimates of wheat supply based on the production function technique show that by 2030, wheat output will reach 28 million tons, and rice output will be 11 million tons. The demand for wheat is expected to be greater than its supply whereas production of rice will be higher than consumption."
[11] Ibid

of food grain, vegetables and other staple dietary items render both countries vulnerable to food insecurity through a lack of self-sufficiency. In addition to these challenges for food self-sufficiency in Pakistan, structural issues like poor management of the agricultural supply chain, low yields and wastages, especially during pre-harvest and post-harvest, also contribute to shortages of agricultural produce in Pakistan[12].

Demand pulls[13] therefore put a lot of stress on agricultural supply. Dietary consumption habits, cooking and cultural factors also contribute strain on agricultural production. Pakistan's production to consumption ratio for major commodities (except for rice) is border-line which makes Pakistan susceptible to food insecurity from a self-sufficiency perspective: for wheat production to consumption ratio is 103 (wheat production exceeds by three % only); for Sugar, it is 82.4 (consumption is 18 % higher than production). Similarly for other staple items like cereals (mainly pulses and lentils), fruits and vegetables, dairy products[14] and food-grade oil products, the production to consumption ratio, though satisfactory, seasonal shortages and price volatility make Pakistan a food insecure country[15].

The share of animal-source foods in total dietary energy supplies is 18 %. Food consumption is lower than international recommendatory levels. A recent study[16] found that the "prevalence of the population with below-minimum intake levels ranged from 37 % in Ghana to 99 % in Pakistan (the range was similar for men and women separately). It was also found that fruit and vegetable consumption tends to decrease with age and increase with income.[17]" Rising agricultural prices, dietary habits and poverty in Pakistan impact the access to nutritious food. Any sudden policy change may need to factor in the issues of access to nutritious food as there are no safety nets programs to offset the rising prices. It is alarming to note that "58% of households were food insecure nationally. Sindh was the most food-deprived province followed by Balochistan. 72% of families in Sindh and 63.5% in Balochistan faced food insecurity"[18].Punjab[19] fared better with 40 % food insecurity because of its strong agricultural profile is relatively better in nutrition levels. Given its agricultural production profile and management and governance of Agriculture, Pakistan is likely to miss the MDG targets especially if prevailing trends persists

In view of the strategic importance of Agricultural to food and nutrition security, poverty reduction and employment opportunities, cautious trade liberalization should be part of the sustainable agricultural policy especially for food insecure countries.

Creating agricultural export surpluses thus would require tapping the local production potential through improved supply chain, storages[20], processing, preservation facilities and reducing pre- and post-harvest losses, regulatory regime which not only ensures protection of property rights and agricultural labour, contract farming but also removing distortions and discrepancies hampering working of efficient markets.

Supply chain and infrastructure: challenges and opportunities

Proper supply chain linkages help to improve productivity by reducing inefficiencies from pre-harvesting to marketing. An effective supply chain adds value at each link, promotes market-oriented mechanism to maximize the gains and enhance competiveness. Agricultural sector in Pakistan lacks both integrated supply chain and infrastructural facilities. The agricultural sector in Pakistan, due to government's intervention, is still not operating on the market-based principles. Price Support mechanism, trade controls and travel restriction undermine the competitiveness of the agricultural

[12] The same is almost the case for India but its situation is relatively better than Pakistan.
[13] Pakistan's population and consumption profile
[14] "The share of animal-source foods in the total dietary energy supplies is 18 %. Food consumption is lower than the international recommendatory levels. A recent study found that the "prevalence of the population with below-minimum intake levels ranged from 37 % in Ghana to 99 % in Pakistan. It was also found that fruit and vegetable consumption tends to decrease with age and increase with income. "（FAO, WFP and IFAD.，2012）
[15] Based on FAO Food Security sheet data
[16] "Almost 80 % of the population of 52 mainly low- and middle-income countries consumed less than the minimum recommended levels of fruits and vegetables."（Food and Agriculture Organization of the United Nations (FAO)，2011）
[17] Thus, changing food habits are important to achieve the recommended level of fruits and vegetable intake.
[18] Pakistan's National Nutrition Survey; jointly conducted by Aga Khan University, Pakistan's Ministry of Health and UNICEF.
[19] "40.5% of the households in Punjab were food secure. 32.2% were food insecure without hunger, 18.5% were food insecure with moderate hunger and 8.8% were food insecure with severe hunger." NNS 2011
[20] Better preservation and packaging techniques enhances the shelf life of agricultural products. Longer shelf life also saves transportation costs and entails more export opportunities.

sector. A 2009 USAID report, *Pakistan's Food and Agriculture Systems* has identified the following cross-cutting issues have a bearing on the food and agricultural system: (1) government price control of agricultural output, (2) inadequate investment in research and dissemination of technology packages to farmers; (3) Inadequate investment in related infrastructure; (4) governance; (5) outmoded legal and regulatory mechanisms; (6) environmental issues; and (7) gender issues."[21] Small subsistence farming, small landholding size and feudalism contribute to lack of a proper agricultural supply chain.

Due to an underdeveloped Agricultural Supply Chain (ASC) and poor infrastructure, the wastages in agricultural supplies are above the regional and global thresholds. A 2012 FAO study estimates that "roughly one-third of food produced for human consumption is lost or wasted globally, which amounts to about 1.3 billion tons per year. Significant food loss and waste do, however, also occur earlier in the food supply chain. In low-income countries food is mostly lost during the production-to-processing stages of the food supply chain." In Pakistan, most of the agricultural produce is wasted due to improper storage, transportation and preservation facilities[22]. The USAID study has identified major supply chain drivers needed for Pakistani agricultural crops to improve its competitiveness:

Table 1.2: Major supply chain drivers needed for Pakistani agricultural crops to improve its competitiveness

Crop	Volume	Unit Value	Repeat Sale	Direct Margin	Private Sector Attractiveness	Supply Chain Drivers, needed in
Wheat	High	Low / Medium	Medium	Reasonable	High, if product differentiation into bread & durum;	Storage, milling, retail products
Rice	High	Low	Low / medium	Low; margins critical in the long term	very low to medium; High, if product differentiation into basmati & plain rice.	Medium to high interest in milling; domestic & export trade
Maize	Medium	High	Medium	Reasonable – based on product	Medium, for feed milling	Flakes
Oilseeds	Medium / high	Medium - high	Medium / high	Medium - high	Supply chain yet to be developed	Oilseed crushers & contractmgrowing give good prospects for oil & meal
Groundnut	High	Low	Low; medium to high if a supply chain initiator	Low	Unattractive, unless produced for a designated processor	Processing options are interesting: peanut butter; meal (protein source); oil; domestic & export markets
Soybean	High	Low - medium	High	Medium	Crop now in decline, no supply chain driver; Expect high attractiveness with PBR	Oilseed crusher, feed mill; edible oil.
Pulse / legumes	High	Low	Low / medium	Low - medium	Good commodity exports for mung bean; cow pea; alfalfa	Modern dhal milling; contract growing to secure crops
Potato	High	Low / medium	High	Medium	Very attractive for chips;	Cold store / infrastructure investments needed

Source: USAID (2009) Pakistan's Food and Agriculture Systems

[21]USAID (2009) Pakistan's Food and Agriculture Systems. Available at: http://pdf.usaid.gov/pdf_docs/PNADO507.pdf
[22] Often this is the result of a lack of ownership and price incentives as observed in Russia in the late 1980s with wheat being transported in open dump trucks because its state price was too low, and produce left rotting in train carriages as ownership had been lost. Most Moscow product that was consumed was produced in home gardens. Comments added by Peer reviewer.

Integration of local agricultural supply chain with global value is also important to export agricultural products which are subject to stringent SPS and TBT requirements. Pakistani agricultural products' marketability can be improved by adopting international standards and principles of Global Partnership for Good Agricultural Practices (Global GAP). This is especially true for exporting to India where joint ventures with Indian and global agricultural suppliers would open up the export opportunities to India. Public-private partnership may be best viable option to enhance investments to improve adaptation of global food safety and hygiene standards. Punjab Government has initiated a scheme on "Supply Chain Improvement of Selected Agriculture and Livestock Products"[23] at a cost of Pak Rs. 2 billion. The project aims to improve global supply chain linkages by adopting international standards and safety standards.

Issues of productivity, competitiveness and domestic regulatory reforms

Improving agricultural productivity and competitiveness is vital for improving agricultural production and export surplus. Pakistan's agricultural productivity is lagging behind the global and regional benchmarks. An analysis of Agricultural growth for major crops reveals a substantial negative growth from FY 2005-06 to FY 2011-12. Minor crops and forestry exhibit similar trends for the same period. Except for livestock's and fishery, the trends are worrisome for long-term agricultural sustainability and export surplus.

Table 1.3: Agriculture Growth in %ages from 2005 to 2012

Year	Agriculture	Major Crops	Minor Crops	Livestock	Fishery	Forestry
2005-06	6.3	-3.9	0.4	15.8	20.8	-1.1
2006-07	4.1	7.7	-1.0	2.8	15.4	-5.1
2007-08	1.0	-6.4	10.9	4.2	9.2	-13.0
2008-09	4.0	7.8	-1.2	3.1	2.3	-3.0
2009-10-	0.6	-2.3	-7.7	4.3	1.5	2.2
2010-11	2.4	-0.2	2.7	4.4	1.9	-0.4
2011-12	3.1	3.2	-1.3	4.0	1.8	1.0

Source: Economic Survey of Pakistan 2012

Four crops namely wheat, rice, cotton and sugarcane account for 91 % of Pakistan's value added in the major crops:[24]

> The value added in major crops accounts for 32 % of the value added in the agriculture. Thus, four major crops (wheat, rice, cotton, and sugarcane) on average, contribute 29 % to the value added in overall agriculture and 6.0 % to GDP. The minor crops account for 10.1 % of the value added in overall agriculture. Livestock sector contributes 55 % in the value-added agriculture sector.

Keeping in view future demand scenarios and some estimates of climate change impact on agriculture[25], it is imperative to introduce science based interventions (like genetic engineering technology) to improve yields, agricultural productivity and sustainability[26] for achieving persistent

[23] It is estimated that some 30-50 % of the agricultural produce are wasted due to poor supply-chain and dearth of storage and infra-structural facilities in Pakistan.

[24] Ministry of Finance, 2012.

[25] "As per Intergovernmental Panel on Climate Change (IPCC) report that in Central and South Asia, crop yields could fall by up to 30 per cent by 2050 as a result of climate change. India alone could lose 18 per cent of its rain-fed cereal production. Small-scale producers provide more than half of the world's food supply. Smallholders feed poor communities –including themselves – and small increases in yields on their farms could have a profound impact on poverty and access to food at the local and regional levels." by Sanjay Vashist, Director, CANSA "South Asia needs to scale-up climate efforts to sustain development" available @ http://www.cansouthasia.net/index.php/downloadresources/category/4-climeasia

[26] "18 acres of land gets eroded in Sindh every day, while 38% of Punjaband 63 % of Sindh's land has been affected by water logging" says Senator TajHaider of the PPP.

export surplus. Agricultural mechanization, Agro-based industrial linkages, market-based incentives for agricultural production and global value chain integration will enhance the competitiveness of Pakistan's agricultural in the long-term. Introducing agricultural-friendly regulatory requirements for quality control and safety both at border and at the farm will ensure the sustainability of agricultural competitiveness. Pakistan should immediately introduce the National Food Safety, Animal and Plant Health Regulatory Authority (NFSAPHRA) and establish border and at farm quality control and compliance mechanisms.

http://tribune.com.pk/story/462947/road-to-progress-for-a-prosperous-pakistan-land-reforms-inevitable/

SECTION 2: INDIAN AGRCULTURE MARKET ANALYSIS

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The Indian agricultural market poses an opportunity and a threat for the development of Pakistan's agricultural sector. With a 1.2 billion population and relatively low trade costs due to its close proximity, India promises a big export opportunity to Pakistan in the agricultural sector. In the year 2011, India was the 10th biggest agricultural importer in the world. Indian agricultural imports grew by 23.6 %, valued at US$ 22.56 billion. The ten biggest trading partners of India are given in Table 2.1. The top three importing partners of India viz., Indonesia, Argentina and Malaysia export edible oils [Palm oil, crude, palm oil and its fractions (refined but not chemically modified), soya-bean oil crude, safflower oil] and sunflower-seeds. Pakistan ranks 22nd in the import partner list, mainly supplying dates (fresh or dried), Plants used for pharmaceutical or cosmetic usages, edible fruits, nuts, peel of citrus fruit, melons etc.

Table 2.1: India's top agricultural importers

Country	Value	Rank 2010
Indonesia	4108	1
Argentina	937	2
Malaysia	934	3
Brazil	865	4
United States of America	845	5
Myanmar	687	6
Canada	551	7
Ukraine	526	8
China	502	9
Australia	474	10
Pakistan	88	20

Source: ITC trade map (Value in US $ million)

Note: Shaded countries indicate common import partners of both India and Pakistan.

Indian import appetite is very promising for agricultural export countries. India with its huge population (300 million plus middleclass) offers lot of opportunity for export of value-added agricultural processed fresh and preserved food, dairy products, juices and vegetable food supplements (especially health conscious diets and supplements like vitamins, traditional spices, medicinal herbs, routes, salads, and seeds). Niche export markets opportunities exists for Vegetarian, Halal, kosher and organic products. Joint venture, franchise and investments opportunities are also big especially along the 1487 km long Delhi Mumbai Industrial Corridor where the Indian government is planning to establish urban-industrial clusters.

India's demand and supply gap, changes in consumer tastes especially with middle income and urban consumers make India a potential market for export of agricultural products and especially value-added agro-based products. Furthermore, susceptibility and dependence of agricultural production and demand on rain, climatic conditions and price variations make both markets vulnerable to be able to meet their demand. opportunities. To meet India's total food grain demand in the year 2020-21, India "needs a growth rate of at least 2 % per annum in food production. This has to be contrasted with the average annual rate of only 1 % that we achieved in the ten year period 1995-96 to 2004-05"27.However, recent successes in Indian Agriculture are promising like "gross capital formation in agriculture and allied sectors has increased from 13.1% of GDP in agriculture in 2004-05 to 20.1% in 2010-11. Agriculture and allied sectors have grown at an estimated rate of 3.5% during the Eleventh Plan (2011) compared to the growth rates of 2.4% and 2.5% during the Tenth and Ninth Plans respectively"[28] (Ibid). Yet structural issues in Indian agricultural, estimated impact of climate change

[27]Indian Prime Minister's Speech at the Workshop on Agriculture at Rashtrapati Bhavan on February 15, 2012 available on www. pmindia.gov .in/content_print.php?nodeid=1140&nodety pe=2
[28] Ibid

and depletion of natural resources are major constraints for sustained growth. Food security concerns have further been exacerbated due to rising food inflation and poverty.

The policy thrust of central and states governments have been to lower the cost of inputs and to try to ensure ample food-grain supplies. "Among other policy measures, under the National Food Security Act, the distribution of rice or wheat is highly subsidized, especially for the below-poverty line families. The entitlement under this programme is 25 kg of rice or wheat per month per family at INR 3 per kg. A bill is currently proposed to provide cheap grains to 810 million people by widening subsidies to 75 % of the rural population and half the urban population with higher and cheaper allocations for the poorest."[29]

Export opportunities for Pakistani agricultural products in the Indian market: domestic production and foreign trade analysis

India's agricultural production and foreign trade profile is also very impressive compared to Pakistan's performance in the Agricultural sector globally. Indian ranks number one in production of many of its agricultural export products. According to the Food and Agricultural Organization of the United Nations country rankings in Agricultural production, India ranks number one in sugar cane, Rice (paddy), Wheat, Milk, buffalo meat and hides, vegetables (including Tomatoes, Onions, potatoes, eggplants, Okra, lemons), fruits like Bananas, coconut and Mangoes and papayas, Cashew, Maize, Jute, pulses, chilies and spices, areca-nuts, safflower, butter, beans and chick peas[30].

Following table from FAO stat provides details of Top twenty production-wise commodities in which India rank number one:

Table 2.2 List of Commodities in which India Ranks Number

Rank	Commodity	Production (Int $1000)	Flag	Production (MT)	Flag
1	Sugar cane	8926377	*	292300000	
2	Rice, paddy	38424912	*	143963000	
3	Wheat	12146402	*	80800000	
4	Buffalo milk, whole, fresh	24869607	*	62350000	
5	Cow milk, whole, fresh	17133085	*	54903000	
6	Potatoes	5677931	*	36577300	
7	Vegetables fresh	5978102	*	31724000	
8	Bananas	8386971	*	29780000	
9	Onions, dry	3175279	*	15118000	
10	Mangoes, mangosteens, guavas	9003503	*	15026700	
11	Maize	1282080	*	14060000	
12	Millet	2312164	*	13290000	
13	Soybeans	3336238	*	12736000	
14	Tomatoes	4594863	*	12433200	
15	Cottonseed	1842720	*	11568000	
16	Coconuts	1198611	*	10840000	
17	Eggplants (aubergines)	2258391	*	10563000	
18	Cassava	841951	*	8059800	
19	Chick peas	3110792	*	7480000	

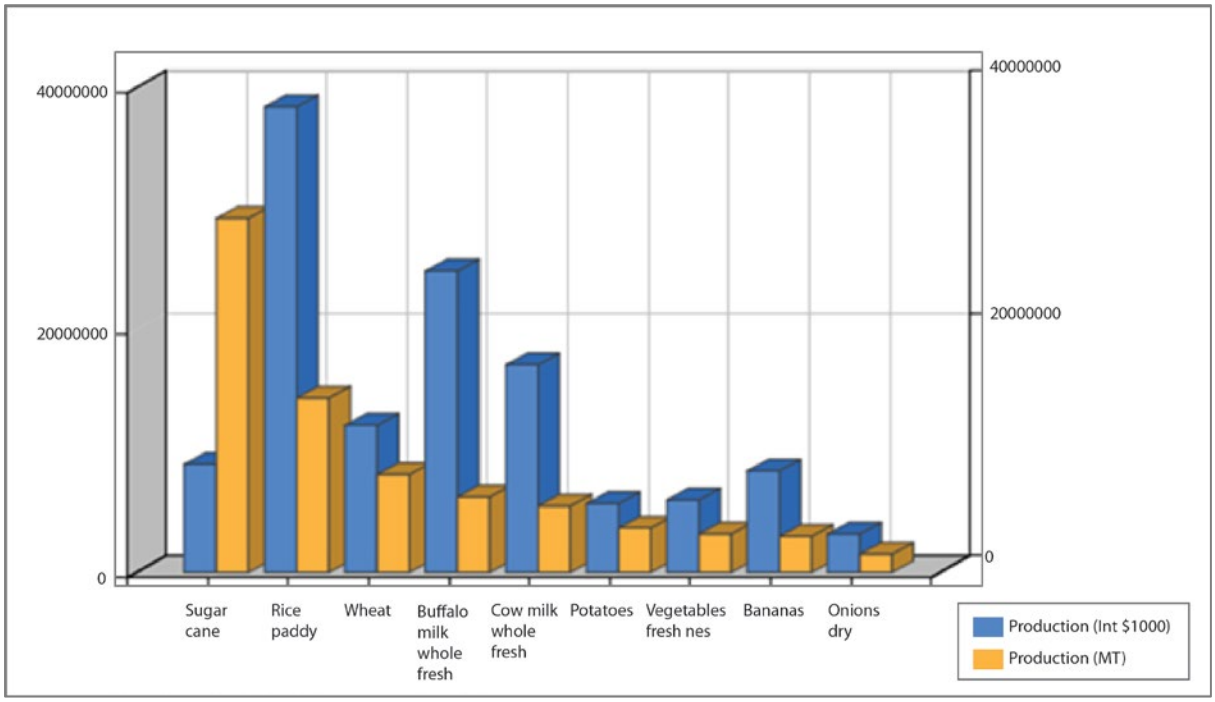
[29] FAO-GIEW Country Brief available @ http://www.fao.org/giews/countrybrief/index.jsp

[30] Caveat: Good ranking may not capture the importance in a global sense, for example number 1 globally in rice would have to be Thailand with its better productivity, greater importance in global trade etc. Similar stories apply with sugar (Brazil), wheat (US, Russia etc) etc. Maybe there needs to be some adjustment for population, land etc size and more characteristics compared like trade. It would be more relevant if India focused more on its comparative advantage in services and had moved out of inefficient agricultural production. (Peer Reviewer's comments)

20	Cabbages and other brassicas	1089603	*	7281400	
		* : Unofficial figure		[ ]: Official data	

Source: FAO agriculture statistics

Figure 2.1 Top production with India

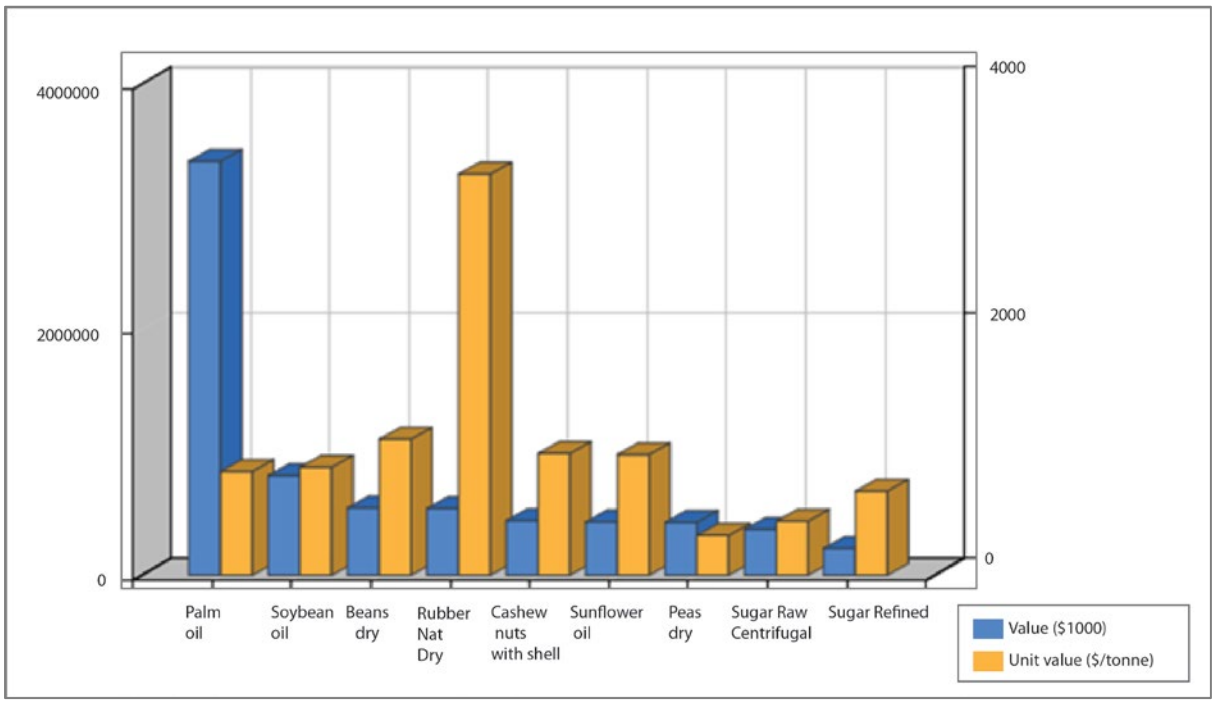


Source: FAO agriculture statistics

The foreign trade profile of India is very promising for many of agricultural trading partners. According to the WTO World Trade Statistics 2012, India is tenth largest agricultural exporter and importer of world (2.1 % share in global exports and 1.3 %share in global imports) with exports of US$ 34 billion and imports of US$ 23 billion for the year 2011. India's agriculture exports grew from US$ 23.11 billion in 2010 to US$ 34.33 billion in 2011- a whopping 48 % increase. The share of Indian Agriculture export in its total exports is 11.3 %. Major agricultural exports commodities were sugar, molasses, cotton, guar gum meal, spices, Niger seed, ground nut, maize, coffee, oil meal, castor oil, tea and jute compared to corresponding period of the previous year. India's agricultural imports in the year 2011 was US$ 22.56 billion compared to US$ 17.86 billion a year ago, registering an increase of 23.6 %. The share of Indian imports in India's total imports stood at 4.9 %, registering a decrease of 7.5 %.

Pakistan is a net agricultural importing country with a trade deficit of US$ 1.8 billion for the year 2011. Though, Pakistan's agriculture exports grew from US$ 3.9 billion in 2010 to US$ 5.55 billion in 2011- a massive 40 % increase. The share of Pakistani agricultural exports vis-à-vis its total exports is 21.9 %. Pakistan's agricultural imports in the year 2011 was US$ 7.35 billion compared to US$ 6.7 billion a year ago, registering an increase of 9.1 %. The share of Pakistani imports in Pakistan's total imports stood at 16.7 % registering an increase of 15.97 %.

Figure 2.2: India's Top Commodity Imports in 2010

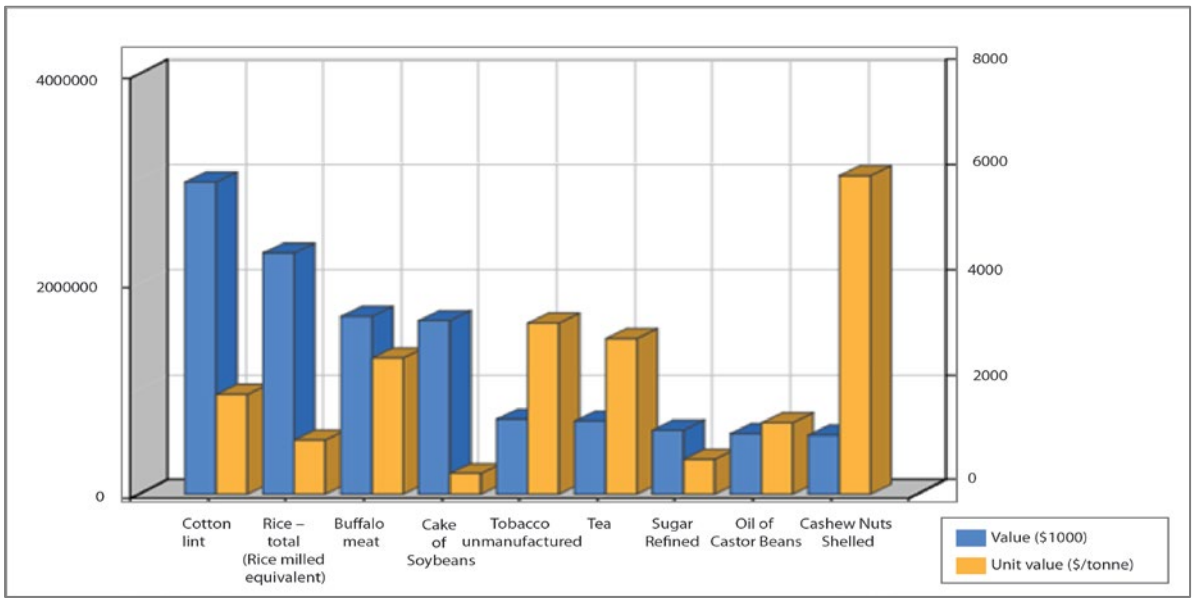


Source: FAO Statistics

Table 2.3 Showing Top twenty Imports of India for the year 2010

Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Palm oil	3984751	1	3372692	1	846
2	Soybean oil	924398	3	813562	2	880
3	Beans, dry	495368	5	549240	3	1109
4	Rubber Nat Dry	166451	13	544059	4	3269
5	Cashew nuts, with shell	448829	6	445286	5	992
6	Sunflower oil	441132	7	434278	6	984
7	Peas, dry	1334712	2	431786	7	324
8	Sugar Raw Centrifugal	852040	4	374925	8	440
9	Sugar Refined	321163	8	220225	9	686
10	Pulses, nes	267389	9	212224	10	794
11	Almonds, with shell	49582	20	194307	11	3919
12	Wool, greasy	35612	25	158404	12	4448
13	Fatty Acids	186933	11	155407	13	831
14	Silk Raw	4525	72	150043	14	33159
15	Palm kernel oil	122200	15	138731	15	1135
16	Lentils	150186	14	125241	16	834
17	CmpdFeed,Oth Or Nes	35931	24	112617	17	3134
18	Dates	193467	10	95042	18	491
19	Apples	93264	16	92544	19	992
20	Bever. Dist.Alc	20453	32	86314	20	4220

Figure 2.3: India's Top Commodity Exports in 2010



Source: FAO Statistics

Table 2.4 Top 20 Agricultural Exports commodities of India for the year 2010

Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Cotton lint	1565501	4	2972199	1	1899
2	Rice – total (Rice milled equivalent)	2225391	3	2295183	2	1031
3	Buffalo meat	652790	9	1692158	3	2592
4	Cake of Soybeans	4202556	1	1652202	4	393
5	Tobacco, unmanufactured	218914	19	713117	5	3258
6	Tea	234560	18	694661	6	2962
7	Sugar Refined	915790	7	609304	7	665
8	Oil of Castor Beans	424316	11	575985	8	1357
9	Cashew Nuts Shelled	92598	30	561740	9	6066
10	Maize	2293396	2	533674	10	233
11	Onions, dry	1364337	5	465312	11	341
12	Sesame seed	321771	14	455432	12	1415
13	Groundnuts Shelled	372691	13	392065	13	1052
14	Coffee, green	177926	23	379757	14	2134
15	Chillies and peppers, dry	270148	15	347806	15	1287
16	Oil Essential Nes	16095	75	334558	16	20786
17	Spices, nes	178428	22	266452	17	1493
18	Sugar Raw Centrifugal	383307	12	248249	18	648
19	Cake of Rapeseed	920217	6	230495	19	250
20	Mangoes, mangosteens, guavas	260484	16	228654	20	878

Source: FAO Stats

Challenges at the border, behind the border and beyond the border for enhancing Pakistani exports to India

The Indian agriculture sector enjoys relative cost advantages vis-à-vis Pakistan due to economies of scale, huge agricultural input subsidies[31] and favourable regulatory regime. This comparative advantage has been viewed by many as a threat to Pakistan's agricultural competitiveness and sustainability. The sheer size of agricultural production capacity is also a source of concern especially for small land-holding farmers. According to a FAO-GIEW brief India's:

> Official estimate of 2011 aggregate cereal production indicates a record level of 232.1 million tonnes including milled rice, an increase of 5.5 % over the previous year's record harvest. Significant gains were made both in wheat and rice crops. During the marketing year 2012/13 (Apr/Mar) the country is expected to have an exportable surplus of about 13 million tonnes, comprising of rice, wheat and maize, nearly double the average of the previous five years. With high government procurement, lack of sufficient quality storage capacity is a primary concern."[32]

This huge exportable surplus will surely depress the agricultural prices in Pakistan and would be a concern for policy makers and agricultural sector related stakeholders.

