Final Report

Improving Economic Governance in the Agriculture Sector through Trade Liberalization between Pakistan and India

March, 2014

Project funded by

Canada Fund for Local Initiatives (CFLI)

Recipient Organization

University of Agriculture, Faisalabad (UAF)

Table of Contents

List of Tables

List of Figures

List of Boxes

List of Appendices

List of Abbreviations

ANF	Anti Narcotics Force
ASLP	Agriculture Sector Linkages Program
CFLI	Canada Fund for Local Initiatives
DPP	Department of Plant Protection
FAO	Food and Agriculture Organization
FAP	Farmers Associates Pakistan
FG	Focus Group
FTA	Free Trade Agreement
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GOI	Government of India
GOP	Government of Pakistan
GTR	Grand Trunk Road
INR	Indian Rupee
ISM	Imperfect Substitutes Model
ITC	International Trade Centre
KPK	Khyber Pukhtunkhwa
NGO	Non Government Organization
NLC	National Logistics Cell
NWFP	North West Frontier Province
MFN	Most Favoured Nation
NDMA	Non-Discriminatory Market Access
NTB	Non-Tariff Barrier
PARC	Pakistan Agriculture Research Council
PHDEC	Pakistan Horticulture Development Export Company
PKR	Pakistani Rupee
RYK	Rahim Yar Khan
SAFTA	South Asian Free Trade Agreement
SPS	Sanitary and Phyto-Sanitary Measures
TDAP	Trade Development Authority of Pakistan
UAE	United Arab Emirates
UAF	University of Agriculture Faisalabad
USA	United States of America
USAID	United States Agency for International Development
USD	United Sates Dollar

Acknowledgments

This project takes up a challenging task of investigating dynamics of bilateral agricultural trade between Pakistan and India. This project activity is a sequence of Round Table talks on trade between Pakistan and India, which was organized at High Commission of Canada Islamabad. This project was funded under Canada Fund for Local Initiatives (CFLI). Therefore, special acknowledgement is due to the cooperation extended by H.E. Greg Giokas, High Commission of Canada in Pakistan. Services offered by staff of CFLI are also duly acknowledged.

This project activity involved a lot of field work where focus group discussions and personal interviews were conducted with stakeholders and government officials. This project activity would have not been possible without cooperation and contribution of all these stakeholders. The officials of customs at Wagha Border and T-10 facilitated the research team and offered them detailed onsite visits so their services are highly acknowledged. We are also thankful to officials of Farmers Associates Pakistan, Kissan Board, Star Farms Pakistan and Pakistan India Business Council. A large number of participants travelled all the way from their areas and contributed in Round Tables. They spare their precious time and gave useful input. Their contribution is recognized as collaboration between academia and stakeholders and highly acknowledged.

This project would have remained a dream if timely input was not provided by Office of Research, Innovation and Commercialization (ORIC), University of Agriculture, Faisalabad (UAF). The services offered to maintain accounts by the Treasurer Office are also acknowledged. Last but not least, the untiring efforts by the research team from the Institute of Business Management Sciences (IBMS) are duly acknowledged. These efforts showed their commitment to academic work and their Alma Mater.

Prof. Dr. Iqrar Ahmad Khan
Team Leader

Executive Summary

The significance of good governance is recognized worldwide as central in economic reforms. It is considered an important tool to achieve and sustain development both in developed and developing countries. It is also taken as a check and balance system for efficient resources utilization. Amongst others, trade is a vital element to improve economic governance. It is often attached with interdependence of trading partners on each other, which in turn improves their relations thus elevates the development of overall region. In South Asia, Pakistan and India have got important positions regarding overall stability and development of the region, thus economic improvement in these countries is not only crucial for themselves but also for the stability of South Asia.

Agriculture is the basic pillar of economy both in Pakistan and India. The welfare concern of related stakeholders in this sector has political and development priority for governments of both countries. As such, anything which may hamper growth of agriculture sector or affect stakeholders negatively may be a point of prime importance and concern. The demand and supply gap of essential food commodities including potatoes, onion, garlic, etc. on either side of border may act as good instrument and opportunity to bridge gap between two countries subject to fair and merit based implementation of trade policies. The development of agriculture sector, which may be achieved on both sides of borders with mutual cooperation, may help Pakistan and India to combat social evils like unemployment, poverty, gender discrimination etc.

Considering these facts, H.E. Greg Giokas, High Commission of Canada in Pakistan, took personal interest and arranged a round table on June 8th, 2013 at his official residence in Islamabad. During this round table, many issues were identified which were considered hampering trade between Pakistan and India. Meanwhile, it was agreed to start empirical research efforts to explore the dynamics of agricultural trade between two countries. In this sequence, financial support was provided by High Commission of Canada under its program on Canada Fund for Local Initiatives (CFLI). The research team from the University of Agriculture, Faisalabad completed this research project employing both secondary and primary sources of data in the province of Punjab, Pakistan.

Trade between India and Pakistan has been moving smoothly but slowly despite the recent cross-border issues between the two countries. The current value of trade between two countries is estimated less than 3 billion USD, which is far below the potential of trade. As such, if existing barriers are removed between two trading partners then volume of trade can be enhanced significantly. This is particularly important for agricultural commodities because geographical proximity put these countries in advantageous position if trade is practiced on merit.

The secondary data revealed that area and production of onion has increased 90% and 77%, respectively over the period, 1995-2012. The province of Sindh contributed major

share in both production and area under cultivation of onion followed by Punjab, Baluchistan and KPK. Regarding average wholesale prices in 2013 in the Punjab, highest prices were observed in Rawalpindi and lowest in Multan. While comparing Pakistan with India in the yield of onion, India was placed relatively better with 14.34 tons/hectare as compared to Pakistan with 13.14 tons/hectare. Regarding direction of onion trade between two countries, Pakistan was found a net importing country with only few years marked as exports of onion to India whereas India was found regularly exporting onion to Pakistan.

Focus group discussions were organized with growers of onion and their perceptions were recorded. Discussion with growers revealed that majority of the growers were not in favour of trading onion with India and they straight forwardly said that trade will be harmful for the farming community in general and for onion growers in particular. After discussion with participants, major issues affecting onion trade were identified. In this sake the most important issue was heavy subsidies given to agriculture sector in India. Participants were of the opinion that Indian farmer is getting subsidies on electricity, fertilizer and other inputs whereas Pakistani farmer is not getting anything. The other issues include unfavourable government policies, stagnant yield, price fluctuations, inappropriate research and development, less value addition, short shelf life, and non-availability of grading machines. The focus group discussion with traders revealed that trust deficit, tariff and non tariff barriers, complexities and delay in custom procedures, embargo on export through Wagha, third party trade, inappropriate transport policy, poor packaging and value addition were the major issues.

Mango is the second major fruit crop after citrus which is mainly grown in two provinces Punjab and Sindh in Pakistan. Over the period 1995-2011 the area under mango has increased from 86.6 thousand hectares to 171.9 thousand hectares showing an increase of 98%. However, mango production increased at a modest rate till 2000-05 after which there was a sharp increase in its production till 2011. There is little evidence of any formal trade of mangoes between India and Pakistan. However, informally mangoes have been passed from Pakistan to India through Kashmir border through barter exchange. Considering the population of two countries, it can safely be assumed that these two markets are big avenues for mangoes because Pakistani season peaks in July/August when India's season is almost over. The growers are in favor of mango trade provided government should devise policies to overcome the heavy subsidies to Indian agriculture, complicated NTBs on Indian side, provision of cool chain system and relevant market information in the Indian markets. Similarly traders also supported the bilateral trade of mangoes between Pakistan and India. However reduction of trust deficit between the two governments and provision of appropriate infrastructural facilities such as cool chain system is desirable.

The production and consumption of potato is accelerating in Pakistan and India. The total area under potato crop in the world is 24633.8 thousand hectares. Pakistan stands at 15th

position regarding production of potato in the world. The total area under potato cultivation is 185.1 thousand hectares in Pakistan. There is little evidence of trade of potato between Pakistan and India. Higher subsidies given to Indian agricultural sector was one of the most important factors that affect the growers in Pakistan. The slowly improving yield of potato is another concern for the potato growers. Moreover the potato growers do not have any access to mechanical grading system. Only some of the exporters have the mechanical grading system. The potato growers suggested that if grading and packaging facilities are provided to them, then they can generate more exportable surplus. As the secondary data showed Pakistan import potato from India while Indian government does not allow the import of potato from Pakistan. The trade of potato seed takes place through the rail route while the import and export of fresh produce happens from the Wagha-Attari road link. The exporters and importers were of the opinion that the extra ordinary inspection of commodities and manual inspection resulted in delays of the products which caused quality deterioration. On the basis of findings, it is suggested that diplomatic efforts should be focused on building trust between two trading partners. Along with this, there is dire need to strengthen infrastructure and allied facilities at border points. In order to protect the interests of stakeholders, windows of time opportunities need to be identified in case of mango, onion and potato. This should be supported with flexible custom duty structure so that interests of farmers may be protected in times of surpluses.

Introduction

The significance of good governance for development is now universally recognized, it stands at the core of governance and administrative reforms undertaken in developed as well as developing countries including transitional economies. There is general consensus among planners and economists that the best mechanism to sustain growth in the future is to ensure effective governance. Amongst other tools, trade is considered as a key factor in economic development. It is argued that development, poverty reduction and trade are strongly linked with each other. Sustainable long term growth is strongly related to poverty reduction while growth is linked to trade. Developed countries have increased their integration with global economy. Export led growth is considered a key factor of any country's successful development strategies. Trade between developing countries is now becoming as important as trade with the developed countries (Burki et al., 2005). It provides an opportunity to developing countries to accelerate sustained economic growth, to overcome diseconomies of scale and get rid of economic shortage (Mwaba, 2000).

Pakistan is no exception to above mentioned mechanism. Over the time, although volume of trade from Pakistan has increased but still it falls below its potential. Pakistan's trade to GDP ratio is 33.2 percent. In 2012-13 its trade volume stood at 56.81 billion USD, in which the exports and imports were 20.15 billion USD and 36.67 billion USD respectively. Cotton and cotton manufactures, rice, leather and jewelry are important exports while USA, Germany, Hong Kong, UK and U.A.E. are important partners of Pakistan. Around 43 percent of exports were concentrated in these markets few years back but now due to access to new markets the share of these countries in exports has declined to 36.6 percent. Need of the day is to diversify exports in terms of quantity as well as markets. Profound concentration of exports of few commodities and markets may lead to export instability. Major imports include chemicals and synthetics, petroleum products, machinery, consumer durables and few agriculture items and important import markets are comprised of Japan, Saudi Arabia, U.K., U.S.A., Kuwait and Germany (GOP, 2013).

India is neighbor to Pakistan and has got a central position in South Asia. The stability of the region lies in good terms between Pakistan and India and trade of agricultural commodities is a tool which may be used to stabilize relationships between trading partners. The recent progress India has made is primarily due to its opening of economy. Indian government adopted trade liberalization policies in 2012, as a result the exports showed a significant increase from 18.14 billion USD in 1991 to 304.62 billion USD in 2012. Imports also increased from 24.08 billion USD to 48.92 billion USD during the same period. Major imports of India are composed of cotton and cotton manufactures, machinery, jewelry, fertilizers, food items and petroleum products. Exports mainly consist of agriculture goods, chemicals, manufactured items, etc. (GOI, 2013).

Considerable potential lies for greater trade between two countries. Trade balance of India with Pakistan was 94.7 million USD in 2001which increased to 948.6 million USD in 2006 and current figures state that it is approximately 2 billion USD. Less than 0.5

percent of Indian trade is accounted by Pakistan while India account for more than 3 percent. Informal trade and trade via third country is approximately more than 3 billion USD. Some experts estimate that greater prospects for bilateral trade exist and it can be raised up to 40 billion USD (Zahra, 2011). Increased trade will not only benefit economies of both countries, but constituencies will build for more cooperative bilateral relations and open doors to advancement on security and other core political issues.

Table 1.1: Bilateral Trade of Pakistan with India (Million USD)

Year	Imports from India	Exports to India	Total Trade	Balance of Trade
2005-06	689	180	869	-509
2006-07	1349	323	1672	-1026
2007-08	1944	288	2232	-1656
2008-09	1440	370	1810	-1070
2009-10	1574	276	1850	-1298
2010-11	2040	333	2373	-1707
2011-12	1542	401	1943	-1141
2012-13	2000	500	2500	-1500

Source: Trade Development Authority of Pakistan, 2013

Major imports of Pakistan from India include vegetables, artificial staple fiber, tea, chemicals and soya bean oil cake. Agricultural imports from India accounts for 30 percent of total Indian exports. Dates, textiles, cement, and certain chemicals are major exports of Pakistan to India. Pakistan exported cotton worth 60 million USD to India in 2011-12 as opposed to import of cotton from India in 2010-11(GOP, 2013). Emergence of some new exports to India such as leather, medical and surgical instruments and woven cotton fabrics shows a further positive sign. Pakistan has a relatively large trade deficit with respect to India due to small, declining volume of exports to India and relatively large, growing volume of imports from India (Pasha and Imran, 2012).

Vegetable and fruit sector has the potential to generate export revenue, increase the level of national and farm income and generate new employment opportunities for the people. High potential exist for both Pakistan and India to cultivate fruit and vegetable crops for domestic as well as export market. In Pakistan the area under vegetable and fruit production is 0.25 million and 0.83 million hectares whereas total vegetable and fruit production is 3.13 million and 6.93 million tons respectively. Since last year export of fruits and vegetables from Pakistan has increased from 538 million USD to 625 million USD. The vegetable production of India is 155.9 million hectares and area under vegetable production is 8.9 million hectares. Indian fruit production stands at 76.4 million tons with an area of 6.7 million hectares (GOP, 2013).

