Normalizing India-Pakistan Trade Relations: India Pakistan Agricultural Trade

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LUMS DEPARTMENT OF ECONOMICS

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Usman Khan started his professional career in banking and investment consulting in London UK. In the UK he advised large institutional clients on financial matters including financial strategy, asset allocation, manager selection and corporate governance. After spending six years in investment industry in the UK he moved to Pakistan where he joined Lahore University of Management Sciences (LUMS) as faculty in the Economics Department. He has been lecturing at LUMS since 2006 and headed the Development Policy Research Centre (DPRC) at LUMS for two years. He has authored several key policy documents; some key ones include the National Industrial Policy for Pakistan, Economic Growth Strategy for Punjab, Private Sector Development Strategy for Punjab, Skills Strategy for TEVTA Punjab, Harnessing Private Sector Growth in the Skills and Skills education Sector for the World Bank and Situation Analysis of Women and Children in Pakistan.

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1. INTRODUCTION

The decision by Pakistan to grant MFN to India by the end of 2012 triggered considerable enthusiasm on both sides of the border. Proponents of trade saw this normalization process as a key to achieving regional economic integration and bringing long term stability and economic gains to both India and Pakistan, as well as the South Asian region. However, there were some sectors in the Pakistan economy, namely agriculture, automobile and pharmaceuticals, which were more sceptical of the purported gains from opening up trade with India. In September 2012, just a few months before Pakistan was to grant MFN status to India, the agriculture sector in Pakistan formed an alliance to oppose the implementation of this decision. Several farmers’ associations held demonstrations, protesting the MFN decision as “farmer unfriendly,” and potentially harmful for the food security of the country. The organizations that actively opposed the decision included the Farmers Association of Pakistan (FAP), Kisan Board, Muthida Kisan Mahaz, Guava Growers Association, Basmati Growers Association, Mango Growers Association, Livestock Farmers and Breeders Association and other farmers’ bodies. The main claim made by these groups is that Pakistani farmers would be at a serious disadvantage in competing with Indian farmers who are protected and subsidized by their government. While in Pakistan, as the government has withdrawn all support and subsidies to the agricultural sector, the farmers have to face adverse market outcomes and economic conditions such as increasing costs of agricultural inputs and chronic power shortages.

Following these demonstrations, the Pakistan Senate asked the government to take the agriculturalists demands into consideration in its negotiations with India prior to granting MFN and eliminating the negative list. Thus the pressure from the farmers’ alliance was one of major factors which resulted in the postponement of the granting of MFN to India by December 2012.

The agriculture sector of Pakistan emphasizes that the government has not taken into consideration the issues of concern to the sector in negotiating trade normalization with India. Broadly speaking, the agriculture sector feels threatened by trade with India due to: (i) high farm subsidies given by the Indian government resulting in lower costs of production and better yields; and (ii) restricted market access for Pakistani produce into India. The sector feels strongly that unless these two factors appropriately addressed, trade will not be on a level playing field and Pakistan will be on the losing end. They claim that cheap Indian agriculture produce will flood Pakistani markets, in particular those in Punjab. This will lead to significant fall in agriculture activity in the country adversely impacting both employment and poverty. Since the sector currently employs over 45% of the labour force, any fall in overall production will have serious consequences for the whole economy.

The main purpose of this paper is to objectively assess the substance behind the claims made by the agriculture sector. In addition, the paper will provide information pertaining to agricultural trade that may be useful for policy makers and negotiators on the Pakistan side. The material in this paper is based on both secondary as well as primary information. The secondary information has been extracted from research conducted on the topic over the last two years.

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1 The project team consisted of Syed Turab Hussain, M. Usman Khan, S. Abid Hussain Imam, Nazish Afraz, and Nadia Mukhtar from the Lahore University of Management Sciences and Mohsin S. Khan from the Rafik Hariri Center for the Middle East, Atlantic Council, Washington DC.

2 As stated by Mr. Tariq Bucha, President, Farmers Association of Pakistan, Lahore, 28 March, 2013.
The primary information has been derived from focus groups of agriculturalists. The first focus group took place on 12th July 2013 and the second focus group was held on 25th August 2013. In addition, several meetings were held with farmers, including those engaged in agriculture trade with India.

2. THE AGRICULTURE SECTOR: SIZE AND IMPORTANCE

2.1. Overview

The agriculture sector is an integral part of both India and Pakistan’s economy. In the case of Pakistan it contributed 21.4% to GDP during 2012-13 amounting to over Rs.5,474.1 billion (at current prices). Agriculture also generates employment for over 45% of the country’s labour force. Around 60% of the rural population depends upon agriculture for its livelihood. Apart from this, the sector also contributes substantially to the country’s exports. In 2011-12, Pakistan exported agriculture products worth more than Rs.250 billion, or about 10% of total exports. This included rice exports of Rs.184.4 billion, fruit exports of Rs.32.1 billion, fish exports of Rs.28.6 billion, raw cotton exports of Rs.47.4 billion and meat exports of over Rs.15 billion.

Indian agriculture, including related activities, accounted for 14.0% of the GDP at current prices in 2011-12. This amounts to around Indian Rs.14,173.7 billion (equivalent of Pakistani Rs.24,431 billion). The makes the Indian agriculture sector around 5 times as large as Pakistan. According to the 2001 census, agriculture and its allied activities employ 58.2% of the labour force. However, the structure and pattern of agriculture in India is much different from that of Pakistan. Whereas Pakistan has grown substantially in livestock production, Indian agriculture has been dominated by the rise of cotton production, trebling in only the last 10 years, after it adopted bio-genetic varieties. Similarly India produces more rice per capita than Pakistan; which focuses on wheat production, along with pulses and vegetables (Pasha and Imran, 2012).

2.2 Relative Growth Performance

Figure 1 below shows the growth pattern over time of agriculture in Pakistan and India. The growth rates of GDP and agriculture in Pakistan have generally moved in tandem. Although the overall growth performance of India has been superior, the agriculture sector has shown much higher volatility over the last ten years. The Coefficient of Variation (CV) during 2000-01 to 2010-11 was 1.6 compared to 1.1 during the previous decade (1992-93 to 1999-2000). This is almost six times more than the CV observed in the overall GDP growth of the country indicating that high and increasing volatility is a real challenge in agriculture.

Although Indian GDP growth rate has been impressive, averaging around 7.1 percent in the last decade, this growth has not been mirrored by the agriculture sector, which grew at an average rate of 3.2 percent during the same period (World Bank, 2013). However, notwithstanding the weather and price shocks encountered in the past few years, India leads the world in the production of milk, pulses, jute and jute-like fibres. It is second in the world in rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton production, and is also a leading producer of spices and plantation crops as well as livestock, fisheries and poultry (Government of India, 2013).

As evident in the figure above, the floods of 2010 played havoc with the Pakistan agricultural sector, but there has been a recovery in the last 2 years. Most recently, 2011-12, the agriculture sector grew by 3.1%.