India ranks second in our import partners of agricultural products. Proximity, vulnerability of Indian agriculture due to dependence on rain-fed irrigation, time differential in crop harvesting, price and supply stabilization, inter-dependence and comparative advantage in some of agricultural products offer long-term niche export market opportunities where both countries can export and thrive in most competitive products sectors.

Theoretical and empirical evidence suggests that trade liberalization create both winners and losers. The case of trade liberalization in agriculture is a bit complicated as sectoral readjustment, retraining and re-employment in agriculture sector, especially in developing countries context is sticky and would be costlier and a long-term strategic policy implementation challenge[33]. There is another argument that the liberalization in agriculture in absence of level playing field may be detrimental to the interests of small land-owning farmers and may have sever repercussions on employment and income generation opportunities. Food security, a sticky labour market, large number of labour dependent on agriculture, small farm size, inefficient agricultural markets due to fragmented value-chain and supply chain, a high number of per hectare employment ratio in developing countries, low agricultural yields and government support are distinguishing[34] factors that make a case of agricultural trade liberalization different for developing countries than in developed economies. Managed liberation is a more prudent option it seems here[35]. For example, the policy of insulating domestic agriculture from import competition would be welfare reducing for general consumers in poverty ridden countries especially people in lower two quintiles of population (poorest 40 %) who spend almost 50-70 % of their income on food. Such a policy would be poverty and malnutrition inducing for country like Pakistan where social safety nets are almost non-existent.

Challenges behind border

The real behind the border challenge would be to dismantle psychological, infrastructural and institutional barriers. Impasse in trade relations had created a big psychological and physical barrier to establish P2P, G2G and B2B interactions and networking. Devoid of normal relation and

[31] "Public investment in agriculture and with the Rashtriya Krishi Vikas Yojana given States a strong incentive to increase their involvement and their investment in agriculture. Consequently, allocation for agriculture and allied sectors as a proportion of State Plan expenditure has gone up from 4.88% in 2006-07 to 6.04% in 2010-11." Ibid

32 FAO-GIEW country brief for 2012; Available at: http://www.fao.org/giews/countrybrief/index.jsp

[33] Trade adjustment schemes for agriculture sector to compensate the losers of trade liberalization process need thorough deliberations and novel ideas.

[34] Similarly, free trade equalizes prices in the long-term, which means that the prices of agriculture produce will increase and thus would be equal everywhere. Product freshness, packaging, storage and transportation also distinguish trade liberalization of agriculture products vis-à-vis industrial products.

[35] Developed countries have managed to offset price depression by increasing productivity through structural adjustment. Australia over the 1980s to 1990s have in response to a non-level playing field was addressed through productivity gains especially for dairy, wool, wheat, eggs, lamb meat sub-sectors.

communication channels, historical logistics and business relationship diminished over time. In the absence of direct transportation links or business liaison, both markets invariably become insulated from each despite sharing long borders. State trading entities, people across the border regions and emigrant diaspora maintained minimum trading activities during the restricting trade regimes.

Thus, the normalization of trade relations will not only entail dismantling tariff, non-tariff, regulatory and procedural barriers but also establishing sustained P2P, G2G and B2B relations. Trade Promotion organizations of both countries need to hand-held the business communities for market adaptation and match-making. There is an urgent need to create institutional linkages at public and private sector stakeholders and train both officials of these institutions so that they can act as trade and investment promotion facilitating agent.

After these soft issues, the behind the border challenges would be to facilitate in business and exporting processes like to identify exportable niche products. The following check list provides the behind the border challenges for exporting agricultural products to India:

- Market Intelligence, consumers tastes, distribution and marketing channels;
- Trade policy, Preferential trade agreements, industrial policy, budget, subsidies, fiscal, monetary and investment promotions;
- Exporting Promotion and business match making opportunities;
- Visa facilitation and communication linkages;
- Import licensing, tariffs, para-tariffs, and import regulations;
- Customs procedures and processing time;
- SPS and TBT standards and certification Inspection and compliance costs and procedures;
- Documentation, labelling, packaging and storage requirements;
- Custom tariff, para-tariff, other duties and facilities charges (fines, penalties and demurrages charges);
- Transportation, logistics and cargo handling
- Freight and in-transit costs and time;
- After sale service, warranties (refund and exchanges arrangements), spare parts and inventory requirements;
- Investment, technical collaboration and joint ventures;
- Banking, insurance, foreign exchange regulations and facilities; and
- Chambers, trade association, wholesalers and retailers requirements, if any.

Though the issue of compliance of SPS measures, health, hygiene and quarantine requirements, certification, inspections, and import licensing documentations, payment of fees, services charges and duties encountered are at the border, they need to be tackled behind the border for smooth flow of exports. Hence, it is pertinent to study the regulatory, procedural and logistic challenges that would be encountered at the border before embarking on a journey of exporting agricultural products.

The following matrix lays out the import procedure, requirements and regulatory regime for exporting agricultural products to India:

Table 2.5: Import procedure, requirements and regulatory regime for exporting agricultural products to India

Import Procedure	Description
Obtaining an Import License	As per October 12, 2012 office memorandum issued by "the Food Safety and Standards Authority of India (FSSAI)"36, it has been made mandatory for food importers to get a license to conduct business with effect from February 5, 2013. An amendment has been made in Indian Food Safety and Standards (Licensing and Registration of Food Business) Regulations, 2011, All importers of Food items mandated to get import license before 4th February 2013. (Processing time is 60 days). http://www.fssai.gov.in/Portals/0/Pdf/Import_License(12-10-2012).pdf
Labeling Requirements	Date of Manufacturing two format (day, month and year) along with Julian Calendar Vegetarian / Non-vegetarian Logo Requirement for inscribing Batch number has to be preceded by a prefix such as Lot Numbers/Lot/Code Number/ Batch Number/Batch as per Food Safety and Standards Regulations, 2011 "Legal Metrology (Packaged Commodities) Rules 2011 provide an option for the labeling declaration on "a package" to be either in Hindi or in English. Even a single declaration in English is adequate to meet the requirements and the information that has to be included is the bare minimum required for consumer protection."[37]
Guidelines related to Food Import Clearance Process by FSSAI's Authorized Officers[38.] stationed at selected International Airports/ Seaports for testing Imported Food Products in Delhi, Mumbai, Chennai, JNPT, Haldra, Kolkata, ICD, DadriTuglagabad, Parparganj	Importers of Wholesale packages (including semi-finished/ intermediary food products which will be further processed to make final product & packed as pre-packaged or pre-packed food) and the Pre-packaged food or pre-packed food including multi piece package shall have minimum labelling requirements namely: Name of Food, List of Ingredients, Nutritional Information, Name and Complete Address of the Manufacturer, Net Quantity, LOT/Code/Batch number, Date of Manufacture, Best before or use by date or date of expiry, information on vegetarian or non-vegetarian logo and name and address of the importer. For Wholesale packages (including semi-finished/ intermediary food products which will be further processed to make final product and packed as pre-packaged or pre-packed food) For importers of Primary food like food grains, pulses, fruits, dry fruits, whole spices etc. imported in package, following information is to be provided: Name of Food, Name and complete address of the packer, date of packing and Name and address of the importer. In case of bulk imports, packer's information is not required.
Lab sampling and testing fees payment system	Online payment for the Lab analysis of the samples can only be accepted through online system and no demand drafts is accepted since 8th February 2012. Exporters need to have arrangements to pay online.
Banking, Insurance and remittance of funds	Till opening of banking facilities between the two countries, exporters need to make alternate arrangement for remittance of funds and transfer of instruments of shipping documents.
Transport and logistics arrangements	Lack of railway wagons, trucks and storage space constrain the flow of export goods. It would be better to coordinate well in advance the transportation and logistics of trade so preempt delay and embarrassments.

[36]Food Safety Standards Regulatory regime in India
[37] WTO Trade Policy Review India 2011: Statement / reply of Dr. Rahul Khullar, Commerce Secretary, Government Of India on 16 SEPTEMBER 2011
[38] http://www.fssai.gov.in/Portals/0/Pdf/guidelines_related_to_imported_food_clearance_process(05-04-2012).pdf

Challenges at the border

Challenges are matched with opportunities in the Indian agricultural market where there is a fragmented regulatory regime at the federal level and provincial government, and cumbersome procedural issues at the borders hamper market entry and operations. In addition to tariffs on agricultural imports, additional duties and levy are employed. These duties are sometimes announced in a state budget also. This unpredictability hurts the exporting decisions:

> To determine the "effective" applied tariff rate (i.e. basic duties and other customs duty) on a particular product, separate customs and excise tax schedules must be consulted, which adds to the complexity of the tariff. India's tariff comprises mainly ad valorem rates (some 94% of tariff lines), levied on the c.i.f. value of imports; and some alternate or specific duties (6.1% of all tariff lines). During the period under review, the average tariff rate declined: the simple average applied MFN tariff was 12% in 2010/11, down from 15.1% in 2006/07. This is reflected in a decrease in both agricultural and industrial average tariffs due to India's shift towards lower tariffs.

Table 2.6: Summary analysis of the tariff, 2006/07 and 2010/11

	2006/07 effective applied rates (MFN)			2010/11 effective applied rates (MFN)			Bound tariff
	No. of lines	Average (%)	Range (%)	No. of lines	Average (%)	Range (%)	Range (%)
Total	11,695	15.1	0-150	11,328	12.0	0-150	0-300
HS 01-24	1,466	38.2	0-150	1,433	35.1	0-150	10-300
HS 05-97	10,229	11.8	0-100	9,895	8.6	0-70	0-150
By WTO definition							
Agricultural products	1,492	36.2	0-150	1,431	33.2	0-150	10-300
Animals and products thereof	108	30.7	5-100	106	30.8	5-100	35-150
Dairy products	32	35.3	30-60	32	34.4	30-60	40-150
Fruit, vegetables, and plants	376	28.3	0-100	355	27.6	0-100	10-150
Coffee and tea	75	74.7	17.5-100	75	74.7	17.5-100	17.5-150
Cereals and preparations	138	32.8	0-90	137	30.4	0-90	35-150
Oils seeds, fats, oil, and their products	204	42.7	0-100	196	18.5	0-100	15-300
Sugars and confectionary	38	33.4	10-60	38	33.4	10-60	45-150
Beverages, spirits, and tobacco	122	73.1	10-150	123	78.7	7.5-150	35-150
Cotton	11	13.2	0-30	11	5.5	0-30	100-150
Other agricultural products, n.e.s.	388	24.9	0-70	358	25.1	0-70	10-150
Non-agricultural products (incl. petroleum)	10,203	12.0	0-70	9,897	8.9	0-70	0-150
By Sector							
Agriculture, forestry and fisheries	659	29.5	0-100	621	28.8	0-100	10-150

n.a. Not applicable.

a Tariff lines with applied rates at 70% are unbound.

b ISIC Rev.2 classification. Electricity, gas, and water is excluded (1 tariff line).

Note: Calculations exclude specific rates and include the ad valorem part of alternate rates.

Source: Adopted from the WTO Trade Policy Review of India: Secretariat Report on Trade Policy

The US International Trade Center (USITC) has stated that the "economic simulations suggest that Indian agricultural tariffs reduced U.S. agricultural exports to India by $200–291 million in 2007. In the absence of Indian tariffs, total U.S. exports to India would have been 42–61 % higher"39. Similarly,

[39] USITC India: Effects of Tariffs and Non-tariff Measures on U.S. Agricultural Exports

Non-tariff measures have restricted the export of US wheat to India amounting to US$ 146 to 334 million. See the table below for more detailed analysis.

Table 2.7: India: Simulated effects of removing certain NTMs on selected U.S. food and agricultural exports, 2007

Items	Estimated tariff equivalent of NTMs	Simulated change in U.S. exports
	%	Million $
Wheat	(a)	146–334
Dairy products	27	15–20
Beverages	75	6–9
Other cereal grains	151	2–8
Meat products	8	0.08–0.10

Source: Commission economic modeling simulations.

Import licensing, labelling, certification and testing and other possible non-tariff measures40 are employed to constrain imports. Exporter of agricultural products has to meet the "technical regulations and standards" set by various Indian National Standards Setting bodies and Implementation Agencies at the border and beyond the border. The Bureau of Indian Standards (BIS) is entrusted for formulating and enforcing Bureau of Indian standards for 14 sectors. Food and Agriculture is one of the sectors. Some 18610 standards were in force and 82 % of these Indian standards (4787) are harmonized with International standards where corresponding ISO/IEC standards exist[41]. It also has mandated secretarial responsibilities for ISO technical sub-committees' including the agricultural domain of spices and condiments, raw hides and skins, and tanned leather)[42]. The Ministry of Commerce India has also notified "BIS as the national WTO TBT enquiry point for disseminating information on standards, technical regulations, and certification."[43] BIS is also entrusted the responsibilities of Certification and Conformity Assessment procedures. Accreditations of laboratories are entrusted to the National Accreditation Board for Testing and Calibration Laboratories (NABL)- an autonomous agency of the Science and Technology Department. Labelling is regulated under the Legal Metrology Act 2009 and the Legal Metrology (Packaged Commodities) Rules 2011 in force since 1 April 2011. Labelling requirement throughout the Indian states is harmonized. Labelling must contain information which should include "name, trade name or description of food contained in the package; ingredients used; name and address of manufacturer or importer; net weight or measure of volume (in accordance with the metric system based on the international system of units) of contents; item/package sale price (MRP Rs __) (inclusive of all taxes); month and year of manufacture or packaging; date of expiry ; licence number where relevant; and name, address or e-mail if available of person or office to be contacted in case of a complaint. For products containing natural flavouring substances, the common name of the flavours should be mentioned on the label. The label should also indicate the animal origin of gelatine in products that contain it. The Ministry of Health and Family Welfare has recently notified the quantitative ingredient declaration requirement as an additional labelling requirement for food. More specific labelling requirements exist for specified products, such as infant milk substitutes and infant foods, bottled mineral water, and milk products"[44]. Labels in English suffice but some regional states require labels in local languages. Food containing Genetically Modified (GM) must display information on product labels but also need import authorization and approval of the Genetic Engineering Approval Committee.

SPS regulations are enforced by various government agencies. WTO Secretariat in its report for the Trade Policy Review of India 2011 has compiled the list of legislation and implementing institution of the SPS measures.

40 "State trading is also used as a policy tool, said to ensure, inter alia, a "fair" return to farmers, food security, the supply of fertilizer to farmers, and the functioning of domestic support price systems(WTO Trade Policy Review of India).
41 BIS Annual Report 2010-11
42 For details see www.bis.org.in
43 WTO Trade Policy Review of India 2011 WTO Secretariat Report
44 WTO Trade Policy Review of India 2011 WTO Secretariat Report

Table 2.8: India's SPS legislation, 2011

Legislation	Description	Implementing institution
Prevention of Food Adulteration Act 1954	Aims to protect consumers against the supply of adulterated food. It specifies minimum quality level standards for various food products. The Act is mandatory; infringement may lead to fines and imprisonment	Central Committee for Food Standards under the Directorate General of Health Services (Ministry of Health and Family Welfare)
Essential Commodities Act 1954	Regulates the manufacture, commerce, and distribution of essential commodities, including food. A number of control orders have been formulated under the provisions of this Act	Central and state government agencies
Fruit Products Order 1955	Regulates the manufacture and distribution of all fruit and vegetable products, sweetened aerated waters, and vinegar and synthetic syrups. The manufacture or re-labeling of products require a licence from the Ministry for Food Processing Industries, which is granted when the quality of products, sanitation, personnel, machinery, and equipment and work area standards are satisfactory	Ministry for Food Processing Industries
Solvent Extracted Oils, De-oiled Meal, and Edible Four Control Order 1967; Vegetable Products Control Order 1976	These orders control the production and distribution of solvent extracted oils, de-oiled meal, edible flours, and hydrogenated vegetable oils (vanaspati). Production and distribution of the above-mentioned products require a licence, which is granted when products conform to the specifications laid down in the schedules. The Directorate also regulates the price of vanaspati	Directorate of Vanaspati, Vegetable Oils, and Fats under the Department of Food and Public Distribution (Ministry of Consumer Affairs, Food, and Public Distribution)
Meat Products Control Order 1973	Regulates the manufacture, quality, and sales of all meat products	Directorate of Marketing and Inspection under the Department of Agriculture and Cooperation (Ministry of Agriculture)
Milk and Milk Product Order 1992	Provides for setting up an advisory board to advise the Government on the production, sale, purchase, and distribution of milk powder. Units with installed capacity for handling milk of over 10,000 litres per day, or milk products containing milk solids in excess of 500 tonnes per year, are required to register with the Department of Animal Husbandry and Dairying	Department of Animal Husbandry Dairying, and Fisheries (Ministry of Agriculture)
Livestock Importation Act 1898 (amended in 2001)	Allows the Central Government to regulate, restricts, or prohibits import of animal and animal products into India	Department of Animal Husbandry, Dairying, and Fisheries (Ministry of Agriculture)
Destructive Insects and Pests Act 1914	Regulates import of plants to prevent introduction into and the transport from one State to another in India of any insects, fungus or other pest that is or may be destructive to crops	Directorate of Plant Protection, Quarantine and Storage (Ministry of Agriculture)
Plant Quarantine (Regulation of Import into India) Order 2003	It regulates the import of plants and plant materials	Plant Quarantine Division in the Ministry of Agriculture
Standards on Weights and Measures (Packaged Commodities) Rules 1977	They lay down certain obligatory conditions for all commodities in packed form, with respect to declarations on quantities contained	Directorate of Weights and Measures under Department of Consumer Affairs (Ministry of Consumer Affairs, Food, and Public Distribution)

Source: WTO Trade Policy Review of India 2011 WTO Secretariat Report

However, after the establishment of the Food Safety and Standards Authority of India (FSSAI), in July 2008, the FSSAI acts as a single reference point for all matters relating to food safety and standards, including licensing and registering businesses selling or importing food for human consumption, and regulating food manufacturing practices and labeling. "Imports of animal products into India require sanitary import permits issued by the Department of Animal Husbandry, Dairy and Fisheries; permits must be obtained prior to shipping from the country of origin. The Department approves or rejects the application after an import risk analysis on a case-by-case basis. Permits are valid for six months and may be used for multiple consignments. A sanitary import permit is not a licence, but a certificate verifying that India's sanitary requirements are fulfilled. Some imports of animal products also require an import licence issued by the Director-General of Foreign Trade (section (2)(vi)). Imports of animal products are only allowed through designated ports where animal quarantine and certification services are available (Amritsar, Bangalore, Chennai, Delhi, Hyderabad, Kolkata, and Mumbai). Imports of fish products are allowed through the port of Vishakhapatnam (in the State of Andhra Pradesh) and the land custom station at Petrapole (for imports from Bangladesh only)."[45]

Similarly, imports of plants and plant material are subject to production of a Phyto-sanitary certificate issued by the national plant protection organization of the exporting country and an import permit issued by the officer-in-charge of the plant quarantine station. "Plants and seeds that require post entry quarantine are listed in Schedules V and VI of the PQ Order 2003. These plants and seeds have to be grown in post entry quarantine facilities established by and at the cost of the importer, and approved and certified by the inspection authority. The quarantine period is determined based on the type of plant materials and time taken by the plant material to grow to the stage where symptoms of diseases appear."[46]

Export procedural requirements include obtaining an Export Import Code (EIC), business identification number, shipping bills (and other clearance documents which may include import permits, SPS certificates etc.). The World Bank has estimated that export procedures cost on average US$ 945 per container (with documents preparation (US$350) and customs clearance (US$120).[47]

Application of non-tariff measures by importing countries is a sophisticated method to restrict imports. Even the reputation of too much application of NTMs discourages the exporters and creates uncertainty in the business exchanges. The challenges at the border are a myriad as the Pakistani exporter needs to overcome infra-structural and regulatory barriers. For example, obtaining a license means adding costs and resources. The report prepared by the Office of Agricultural Affairs of the USDA/Foreign Agricultural Service in New Delhi, India, for US exporters of domestic food and agricultural products has raised the point that new regulations would add costs, time and procedures for clearance of shipments as "current staffs are relatively limited and food import volumes are currently high in the lead up to India's festival season. Exporters should work closely with importers to clearly understand port clearance procedures in the event of delays in clearing shipments. Companies may need to plan for costs such as port storage and power charges as part of their transaction[48]."

A check-list for the potential issues that may come up at the Border includes:

- Shipping documents, Custom valuation, sampling and inspection requirements;
- Customs clearance charges, fees, and payment (mechanisms) facilities;
- Complying with SPS, TBT and regulatory requirements (like labelling, packaging, storage and handling)
- Customs clearing and facilitation agents (who can help to comprehend the Custom Regulations, duties and procedures and facilitate the clearing of shipments well in time)
- Efficient Grievance Redressal Mechanisms
- Banking and insurance facilities
- Cargo storage, handling and movement of cargo for inland transportation
- Bill or Instruments for Payment for exports (letter of credit, Bill of lading)

45WTO Trade Policy Review of India 2011 WTO Secretariat Report
46Plant Quarantine (Regulation of Import into India) Order 2003
47World Bank/IFC Doing Business (http://www.doingbusiness.org)
48http://gain.fas.usda.gov/Recent%20GAIN%20Publications/FSSAI-Towards%20Implementing%20Food%20Safety%20Standards%20in%20India_New%20Delhi_India_11-3-2010.pdf

- Transportation network.

Most of the agricultural exporters are small traders or growers and lack Information technology skills in Pakistan. Filling out paperless electronic customs clearance may be a potential challenge at the border. It is important to know that to import commercially, importer need to file an online a request for registration with the office of the Directorate General of Foreign Trade (DGFT) to get an IEC (import export code). Prior filling of bill of entry helps in faster clearance[49]. Electronic data interchange (EDI) inter-links and integration is in process, till that time manual processing of customs documents would be done. Pakistan and India has Customs Cooperation Agreement that will help in long-term to automate the filing and processing of shipping documents. Joint cargo inspections or recognition of cargo inspection of customs authority may offset the procedural difficulties in beginning of the trade liberalization period. Pakistan has to put in place the quarantine and inspection facilities for agricultural imports and exports to India. India has elaborate SPS and quarantine and inspection infrastructure and systems. Indian Customs Authorities has introduced Risk management system (RMS) for prompt disposal of screening of cargo. Pakistan and Indian Customs Authorities need to introduce RMS so that importers with good record and credibility "under the Accredited Client's Programme (ACP) can avail this quick processing facility50 thus reducing the time and hassle at the border. "As at early 2011, 250 ACP importers are allowed to self-assess their consignments with no need for examination, in line with India's commitments to simplify and harmonize Customs' procedures under the revised Kyoto Convention.[51] Under the RMS, importers file an electronic bill of entry and the system indicates which import certificates, permits, or licences are required. The RMS reviews the documents and provides one of four possible instructions for both ACP (if cargo is considered risky) and non-ACP importers: (a) imports may be discharged without further assessment (i.e. of their classification, rate of duty or valuation) or examination; (b) imports may be cleared with no further assessment but subject to examination; (c) the release of imports requires further assessment but no examination; or (d) imports must be assessed and examined.[52] Customs clearance has been more efficient since 2007: on average, import procedures are completed in 20 days (41 days in 2007), including 8 days for document preparation and 4 days for customs clearance and technical inspections. The cost per container is US$960, including preparing documents (US$390) and clearing customs (US$120).[53] The implementation of the EDI system in 1994[54], and the RMS in 2005 at India's major customs offices, has helped to render border procedures more efficient. EDI facilities have been extended to 92 locations and all major customs ports. The number of documents processed through the EDI increased from 3.2 million in 2008/09 to 8 million in 2010/11 (as at December 2010).[55], [56]

In order to avail preferential tariff concession, exporters need to know that Rule of Origin documentation requirements and proper certificates are obtained. Since, only value-added agricultural products will come under such systems otherwise it is hard to establish that the inputs like seeds, fertilizer etc. were of SAFTA origin.

Challenge beyond borders

The challenges beyond borders can be categorized as under:

- Establishing and maintaining contacts with local businessmen and regulatory agencies;
- Keep track of business trends, consumers tastes and regulatory changes;

[49]Department of Valuation online information, "Procedure for Clearance of Imported and Export Goods".Viewed at: http://www.dov.gov.in/newsite3/clearance_procedure.asp.
[50] Qualifying criteria include, *inter alia*: (i) the value of imports must be at least Rs 100 million or customs duties paid must be at least Rs 10 million, in a financial year; (ii) at least 25 bills of entry must have been submitted in a financial year; (iii) there must be no case of tax violation during the last three financial years; (iv) there must be no duty demand pending on account of non-fulfilment of export obligations; and (iv) the importer must have a reliable system of record keeping and internal controls (Customs Circular No. 42/2005, 24 November 2005. For Customs Notifications, Circulars, and Instructions, see Central Board of Excise and Customs online information. Viewed at: http://cbec.gov.in/cae1-english.htm).
[51] Customs Circulars Nos. 42/2005 and 43/2005, 24 November 2005; andChaturvedi (2009).
[52] Customs Circular No. 43/2005, 24 November 2005.
[53]World Bank/IFC Doing Business online information.Viewed at: http://www.doingbusiness.org.
[54]Comptroller and Auditor General of India (2002), Chapter 2: Indian Customs: Electronic Data Interchange System.
[55] Information provided by the authorities.
[56] WTO Trade Policy Review of India 2011: Document prepared by the Secretariat on "TRADE POLICIES AND PRACTICES BY MEASURE"

- Financial, insurance and banking facilities;
- Transportation and trade facilitation;
- Harmonization of standards, procedures and inspection mechanisms;
- G2G, P2P and B2B interactions and networking;
- Managing export competitiveness (trade policy and preferential trade agreements, subsidies, antidumping and countervailing regulations and foreign exchange requirements);
- Sustaining business and trade interactions and volume;
- Maintaining B2B interaction to enhance business confidence
- Export Marketing and Development Strategy
- Trade and Transport Facilitation: Procedural, Transport infrastructure, Logistics and Banking Issues
- Standards, Certifications and Conformity Assessment Recognition Issues

Export Marketing and Development Strategy

With the normalization of trade relations with India, and in wake of opportunities and challenges arising from the SAFTA Tariff liberalization program, it is recommended to establish a dedicated export marketing and development (EM&D) strategy supported by the necessary wherewithal and institutional nomenclature. A special department for Regional Trade Promotion and Facilitation may be established within the Ministry of Commerce and under the ambit of Trade Development Authority of Pakistan (TDAP). Trade Development and Marketing Officers at Mumbai, Calcutta, Mumbai-Delhi Industrial Corridor and Hyderabad may be set-up to augment the Minister (Trade), Commercial Section, High Commission of Pakistan, New Delhi. Private Sector stakeholders' cooperation and participation must be institutionalized in the EM&D strategy, trade promotion and facilitation institutions and programs. A five year export marketing and promotion strategy should be vigorously pursued with active participation in Indian Trade Fairs and Exhibitions and exchange of trade delegations. Besides this, Pakistan must organize Single Country Exhibition and Export Road Shows in major commercial cities and regions of India. Furthermore, Joint Venture in production, technology transfer, R & D and entrepreneurial avenues must be explored so that the region can be positioned as a major hub of production and services for Multinational Enterprises. Cooperation in Mutual Recognition of Standards and Conformity Assessment Areas should also be enhanced to reduce the NTMS and transaction costs.

Trade and Transport Facilitation[57]: Procedural, Transport infrastructure, Logistics and Banking Issues

Pakistan and India has signed a Customs Cooperation Agreement pertaining to harmonization of customs procedures and simplifications of customs documentation and inspections systems. A Customs Liaison Border Committee (CLBC) has been established to institutionalize the customs cooperation. Processing of shipping customs documents through the EDI systems will help streamline customs procedures and ensure prompt customs clearing of export cargo. Similarly, harmonization and mutual recognition of standards, testing and certifications will also help facilitate the smooth operations and prompt clearance of export cargo. The agreement on Mutual Recognition and Conformity Assessment need to enlarge the scope of products coverage so that export of all agricultural products can be facilitated.

With respect to transportation infra-structure at Wagah-Attari, there has been some improvement with recent construction and up-date of facilities at both sides of the border: The Indian side inaugurated the Integrated Check Post and the Pakistani side opened Babe-e-Tijarat (Trade Gate). The Wagah-Attari route is the only operational inland route for transportation of goods between Pakistan and India. At present, trade between India and Pakistan through the land route is carried-out through Wagah-Attari only. Traditionally, there were other land routes for trade such as Lahore-Patti Road

[57] "international trade facilitation" is defined as the systematic simplification and standardization of international trade Procedures and associated information flows. Source: http://www.nttfc.org/reports/Pakistan%20Implications%20of%20Current%20WTO%20Proposals%20-TTFP.pdf

(Barki) Kasur- Ferozepur Road, Sahiwal- Pak pattan road, Fazilka and Khokrapar Munabao but after 1965 war these were closed. Even for the Wagah-Attari land route, Pakistan allows a limited number of products covered (137 tariff lines of Pakistan Custom Tariff at HS 8 digit classification) under the S.R.O no. 280(1)/2012 dated March 20th 2012 issued by Ministry of Commerce. Trade of these products is also hampered by non-availability of adequate customs and inspection processing facilities, train wagons availability, cold storage and other procedural and logistic constraints. Only 200 trucks can be processed at Wagah-Attari due to lack of infra-structural facilities. In year 2011, a total only 160 trucks were cleared per day, two thirds of which were Indian trucks. Similarly, only limited number of train engines and wagons has been made available due to limited capacity of Pakistan's Railways. There are issues in Railway Cooperation Agreement[58] between Pakistan and India which limits the numbers of train wagons that could be made available. Lower trade and transaction costs due to proximity would be realized only if inland transportation routes like Wagah-Attari, Khokrapar-Munabao routes are fully operational and properly equipped to handle the trade volumes[59]. "Land routes appear to have direct impact on the volume of trade. Data show that in the year 1948-49, India's share in Pakistan's exports was over 23 % while share in imports was nearly 51 %. More importantly, out of the total trade between the two countries, according to estimates, 70 % of India's imports from Pakistan and 40 % of India's exports to Pakistan during this period were by land trade rather than seaborne."[60]So the possible benefits of trade without land routes would not be capitalized. Land routes are also important avenues to establish B2B and P2P contacts and sustain long-term beneficial trade relations.