Past experience shows that trade between the two countries in vegetables, lentils etc. acts as a price stabilizing force because it equates supply and demand. Due to the proximity between the Pakistani Punjab and the Indian Punjab (the Haryana-Delhi belt), low transportation costs and the time advantage make trade in perishable and fresh agricultural good quite attractive. When India falls short of onions or potatoes and Pakistan has a bumper crop or vice versa, countries, their farmers and consumers gain from these transactions. Imports will also force Pakistani farmers, if they are uncompetitive, to strive to become more efficient by adopting better production, storage and preservation techniques and reduce post-harvest losses.

The above mentioned point of view may look a bit idealistic in terms of contribution of trade that it is absolutely beneficial for everyone including producers, consumers and even government officials. This is quite a controversial argument and needs comprehensive analysis before the conclusion is drawn. Agriculture is the basic pillar of economy in the two countries. The welfare concern of related stakeholders (including farmers and local communities) in this sector has got political and development priority for governments of both countries. As such, anything which may hamper growth of agriculture sector or affect stakeholders negatively may be a point of prime importance and concern. The demand and supply gap of essential food commodities including potatoes, tomatoes, onion, garlic, etc. on either side of border may act as good instrument and opportunity to bridge gap between two nations subject to fair and merit based implementation of trade policies. The development of agriculture sector, which may be achieved on both sides of borders with mutual cooperation, may help Pakistan and India to combat social evils like unemployment, poverty, gender discrimination etc.

Trade of agricultural goods is very important for Pakistan because it is an agricultural economy and its exports mostly comprises of raw materials and agricultural goods. Pakistan is one of the world's largest producers of agricultural products including chickpeas, dates, apricot, cotton, milk, onion, sugarcane, mango, oranges, kinnow, mandarins, wheat and rice. Rice, Kinnow and citrus fruits, dates, mangoes and apricots are major agricultural exports of Pakistan (TDAP, 2013). The agricultural trade between India Pakistan is shown in the table 1.2 below. The table indicates that agricultural exports from India to Pakistan are relatively greater as compared to imports from Pakistan. In the year 2012-13 India's exports to Pakistan worth of 352.36 million USD, while India's imports from Pakistan worth of 105.11 million USD.

Table 1.2: India Pakistan Trade in Agricultural Products

Year	India's Exports to Pakistan (Million USD)	India's Imports from Pakistan (Million USD)
2008-2009	209.26	45.15
2009-2010	156.34	65.16
2010-2011	248.67	77.31
2011-2012	377.3	89.78
2012-2013	352.36	105.11

Source: Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India

Onion and potato are two important vegetables particularly in Pakistan and India. One thing is common in both countries regarding these vegetables and that is the consistent demand and irregular supply. One or the other year in either country is marked with surplus or deficit of these vegetable and people's food security becomes at stake. In this scenario, if trade is practices consistently considering and handling each other concerns, then it can benefit both countries.

In 2013, onion prices sky rocketed in India due to unexpected drought in 2012 and heavy monsoon rains in 2013. The prices increased up to 500% in some parts of India. Onion being a staple food ingredient became a hot item in Indian markets and consumers were forced to cut down their consumption in response to hyper increase in its prices. In such situations, trade can be used as an effective tool to normalise relation between two countries and help bringing people even closer to each other. There is also a good opportunity for traders across the border to earn windfall profit in this seasonal hike in the prices of agricultural products.

There is 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 by products such as pulping and juicing. Currently the trade of mango between two countries is almost non-existent and the possible reason for this is high tariffs, complicated documentation and heightened SPS measures imposed by Indian side.

One of most liking potential of mango trade between India and Pakistan could be that the mango season extends over five months, starting in mid-May in Sindh and finishing late September in Punjab, with late June to mid August being the peak production period and ended up to October, the potential gains from increasing production in two countries can be capitalize through economic integration between the two countries that leads to existing export destinations as well as emerging markets such as the People's Republic of China and Russian states for Pakistani mangoes which has an estimated potential of one

Billion dollars (TDAP,2013). In fact two countries may present a united front when it comes to marketing mangoes abroad. Pakistan and India could also benefit from a coordinated export approach, especially in emerging high value markets such as Australia and the United States. Moreover, due to the seasonal disparity in two countries the local consumers can be benefited over a period of six month with multiple varieties.

Box 1: India Trade Show, Lahore

Three Day "India Show" was organized at International Expo Centre, Lahore from February 14th to 17th, 2014. It indeed provided an opportunity for people-to-people contact - a key to improve trade relations between two countries having checkered past. The "India Show" was organized in the backdrop of increased efforts by the respective governments at confidence-building measures leading to the possible grant of the Non-Discriminatory Market Access (NDMA) status to India by Pakistan.

"India Show" Pakistan provided a common platform to enhance trade between two nations resulting in new business tie-ups & ventures. The Objective of the India Show was to Show case the Best of Indian Sectors across the border.

Aims:

"The India Show" in Pakistan offered:

- Aimed at boosting bilateral trade and investment between the two countries with fresh vigour
- Offered a gateway to a huge potential market in the region
- Exhibition showcasing the finest and latest in Indian products, technology, equipments in the focus sectors
- Exploration of investment and joint-venture opportunities
- Excellent networking opportunities with business counterparts and others

The two countries are now progressing towards a closer economic relation with a vision to enhance prosperity to flourish in the region and to realize full potential of bilateral trade. Both governments have, in the past two years, taken steps to follow up. In November 2011, Pakistan took initiative by announcing that by the end of 2012 it would apply Most Favored Nation (MFN) treatment to goods coming from India. Both countries announced the conclusion of agreements on mutual recognition of standards, customs cooperation and readdress of trade grievances in February 2012. In March 2012, Pakistan Commerce Ministry replaced the relatively short "positive list" of less than 2000 items that could be imported from India with a "negative list" of 1200 prohibited items. This

almost effectively freed up trade in almost 6800 product areas which were banned previously. In September 2012, both governments announced a new visa agreement according to which provisions were designed to build an atmosphere of confidence and trust and facilitate business travel and the only way to accomplish this was economic partnership (GOP, 2013). The formation of Pakistan India Joint Business Forum is another step in reconciliation of relationships between two states. The progressive business persons from both sides of the border are meeting frequently to discuss issues hindering trade and they jointly are forwarding recommendations to boost trade. Recent advancement like India Show in Lahore on February 15-16, 2014, formation of sectoral task force and announcement of delivering Non-Discriminatory Market Access (NDMA) are some other right steps to build trust and confidence between two countries.

Although governments on both sides of border are striving to normalise relationship but still stakeholders have their own doubts and concerns. A lot of myths and misperceptions on bilateral trade with India are commonly found with a concern whether the trade will be beneficial for Pakistani producers and exporters or it will inundate the Pakistan's agro industry. This point of view of the local producers and exporters need to be explored in details so as to develop appropriate policy based on empirical analysis of agribusiness sector so as to achieve India-Pakistan trade in a win-win situation. Keeping this in view, this research project was designed to investigate the dynamics of bilateral trade between Pakistan and India with special focus on agriculture sector taking onion, potato and mango as case studies. However the specific objectives of the project were to;

1. Analyze the challenges and implications of trade liberalization between Pakistan and India with special focus on agriculture sector. 2. Provide a platform to traders and farmers (including women farmers) to share their queries with subject experts and communicate findings of project with stakeholders through roundtables. 3. Identify major barriers (tariff and non-tariff) and suggest recommendations. The report is organized into five chapters. Chapter II narrates the findings of relevant literature on Pakistan India trade in agricultural commodities, chapter III outlines the methodological approach, chapter IV presets major findings on onion, potato and mango trade with India and chapter V concludes and recommends.

Review of Literature

The present study was designed to analyze Pakistan's trade potential and prospects with India. In this regard, a comprehensive literature was reviewed to collect background information; it helps the researcher in designing and analyzing the research work. Significant amount of literature has discussed various issues relating to Pakistan and India trade. In this regard, Hussain and Khan (2014) analyzed the issues and challenges of Pakistan and India trade in agriculture sector. The study showed that Pakistan has a competitive edge to trade with India especially in citrus, mango, apricot, peaches, olive and seafood. Paswan (2003) and Nanda (2012) stated that openness in agriculture trade in South Asian countries will result in diversification of exports and improvement in the food security.

Gopalan et al., (2013); Burki et al. (2006); Ghuman (1986) investigated the impact of India and Pakistan trade on the mutual gain of both countries. These studies applied a partial equilibrium analysis. Ghuman (1986) concluded that Indo-Pak trade would result in mutual gains. Gopalan et al., (2013) further applied ISM model to study how the grant of MFN status will impact the welfare of the country. The result of the study showed that the trade will have a positive gain. Burki et al. (2006) analyzed how different regimes (i.e. FTA and SAFTA) have an impact on the welfare of each country. Results of the studies show that there will be welfare gain for the people of both countries under all trade regimes with highest gains predicted for Free Trade Agreement.

Sahoo (2012); Tabish and Khan (2011); Husain (2011); Ahmed and Samad (2011) and Srinivasan and Cananero (1993) examined the impact of bilateral trade on the economic growth of trading countries. Ahmed and Samad (2011) proposed the improvements to enhance trade between South Asian countries including Pakistan, India and Afghanistan by harmonizing the regulatory framework of controlling authorities at the border crossings and customs procedures. Husain (2011) discussed that the trade with India is beneficial for both countries, it creates win-win situation for both countries. In this regard, both countries should also promote trade facilitation through expeditious border crossings; streamlining of documentation requirements; coordination of border agencies; quick customs clearance; improvement of electronic data interchange; telecommunication; and transport links; creation of new shipping protocols and easing of visa restrictions for businessmen. Srinivasan and Cananero (1993) concluded that unilateral trade liberalization would yield more gains for the region compared to preferential trade liberalization.

Ahmad and Shabir (2005) and Khan (2009) studied how the political environment has an impact on the trade of Pakistan and India. Results of the study showed that good relations between both countries would give a boost to trade. Trade can act as a catalyst for lowering of tension and decrease in political and bureaucratic opposition between two countries and result in mutual gains. Batra (2004); Taneja (2008) and Pasha and Imran (2012) predicted gain from bilateral trade between India and Pakistan. The paper argued that mutual effort to remove impediments to trade, rationalizing Pakistani products by India and above all granting of MFN status to India could enhance trade between two countries. Batra (2004) argued that both countries can gain about US $ 6.6 billion above existing levels of trade, while Pasha and Imran (2012) estimated that these efforts could lead to diversion of imports to India by Pakistan and this diversion of trade could save the import bills worth more than USD 1 billion. Taneja (2008) discussed that there is large untapped trade potential between the two countries of US $11.7 billion. The export potential from Pakistan to India is US $ 2.2 billion while that from India to Pakistan is to the tune of US $ 9.5 billion. State Bank of Pakistan, 2006 Showed that in Fiscal Year 2004 (FY 04), Pakistan imported 2,646 common items worth over $7 billion from the rest of the world. India also had exported of the same items worth over $15 billion to the rest of the world.

Nisha et al. (2011); Hussain (2013); Taneja and Kalita (2011); Tabish and Khan (2011); Taneja (2008) and Taneja (2006) investigated various issues regarding tariff and non-tariff barriers. Nisha (2007) argued that transport, transit and non-tariff barriers were considered as a challenge for expansion of trade between both countries. The author further added that there is a need to take several measures for enhancement of trade between Pakistan and India such as infrastructural developments, mutual recognition and equivalence agreements, simplifying procedures and liberalization of visa.

The Pakistani producers and industrialists also want the removal of non-tariff barriers from the Indian side. Taneja and Kalita (2011); Taneja (2008) and Taneja (2006) discussed various non-tariff barriers. Both of the studies indicate that the imposition and application of standards in India was perceived as a major non-tariff barrier by Pakistani exporters. There is also lack of transparency, market imperfections and information asymmetries on both sides raise transaction costs and restrict market access for several other aspiring traders. Noorani (2012) further added that post MFN, imports from India would increase but exports of Pakistan would only grow if non-tariff barriers would be reduced by India.

Nisha (2007); Nabi (2012) and Nabi & Javiad (2011) concluded that the tariff needs to be reformed to ensure that Pakistani producers do not suffer negative protection vis-à-vis

Indian competitors. The author suggested the opening of more land border crossings, ease of visa restrictions, and tightening of customs administration. Nabi and Javiad (2011) further explained that that the non-tariff barriers should be removed and Pakistan should import Indian knowledge in IT and manufacturing sectors. This study showed that farmers would be better off if technology was imported and their rural incomes would rise. Naqvi and Schuler (2007) discussed three main reasons of low volume of trade between Pakistan and India as political tensions, the use of import-substitution policies to promote industrialization and relatively little commitment to regional integration. The bilateral trade has a positive impact on the different sectors such as textiles, light engineering, chemicals and agriculture. The study further shows that both countries can enhance the trade by positive impact on GDP through agriculture production, favorable climate for investment, elimination of cross subsidies, gains in health and educational sectors.

Hussain (2013) further discussed positive and negatives lists. His point of view was to phase out of negative list, compared to previous 25 percent, 85 percent of traded items could now be procured from India. He argued that consumers would be benefited by grant of MFN status to India by Pakistan since consumer choice would expand and prices of products would fall.

The literature concluded that trade will have a positive impact on the welfare and economic growth of both countries. The studies have identified different issues in order to enhance the trade between Pakistan and India i.e. easing of visa restrictions for businessmen, establishing good relations and enhancing trust, grating of MFN status, reduction of tariff and non-tariff barriers, coordination of border agencies; quick customs clearance; improvement of electronic data interchange; telecommunication; and transport links; creation of new shipping protocols and opening of more land routes.

Methodology

The purpose of this research is to identify prospects and challenges of bilateral trade between Pakistan and India with particular focus on agriculture sector. The methodological approach including the selection of study area, methods of data collection and analysis are presented in this chapter.