5 Statistics from Reserve Bank of India; http://www.rbi.org.in
2.3 Economic Size and Variety of Production

The major crops in Pakistan include wheat, rice, sugar and cotton – contributing 31.9% to the value addition in overall agriculture and 6.0% to GDP. Minor crops (tobacco, mustard, rapeseed, mung, potato, mash, etc.) account for 10.1% of value added in overall agriculture. Wheat, rice, cotton and sugarcane have remained the most important crops and account for 42%, 11%, 13% and 5% of the total area under cultivation in 2011, respectively.

Livestock production, on the other hand, holds a share of 55% in Pakistan’s agriculture and includes: milk, beef, mutton, poultry meat, wool, hair, bones, fats, eggs, hides and skins. Livestock’s share in agriculture is more than the total combined share of both the major and minor crops, and grew at a rate of 4% in 2011-12.

According to the Food and Agriculture Organization’s (FAO) country rankings for global agricultural production, Pakistan ranks second in production of indigenous buffalo meat, buffalo milk, and oilseed; third in chillies and cottonseed; fourth in mango, pulses, goat milk, cotton lint, goat meat, roots and tubers; fifth in production of chick peas and spices; sixth in wheat, sugarcane, apricots, spinach, okra, dates; seventh in cauliflowers and broccoli; eighth in tangerines, mandarins, fresh tropical fruits, tobacco, onions; eleventh in pistachios, oranges, and wools; thirteenth in rice; fourteenth in bird eggs and peas; and fifteenth in lentils.

The top commodities produced in Pakistan and India sorted over values shows that seven out of the nine commodities are the same for both countries (see Appendix I, Fig.A1 and Fig. A2). India is generating more value through fruits and vegetables, such as mangos, guavas, bananas and potatoes, while Pakistan’s livestock sector plays a very important role though the production of milk and meat.

2.4. Trade Patterns

Since the liberalization of its economy in the early 1990s, India’s total trade has accelerated significantly and it is now one of the major global trade players. In 2011-12, the Indian economy exported US$ 304.6 billion worth of goods, while importing US$ 489.4 billion. Pakistan on the other hand exported only US$ 23.6 billion while its imports were US$ 44.92 billion. In agricultural trade, India’s exports in 2011-12 were US$ 37.4 billion and it imported only US$ 23.4 billion worth of agricultural commodities, generating an agricultural trade surplus of US$ 14 billion. In comparison, Pakistan is a net importer of agricultural commodities. Pakistan’s agriculture exports in 2011 totalled US$ 5.55 billion and imports exceeded exports by US$ 1.8 billion and amounted to US$ 7.35 billion. Moreover, the size of agriculture trade of Pakistan is almost six times smaller than that of India. Figure 2 below presents the top exports and imports of Pakistan and India in 2010.

In exports, the only product where Pakistan comes closest to India is rice. In 2010, India was the 3rd largest rice exporter while Pakistan was the 4th largest exporter. In cotton lint, India is the 2nd largest exporter in the world, whereas Pakistan is the 8th largest. However, India’s exports of cotton lint are 15 times larger than that of Pakistan. India is the largest exporter of buffalo meat in the world and also the 5th largest exporter of cake of soybean. In imports, Pakistan is the 2nd largest and India is the 4th largest importer of palm oil in the world.

3. COMPARATIVE AGRICULTURE TRADE ANALYSIS

3.1. Bilateral agriculture trade trends

Pakistan’s imports from India grew significantly in the food and beverage sector after 2003. A major portion of this growth has been in agriculture commodities. More recently, the issuance of S.R.O. No. 280 (I)/2012 dated March 2012 by the Pakistan Ministry of Commerce, allowing 137 items of agriculture and textile origin to be imported duty free via Wagah land route significantly increased imports from India. The current trade in agriculture is predominantly...
in favour of India. Table 1, below, shows the top 5 agricultural exports and imports of Pakistan with India.

The value of the top ten commodity exports from Pakistan to India is only around US$ 50 million, while the top ten imports of agriculture related products from India amount to over US$ 500 million. In addition to cotton, Pakistan is also increasingly importing fresh vegetables from India. In terms of exports, dried dates are the only major commodity being exported by Pakistan. Pakistan exported US$ 44.2 million worth of dates in 2010 and around US$ 47.2 million worth of dates in 2011 to India. This represents about 74% of total export of dates by Pakistan, whereas for India this constitutes 98.2% of its total import of dates from the world. This suggests that Pakistan’s top export to India has limited growth potential. Other than for dates, none of the top ten exports of Pakistan to India include products that Pakistan exports significantly to the rest of the world (see Figure 2).

Furthermore, all other products exported by Pakistan constitute a minor share of India’s total demand. On the other hand, Pakistani imports data show that India is the major/only supplier of tomatoes, millet and canary seed and fresh vegetables to Pakistan (TDAP, 2012). This trend is indicative of Pakistani government’s broader policy of trade liberalization and more specifically to control food inflation by allowing duty-free imports of vegetables from India.

Onions and shallots are the fastest growing agricultural exports from Pakistan to India, having crossed US$ 2 million by 2011 (Figure A3, Appendix I). In 2012-13, these exports continued due to ongoing shortage of onions in the Indian market. In 2013, onions were selling (retail) at Pakistani Rupees 150/kg in India, while in Pakistan the price was Rs.60/kg.6

In terms of shares, Pakistan has captured a significant share of India’s total imports of onions, shrimps and apricots (Figure 3). However, for other major commodities such as fruits and vegetables, Pakistan only accounts for less than 5% of India’s total import demand. Given Pakistan’s competitive advantage in fruits, trade normalization may open up opportunities to gain a much larger market share.

In terms of fastest growing agriculture imports of Pakistan from India, refined sugar and fresh vegetables top the list (Figure A4, Appendix I). Imports of fresh vegetables have seen a significant growth since they have been allowed to come via land route free of duty. A case in point is import of tomatoes which has increased to over US$ 100 million. Indian tomatoes have made significant inroads into key metropolitan markets of Punjab and have replaced Pakistani tomatoes coming mostly from the north of the country. A key reason is that the transport cost of importing tomatoes from Indian Punjab to Pakistani Punjab is much lower as compared to transporting them from the northern regions of Pakistan.

In terms of import shares, all of Pakistan’s imports of tomatoes came from India, and all of Indian exports of tomatoes go to Pakistan (Figure 4). Similarly, India is capturing an increasing share of the fresh vegetable market in Pakistan.

### 3.2. Potential for agriculture trade

The growth figures presented above suggest that efforts in normalizing trade between India and Pakistan are beginning to have an impact on the size of total trade between the two countries. So far, the benefit has been tilted more towards India, as it has managed to gain much larger market shares in Pakistan. However, given the profile of Pakistan’s agriculture sector there are certain products that are high quality and have strong international competitiveness. These products, which include citrus fruits, mangoes,
Apricots, peaches, olives, fish and fish products, have strong potential to attract significant demand in Indian markets.