At present there is no banking and financial mechanism to facilitate bilateral trade. Trade is conducted either through indirect letters of credit or banking operations or on a cash basis. Banking and financial facilities are a pre-requisite for enhanced trade cooperation. The State Bank of Pakistan and Reserve Bank of India though signed an agreement to open bank branches but yet no progress has been witnessed in that direction. As a first step, both the reserve banks should authorize candidate banks to start accepting and facilitating the letter of credits and other trade-related financial instruments and banking transactions. India may also consider accepting letters of credits in local currency so that Pakistan dollar currency reserves are not hurt. The Government India should also show the leadership and start facilitating technology transfer and FDI flow to promote joint ventures in Pakistan.

Trade Distorting Indian Subsidies regime

Subsidies per se may not be trade distorting[61]. Subsidies may be given for production, export, imports and even for not indulging in some activities (compensation). Indirect subsidies are provided through alternative mechanism like import tariffs, application of non-tariff measures, increasing transaction costs, artificially altering the exchange rates, securing quotas and market access opportunities for selected sectors- all those steps that increases the costs and efforts of the competitor suppliers or reduce the production or selling price of a good or service.

Sometimes governments indulge for legitimate goals and provide subsidies such as social safety nets, food or nutritional security or in case of market failures or situations where it is beyond the capacity of select entity or a group to sustain the competition. Government "interventions in trade usually take place for income distribution, for the promotion of industries thought to be crucial to the economy, or for balance of payments."[62] Subsidies, if they alter the price mechanisms and put the competitors in unfair disadvantages position, would be trade distorting and yield inefficient allocation of resources. "The distinctive feature of tariffs and export subsidies is that they create a difference between prices at which goods are traded on the world market and prices at which those goods can be purchased within a country. The direct effect of a tariff is to make imported goods more expensive inside a country than they are outside the country. An export subsidy gives producers an incentive to

[58] Under the Agreements Relating to Rail Communication between India and Pakistan 2003, both countries will observe zero balance of wagons.

[59]Pakistan-India share almost 2900 kms of border besides possible trade routes Kashmir LoC border crossing. Pakistan enjoys a strategic location in the region connecting China, Central Asian States, India, Afghanistan and Iran. Thus, Pakistan can be a regional hub of transit and trade connectivity. Competing interest can be turned into complementing and a win-win situation by focusing on joint production and marketing of the products in a long-term perspective. For example, Afghanistan is the second biggest market for Pakistan and providing access to India through transit facilities would undermine Pakistan's business interest.

[60] CUTS Briefing Paper No. 5/2012 on "Indo-Pak Trade: A Visit to Historical Relations" by Tridivesh S Maini and Manish Vaid available @ www.cuts-citee.org

[61] In WTO parlance, the subsidies are coded by the colours of traffic lights: green (permitted), amber (slow down — i.e. be reduced), red (forbidden).@ http://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm

[62] International Economics : Theory and Practice by Paul R. Krugman, Maurice Obstfeld and Marc J. Melitz

export. It will therefore be more profitable to sell abroad than at home unless the price at home is higher, so such a subsidy raises the prices of exported goods inside a country."[63]

Some OECD countries have been blamed for Agricultural trade distorting policies, like export and production subsidies on agriculture[64]. The Doha Development Agenda (DDA) multilateral trade negotiations failure has been attributed on this economically trade distorting but politically sensitive issue of agricultural trade liberalization. Many developing countries assert that agricultural subsidies in rich countries affect the poor farmers living thousands of miles away. "Agricultural protection and subsidies in high-income (and some middle-income) countries have been depressing international prices of farm products for many decades, thereby lowering the earnings of farmers and associated rural businesses in developing countries (Johnson 1991; Tyers and Anderson 1992). Those policies almost certainly add to inequality and poverty, since three-quarters of the world's poorest people depend directly or indirectly on agriculture for their main income (World Bank 2007). Currently less than 15 million relatively wealthy farmers in developed countries, with an average of almost 80 hectares per worker, are being helped at the expense of not only consumers, taxpayers, and producers of other tradables in those rich countries but also the majority of the 1.3 billion relatively impoverished farmers and their large families in developing countries who, on average, have to earn a living from just 2.5 hectares per worker."[65](Anderson 2012).

Similarly, agricultural subsidies by relatively advanced developing countries like India impact the farmers in smaller and least developed economies. India driven by concern of social and food security uses domestic agricultural policy tools like cheap input costs through subsidies for fertilizers, transportation, storage and border measures to insulate domestic agricultural markets through tariffs, quotas, non-tariff measures and regulate prices and guarantee domestic supply to offset seasonal shortages. These measures entail costs to the governments and thus presents trade-off of government's spending choice. "Irrigation and electricity, on the other hand, are supplied directly to farmers by GOI at prices that are below the cost of production. These policies result in effective subsidies to the farmer of 40 to 75 % for fertilizer and 70 to 90 % for irrigation and electricity." (Grossman and Carlson 2011)

Table 2.91: Agriculture sector schemes/programmes, 2011

Programme/Scheme	Budget allocation[a]	Purpose
National Mission for Sustainable Agriculture	No budget allocation[b]	Seeks to address issues of "sustainable agriculture" in the context of climate change by devising appropriate strategies for ensuring food security, enhancing livelihood opportunities, and contributing to economic stability at national level
Macro Management of Agriculture	Rs 55 billion	Launched in 2000-01: seeks to supplement and complement the efforts of the states towards enhancement of agricultural production and productivity (through soil nutrition, pest management, and watershed development); assistance provided in the form of grants to the states/union territories on 90:10 basis, except for the north-eastern states/union territories where the Central share is 100%
National Food Security Mission (NFSM)	Rs 48.2 billion	Launched in 2007-08: seeks to increase production of rice, wheat, and pulses by 10 million tonnes, 8 million tonnes, and 2 million tonnes, respectively, by the end of the 11th Five-Year Plan; assistance in the form of grants
RashtriyaKrishiVikasYojana (RKVY)	Rs 250 billion	Launched in 2007-08: seeks to promote public investment by the State as to achieve a 4% growth rate in agriculture and allied sectors during the

[63] Ibid
[64] OECD: Rich Countries Raised Farm Subsidies in 2009 published in Bridges Weekly Trade News Digest© published by the International Centre for Trade and Sustainable Development (ICTSD)
[65]Contributions of Trade Reforms to Agriculture's Globalization by Kym Anderson (2012) University of Adelaide, Australian National University, and CEPR (Anderson 2012)

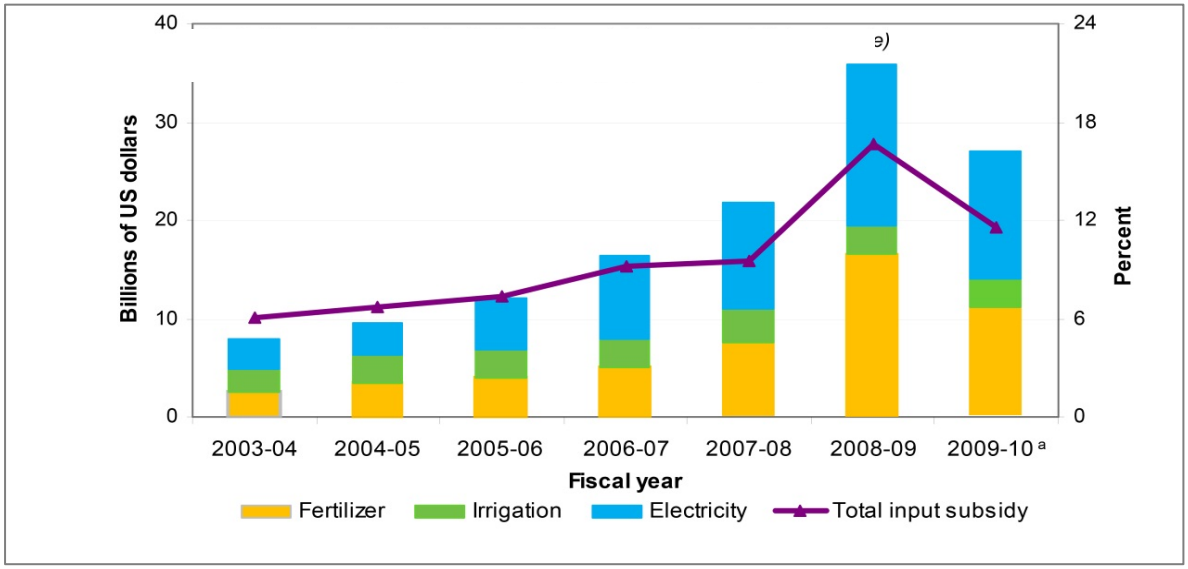
		11th Five-Year Plan; assistance in the form of grants to the states
Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	Rs 14.7 trillion[c]	Implemented in 2006 to guarantee wage employment to rural households; the programme, stipulated in the Act, is being implemented in 625 rural districts
Integrated Scheme of Oilseeds, Pulses, Oil Palm, and Maize (ISOPOM)	Rs 1.5 billion	Launched in 2004-05: seeks to promote crop diversification; assistance provided for purchase of seeds, plant protection chemicals and equipment, and other materials
Drought management	Financed through the National Calamity Relief Fund[d]	Assistance provided in emergency situations such as droughts
Centrally sponsored National Mission on Micro Irrigation (NMMI)	Rs 34 billion	Launched in 2010/11: seeks to enhance efficient use of water through drip and sprinkler irrigation systems in all states and union territories for horticulture and agricultural crops

A Information provided by the Indian authorities. B The programme has not been implemented. C For the 11th Five-Year Plan 2007/12.d Outlay from the 11th Five-Year Plan.

Source: WTO Trade Policy Review of India 2011: WTO Secretariat Report for the TPRM

India's expenditure on input subsidies has increased sharply in recent years. The cost of India's agricultural input subsidies as a share of agriculture output almost doubled from 6.0 % in 2003-042 to 11.6 % in 2009-10, driven mostly by large increases in the subsidies to fertilizer and electricity.

Figure 2.4: Cost on input subsidies in India in billions of dollars and share of India agriculture output



Source: USITC

Note: Cost on input subsidies in India in billions of dollars (bar, left hand scale) and share of India agriculture output (line, right hand scale)

Indian agricultural is not sustainable on multiple counts. Financially, subsidies are not viable to continue indefinitely. The unintended consequences of the fertilizer subsidy were overuse and mal-nutrition of other micro-nutrients. "The partial decontrol of fertilizer sector which has led to an unprecedented increase in prices of phosphatic (P) and potassic (K) fertilizers (about 160% in DAP

and 280%in MOP) and relatively cheaper nitrogenous (N) fertilizers, led to sharp fall in consumption of P and K fertilizers, thereby imbalance in use of N, P and K nutrients."(Sharma 2012)

In the Indian Economic Outlook 2012/13, the Prime Minister's Economic Advisory Council (PMEAC) recommended that:

> Subsidies are progressively losing their relevance and are becoming an unbearable fiscal burden so a beginning can be made in dismantling the fertilizer subsidy". A study conducted by Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad has studied the impact of withdrawal of the fertilizer subsidies. The study concludes that "if fertilizer subsidies are withdrawn in one go it is going to have very severe adverse effect on net income of rice and wheat farmers in many States and consequently farming would become unprofitable, leading to a serious agrarian crisis. An optimistic view on the role of market forces and imports in fertilizer pricing and distribution and removal of the fertilizer subsidy would eventually lead to increased exposure to volatile global markets and compromise on social goals of poverty reduction, self-sufficiency and equity. Therefore, there is a need to have long-term consistent fertilizer policy without compromising food security and livelihood of millions of smallholders in the country.

India's budget for the year 2012-13 maintained that "subsidies related to administering the Food Security Act will be fully provided for"[66]; yet it will "endeavour to keep central subsidies under 2 %of GDP in 2012-13. Over the next 3 years, to be further brought down to 1.75 per cent, a mobile-based Fertilizer Management System has been designed to provide end-to-end information on the movement of fertilisers and subsidies." [67]

Incentives for agriculture sector include:

- Plan Outlay for Department of Agriculture and Co-operation increased by 18 %.
- Outlay for Rashtriya Krishi Vikas Yojana (RKVY) increased to `9,217 crore in 2012-13.
- Initiative of Bringing Green Revolution to Eastern India (BGREI) - Allocation for the scheme increased to `1,000 crore in 2012-13 from `400 crore in 2011-12.
- `300 crore to Vidarbha Intensified Irrigation Development Programme under RKVY.
- `2,242 crore project launched with World Bank assistance to improve productivity in the dairy sector.`500 crore provided to broaden scope of production of fish to coastal aquaculture.

All other schemes to be merged into the following six schemes:

- National Food Security Mission
- National Mission on Sustainable Agriculture including Micro Irrigation
- National Mission on Oilseeds and Oil Palm
- National Mission on Agricultural Extension and Technology
- National Horticultural Mission
- National Mission for Protein Supplement

Agriculture credit

- Short term RRB credit refinance fund being set up to enhance the capacity of RRBs to disburse short term crop loans to small and marginal farmers.
- Interest subvention scheme for providing short term crop loans to farmers at 7 %interest per annum to be continued in 2012-13. Additional subvention of 3 %available for prompt paying farmers.
- Target for agricultural credit raised by `1,00,000 crore to `5,75,000 crore in 2012-13.

[66]Key Features of Budget 2012-2013. Available at: http://indiabudget.nic.in
[67]Key Features of Budget 2012-2013. Available at: http://indiabudget.nic.in

- Kisan Credit Card (KCC) Scheme to be modified to make KCC a smart card which could be used at ATMs.

Agricultural Research

- Sum of `200 crore set aside for incentivising research with rewards.

Irrigation

- Structural changes in Accelerated Irrigation Benefit Programme (AIBP) being made to maximise flow of benefit from investments in irrigation projects.
- Allocation for AIBP in 2012-13 stepped up by 13 % to `14,242 crore.
- Irrigation and Water Resource Finance Company being operationalized to mobilise large resources to fund irrigation projects.
- A flood management project approved by Ganga Flood Control Commission at a cost of `439 crore for Kandi sub-division of Murshidabad District.

National Mission on Food Processing

- A new centrally sponsored scheme titled "National Mission on Food Processing" to be started in 2012-13 in co-operation with State Governments.
- Steps taken to create additional food grain storage capacity in the country.

Similarly, credit availability to Indian farmers is subsidizing the costs of inputs. "Farmers have been receiving crop loans up to a principal amount of INR 3 lakh at 7 %rate of interest since 2006-07. In 2009-10, government provided an additional 1 %interest subvention to those farmers who repaid their short-term crop loans as per schedule. This subvention was raised to 2 %in 2010-11 and further to 3 %in 2011-12. Thus the effective rate of interest for such farmers will be 4 %per annum."[68] Also, the access to agricultural credit has consistently improved and the flow "of agricultural credit in the year 2010-11 was 119 % of the target. "The target of credit flow for the year 2011-12 has been fixed at INR 4,750,000 million." "Initiative has been taken to provide kisan credit cards (KCC) to provide adequate and timely credit support to farmers for their cultivation needs. About 107.8 million KCCs had been issued up to October 2011."[69]

In addition to the central government, States and Farmers Cooperative also provide support to farmers. Pakistani growers and farmers are claiming that without a level playing field, Pakistani agricultural will not be competitive thus impacting income, employment and agricultural sustainability of the vital sector.

Indian Non-tariff Measures or Barriers (NTB)

NTBs are mechanisms (mostly in guise of SPS, TBT and Customs Valuation requirements) adopted by host country to restrict the imports by creating additional procedural, inspection and testing, certification and conformity requirements. WTO rules do permit member countries to adopt measures to protect human, animal, plant life, and environment; or to regulate the quality of imports; to prevent deceptive practices or safeguard national security interests. However, the intent of these rules should not be to restrict imports or discriminate between the domestic and foreign suppliers. Formulation of such rules should adhere to established principles and practices of International Standards Organizations' and the science. It is pertinent to clarify here that in order to establish that a certain regulation, policy, standard, procedures, certification, packaging, labelling, import or export restraint as an NTB or NTM, trading partner has to demonstrate that the newly adopted measures is violating the concept of non-discrimination (MFN and National Treatment principles) and inconsistent with the GATT 1994 Agreement obligations and commitments (WTO Agreements especially SPS, TBT, Customs Valuations, Pre-Shipment Inspection etc.).

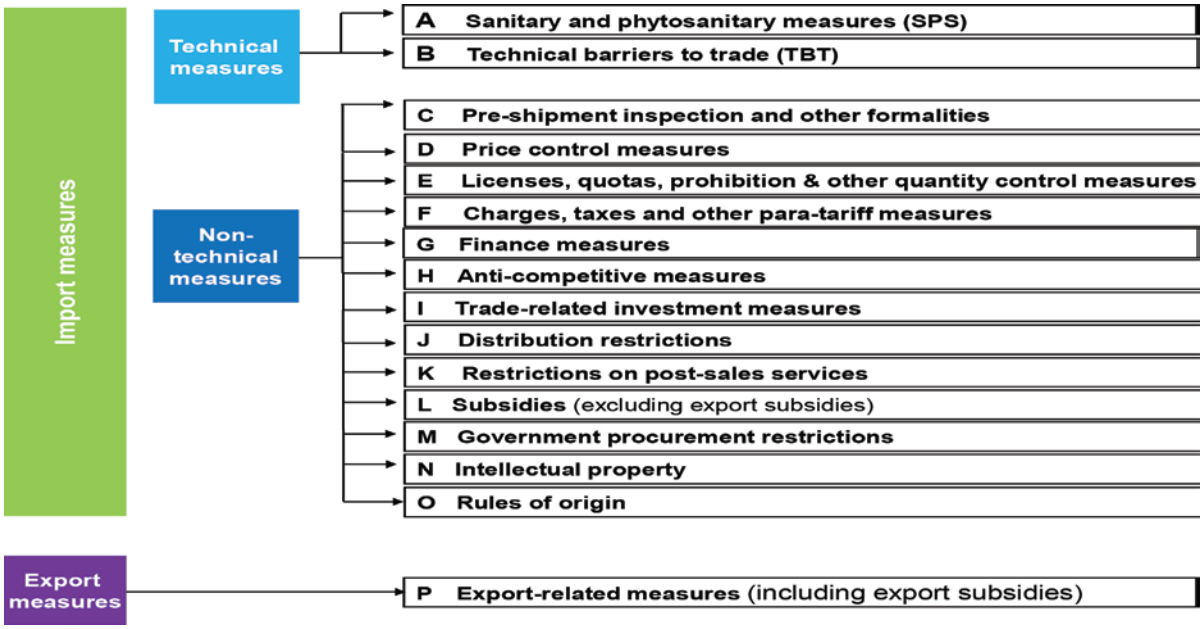
Not all procedural requirements therefore qualify as NTMs. For instance, on 6 March 2007 United States of America lodged a complaint under the WTO dispute settlement understanding that imposition "additional duties" or "extra additional duties" by India on imports including (but are not

[68]Economic Survey of India 2012-13: Chapter on Agriculture, p.194
[69] Ibid

limited to) of wines and distilled products (HS2204, 2205, 2206 and 2208) constitutes a NTM and claims that the measures are inconsistent with Articles II: 1(a) and (b), and III:2 and III:4 of the GATT 199470. The DSB (Appellate Body) found these "extra-additional duty would not be justified under Article II:2(a) of the GATT 1994 insofar as it results in the imposition of charges on imports in excess of the sales taxes, value-added taxes, and other local taxes or charges that India alleges are equivalent to the Extra-Additional Duty; and, consequently, that this would render the Extra-Additional Duty inconsistent with Article II:1(b) to the extent that it results in the imposition of duties in excess of those set forth in India's Schedule of Concessions."[71] Thus, the mere assertions that import regulations or requirements constitute as NTMs need to be established under the WTO laws. One of the contentious issues between India and Pakistan trade normalization is NTBS[72] applied by India on Pakistan's exports. Almost 100 % of the respondents of stakeholder consultation survey conducted for this research study attributed Indian procedures, import regulations and certification requirements as big hurdle in exporting to India. Other trading partners also allege that India maintains complicated import procedures and systems that constitute as NTMs. USTR 2012 in its annual report on "TBT measures maintained by US trading partners" states that labelling requirement by India "such as various formatting requirements and a requirement that flavours be listed on the front of the product container, are inconsistent with the Codex General Standard for the labelling of pre-packaged Foods."

Many countries resort to NTMs to insulate their domestic markets, production from import competition. "NTMs are more diverse and less transparent, but can also represent a significant barrier to entry into a particular market. Among the most important of these NTMs in food and farm product trade are SPS measures".[73] UNCTAD defines NTMS as "policy measures, other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both" （UNCTAD，2012. UNCTAD has classified various types of NTMs in 16 chapters from A to P. Each chapter code is categorized by three digits like A000 for exact description and code.

Table 2.9.2: Classification of Non-Tariff Measures



Sources: UNCTAD 2012 NTM classification

[70] USTR press release @ http://www.ustr.gov/about-us/press-office/press-releases/archives/2007/march/united-states-files-wto-case-against-india-

[71] DISPUTE SETTLEMENT: DISPUTE DS360- India — Additional and Extra-Additional Duties on Imports from the United States available @ http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds360_e.htm

[72] Fundamental principles of the agreement include requirements that importing countries: Measures be based on scientific evidence and backed up by scientific risk assessments; Not discriminate against products from other countries when the same health situation exists from permitted suppliers; recognize products from pest- and disease-free areas in exporting countries; recognize systems in exporting countries that meet health and safety standards through equivalent measures; employ measures that are least-restrictive to trade; and meet specific transparency and procedural fairness standards". Source: www.wto.org

[73] Roberts, Tim Josling and Donna. Measuring the Impact of SPS Standards on Market Access. OECD, 2011.

For illustration of NTMs refer to UNCTAD's 2012 REPORT, Classification of Non-tariff measures.[74]

Quantification of Indian NTMs as measured by the World Bank's WITS database

WITS[75] provide access to tariff analysis and non-tariff measures maintained by the host countries. An analysis of NTMs for India using the WITS database reveal that India maintains 306 NTMs for Agricultural Sector (HS Chapter 1 to 24) against its trading partners. These NTMs mainly include Minimum Import pricings, Import Licensing, Decreed Customs Valuations, State trading requirements, Anti-competitive measures, export related measures and Rules of Origin.

Country	NTM Code	NTM Description	Product Code	Year	Start Month
India	D110	Min. import prices	1	2012	12
India	D110	Min. import prices	2	2012	12
India	D110	Min. import prices	3	2012	12
India	D110	Min. import prices	4	2012	12
India	D110	Min. import prices	5	2012	12
India	D110	Min. import prices	6	2012	12
India	D110	Min. import prices	7	2012	12
India	D110	Min. import prices	8	2012	12
India	D110	Min. import prices	9	2012	12
India	D110	Min. import prices	10	2012	12
India	D110	Min. import prices	11	2012	12
India	D110	Min. import prices	12	2012	12
India	D110	Min. import prices	13	2012	12
India	D110	Min. import prices	14	2012	12
India	D110	Min. import prices	15	2012	12
India	D110	Min. import prices	16	2012	12
India	D110	Min. import prices	17	2012	12
India	D110	Min. import prices	18	2012	12
India	D110	Min. import prices	19	2012	12
India	D110	Min. import prices	20	2012	12
India	D110	Min. import prices	21	2012	12
India	D110	Min. import prices	22	2012	12
India	D110	Min. import prices	23	2012	12
India	D110	Min. import prices	24	2012	12
India	E100	Import license	1011010	2012	8
India	E100	Import license	1011020	2012	8
India	E100	Import license	1011090	2012	8
India	E100	Import license	1019010	2012	8
India	E100	Import license	1019020	2012	8
India	E100	Import license	1019090	2012	8
India	E100	Import license	1021010	2012	8

[74] UNCTAD, (2012) Classification of Non-tariff measures http://unctad.org/en/PublicationsLibrary/ditctab20122_en.pdf

75 The World Integrated Trade Solution (WITS) is software developed by the World Bank, in close collaboration and consultation with various International Organizations including UNCTAD, ITC, United Nations Statistical Division (UNSD) and WTO.

India	E100	Import license	1021020	2012	8
India	E100	Import license	1021030	2012	8
India	E100	Import license	1021090	2012	8
India	E100	Import license	1029010	2012	8
India	E100	Import license	1029020	2012	8
India	E100	Import license	1029090	2012	8
India	E100	Import license	1031000	2012	8
India	E100	Import license	1039100	2012	8
India	E100	Import license	1039200	2012	8
India	E100	Import license	1041010	2012	8
India	E100	Import license	1041090	2012	8
India	E100	Import license	1042000	2012	8
India	E100	Import license	1051100	2012	8
India	E100	Import license	1051200	2012	8
India	E100	Import license	1051900	2012	8
India	E100	Import license	1059400	2012	8
India	E100	Import license	1059900	2012	8
India	E100	Import license	1061100	2012	8
India	E100	Import license	1061200	2012	8
India	E100	Import license	1061900	2012	8
India	E100	Import license	1062000	2012	8
India	E100	Import license	1063100	2012	8
India	E100	Import license	1063200	2012	8
India	E100	Import license	1063900	2012	8
India	E100	Import license	1069010	2012	8
India	E100	Import license	1069020	2012	8
India	E100	Import license	1069090	2012	8
India	E100	Import license	2011000	2012	8
India	E100	Import license	2012000	2012	8
India	E100	Import license	2013000	2012	8
India	E100	Import license	2021000	2012	8
India	E100	Import license	2022000	2012	8
India	E100	Import license	2023000	2012	8
India	E100	Import license	2061000	2012	8
India	E100	Import license	2062100	2012	8
India	E100	Import license	2062200	2012	8
India	E100	Import license	2062900	2012	8
India	E100	Import license	2063000	2012	8
India	E100	Import license	2102000	2012	8
India	E100	Import license	3011000	2012	8
India	E100	Import license	3019100	2012	8
India	E100	Import license	3019200	2012	8
India	E100	Import license	3019300	2012	8

India	E100	Import license	3019400	2012	8
India	E100	Import license	3019500	2012	8
India	E100	Import license	3019900	2012	8
India	E100	Import license	4070010	2012	8
India	E100	Import license	4070020	2012	8
India	E100	Import license	4070090	2012	8
India	E100	Import license	4100020	2012	8
India	E100	Import license	4100090	2012	8
India	E100	Import license	5040010	2012	8
India	E100	Import license	5040039	2012	8
India	E100	Import license	5040049	2012	8
India	E100	Import license	5040059	2012	8
India	E100	Import license	5111000	2012	8
India	E100	Import license	5119190	2012	8
India	E100	Import license	5119929	2012	8
India	E100	Import license	5119991	2012	8
India	E100	Import license	5119999	2012	8
India	E100	Import license	6012090	2012	8
India	E100	Import license	6022020	2012	8
India	E100	Import license	7011000	2012	8
India	E100	Import license	9091011	2012	8
India	E100	Import license	9091021	2012	8
India	E100	Import license	9092010	2012	8
India	E100	Import license	9093011	2012	8
India	E100	Import license	9093021	2012	8
India	E100	Import license	9094010	2012	8
India	E100	Import license	9095011	2012	8
India	E100	Import license	9095021	2012	8
India	E100	Import license	9101010	2012	8
India	E100	Import license	9109926	2012	8
India	E100	Import license	10011010	2012	8
India	E100	Import license	10019010	2012	8
India	E100	Import license	10019031	2012	8
India	E100	Import license	10020010	2012	8
India	E100	Import license	10030010	2012	8
India	E100	Import license	10040010	2012	8
India	E100	Import license	10051000	2012	8
India	E100	Import license	10061010	2012	8
India	E100	Import license	10070010	2012	8
India	E100	Import license	10081010	2012	8
India	E100	Import license	10082011	2012	8
India	E100	Import license	10082021	2012	8
India	E100	Import license	10082031	2012	8

India	E100	Import license	10083010	2012	8
India	E100	Import license	10089010	2012	8
India	E100	Import license	11062010	2012	8
India	E100	Import license	11062090	2012	8
India	E100	Import license	12010010	2012	8
India	E100	Import license	12021091	2012	8
India	E100	Import license	120220	2012	8
India	E100	Import license	12040010	2012	8
India	E100	Import license	12072010	2012	8
India	E100	Import license	12074010	2012	8
India	E100	Import license	12075010	2012	8
India	E100	Import license	12091000	2012	8
India	E100	Import license	12099140	2012	8
India	E100	Import license	12099990	2012	8
India	E100	Import license	12113000	2012	8
India	E100	Import license	12114000	2012	8
India	E100	Import license	12119015	2012	8
India	E100	Import license	12119019	2012	8
India	E100	Import license	13021100	2012	8
India	E100	Import license	15042010	2012	8
India	E100	Import license	16025000	2012	8
India	E129	Import license	6022020	2012	8
India	E129	Import license	12119044	2012	8
India	E129	Import license	12119046	2012	8
India	E129	Import license	12119080	2012	8
India	E311	Import license	4	2012	12
India	F400	Decreed Customs Valuations	21069020	2012	8
India	F400	Decreed Customs Valuations	24022010	2012	8
India	F400	Decreed Customs Valuations	24022020	2012	8
India	F400	Decreed Customs Valuations	24022030	2012	8
India	F400	Decreed Customs Valuations	24022040	2012	8
India	F400	Decreed Customs Valuations	24022050	2012	8
India	F400	Decreed Customs Valuations	24022090	2012	8
India	F400	Decreed Customs Valuations	240290	2012	8
India	F400	Decreed Customs Valuations	24029010	2012	8
India	F400	Decreed Customs Valuations	24031020	2012	8
India	F400	Decreed Customs Valuations	24031031	2012	8
India	F400	Decreed Customs Valuations	24031039	2012	8
India	F400	Decreed Customs Valuations	24039910	2012	8
India	F400	Decreed Customs Valuations	24039920	2012	8
India	F400	Decreed Customs Valuations	24039940	2012	8
India	F400	Decreed Customs Valuations	24039950	2012	8
India	F400	Decreed Customs Valuations	24039990	2012	8