3.1 Selection of the Study Area

Pakistan is situated at important location in the Asian continent. It is the gateway of central Asian states thus has a huge scope and potential for promoting regional trade. Pakistan's trade relations with its neighbour countries especially India are crucial for the geo-political stability of the region. This project seeks to identify major challenges facing Pakistan's trade in the region considering India as major trading partner. Punjab is the leading province with respect to its share in national economic growth. It is also the most developed region in Pakistan regarding agricultural practices and export potential especially agricultural exports. In this context, the province of Punjab was considered for the selection of respondents to study current challenges and prospects for bilateral trade between Pakistan and India with particular focus on three agriculture commodities viz. onion, potato and mango.

For this purpose, research team visited different places/markets to conduct focus group discussion and interviews with stakeholders. Okara was visited for potato, Multan for mango and Lahore for onion, being the major markets in the province of Punjab.

3.2 Data Collection

Focus Group approach was used for data collection for this study. Focus groups are collective conversations, which can be small, or large. Focus groups are group discussions which are arranged to examine a specific set of topics. The group is focused because 'it involves some kind of collective activity. The primary aim of a focus group is to describe and understand meanings and interpretations of a select group of people to gain an understanding of a specific issue from the perspective of the participants of the group.

For the present study, two focus groups of growers and two of traders under each crop were formed and interviewed. In each focus group, there was one moderator who moderated the session and contains 5–8 people to discuss issues concerning the production challenges of agricultural commodities (onion, potato and mango) and trade

concerns between Pakistan and India. Semi-structured questionnaires were prepared including issues/concerns relating to trade of potato, mango and onion. Similarly same was done for individual interviews. Secondary data regarding production, export and import of onion, potato and mango was retrieved from the different sources (FAO stat; Directorate of Marketing and Information (DMI); Ministry of Agriculture, Government of India; Pakistan Bureau of Statistics; Trade Development Authority of Pakistan; Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India; UNCOMTRADE Statistics).

Roundtables for each commodity (onion, potato and mango) were organized to discuss various issues regarding Pakistan and India trade. In this regard, growers, traders and government officials were invited to explore the issues identified through the focus group. Three presentations on agricultural commodities (onion, potato and mango) were given to the participants of the roundtable and their responses were recorded.

3.3 Data Analysis

Since the primary sources of data were obtained from semi-structured focus group, the qualitative data analysis strategy was applied in this research i.e. content analysis consisting of three critical steps: description, classification and connection of the data. The emphasis was given on describing the opinion of the stakeholders they perceived in each crop (onion, potato and mango) in particular context (Dey 1993).

However in order to construct validity that demonstrates that the data collected is free from bias, the perceptions of the stakeholders complemented by using multiple sources of evidence such as data acquired through visit of Wagha Border from the custom officials, T-10 Railway services, and the secondary sources. A process of triangulation that strengthened the validity of the data was opted. Multiple sources of data were further comprehended with the findings of roundtable conference in order to establish the reliability of the research.

Results and Discussion

The project seeks to study and analyze major challenges and potential of bilateral trade between Pakistan and India for agricultural commodities. Primary and secondary data sources were explored and the major findings were identified. The preceding section explains those findings. This section is arranged into three parts; part I explains the findings of onion whereas second and third parts present findings of mango and potato respectively.

4.1 Onion

The onion plant (Allium cepa) is unknown in the wild but has been grown and selectively bred in cultivation for at least 7,000 years. It is a biennial plant but is usually grown as an annual. Modern varieties typically grow to a height of 15 to 45 cm (6 to 18 in). As the onion matures, food reserves begin to accumulate in the leaf bases and the bulb of the onion swells. It is estimated that around the World, over 3,642 thousand hectares of onions are grown annually. About 170 countries cultivate onions for domestic use and about eight percent of the global production is traded internationally.

4.1.1 State of Onion: Secondary Sources

The data from secondary sources including Pakistan Economic Survey, Agricultural Statistics of Pakistan, Agricultural Marketing Information Services Govt. Of Punjab and ICT Tradecom were obtained to find trends at Pakistan and world level. The major findings are presented below;

Area under Onion

Onion is an important vegetable crop which is grown across the Pakistan but predominantly it is grown in Punjab and Sindh provinces. Over the period 1995-2011 the area under onion has increased from 77.9 thousand hectares to 147.6 thousand hectares showing an increase of 90%. In this context, leading change in area under onion was seen in the province of Punjab where its area increased by 124% followed by Sindh (93%), KPK (62%) and Baluchistan (57%). As far as provincial contribution in national area under onion is concerned, Sindh performed leading role by sharing 43% of total area under onion in Pakistan in 2010-11. The province of Punjab got second position by contributing 30% of total share. These two provinces collectively contributed almost three fourth of total area under this crop in the country.

Table 4.1: Area under Onion in Pakistan (000 hectares)

Time period	Punjab	Sindh	KPK	Baluchistan	Pakistan
1995-96	20	32.8	6.8	18.3	77.9
2000-01	23.1	51.8	10.6	20.1	105.6
2005-06	32.6	66.1	11.9	38.1	148.7
2010-11	44.7	63.2	11.0	28.7	147.6
Percentage share of provinces (2010-11)	30%	43%	7.5%	19.5%	100%
Percentage increase (1995-2011)	123.5	92.8	61.7	56.8	89.5

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

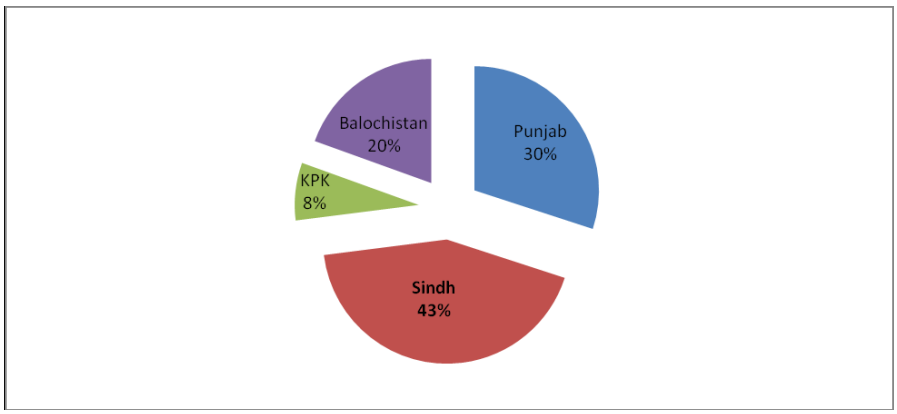

Fig. 4.1: Provincial Share in Area under Onion in Pakistan

Production of Onion (000 tons)

Pakistan has shown steady improvement in production of onion during the time period 1995-2011. The production has increased from 1097 thousand tons to 1939 thousand tons showing an increase of 77%. Regarding provincial improvement, the province of Sindh showed massive increase of 103% followed by KPK (94%), Punjab (74%) and Baluchistan (44%). The province of Sindh also leads other provinces by sharing 44% of national onion production in the year 2010-11. The second position is shared by the province of Baluchistan which secured 27% share in national production. The relatively smaller improvement in production of onion in comparison with area is due to absence of yield improvement. Yield of onion in comparison with other countries of the world is quite low which hampers Pakistan to get quantum increase in production of onion in the country.

Table 4.2: Production of Onion in Pakistan (000 tones)

Time period	Punjab	Sindh	KPK	Baluchistan	Pakistan
1995-96	212.1	425.2	93.3	367	1097.6
2000-01	251.3	739.3	201.5	371.2	1563.3
2005-06	306.4	833.5	216.6	699.2	2055.7
2010-11	367.9	861.5	181.3	528.9	1939.6
Percentage share of provinces (2010-11)	20%	44%	9%	27%	100%
Percentage increase (1995-2011)	73.5	102.5	94.3	44.1	76.7

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

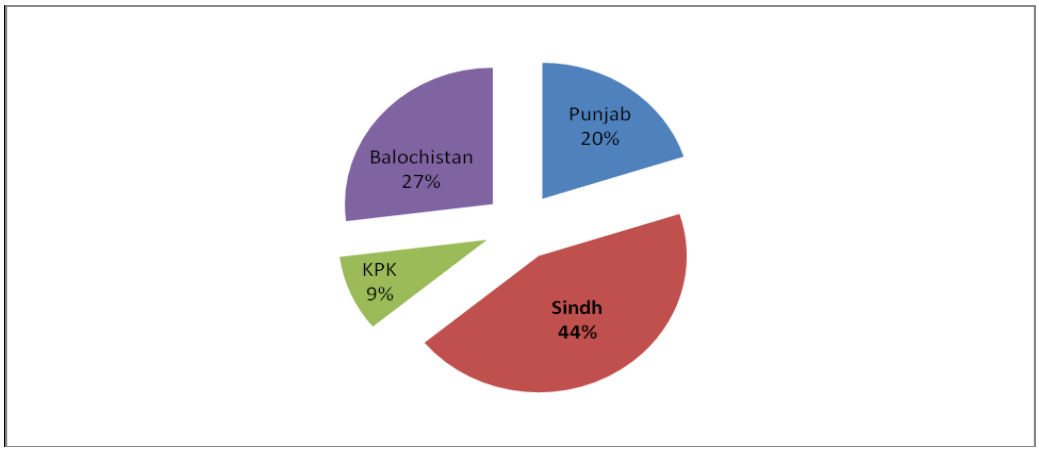

Fig. 4.2: Provincial Share in Production of Onion in Pakistan

Comparison of Pakistan and India in Production and Yield of Onion with World The production of onion was estimated at 86343 thousand tons in 2011. Pakistan and India being neighbours to each other and having central position in the continent of Asia enjoyed 9th and 3rd positions respectively. India has got relatively better position in yield of onion by having 14.34 tons/hectare whereas Pakistan got 13.14 tons/hectare but still the average of these two countries fall below the world average yield which stood at 19.78 tons/hectare. Korean republic got the maximum yield in the world i.e. 67 tons/hectare.

Table 4.3: Yield and Production of Onion in Pakistan, India and World

Country	Production (000 tons)	Yield (tons/hectare)
Pakistan	1939.6 (9th position)	13.14
India	15929.6 (3rd position)	14.34
South Korea	1st position	67.00
World	86343.8	19.78*

Source: FAO, 2014

Per Capita Consumption of Onion

Onion is an important vegetable in the world and same is true for Pakistan and India. The dominant proportion of population in these two countries like vegetables and onion has its own position. Per capita consumption shows the demand for that commodity so it is useful to have a look on the per capita consumption of onion in Pakistan and India. The average per capita consumption of onion in the world stands at 9.90 kgs/person/year whereas in Pakistan and India it is 9.30 and 8.20 respectively. However considering the population of two countries, it can safely be assumed that these two markets are big avenues for onion. As such with fluctuating production trends and low yield, these two countries are attractive markets for each other and rest of the onion producing and exporting countries.

Table 4.4: Per Capita Consumption of Onion in Pakistan, India and the World (2011)

Per Capita Consumption (kg/p/y)	Average number of household
Pakistan	9.30
India	8.20
World	9.90

Source: FAO, 2014

Prices of Onion

Economic theory states that prices are important signal used to allocate resources in their best utilization. Prices also depict the domestic demand and supply situation, so it is good to have a look on trend in prices for both countries. In the province Punjab, for the year 2013, onion prices show varying trend. In Lahore market it peaked to 4879 Rs/Quintal in November 2013 with the minimum prices stand at 1600 Rs/Quintal in January. The minimum prices in the provinces were noted in Multan (1508 Rs/Quintal in January) and maximum prices were noted in Rawalpindi in November (5453 Rs/Quintal). The trend in the prices of onion in other cities can be seen in the table 4.5.

Table 4.5: Average Prices of Onion in 2013 in Pakistan (Rs/Quintal)

Time/Market	Lahore	RYK	Multan	Rawalpindi
January	1602	1703	1508	2026
February	2195	2105	2100	2645
March	3459;	3523	3357	3934
April	3389	3963	3708	4392
May	2679	3047	2589	3245
June	2574	3235	2376	2953
July	3004	3688	2850	3406
August	3753	3687	3737	4870
September	3460	4015	3558	3921
October	4088	4657	3962	4629
November	4879	4742	4108	5453
December	4100	3825	3600	4900

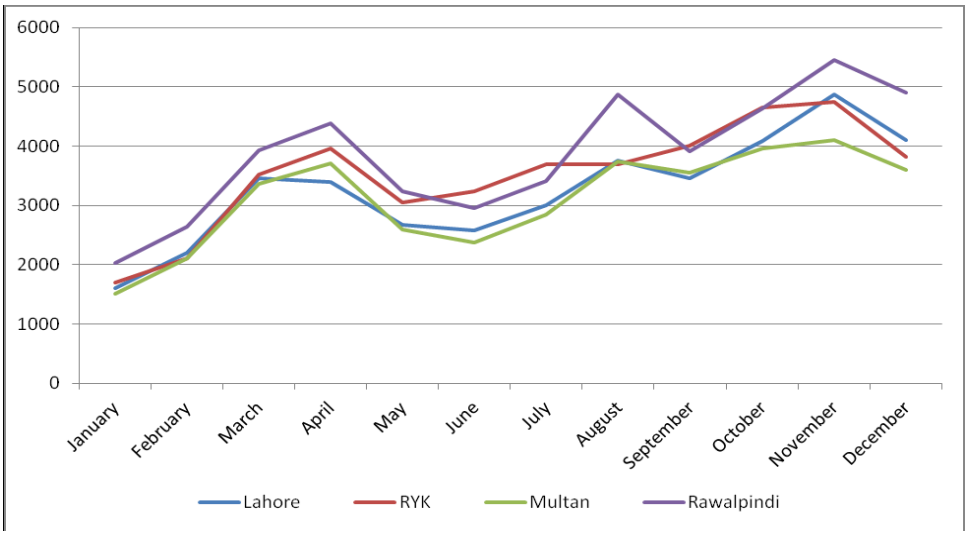

Fig. 4.3: Average prices of Onion in 2013 in Pakistan

In case of India, average prices of onion also showed variation across the season and in December 2013, in major markets of India, the maximum prices were observed in Dharamkot, Punjab (3000 Rs/Quintal) and the minimum prices were found in Vadhvan, Gujrat (1900 Rs/Quintal). The detail is presented in table 4.6.