Indian import appetite is very promising for countries exporting agricultural goods. With its huge population (300 million plus middleclass) India offers substantial opportunities for exports 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 exist for vegetarian, halal, kosher and organic products. India’s agricultural imports in year 2011 were US$ 22.56 billion compared to US$ 17.86 billion the previous year - registering an increase of 23.6%.

Table 2 provides total production, total per capita production and total exports of major agriculture products in 2010. With the exception of rice and potatoes in Pakistan and maize in India, both countries only export less than 10% of their production. This suggests that the major crops mainly satisfy local demand. Trade in these key commodities across the border is thus expected to stay minimal even after the successful completion of the liberalization process.

In 2012, two major studies were conducted (TDAP, 2012; TRTA II/ITC, 2013) to explore the potential of trade in agriculture sector between Pakistan and India. The studies used trade data to estimate indices such as Revealed Comparative Analysis (RCA); Trade Similarity Index, Trade Specialization Index and Grubel Lloyd Index for assessing intra industry trade.

RCA is an index which captures a country’s static comparative advantage in a commodity and can be used to assess the competitive positioning of its exports. An RCA value of greater than 1 indicates that a country has a comparative advantage in a commodity, i.e., it is competitive globally. TDAP (2012) calculates RCA using 2010 export data of Pakistan and India. Table A1 (Appendix II) has been extracted from the paper and presents only those products that relate to agriculture and have high values of RCA. The TDAP (2012) paper also calculates the export potential in products based on bilateral trade data of two countries. Table A1 (Appendix II) has sorted products which have the highest RCA’s. There are several key agriculture products where Pakistan has an RCA of greater than 1, hence, reflecting competitive positioning of these products relative to India. However, RCA is a static point in time analysis and therefore any interpretation of this index of competitiveness or trade potential has to be substantiated with additional information derived from the stakeholders.  

The product that has the highest trade potential is ethyl alcohol. This is a waste by-product of the sugar industry and is used as a fuel. The large Pakistan sugar industry produces ample quantities of ethyl that can be exported to India. Other products with a revealed comparative advantage and export potential include fruits and vegetable, uncooked pasta and honey. In negotiating with the Indian side on market access, specific emphasis should be given to these products.

The RCA evidence is also supported by the views of the stakeholders. The stakeholders emphasize that in the right environment (where there is a level playing field and market access to India is available) Pakistan can generate significant export revenues by exporting horticulture and agriculture by-products to India. Mango, citrus, peaches and olives exports present immense opportunities for Pakistan. The demand in India is significant for these high value added table fruits. Moreover, for mangoes, the season complementarity is a significant factor - as the mango season finishes in India, Pakistani season is at its peak. This provides a convenient

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7 Hence the following discussion also includes the views of the stakeholders.
and natural window for export. Moreover, the Indian mango varieties are more suited for juicing and pulping whereas Pakistani mangoes are preferred as table fruits, which fetch higher prices due to their exotic nature.

Similarly, kinnow’s (citrus) from Sargodha have made their mark globally and are being exported to different countries. The government and various development agencies have worked closely with farmers to build their capacity to improve traceability and SPS measures. Kinnow’s are now being exported to key European markets, China and Russia. India is thus a big potential market for Pakistani kinnow.

Pakistan also has a competitive advantage in fish and fish products. In March 2013, the self-imposed ban on exporting fish to Europe was lifted reflecting that SPS and food safety measure in the fish processing industry of Pakistan have significantly improved. India offers a large market for processed fish, shrimps, prawns and other value added fish varieties.

Furthermore, the studies done on the subject, as mentioned earlier, have calculated various trade indices to look into the trade potential between the two countries. The TRTA II/ITC (2013) calculates the trade similarity index between Pakistan and India and shows that for overall trade the similarity index is as high as 90%. This implies little opportunity for trade. However, if calculations are done at sector level the similarity index for agriculture goes down to around 45%. This suggests better opportunities for trade and also reflects that trade in agriculture between Pakistan and India will not happen in major crops such as wheat, rice, cotton or grains, but instead in seasonal and high value perishable items. Similarly, the Trade Specialization Index (TSI) captures specialization of a partner country in terms of supplying a particular commodity. Calculations done in TRAT II/ITC, 2013 suggest that India has a clear advantage in specialization.

Intra-industry trade captures the opportunities of trade that exist within the same product (horizontal) or in a products value chain (vertical) spread across countries. However, TRTAII/ITC , 2013 concludes on the basis of a low value of Grubel Lloyd Index that limited to no opportunities exist for intra-industry trade in agriculture products between India and Pakistan. However, stakeholders feel that intra-industry trade potential does exist, where Pakistan can focus more on production of inputs and India can specialise in processing and final value addition. An example of this is the juicing industry. Pakistan can supply large quantities of fruit pulp and juice concentrate that can feed the expanding juice industry of India. The success of this, however, will depend on the extent of cross border investments.

4. IMPACT OF AGRICULTURE TRADE: EVIDENCE AND STAKEHOLDER ASSESSMENT

This section addresses the following two questions: First, how real is the threat of subsidized agricultural products flooding Pakistani markets and drive out local producers? And second, how high are the barriers to market access for Pakistani products in India?

These two questions stem directly from differences in the way the agriculture sectors are managed by the governments on either side. Pakistan has always had freer market, which is largely unregulated and unsupported. Government intervention has been fairly limited in Pakistan. On the other hand, the Indian agriculture sector has been receiving significant support from the government. This support comes in the form of direct subsidies, cheap formal credit, minimum support prices along with procurement, as well as a high degree of trade restrictiveness that makes it harder for agriculture imports to penetrate the Indian
4.1. Subsidy and price supports in Pakistan and India

A. Pakistan

Constitutionally, agriculture is a provincial responsibility in Pakistan. However, issues such as the import and export of agricultural inputs, standardization, quality control and quarantine issues, national research and inter-provincial issues, such as the construction, management and maintenance of primary irrigation structure, fall under the purview of the Federal Government.

Direct Subsidy

Pakistan at present does not subsidize its agricultural sector. Historically, fertilizer subsidies were provided to farmers, but they were phased out by 1994-95. While the Ministry of Finance still claims that it is assisting the fertilizer sector by providing subsidized gas for production, the agriculture sector feels that these subsidies do not filter down to the farmers. The farmers currently receive a subsidy of Rs.1000/crop/acre on urea. Given that the Pakistani government procures only wheat, and that too at a support price lower than the international price, this amount of subsidy does not even compensate farmers for the forced sale of wheat to the government. The farmers currently receive a subsidy of Rs.1000/crop/acre on urea. Given that the Pakistani government procures only wheat, and that too at a support price lower than the international price, this amount of subsidy does not even compensate farmers for the forced sale of wheat to the government. This pricing differential has been subsidizing the urban consumer at the cost of the farmer. The sector feels that although the procurement price over the last few years has improved, it still does not compensate the farmer fully.