India	F710	Customs Valuation (CV)	1	2012	8
India	F710	CV	2	2012	8
India	F710	CV	3	2012	8
India	F710	CV	4	2012	8
India	F710	CV	5	2012	8
India	F710	CV	6	2012	8
India	F710	CV	7	2012	8
India	F710	CV	8	2012	8
India	F710	CV	9	2012	8
India	F710	CV	10	2012	8
India	F710	CV	11	2012	8
India	F710	CV	12	2012	8
India	F710	CV	13	2012	8
India	F710	CV	14	2012	8
India	F710	CV	15	2012	8
India	F710	CV	16	2012	8
India	F710	CV	17	2012	8
India	F710	CV	18	2012	8
India	F710	CV	19	2012	8
India	F710	CV	20	2012	8
India	F710	CV	21	2012	8
India	F710	CV	22	2012	8
India	F710	CV	23	2012	8
India	F710	CV	24	2012	8
India	F720	CV	1	2012	8
India	F720	CV	2	2012	8
India	F720	CV	3	2012	8
India	F720	CV	4	2012	8
India	F720	CV	5	2012	8
India	F720	CV	6	2012	8
India	F720	CV	7	2012	8
India	F720	CV	8	2012	8
India	F720	CV	9	2012	8
India	F720	CV	10	2012	8
India	F720	CV	11	2012	8
India	F720	CV	12	2012	8
India	F720	CV	13	2012	8
India	F720	CV	14	2012	8
India	F720	CV	15	2012	8
India	F720	CV	16	2012	8
India	F720	CV	17	2012	8
India	F720	CV	18	2012	8
India	F720	CV	19	2012	8

India	F720	CV	20	2012	8
India	F720	CV	21	2012	8
India	F720	CV	22	2012	8
India	F720	CV	23	2012	8
India	F720	CV	24	2012	8
India	F790	CV	1	2012	8
India	F790	CV	2	2012	8
India	F790	CV	3	2012	8
India	F790	CV	4	2012	8
India	F790	CV	5	2012	8
India	F790	CV	6	2012	8
India	F790	CV	7	2012	8
India	F790	CV	8	2012	8
India	F790	CV	9	2012	8
India	F790	CV	10	2012	8
India	F790	CV	11	2012	8
India	F790	CV	12	2012	8
India	F790	CV	13	2012	8
India	F790	CV	14	2012	8
India	F790	CV	15	2012	8
India	F790	CV	16	2012	8
India	F790	CV	17	2012	8
India	F790	CV	18	2012	8
India	F790	CV	19	2012	8
India	F790	CV	20	2012	8
India	F790	CV	21	2012	8
India	F790	CV	22	2012	8
India	F790	CV	23	2012	8
India	F790	CV	24	2012	8
India	H110	State trading for importing	10011090	2012	3
India	H110	State trading for importing	10019020	2012	3
India	H110	State trading for importing	10019039	2012	3
India	H110	State trading for importing	10020090	2012	3
India	H110	State trading for importing	10040090	2012	3
India	H110	State trading for importing	10059000	2012	3
India	H110	State trading for importing	10061090	2012	3
India	H110	State trading for importing	10062000	2012	3
India	H110	State trading for importing	10063010	2012	3
India	H110	State trading for importing	10063020	2012	3
India	H110	State trading for importing	10063090	2012	3
India	H110	State trading for importing	10064000	2012	3
India	H110	State trading for importing	10070090	2012	3
India	H110	State trading for importing	10081090	2012	3

India	H110	State trading for importing	10082019	2012	3
India	H110	State trading for importing	10082029	2012	3
India	H110	State trading for importing	10082039	2012	3
India	H110	State trading for importing	10083090	2012	3
India	H110	State trading for importing	10089090	2012	3
India	H110	State trading for importing	1101	2012	3
India	H110	State trading for importing	12010090	2012	3
India	H110	State trading for importing	12030000	2012	3
India	H110	State trading for importing	15131100	2012	3
India	H110	State trading for importing	15131900	2012	3
India	H900	Anti-competitive measures, n.e.s.	1508	2012	10
India	H900	Anti-competitive measures, n.e.s.	15149120	2012	10
India	H900	Anti-competitive measures, n.e.s.	1905	2012	10
India	H900	Anti-competitive measures, n.e.s.	200190	2012	10
India	I900	EXPORT RELATED MEASURES	1	2012	1
India	I900	EXPORT RELATED MEASURES	2	2012	1
India	I900	EXPORT RELATED MEASURES	3	2012	1
India	I900	EXPORT RELATED MEASURES	4	2012	1
India	I900	EXPORT RELATED MEASURES	5	2012	1
India	I900	EXPORT RELATED MEASURES	6	2012	1
India	I900	EXPORT RELATED MEASURES	7	2012	1
India	I900	EXPORT RELATED MEASURES	8	2012	1
India	I900	EXPORT RELATED MEASURES	9	2012	1
India	I900	EXPORT RELATED MEASURES	10	2012	1
India	I900	EXPORT RELATED MEASURES	11	2012	1
India	I900	EXPORT RELATED MEASURES	12	2012	1
India	I900	EXPORT RELATED MEASURES	13	2012	1
India	I900	EXPORT RELATED MEASURES	14	2012	1
India	I900	EXPORT RELATED MEASURES	15	2012	1
India	I900	EXPORT RELATED MEASURES	16	2012	1
India	I900	EXPORT RELATED MEASURES	17	2012	1
India	I900	EXPORT RELATED MEASURES	18	2012	1
India	I900	EXPORT RELATED MEASURES	19	2012	1
India	I900	EXPORT RELATED MEASURES	20	2012	1
India	I900	EXPORT RELATED MEASURES	21	2012	1
India	I900	EXPORT RELATED MEASURES	22	2012	1
India	I900	EXPORT RELATED MEASURES	23	2012	1
India	I900	EXPORT RELATED MEASURES	24	2012	1
India	P110	RULES OF ORIGIN	713	2012	6
India	P110	RULES OF ORIGIN	15	2012	3
India	P120	RULES OF ORIGIN	713	2012	12
India	P120	RULES OF ORIGIN	1001	2012	12
India	P120	RULES OF ORIGIN	1006	2012	12

India	P120	RULES OF ORIGIN	15	2012	11
India	P120	RULES OF ORIGIN	15121	2012	12
India	P120	RULES OF ORIGIN	170111	2012	10
India	P120	RULES OF ORIGIN	170111	2012	10
India	P120	RULES OF ORIGIN	19011010	2012	12
India	P130	RULES OF ORIGIN	10011010	2012	9
India	P130	RULES OF ORIGIN	10019010	2012	9
India	P130	RULES OF ORIGIN	10019031	2012	9
India	P130	RULES OF ORIGIN	10051000	2012	9
India	P130	RULES OF ORIGIN	10061010	2012	9
India	P130	RULES OF ORIGIN	170111	2012	10
India	P190	RULES OF ORIGIN	713	2012	3
India	P190	RULES OF ORIGIN	10063020	2012	8
India	P290	RULES OF ORIGIN	713	2012	3
India	P300	RULES OF ORIGIN	7031010	2012	2
India	P610	RULES OF ORIGIN	10063020	2012	8

Policy recommendations and regulatory reforms to enhance the competitiveness and boost exports to India of potential agricultural sectors/products

Pakistan due to policy lock-in[76]commitment has limited policy options but to grant MFN status to India and adhere to the tariff liberalization commitments made under the SAARC agreement on South Asia Free Trade Area (SAFTA). Products in the sensitive List (SL) are not granted preferential tariff concessions under the SAFTA regime implying that these products will be charged at the MFN customs duty (tariffs) rates. An analysis of SAFTA SL of Pakistan and India[77] reveal that Indian Agricultural sector is more protected around 19.8 % (Indian SL contains 122 tariff lines out of 614) whereas Pakistan agriculture sector is less protected-only 6 % (Pak SL[78] contains 57 Tariff lines out of 936). The World Bank Trade Restrictiveness Index (OTRI) is a "more sophisticated way to calculate the weighted average tariff of a given country, with the weights reflect the composition of import volume and import demand elasticities of each imported product." A higher index value reflects the restrictive trade regime. OTRI also reveals that India maintains higher tariff restrictions to insulate domestic agricultural sector.

Table 2.93: OTRI for Agriculture Sector 2009

	INDICES BASED ON APPLIED TARIFFS		INDICES BASED ON MFN TARIFFS	
	OTRI	OTRI_T	OTRI	OTRI_T
India	69.5%	43.3%	71.7%	45.5%
Pakistan	5.8%	5.8%	5.8%	5.8%

[76] Pakistan India has bilateral commitments that Pakistan will grant MFN to India by phasing out negative list by December 31, 2012. Similarly, SAFTA and WTO obligations envisage granting of MFN to India. India favored Pakistan's case for EU Autonomous Trade Preference and GSP plus application for WTO waiver.
[77] Sensitive list of India contains 614 tariff lines for Non-LDC countries like Pakistan. Whereas Pakistan's SL contains 936 tariff lines at HS Code 8 digit.
[78] Tariff lines for Agricultural Sector as defined under WTO. Pakistan sensitive list contains 55 items for agriculture sector chapter 1-24

Under the SAFTA Tariff Liberalization Program, the tariff on all items except SL would be brought to 0-5 % with effect from 1st January 2013. That means except for 57 tariff lines of the agricultural sector in Pak SL, the tariff on all agricultural products would be applied at the 0-5 % rate. Whereas Indian agricultural sector is more protected through MFN tariffs as Indian SL contains 122 tariff lines. The Indian MFN applied tariff rate on agriculture products is 35.1 % on average ranging from 0- 150 % (bound rates are 0-300 %).[79] The following comparative analysis for agriculture sector between Pakistan and India reveal that India applied rates are much higher than Pakistan.

Table: 2.94: Comparative Tariff Analysis for Agriculture sector: Pakistan and India

Product groups	Pakistan		India		Remarks
	Final bound duties	MFN applied duties	Final bound duties	MFN applied duties	
	AVG	AVG	AVG	AVG	
Animal products	93.0	14.6	105.9	31.6	Average MFN Applied duties and final bound duties of India are higher than Pakistan
Dairy products	100.0	30.0	65.0	33.7	
Fruit, vegetables, plants	100.0	18.2	99.4	30.3	
Coffee, tea	108.3	12.8	133.1	56.1	
Cereals & preparations	102.5	18.8	115.7	30.7	
Oilseeds, fats & oils	97.3	8.8	165.2	18.8	
Sugars and confectionery	112.5	17.2	124.7	34.4	
Beverages & tobacco	100.0	52.5	120.9	70.8	
Cotton	13.0	7.0	110.0	12.0	
Other agricultural products	83.6	6.7	105.7	21.5	

Source: WTO

In a survey conducted on trade liberalization with India for this research study, the majority of the stakeholders thought that Indian SPS and other border measures constituted NTMs[80]. All stakeholders considered Indian agricultural imports will depress Pakistan's local prices as the Indian agricultural sector is heavily subsidized. Without a level playing field in terms of input costs, Pakistan's agricultural competitiveness vis-à-vis Indian imports will severely be undermined. India is providing around US$ 80[81] to 100 billion as subsidies on agricultural, food security and nutrition. Indian budget document describe government's commitment to keep the "central subsidies under 2 %of GDP in 2012-13. Over next three years, these are to be further brought down to 1.75 %of GDP. The USITC briefing estimated US$ 27 billion alone on account of fertilizer, Irrigation and electricity subsidy to Indian farmers for the year 2009-10[82]."The cost of India's agricultural input subsidies as a share of agriculture output almost doubled from 6.0 % in 2003-042 to 11.6 % in 2009-10, driven mostly by large increases in the subsidies to fertilizer and electricity."[83] How much of these subsidies can be categorized as actionable subsidies need to be thoroughly investigated. However, there is ample evidence that Indian agricultural sector is subsidized and may impair the competitiveness of Pakistani agricultural sector.

Liberalization of trade in Agriculture has been a very sensitive issue not only for developed countries but also for developing countries. The stalemate at both the Seattle Ministerial Conference and current WTO Doha Development Agenda (DDA) has been attributed to non-agreement on agriculture market access, elimination of agricultural subsidies and non-tariff measures[84]. Also, the empirical evidence is mixed and inconclusive on the question of nexus between agricultural liberalization and development. New empirical research carried-out by Kym Anderson (2012) suggests that removal of all agricultural trade distortions globally may not be welfare enhancing for all developing countries.

[79] Trade Policy Review of India 2011
[80] For detailed analysis, see Section on 'Indian Non-tariff Measures or Barriers'
[81] According to WB data ,India's GDP at current International prices for the year 2011 is US $ 4533 billion and its 2 % will be as US$ 90 billion
[82] Grossman N. and Carlson Daylan, Agriculture Policy with India: The Role of Input Subsidies. Washington, USITC, 2011.
[83] Ibid.
84 World Trade Organization Negotiations: The Doha Development Agenda by Ian F. Fergusson (Dec 2011)

"Using the new database of distortions to agricultural markets in developing countries, Global Trade Analysis Project (GTAP) (Version 7.5, which refers to 2004) and then using amended database in a Global Computable General Equilibrium model (LINKAGE—see Van der Mensbrugghe 2005), Valenzuela, van der Mensbrugghe and Anderson (2009) have demonstrated negative repercussions for South Asian agricultural markets, factor prices, and value added in agriculture versus non-farm sectors if all distortionary policies to agricultural are removed (holding aggregate government taxes and spending constant by use of a lump-sum consumption tax)[85]. The LINKAGE model's 2004 baseline of the world economy is first compared with a simulation in which all agricultural subsidies or taxes plus import tariffs on other merchandise are removed. That removal would lead to a global gain of $192 billion per year."[86] Interestingly, results for the South Asian region are welfare decreasing for the rural population which comprises bulk of South Asian population. The results for full global reform, reported in Table 2.94, is that "net farm incomes are estimated to fall also in South Asia (by 5 %), but there it is textiles and apparel that expand (raising self-sufficiency from 144 to 153 %) and, in India where the skilled or unskilled wage differential rises, skill-intensive goods and service sectors also expand."

Table 2.95: Effects on Agricultural and Non-agricultural Sectorial Value Added of Full Global

Liberalization and Own-liberalization of Agricultural and All Sectors' Merchandise Trade Reform,2004 relative to benchmark data, %)

	Agricultural polices		All sectors' policies	
	Agric.value added	Non-ag.value added	Agric.value added	Non-ag.value added
Developing countries	5.1	1.0	5.2	2.1
North Africa	–0.8	1.8	–5.0	1.4
Sub-Saharan Africa	0.2	0.3	–0.9	–0.5
East Asia	2.9	0.6	5.2	4.2
South Asia	–4.1	0.8	–5.4	0.0
Latin America	28.4	2.8	29.1	1.7
Middle East	23.8	0.4	21.9	1.2
E. Europe & Central Asia (ECA)	–3.3	0.4	–4.1	0.5
High-income countries	–13.9	0.2	–15.3	–0.2
High-income plus ECA	–11.2	0.2	–12.4	–0.1
World total	–1.0	0.4	–1.3	0.3

Source: Valenzuela, van der Mensbrugghe and Anderson (2009).

[85](Anderson 2012)
[86]Contributions of Trade Reforms to Agriculture's Globalization by Kym Anderson (2012) University of Adelaide, Australian National University, and CEPR (Anderson 2012)

SECTION 3: PRODUCT/SECTORAL LEVEL ANALYSIS – INDICATORS OF POTENTIAL

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Analysis of the trade profile, flow and pattern of a country with its trading partner ostensibly would be a starting point to carry out ex ante impact analysis of trade policy. Many researchers have identified a standard set of indices and indicators, termed Summary Indicators of Potential (SIP), "to assess trade patterns and characteristics and changes in trade patterns of individual economies and their various groupings in this region. While initially this choice was perceived as a "second-best" (as compared with the 'first-best' modelling tools)", however the data limitations and modelling constraints and limitations of Computable General Equilibrium and Gravity Trade Model have made SIPs a standard tool of analysis (Mikic and Gilbert 2007).[87] However, an important caveat is that these indicators cannot determine the causes of a particular state or trend in trade flows." Analysis of structure, composition, competitiveness and geography of an economy along with the political economy considerations of trade policy formulation and implementations will present a holistic picture for potential impacts. Breaking down the trade statistics at a disaggregated product level will enhance finesse of the scrutiny. Hence, this research study has employed SIP analysis at a disaggregated HS 6 or 8 digits (subject to the data availability) product level with a view to carry-out in-depth analysis and to identify strengths and weaknesses vis-à-vis the Indian agri-sector.

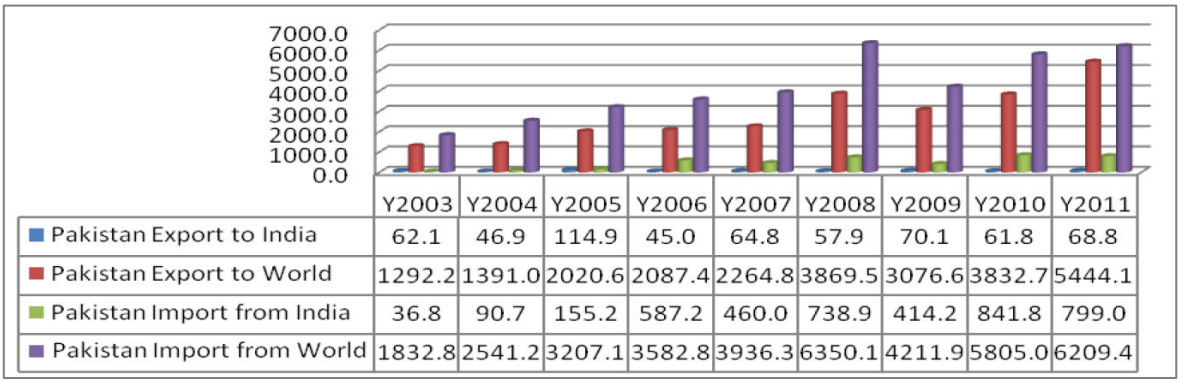
The following SIPs have been employed to analyse and evaluate the trade flows and pattern in agricultural trade in wake of bilateral trade normalization between Pakistan and India and plurilaterally under SAFTA:

- Relative Growth Rates (GR) of Merchandise Exports and Imports
- Revealed Comparative Advantage (RCA)[88]
- Trade Similarity (TS) Index
- Trade Specialization (ES) Index
- Trade Intensity (TI) Index
- Index of Intra-industry Trade (IIT)
- Trade Complementarity (TC) Index

Relative growth rates (GR) of merchandise exports and imports of India and Pakistan in the agriculture sector

Bilateral trade between India and Pakistan compared to their global trade share is very minimal. Bilateral trade is around US$ 1.75 billion for the year 2011-12. Pakistan's exports to India are around US$ 268 million whereas Indian imports to Pakistan amounts to US$ 1.45 billion.

Figure 3.1 Agricultural Export Profile of Pakistan



	Y2003	Y2004	Y2005	Y2006	Y2007	Y2008	Y2009	Y2010	Y2011
Pakistan Export to India	62.1	46.9	114.9	45.0	64.8	57.9	70.1	61.8	68.8
Pakistan Export to World	1292.2	1391.0	2020.6	2087.4	2264.8	3869.5	3076.6	3832.7	5444.1
Pakistan Import from India	36.8	90.7	155.2	587.2	460.0	738.9	414.2	841.8	799.0
Pakistan Import from World	1832.8	2541.2	3207.1	3582.8	3936.3	6350.1	4211.9	5805.0	6209.4

Source: Trade Map (Values in Million US$)

[87] The World Bank Handbook on "Development, Trade and the WTO" has also discussed the utility of the SIPs for policy analysis (Bernard Hoekman, Aaditya Mattoo, and Philip English, editors 2002)
[88] While Revealed Comparative Analysis (RCA) may help to explain the observed pattern of inter-industry trade.

The share of Pakistan's agricultural exports to India as compared its exports to world is only 1.2 %. Pakistan's total exports to India are almost a quarter of its total exports to India whereas the share of Indian agricultural exports to Pakistan is almost 50% of total Indian exports to Pakistan. This indicates the Pakistan's demand for importing Indian agricultural products is very critical to Pakistan and has usually been used to augment supplies, deal with the acute shortages and stabilize the prices. It also indicates that Pakistan's has untapped export potential and opportunities in the Indian market subject to removal of NTBs and harmonization of standards, regulations.

India ranks second in Pakistan's agricultural import destinations. India, due to its proximity, has low trade costs and import time lag making her an optimal import choice. India is also a favored import destination due to its differentials in crop harvest time. India offers agricultural supplies during Pakistan's seasonal shortages due to its late harvesting of crops. For example, Indian Okra, potatoes, onions and many roots are harvested one to three months prior to Pakistan's harvest. Higher prices during the seasonal shortage of agricultural products in Pakistan are stabilized through cheap Indian imports. It is also to the advantage of Indian farmers to export the surplus to Pakistan as it would jack up the Indian Agricultural prices.

It may be noted here that there is a direct relationship between the rising agricultural food prices and the poverty levels as higher prices relatively lower the purchasing power (calorie consumption) of the population especially for those segments of population whose income is just above border line of poverty threshold. A ten % increase in food price inflation would severely impact calorie intake and the ability to purchase food by the lowest expenditure two quintiles of the population (poorest 40 % of the population) and can potentially suck at least five to seven % of people into a poverty trap[89]. Moreover, rising food prices and depleting supplies engender political and social instability in low-income strata of the population which are concentrated in rural and urban slum areas.

Therefore, it is understandable that despite political and military tensions, Pakistan has always allowed agricultural imports, especially edible vegetables, certain roots and tubers, pulses, lentils, coffee, tea, mate and spices, oil seed, oleagic fruits, grains, animal feed, seeds, fruit, sugars and sugar confectionery with minimum SPS and quarantine checks.

When Pakistan's supply position improves after harvest of major crops, India is the biggest competitor of Pakistan in agricultural products. An analysis[90] of the Top twenty agricultural export destinations of Pakistan and India reveals that the following countries are common export destination of both viz., China (Rank_pa91k[7th] , Rank_Ind [1st]), United Arab Emirates (Rank_pak [2nd], Rank_Ind [2nd]), USA (Rank_pak [17th] , Rank_Ind [3rd]), Saudi Arabia(Rank_pak [5th], Rank_Ind [5th]), Bangladesh(Rank_pak [3rd], Rank_Ind [6th]), Vietnam(Rank_pak [21st], Rank_Ind [7th]), Malaysia(Rank_pak [6th], Rank_Ind [8th]), and Indonesia(Rank_pak [14th], Rank_Ind [10th]). India ranks 22nd in the Pakistan's agricultural export markets and 2nd in Pakistan's import destinations in Pakistan's agricultural import markets. Pakistan's global agricultural exports are valued at US$ 5.4 billion (out of total exports of US$ 25.3 billion) whereas Indian global agricultural exports are valued at US$19.8 billion (out of total exports of US$225.3 billion) in year 2011. Similarly, Pakistan's global agricultural imports are valued at US$ 6.21 billion (out of total Imports of US$ 43.57 billion) whereas Indian global agricultural imports are valued at US$ 13.69 billion (out of total exports of US$ 263.94 billion) in year 2011. India due to its large market size imports from big agricultural producing countries. Table 3.1 below summarizes the Top 10 India Import destinations.

Table 3.1 India's Top 10 Import Destination and Pakistan's rank for the year 2010

Name of Country	Value (US $ million)	Ranking in Imports
Indonesia	4108	1
Argentina	937	2

[89]Food and Agriculture Organization of the United Nations (FAO) 2011 report on "The State of Food Insecurity in the World: How does international price volatility affect domestic economies and food security?" estimates that more than 70 % of household budget is spent on food by the lowest expenditure quintile of population in Pakistan (poorest 20 % of the population).Thus, rising food prices inflation can suck substantial number of vulnerable segments of population into the poverty bracket.

[90]See Annex 3.1 for detailed analysis

[91][1]Rank_pak implies Pakistan's rank in top twenty export destinations and Rank_Ind India's rank in top twenty export destinations. See Annex 3.1 for detailed analysis.

Malaysia	934	3
Brazil	865	4
United States of America	845	5
Myanmar	687	6
Canada	551	7
Ukraine	526	8
China	502	9
Australia	474	10
Pakistan	88[92]	20

Source: Author's calculation based on ITC Trademap data

The following is the comparative exports and imports analysis of Pakistan and India:

- The comparison of the top ten importing agricultural products by India and Pakistan reveal import basket similarity as both tend to import vegetable oils crude93(Palm-oil, soya bean oil and sunflower oil), oil hydrogenated, cotton lint, sugar, tea, pulses, lentils, Rubber and wheat. However, there is dissimilarity of import items also: India tends to import beans (dry), dry and fresh fruits, silk raw, dates and alcohol beverages; whereas, Pakistan tends to import chick peas, arecanuts (betel nut), jute, garlic, ginger, and food preparations items.
- While comparative analysis of Top 20 export products by India and Pakistan reveal that both are close competitors in Rice, cotton lint, Buffalo meat, sugar, vegetable products, sesame seed and mangoes.
- Pakistan has an export competitive edge in tangerines, mandarins, potatoes, Molasses, dates, goat and sheep meat, frozen vegetables and dried fruits whereas India has export competitive edge in tobacco (unmanufactured), tea, oil of castor beans, coffee (green), chillies and peppers (dry) and oil essentials.
- Production capacity analysis of Pakistan and India also reveals that both countries have global rankings in rice (paddy), milk production, wheat, mango, sugar cane, cotton, cattle meat, chicken meat, potatoes and. whereas, India has comparative production capacity advantage in bananas, vegetables, tomatoes, soybeans, chick peas, okra and beans (dry). Pakistan has comparative production capacity advantage in goat milk, dates, maize, oranges and dry fruits. It is pertinent to mention here that Pakistan has lower yield in its major crops compared to Indian agricultural crops yields.
- The comparative analysis therefore indicates that Pakistan can export dates, fresh and dry fruits and wool to India. Similarly, India can export tea, garlic, ginger and vegetables especially, during seasonal shortages.

Revealed Comparative Advantage (RCA)

Revealed comparative advantage (RCA) indices are widely used to assess the comparative advantage, at sectoral or overall economy level, by comparing a country's trade profile with that of the global average. "The RCA index is defined as the ratio of two shares. The numerator is the share of a country's total exports of the commodity of interest in its total exports and the denominator is the share of world exports of the same commodity in total world exports" (Mikic and Gilbert 2007).

[92] Pakistan's exports to India is reported in Pakistan's trade figure as US$ 61.8 million, whereas India Import figures indicates Pakistan imports valued at US$ 88 million. The discrepancy may be due to CIF prices calculated by Indian customs authorities and FOB prices registered by Pakistani custom authorities. Also, tariff on import of Agricultural products to India is relatively higher in India than Pakistan. Average MFN applied tariff on Agricultural products in India is 31.4% and it is 17% in Pakistan. See Comparative Tariff Analysis section for more detailed analysis.

[93] Pakistan's domestic production of edible oils is sufficient to meet only about 25 % of total demand. (source: http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Oilseeds%20and%20Products%20Annual_Islamabad_Pakistan_4-4-2011.pdf).

In this study RCA has been used to identify the products in which Pakistan and India have a comparative edge over the world. After this a small comparison has been used to identify the potential product and potential export value for both countries.

The formula for the Revealed Comparative Advantage (RCA) is:

Revealed Comparative Advantage= Cg

$$Cg = \frac{\left[\frac{\mathbf{Xcg}}{Xc}\right]}{\left[\frac{\mathbf{Xwg}}{Xw}\right]}$$

Where

$\mathbf{Xcg}$ = Exports of good g by country c

$\mathbf{Xc}$ = Total exports of country c

$\mathbf{Xwg}$ = World exports of good g

$\mathbf{Xw}$ = Total world exports

Where

= Exports of good g by country c

= Total exports of country c

= World exports of good g

= Total world exports

The RCA indices take a value between zero and infinity. A RCA indices value greater than 1 implies that the country has a comparative advantage. On the other hand, if the RCA is less than one, it implies that a country does not have a comparative advantage in the given product. All possible outcomes from this analysis has been mapped in Annex 3.2 as per following tables.

- Only India has a Revealed Comparative Advantage (No. of TLs at HS 6 Level=85) Table 3.2.a
- Only Pakistan has a Revealed Comparative Advantage (No. of TLs= 69) Table 3.2.b
- Both Countries have a Revealed Comparative Advantage (No. of TLs= 60) Table 3.2.c
- Both countries have no comparative advantage over the world, but Pakistan is in better relative position. (No. of TLs= 124) Table 3.2.d

Overall comparisons of RCA have been shown in the Table.3.2 (a through d). It can be easily observed that India has a comparative advantage (CA) in more products (Tariff lines) than Pakistan. Out of 725 Tariff lines (TLs) India has a CA in 472 and Pakistan is in better position in 197 Tariff lines. Pakistan is facing competition in 60 tariff lines with India. In these 19 agriculture products are currently in the negative list of Pakistan and 57 products are currently part of SAFTA sensitive list of Pakistan. Even after post-MFN and SAFTA TLP-III, the tariff on import of these 57 tariff lines will be MFN (Customs Duty) applied rates and not SAFTA concessional tariff. So, Pakistani agricultural sector is protected even after the SAFTA liberalization. However, the Indian Agricultural market is relatively more protected through higher tariffs, quota regimes, strict quality and regulatory regime. Pakistan is more open in terms of tariff and regulations. More than three-quarters (77.7%) of Pakistani agriculture tariff lines have average MFN applied tariffs around 0 to 25 %[94] whereas India has only 23.6% tariff lines within this tariff range. In case of Pakistan only 22.5% products have MFN applied tariff greater than 25%, but in case of India 77.5% products have tariff above 25%.

[94] 25% TL may not be considered liberalized. Nuisance tariffs are usually 0-5%. Pakistan has around 34% MFN applied in this range compared to India's 10%. Weighted tariffs will be more revealing whether TLs are restrictive or not.

Table 3.2: Assessing India's and Pakistan Comparative Advantage

Agricultural Tariff lines	Pakistan		India	
	Final bound	MFN applied	Final bound	MFN applied
		2011		2010
Duty-free	0	13.8	0	5.9
0 <= 5	3.3	19.6	0	4
5 <= 10	0	15.9	1.2	4
10 <= 15	0.3	13.3	0.1	4.8
15 <= 25	0.1	14.9	2.4	4.9
25 <= 50	0.5	20.1	7.2	67.9
50 <= 100	90.3	2.4	54	6.3
> 100	1.8	0	35	2.3
NAV in %	0.1	5	0.3	0.3

Table 3.3: Tariff Comparative Analysis for Agriculture sector: Pakistan and India

Product groups	Pakistan		India		Remarks
	Final bound duties	MFN applied duties	Final bound duties	MFN applied duties	
	AVG	AVG	AVG	AVG	
Animal products	93.0	14.6	105.9	31.6	Average MFN Applied duties and final bound duties of India are higher than Pakistan
Dairy products	100.0	30.0	65.0	33.7	
Fruit, vegetables, plants	100.0	18.2	99.4	30.3	
Coffee, tea	108.3	12.8	133.1	56.1	
Cereals & preparations	102.5	18.8	115.7	30.7	
Oilseeds, fats & oils	97.3	8.8	165.2	18.8	
Sugars and confectionery	112.5	17.2	124.7	34.4	
Beverages & tobacco	100.0	52.5	120.9	70.8	
Cotton	13.0	7.0	110.0	12.0	
Other agricultural products	83.6	6.7	105.7	21.5	

Source: WTO

India due to close proximity with Pakistan has lower trade costs and low-import time vis-à-vis other supplier countries making Indian agricultural imports more competitive than the other suppliers. It might be interesting to note here that India though have a comparative advantage in coffee and tea but maintains high protection thus losing blending opportunities to places like Dubai.