Table 4.6: Average Onion Prices in India (Rs/Quintal) Time/Market

Time/Market	1-12-13
Vadhvan (Gujrat)	1900
Ateli (Harayana)	2500
Dharamkot (Punjab)	3000
Luckhnow (Uttarpardesh)	2850

Source: GOI, 2013

Trade of Onion between Pakistan and India

Trade between India and Pakistan, one of the most significant confidence building measures, has been moving smoothly but slowly despite the recent cross-border issues which to some extent have hampered dialogue process between two countries. A couple of months ago, onion prices had sky rocketed in India due to drought last year and monsoon rains this year. The prices have increased up to 500% in some parts of India. Onion being a staple food ingredient, these days, has become a hot item in Indian markets where consumers are forced to cut down their consumption in response to hyper increase in its prices. The situation in Pakistan is not different form India. Both these countries, one or the other year face shortage/surplus of onion as such has to import/export onion to settle their domestic demand. So in such situation, being neighbours to each other it is necessary for these two countries to arrange trading arrangements so that consumer does not suffer. Before analysing the major issues in bilateral trading arrangements it is necessary to have look on the past trends in trade of onion between two trading partners.

Export of Onion

Pakistan exports onion to the world markets mainly UAE, Malaysia and Srilanka. The value of exports to world markets were 5300 thousand USD in 2005 which approached to 29790 thousand USD in 2011 and again declined to 7330 in 2012. Although Pakistan exported a reasonable value of onion to world markets but exports of onion to India are nominal for the same years. The maximum value of onion exports to India were achieved in 2010, although there are only very few years in bilateral trade which are marked as onion exporting years from Pakistan (only 2005, 2010 and 2011).

Table 4.7: Value of Onion Export from Pakistan

Time period	Value of Exports to World (000 USD)	Value of Exports to India (000 USD)
2005	5303	1152
2006	1209	0
2007	7519	4
2008	3377	0
2009	9463	97
2010	18736	3025
2011	29790	2047
2012	7330	0

Source: ITC Calculations based on UNCOMTRADE Statistics

In the year 2012-13, maximum value of onion exports were observed in the month of December 2012 (3745 thousand USD), however exports to India were nil for the same period. Monthly value of onion exports are presented in Table 4.8.

Table 4.8: Value of Onion Export in 2012-13 from Pakistan

Pakistan Time period	Value of Exports to world (000 USD)	Value of Exports to India (000 USD)
2012/M1	56	0
2012/M2	312	0
2012/M3	472	0
2012/M4	441	0
2012/M5	600	0
2012/M6	217	0
2012/M7	49	0
2012/M8	27	0
2012/M9	12	0
2012/M10	29	0
2012/M11	1370	0
2012/M12	3745	0
2013/M1	2637	0
2013/M2	2229	0

Source: ITC Calculations based on UNCOMTRADE Statistics

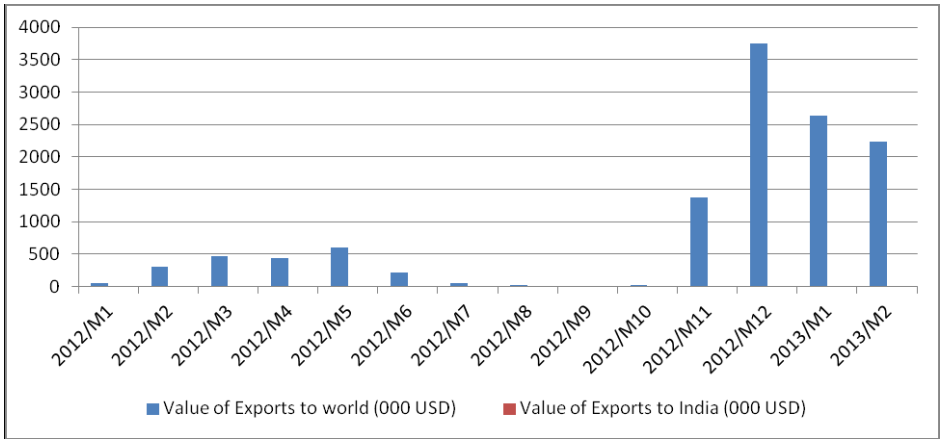

Fig. 4.4: Value of Onion Exports in 2012-13

Imports of Onion

Pakistan is a country which has to import onion to settle domestic needs almost every year. For the last couple of years, the maximum value of onion imports to Pakistan form the world was found in 80213 thousand USD in 2009 and minimum value of onion imports from the world was observed in 11085 in 2005. Imports from India showed that maximum value was observed in 2009 (68584 thousand USD). The detail of onion imports is presented in table 4.9.

Table 4.9: Value of Onion Imports to Pakistan

Time period	Value of Imports from world (000 USD)	Value of Imports from India (000 USD)
2005	11085	8610
2006	27979	18784
2007	15484	3356
2008	17866	3652
2009	80213	68584
2010	22811	13337
2011	17180	7816
2012	34359	27347

Source: ITC Calculations based on UNCOMTRADE Statistics

For the period 2012-13, maximum value of onion imports to Pakistan from the world was found in February 2012 i.e. 10141 thousand USD and from India as well for the same month (10039 thousand USD).

Table 4.10: Value of Onion Imports in 2012-13 to Pakistan

Time period	Value of Imports to world (000 USD)	Value of Imports to India (000 USD)
2012/M1	6088	6034
2012/M2	10141	10039
2012/M3	8882	8814
2012/M4	10	5
2012/M5	0	0
2012/M6	6	3
2012/M7	33	0
2012/M8	436	261
2012/M9	3421	1638
2012/M10	4340	553
2012/M11	916	0
2012/M12	86	0
2013/M1	55	0
2013/M2	10	0

Source: ITC Calculations based on UNCOMTRADE Statistics

Balance of Onion Trade

After discussing the exports and imports scenario of onion with world and India, it is quite evident that most of the years in the past were net importing years with negative balance of trade. This is equally applicable to world markets and India.

Table 4.11: Balance of Onion Trade Time

period	With world (000 USD)	With India (000 USD)
2005	-5782	-7458
2006	-26770	-18784
2007	-7965	-3352
2008	-14489	-3652
2009	-70750	-68487
2010	-4075	-10312
2011	12610	-5769
2012	-27029	-27347

Source: ITC Calculations based on UNCOMTRADE Statistics

Monthly balance of trade for onion in the year 2012-13 is given in the table which shows the same picture which has been discussed in the last table 4.12.

Table 4.12: Balance of Onion Trade in 2012-13

Time period	With world (000 USD)	With India (000 USD)
2012/M1	-6032	-6034
2012/M2	-9829	-10039
2012/M3	-8410	-8814
2012/M4	431	-5
2012/M5	600	0
2012/M6	211	-3
2012/M7	16	0
2012/M8	-409	-261
2012/M9	-3409	-1638
2012/M10	-4311	-553
2012/M11	454	0
2012/M12	3659	0
2013/M1	2582	0
2013/M2	2219	0

Source: ITC Calculations based on UNCOMTRADE Statistics

Flow of Onion Trade Reported by Pakistan

Starting from March 2010 to April 2013, trade of onion between Pakistan and India is mostly directed from India towards Pakistan. Only a couple of months are marked as exporting periods from Pakistan to India. The detail of quantity and value of onion trade between two trading partners is provided in Table 4.13.

Table 4.13: Onion Trade flow Reported by Pakistan

Period Description	Trade Flow Description	Net weight	Value
Mar-10	Imports	3878816	505264
Apr-10	Imports	42493920	10996878
May-10	Imports	4888965	1190875
Sep-10	Imports	1446948	499348
Nov-10	Imports	148936	61762
Dec-10	Exports	239405	94223
Jan-11	Exports	4531646	2159268
Oct-11	Imports	10289333	2711533
Nov-11	Imports	12972761	4133943
Dec-11	Imports	2827603	900657
Jan-12	Imports	22831161	5970880
Feb-12	Imports	29965418	9963390
Mar-12	Imports	33703021	8775216
Apr-12	Imports	18862	4889
Jun-12	Imports	11288	2831
Aug-12	Imports	1001030	258569
Sep-12	Imports	6124461	1588323
Oct-12	Imports	2062187	547705
Mar-13	Imports	20052414	5127401
Apr-13	Imports	60217451	16026273

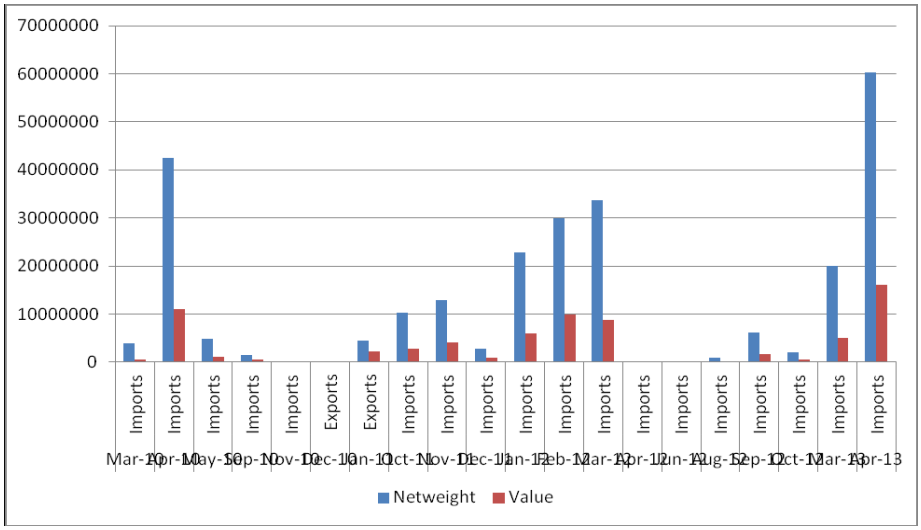

Fig. 4.5: Flow of Onion between Pakistan and India

4.1.2 Perceptions of Stakeholders about Onion Trade: Survey Findings

In order to get an insight in the real dynamics of onion trade between Pakistan and India, it was necessary to get into touch with stakeholders and get their opinion about Pak-India trade and its implications for the two countries. In this sake focus group discussion were organized with growers and traders (exporters and importers). The findings of these focus groups discussion is summarized below.

Perceptions of Growers

Focus group discussions were organized with growers of onion and their perceptions recorded. In this sake, their responses were recorded and ranked using content analysis. A semi structured questionnaire was used to direct the discussion of stakeholders.

On an average, number of participants in these focus groups was six persons (7 persons in FG-I and 5 persons in FG-II). Average age of the participants was 45 years with 10 years of professional experience in onion production. Average years of schooling were ten. Discussion with growers revealed that almost all of the growers were not in favour of trading onion with India and they straight forwardly concluded that this trade will be harmful for the farming community in general and for onion growers in particular.

After discussion with participants, major issues affecting position of growers isolated and ranked. In this sake first and most important issue identified was heavy subsidies given to agriculture sector in India. Participants were of the opinion that Indian farmer is getting subsidies on electricity, fertilizer and other inputs whereas Pakistani farmer is not getting anything. Even Pakistani farmer has to purchase inputs in black market at higher than market rates. One of the farmer further emphasized in the round Table conference, held at UAF on March 10, 2014, that Pakistan is the only country where farmer has to pay GST in agricultural inputs. The participants of the conference unanimously agreed that Pakistan has comparative advantage in the production of agricultural commodities that can be calculated by measuring tax on imports in Pakistan and comparing it with subsidies in India. They suggested that it is the prior responsibility of government to conduct research on these issues. In this scenario, if trade opens that may sweep the Pakistani farmer as he will not be able to compete with cheap imports from India.

Continuing the discussion, the participants identified other important area i.e. unfavorable and inconsistent policies of the Govt. of Pakistan. This issue got second position in the hierarchy of major issues confronting farming community growing onion in Pakistan. They were of the opinion that Govt. of Pakistan does not support farmers rather they are punished and penalized. Due to irresponsible policies of the government, whether this is

the state of surplus or shortage, farmer has to suffer. If farmer earns in the era of shortage due to price hike, he has to suffer losses the very next season. The participant growers of roundtable further added that Indian government supports their farmers in era of shortage by not importing from Pakistan but on the other hand, govt. of Pakistan, if anticipates any shortage, reduces or eliminate duty without any hesitation. This act endangers the farming community as their interests are not safeguarded.

Stagnant or slowly improving yield of onion is another issue fetching concern of farmers. This issue got third position in this hierarchy. Farmers said that direction of trade is not correct as traders are not importing seed and equipments which may increase yield rather they emphasize more on importing products. Farmers are using traditional seed which has lost its productivity over time. During the visit of Wagha Border and T-10 Railway service the Project Team could not find any evidence of import of seed therefore confirm the argument of the farmer in this regard.

Box 2: Farmers Associates Pakistan (FAP)

FAP a non-profitable farmer's organization was established in 1991 for sustainable growth of the national economy and its link with rural and agricultural sector. FAP is indeed a great initiative and will definitely help in fulfilling FAP's agenda of filling the vacuum at policy making level, generate awareness in farming community, and create horizontal cooperation with other farmer organizations & policy makers besides its role of advocacy for the cause of Agriculture sector contributing 21% to the GDP of Pakistan.

Farmers Associates Pakistan (FAP) website is a commendable initiative and a step in the right direction. This will help our farming fraternity to remain abreast about latest technology and information pertaining to modern agricultural trends & practices as "food and fuel" dominated concerns are major issues of the world today. Agriculture is the only sector, which can help in effectively countering economic pressures in shortest possible time.