Credit

Similarly, there is little formal credit available to farmers in Pakistan. The amount of loans given by the commercial banking sector is neither enough for technology upgrades or working capital. The State Bank of Pakistan’s figure of US$0.23 billion is not the actual credit forwarded to the sector—it is the total disbursements made, including the poultry and ginning sectors. The major beneficiary of this credit is the ginning sector in Pakistan.

Price Support

The Agricultural Produce Markets Act of 1939, established during British rule, is still in effect in Pakistan, although the provinces of Punjab and Sindh have made certain amendments. This Act places control of agricultural markets in the hands of the government. Unlike in India, where the state procures 25 agricultural commodities from farmers, Pakistan’s government only procures wheat at the national level. This creates room for middlemen, since farmers cannot sell their produce directly to the markets due to lack of requisite agricultural infrastructure and poor road networks. This policy has strengthened the position of the middlemen over the years, establishing strong networks with not only market vendors, but also processors and factories, leaving little room for farmers to negotiate prices. The middlemen can secure up to 50% or more profit by exploiting their close links with transporters, market committees and commission agents.

Similarly, the farmers feel captive at the hands of “aarthis”, who control the bulk of capital in the sector. This distorts farmer prices and income generation from their produce. More specifically, there are at least three layers of intermediaries between the farmer and the final consumer in Pakistan. The maximum rents are enjoyed by the end-retailers — in some cases as high as 200%. This pricing structure has resulted in persistently low prices for farm output and therefore the inability to earn enough to re-invest in technology and yield improvements. For example, in February 2013 the farm-gate price of potatoes was less than Rs. 4/kg; however, the consumer was still paying up to Rs. 30/kg in the market.

Recently the government has taken some steps to improve the functioning of agriculture markets.
First, good storage facilities are much needed and would provide hedging opportunities to farmers and facilitate the development of futures and forward contracts with banks and open exchange markets. Through the Pakistan Horticulture Development and Export Board (PHDEB), the government aims to implement a number of measures to promote the provision of cold storage facilities in the private sector.

Second, the deregulation of agricultural markets has been initiated through the Pakistan Mercantile Exchange. Currently, IRRI rice has been listed and sugar is expected to start trading soon after a final approval from the Securities and Exchange Commission of Pakistan. Other commodities such as wheat, basmati rice, maize and cotton also await approval. Once this process has been regularized and strengthened, it will allow greater efficiency and financial returns for the farmers.

Irrigation

The availability of water and electricity is another major constraint that adds to the cost of production. Pakistan is increasingly becoming a water scarce economy and this has had a direct implication on the cost of irrigation. The shortage of canal water necessitates pumping water out of the ground using electric tube wells. Due to declining water levels, wells have to be dug deeper, raising costs, while the price of electricity and diesel to run the tube wells is also prohibitively high.

Seeds

The sector also suffers from poor quality seeds in the market due to lack of quality checks. There are 5,500 seed companies operating in Punjab only. The quality of the seeds provided by these companies is unregulated. This causes significant losses to the farmers. For example, while the penalty to sell adulterated inputs/seeds is only Rs. 1000, this can potentially destroy an entire crop, valued at millions of rupees. Similarly, the consumption of DAP (fertilizer) in Pakistan is around 25 million bags, which is 4 times the production capacity. Even if imports are included, there is a significant shortage of DAP. Thus locally added poor quality DAP is adversely impacting soil quality and fertility, yet no action has been taken by the government. Hence, weak controls and quality enforcement by government agencies is impacting the competitiveness of agriculture produce in Pakistan.

B. India

On the other hand, India not only heavily subsidizes its agriculture sector, but it also supports prices and incomes of farmers by exercising close control of the market. Agricultural subsidies and food subsidies, on average, constitute above 10% of the total subsidies in the country every year.

Fertilizers

The percentage share of fertilizer subsidies in total subsidies declined from 38.4% in 1980-81 to 35.2% in 1990-91 and further declined to 24.8% in 2000-01 but increased to 87.3% in 2008-09. The Government of India pays fertilizer producers directly, in exchange for company compliance to sell fertilizer at rates lower than market prices. This policy results in effective subsidies to the farmer of 40-75% for fertilizer. The effective rate of the fertilizer subsidy increased from 41% of the cost of fertilizer production in 2003-04 to 67% in 2009-10. The increase occurred because the government allowed real (inflation adjusted) subsidized fertilizer prices to fall by keeping the nominal (non-inflation adjusted) subsidized fertilizer prices unchanged despite inflation, increased real world prices for fertilizers and also increased real domestic prices for fertilizer industry inputs.

Under the Nutrient Based Subsidy (NBS) scheme for phosphatic and potassic (P&K) fertilizers implemented in 2010, a fixed amount of subsidy, decided on annual basis, is provided
to each grade of P&K fertilizer, depending upon its nutrient content. An additional subsidy is also provided to secondary and micro-nutrients. Under this scheme, manufacturers/marketers are allowed to fix the maximum retail price (MRP). By November 2012, farmers paid only 58-73% of the cost of P&K fertilizers; the rest is borne by the Government of India in the form of subsidy (Table A1, Appendix I).

Production Subsidies

The government has also initiated several crop development programmes such as National Food Security Mission, with the aim of increasing agricultural productivity and competitiveness in the world. The motivation behind these development programmes was, in essence, to increase the production and productivity of rice.

Export Subsidies

In India, the profits earned from exports of agriculture are exempted from income tax as under Section 80-HHC of the Indian Income Tax Act.

Price Support

The government has adopted the strategy of fixing Minimum Support Prices (MSP) for major agricultural commodities and organizes purchase operations as required at any time during the year. This pricing policy is facilitated through cooperatives and other public institutions to ensure that prices do not fall below a certain level set by the authorities. In addition to this, another committee - the Commission for Agriculture Costs and Prices (CACP) - makes recommendations for support prices of various agricultural products. The views of state governments, central ministries and relevant factions are equally important in determining the pricing policy (Government of India, 2013).

The MSP decisions are given well in advance before sowing season, so that farmers can make informed decisions about the harvest. In addition, the Government of India has central agencies that carry out the operations of the price support scheme (PSS). In the event of losses, if any, the central government fully refunds the price differences. For agricultural and horticultural products that are perishable, the state governments have negotiated a floor plan with the Center to implement a Market Intervention Scheme (MIS) if prices drop below

Pesticides

The government also subsidizes pesticides for farmers who engage in crop farming and need pesticides to control pests for better production. It is sponsored by the state at the rate of 50% to small farmers and 30% to big farmers.

Water

The percentage share of subsidy allocated to irrigation was 32.5, 34.8 and 26.6 in 1980-81, 1985-86 and 2000-01, respectively. With a view to save standing crops, the government has also introduced a “Diesel Subsidy Scheme” to make irrigation through diesel pumps more feasible. The Centre and States bear the burden of the expenditure incurred by the Command Area Development and Water Management.