Potential Bilateral Trade (PBT)

Potential bilateral trade (PBT) has been applied to find the potential trade between India and Pakistan. PBT has been calculated by the use of simple formula that refers to maximum trade volume when trade barriers between countries are completely removed if the current production level and export/import capability are maintained.[95]

The following formula is used for measuring the potential bilateral trade:

$$PBTa = Min(Xpa, Mia) - Mipa$$

Where:

[95] See Sung and Nyung (2005)

Xpa : Means Pakistan's global exports of product a;

Mia : Denotes India's global imports of product i; and

$Mipa$: Means the existing imports of India from Pakistan

Pakistan has potential to export agricultural products worth USD 492 million approximately to the Indian market (See Annex 3.3 Table 3.3.(a) Potential Products For Pakistan). India has the potential to export agricultural products worth USD 653.7 million approximately to the Pakistani market (Table 3.3.(b) Potential Products For India). These potential bilateral trades are in addition to the existing trade between the two countries. So, Indian imports may touch up to US$ 1.5 billion and Pakistan exports to India may touch the USD 0.5 billion mark approximately, given the fact both countries import their agricultural produce from the trade partner based on their comparative advantage.

Table 3.3.(c) signifies the tariff lines where both countries enjoy a comparative advantage. India has a comparative advantage in 85 products worth a potential of USD 619 million in Pakistan's market. Pakistan has a comparative advantage in 69 items and the potential bilateral trade in these products is USD 153 million. India has a comparative advantage in these products which have a potential of USD 91 million. Pakistan has no comparative advantage in 124 items but it's in a better relative position than India and these have a potential of USD 60.38 million. Against each tariff line, it is also indicated whether the TL is in the negative list maintained by Pakistan or is in the Pakistan's sensitive list for SAFTA or both for ease of analysis and tariff determination.

Table 3.3: RCA Comparison between Pakistan in comparison to India

Categories of Comparison	No. of TLs	Neg. List	SAFTA Sensitive List of Pak	Av. RCA Pakistan	PBT Pakistan 2011	Average RCA India	Sum of PBT India Y 2011
Both Countries have Comparative Advantage	60	2	7	18	242.60	8	653.69
Only India has Comparative Advantage	85	5	9	0	11.29	9	619.78
Only Pakistan has Comparative Advantage	69		7	11	153.72	0	91.50
Pakistan is Better than India	124	3	7	0	60.38	0	91.73
India is Better than Pakistan	387	9	27	0	24.53	0	183.06
Grand Total	725	19	57	3	492.51	2	1639.76

Source: Trade Map ITC Unit: Thousand US $ (PBT is existing Potential Bilateral Trade in Market)

Revealed comparative advantage of Pakistan at the sectoral level

RCA is also calculated at the sector level to see the comparative advantage of agriculture sector and non-agriculture products. The table 2.4 shows the trend of RCA for agriculture sector and non-agriculture from Y2007 to Y2011. The RCA value is showing that Pakistan has a comparative advantage in agriculture products as compared to non-agricultural products.

Table 3.4: Revealed Comparative Advantage of Pakistan (Sector Level)

RCA for Pakistan	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Agricultural Products	1.98	2.82	2.25	2.49	2.95
Non-Agricultural Products	0.93	0.87	0.89	0.88	0.85

Source: Trade Map ITC author own calculation

This analysis is repeated at the section level (pooled for HS chapters) which shows that in agriculture, Pakistan has a comparative advantage in all sections except in "Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes". This result is intuitive

as value-added agriculture in Pakistan is less competitive than Indian agricultural value-added sectors. Agricultural cooperatives in India and technological-cum-mechanization factor also augment India's competitiveness in agricultural sector.

The RCAs[96] at the HS 6 digit (product), the section level, reveal that Pakistan's comparative advantage is increasing over the period of time, which signifies better trade relations and easing of NTBs by the Indian side .

Table 3.5: RCA of Pakistan (Section Level)

RCA for Pakistan	2007	2008	2009	2010	2011
Sec 1. Live animal, animal products	0.47	0.49	0.70	0.84	1.03
Sec 2. Vegetable Products	4.56	6.27	5.01	5.59	6.46
Sec 3. Animal or vegetable fats and oils and other cleavage products; prepared edible fats; animal and vegetable waxes	1.39	1.49	1.04	0.75	1.27
Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	0.65	1.07	0.62	0.69	0.81

Source: Trade Map ITC author own calculation

Revealed comparative advantage of India

During the 2007-08 global price surge for agricultural food products, India enjoyed better RCAs than in the year 2011 when prices had stabilized. The RCA value in the year 2011 was 1.21 whereas it was 1.57 in the year 2007. The RCA for the non-agricultural sector shows that India has a comparative (competitive) edge over Pakistan. This implies that normalization of trade between Pakistan and India under the framework of SAFTA would likely to increase Indian non-agricultural exports than Indian agricultural exports. A statistical catch here demands that we should be careful in interpreting the data as Indian Agricultural global exports are valued at US$ 19.9 billion for the year 2011 whereas Pakistan total agricultural exports are valued at US$ 5.4 billion for the same period and Pakistan agricultural production capacity and surplus is not that huge. So, even though the RCA of the Indian agriculture sector is lower than the RCA of Pakistan's agriculture sector, prudent interpretation is demanded and caution taken in making a conclusion.

Table 3.6: Revealed Comparative Advantage of India (Sector Level)

RCA for India	2007	2008	2009	2010	2011
Agricultural Products	1.57	1.60	1.07	1.29	1.21
Non-Agricultural Products	0.96	0.96	0.99	0.98	0.98

Source: Trade Map ITC author own calculation

At the section level RCA analysis, India has a comparative advantage only in vegetable products in agriculture. However, the comparative advantage of vegetable products is declining over the time which caused the overall decline in comparative advantage. India is not capitalizing on any comparative advantage in "section 4, Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes" where it's RCA has declined over the time.

[96] RCAs are not partner specific. RCA would have improved through unilateral action by the country concerned.

Table 3.7: RCA of India (at section level)

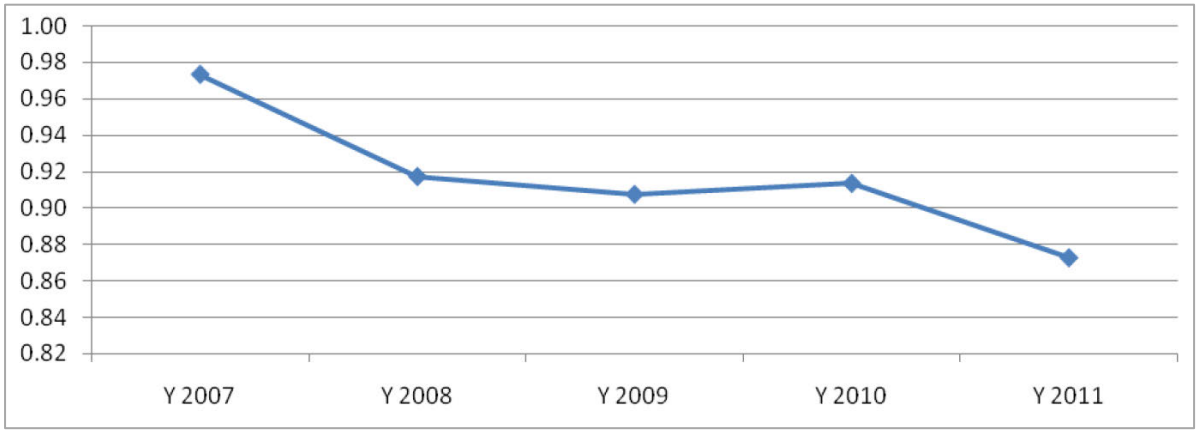
RCA for India	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Sec 1. Live animal, animal products	0.69	0.75	0.59	0.76	0.41
Sec 2. Vegetable Products	2.36	2.23	1.66	1.72	1.54
Sec 3. Animal or vegetable fats and oils and other cleavage products; prepared edible fats; animal and vegetable waxes	0.65	0.57	0.57	0.61	0.82
Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	1.04	1.29	0.66	0.83	0.78

Source: Trade Map ITC author own calculation

Trade similarity index of Pakistan (agricultural and non-agricultural products level)

The Trade Similarity Index conveys the degree of similarity between export baskets of two countries. The indices value ranges from 0 to 100. Zero signifies no similarity of export baskets of two countries; and a value of 100 implies perfect matching of the export baskets. High similarity between countries results in limited potential trade. The Trade similarity index is calculated by the use of three different levels i.e. the Overall level (the agriculture and non-agriculture level classification); the Sector; and the Section Level (details are given in the annex). Trade similarity of Pakistan and Indian exports has been calculated at the above three mentioned levels. It has been observed that if we calculate it at the overall levels, trade similarity have shown a decreasing trend over the time and high similarity among both countries (which indicates that both countries are competitors). But when it is calculated at more disaggregated levels (sector and section levels) it shows lower value.

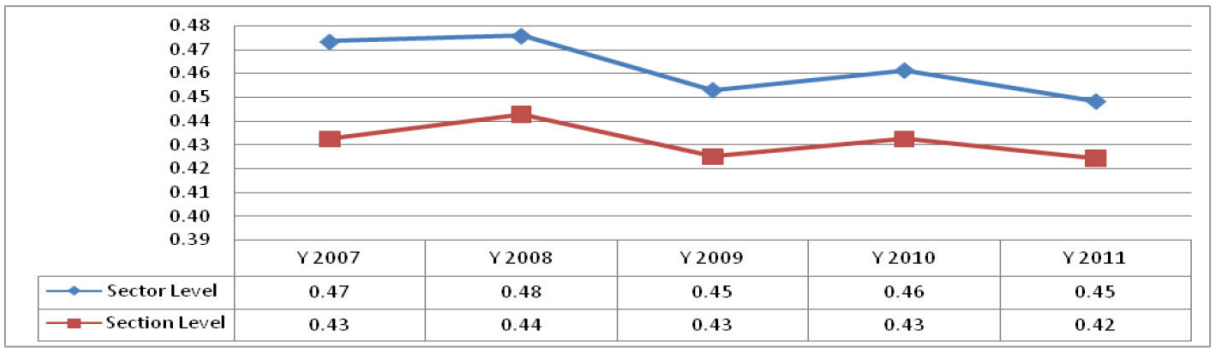
Figure 3.2: Trade Similarity at Overall Level



Trade Similarity at Sector and Section level

Trade Similarity has been calculated by using sectoral breakdowns (e.g. agriculture products, chemical and related products, fish and sea food, metal and manufactured articles made mostly of metal, mineral products, non-consumable animal and plant products, non-metallic mineral products, Other highly manufactured and special purpose goods and textile and apparel) and section is the aggregate level of chapters or HS level 2. This disaggregated level Trade similarity index for Pakistan is showing similarity around 45 and 42 %, which indicate that Pakistan and India have around 45 % similarity in exports baskets.

Figure 3.3: Trade Similarity Index for Pakistan



Note: Values in million US$

Source: ITC Trademap

This also can be interpreted that there is a 42% overlap in the structure of their trade which suggests a moderate level of similarity at the sector level calculation.

Trade Specialization Index (TSI)

The TSI is used to check the specialization of any country in any specific products in other markets. The index value ranges from -1 to +1: an index value of '-1' shows that the partner country (India) is specialized in this product whereas '+1' shows that the country of interest (Pakistan) has specialization in the subject product in the partner country.

TSI is calculated by using following formula:

$$TSI = \frac{(Xig - Mig)}{(Xig + Mig)}$$

Where

Xig : Export of country i for product g.

Mig : Import of country i for product g.

The TSI has been calculated for both agricultural and non-agricultural products categories. The negative values indicate that Pakistan is not specialized in both sectors and importing more from India as compared to exporting. In both sectors, India is showing a relative improvement.

Table 3.8: TSI for agricultural and non-agricultural products categories

TSI for Pakistan	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Agricultural Products	-0.75	-0.85	-0.71	-0.86	-0.84
Non Agricultural Products	-0.56	-0.52	-0.60	-0.54	-0.60

Trade specialization index of Pakistan (section level)

At the section level TSI, India is showing near perfect specialization in all sections apart from section 2 (Vegetable product). To see it in a more disaggregated level this analysis has also been undertaken at HS level 6.

Table 3.9: TSI for agricultural and non-agricultural products categories at HS level 6

TSI for Pakistan	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Sec 1. Live animal, animal products	-0.99	-0.99	-1.00	-0.95	-0.96
Sec 2. Vegetable Products	-0.19	-0.61	-0.54	-0.63	-0.64
Sec 3. Animal or vegetable fats and oils and other cleavage products; prepared edible fats; animal and vegetable wexes	-1.00	-0.99	-1.00	-1.00	-1.00
Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	-0.91	-0.98	-0.88	-0.98	-0.97

Intra-industry trade- Grubel Lloyd index

Intra-industry trade takes place if a country simultaneously engaged in imports and exports of similar types of goods. Similarity is identified by the goods or services being classified in the same product group as a tariff classification (This study has employed HS Coding tariff classification). We investigate the presence of Intra-industry trade between Pakistan and India with the help of the Grubel Lloyd Index (GLI). This Index is used to measure the share of intra-industry trade in total trade of a country[97]. The formula used for calculating the GLI index is as follows:

Where,

$$GLI = 1 - \frac{abs[Xi - Mi]}{[Xi + Mi]}$$

Where Xi is the exports of a particular product group and Mi is the imports within the same product group.

The value of GLI varies between 0 and 1. Zero value of GLI signifies no intra-industry trade, whereas the value of one signifies all trade is characterized as Intra-industry.

The GL Index has been used to measure the intra-industry trade between India and Pakistan. In the following table, it is observed that Pakistan and India have more Intra-industry trade in non-agriculture products as compared to agriculture products. Higher Intra-industry trade signifies industrial production specialization at the product sub-sector and value-chain integration. It may be added that value-chain integration in the agricultural sector would not be reflected as trade in same product category may reflect different consumers' tastes and not value-chain integration.

Table 3.91: GL Index to measure the intra-industry trade between India and Pakistan.

GLI for Pakistan	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Agricultural Products	0.25	0.15	0.29	0.14	0.16
Non Agricultural Products	0.44	0.48	0.40	0.46	0.40

[97]The Intra-industry trade phenomenon was initially observed and measured by many trade economists (Verdoorn 1960, Michaely 1962, Kojima 1964, Balassa 1966), starting in late sixties.

G L index (intra industry trade) section level

A low value of GL index for Agriculture is as per trade theory, indicating inter-trade in only finished products with no joint ventures or production facilities across the border[98]. The 0.81 value of GLI in Section 2, vegetable products, during the year 2007 signifies that both countries traded similar products, maybe to offset seasonal shortages. Lower GLI values also signal that joint venture or agro-based industrial collaboration do not exist between the two trading partners.

Table 3.92: GLI for Pakistan

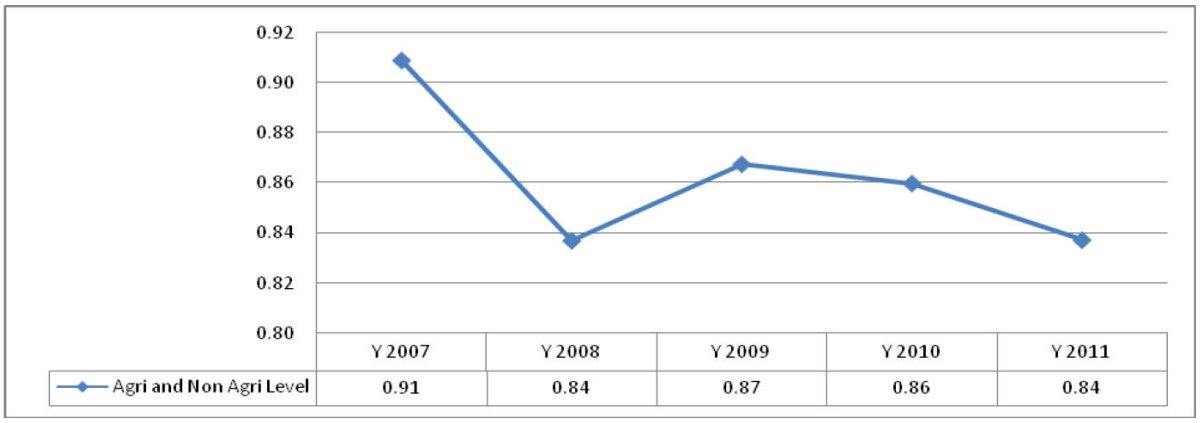
	2007	2008	2009	2010	2011
Sec 1. Live animal, animal products	0.01	0.01	0.00	0.05	0.04
Sec 2. Vegetable Products	0.81	0.39	0.46	0.37	0.36
Sec 3. Animal or vegetable fats and oils and other cleavage products; prepared edible fats; animal and vegetable waxes	0.00	0.01	0.00	0.00	0.00
Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	0.09	0.02	0.12	0.02	0.03

Source: Author's own calculations

TSI (agriculture and non-agriculture level)

The complementarity index measures the overlap of export patterns of one country (Pakistan) with the import pattern of another country (India). Higher values of this index indicate that both countries are more complementary or compatible with each other. The Index value lies between 0 to 100 where 0 indicates that there is no match of trade between the partners. Higher values of the TCI (approaching 100) indicate that the export profile of one partner matches perfectly with the import basket of the other partner. The trade profile of India and Pakistan demonstrate that both countries are exporters and importers of agricultural products: The higher TCI indicates that exports of Pakistan complement the imports of India.

Figure 3.4: Trade Complementarity Index of Pakistan at Agri and Non-agri level

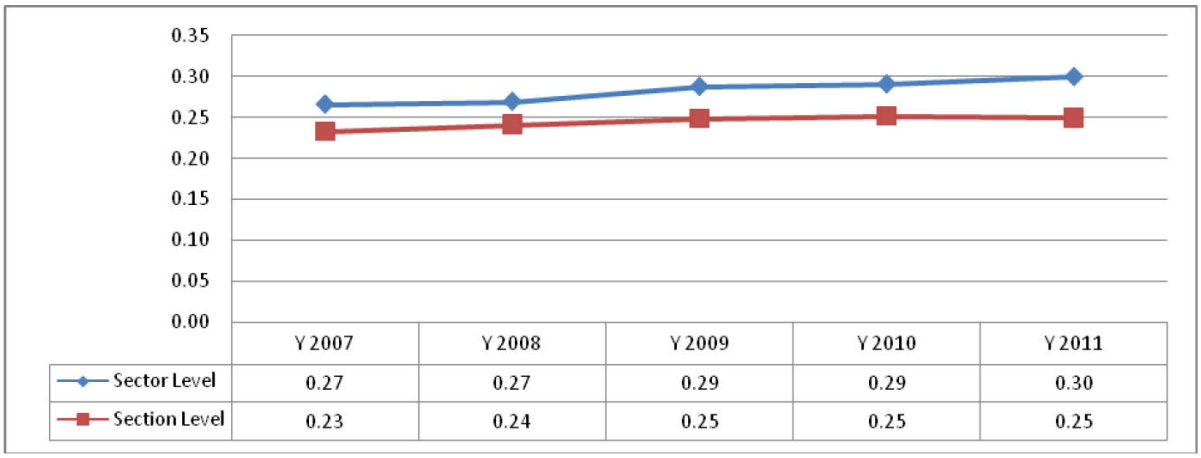


TSI (Sector Level)

Trade Complementarity Index at the sector and section levels are however decreasing to 30% and 25% respectively, which indicates the low similarity of Pakistan's exports with that Indian imports.

[98] Pakistan and India have insulated their bilateral Investment regime up till June 2012. Now India and Pakistan have eased restriction in Services Trade Liberalization GATS Mode 3 "Commercial Presence" to facilitate possibility of joint ventures.

Figure 3.5: Trade Complementarity at Sector and Section Level



	Y 2007	Y 2008	Y 2009	Y 2010	Y 2011
Sector Level	0.27	0.27	0.29	0.29	0.30
Section Level	0.23	0.24	0.25	0.25	0.25

SECTION 4: IDENTIFICATION OF POTENTIAL PAKISTANI AGRICULTURAL PRODUCTS/SECTORS FOR EXPORTS TO INDIA WHERE PAKISTAN HAS A COMPARATIVE ADVANTAGE

Agriculture trade liberalization with India

Pakistan has comparative advantage in many of agricultural commodities for exports to India. India's import appetite is very promising for agricultural exports. India with its huge population (300 million plus middleclass) offers a lot of opportunities for export to them of value-added agricultural processed fresh and preserved food, dairy products, juices and vegetable food supplements (especially health conscious diets and supplements like vitamins, traditional spices, medicinal herbs, roots, salads, and seeds). Niche export market opportunities exists for vegetarian, Halal, kosher and organic products. It is pertinent to mention that India's agricultural imports in the year 2011 was US$ 22.56 billion compared to US$ 17.86 billion a year earlier - registering an increase of 23.6 %. The share of Indian agricultural imports in India's total imports stood at 4.9 %, registering a decrease of 7.5 %. Joint venture, franchise and investments opportunities will also facilitate the growth of exports to India.

Indian Agriculture competitiveness hinges upon a host of support mechanism and a favourable regulatory regime instituted by both public and private sector players. Economies of scale, relatively vast cultivable and arable land, agricultural input subsidies and a captive market give Indian agriculture a cost competitiveness vis-à-vis Pakistan's agriculture sector. The opening of the Pakistani market to the Indian agricultural sector without there being a level playing field has been viewed by many as a threat to Pakistan's agricultural competitiveness and sustainability. The sheer size of agricultural production capacity is also a source of concern especially for small land-holding farmers. However, such threats have not been realised in similar situations like with Vietnam and China under the ACFTA (see Trewin et al 2013). Due to the trade impasse, there is also a perceived notion that the Indian side has instituted NTBs to impede Pakistani exports. This notion was augmented with cumbersome Indian import regulations at the border due to non-conformity of standards and regulatory compliance mechanism stalling Pakistan export consignments. There is also a perception that contradicts this 'NTB's are paramount' perception among the some business and agricultural stakeholders that normalization of trade relations with India coupled with trade liberalization under the SAFTA framework (which envisages bringing tariffs from zero to five %on all tariffs lines, save the extensive sensitive lists maintained by each SAFTA member country, but does nothing on NTBs) will make Indian goods more competitive due to its economies of scale and scope. Indian exports destined for Pakistani markets, especially in Punjab and Sindh, also enjoy low transportation costs and travel time.

The following Table signifies the tariff lines where both countries enjoy a comparative advantage or not, and estimates of Potential Bilateral Trade (PBT). Against each tariff line, it is also indicated whether the TL is negative list maintained by Pakistan or is in the Pakistan's sensitive list for SAFTA or both for ease of analysis and tariff determination. India has a comparative advantage in 85 products that have a potential of US$ 619 million in Pakistan's market. Pakistan has a comparative advantage in 69 products with a potential bilateral trade of US$153 million, smaller than that for India whose overall trade is much larger. India has no comparative advantage in these products but still have a potential of US$ 91 million PBT as a consequence of liberalization when there are negative lists and sensitive sectors. Pakistan has no comparative advantage in 124 items but is in better position than India and having a potential of US$60.38 million. Trade impacts are larger where both or either country has a comparative advantage.

Table: RCA Comparison between Pakistan Vs. India

Categories of Comparison	No. of TLs	Neg. List	SAFTA Sensitive List of Pak	Av. RCA Pakistan	Sum of PBT Pakistan Y 2011	Average RCA India	Sum of PBT India Y 2011
Both Countries have Comparative Advantage	60	2	7	18	242.60	8	653.69
Only India has Comparative Advantage	85	5	9	0	11.29	9	619.78
Only Pakistan has Comparative Advantage	69		7	11	153.72	0	91.50
Pakistan is Better than India	124	3	7	0	60.38	0	91.73
India is Better than Pakistan	387	9	27	0	24.53	0	183.06

Grand Total	725	19	57	3	492.51	2	1639.76

Source: Trade Map ITC Unit: Thousand US $ (PBT is the existing Potential Bilateral Trade in the Market)

The Revealed Comparative advantage[99] (RCA) analysis is carried-out at the section level (pooled for HS chapters) which shows that in agriculture, Pakistan has a comparative advantage in all sections except in "Sec 4. Prepared Foodstuff; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes". This result is intuitive as value-added agriculture is less competitive than Indian agricultural value-added sectors. Agricultural cooperatives in India and a technological-cum-mechanization factor are thought by some to also augment India's competitiveness in the agricultural sector[i].The RCA at HS 6 digit (product) section level reveal that Pakistan's RCAs are increasing over time, which possibly suggests better trade relations and an easing of the impact of NTBs on the Indian side.

Challenges at, behind and beyond the border for enhancing Pakistani exports to India

Indian agriculture enjoys relative cost advantages vis-à-vis Pakistan due to economies of scale, huge agricultural input subsidies[100] and a favorable regulatory regime. This relative advantage has been viewed by many as a threat to Pakistan's agricultural competitiveness and sustainability. The sheer size of agricultural production capacity is also a source of concern especially for small land-holding farmers. As per the FAO-GIEW brief, India is "expected to have an exportable surplus of about 13 million tonnes, comprising of rice, wheat and maize, nearly double the average of the previous five years. This huge exportable surplus will surely depress agricultural prices in Pakistan and would be a concern for policy makers and agricultural sector-related stakeholders" (apart from consumers, including processors depending on cheap inputs to maintain their competitiveness).

India ranks second in Pakistan's import partners of agricultural products. Proximity, vulnerability of Indian agriculture due to dependence on rain-fed irrigation, time differentials in crop harvesting, price and supply stabilization, inter-dependence and comparative advantage in some of agricultural products offer long-term niche export market opportunities where both countries can export and thrive in most competitive product sectors.

An exporter of agricultural products has to meet the "technical regulations and standards" set by various Indian National Standards Setting bodies and Implementation Agencies at and beyond the border. The Bureau of Indian Standards (BIS) is entrusted for formulating and enforcing standards for 14 sectors. Food and Agriculture is one of the sectors. Labelling must contain information which should include "name, trade name or description of food contained in the package; ingredients used; name and address of manufacturer or importer; net weight or measure of volume (in accordance with the metric system based on the international system of units) of contents; item/package sale price (MRP Rs __) (inclusive of all taxes); month and year of manufacture or packaging; date of expiry; licence number where relevant; and name, address or e-mail if available of person or office to be contacted in case of a complaint. For products containing natural flavouring substances, the common name of the flavours should be mentioned on the label. The label should also indicate the animal origin of gelatine in products that contain it. Labels in English suffice but some regional states require labels in local languages. Food containing Genetically Modified (GM) must display information on product labels but also need import authorization and approval of the Genetic Engineering Approval Committee.

The Food Safety and Standards Authority of India (FSSAI), established in July 2008, acts as a single reference point for all matters relating to food safety and standards, including licensing and registering businesses selling or importing food for human consumption, and regulating food manufacturing practices and labelling. Similarly, imports of plants and plant material are subject to production of a

[99]Revealed comparative advantage (RCA) indices are widely used to assess the comparative advantage (at the sectoral or overall economy level) by comparing country's trade profile with that of the global average. "The RCA index is defined as the ratio of two shares. The numerator is the share of a country's total exports of the commodity of interest in its total exports and denominator is share of world exports of the same commodity in total world exports" (Mikic and Gilbert 2007)

[100]"Public investment in agriculture and with the Rashtriya Krishi Vikas Yojana gives States a strong incentive to increase their involvement and their investment in agriculture. Consequently, allocation for agriculture and allied sectors as a proportion of State Plan expenditure has gone up from 4.88% in 2006-07 to 6.04% in 2010-11." Ibid

Phyto-sanitary certificate issued by the national plant protection organization of the exporting country and an import permit issued by the officer-in-charge of the plant quarantine station[101].

Export procedural requirements include obtaining an Export Import Code (EIC), business identification number, shipping bills (and other clearance documents which may include import permits, SPS certificates etc.). The World Bank has estimated that export procedures cost on average US$ 945 per container (including documents preparation (US$350) and customs clearance (US$120)).[102]

The Indian agricultural market is relatively more protected through higher tariffs, quota regimes, strict quality and regulatory regimes. Pakistan is more open in terms of tariffs and regulations. More than three quarters (77.7%) of Pakistani agriculture tariff lines have average MFN applied tariffs between 0 to 25 % whereas India has only 23.6% tariff lines within this tariff range. In the case of Pakistan, only 22.5% products have MFN applied tariff greater than 25%, but in case of India 77.5% products have tariff above 25%.

Challenges at the border

Most of the Pakistan agricultural exporters are small traders or growers and lack Information technology skills. Thus, filling out paperless electronic customs clearance may be a potential challenge at the border. It is important to know that to import commercially, importer need to file an online request for registration with the office of the Directorate General of Foreign Trade (DGFT) to get an IEC (import export code). Prior filling out of the bill of entry helps in faster clearance. Electronic Data Interchange (EDI) inter-links and integrates within the process, and under the time that manual processing of customs documents would be done. A check-list for the potential issues that may come up at the border includes:

a. Shipping documents, Custom valuation, sampling and inspection requirements;
b. Customs clearance charges, fees, and payment (mechanisms) facilities;
c. Complying with Sanitary and Phyto-sanitary, technical standards and regulatory requirements (like labelling, packaging, storage and handling);
d. Customs clearing and facilitation agents (who can help to comprehend the Custom regulations, duties and procedures and facilitate the clearing of shipments well within time);
e. Efficient grievance redressal mechanisms;
f. Banking and insurance facilities;
g. Cargo storage, handling and movement of cargo for inland transportation;
h. Bill or Instruments for payment for exports (letter of credit, bill of lading);
i. Transportation network.