Objectives:

FAP is not a trade organization and a non-government organization (NGO) whose primary objectives are twofold.

1. Firstly to help the socially, economically and technologically backward areas of the agrarian sector to catch up with modern times.
2. Secondly, to enable it to organize itself into a composite and coherent economic entity.

In specific term FAP will focus its activates, inter alia, in the following areas (not in any order of priority):

- To carry out statistical, technical, economic, legal and environmental studies relating to various types of agricultural activities and ventures in the country.
- To recommend policy reforms at all levels of government planning, in the light of critical cross-country experience, as to provide a free and dynamic environment for the agrarian sector to flourish.
- To act as a coordination agency between the multitude of agencies involved in agrarian development and the farming community by providing farmers with a credible, "one window" information center.
- To maintain close professional links with other trade associations in Pakistan, international and multinational agencies, public forums, chambers of commerce and industry etc.
- To provide technical and organizational skill to regional and specific crop association in the agriculture sector throughout the country.
- To disseminate information through publication, newsletters, TV & radio programs etc. to the farming community.

The cob-webb theorem operates well in Pakistan's economy as the surplus agricultural production years are often marked with losses to farmers in terms of low prices and shortage years are highly rewarding featured with high prices. This particularly happens due to price fluctuations. Prices are signals and indicators for farmers to allocate their resources. So when in the deficit seasons, prices go up, farmers allocate more of their

resources to that crop but as a result of this, next season due to bumper crop they have to face depressed market for their produce and suffer losses. This is happening with onion growers as well. So this reward and punishment system goes on and eventually farmers is in no profit no loss situation. So the majority of the farmers demand for application of some price setting mechanism which may protect the farmers in the time span of shortages and surpluses.

The need for the research and development was another issue raised by the farmers. They said that in Pakistan research and development facilities are limited and also not located at proper places. They further added that findings of these research efforts are seldom communicated to them thus they fail to realize benefits of such efforts in their fields. One of the participant said that research should be need based which should solve the problems of farmers. If the research efforts have been improved then farmers might not be facing stagnant yields in onion, they further added.

Farmers said that they know the benefits of value addition but they are not practicing it due to lack of knowledge and market orientation. If they know about their market and trained properly, they can also undertake value addition activities like dried or powdered onion. If we consider the quality of Pakistani onion with Indian one, then the later one is considered better in terms of quality attributes. Farmers said that shelf life of onion is short and they do not have staying power and has to sell immediately after harvest which reduces their profitability. If shelf life of onion can be increased that may place them in a better position to bargain.

In the international markets, consumer demand various products like different colours and sizes of onion but in Pakistan farmers do not have access to grading machines. Some of the farmers have designed their own traditional proto types but authenticated grading machine facilities are lacking. As a result farmer is bound to sell in the local market and even not intend to export. They said that if proper grading and packaging facilities are provided they can generate exportable surplus and themselves can export to other countries.

Based on the above findings and discussion it is concluded that the growers has very strong concerns with heavy subsidies to Indian agriculture and high utility prices in Pakistan. As a result stagnant yield can be seen in the onion crop in the country. Moreover the inconsistent Government Policies and inadequate research and development programs did not motivate the growers to harvest the benefits of bilateral trade with particualr focus of onion.

Perceptions of Traders (exporters and importers)

As the secondary data showed that there is little evidence of exporting onion from Pakistan to India and direction of trade between two countries is from India to Pakistan. In 2012, Govt. of Pakistan imposed embargo (ban) on export of onion from Wagha-Attari

border in order to protect domestic consumer by ensuring sustainable supply. Although in response to recent onion shortage in India opened window for Pakistani traders but they could not exploit this opportunity due to ban on export. There were some evidences of export from sea route i.e. Karachi to Mumbai. There is ban also ban from govt. of Pakistan to import seed/machinery/equipment through Wagha land route so these items are only allowed through Wagha rail road connection. In such an environment, it was just possible to record perceptions of traders who have been exporting onion to India or are importing onion from India.

The focus groups discussion with traders of onion revealed many facts and helped to rank major issues regarding their importance. So in this list of issues, lack of trust between two governments was ranked as the most important issue in normalizing trade between two trading partners. They traders were of the opinion that it takes much diplomatic effort to bring trade issue to a normal mode but a single bullet or just a rumor deteriorates all efforts. So although economic powers of the world want to normalize relations between two Asian Giants and the international forums are agreed that trade is one of the best options to do this. So traders opined that it is absolutely impossible to foster trade between two partners unless they develop trust on each other and the best way to achieve this task is through dialogue showing steadiness and consistency.

The second major issue raised by traders was existence of tariff and non tariff barriers, although both government deny to this fact regularly but the on record fact is that consciously or unconsciously both governments have erected high tariff and non tariff barriers to protect their domestic sectors. One of the seed importers was discussing that permission to import seed only through wagha rail link is a sort of NTB. If other agricultural commodities can be imported from India through road link then why not seed? In the same way extra ordinary inspection of commodities or manual inspection is another type of NTB which delays the consignment and also sometimes deteriorates quality of produce. Products are not allowed to transport in containers which make the process a little lengthy and as such considered a barrier to trade.

On the Pakistani side, there is a scanner which uses gamma rays to detect any illegal item in the consignment. Every consignment coming to or going from Pakistan is passed through this scanner. The procedure of customs is quite lengthy and sometimes trucks have to wait for a long time which causes losses of perishable commodities in consignment. The rule of First In First Out (FIFO) operates as such although there may be perishable commodities in the consignment but this will not get any preferences and will be handled on its turn. Good declaration form (GD) is quite a lengthy form which demands every type of detail. In addition, the traders participated in round table conference also emphasized to workout the FOB on either side of the border although exporters do not come themselves but their clearing agents do the job for them. Both countries agreed to open a separate gate for trade in 2012 but still much needs to do to speed up the process.

It is interesting that Govt. of Pakistan has imposed embargo on import of certain items through Wagha road link. These items include seed, machinery and equipments. Total 137 commodities are allowed to import through road link at Wagha. Traders mostly importers of seed and equipment declared this act of government as a major issue because they said that trade is good for commodities but it is even better if we import seed and other machinery equipment. This will enhance productive capacity of agriculture sector in Pakistan hence reduce cost of production too.

Box 3: Trade Facilitation

Trade through Wagha Land Route

Wagha is border crossing between India and Pakistan, marked in white as it cuts across the historic Grand Trunk Road (GTR) between the cities of Amritsar, India and Lahore, Pakistan. The road has been closed for years now at Wagha by two metal gates, one on each country's side. The two flag posts are located contiguous to the boundary line between the two gates. Wagha itself is a village through which the controversial Radcliffe Line was drawn. The village was divided by independence in 1947. Today, the eastern half of the village remains in India whilst the western half is in Pakistan. The border is located 22 km (13.75 mi) from Lahore and 32 km (19.88 mi) from Amritsar.

One of the measures to improve bilateral relationship between India and Pakistan is through trade facilitation. The two countries have a common border of about 3000 km but there is only one crossing "Wagha-Attari" through which legal trade of only 137 items is allowed. The total value of trade passing through this point in 2012 was US$323 million, of which US$266 million imported from India and US$57 million exported to India.

Pakistan Customs, National Logistic Cell (NLC), Anti Narcotics Force (ANF) and Department of Plant Protection (DPP) are the major institutions responsible for smooth functioning at Wagha. The trade was performed manually at Wagha till 2007 which was converted to truck transportation later on. In 2012, separate trade gate was opened to facilitate trade process. There is a yard on Pakistani side featured with weighment center and scanner. The yard is divided into three compartments, one for soyabean, one for cotton products and one for fresh produce. NLC is the custodian of Wagha trader route and is in process to install another scanner and shed to facilitate trade process.

Trade through T-10 Railway Mall Godown

Currently, there is only one operational rail route named as "T-10 Railway Mall Godown" Lahore for the movement of cargo between the two countries. The cargo moves either by the goods trains or by freight cars attached to the Samjhauta Express (passenger train). Currently Pakistan is importing seeds, pineapple and watermelon through rail and export cement, leather and herbal medicines.

Trade process through LFU at Wagha and T-10 is almost similar. Pakistan railway is the custodian of T-10.

Most of the trade between two countries is practiced through third party. This is happening in commodities which are not directly allowed to trade between two trading partners. On most of the occasion, UAE is used as the central link to perform this process. The traders also highlighted the existence of illegal and barter trade between Pakistan and India. They unanimously demanded legalization of all illegal and informal trade between Pakistan and India.

Based on the above discussion it can be concluded that the trader has great concern to reduce the trust deficit between the country's Government as well as the commercial partners through ease down the complex custom procedures, minimizing the third party

role, improving the logistics facility and promoting the value adding infrastructure facilities such as grading plants in the wholesale market.

4.2 Mango

Mango (*Mangifera Indica*), commonly called "king of fruits", is native to Southern Asia, especially Burma and Eastern India. The mango is considered a fruit of excellence, and thus has a prominent position among the commercial fruits grown in Pakistan.

4.2.1 State of Mango: Secondary Sources

Area under Mango Production

Mango is an important fruit crop which is mainly grown in two provinces such as in Punjab and Sindh due to the climatic conditions which is characterized as hot in summer and moderate to cool in winter. Over the period 1995-2011 the area under mango has increased from 86.6 thousand hectares to 171.9 thousand hectares showing an increase of 98%. In this context, leading change in area under mango was seen in the province of Punjab where its area increased by 140% followed by Sindh (54%). These two provinces collectively contributed almost 99% of the total area under this crop in the country (GOP, 2012).

Table 4.14: Area under Mango in Pakistan (000 hectares)

Year	Punjab	Sindh	KPK	Balochistan	Total
1990-95	46.6	38.3	0.2	1.6	86.6
1996-2000	48.2	41.7	0.2	1.9	92.1
2000-05	61.8	46.7	0.3	1.9	110.7
2005-10	110.8	23.6	0.4	1.4	166.2
2010-11	111.9	59.2	0.2	0.5	171.9
Percentage share of provinces	65%	34.5%	0.11%	0.29%	100%
Percentage increase (1990-2012)	140%	54.5%	0%	-68%	98.4%

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

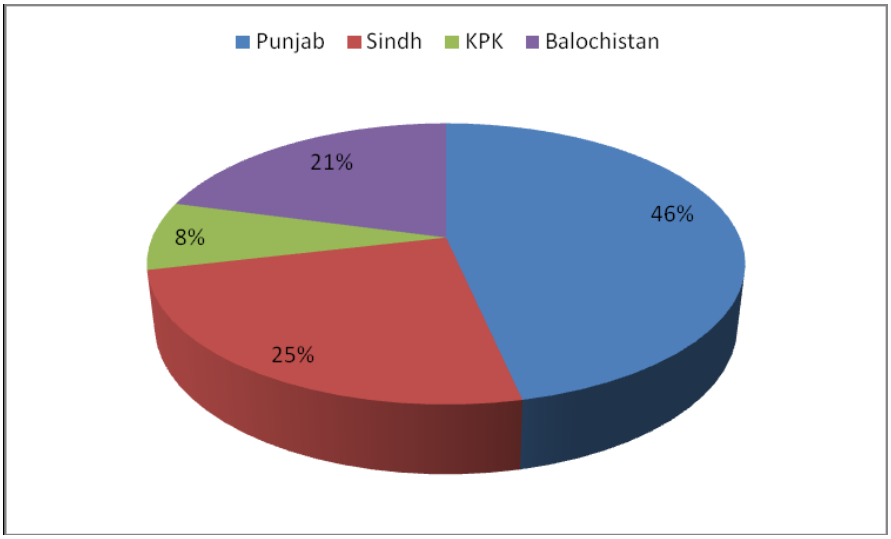

Fig. 4.6: Provincial Share in Area under Mango in Pakistan

Production of Mango (000 tons)

It is the second major fruit crop after citrus, with an annual production of around 1.8 million tons in 2011-12 (PHDEC, 2013). Mango production in Pakistan has increased overtime but this increase is mainly attributed to an increase in area under cultivation and not due to significant increase in mango yield.

Although the mango production has got an accelerated jump in the total yield over the last ten years, however, yield per hectare in Pakistan is still quite low (10.7 Tons/Hec.) in comparison to India (18.7 Tons/ Hectare.) (FAO 2011). This is emphasized to workout the production strategies in order to gain more surplus for export in the emerging markets such as India.

Comparison of Pakistan and India in Production and Trade of Mango with World

Pakistan is the fifth largest producer of mangoes with an annual production of 1.8 Million Tons preceded by India (15.1) , China (4.3), Thailand (2.6) and Indonesia (2.1) (FAOSTAT 2011).

Table 4.15: Production of Mango (000 tones)

Year	Punjab	Sindh	KPK	Balochistan	Total
1990-95	565.8	279.9	2.1	13.8	861.5
1996-2000	594.8	306.5	2.3	15.1	918.6
2000-05	797.8	347.1	2.9	9.9	1157.7
2006-10	1380.4	368.7	3.7	7.2	1760.0
20010-11	1503.2	381.3	0.3	1.1	1885.9
Percentage share of provinces	79.7%	20.21%	0.016%	0.058%	100%
Percentage increase (1990-2012)	165.7%	36.2%	-85.7%	-92%	118.80

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

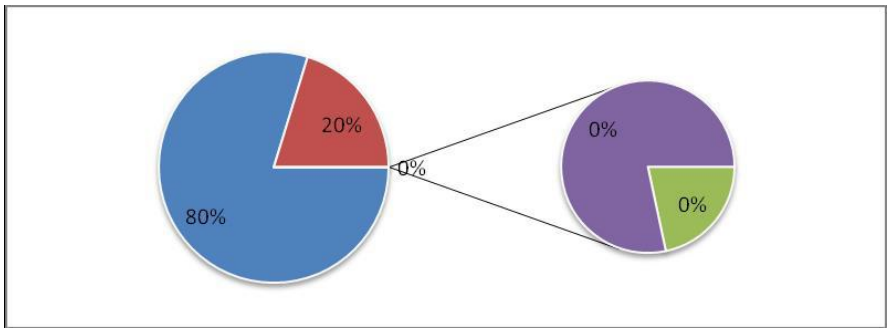

Fig. 4.6: Provincial Share in Area under Mango in Pakistan

Although the mango production has got an accelerated jump in the total yield over the last ten years, however, yield per hectare in Pakistan is still quite low (10.7 Tons/Hec.) in comparison to India (18.7 Tons/ Hectare.) (FAO 2011). This is emphasized to workout the production strategies in order to gain more surplus for export in the emerging markets such as India.