Electricity

The percentage share of electricity subsidy has increased from 29.1 in 1980-81 to 35.1 in 1990-91 and further increased to 48.6 in 2000-01 and declined to 12.7 in 2008-09. The Government of India directly supplies irrigation and electricity to farmers at rates much below the cost of production and those provided to other sectors.

Seed

The Indian government has raised the ceiling on seed subsidies for farmers from INR 500 to INR 700 per quintal for cereals. This decision was made in light of low rainfall and the fear of facing a drought situation in the 2012 season (Commodity Online, 2012).
a certain threshold. This applies only to products that are not covered by the PSS (Government of India, 2013).

Box 1 below provides details on the products covered under MSP and the means used to assess MSP. The MSP is determined by considering 12 key indicators that capture the impact on consumers, farmers and also international competitiveness. The pricing structure is designed to support all players associated with the agriculture sector.

4.2. Agriculture sector cost and price comparisons

Table 3 below compiles the average pre-retail market prices of some key agriculture commodities in Pakistan and India. With the exception of wheat (where the government sets the procurement price) and onions, prices in Pakistan are generally higher. Lower prices in India reflect lower costs of production in India, due to subsidies and price supports, as well as better yields. The subsidy given on fertilizers has a catalytic impact on yields—the lower prices of fertilizers triggers excessive use, raising yields.

It is clear that all key inputs are significantly cheaper in India with large differentials existing specifically in the case of electricity and Urea (Table A2, Appendix I). Table 4 shows the cost of cultivating a hectare of land for three main crops in India and Pakistan. Looking at the breakdown, the operational cost in India is higher than that in Pakistan due to labour costs (minimum wages being higher in agriculture sector) and more mechanization. This is especially true for cotton, where the operational cost is three times as large as Pakistan. The cost of fertilizer is broadly similar, but this is due to the fact that India uses much higher quantity of fertilizer per hectare as compared to Pakistan. This excess use results in a much higher yields as depicted in the table below. The cost of seeds, plant protection and irrigation are also lower in India.

4.3. Impact of Indian subsidies on Pakistan Agriculture

The stakeholders in the agriculture sector feel that Indians are not doing anything wrong in protecting and supporting its sector through subsidies and support prices. Their decisions are in line with their priorities. The weakness lies on the side of Pakistan. When discussing these weaknesses, the stakeholders are not looking for compensating subsides from the government. The sector wants supportive policies that address the issue of cost of production, regulation and enforcement of quality checks for inputs—especially seed, access to formal credit and market dynamics. The sector feels that given its internal set of constraints, Pakistan will not be able to compete with the strongly subsidized and protected Indian agriculture sector. They claim that cheaper imports from India will wipe out the local agriculture producers.

The proponents for trade openness, however, are sceptical about the above claim by the agriculture sector. Their main question is why would the Indian government subsidize Pakistani consumers in key staple food items? Hence, their view is that opening up trade will be beneficial, although in some products Pakistani producers may face stiffer competition.

These two conflicting views were analysed with using the data papered in this paper. It is found that there is merit to the claim made by the agriculture sector; however, the claim does not hold true for all agricultural commodities. The research suggests that there is strong evidence that the production of perishable fruits and vegetables have been badly hit by cheaper Indian imports. Indian products such as tomatoes, capsicum, ginger and other fresh items have indeed made significant inroads into the key urban markets of Punjab.

A direct impact of this has been observed in the tunnel-farming sector. Tunnel farming in Punjab had increased to 55,000 acres, and a significant amount of off-season vegetables were being
sold in local markets. However, since the import of vegetables from India, the acreage of tunnel farming has plummeted to 35,000 acres only. Several farms have been forced to close. Farmers who had incurred heavy set-up costs of tunnel farming have now lost their market share to heavily subsidized cheaper vegetables from India. This has not only resulted in loss of assets and investments of the private sector, but the government itself had heavily invested taxpayer money in subsidizing the cost of setting up these farms.

However, this impact is not due to MFN or SAFTA. This impact follows an SRO issued by the Ministry of Commerce, Government of Pakistan, which allowed the import of 137 items free of duty from India via the land route. All items belong to the agriculture sector and most of the fresh grown vegetables are on the allowed list. Given that the transport cost is not significant via the land route, fresh vegetables from India have found strong demand in Punjab.

The government rationale for issuing this SRO was to control consumer inflation in food items. However, there are mixed views on its efficacy. Vegetables from India are still retailing at a multiple of 3 to 4 times their price in India. For example, the biggest import—tomatoes—sells at PKR 35/kg in India, whereas it has been retailing between PKR 100-120/kg in Pakistan.

A remedial strategy to balance this influx of cheap Indian vegetables could be the introduction of stricter requirements on the quantity of arsenic in vegetables. Given that fertilizers are heavily subsidized in India, this encourages excessive use, which leads to surpluses due to high yields. However, excessive fertiliser usage raises arsenic levels significantly in fresh vegetables. Pakistan should enforce stricter standards to protect the health of its consumers. This will significantly reduce the onslaught of Indian vegetables driving out local production.

Contrary to the finding of the fresh vegetable market, the study finds that the threat of subsidized crops wiping out local production in key staple items such as wheat, rice and other grains as small. While production levels in India are significantly larger than that of Pakistan in absolute terms, per capita production in India is much smaller than that of Pakistan. Moreover, India is not exporting significant volumes of these key large crops. Hence, the subsidy given by India in these crops is to address the food security concerns of their citizens. Some claims made by the sector are relevant, but they operate in indirect ways. Specifically, Pakistan is at a disadvantage whilst competing with India in international markets, not in trade between the two countries. An example of this is basmati rice. India has displaced a significant amount of Pakistan’s share in international export markets. This has come through investments of Indian companies in Dubai and other key markets to obtain distribution channels. This is a more general question of inadequacies in private sector development and is dependent on factors relating to the private sector itself and the enabling environment created by the state.

It is reasonable to conclude that the adverse impact of cheaper imports from India will hurt the fresh perishable produce of Pakistan, but is not a big threat to large crops. These crops are under careful observation and policy support of the government on both sides, as related to overall food security in each country.

4.4. Issue of market access

Pakistan has a clear competitive advantage in producing key horticulture items such as mangoes, citrus, peaches, apricots, dates and olives, etc. Similarly, halal poultry and fish are other potential items that can be exported. India provides a big market for such products. As discussed above, based on the data of production and export patterns, trade in prime agriculture commodities will always be fairly restricted between India and Pakistan.