The challenges beyond the border can be categorized as under:

- Establishing and maintaining contacts with local businessmen and regulatory agencies;
- Keeping track of business trends, consumers tastes and regulatory changes;
- Financial, insurance and banking facilities;
- Transportation and trade facilitation;
- Harmonization of standards, procedures and inspection mechanisms;
- G2G, P2P and B2B interactions and networking;
- Managing export competitiveness (trade policy and preferential trade agreements, subsidies, anti-dumping and countervailing regulations, and foreign exchange requirements);
- Sustaining business and trade interactions and volume;

[101] Plant Quarantine (Regulation of Import into India) Order 2003
[102] World Bank/IFC Doing Business (http://www.doingbusiness.org)

- Maintaining B2B interaction to enhance business confidence;
- Export marketing and development strategy;
- Trade and transport facilitation: Procedural, transport infrastructure, logistics and banking Issues;
- Standards, certifications and conformity assessment recognition Issues.

The real behind the border challenge is to dismantle psychological, infrastructural and institutional barriers. The following check list provides the behind the border challenges for exporting agricultural products to India:

a. Market Intelligence, consumers tastes, distribution and marketing channels;
b. Trade policy, preferential trade agreements, industrial policy, budget, subsidies, fiscal, monetary and investment promotions;
c. Exporting promotion and business match making opportunities;
d. Visa facilitation and communication linkages;
e. Import licensing, tariffs, para-tariffs, and import regulations;
f. Customs procedures and processing time;
g. Sanitary and Phyto-sanitary (SPS), technical standards and certification Inspection and compliance costs and procedures;
h. Documentation, labelling, packaging and storage requirements;
i. Custom tariff, para-tariff, other duties and facilities charges (fines, penalties and demurrages charges);
j. Transportation, logistics and cargo handling
k. Freight and in-transit costs and time;
l. After sale service, warranties (refund and exchanges arrangements), spare parts and inventory requirements;
m. Investment, technical collaboration and joint ventures;
n. Banking, insurance, foreign exchange regulations and facilities; and
o. Chambers, trade associations, wholesalers and retailers requirements, if any.

Though the issues of compliance of Sanitary and Phyto-sanitary measures, health, hygiene and quarantine requirements, certification, inspections, import licensing documentations, payment of fees, services charges and duties are encountered at the border, they need to be tackled behind the border for the smooth flow of exports. Hence, it is pertinent to study the regulatory, procedural and logistic challenges that would be encountered at border before embarking on journey of exporting agricultural products.

Trade distorting Indian subsidies regime

Subsidies per se may be considered not to be trade distorting[103]. Subsidies may be given for production, exports, imports and even for not indulging in some activities (compensation). Sometimes, governments indulge for legitimate goals and provide subsidies such as social safety nets, food or nutritional security or in case of market failures or situations where it is beyond the capacity of select entities or a group to sustain the competition. Subsidies, if they alter the price mechanisms and put the competitors at an unfair disadvantage would be trade distorting and yield an inefficient allocation of resources. "The distinctive feature of tariffs and export subsidies is that they create a difference

[103] In WTO parlance, the subsidies are coded by the colours of traffic lights: green (permitted), amber (slow down — i.e. be reduced), red (forbidden).- see http://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm

between prices at which goods are traded on the world market and prices at which those goods can be purchased within a country."[104]

Agricultural subsidies by large relatively advanced developing countries like India have broader impacts, in particular on the farmers in smaller and least developed economies. India driven by concerns of social and food security uses domestic agricultural policy tools like cheap input costs through subsidies for fertilizers, irrigation, electricity, transportation and storage; border measures that insulate the domestic agricultural markets through tariffs, quotas and non-tariff measures; and regulated prices and guaranteed domestic supplies to offset seasonal shortages. These measures entail costs to the government and thus present trade-offs within government spending. "Irrigation and electricity are supplied directly to farmers by GOI at prices that are below the cost of production. These policies result in effective subsidies to the farmer of 40 to 75 %for fertilizer and 70 to 90 %for irrigation and electricity." (Grossman and Carlson 2011)

India's expenditure on input subsidies has increased sharply in recent years. The cost of India's agricultural input subsidies as a share of agriculture output almost doubled from 6.0 %in 2003-04 to 11.6 % in 2009-10, driven mostly by large increases in the subsidies to fertilizer and electricity. A study conducted by Centre for Management in Agriculture, the Indian Institute of Management, Ahmedabad considers the impact of the withdrawal of the fertilizer subsidies. The study concludes that "if fertilizer subsidies are withdrawn in one go it is going to have very severe adverse effect on net income of rice and wheat farmers in many States and consequently farming would become unprofitable, leading to a serious agrarian crisis."(Sharma 2012). Often subsidies aimed at poor farmers are a blunt instrument and go mainly to the richer farmers or leak out of the sector to the more powerful players in the market. Moreover, it is rare that subsidies are withdrawn in one go without some compensation. The usual practice is to phase them out over the period for structural adjustment to take place.

The Indian Government in its budget for the year 2012-13 maintained that "Government of India will "endeavour to keep central subsidies under 2 %of GDP in 2012-13. Over the next 3 years, to be further brought down to 1.75 per cent" [105] Similarly, credit availability to Indian farmers is subsidizing the costs of inputs. "In 2009-10, government provided an additional 1 %interest subvention to those farmers who repaid their short-term crop loans as per schedule. This subvention was raised to 2 %in 2010-11 and further to 3 %in 2011-12. Thus the effective rate of interest for such farmers will be 4 %per annum."[106] (Economic Survey of India 2012-13: Chapter on Agriculture, p.194) Also, the access to agricultural credit has consistently increased. "The target of credit flow for the year 2011-12 has been fixed at INR 4,750,000 million". "Initiative has been taken to provide kisan credit cards (KCC) to provide adequate and timely credit support to farmers for their cultivation needs. About 107.8 million KCCs had been issued up to October 2011."[107]

In addition to the central government, States and Farmers Cooperative also provide support to farmers. Pakistani growers and farmers are claiming that without a level playing field, Pakistani agricultural will not be competitive thus impacting income, employment and agricultural sustainability of the vital sector. However, rather than take defensive actions like matching subsidies which are distortionary, inequitable (a subsidy to one group of domestic producers is a tax on other groups, especially non-subsidized exporters) and non-sustainable, it is better to address this issue through offensive approaches such as increased R&D to improve productivity and competitiveness.

Indian Non-tariff Measures or Barriers (NTBs)

Non-tariff barriers (NTBs)[108] are mechanisms (mostly in guise of SPS, Technical Barriers to Trade (TBT) and Customs valuation requirements) adopted by the host country to restrict imports by creating additional procedural, inspection and testing, certification and conformity requirements. WTO

[104] Ibid
[105] Key Features of Budget 2012-2013 available at http://indiabudget.nic.in
[106] http://indiabudget.nic.in
[107] Ibid
[108] UNCTAD defines NTBs as "policy measures, other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both"（UNCTAD, 2012. UNCTAD has classified various types of NTBs into 16 chapters from A to P. Each chapter code is categorized by three digits like A000 for exact description and code.

rules do permit member countries to adopt measures to protect human, animal, plant life, and the environment; or to regulate the quality of imports; to prevent deceptive practices or safeguard national security interests. However, the intent of these rules should not be to restrict imports or discriminate between the domestic and foreign suppliers. Formulation of such rules should adhere to established principles and practices of International Standards Organizations' and science. It is pertinent to clarify here that in order to establish that a certain regulation, policy, standard, procedures, certification, packaging, labelling, import or export restraint as an NTB or NTM, the trading partner has to demonstrate that the newly adopted measures is violating the concept of non-discrimination (MFN and National Treatment principles) and is inconsistent with the GATT 1994 Agreement obligations and commitments (WTO Agreements especially SPS, TBT, Customs valuations, pre-shipment inspection etc.)[109]

Even the perception of stringent application of NTBs discourages exporters and creates uncertainty in business exchanges. WITS[110] provides access to tariff analysis and non-tariff measures maintained by the host countries. An analysis of NTBs for India using the WITS database reveals that India maintains 306 NTBs for the Agricultural Sector (HS Chapter 1 to 24) against its trading partners. These NTBs mainly include minimum import pricings, import licensing, decreed Customs valuations, State trading requirements, anti-competitive measures, export-related measures and Rules of Origin. Many of the NTBs, natural or otherwise, relate to aspects that could be diminished through trade facilitation and negotiations such as with transport infrastructure and common customs procedures which research has shown not only assist imports but are essential for the development of exports. Trade and actions associated with it are invariably a two-way flow.

[109] Not all procedural requirements therefore qualify as NTBs. For instance, on 6 March 2007 the United States of America lodged a complaint under the WTO dispute settlement understanding that imposition of "additional duties" or "extra additional duties" by India on imports including (but are not limited to) of wines and distilled products (HS2204, 2205, 2206 and 2208) constitutes a NTB and claims that the measures are inconsistent with Articles II:1(a) and (b), and III:2 and III:4 of the GATT 1994. The DSB (Appellate Body) found these "extra-additional duty would not be justified under Article II:2(a) of the GATT 1994 insofar as it results in the imposition of charges on imports in excess of the sales taxes, value-added taxes, and other local taxes or charges that India alleges are equivalent to the Extra-Additional Duty; and, consequently, that this would render the Extra-Additional Duty inconsistent with Article II:1(b) to the extent that it results in the imposition of duties in excess of those set forth in India's Schedule of Concessions." Thus, the mere assertions that import regulations or requirements constitute as NTBs needs to be established under WTO laws. One of the contentious issues between India and Pakistan trade normalization is NTBs applied by India on Pakistan's exports. Sixty six percent of the respondents in the stakeholder consultation survey conducted for this research study attributed Indian procedures, import regulations and certification requirements as big hurdle in exporting to India. Other trading partners also allege that India maintains complicated import procedures and systems that constitute NTBs. USTR 2012 in its annual report on "TBT measures maintained by US trading partners" states that labelling requirement by India "such as various formatting requirements and a requirement that flavors be listed on the front of the product container, are inconsistent with the Codex General Standard for the Labeling of pre-packaged Foods."

[110] The World Integrated Trade Solution (WITS) is software developed by the World Bank, in close collaboration and consultation with various international organizations including the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the United Nations Statistical Division (UNSD) and the World Trade Organization (WTO).

POLICY RECOMMENDATIONS AND REGULATORY REFORMS[111]: AN INTEGRATED STRUCTURAL ADJUSTMENT OFFENSIVE WITH DEFENSIVE SAFEGUARDS

The policy recommendations and regulatory reforms fall into various categories, for example short and long-term, or an integrated longer-term offensive approach focused on structural adjustment and a short-term defensive approach that phases out as the structural adjustment is implemented. The following discussion looks at the policy recommendations from a short and then a long-term perspective, and the Summary matrix at the end splits the predominantly short-term defensive recommendations and the broader time-spectrum offensive recommendations.

Short-term policy recommendations

As part of a defensive strategy, "Import Quota" for the agricultural sector may be introduced. The defensive strategy has been suggested by a few Public authorities as a response to the elusive and mythical level playing field with India. Rather than take defensive actions like Import Quotas or matching subsidies, it is better to address this issue in conjunction with an offensive strategy that encourages structural adjustment with the defensive strategy being phased out as the structural adjustment is developed. At any rate, the quantum of the quota may be fixed on the basis of average value of last five years import figures in each of tariff line in the agriculture sector but it would be better if a formula was used that has the quota allowing these imports to increase with greater certainty until the quota is removed in a set number of years. Non-transferable Import Quota may be awarded on first-come first-serve basis on payment of 5 %of the value of quota. The fee will be returned if the importer realized imports. If the importer wants to surrender the import quota than the 5 %fee would be forfeited. On exhaustion of the Import Quota, the MFN bound rate tariff will progressively apply. For a 10 %increase in imports above the IQ limits, the MFN applied tariff will be hiked by 10 %and so on.

The Import Quota may be applied under the Pakistan Safeguard Ordinance 2002 (as amended). However, the thrust of trade contingency rules drafted and agreed either under the WTO Agreement or Pakistan's Trade contingency measures legislation is on the injury to the domestic industry and industry has to come up with complaints backed up with evidence. However, in the case of the agriculture sector for Pakistan (or even for most developing countries) where the majority of farmers are engaged in subsistence farming and their land-holding is less than 15 hectors, it is unlikely that small farmers possess access to trade statistics and other such information to launch a complaint and plead their case in the National Tariff Commission or at the WTO. It is recommended that Pakistan's trade defense regulations be amended so that the agriculture sector's interests, especially those of small land-owing farmers, can be protected. Also, Superior Judiciary may be made bound through legislative amendments in the NTC Act for time bound disposal of trade-related litigations (say within 3 months of the case and all judicial appellant forum to be exhausted within six months) and to restrain from granting an indefinite stay (status quo) on trade-related litigations as importers manipulate the judicial lacunae to stretch the judicial process to the detriment of the local growers, producers and industry. A Directorate of Agriculture may be created within NTC who can initiate and protect the interests of agricultural sectors and farmers. This Directorate should be empowered to monitor imports and take actions if there are threats or threats thereof to the domestic agriculture sector or agricultural production (from unfair trade practices or a sudden surge in imports). Farmers and growers may not need to petition or plead for protection. Real-time import data[112] should be freely and publically available. Such facility should also be provided to the NTC Agriculture directorate where it can monitor imports at disaggregated product (HS Code at 8 digits) levels by country/

[111] Policy Recommendations are formulated on based on research and analysis done in research paper, the stakeholders survey and consultations held during the Public-Private Sector Dialogue

[112] At present, a month lag is the normal time when the Ministry of Commerce gets import data from the Pakistan Bureau of Standards. Complete import data by product/source /country/firm may take two months to be provided to policy makers and public sector organizations.

producer or firm or a cooperative. Imports historical trends and time series data should also be available for real-time analysis.

Other short-term actions, basically just involving policy decisions, and mainly progressive could include:

a. Eliminate the Excise Duty and Sales Tax on domestic Agricultural products and agro-based industries, or possibly a levy of Additional Duty on Imports of Agricultural products if IQ is not implemented, to level the playing field with imports (though as mentioned earlier, a better progressive approach would be to improve Pakistan's productivity and competitiveness).

b. Streamline Food Safety and Standards and institute mechanism at the border for strict standards compliance (this would be more effective in progressively assisting trade if these standards were negotiated to be consistent across the traders).

c. Establish an Export Promotion and Development Agency to promote exports of agricultural products to India.

d. Encourage participation of agricultural producers and exporters in Indian Trade Fairs & Exhibitions and exchange of trade delegations.

e. Organize Single Country Exhibition and Export Road Shows in major commercial cities and regions of India.

f. Help establish banking and insurance facilities in India and Pakistan.

g. Harmonization of Trade, Customs and Transport procedures.

h. Capacity Building of farmers especially for grading, treatment, packaging, labelling and enhancing the shelf life of products for export opportunities.

i. Capacity building in Sanitary and Phyto-sanitary requirements and Food Safety and Hygiene Standards.

j. Provide cost-effective incentives to adopt HACCP (Hazard Analysis and Critical Control Point) standards

k. Provide cost-effective incentives for establishing joint ventures in agro-based industries and marketing linkages with internationally renowned brands.

Long-term policy recommendations

Besides tackling structural issues in the agricultural sector which can take some time, the following measures will improve the agricultural sectors long-term sustainability and competitiveness:

a. Make available cost effective new farming techniques that could ward-off the any negative effects of climate changes, droughts etc., especially changes in the farming environment (like changes in frequency, pattern and volume of climatic conditions like temperature, rains or winds).

b. Progressively introduce market-based pricing and procurement policies.

c. Allow the introduction of cluster farming through legislative cover to facilitate farmers to join a agri-cluster and get support for agricultural/ farming extension services, credit, ASC (Agricultural Supply Chain) and business development and marketing (entrepreneurship) training and assistance.

d. Develop cost-effective agricultural storage and cold storage facilities for the farmers with adequate transportation. The management of these facilities may be undertaken by agri-clusters or public-private partnerships.

e. Provide cost-effective incentives for agro-based industries with back-ward linkages with farms to develop the production competitiveness.

f. Develop agricultural-based FDI policy to facilitate worthwhile joint ventures in agricultural farming, agro-based industrial production, storage, packaging and marketing (including exports).

g. Cost-effective capacity-building of farmers, and public and private sector officials, in respect of agro-based products.

h. To date trade adjustment schemes have been introduced to compensate and smooth the sectoral readjustments and alignments for import-competing sectors. It is time now to start trade adjustment schemes especially for small agricultural farms and farmers who may become uncompetitive due to trade liberalization with India (for example Australia had Rural Adjustment Schemes that offered various readjustment options, including farmers making an orderly exit from the sector, improving their skills, taking up new technologies, acquiring more land or capital). Introduction of unemployment insurance-cum-retraining opportunities for agricultural sector unemployed farmers may be introduced with a view to transform unskilled farming labour into semi-skilled agro-based industrial workers.

i. Establishment of cost-effective market to farm business infra-structure including roads, transportation network, storage, quality control and compliance facilities

j. Introduction of sustainable crop insurance to reduce the agricultural production shocks especially to small farmers.

k. The establishment of a Consumer Welfare Board may also be established in the Federal and Provincial Governments to look after the legitimate interests of the consumers. This is because, due to the restrictive trade regime, there is a likelihood of collusion among the industry and public sector to jack up domestic prices and restrict supplies.

Policy recommendations – Summary Matrix

Issue	Policy solution / recommendation	Proposed concrete initiatives	Short/medium or long-term feasibility/prioritization analysis
I Defensive responses to Level Playing Field Level the Playing field for the Agricultural Sector Trade distorting Indian Subsidies and Support Regime	Managed Agricultural Trade Liberalization - Introduce Import Quota (IQ) (equivalent to existing import levels) Revamp the National Tariff Commission for pro-active monitoring of import surges and elimination of un-fair trade practices Eliminate the Excise Duty and Sales Tax on domestic agricultural products and agro-based industries to assist leveling the playing field with imports	Establish an Agricultural Directorate in NTC Real- time import data monitoring and analysis at disaggregated product (HS Code at 8 digits) level by country/ producer / firm / a cooperative Amend the taxation rules for elimination of Excise Duty and Sales Tax on domestic agricultural products or else levy additional duty on imports of agricultural products if IQs are not introduced.	An immediate action of policy decisions is suggested. Cost mainly in the form of lost gains from more liberalized trade.
II Offensive responses e.g. structural adjustments Lack of mutual understanding, including between policy-makers and industry	Development of initiatives to promote analysis, debate and dialogue on trade liberalization issues and policies to assist achieving an integrated position between policy-makers and industry. Increase bilateral P2P, B2B and G2G contact Normalize trade relations	Establish Regional Trade Promotion and Facilitation department. Develop a five year export marketing and promotion strategy for active participation in Indian Trade Fairs & Exhibitions and exchange of trade delegations. Speed up business visas.	An immediate action of policy decisions is suggested. There is need to activate the Pakistan- India Business Council to institutional B2B contacts.
Issue of NTB	Bilateral negotiations to phase out NTBs that are estimated to have high costs on trade Harmonize regulations, procedures and certification on bilateral and SAFTA level trade Educate businesses regarding complying with Indian Regulations	Document travails of the exporters (including the NTBs faced by them) and estimate their costs to both countries Organize awareness campaigns on exporting to India	An immediate action is suggested. A high priority, low cost with large benefits action.
Border Measures	Streamline Food Safety and Standards and institute mechanism at Pakistani	Strengthening SPS Facilities & Quality Inspection Services at borders by augmenting the	Immediate and Medium-term actions are recommended with similar impacts from actions to

	borders for strict standards compliance	Integrated National Animal and Plant Health Inspection Services (NAPHIS) Capacity building in Sanitary and Phyto-sanitary requirements and Food Safety and Hygiene Standards	those for NTBs.
Competitiveness and Productivity	Introduction of cluster farming Improvement of the Agricultural Supply Chain Market-based price mechanisms Develop Agri-Storage and Cool chain facilities FDI policy to induce Agricultural JVs	Introduce Legislation for Cluster Farming Changes in Investment Policies to encourage worthwhile JVs in the Agricultural Sector Encourage cost-effective Agro-based industrial Clusters Enhance the Agricultural Extension services and improve the Agricultural Supply Chain	Immediate and Medium term actions are recommended. Some high priority, low cost policy decisions with large benefits.
Trade Liberalization Costs - assisting the vulnerable sectors susceptible to import competition	Trade Adjustment Schemes Crop Insurances	Initiate Trade Adjustment schemes for small agricultural farmers who may become uncompetitive.	Immediate and Medium term actions are recommended.
Ensuring Consumer Welfare and Protection	Consumer Welfare Boards	Enhance the role of the Pakistan Competition Commission to safeguard Pakistani consumers' interests.	An immediate action of policy decisions is suggested.

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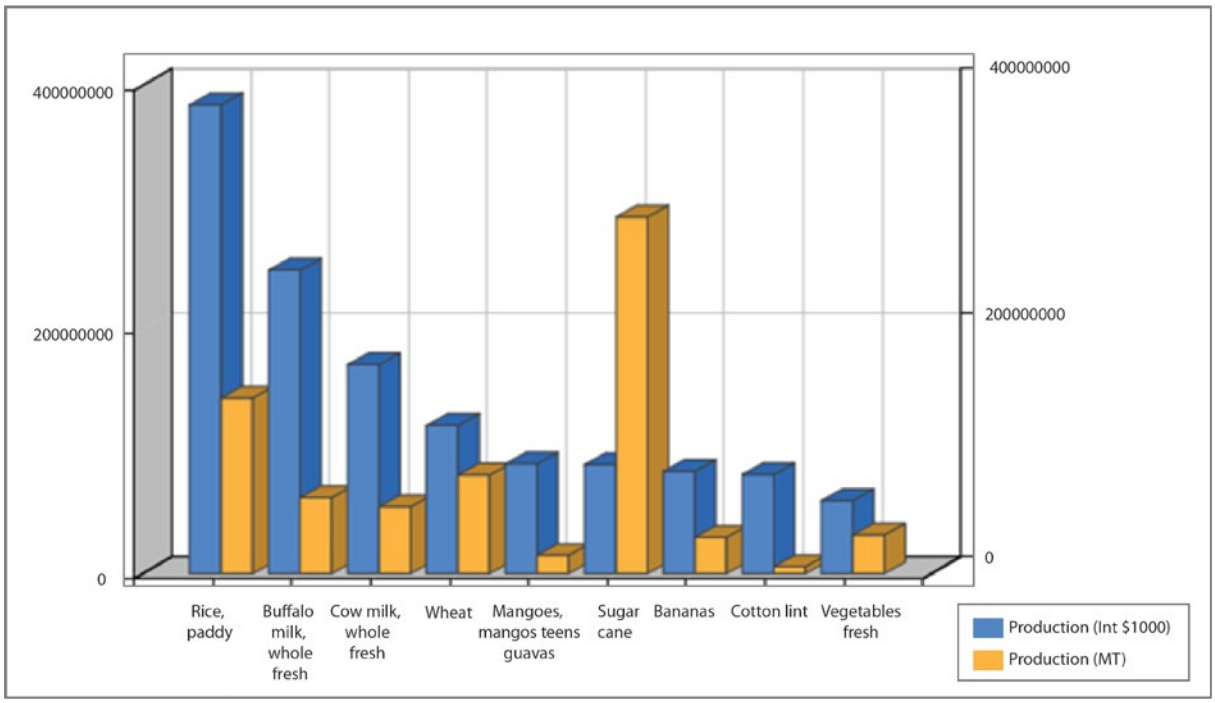
APPENDIX

Appendix 1 Production, Imports and Exports Profile of India and Pakistan

Top production India 2010



Source 1 FAO STATISTICS

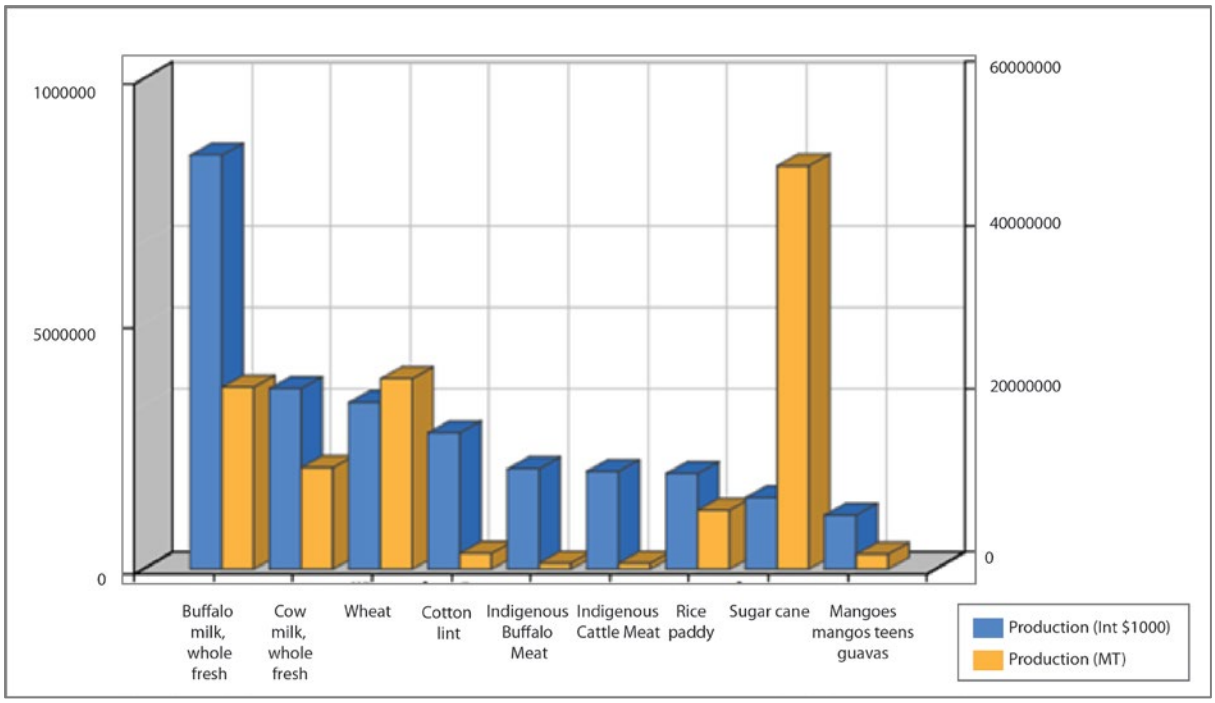
Top 20 Production products of India for the year 2010					
Rank	Commodity	Production (Int $1000)	Flag	Production (MT)	Flag
1	Rice, paddy	38424912	*	143963000	
2	Buffalo milk, whole, fresh	24869607	*	62350000	
3	Cow milk, whole, fresh	17133085	*	54903000	
4	Wheat	12146402	*	80800000	
5	Mangoes, mangos teens, guavas	9003503	*	15026700	
6	Sugar cane	8926377	*	292300000	
7	Bananas	8386971	*	29780000	
8	Cotton lint	8139317	*	5695000	
9	Vegetables fresh	5978102	*	31724000	
10	Potatoes	5677931	*	36577300	
11	Tomatoes	4594863	*	12433200	
12	Indigenous Buffalo Meat	4009154	*	1489430	Fc
13	Soybeans	3336238	*	12736000	
14	Onions, dry	3175279	*	15118000	
15	Indigenous Chicken Meat	3123881	*	2193110	Fc

16	Chick peas	3110792	*	7480000	
17	Okra	3071485	*	4803000	
18	Indigenous Cattle Meat	2935045	*	1086500	Fc
19	Hen eggs, in shell	2801759	*	3378100	
20	Beans, dry	2572607	*	4870000	

Source: FAO Statistics

* : Unofficial figure
[ ]: Official data
Fc: Calculated data

Top production Pakistan 2010



Source 2 FAO Statistics

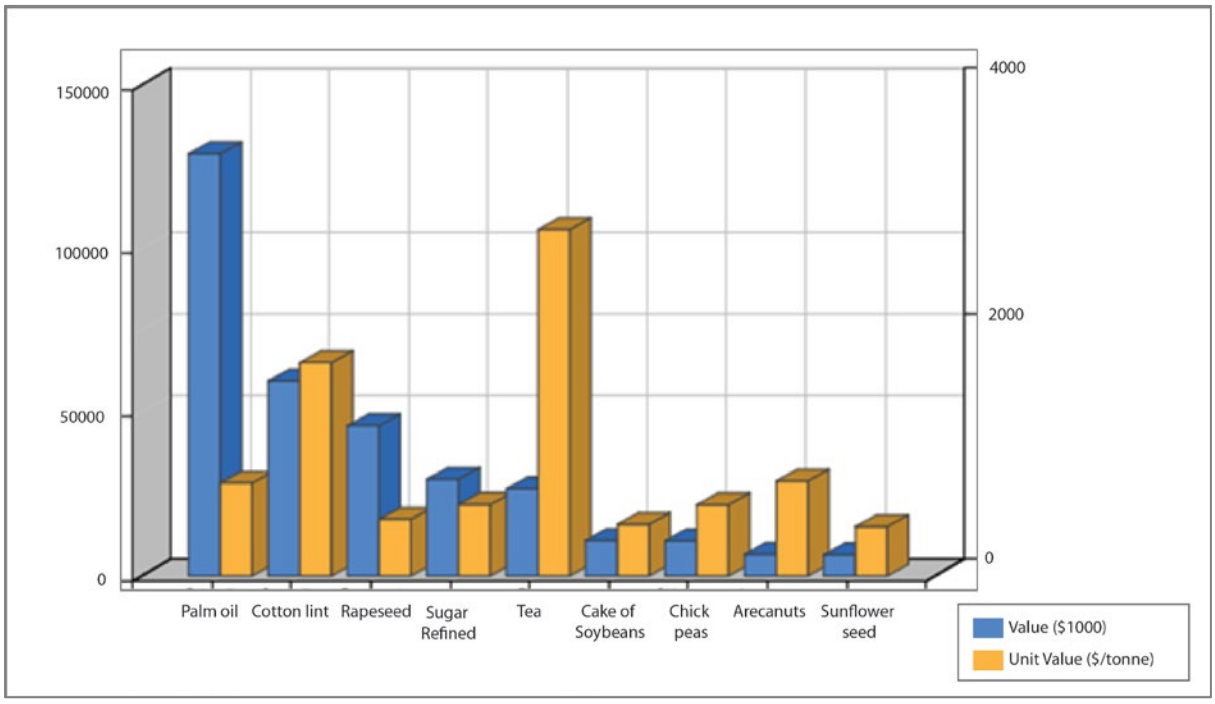
Top 20 Production products capacity for the year 2010					
Rank	Commodity	Production (Int $1000)	Flag	Production (MT)	Flag
1	Buffalo milk, whole, fresh	8442125	*	22279000	
2	Cow milk, whole, fresh	3687048	*	12437000	
3	Wheat	3401059	*	23310800	
4	Cotton lint	2784375	*	1948200	
5	Indigenous Buffalo Meat	2046347	*	760233	Fc
6	Indigenous Cattle Meat	1997362	*	739387	Fc
7	Rice, paddy	1952838	*	7235000	
8	Sugar cane	1459132	*	49372900	
9	Mangoes, mangos teens, guavas	1105763	*	1845500	
10	Indigenous Chicken Meat	1002778	*	703997	Fc
11	Cottonseed	875914	*	3700000	*
12	Indigenous Goat Meat	660599	*	275699	Fc