Comparison of Pakistan and India in Production and Trade of Mango with World

Pakistan is the fifth largest producer of mangoes with an annual production of 1.8 Million Tons preceded by India (15.1) , China (4.3), Thailand (2.6) and Indonesia (2.1) (FAOSTAT 2011).

Table 4.16: Leading Producers of Mango in the World

RANK	COUNTRYREA	PRODUCTION (MT)(MT)
1	India	15,188,000
2	China	4,350,000
3	Thailand	2,600,000
4	Indonesia	2,131,139
5	Pakistan	1,888,449

Source: FAO, 2014

Pakistan produces many mango varieties, which differ in harvesting time and in their physiological characteristics, especially shape, size, colour, sugar level and acidity. While production is dominated by two major varieties: Chaunsa (*Mangifera India*) and Sindhri (*Mangifera Indica*), other varieties such as *Langra*, *Anwar Ratool*, *Dosheri*, *Bangan Palia* and *Neelum* are cultivated to a lesser extent.

Table 4.17: Major Commercial varieties of Mango in Pakistan

Sindhri	This variety is medium in size, ovate oblique in shape and bright yellow in color. The pulp is yellow to orange in color. It is soft, firm and fibreless. It ia early season variety.
Chausa	Fruit is large in size, ovate to oval oblique in shape and light yellow in color. It is a Mid –late season variety.
Dashehri	Fruit size is medium, shape is oblong to oblong-oblique and fruit colour is Green. Thepulp is firm and fibreless and a mid season variety.
Langra	Fruit is of medium size, ovate shape and lettuce green in colour. the lemon-yellow flesh is juicy and flavorful. It is scarcely fibrous, a mid season variety.
Anwar Ratool	Fruits aresmall-medium sized, flesh is sweet , juicy and fibreless. Color is yellow Mid-season variety.

Export of Mango in the Regional Countries

Mangos are the leading fruit export after citrus and Pakistan is the fourth largest exporter of mangoes in the world followed by Mexico, India and Brazil (FAO 2011). Gulf countries (UAE, Saudi Arabia and Oman) are the major traditional export markets. The United Kingdom is the major market in Europe; Germany, France, Norway, Denmark, Switzerland, Singapore, Malaysia and Hong Kong are other important markets. The People's Republic of China and Iran are likely to emerge as future prominent markets for Pakistani mangoes. Exports are freighted by air to Europe and by sea to Gulf countries.
However, the major markets of Pakistan and Indian mangoes are UAE that import on an average 34.47 % and 51.9% of total export volume of Pakistan and Indian mangoes

respectively (DGCIS 2011; PHDEC 2011). The trends of Pakistani and Indian mangoes in the regional countries are given in Table 4.18.

Table 4.18: Export of Mango from Pakistan and India in the Region

Country	Pakistan		India	
	Qty (Kg)	%age share	Qty (Kg)	%age share
UAE	36,122,825	34.47	220,1388	51.9
Bahrain	15,963,29	1.8	62369	1.38
Saudi Arabia	109,48,389	11.8	253242	5.58
Qatar	186,36,32	2.3	8161	1.57
Kuwait	539575	0.67	73124	2.57
Nepal	4800	0.055	392574	3.20
Bangladesh	49370	0.068	27,599,48	19.35
Singapore	471168	0.60	59927	1.71
TOTAL		**51.763**		**87.26**

Source: FAO, 2014

The data showed that there is little evidence of any formal trade of mangoes between India and Pakistan except. If it existed then most of the mangoes passed from Pakistan to India through Kashmir border through barter exchange. The main reason could be that Indians don't allow Pakistani mangoes in because of complicated documentation and heightened SPS measures. In terms of SPS requirements India only requires a test on 'seed waiver'. Moreover, Department of Plant Protection (DPP) in Pakistan is not vigilant and has limited capacity to monitor and test produce coming from India for compliance. In comparison the plant protection and standards body in India is much more vigilant and strict.

However, Pakistan and India being the top producers and exporters have positive balance of trade with rest of the world and most of the mango importing countries such as USA, Europe, Middle East and central Asia have high demand for mango from the two countries. India is in a better position to export mangoes than Pakistan as they export on an average around 18% of their total produce whereas Pakistan contribute only 4.3% share in world mango export (FAO 2011).

Table 4.19: Trade Indicators of Mango

Exporter	Trade Indicators			
	Value Exported in 2010	Trade Balance in 2010	Quantity in units	Share in the world export
World	12,275,306	-280,411	Tons	100%
India	228,717	228,624	Tons	17.9
Pakistan	28,402	28,367	Tons	4.3

Source: FAO, 2014

Pakistani and Indian are mango loving consumers. The dominant proportion of population in these two countries likes mangoes over the entire mango season. Per capita consumption shows the demand for that commodity so it is useful to have a look on the per capita consumption of onion in Pakistan and India. The average per capita consumption of onion in the world stands at 8.50 kgs/person/year whereas in Pakistan and India it is 9.30 and 10.60 respectively as shown in Table 4.20.

Table 4.20: Per Capita Consumption of Mango in Pakistan, India and the World

(kg/p/y)	Average number of household
Pakistan	9.30
India	10.60
World	9.50

Source: FAO, 2014

Considering the population of two countries, it can safely be assumed that these two markets are big avenues for mangoes because 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 by products such as pulping and juicing.

Hence one of most liking potential of mango trade between India and Pakistan could be that the mango season extends over five months, starting in mid-May in Sindh and finishing late September in Punjab, with late June to mid August being the peak production period and ended up to October, the potential gains from increasing production in two countries can be capitalize through economic integration between the two countries that leads to existing export destinations as well as emerging markets such as the People's Republic of China and Russian states for Pakistani mangoes which has an estimated potential of one Billion dollars (TDAP,2012).

In fact two countries may present a united front when it comes to marketing mangoes abroad. Pakistan and India could also benefit from a coordinated export approach, especially in emerging high value markets such as Australia and the United States. Moreover, due to the seasonal disparity in two countries the local consumers can be

benefited over a period of six month with multiple varieties. Pakistan could be on the more advantageous position because of exchange rate of Indian Rupees vs Pakistani Rupees.

Prices of Mango

While Pakistan is a major exporter of mangoes, Pakistan receives the lowest average price per kg of any major mango-producing country in the world (PHDEC 2012). Pakistani mangoes receive `USD 0.30 per kg in comparison to USD 1.59 of Philippines, USD 0.91 of China, USD 0.48 of India and USD 0.46 of Thailand (Collins et al. 2006). There are several reasons for the low prices received for Pakistan mangoes but the major influences are the poor quality and short shelf life (PARC 2009).

Table 4.21: Average International Prices of Mango

COUNTRY	AVERAGE INTERNATIONAL PRICES USD/Kg
PHILIPINES	1.59
CHINA	0.91
INDIA	0.65
PAKISTAN	0.47

Source: FAO, 2014

Prices also depict the domestic demand and supply situation, so it is good to have a look on trend in prices for both countries. In the province Punjab, for the year 2013, mango prices show varying trend in various markets. In wholesale markets of high Metropolitan areas of Pakistan the prices of mangoes vary from Rs 47-70 per Kg as given in Table 4.22 (AMIS 2012). Similarly, The average wholesale price of mangoes in India varies from INR 40 to 50 per KG (DGCS 2011).

Table 4.22: Wholesale Prices of Mango in Pakistan and India

INDIA		PAKISTAN	
Major Cities	**Price (INR/Kg)**	**Major Cities**	**Price (PKR/Kg)**
Delhi	45	Lahore	52
Chenai	40	Hyderabad	47
Guwahati	42	Peshawar	70
Hyderabad	58	Rawalpindi	54

Source: GOI 2103 and GOP 2013

A comparative analysis of wholesale prices in the leading Metropolitan cities of India and Pakistan shows that prices are similar in pattern. However the exchange rate will establish the real value of the mango which is higher in the Indian Market relative to Pakistan.

4.2.2 Perceptions of Stakeholders about Mango Trade: Survey Findings

In order to get an insight in the real dynamics of Mango trade between Pakistan and India, it was necessary to get into touch with stakeholders and get their opinion about Pak-India trade and its implications for the two countries. In this sake focus group discussion were organized with growers and traders (Middlemen, exporters and importers). Focus group discussions were organized with growers of mango and their perceptions recorded. A semi structured questionnaire was used to direct the discussion of stakeholders.

Perceptions of Growers

On an average, number of participants in these focus groups was six persons (7 persons in FG-I and 5 persons in FG-II). Average age of the participants was 50 years with 15 years of professional experience in mango production. Average years of schooling were graduate.

After discussion with participants, major issues affecting position of growers in mango trade was heavy subsidies given to agriculture sector in India. Participants were of the opinion that Indian farmer is getting subsidies on electricity, fertilizer and other inputs whereas Pakistani farmer is not getting anything. Even Pakistani farmer has to purchase inputs in black market at higher than market rates. However the growers participated in the round table conference revealed that mango trade is in favor of Pakistan because of different seasonal window.

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 come Pakistani mango exports to India have been completely insignificant even though India gave Pakistan MFN in 1995, the mango growers had no response, other than to say that mango has been on the negative list. However the other reason could be that Indians don't allow Pakistani mangoes in because of high tariffs, complicated NTBs and heightened SPS measures as indicated one of progressive grower in round table conference.

The participants of round table further added that SPS requirements may not be very challenging as we are now in a much better position than India because of latest development in R & D through development projects running under the two leading program Australia-Pakistan Agriculture Sector Linkage Program (ASLP) and USAID FIRMS Project . However, Department of Plant Protection (DPP) in Pakistan is not vigilant and has inadequate capacity to monitor and test produce coming from India for compliance. In comparison the plant protection and standards body in India is much more vigilant and strict.

Box 4: Multan Mango Growers Association

Multan Mango Growers Association is a group of progressive growers having vast experience for more than 50 years has been in the business of production. Now entering in the international market and certification schemes for the production, processing and export of premium quality horticultural commodities to Europe, Middle East, Gulf and Far East ensuring the safe production practices (for human & environment).

Progressive Mango Growers (Group) have Global GAP certified Farms from where are produce is making a break through in the International market, being a pre-eminent trader, exporter & supplier of fresh premium quality fruits. Progressive Mango Growers (Group) is a growers owned organization which provides unmatched service in processing, packaging and marketing of fresh Mangoes exceeding over customer's expectations for quality, value and responsiveness. Progressive Mango Growers (Group) produces quantities ranging from a single part to thousands without sacrificing quality and delivering in time, every time during the season and assures food safety procedures.

Vision

Through Good Agriculture Practices (GAP) to entertain our consumers with safe food. Progressive Mango Growers (Group)'s intellectual approach is truly competitive to motivate towards new international attributes. Progressive Mango Growers (Group) particularly attentive with respect to environmental protection rules with controlled plant health treatment through pre-post harvest practices. Progressive Mango Growers (Group) offers a complete range of services by concerning in the consumers oriented activities

Mission

Progressive Mango Growers (Group):

 Will be a customer-focused organization utilizing best processing expertise and production capabilities to customize sizes and quality that meet or exceed customers' requirements.

 Will be a highly responsive supplier and a cost effective exporter to meet customers' requirements.

 Will continually improve processes, methods and materials to reduce costs, improve quality and shorten cycle time.

 Will continually explore other market opportunities taking advantage of existing or modified processes to expand our offerings and service to our customers.

 Will utilize our resources and technical capabilities to the fullest extent possible in order to protect the health and safety to employees, customers, consumer and the environment.

 Will be the preferred place of employment of highly trained and qualified employees.

 Will be a high performance organization that achieves consistent product quality, on-time delivery and strong financial performance

An interesting argument was also made that trade with India will not necessarily imply that the consumers will benefit by paying low price. The example of tomatoes was provided as a reference. The import price from India was low, however, the consumer was still paying Rs 100/kg. The middlemen (aartis or vaparis) were making all the gains.

The same is the case for mango produce within Pakistan. The spread between the farm gate price and market price is significantly large, and merits a study of its own. In comparison the spread in India is low. This represents the imperfections in the supply chain in Pakistan that need to explored and addressed accordingly.

Continuing the discussion, the participants identified other important area i.e. unfavorable and inconsistent policies of the Govt. of Pakistan in terms of rules and regulation to develop and maintain the quality standards under the guide line of Global GAP certification. This issue got fourth position in the hierarchy of major issues confronting farming community growing mango in Pakistan.

Absence of cool chain system was another issue which is very important for this kind of fruit. Growers viewed that there is potential for mango trade but if the trade would open we are not sure that it would be beneficial as maintain perishable life is essential which would be one the biggest challenge under the current infrastructural issues at the Wagha Border. Furthermore the extended period of documentation at the Wagha border may incur wastage before handling the product to other side of the border, added by the participants of roundtable conference.

Prices are signals and indicators for farmers to allocate their resources. This was attractive for some of the growers already doing mango trade through barter exchange through Kashmir Border. An average price the growers received was Rs. 100/Kg for late varieties which was very satisfactory. However, a well developed market information system is needed to be developed for this emerging market in order to develop and effective and efficient mango supply chain. Finally the participants of the round table strengthened the argument by adding that there is need to synchronize R & D with market oriented approach.