Pakistan has clear international competitiveness in certain fruit items; however, the existing
trade even in these products in the post MFN era is negligible. India granted MFN to Pakistan in 1995, yet to date, only a few consignments (excluding dried dates) have crossed the border to be sold in India. Mangoes and Kinnows — the two prime fruits of Pakistan — have continued to be on the sensitive and negative lists. However, after several discussions, Kinnows have finally been taken off the Indian sensitive list. This lack of exports suggests that, historically, Indian policies have been extremely protectionist, and hence even those products in which Pakistan has a clear competitive advantage, have not been exported. This restrictiveness exist in the shape of both tariff and non-tariff barriers. The items on the Sensitive list include all fruits and vegetables that Pakistan could potentially export to India.

An aggregate way to capture trade restrictiveness by incorporating both tariff and non-tariff barriers is the Overall Trade Restrictiveness Index (OTRI) calculated by the World Bank. Table 5 below provides the latest OTRI estimates between Pakistan and India.\(^8\)

The estimates above show that India is much more restrictive than Pakistan in terms of market access. In terms of both tariff and non-tariff measures, India adds at least 65% more on the import price of products from Pakistan. At this large number, it will be impossible for Pakistan to export anything of significance to India.

Disaggregating the above estimates (in Table A2, Appendix II) provides the applied and bound tariff rates on key tradable agriculture commodities to India, and shows that the bound rates applied by India are extremely high. The applied rates may be low, but having high bound rates allows India the flexibility of increasing tariff rates when Pakistan may have exportable surpluses.

Non-Tariff Barriers

Non-Tariff Barriers (NTBs) are a key constraint to exports from Pakistan to India. In the case of agriculture commodities that can be exported from Pakistan two key NTB’s are relevant. The first is the quarantine and SPS requirements and certifications. Although as per 2003 QPR Policy of India, there are no quarantine restrictions on imports of agriculture commodities from Pakistan, the farmers have failed to export successfully to India. Pakistan had a major glut in the potato crop in February 2013; however, the stakeholders stated that they were simply denied exporting to India on the basis of the SPS.

The Potato Growers are more vocal in stating that India will protect its farmers by way of strong NTB’s and heightened SPS measures. They stated that whereas there were no barriers and restriction on importing final products from India, importing seeds was restricted. Seeds and final produce is currently allowed to be imported free of duty by road, however seeds have to be transported only by rail. This option is not only expensive (Rs 2/ kg), it also slows down the process. The Potato Growers asked why vegetables should come in to Pakistan duty-free by the preferential Wagah road route, while seeds that would benefit Pakistani farmers can only come by the more cumbersome route of the rail network. The Potato Growers demanded that Pakistan’s duty on Indian potatoes not only include the cost of their subsidies but also all the capital expenditure they have made on

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\(^8\) According to the World Bank, the “Overall Trade Restrictiveness Index (OTRI) summarizes the trade policy stance of a country by calculating the uniform tariff that will keep its overall imports at the current level when the country in fact has different tariffs for different goods. In a nutshell, the 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 elasticity of each imported product.” In estimating the indices, OTRI uses both applied tariffs and non-tariff barriers (NTBs). In the case of agricultural indices the NTBs also include domestic agriculture support as a component. However, data suggests that although NTBs can be more powerful than applied tariffs in determining the index value at times, the impact of agricultural domestic support is generally lower (around 1%)- but that this could simply reflect that in most countries only a very small number of products are affected by domestic support.
the Indian side to facilitate potato farmers. Allowing Indian agricultural goods without placing duties on them to compensate for their inefficient and trade distorting subsidies will threaten Pakistan’s food security, and is therefore unacceptable and must be reversed.

The second real NTB for agriculture sector is the visa regime. Pakistani businessmen are allowed on arrival visa for up to six cities excluding Punjab. If a farmer from Pakistan has to sell his produce in India, the best market to access is Amritsar. Due to this strange visa restriction the grower or farmer from Pakistan is unable to export perishable agriculture produce to India. Such visa restrictions further exaggerates the impact of SPS and the quarantine NTB outlined above, as this stops the flow of information and B2B contact. Most of the SPS and technical barriers can be eliminated by way of B2B meetings and enhancing understanding of requirements.

4.5. Other Issues

Another message that comes out from the agriculture sector is scepticism on the efforts and capacity of the Government of Pakistan to safeguard the interests of the agri-sector. This is because the sector was ignored previously by the Ministry of Commerce in its negotiations with India. The general view of the sector is that trade with India is welcome provided that there is a level playing field and the trade regime between the two countries was fair and equitable. In view of India’s large subsidies for agricultural goods and heavy protections of its own agricultural sector, the representatives of the agriculture sector demand that agriculture trade must be covered under a separate agreement and not lumped under a general agreement, just as is the case with the Uruguay Round Agreements of the WTO, and also in NAFTA. The government should work closely with the agriculture sector to develop a realistic stance for policy negotiation, and develop an effective negotiations team with representatives from the agri-sector who will be able to safeguard the interests of 100 million people who rely directly (whether partially or wholly) on agriculture for their livelihood. The same goes for the SAFTA Agreement: agriculture must be kept out of any generic agreement, just as is the case with services. Whereas, there is certainly existing trade potential, but Pakistan will have to get its act together and bring policies that will safeguard against Indian protection and subsidies before opening up free trade in agriculture.

The scepticism towards the government is predominantly based on its past actions. The case of Indus Water Treaty signed in 1961 is often used as an example of Pakistani government’s lack of capacity and integrity in negotiating with India. Not only did the government concede the waters of 3 of Punjab’s rivers to India, the government has been largely ineffective in keeping India in recent years from building dams on the 3 rivers that were exclusively meant to come to Pakistan. The granting of MFN or any such similar agreement must be on the basis of mutual benefit. In its current shape there seems to be limited or no benefit to Pakistan’s agriculture. Secondly, if we look at the current trade pattern, not only is that hugely in favour of India, Pakistan is exporting natural resources such as rock salt, phosphate, and gypsum. The export price for these products is less than the freight cost to import these items from Australia, so this benefits India. In return Pakistan has imported significant amounts of cotton from India because of a powerful textile mill lobby in the country. This is damaging local cotton growers but benefits India and helps the local Pakistani textile industry which already gets huge subsidies in the form of tax breaks and export promotion assistance.

A critical drawback identified is the weak negotiating capacity of Pakistan. The sector
strongly feels that the team representing Pakistan in conducting trade negotiations with India is not equipped with the required skills and knowledge. This results in agreements that put Pakistan at a disadvantage. This lack of capacity has affected MFN negotiations. The Pakistan team has completely discounted the agriculture sector impact in MFN discussions. They failed to realize that the agriculture sector must be captured by a separate agreement. Each country due to reasons of food security protects its agriculture sector. Even in NAFTA, which is considered as a successful example, does not cover the agriculture sector. Agriculture-related products are covered by special bilateral agreements between US and Mexico and US and Canada. Similarly the WTO Doha Round negotiations broke down due to disagreement on agriculture sector. This is a clear reason or precedent for Pakistan and India agriculture to be discussed separately. The sector makes a strong case for keeping agriculture independent of MFN agenda. This strong push by the sector has resulted in Pakistan-India Joint Business Forum agreeing to conduct sector impact studies and also to ensure that trade negotiation teams will have representatives from the sector.