13	Potatoes	506849	*	3141500	
14	Hen eggs, in shell	461499	*	556433	*
15	Indigenous Sheep Meat	436568	*	160338	Fc
16	Maize	406600	*	3707000	
17	Onions, dry	357287	*	1701100	
18	Oranges	290853	*	1505000	*
19	Dates	266690	*	522200	
20	Goat milk, whole, fresh	247994	*	739000	

Source: FAO Statistics

* : Unofficial figure
[ ]: Official data
Fc: Calculated data

Top imports Pakistan 2010



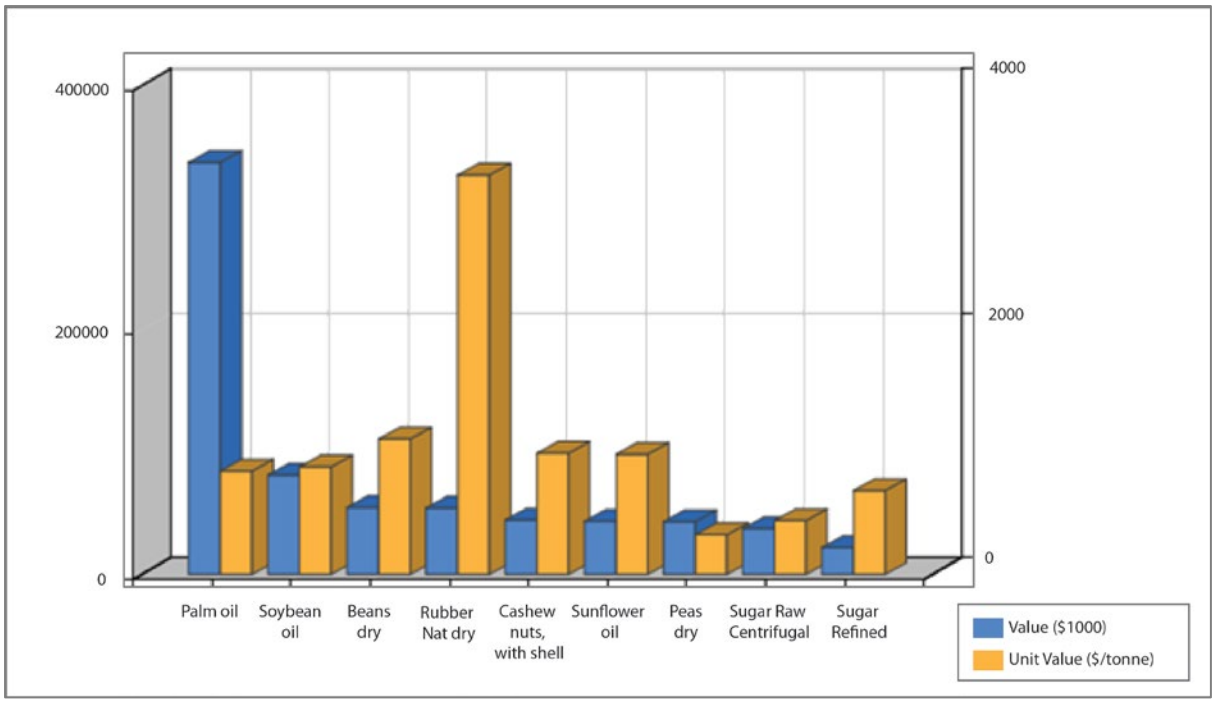
Source 3 FAO Statistics

Top 20 Imports of Pakistan for the year 2010						
Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Palm oil	1702196	1	1290798	1	758
2	Cotton lint	342814	4	596094	2	1739
3	Rapeseed	992261	2	459373	3	463
4	Sugar Refined	509203	3	296123	4	582
5	Tea	94463	11	266639	5	2823
6	Cake of Soybeans	259239	5	109279	6	422
7	Chick peas	185554	6	107803	7	581
8	Arecanuts	85517	13	66266	8	775
9	Sunflower seed	160750	7	64916	9	404

10	Jute	98452	10	63183	10	642
11	Lentils	67729	17	55363	11	817
12	Garlic	64223	19	49339	12	768
13	Flour of Wheat	78177	14	46812	13	599
14	Wheat	94058	12	40020	14	425
15	Peas, dry	107792	9	38943	15	361
16	Rubber Nat Dry	17022	34	38607	16	2268
17	Ginger	62582	20	38441	17	614
18	Oil Hydrogenated	29875	24	34039	18	1139
19	Food Prep	8968	48	32300	19	3602
20	Natural rubber	17218	33	31793	20	1846

Source: FAO Statistics

Top imports India 2010



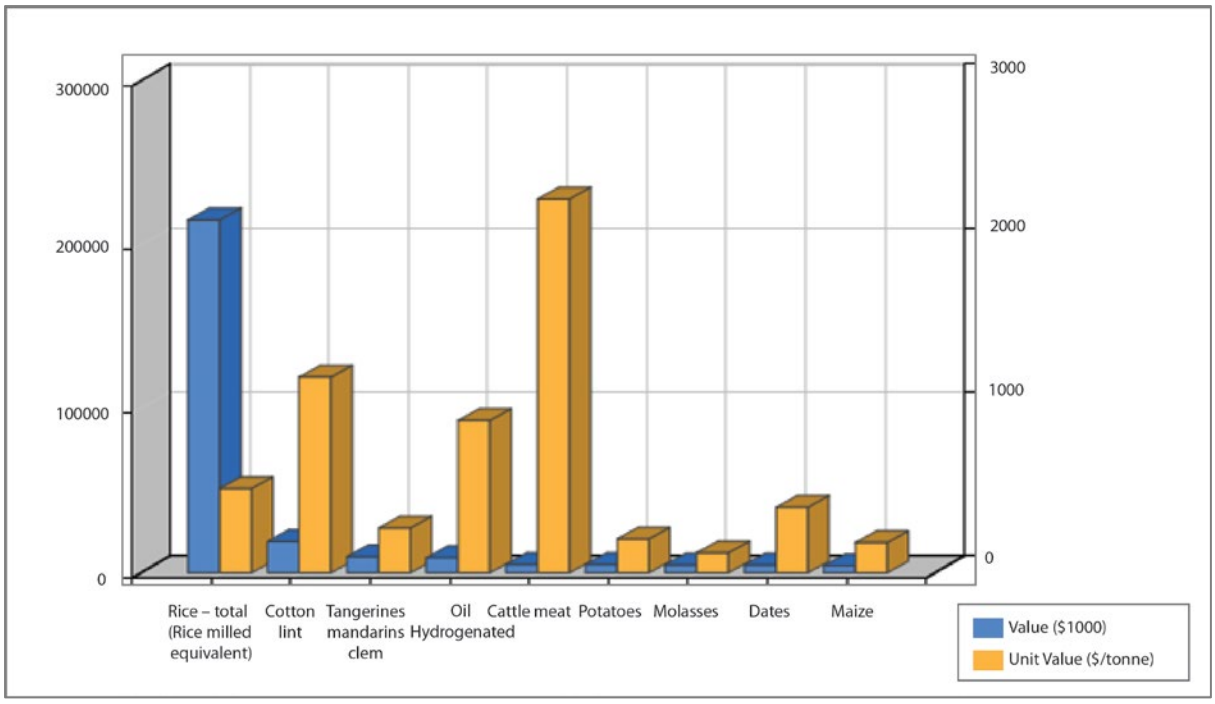
Source: FAO Statistics

Top 20 Imports of India for the year 2010						
Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Palm oil	3984751	1	3372692	1	846
2	Soybean oil	924398	3	813562	2	880
3	Beans, dry	495368	5	549240	3	1109
4	Rubber Nat Dry	166451	13	544059	4	3269
5	Cashew nuts, with shell	448829	6	445286	5	992
6	Sunflower oil	441132	7	434278	6	984
7	Peas, dry	1334712	2	431786	7	324
8	Sugar Raw Centrifugal	852040	4	374925	8	440
9	Sugar Refined	321163	8	220225	9	686

10	Pulses, nes	267389	9	212224	10	794
11	Almonds, with shell	49582	20	194307	11	3919
12	Wool, greasy	35612	25	158404	12	4448
13	Fatty Acids	186933	11	155407	13	831
14	Silk Raw	4525	72	150043	14	33159
15	Palm kernel oil	122200	15	138731	15	1135
16	Lentils	150186	14	125241	16	834
17	CmpdFeed,Oth Or Nes	35931	24	112617	17	3134
18	Dates	193467	10	95042	18	491
19	Apples	93264	16	92544	19	992
20	Bever. Dist.Alc	20453	32	86314	20	4220

Source: FAO Statistics

Top exports Pakistan 2010



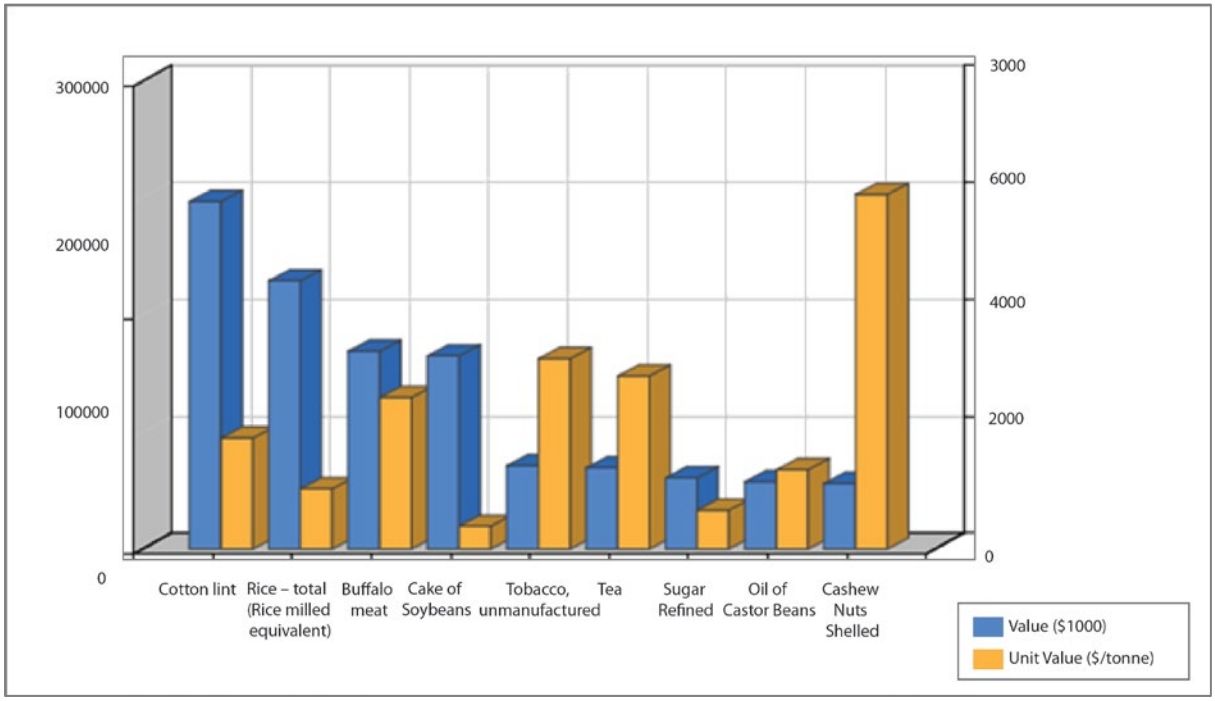
Source: FAO Statistics

Top 20 Exports of Pakistan for the year 2010						
Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Rice – total (Rice milled equivalent)	4179793	1	2152814	1	515
2	Cotton lint	160859	7	192139	2	1194
3	Tangerines, mandarins, clem.	360938	4	98721	4	274
4	Oil Hydrogenated	98949	10	92057	5	930
5	Cattle meat	22550	20	51425	6	2280
6	Potatoes	245329	5	50663	7	207
7	Molasses	400213	3	49020	8	122
8	Dates	121681	9	48690	9	400

9	Maize	229396	6	42489	10	185
10	Cotton Waste	50441	14	39981	11	793
11	Sugar Confectionery	17855	25	33563	12	1880
12	Mangoes, mangos teens, guavas	85923	11	30539	13	355
13	Fruit Dried Nes	3171	54	29055	14	9163
14	Spices, nes	8662	34	26579	15	3068
15	Vegetable Frozen	60220	13	25256	16	419
16	Sheep meat	7380	37	25152	17	3408
17	Onions, dry	122002	8	23347	18	191
18	Cotton Carded, Combed	17811	26	20093	19	1128
19	Sesame seed	12313	32	16844	20	1368
20	Goat meat	3938	50	16500	21	4190

Source: FAO Statistics

Top exports India 2010



Source: FAO Statistics

Top Export of India for year 2010						
Rank	Commodity	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Cotton lint	1565501	4	2972199	1	1899
2	Rice – total (Rice milled equivalent)	2225391	3	2295183	2	1031
3	Buffalo meat	652790	9	1692158	3	2592
4	Cake of Soybeans	4202556	1	1652202	4	393
5	Tobacco, unmanufactured	218914	19	713117	5	3258
6	Tea	234560	18	694661	6	2962

7	Sugar Refined	915790	7	609304	7	665
8	Oil of Castor Beans	424316	11	575985	8	1357
9	Cashew Nuts Shelled	92598	30	561740	9	6066
10	Maize	2293396	2	533674	10	233
11	Onions, dry	1364337	5	465312	11	341
12	Sesame seed	321771	14	455432	12	1415
13	Groundnuts Shelled	372691	13	392065	13	1052
14	Coffee, green	177926	23	379757	14	2134
15	Chilies and peppers, dry	270148	15	347806	15	1287
16	Oil Essential	16095	75	334558	16	20786
17	Spices,	178428	22	266452	17	1493
18	Sugar Raw Centrifugal	383307	12	248249	18	648
19	Cake of Rapeseed	920217	6	230495	19	250
20	Mangoes, mangos teens, guavas	260484	16	228654	20	878

Appendix 2 RCA Tables

Table 3.2.a : Only India Has Revealed Comparative Advantage but Pakistan has not Revealed Comparative Advantage

Product Code/Description	Negative List	SAFTA Sen List of Pak	Average RCA Pakistan	Average RCA India
'121210-Locust beans, including seeds, fresh or dried, whether or not ground			0.0	26.0
'130110-Lac			0.0	26.0
'100590-Maize (corn)			0.9	1.7
'090610-Cinnamon and cinnamon-tree flowers neither crushed nor ground			0.0	3.3
'090111-Coffee, not roasted, not decaffeinated			0.0	1.7
'140410-Raw vegetable materials used primarily in dyeing or tanning			0.0	3.1
'230400-Soya-bean oil-cake & oth solid residues, whether or not ground or pellet			0.0	4.8
'091050-Curry			0.0	23.1
'120760-Safflower seeds, whether or not broken			0.0	26.0
'530110-Flax fibre, raw or retted			0.0	5.4
'130211-Opium sap			0.0	62.2
'230500-Ground-nut oil-cake & oth solid residues, whether or not ground or pellet			0.0	26.9
'170199-Refined sugar, in solid form,		170199	0.0	1.9
'240290-Cigars, cheroots, cigarillos and cigarettes, cntg tobacco substitutes	240290		0.2	1.4

'050610-Ossein & bones treated with acid, unworked, defatted or simply prepared			0.0	23.8
'330130-Resinoids			0.0	5.7
'020230-Bovine cuts boneless, frozen			0.0	6.5
'090620-Cinnamon and cinnamon-tree flowers crushed or ground			0.0	1.7
'190300-Tapioca subst prep from starch in flake, grain, pearl, siftg or sim forms			0.0	1.2
'120300-Copra			0.0	10.6
'040811-Egg yolks dried			0.0	3.3
'382460-Sorbitol (other than D-glucitol)			0.0	2.3
'071140-Cucumbers&gherkins provisionally presvd, butnt f immediate consumption			0.0	35.7
'090500-Vanilla beans			0.0	3.4
'230250-Bran, sharps and other residues of leguminous plants, pelleted or not			0.6	1.9
'081290-Fruits&nuts provis preservd but unfit f immediate consumption			0.0	2.6
'100820-Millet			0.5	16.4
'071010-Potatoes, frozen			0.3	1.3
'210130-Chicory&other coffee substitutes roasted & extracts, ess & conc thereof			0.0	5.5
'290544-D-glucitol (sorbitol)	290544		0.0	1.7
'050800-Coral&sim mat, shellfshshell, cuttlbone, echinodermunwkunshppdr & wast			0.2	1.0
'151550-Sesame oil&its fractions whether/not refind, but not chemically modified			0.2	3.7
'330124-Essential oils of peppermint			0.0	18.4
'040891-Eggs, bird, not in shell, dried			0.0	6.2
'080720-Papaws (papayas), fresh			0.0	1.0
'230210-Maize (corn) bran, sharps and other residues, pelleted or not			0.9	3.3
'080119-Coconuts, excluding desiccated			0.1	5.2
'110630-Flour,meal&powder of edible fruits & nuts & peel of citrus fruit or melons			0.0	2.8
'090810-Nutmeg			0.0	7.8
'150810-Ground-nut oil, crude			0.0	1.4
'060499-Foliage,branch,etc w/o flowers/buds&grass for bouquet/ornpurpexcfr			0.0	9.7
'350211-Egg albumin, dried			0.0	2.1
'330119-Essential oils of citrus fruits,			0.1	1.3
'170191-Refined sugar, in solid form,c ontaing added flavourg or colourg matter			0.0	2.9

'330125-Essential oils of other mints			0.1	31.6
'240130-Tobacco refuse	240130		0.3	3.3
'071390-Leguminous vegetables dried,shelled,whether or not skinnd or split,			0.2	12.3
'130190-Natural gums, resins, gum-resins and balsam, except arabic gum			0.8	15.8
'090830-Cardamoms			0.1	5.3
'100890-Cereals unmilled			0.1	1.3
'090412-Pepper of the genus Piper, except cubeb pepper, crushed or ground			0.2	9.3
'060390-Cut flowers & flower buds for bouquets or ornamental purposes, ex fresh			0.7	1.2
'090220-Green tea (not fermented) in packages exceeding 3 kg		090220	0.1	2.4
'120210-Ground-nuts in shell not roasted or otherwise cooked			0.9	9.7
'230649-Oil-cake and other solid residues, whether or not ground or in the for			1.0	38.8
'020423-Sheep cuts, boneless, fresh or chilled			0.0	4.9
'200110-Cucumbers and gherkins, prepared or preserved by vinegar or acetic acid			0.0	13.9
'210111-Coffee extracts, essences, concentrates			0.0	3.0
'091010-Ginger			0.9	2.6
'330190-Conc&aqueous distls of essentloils; terpenic by-prods of essentl oils			0.0	21.4
'100610-Rice in the husk (paddy or rough)			0.0	1.3
'020220-Bovine cuts bone in, frozen			0.5	1.8
'090210-Green tea (not fermented) in packages not exceeding 3 kg		090210	0.1	1.1
'240399-Tobacco extracts and essences	240399		0.8	4.4
'071320-Chickpeas, dried, shelled, whether or not skinned or split			0.0	12.6
'130239-Mucilages&thickeners, modifid or not, derivd from vegetable products			0.2	1.2
'210120-Tea or matéextracts, essences& concentrates & preparations thereof			0.0	2.2
'151530-Castor oil & its fractions, whether/not refind, but not chemically modified		151530	0.1	58.2
'200310-Mushrooms prepared or preserved other than by vinegar or acetic acid			0.0	1.4
'350110-Casein			0.0	3.6
'090411-Pepper of the genus Piper, ex cubeb pepper, neither crushd nor ground			0.0	4.8
'382311-Stearic acid		382311	0.0	1.3
'080232-Walnuts, fresh or dried, shelled or peeled			0.2	2.4
'382319-Industrial fatty acids, acid oils		382319	0.0	1.9

'330129-Essential oils,			0.0	2.9
'100700-Grain sorghum			0.0	1.2
'090230-Black tea (fermented) & partly fermentd tea in packages not exceedg 3 kg		090230	1.0	4.7
'120220-Ground-nuts shelld, whether or not broken, not roastd or otherwise cookd			0.0	14.7
'130219-Vegetable saps and extracts nes			0.0	5.0
'200799-Jams,fruit jellies, fruit/nut purée & paste, ckd prep, sugard, sweet end/not			0.6	1.7
'080132-Cashew nuts, without shell, fresh or dried			0.0	20.2
'200899-Fruits&oth edible pts of plants, prep/presvd, sug, sweet/spir/not		200899	0.1	1.4
'382370-Industrial fatty alcohols	382370		0.0	3.1
'090240-Black tea (fermented) & partly fermented tea in packages exceedg 3 kg		090240	0.4	10.4

Table 1.2.b: Only Pakistan has revealed comparative advantage but India has not revealed comparative advantage

Product Code/Description	Negative List	SAFTA Sen List of Pak	Average RCA Pakistan	Average RCA India
'430190-Raw fur skin pieces (e.g. heads, tails, paws),suitable for furrier's use			3.6	0.1
'050710-Ivory unworked or simply prepared not cut to shape & powder & waste			32.1	0.0
'010631-Live birds of prey			3.4	0.0
'510220-Coarse animal hair, not carded or combed			12.9	0.5
'010632-Live psittaciformes "incl. parrots, parrakeets, macaws and cockatoos"			1.8	0.0
'510320-Waste (other than noils) of wool/of fine animal hair,exgarnettd stock			76.6	0.8
'121010-Hop cones, not ground, powdered or pelleted			5.9	0.0
'010639-Live birds (excl. birds of prey and psittaciformes "incl. parrots, par			14.0	0.0
'010519-Poultry, live except domestic fowls, weighing not more than 185 g			20.9	0.1
'510129-Degreased wool (other than shorn wool),not carded, combed or carbonised			28.8	0.9
'520291-Garnetted stock of cotton			20.8	0.3
'140110-Bamboos used primarily for plaiting			8.0	0.3
'070890-Leguminous vegetables, shelled or unshelled, fresh or chilled			4.6	0.6
'510119-Greasy wool (other than shorn wool) not carded or combed			4.6	0.3
'120922-Seeds, clover, for sowing			5.3	0.0
'510211-Hair of Kashmir "cashmere" goats, neither carded nor combed			1.7	0.0

'151610-Animal fats & oils & fracthydrogenatd,inter/re-esterifid, etc,ref'd/not			1.6	0.0
'230650-Coconut/copra oil-cake & oth solid residues, whether/not ground/pellet			1.0	0.4
'110319-Cereal groats and meal nes			4.5	0.1
'120890-Flours and meals of oil seeds or oleaginous fruits,except mustard,			10.4	0.3
'110819-Starches		110819	1.4	0.5
'020210-Bovine carcasses and half carcasses, frozen			3.6	0.0
'010599-Poultry, live except domestic fowls, weighing more than 185 g			1.6	0.0
'121300-Cereal straw & husks, unprepd, whether or not choppd, ground, pressd,p elletd			20.4	0.5
'120921-Seeds, lucerne (alfalfa), for sowing			3.9	0.5
'021020-Bovine meat cured			1.0	0.3
'110220-Maize (corn) flour			2.9	0.2
'070810-Peas, shelled or unshelled, fresh or chilled			1.5	0.2
'080300-Bananas including plantains, fresh or dried			1.4	0.1
'110423-Maize (corn), hulled, pearled, sliced or kibbled			14.5	0.2
'170490-Sugar confectionery nes (includg white chocolate),not containg cocoa			1.5	0.3
'121410-Lucerne (alfalfa) meal and pellets			2.4	0.0
'170240-Glucose inc syrup cntg in dry state min 20% but <50% by wt of fructose			1.4	0.5
'220210-Waters inclmineral & aeratd,containg sugar o sweeteng matter o flavourd		220210	1.1	0.0
'121120-Ginseng roots usd primly in pharm, perf,insecticide, fungicide/simpurp			2.4	0.0
'081310-Apricots, dried			2.0	0.0
'040110-Milk not concentrated and unsweetened not exceeding 1% fat			5.4	0.0
'080410-Dates, fresh or dried			59.0	0.2
'230230-Wheat bran, sharps and other residues, pelleted or not			3.8	0.0
'071090-Mixtures of vegetables, frozen			14.8	0.2
'040299-Milk and cream sweetened		040299	1.1	0.0
'070511-Cabbage lettuce (head lettuce) fresh or chilled			1.3	0.0
'020410-Lamb carcasses and half carcasses, fresh or chilled			6.0	0.4
'020610-Bovine edible offal, fresh or chilled			3.0	0.1
'170410-Chewing gum containing sugar, except medicinal			14.1	0.2
'220710-Undenaturd ethyl alcohol of an alcohol strgth by vol of 80% vol/higher			10.7	0.2
'190531-Sweet biscuits			1.7	0.6
'010410-Sheep, live			1.6	0.0
'151620-Veg fats &oils&fractionshydrogenatd,inter/re-esterifid,etc,ref'd/not		151620	18.2	1.0
'020422-Sheep cuts, bone in, fresh or chilled			1.8	0.3
'080711-Watermelons, fresh			1.3	0.1
'220600-Fermented beverages nes (for example, cider, perry,			1.2	0.1

mead, etc)				
'200990-Mixtures of juices unfermentd&notspiritd whether o not sugard o sweet			2.0	0.0
'080290-Nuts edible, fresh or dried, whether or not shelled or peeled, nes			1.1	0.3
'010210-Bovine, live pure-bred breeding			5.8	0.0
'020629-Bovine edible offal, frozen			1.6	0.3
'100640-Rice, broken			95.5	0.4
'040120-Milk not concentrated & unsweetened exceeding 1% not exceeding 6% fat			3.7	0.0
'200911-Orange juice,unfermentd&notspiritd,whether not sugardsweet,frozen			2.6	0.0
'040390-Buttermilk,curdled milk &cream,kephir&ferm or acid milk & cream nes			2.9	0.0
'020110-Bovine carcasses and half carcasses, fresh or chilled			17.7	0.0
'200980-Fruit&veg juice nes (exc mx) unfermentunspiritd,whether/not sug/sweet		200980	3.7	0.2
'110100-Wheat or meslin flour			20.1	0.3
'050400-Guts, bladders and stomachs of animals except fish whole or in pieces			6.0	0.1
'100110-Durum wheat		100110	31.9	0.0
'220720-Ethyl alcohol and other spirits, denatured, of any strength		220720	54.1	0.3
'070190-Potatoes, fresh or chilled			15.9	0.7
'190219-Uncooked pasta, not stuffed or otherwise prepared, nes			1.4	0.1
'080520-Mandarins(tang&sats)clementines&wilkgs&sim citrus hybrids,fresh/drid			17.1	0.0

Product Code/Des	Negative List	SAFTA Sensitive List	Average RCA Pakistan	Average RCA India
'510330-Waste of coarse animal hair, excluding garneted stock			34	1
'530290-True hemp fibre otherwise processed but not spun;tow&waste of true hemp			3	4
'020680-Sheep, goats, asses, mules or hinnies edible offal, fresh or chilled			63	1
'090940-Caraway seeds			6	4
'050100-Hair, human, unworked washed or scoured or not and waste			3	31
'110610-Flour and meal of the dried leguminous vegetables of heading No 07.13			3	8
'071231-Dried mushrooms of the genus "Agaricus", whole, cut, sliced, broken or			27	4
'010420-Goats, live			4	4
'520100-Cotton, not carded or combed			12	12
'500300-Silk waste, incl. cocoons unsuitable for reeling, yarn waste and garne			1	10
'090950-Fennel or juniper seeds			13	16
'090910-Anise or badian seeds			9	1
'080590-Citrus fruits, fresh or dried, nes			71	1
'100630-Rice, semi-milled or wholly milled, whether or not polished or glazed		100630	84	8
'050790-Whalebone,horns,etc unworkd or simply prepard,unshapd,andpowder&waste			7	7
'510310-Noils of wool or of fine animal hair			3	3
'230610-Cotton sedoil-cake&oth solid residues,whether or not ground or pellet			11	3
'090920-Coriander seeds			1	18
'520210-Cotton yarn waste (including thread waste)			140	4
'091030-Turmeric (curcuma)			6	51
'050690-Bones&horn-cores degelatinisd,unwk,defattd o simply prepr,powder&waste			7	2
'120750-Mustard seeds, whether or not broken			2	3
'020421-Sheep carcasses and half carcasses, fresh or chilled			83	7
'090930-Cumin seeds			13	29
'230240-Cereal bran, sharps and other residues nes, pelleted or not			2	4
'091091-Mixtures of two/more of the prods of different headgs to this chapter			46	7
'230690-Veg oil-cake&oth solid residues nes,whether or not ground or pelleted			7	16
'020450-Goat meat, fresh, chilled or frozen			51	3
'140420-Cotton linters			5	10
'240120-Tobacco, unmanufactured, partly or wholly stemmed or stripped	240120		1	5
'110290-Cereal flour			7	2
'520300-Cotton, carded or combed			51	1

'071220-Onions dried but not further prepared			5	12
'091099-Spices			19	11
'110313-Maize (corn) groats and meal			3	2
'040229-Milk and cream powder sweetened exceeding 1.5% fat		040229	7	1
'120999-Seeds, fruit and spores for sowing,			1	2
'140490-Vegetable products		140490	4	6
'120799-Oil seeds and oleaginous fruits, nes, whether or not broken			3	5
'520299-Cotton waste,			41	6
'170310-Cane molasses			49	8
'110812-Maize (corn) starch		110812	4	1
'081340-Fruits, dried			33	2
'090420-Fruits of the genus Capsicum or Pimenta, dried, crushed or ground		090420	4	22
'151590-Veg fats&oilsnes&theirfractions,refind or not but not chemically mod		151590	1	3
'200190-Veg,fruit,nut&edible prts of plants nes,prep/presvd by vin/acetic acid			2	2
'080450-Guavas, mangoes and mangosteens, fresh or dried			20	8
'100620-Rice, husked (brown)			5	5
'170230-Glucose&glucose syrup ntcntgfruct/cntg in dry state <20% by wtfruct			9	1
'350300-Gelatin and gelatin derivs; isinglass; glues of animal origin,			4	3
'040900-Honey, natural			2	3
'120740-Sesamum seeds, whether or not broken			9	15
'130232-Mucilages & thickeners derived from locust beans & seeds or guar seeds			28	40
'230641-Oil-cake and other solid residues, whether or not ground or in the for			3	2
'081090-Fruits, fresh		081090	3	1
'121190-Plants &pts of plants(inclsed&fruit) usd in pharm,perf,insectetcnes			4	5
'240110-Tobacco, unmanufactured, not stemmed or stripped	240110		1	3
'100510-Maize (corn) seed			2	1
'070310-Onions and shallots, fresh or chilled			7	10
'070990-Vegetables, fresh or chilled			5	1