Based on the above issues highlighted by the growers it can concluded that growers were in favour of mango trade provided Government should devise policies to overcome the heavy subsidies to Indian agriculture, complicated NTBs on Indian side, provision of cool chain system and relevant market information in the Indian markets.

Perceptions of Traders (exporters and importers)

As the secondary data showed that there is little evidence of exporting mango from Pakistan to India and there is no trade of mango from Wagha-Attari. Although a distinctive seasonal window is an opportunity for Pakistani traders but they could not exploit this opportunity due to absence of mango in the trade able items list between the two countries. There is complete ban from Indian govt. to import mango through Wagha land route. In such an environment, it was just possible to record perceptions of traders who have been exporting mangoes to India through barter exchange in order to assess the acceptance of mangoes from other side of the border.

The focus groups discussion with traders of mango revealed many facts and helped to rank major issues regarding their importance. So in this list of issues, lack of trust between two governments was ranked as the most important issue in normalizing trade between two trading partners. They traders were of the opinion that it takes much diplomatic effort to bring trade issue to a normal mode as Pakistan did with USA in last couple of years. So traders opined that it is absolutely impossible to foster trade between two partners unless they develop trust on each other and the best way to achieve this task is through dialogue showing steadiness and consistency, added by the participants of Round Table.

The second major issue raised by traders was existence of non tariff barriers, although both government deny to this fact regularly but the on record fact is that consciously or unconsciously both governments have erected high non tariff barriers to protect their domestic sectors. One of the exporter was discussing that if other agricultural commodities can be exported to India through road link then why not mango?

Most of the trade between two countries is practiced through third party and mainly exporter to Middle East and Europe. On most of the occasion, UAE is used as the central link to perform this process. The traders highlighted the existence of illegal and barter trade between Pakistan and India is one of the reason and they unanimously demanded legalization of all illegal and informal trade between Pakistan and India.

Finally they Middle men mainly opined that the infrastructural support and the services such as bank and insurance facilities must be opened to ensure an effective and smooth running of trade between the Pakistan and India. The evidences showed that The National Bank of Pakistan opened its full-fledged branch at the border which is the first-ever bank branch opened on the Pakistani side of the Wagha Border to facilitate businessmen of India and Pakistan. However it could be worthwhile for mango trade once the fruit included in tradable item list, added by the Roundtable participants.

Traders further emphasised in establishing the contact with local Indian businessmen mango through trade shows and exhibition between the two countries which could be helpful to showcase the various varieties of mangoes of mutual interest. Although, an India Show at Lahore Held on February 17, 2014 was an attempt to address the need of traders for arranging more than 50 business-to-business (B2B) meetings between the Indian trade delegates and renowned Pakistani businessmen, trade associations, chambers and exporters. However, without including mango in the tradable list such the traders could not achieve the desired results.

Based on the above findings and discussion it is concluded that there is immense need to reduce trust deficit between the two Governments and incorporate the crop in the tradable item list particularly those in which both country have comparative advantage due to

seasonality. Other issues such as NTBs, complexities of the trade procedures, provision of cool chain system and appropriate policies are the complementary things that must be addressed well in time.

4.3 Potato

The potato (*Salanum tuberosum L.*) belongs to the family of Solanace. It has a prominent position in vegetable crops. It is short duration crop and considered as an important source of food, nutritionally superior, rich in starch and carbohydrates. Potato is capable of producing high amount of food per unit area and time, therefore this crop has a potential for inclusion in intensive cropping systems (Kumar et al. 2005).

4.3.1 State of Potato: Secondary Sources

The production and consumption of potato is accelerating in most of the developing countries. These countries account for more than half of the global harvest. The total area harvested of potato crop in the world is 24633.8 thousand hectares. If we rank the countries by area harvested, then China's ranks as number 1 and Pakistan stands at 15th. The total area used for potato cultivation is 185.1 thousand hectares in Pakistan. The area used for potato cultivation in India is 1900 thousand hectares (as shown in table 4.23).

Table 4.23: Area of Potato in the World (000 hectares)

Rank	Countries	Area harvested (Ha)
1	China	5431.7
2	Russian Federation	2197.2
3	India	1900
4	Ukraine	1444.1
5	United States of America	458.388
6	Bangladesh	430.446
7	Poland	373
8	Belarus	332.255
9	Peru	312.227
10	Nigeria	262
15	Pakistan	185.1

In terms of production of potato, Pakistan's ranks 20th while India's ranks 2nd in the world (see table 4.24). The difference of potato production between India and Pakistan could be area used for potato cultivation.

Table 4.24: Production of Potato in the World (000 tones)

Ranking	Countries	Production (000 tons)
1	China	85920
2	India	45000
3	Russian Federation	29532.53
4	Ukraine	23250.2
5	United States of America	19165.87
6	Germany	10665.6
7	Poland	9091.9
8	Bangladesh	8205.47
9	Belarus	6910.945
10	Netherlands	6765.618
20	Pakistan	4104.4

Over the years, the potato has become an important crop for the farmers and consumers in Pakistan. In the first part we used the data obtained from different sources (Agricultural Statistics of Pakistan, Agricultural Marketing Information Services Govt. of Punjab, Food and Agriculture Organization (FAO)) to understand the trends in the cultivated land, production and yield at the provincial level in Pakistan. Retail prices of potato of different cities in Pakistan were also used to see their trends. In the second part, we compare area harvested, wholesale prices, production, import and export of potato in Pakistan and India.

Area under potato cultivation:

The total area cultivated in Pakistan was 159.4 thousand hectares in 2010-11 (as shown table 4.25). The potato cultivated area shows a significant increase in the province of Punjab. The total area of Punjab was 63.1 thousand hectares in 1995-96 and it showed significant increase in 2010-11 i.e. 148.1 thousand hectares. The province of Punjab has the major share in the cultivated area of potato in Pakistan, while the Sindh province has negligible share (see figure 4.8). The data of 2010-11 show that the share of Punjab province is 93 percent while the share of KPK is 6 percent and the Sindh province accounts for 0.25 percent.

Table 4.25: Area under Potato Cultivation in Pakistan (000 hectares)

Year	Punjab	Sindh	KPK	Balochistan	Pakistan
1995-96	63.1	0.6	7.9	7.3	78.9
2000-01	87.1	0.8	9.5	4.1	101.5
2005-06	104.5	0.3	9.8	2.8	117.4
2010-11	148.1	0.4	8.9	2	159.4

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

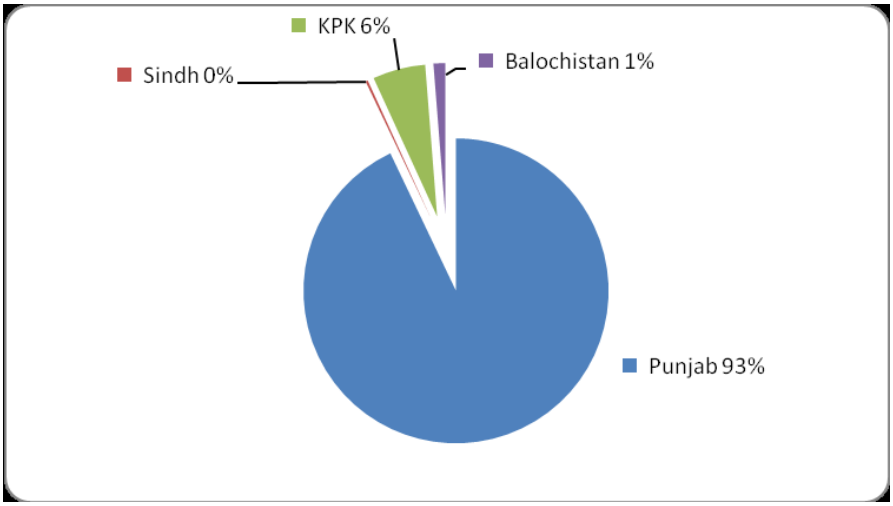

Figure 4.8: Provincial Share in Potato Cultivation in 2010-11

Production of Potato

Pakistan has shown steady improvement in the production of potato from 1063.5 thousand tons in 1995-96 to 3491.7 thousand tons in 2010-11 which shows more than 200 percent increase in the production of potato. Potato production shows an upward trend in Punjab and KPK while it shows negative trend in Sindh and Balochistan (see table 4.26). In potato production, the Punjab province has the major share of 96 percent and the share of KPK is 3 percent. The Sindh province shares negligible part of total potato production, which is 0.10 percent.

Table 4.26: Production of Potato in Pakistan (000 tones)

Year	Punjab	Sindh	KPK	Balochistan	Pakistan
1995-96	851.6	6.1	92.6	113.2	1063.5
2000-01	1479.7	7.5	118.9	59.6	1665.7
2005-06	1389.6	2.6	134.2	41.5	1567.9
2010-11	3339.9	3.6	118.2	29.7	3491.7

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

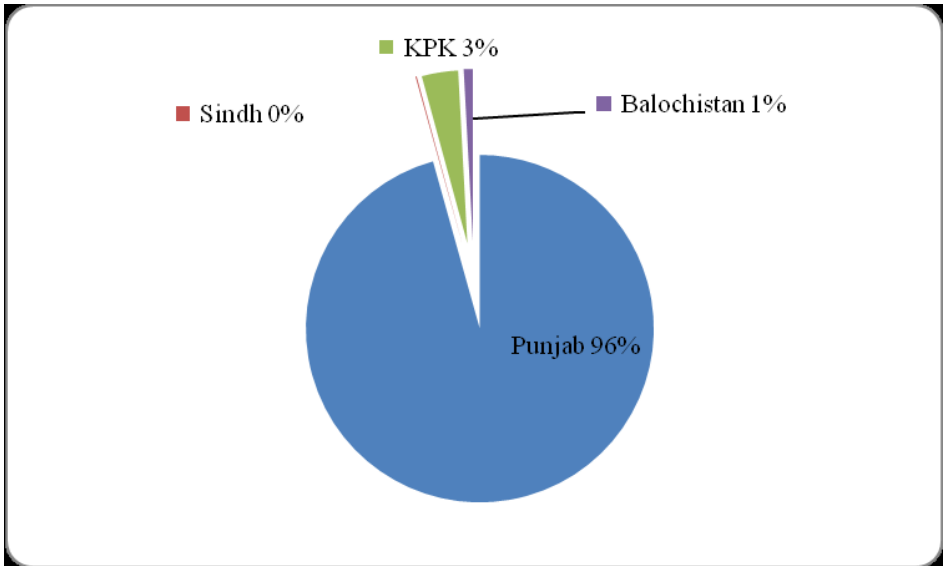

Figure 4.9: Provincial Share in Potato Production

Yield of Potato in Pakistan hectares

The potato yield in Pakistan is 18.5 tons/hectares; it shows an increase from 13.5 in 1995-96 to 18.5 in 2010-11. The Punjab and KPK province show an increase in yield by 41 percent and 14 percent respectively over the period 1995-96 to 2010-11. However in the province of Sindh and Balochistan it decreased by 17 percent and 10 percent respectively (as shown in table 4.27).

Table 4.27: Yield of Potato in Pakistan (tones/hectares)

Year	Punjab	Sindh	KPK	Balochistan	Pakistan
1995-96	13.5	10.2	11.7	15.5	13.5
2000-01	17	9.4	12.5	14.5	16.4
2005-06	13.3	8.7	13.7	14.8	13.4
2010-11	19.1	8.4	13.4	13.9	18.5

Source: Government of Pakistan, 2012, Agricultural Statistics of Pakistan

Trend in Average Price of Potato in 2013

Price behavior indicates the relationship of supply and demand, for example, if the supply goes up, it will result in decrease in price assuming demand remains the same. The average retail price of potato shows variation in different months of 2013. It shows that the price is highest in the month of November in different cities of Pakistan (figure 4.10). The average price of potato is the lowest in February to April, afterward, the average prices shows an increasing trend till November.

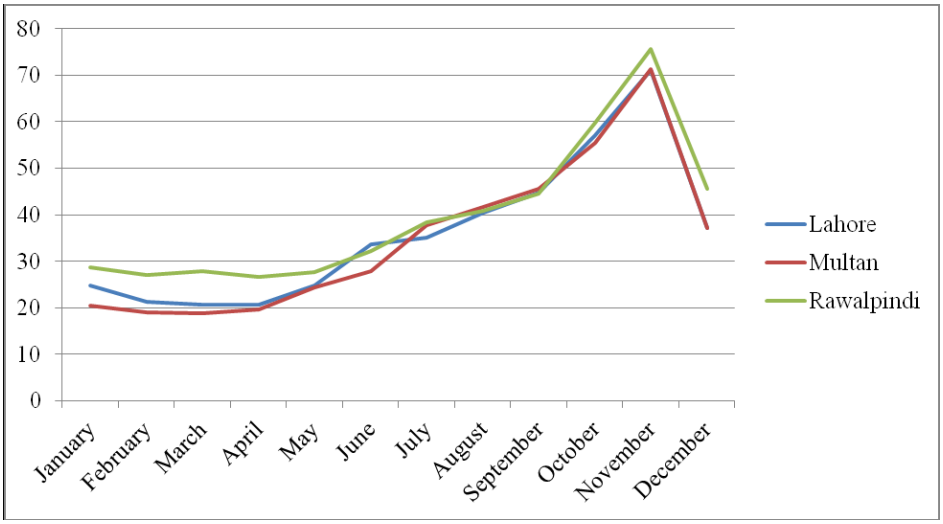

Figure 4.10: Trend in Average Prices of Potato in 2013, Pakistan (Rs/kg)

Trade of potato between Pakistan and India

Trade of agricultural products between India and Pakistan is very important for both countries. It will help to overcome the short term fluctuations in supply of crops in each of the country. Both countries face shortage/surplus of potato, as a result, the price of potato changes. To settle these changes in prices, it will be beneficial for both countries to import/export to meet their domestic demand. Before analyzing the major issues in bilateral trade, we compare area cultivated, production, import/export, wholesale price of potato of both countries.