On the issue of SAFTA, the sector feels that protection offered under the sensitive list is not sufficient as it is time bound. The protection under SAFTA has a life span of 4/5 years. The sector lags behind India due to 60 years of subsidies and strong support policies, the disadvantage can only be compensated over the long-term by suitable policies, and 5 years would not provide enough protection.

Granting MFN in its current state would result in abuse of this agreement by rent seekers on both sides and agriculture sector will be the worst hit. Pakistan will also lose out on its exports to Afghanistan worth US$2 billion annually. The ‘aarthis’ sitting in Lahore will buy agriculture produce from India and sell directly to Afghanistan. Pakistan’s produce will not be able to compete due to subsidies and low costs of production. An example of this is the current violation of the intra-Kashmir barter trade agreement. The barter trade agreement allows exchange of goods produced only within Kashmir at the Kashmir border. However, products from other regions in India and Pakistan travel across the border with no restraint. Hence, the sector feels that the profiteers will abuse provisions under MFN.

The Mango Growers association are more positive and suggested that there was significant potential for Pakistan to export mangoes to India. The reason for this being that Pakistani season peaks in July/August when India’s season is almost over. Secondly, Pakistan produces more varieties of mango that is consumed fresh as compared to India where the majority varieties are used for pulping and juicing. However, when asked how Pakistani mango exports to India have been completely insignificant even though India gave Pakistan MFN in 1995, the mango growers had no response.

5. KEY POLICY OPTIONS

The analysis of relative competitiveness in agricultural products indicates that Pakistan has a considerable potential to export to India. Pakistan has a competitive advantage in citrus fruit, mangoes, apricots, peaches, olives, fish and fish products. These products have the potential to attract significant demand in Indian markets. However, for the agriculture sector of Pakistan to realise the potential of trade with India, it is imperative that the issue of market access be addressed in bilateral trade negotiations between the two countries. The WTO compliant agricultural subsidies and price support given by the Indian government to its farmers are domestic issues. Given the political economy of subsidy provision in India, it is highly unlikely that India would reduce these in the near future. Therefore, in the short term, Pakistan needs to negotiate for Indian reductions in both its applied MFN tariffs on agricultural goods and the specific agriculture-related NTBs that hinder Pakistan’s potential exports.
Over the medium to long run, there are considerable opportunities for cross-border investments in agriculture and processed foods, given the fact that there have been significant efforts to liberalize the investment regime in both countries. Likewise, there is scope in trade and joint ventures/investments in inputs such as seeds and agricultural equipment. Moreover, with increased water scarcity and changing weather patterns, there is a dire need for the two countries to resolve their outstanding water issues and treat water as a common resource.

Under the WTO and SAFTA trade agreement, Pakistan can take recourse to prescribed safeguard measures to protect its domestic agriculture sector in case of a surge in imports. The SAFTA agreement has a provision that permits the importing state to temporarily suspend concessions granted if a surge in imports causes or threatens to cause injury to domestic industry. Additionally, there are special safeguards for agriculture that Pakistan can apply under the WTO, in case of serious difficulties faced due to import surge. Finally, Pakistan may continue to protect its agriculture sector by retaining the agricultural items in the revised SAFTA sensitive list.

A consensus policy that supports Pakistan in implementing the above recommendations can be achieved more swiftly by handling the agriculture sector separately from the MFN and SAFTA arrangements. Both countries should therefore negotiate a bilateral trade agreement on agriculture. The negotiating team from Pakistan should have adequate capacity and must allow representation from academia and the agriculture sector. Only then are farmers willing to discontinue their opposition to MFN and proceed on opening up trade with India.

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TDAP (2012), Pakistan–India Trade Normalization: Opportunities and Challenges for Pakistan. Trade Development Authority of Pakistan, Islamabad.

TRTA II/ITC (2013), Enhancing Pakistan’s Agricultural Sector Exports to India, Trade Related Technical Assistance Programme, Ministry of Commerce, Government of Pakistan, Islamabad.

Figure 1: Agriculture Growth Rates in Pakistan & India 2001-2012 (%)

GDP vs. Agriculture Growth Rate Trend

Source: Databank – World Development Indicators

Figure 2: Top 10 Exports and Imports of Pakistan and India, 2010 (US$ Million)

Source: FAO Statistics
Figure 3: Percentage Shares of Fastest Growing Agriculture Exports of Pakistan to India, 2011

![Graph showing percentage shares of fastest growing agriculture exports of Pakistan to India, 2011.](image)

Source: Trade Development Authority of Pakistan, 2012

Figure 4: Shares of Fastest Growing Agriculture Imports of Pakistan from India, 2011 (%)

![Graph showing shares of fastest growing agriculture imports of Pakistan from India, 2011.](image)

Source: Trade Development Authority of Pakistan, 2012
Table 1: Pakistan-India Agriculture Trade, 2011 (US$ Million)

<table>
<thead>
<tr>
<th>Exports</th>
<th>Value</th>
<th>% of Indian Imports from World</th>
<th>% of Pak Exports to World</th>
<th>Imports</th>
<th>Value</th>
<th>% of Pak Imports from World</th>
<th>% of Indian Exports to World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dates, figs, pineapples, mangoes,</td>
<td>47.19</td>
<td>98.0</td>
<td>74.0</td>
<td>Cotton, not carded or</td>
<td>291.9</td>
<td>35.4</td>
<td>8.6</td>
</tr>
<tr>
<td>avocados, guavas</td>
<td></td>
<td></td>
<td></td>
<td>combed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicinal plants</td>
<td>3.32</td>
<td>7.8</td>
<td>25.7</td>
<td>Tomatoes</td>
<td>76.2</td>
<td>98.8</td>
<td>88.5</td>
</tr>
<tr>
<td>Cotton, not carded or combed</td>
<td>2.05</td>
<td>1.1</td>
<td>0.6</td>
<td>Dried vegetables, shelled</td>
<td>46.0</td>
<td>11.6</td>
<td>20.1</td>
</tr>
<tr>
<td>Ginger, saffron, turmeric, thyme, bay</td>
<td>0.74</td>
<td>2.3</td>
<td>1.9</td>
<td>Tea</td>
<td>37.3</td>
<td>10.6</td>
<td>4.3</td>
</tr>
<tr>
<td>leaves &amp; curry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeds of anise, badian, fennel,</td>
<td>0.55</td>
<td>2.4</td>
<td>6.4</td>
<td>Seeds, fruit and spores,</td>
<td>21.9</td>
<td>38.1</td>
<td>42.1</td>
</tr>
<tr>
<td>coriander, cumin, etc.</td>
<td></td>
<td></td>
<td></td>
<td>for sowing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Trade Development Authority of Pakistan, UNCOMTRADE dataset and FAOSTAT.
Table 2: Indian Agriculture Trade, 2010 (US$ million)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>India Production ('000' MT)</th>
<th>India Prod/Capita (kg)</th>
<th>India Export to World % of Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>122,540.0</td>
<td>100.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Wheat</td>
<td>85,930.0</td>
<td>70.4</td>
<td>0.58</td>
</tr>
<tr>
<td>Rice</td>
<td>95,320.0</td>
<td>78.1</td>
<td>5.26</td>
</tr>
<tr>
<td>Cotton</td>
<td>33,430.0</td>
<td>27.4</td>
<td>5.84</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>342,380.0</td>
<td>280.4</td>
<td>0.79</td>
</tr>
<tr>
<td>Maize</td>
<td>21,760.0</td>
<td>17.8</td>
<td>18.16</td>
</tr>
<tr>
<td>Potatoes</td>
<td>42,339.4</td>
<td>34.7</td>
<td>0.51</td>
</tr>
<tr>
<td>Bananas</td>
<td>29,667.0</td>
<td>24.3</td>
<td>0.14</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>16,826.0</td>
<td>13.8</td>
<td>1.36</td>
</tr>
</tbody>
</table>