Table 3.2 (d) Both Countries don't have RCA but Pakistan is at better position

Product Code/Des	Negative List	SAFTA Sen List of Pak	Average RCA Pakistan	Average RCA India
'121130-Coca leaf, fresh or dried, whether or not cut, crushed or powdered			0.138	0.000
'100190-Wheat nes and meslin		100190	0.280	0.014
'120924-Seeds, Kentucky blue grass, for sowing			0.333	0.000
'210690-Food preparations			0.379	0.279
'200950-Tomato juice unfermented&notspirited,whether or not sugared or sweet			0.067	0.011
'510219-Fine animal hair, neither carded nor combed (excl. wool and hair of Ka			0.724	0.048
'200791-Citrus fruit (marmalades,purée,etc) ckd prep wther/ntsugard/sweetend			0.783	0.054
'081330-Apples, dried			0.043	0.005
'200891-Palm hearts nes,o/w prep o presvd,whethero not sugard,sweet o spiritd			0.047	0.003
'380910-Prep w a basis of amylaceous subs f textile,paper,leather/the like,			0.751	0.523
'200921-Grapefruit juice, unfermented, Brix value <= 20 at 20°C, whether or no			0.002	0.000
'070970-Spinach,N-Z spinach &orache spinach (garden spinach),fresh or chilled			0.074	0.020
'350520-Glues based on starches, on dextrins or other modified starches,	350520		0.668	0.244
'130212-Liquorice extract			0.746	0.308
'200850-Apricots nes,o/w prep o presvd whether o not sugard,sweetend o spiritd			0.191	0.001
'200961-Grape juice, incl. grape must, unfermented, Brix value <= 30 at 20°C,			0.003	0.000
'071232-Dried wood ears "Auricularia spp.", whole, cut, sliced, broken or in p			0.012	0.000
'070940-Celery, other than celeriac, fresh or chilled			0.058	0.010
'020714-Fowls (gallusdomesticus), cuts & offal, frozen			0.051	0.002
'230990-Animal feed preparations nes	230990	230990	0.419	0.236
'020810-Rabbit or hare meat and edible meat offal, fresh, chilled or frozen			0.007	0.001
'200929-Grapefruit juice, unfermented, Brix value > 20 at 20°C, whether or not			0.737	0.021
'020735-Ducks/geese/guinea fowl, cuts/offal nes, fresh/chilled			0.123	0.000
'170390-Molasses			0.130	0.103
'071030-Spinach, N-Z spinach and orache spinach (garden spinach), frozen			0.110	0.033
'530121-Flax fibre, broken or scutched			0.016	0.006
'120510-Low erucic acid rape or colza seeds "yielding a fixed oil which has an			0.017	0.001

'200880-Strawberries nes,o/w prep/presvd,whether/not sugard,sweet/spiritd			0.053	0.023
'200710-Homo prep (jams,fruit jellies etc) ckd prep whether/ntsugard/sweetend			0.716	0.186
'081350-Mixtures of edible nuts or dried fruits of this chapter			0.563	0.090
'121020-Hop cones, ground, powdered or pelleted and lupulin			0.004	0.000
'070200-Tomatoes, fresh or chilled			0.726	0.413
'160220-Livers of any animal prepared or preserved			0.015	0.000
'020622-Bovine livers, edible offal, frozen			0.204	0.201
'220290-Non-alcoholic beverages,excludg fruit/veg juices of headg No 20.09			0.218	0.047
'040221-Milk and cream powder unsweetened exceeding 1.5% fat		040221	0.406	0.004
'010690-Live animals (excl. mammals, reptiles, birds, fish, crustaceans, mollu			0.147	0.030
'430180-Raw furskinsnes, whole			0.024	0.000
'080260-Macadamia nuts, fresh or dried, whether or not shelled or peeled			0.003	0.000
'080420-Figs, fresh or dried			0.335	0.015
'110811-Wheat, starch			0.142	0.019
'010290-Bovine, live except pure-bred breeding			0.796	0.000
'120925-Seeds, rye grass, for sowing			0.013	0.000
'080910-Apricots, fresh		080910	0.397	0.004
'160232-Fowl (gallusdomesticus) meat, prepared/preserved			0.006	0.004
'120720-Cotton seeds, whether or not broken			0.333	0.262
'330113-Essential oils of lemon			0.466	0.084
'060210-Cuttings and slips, unrooted			0.114	0.084
'200971-Apple juice, unfermented, Brix value <= 20 at 20°C, whether or not con			0.537	0.002
'071339-Beans dried, shelled, whether or not skinned or split, nes			0.300	0.130
'210310-Soya sauce			0.170	0.053
'041000-Edible products of animal origin nes			0.003	0.003
'070690-Salad beetroot,salsif,celeriac,radish&simediblroots,fresh/chilldnes			0.966	0.134
'020120-Bovine cuts bone in, fresh or chilled			0.379	0.035
'190110-Prep of cereals,flour,starch/milk f infant use,put up f retail sale			0.270	0.209
'190540-Rusks, toasted bread and similar toasted products			0.478	0.221
'120929-Seeds of forage plants, except beet seeds, for sowing			0.899	0.613
'200939-Single citrus fruit juice, unfermented, Brix value > 20 at 20°C, wheth			0.208	0.049

'020736-Ducks/geese/guinea fowl, cuts/offal, frozen			0.758	0.067
'070959-Fresh or chilled edible mushrooms (excl. mushrooms of the genus "Agari			0.033	0.010
'510121-Degreased shorn wool, not carded, combed or carbonised			0.823	0.008
'080510-Oranges, fresh or dried			0.195	0.047
'200949-Pineapple juice, unfermented, Brix value > 20 at 20°C, whether or not			0.219	0.034
'020890-Meat and edible meat offal, nes fresh, chilled or frozen			0.160	0.004
'160239-Dom fowl,duck,goose&guinea fowl meat&meat offal prep/presvdexc livers			0.035	0.017
'081020-Raspberries, blackberries, mulberries and loganberries, fresh			0.095	0.001
'160100-Sausage&sim prod of meat,meat offal/blood&food prep basd on these prod			0.012	0.008
'080940-Plums and sloes, fresh			0.081	0.019
'151529-Maize (corn) oil and its fractions,refined but not chemically modified			0.068	0.025
'230660-Palm nut/kernel oil-cake&oth solid residues,whether/not ground/pellet			0.059	0.000
'200969-Grape juice, incl. grape must, unfermented, Brix value > 30 at 20°C, w			0.134	0.001
'410150-Whole raw hides and skins of bovine "incl. buffalo" or equine animals,			0.100	0.054
'020712-Fowls (gallusdomesticus), whole, frozen			0.042	0.031
'430110-Raw mink furskins, whole			0.013	0.000
'081120-Raspberries,mulberries,etc uncook,steam/boil in water sweetend/nt,froz			0.027	0.006
'170260-Fructose&fructose syrup nes,cntg in dry state >50% by wght of fructose			0.019	0.005
'510111-Greasy shorn wool, not carded or combed			0.192	0.001
'220190-Ice&snow&potable waters nes not cntg sugar or sweeteners nor flavoured			0.964	0.008
'080231-Walnuts in shell, fresh or dried			0.373	0.035
'080211-Almonds in shell fresh or dried			0.165	0.011
'230800-Acorns, horse-chestnuts, marc and other vegetable materials and vegeta			0.557	0.210
'020713-Fowls (gallusdomesticus), cuts & offal, fresh/chilled			0.023	0.000
'070920-Asparagus, fresh or chilled			0.002	0.000
'020711-Fowls (gallusdomesticus), whole, fresh or chilled			0.127	0.001
'120590-High erucic rape or colza seeds "yielding a fixed oil which has an eru			0.125	0.008
'020727-Turkey, cuts & offal, frozen			0.006	0.000
'210210-Yeasts, active			0.087	0.052
'150990-Olive oil and its fractions refined but not chemically modified			0.009	0.003

'010511-Fowls, live domestic weighing not more than 185 g	10511		0.013	0.010
'070610-Carrots and turnips, fresh or chilled			0.042	0.008
'070490-Cabbages,kohlrabi,kale and sim edible brassicas nes,fresh or chilled			0.237	0.073
'010594-Live fowls of the species Gallus domesticus, weighing > 185			0.021	0.000
'410210-Sheep or lamb skins, raw, with wool on, nes			0.334	0.067
'230110-Flours,meals&pellets of meat o meat offal unfit for human cons;greaves			0.096	0.023
'081040-Cranberries, bilberries and other fruits of the genus Vaccinium, fresh			0.014	0.000
'080719-Melons, fresh, other than watermelons			0.031	0.022
'050510-Feathers used for stuffg&downcleaned,disinfected or treated for presv			0.005	0.003
'071080-Vegetables, frozen nes			0.856	0.172
'190220-Stuffed pasta, whether or not cooked or otherwise prepared			0.045	0.011
'210500-Ice cream and other edible ice, whether or not containing cocoa			0.136	0.011
'080222-Hazelnuts or filberts, fresh or dried, shelled or peeled			0.019	0.004
'200811-Ground-nuts nes o/w prep or presvd,sugared,sweetened,spirited or not			0.189	0.183
'040291-Milk and cream unsweetened, nes			0.022	0.006
'080212-Almonds,fresh or dried,shelled or peeled			0.156	0.007
'200290-Tomatoes nes,prepared or preserved oth than by vinegar or acetic acid		200290	0.140	0.006
'151419-Low erucic acid rape or colza oil "fixed oil which has an erucic acid			0.014	0.003
'080920-Cherries, fresh			0.006	0.001
'151710-Margarine, excluding liquid margarine		151710	0.098	0.004
'200912-Orange juice, unfermented, Brix value <= 20 at 20°C, whether or not co		200912	0.167	0.000
'121490-Swedes,mangold,fodder root,hay,clover,sainfoin,foragkale,etc			0.292	0.002
'071310-Peas dried, shelled, whether or not skinned or split			0.340	0.085
'150200-Bovine,sheep&goat fats,raw/renderd whether/not pressd/solv-extractd			0.009	0.000
'080440-Avocados, fresh or dried			0.002	0.000
'080930-Peaches, including nectarines, fresh			0.082	0.000
'080250-Pistachios, fresh or dried, whether or not shelled or peeled			0.011	0.009
'040310-Yogurt concentratdonot,sweetendonot,flavourd o contg fruit o cocoa			0.041	0.000
'200979-Apple juice, unfermented, Brix value >			0.140	0.006

20 at 20°C, whether or not cont				
'040130-Milk and cream not concentrated and unsweetened exceeding 6% fat			0.040	0.003
'230330-Brewing or distilling dregs and waste			0.005	0.004
'200520-Potatoes prepard or preserved,o/t by vinegar or acetic acid,not frozen			0.871	0.015
'220110-Mineral&aerated waters not cntg sugar or sweeteng matter nor flavoured			0.351	0.007
'080820-Pears and quinces, fresh			0.047	0.001
'210410-Soups and broths and preparations thereof			0.063	0.054
'200919-Orange juice&nes,unfermentd not spiritd,whether or not sugard or sweet			0.638	0.015

Appendix 3 Bilateral Potential

Table 3.3.(a)Potential Products For Pakistan

Products	Negative List	SAFTA Sen List of Pak	PK Exp to W Y 2011	PK Exp to Ind Y2011	Ind Imp 4m W Y 2011	PBT Pak
'220720-Ethyl alcohol and other spirits, denatured, of any strength		220720	87001	346	27069	26723
'220710-Undenaturd ethyl alcohol of an alcohol strgth by vol of 80% vol/higher			161429	0	25687	25687
'190219-Uncooked pasta, not stuffed or otherwise prepared, nes			8330	8	5305	5297
'240110-Tobacco, unmanufactured, not stemmed or stripped	240110		4935	0	3681	3681
'200520-Potatoes prepard or preserved,o/t by vinegar or acetic acid,not frozen			4931	0	3343	3343
'080510-Oranges, fresh or dried			3109	0	17604	3109
'040229-Milk and cream powder sweetened exceeding 1.5% fat		040229	5737	0	2624	2624
'170111-Raw sugar, cane		170111	2576	0	120835	2576
'190110-Prep of cereals,flour,starch/milk f infant use,put up f retail sale			3840	0	2554	2554
'091099-Spices nes			12646	426	2952	2526
'151590-Veg fats&oilsnes&theirfractions,refind or not but not chemically mod		151590	2129	0	4275	2129
'200911-Orange juice,unfermentd&notspiritd,whether not sugardsweet,frozen			7396	2746	4460	1714
'100620-Rice, husked (brown)			11862	0	1467	1467
'120921-Seeds, lucerne (alfalfa), for sowing			1371	0	12785	1371
'240399-Tobacco extracts and essences	240399		1926	0	1265	1265
'200811-Ground-nuts nes o/w prep or presvd,sugared,sweetened,spirited or not			1167	0	2307	1167
'120799-Oil seeds and oleaginous fruits, nes, whether or not broken			3783	190	1297	1107
'110812-Maize (corn) starch		110812	5404	0	1101	1101
'081310-Apricots, dried			1217	141	1208	1067
'091030-Turmeric (curcuma)			1073	9	2958	1064
'120922-Seeds, clover, for sowing			988	0	1202	988
'120740-Sesamum seeds, whether or not broken			18354	0	983	983
'200190-Veg,fruit,nut&edible prts of plants nes,prep/presvd by vin/acetic acid			5009	17	806	789

'200899-Fruits&oth edible pts of plants nes,prep/presvd,sug,sweet/spir/not		200899	751	0	1716	751
'200290-Tomatoes nes,prepared or preserved oth than by vinegar or acetic acid		200290	749	0	12086	749
'510121-Degreased shorn wool, not carded, combed or carbonised			845	111	73870	734
'210500-Ice cream and other edible ice, whether or not containing cocoa			1094	0	718	718
'070990-Vegetables, fresh or chilled nes			52604	0	646	646
'510129-Degreased wool (other than shorn wool),not carded,combed or carbonised			2383	1744	4979	639
'220110-Mineral&aerated waters not cntg sugar or sweeteng matter nor flavoured			1058	0	633	633
'020714-Fowls (gallusdomesticus), cuts & offal, frozen			1463	0	626	626
'520300-Cotton, carded or combed			20914	0	597	597
'071220-Onions dried but not further prepared			7004	1143	1729	586
'230800-Acorns, horse-chestnuts, marc and other vegetable materials and vegeta			545	0	2802	545

Table 3.3.(b)Potential Products For India

Products	Negative List	SAFTA Sen List of Pak	IndExp to W Y 2011	PK Imp 4m Ind Y2011	PK Imp 4m W Y 2011	Y 2011
'120750-Mustard seeds, whether or not broken			3187	93	1189	1096.0
'090910-Anise or badian seeds			854	28	581	553.0
'120991-Seeds, vegetable, nes for sowing			42474	11701	24723	13022.0
'520299-Cotton waste, nes			51772	3	1859	1856.0
'190410-Prep foods obtaind by the swellg o roastg of cereal o cereal products			6773	0	5797	5797.0
'350510-Dextrins and other modified starches			8783	108	3332	3224.0
'070310-Onions and shallots, fresh or chilled			208777	7828	17192	9364.0
'130190-Natural gums, resins, gum-resins and balsam, except arabic gum			77624	864	2639	1775.0
'071390-Leguminous vegetables dried,shelled,whether or not skinnd or split,nes			141117	99	40824	40725.0
'090920-Coriander seeds			26110	617	2954	2337.0
'100510-Maize (corn) seed			86918	1991	35270	33279.0
'071290-Vegetables and mixtures dried, but not further prepared nes		071290	10447	0	886	886.0
'120999-Seeds, fruit and spores for sowing, nes			9358	973	7621	6648.0
'070320-Garlic, fresh or chilled			6785	4973	59536	1812.0
'190540-Rusks, toasted bread and similar toasted products			1580	0	541	541.0
'121300-Cereal straw&husks,unprepd,whether or not choppd,ground,pressd,pelletd			3919	40	661	621.0
'151190-Palm oil and its fractions refined but not chemically modified	151190	151190	24731	0	1517183	24731.0
'410210-Sheep or lamb skins, raw, with wool on, nes			574	0	25346	574.0
'071340-Lentils dried, shelled, whether or not skinned or split			7895	0	65886	7895.0
'071320-Chickpeas, dried, shelled, whether or not skinned or split			168919	45807	184322	123112.0
'330113-Essential oils of lemon			705	0	563	563.0
'200490-Veg nes&mx of veg prep or presvd,o/t by vinegar or acetic acid,frozen			3496	0	1266	1266.0
'170290-Sugar nes, including invert sugar			10873	0	4400	4400.0
'090940-Caraway seeds			1419	44	550	506.0
'100190-Wheat nes and meslin		100190	22892	0	4609	4609.0
'110290-Cereal flour nes			5461	0	4198	4198.0
'080610-Grapes, fresh		080610	59938	0	12584	12584.0
'100300-Barley			1064	0	784	784.0

'330119-Essential oils of citrus fruits, nes			1334	5	2246	1329.0
'080132-Cashew nuts, without shell, fresh or dried			679946	172	973	801.0
'151790-Edible mx/prep of animal/veg fats&oils/of fractions ex hd No 15.16		151790	851	0	17590	851.0
'090220-Green tea (not fermented) in packages exceeding 3 kg		090220	10183	17	8711	8694.0
'210111-Coffee extracts, essences, concentrates			210600	0	1106	1106.0
'110313-Maize (corn) groats and meal			17942	4	539	535.0
'120929-Seeds of forage plants, except beet seeds, for sowing nes			10336	6657	8347	1690.0
'020220-Bovine cuts bone in, frozen			7356	47	635	588.0
'090830-Cardamoms			19493	3112	9514	6402.0
'090700-Cloves (whole fruit, cloves and stems)			9685	22	2652	2630.0
'180690-Chocolate and other food preparations containing cocoa nes			6283	0	1113	1113.0
'190532-Waffles and wafers			2842	0	752	752.0
'090411-Pepper of the genus Piper,ex cubeb pepper,neithercrushd nor ground			108052	397	13206	12809.0
'190490-Cereals,exc maize (corn),in grain form,pre-cookd or otherwise prepard			5630	0	1068	1068.0
'200410-Potatoes prepard or preservdoth than by vinegar or acetic acid,frozen			1280	0	3006	1280.0
'080119-Coconuts, excluding dessicated			4755	15	1051	1036.0
'080111-Coconuts, dessicated			3965	0	5080	3965.0
'090810-Nutmeg			15559	64	667	603.0
'220300-Beer made from malt		220300	20409	0	514	514.0
'240210-Cigars, cheroots and cigarillos, containing tobacco	240210	240210	2175	0	2008	2008.0
'230110-Flours,meals&pellets of meat o meat offal unfit for human cons;greaves			733	0	2047	733.0
'040490-Products consisting of natural milk constituents sweetened or not nes		040490	850	0	1783	850.0
'120220-Ground-nuts shelld,whether or not broken,notroastd or otherwise cookd			278941	2422	4633	2211.0
'170310-Cane molasses			94975	0	839	839.0
'040610-Cheese, fresh (including whey cheese) unfermented, and curd		040610	1743	0	2213	1743.0
'090820-Mace			675	20	682	655.0
'151800-Animal/veg fats&oils&fractboildoxid,etc,&ind mix/prep nes ex 15.16		151800	7021	34	2386	2352.0
'151319-Coconut (copra) oil&its fractions refined but not chemically modified			3203	382	10497	2821.0

'050590-Feathers&down nesclnd,disinfectdpresvd,featherdpts &skinspdr&waste			940	0	979	940.0
'110510-Potato flour and meal			1435	0	2021	1435.0
'170199-Refined sugar, in solid form, nes		170199	582801	51484	83994	32510.0
'151110-Palm oil, crude	151110	151110	1681	0	837856	1681.0
'220830-Whiskies		220830	11163	0	688	688.0
'070200-Tomatoes, fresh or chilled			76941	76179	77071	762.0
'220410-Grape wines, sparkling			577	0	795	577.0
'100110-Durum wheat		100110	2843	0	5488	2843.0
'382319-Industrial fatty acids, acid oils nes		382319	129220	0	16270	16270.0
'120600-Sunflower seeds, whether or not broken			6193	1142	104843	5051.0
'180400-Cocoa butter, fat and oil			15949	0	2611	2611.0
'040410-Whey whether or not concentrated or sweetened		040410	1074	0	16998	1074.0
'180631-Choc&food prep cntg cocoa in blocks,slabs/bars,filld,notexceedg 2 kg			2494	0	1725	1725.0
'382370-Industrial fatty alcohols	382370		145470	8	920	912.0
'040630-Cheese processed, not grated or powdered		040630	1666	0	1616	1616.0
'150790-Soya-bean oil and its fractions, refined but not chemically modified		150790	1853	0	9541	1853.0
'130219-Vegetable saps and extracts nes			163463	25	1247	1222.0
'071333-Kidney beans&white pea beans dridshelld,whethero not skinnd o split			1466	40	45341	1426.0
'071410-Manioc (cassava), fresh or dried, whether or not sliced or pelleted			672			672.0
'382311-Stearic acid		382311	13162	0	3457	3457.0
'010594-Live fowls of the species Gallus domesticus, weighing > 185				0	1428	1428.0
'350190-Casein glues; caseinates and other casein derivatives			1395	0	1284	1284.0
'130239-Mucilages&thickeners nes,modifid or not,derivd from vegetable products			30349	0	1337	1337.0
'290545-Glycerol	290545		3522	12	3568	3510.0
'200892-Fruit mixtures nes,o/w prep o presvd,whethero not sugard,sweet o spir			1508	0	1741	1508.0
'170211-Lactose and lactose syrup, >99% lactose on dry matter			695	22	7021	673.0
'100610-Rice in the husk (paddy or rough)			12883	0	29259	12883.0
'110813-Potato starch		110813	568	0	3454	568.0
'130120-Gum arabic			1865	0	870	870.0

'130220-Pectic substances, pectinates&pectates			619	0	900	619.0
'150810-Ground-nut oil, crude			12908			12908.0
'152200-Degras & residues from fatty substances or animal or vegetable waxes			1281	0	11196	1281.0
'382460-Sorbitol (other than D-glucitol)			6433	1970	3961	1991.0
'040811-Egg yolks dried			4793	0	650	650.0
'140120-Rattans used primarily for plaiting			808	0	632	632.0

Table 3.3. (c)Potential Products for both Pakistan and India

Products	Negative List	SAFTA Sen List of Pak	PBT Pak	PBT India
'520100-Cotton, not carded or combed			180832.0	532844
'151620-Veg fats &oils&fractionshydrogenatd,inter/re-esterifid,etc,ref'd/not		151620	34896.0	53012
'170490-Sugar confectionery nes (includg white chocolate),not containg cocoa			20473.0	3308
'210690-Food preparations nes			15335.0	36043
'190531-Sweet biscuits			8451.0	2079
'230990-Animal feed preparations nes	230990	230990	8358.0	29402
'190590-Communion wafers,empty cachets f pharm use&simprod&bakers' wares nes			8250.0	17549
'121190-Plants &pts of plants(inclsed&fruit) usd in pharm,perf,insectetcnes			8040.0	1177
'350300-Gelatin and gelatin derivs; isinglass; glues of animal origin, nes			7299.0	968
'220210-Waters inclmineral&aeratd,containg sugar o sweeteng matter o flavourd		220210	7265.0	2089
'040221-Milk and cream powder unsweetened exceeding 1.5% fat		040221	6204.0	638
'200990-Mixtures of juices unfermentd&notspiritd whether o not sugard o sweet			4732.0	644
'220290-Non-alcoholic beverages nes,excludg fruit/veg juices of headg No 20.09			4678.0	1261
'090420-Fruits of the genus Capsicum or Pimenta, dried, crushed or ground		090420	4287.0	560
'170230-Glucose&glucose syrup ntcntgfruct/cntg in dry state <20% by wtfruct			4203.0	6135
'130232-Mucilages & thickeners derived from locust beans & seeds or guar seeds			3305.0	881
'071310-Peas dried, shelled, whether or not skinned or split			2874.0	5076
'081340-Fruits, dried nes			2682.0	1100
'200980-Fruit&veg juice nes (exc mx) unfermentunspiritd,whether/not sug/sweet		200980	2620.0	620
'110100-Wheat or meslin flour			2582.0	16412
'170410-Chewing gum containing sugar, except medicinal			2165.0	721
'200799-Jams,fruit jellies,fruit/nut purée&paste,ckdprep,sugard,sweetend/not			1914.0	683
'100590-Maize (corn) nes			1906.0	536
'040210-Milk powder not exceeding 1.5% fat		040210	1819.0	862
'081090-Fruits, fresh nes		081090	1780.0	2040

'080290-Nuts edible, fresh or dried, whether or not shelled or peeled,			1590.0	5811
'140490-Vegetable products		140490	1565.0	13993
'040900-Honey, natural			1533.0	539
'090930-Cumin seeds			1472.0	701
'190190-Malt extract&food prep of Ch 19 <50% cocoa&hd 0401 to 0404 < 10% cocoa			1343.0	9615
'240120-Tobacco, unmanufactured, partly or wholly stemmed or stripped	240120		1249.0	17012
'210610-Protein concentrates and textured protein substances			1194.0	4420
'090240-Black tea (fermented) & partly fermented tea in packages exceedg 3 kg		090240	1124.0	304190
'240220-Cigarettes containing tobacco	240220	240220	1122.0	603
'040700-Eggs, bird, in shell, fresh, preserved or cooked	40700		1067.0	2448
'100630-Rice, semi-milled or wholly milled, whether or not polished or glazed		100630	1044.0	11681
'080410-Dates, fresh or dried			849.0	547
'091010-Ginger			685.0	23866
'020230-Bovine cuts boneless, frozen			597.0	665
'200919-Orange juice&nes,unfermentd not spiritd,whether or not sugard or sweet			597.0	1238
'071339-Beans dried, shelled, whether or not skinned or split, nes			583.0	1322
'210390-Sauces and preparations nes and mixed condiments and mixed seasonings			574.0	1197

Appendix 4: Bilateral Tariff Comparison of Analysis

Indian Agricultural market is protected through higher tariffs, quota regimes, strict quality and regulatory regime whereas, Pakistan is more open in terms of tariff and regulations. More than three quarters (77.7%) of Pakistani agriculture tariff lines have average MFN applied tariffs around 0 to 25 % whereas India has only 23.6% tariff lines within this tariff range. In case of Pakistan only 22.5% products have MFN applied tariff greater than 25%, but in case of India 77.5% products have tariff above 25%.

Agricultural Tariff lines	Pakistan		India	
	Final bound	MFN applied	Final bound	MFN applied
		2011		2010
Duty-free	0	13.8	0	5.9
0 <= 5	3.3	19.6	0	4
5 <= 10	0	15.9	1.2	4
10 <= 15	0.3	13.3	0.1	4.8
15 <= 25	0.1	14.9	2.4	4.9
25 <= 50	0.5	20.1	7.2	67.9
50 <= 100	90.3	2.4	54	6.3
> 100	1.8	0	35	2.3
NAV in %	0.1	5	0.3	0.3

Source: WTO Country Profile 2011

India has more than 50% protection in Coffee, tea, beverages and tobacco, however in the remaining products which are highlighted in the tables below are also significantly higher than Pakistani MFN applied rates.

Product groups	Pakistan		India		Remarks
	Final bound duties	MFN applied duties	Final bound duties	MFN applied duties	
	AVG	AVG	AVG	AVG	
Animal products	93.0	14.6	105.9	31.6	Average MFN Applied duties and final bound duties of India are higher than Pakistan
Dairy products	100.0	30.0	65.0	33.7	
Fruit, vegetables, plants	100.0	18.2	99.4	30.3	
Coffee, tea	108.3	12.8	133.1	56.1	
Cereals & preparations	102.5	18.8	115.7	30.7	
Oilseeds, fats & oils	97.3	8.8	165.2	18.8	
Sugars and confectionery	112.5	17.2	124.7	34.4	
Beverages & tobacco	100.0	52.5	120.9	70.8	
Cotton	13.0	7.0	110.0	12.0	
Other agricultural products	83.6	6.7	105.7	21.5	

Source: WTO Country Profile 2011

[i]Pischke, J.D. Von (1996) Capital Formation in Agricultural Cooperatives in Developing

The International Trade Centre implemented the Trade Policy Capacity Building Component of the European Union funded TRTA II programme. It is aimed at the Ministry of Commerce and Government of Pakistan in developing a coherent trade policy and attendant regulations for export competitiveness. Specifically, it will aim to reinforce the skills of government officers working in trade related ministries and implementing agencies on issues related to trade policy, commercial diplomacy and regulatory reform. The main way in which to achieve this through the institutional capacity building of key local training institutes, which is intended to have an immediate effect on the capacity of government officers working on trade policy issues.

In addition, Component 1 promotes comprehensive, regular and well informed public-private dialogue among the government, private sector and civil society for trade policy development, monitoring and evaluation. To promote local ownership and legitimacy of the dialogue, a steering committee comprising equal representation of the public and private sectors has been established with the formal approval of the Ministry of Commerce of Pakistan. Its mandate is to oversee the planning, implementation and monitoring of public-private dialogue on key issues. To better inform the public-private dialogue process, research studies are commission and internationally peer reviewed before dissemination to stakeholders.

The targeted interventions of Component 1 to achieve these goals constitute the following:

Result for Component 1: Coherent trade policy and regulatory reform for export competiveness

1. The Pakistan Institute for Trade and Development (PITAD) institutional capacity is strengthened.
2. PITAD's and other research institutes' expertise on trade policy strengthened.
3. Government officers' capacity on specific trade policy and international trade negotiations strengthened.
4. Research studies contributing to the development of a national export strategy conducted.
5. Public-private dialogue for a coherent national export strategy is fostered.

International Trade Centre

For further information about the ITC implemented Component 1 and the TRTA-II programme visit: **http://trtapakistan.org**