Sources: UNComtrade, FAOStat, Statistical Bureau of Pakistan, Reserve Bank of India database

Table 3: Wholesale Prices 2010 -11 (Values in P KR/Qtl)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>India</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>2802</td>
<td>2625</td>
</tr>
<tr>
<td>Rice</td>
<td>3390</td>
<td>4100</td>
</tr>
<tr>
<td>Maize</td>
<td>1672*</td>
<td>2500</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>264*</td>
<td>-</td>
</tr>
<tr>
<td>Onions</td>
<td>3107</td>
<td>2825</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1594</td>
<td>1750</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>2801</td>
<td>-</td>
</tr>
<tr>
<td>Milk (100 lt)</td>
<td>4789</td>
<td>5500</td>
</tr>
</tbody>
</table>

*Denotes MSP in India rather than wholesale price
Source: (a) Pakistan Bureau of Statistics
(b) Ministry of Consumer Affairs, Food and Public Distribution, India
Table 4: Estimates of Cost of Cultivation in India and Pakistan 2010 -11 (PKR)

<table>
<thead>
<tr>
<th>Input</th>
<th>India (PKR/ha)</th>
<th>Pakistan (PKR/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paddy</td>
<td>Maize</td>
</tr>
<tr>
<td>I Operational Cost</td>
<td>85408.8</td>
<td>67780.6</td>
</tr>
<tr>
<td>Human Labour</td>
<td>46350.5</td>
<td>34414.7</td>
</tr>
<tr>
<td>Animal Labour</td>
<td>744.8</td>
<td>1197</td>
</tr>
<tr>
<td>Machine Labour</td>
<td>13870</td>
<td>11774.3</td>
</tr>
<tr>
<td>Seed</td>
<td>10009.2</td>
<td>6448.6</td>
</tr>
<tr>
<td>Fertilizer &amp; Manure</td>
<td>10436.7</td>
<td>17191.2</td>
</tr>
<tr>
<td>Plant Protection</td>
<td>2280</td>
<td>1618.8</td>
</tr>
<tr>
<td>Irrigation</td>
<td>250.8</td>
<td>461.7</td>
</tr>
<tr>
<td>Interest on working</td>
<td>1466.8</td>
<td>1295.8</td>
</tr>
<tr>
<td>capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II Fixed Cost*</td>
<td>17356.5</td>
<td>9148.5</td>
</tr>
<tr>
<td>Sub Total (I+II)</td>
<td>102765.3</td>
<td>76929.1</td>
</tr>
<tr>
<td>Managerial cost</td>
<td>10277.1</td>
<td>7693.1</td>
</tr>
<tr>
<td>III Total Cost</td>
<td>113042.4</td>
<td>84622.2</td>
</tr>
<tr>
<td>Yield (QtI)</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Cost of Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV (PKR/qtI)</td>
<td>2093.8</td>
<td>1565.6</td>
</tr>
</tbody>
</table>

* Fixed costs include costs of land preparation and rents. For Pakistan the labour costs are incorporated into other components.

Sources: Pakistan: Computed authors using data available on  [http://www.amis.pk/Surveys.aspx](http://www.amis.pk/Surveys.aspx)
India:  [http://www.agritech.tnau.ac.in/agriculture/agri_costofcultivation_indexpage12.html](http://www.agritech.tnau.ac.in/agriculture/agri_costofcultivation_indexpage12.html)
Table 5: Value of OTRI index for India and Pakistan - 2009

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Indices based on applied tariffs (%)</th>
<th>Indices based on MFN tariffs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Agriculture</td>
</tr>
<tr>
<td>India</td>
<td>2009</td>
<td>14.9</td>
<td>69.5</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2009</td>
<td>7.4</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Trade Restriction Indices 2009, World Bank

Box 1: Pricing Support in India

In formulating the recommendations in respect of the level of minimum support prices and other non-price measures, the CACP takes into account, apart from a comprehensive view of the entire structure of the economy of a particular commodity/commodity group, the following factors:

1. Cost of production
2. Changes in input prices
3. Input-output price parity
4. Trends in market prices
5. Demand and supply
6. Inter-crop price parity
7. Effect on industrial cost structure
8. Effect on cost of living
9. Effect on general price level
10. International price situation
11. Parity between prices paid and prices received by the farmers.
12. Effect on issue prices and implications for subsidy

Presently, the following crops are covered under the MSPs:
- **Cereals** - Paddy, Wheat, Jowar, Bajra, Maize, Ragi and Barley
- **Pulses** - Moong, Urad, Arhar, Gram, Lentil and Peas
- **Oilseeds** - Groundnut, Rape seed and Mustard, Niger seed, Soybean, Sunflower, Sesamum and Safflower.
- **Fibre Crops** - Cotton and Jute
- **Others** - Sugarcane, VFC Tobacco, Onion, Potato and Coconut

Source: CACP
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Abstract

Trade in agricultural remains one of the most contentious issues within the broader topic of Pakistan-India trade. The main source of contention is the difference in policy regime vis-a-vis agriculture in the two countries. India, for reasons of food security, has extensive price support mechanisms and gives substantial input subsidies to its farmers. Moreover, high tariff rates and a range of non-tariff barriers protect the Indian farmer from global competition. In sharp contrast, the government of Pakistan has over the past decade and a half gradually phased out agricultural subsidies, reduced external tariffs and withdrawn price support on most of the crops. The farmers associations and lobby groups in Pakistan emphasize this difference in policy regime and claim that opening trade with India in agriculture under such conditions would hurt Pakistan’s agricultural sector. This paper is an attempt to investigate that claim by analyzing the agricultural policy regimes in both the countries using secondary and primary sources of data and information. The paper at the end puts forward some policy recommendations which could help assuage the farmers in Pakistan without curtailing overall trade and economic ties between the two neighbors.