Area harvested for potato in Pakistan and India

The area harvested of potato varied in both countries over time. The total area harvested of potato was 1900 thousand hectares in India and it is 185.1 thousand hectares in Pakistan in 2012. The area harvested of potato in India is tenfold than in Pakistan. The trend line shows that about 800 thousand hectares were added in the area harvested of potato in India from 1995 to 2012; while during the same time Pakistan experienced only 80 thousand hectares increase in the area harvested of potato cultivation.

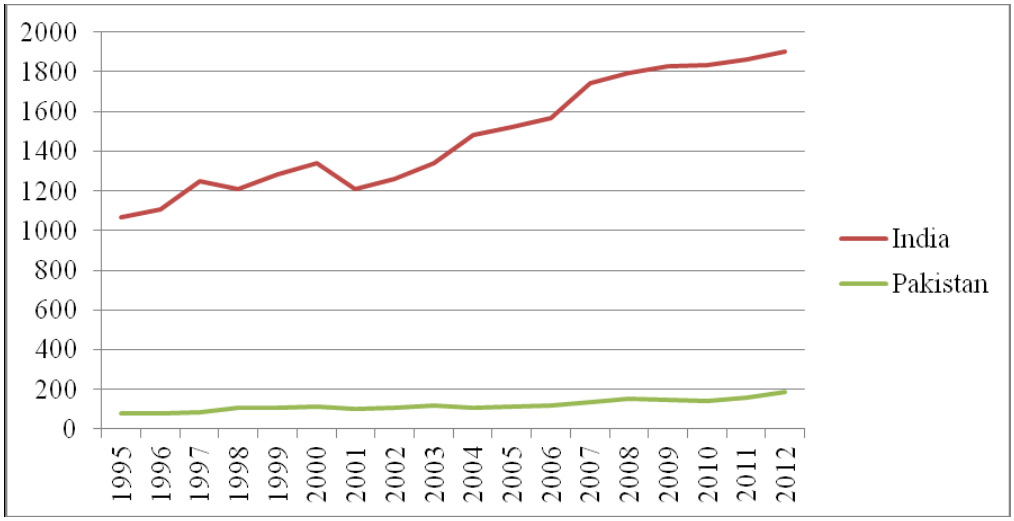

Figure 4.11: Potato Area Harvested (000 hectares)

The production of potato showed an increasing trend in both countries over time. The trend lines showed that the potato production showed a higher increase in India than Pakistan (see figure 4.11).

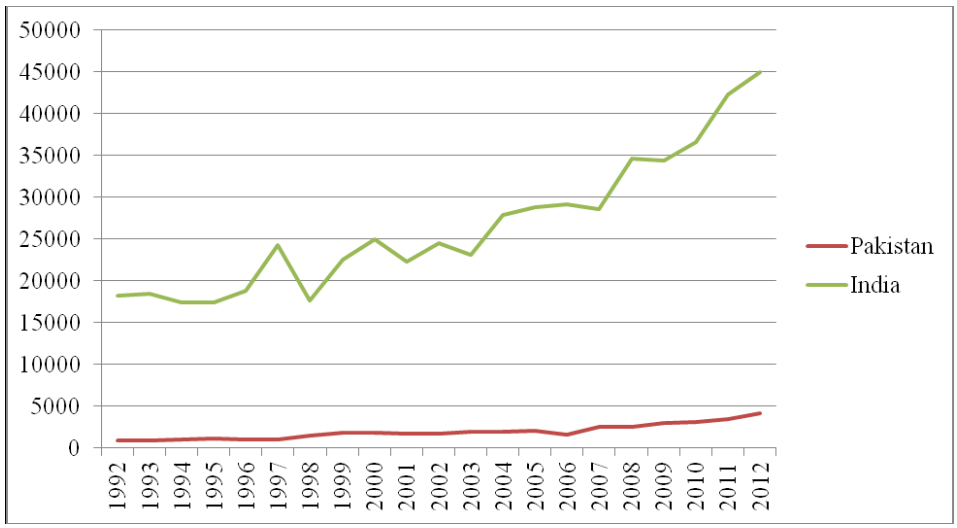

Figure 4.12: Potato production comparison between India and Pakistan (000 tons)

In potato, seasonality plays a major role for the supply of potato produce. Due to seasonality, it is quite possible that a country import and export in same year. Figures 4.12 and 4.13 shows that both countries import and export potato in the same year. The export of potato showed that Pakistan exports have gone up to 443 thousand tons in

2011which was 20 thousand tons in 1990. Similarly, the potato exports from India were 217 thousand tons in 2012.

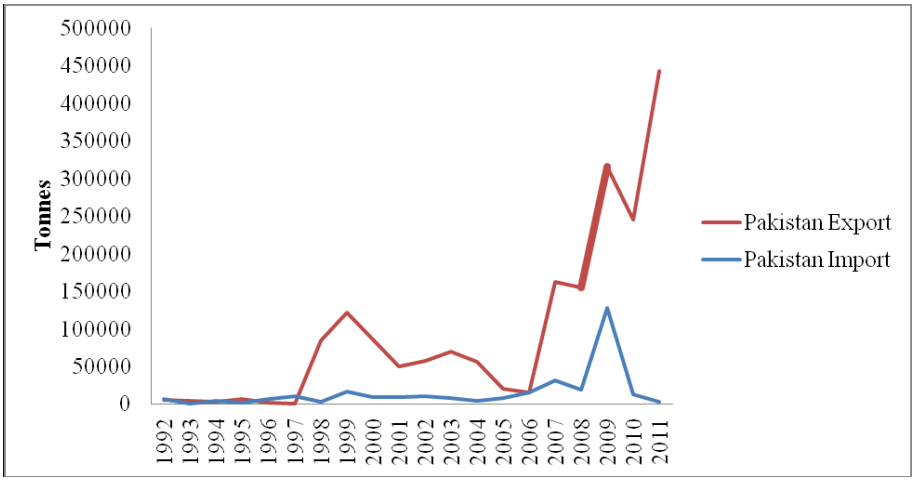

Figure 4.13: Pakistan's potato export and import (tones)

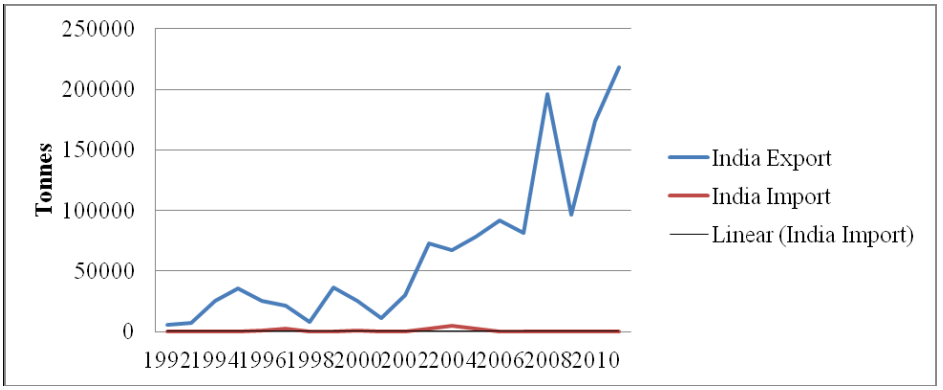

Figure 4.14: India's Potato Export and Import

Table 4.28 shows the variation in wholesale price of potato in both countries. The potato price is in their local currencies. These prices show that it would be beneficial for Indian potato exporters to export in the early months of years; while the trade will be profitable for Pakistani exporter to trade with India in the later months of years.

Table 4.28: Wholesale Price of Potato in India and Pakistan (Rs/Kg)

Months	Indian rupees	Pakistani rupees
January	7.3	28.975
February	6.34	42.75
March	6.04	33.75
April	6.7	26.95
May	7.74	23.575
June	8	16.025
July	8.07	10.875
August	8.18	9.425
September	8.6	11.8
October	8.3	--
November	7.4	--
December	5.95	20.85

Source: Directorate of Marketing and Inspection (DMI), Ministry of Agriculture, Government of India
Pakistan Bureau of Statistics

The trade statistics of potato show that Pakistan does not export to India but exports to rest of the world. Pakistan imports potato from India and rest of the world (see table 4.29). These statistics shows that importing from the countries far away from Pakistan would be expensive as compared to the neighboring country.

Table 4.29: Potato Export and Import from Pakistan

Year	Potato export to India from Pakistan (tons)	Potato export to rest of world from Pakistan (tons)	Pakistan import from India (tons)	Pakistan import from rest of the world (tons)
2010	0	215436	3187	8854
2011	0	443394	75	2667
2012	0	301594	0	5435

Source: ITC calculations based on UN COMTRADE statistics

4.3.2 Perceptions of Stakeholders about Potato Trade: Survey Findings

To understand the real dynamics of potato trade between Pakistan and India, it is necessary to meet different stakeholders (growers, traders (importers and exporters)) and get their opinion about the potato trade between both countries. For this purpose, different focus groups were organized with different potato stakeholders and got their insights about potato trade between Pakistan and India.

Perceptions of growers

The average age of the growers included in both of the focus groups were 40 years with 9 years of professional experience in potato production. The average year of schooling of potato growers were middle (eight years of schooling). The detailed discussion with focus group participant showed that different stakeholders of potato were not in favor of trade with India. They argued that trade will have a negative impact on them and especially it has the most severe impact on the potato growers.

Different issues were identified for potato trade between Pakistan and India. These issues are discussed below.

Higher subsidies given to Indian agricultural sector was one of the most important factor that affects the growers in Pakistan. The participants of both focus groups were of the opinion that farmers in India are getting subsidies on electricity, fertilizer and other inputs; while farmers in Pakistan are not getting any such thing. The traders were of the view that if the trade between Pakistan and India starts then the Indian farmers will have cost advantage over Pakistani farmers. As a result, the Pakistani farmers will not be able to compete with Indian farmers.

The participants further identified that government policies are unfavorable for the farmers in the Pakistan rather they make the policies to benefit the consumers. They further discussed that government policies always hurt potato growers whether there is surplus or shortage of produce. If potato growers earn more profits due to price hike when there is shortage, then in the next season they have to suffer losses as growers will allocate more area to produce potato. They argued that if there is price hike then government starts importing the potato from neighboring countries to support the consumers. In the season of shortage, government further reduces or eliminates duty.

The slowly improving yield of potato is another major concern for the potato growers. The stakeholders of both focus groups argued that we should import potato seeds rather than the potato produce.

Potato growers were of the opinion that processor should further add the value in the potato produce in order to get more profit. However, farmers lack knowledge regarding which variety they should produce for further processing.

The marketing facilities for the potato in Pakistan are inadequate as the storage facilities used for potato harvest are very poor. If the proper facilities are available for the potato then Pakistan could have more exportable surplus.

Potato growers were of the view that there is a need for the research and development so that the production of potato could be enhanced. They further added that there is a need to allocate more resources to different regions based on their production. The findings of research and development should also be transferred from labs to the farms.

Perceptions of Traders (exporters and importers)

The secondary data showed that India is not importing but exporting potato to Pakistan. The focus groups discussion with traders of potato revealed various issues such as International requirements of potato, Trade channel between Pakistan and India, Trust deficit between Pakistan and Indian traders, Tariff and non-tariff barriers.

Consumer demand of potato varies with change in colour, size and grade. The potato growers do not have any access to mechanical grading system. Only some of the exporters have the mechanical grading system, these traders gets the major share of profit. The potato growers suggested that if grading and packaging facilities are provided to them, then they can generate more exportable surplus and can export to other countries.

As the secondary data showed Pakistan import potato from India while Indian government does not allow the import of potato from Pakistan. The trade of potato seed takes place through the rail route while the import and export of fresh produce happens from the Wagha-Attari border. The major part of trade between two countries is through third party. In this arrangement, the trade takes place with an involvement of another country, most of the time UAE is used as the central link to perform this process.
The focus group discussion revealed that there is a lack of trust between the traders of both countries. The traders argued that the trade is not possible between two partners unless they develop trust on each other's country and it can be achieved through dialogue.

The traders stated that the major hurdle of trade between both countries is the existence of tariff and non-tariff barriers. The exporters and importers were of the opinion that the extra ordinary inspection of commodities and manual inspection resulted in delays the products to cross the border; this delay resulted in the quality deterioration.

CHAPTER NO.5

Conclusion and Recommendations

Improving economic governance is an important issue in the political agenda of all countries especially developing ones. It is accepted that this governance can be improved through trade liberalization as it makes countries inter dependent on each other. Trade may help food deficit or surplus countries to accommodate their domestic supplies and demands through exchange. As such, trade is the heart of economic policies pursued by the developing countries.

Pakistan and India both have potential in their agriculture sectors but one thing is common in both countries and that is the regular food crisis. In one or the other year some of the food commodities got short and these countries have to face a tough situation. Being neighbors to each other, both these countries can help each other in times of shortages. Before taking trade process so optimistically, the respective concerns of stakeholders need to be addressed. In this regard, it is the common opinion of growers and traders in Pakistan that trade is not going to benefit Pakistan as agriculture sector in India is heavily subsidized. On the other hand government policies in Pakistan do not favor farmers and as such there is no competition between the farmers of both countries. The other major issues identified at farmer's level include unfavorable government policies, stagnant yield, price fluctuations, inappropriate research and development, less value addition, short shelf life, and non-availability of grading machines. The focus group discussion with traders revealed that trust deficit, tariff and non tariff barriers, complexities and delay in custom procedures, embargo on export through Wagha, third party trade, inappropriate transport policy, poor packaging and value addition were the major issues. On the basis of findings, following recommendations are suggested to foster trade between Pakistan and India.

1. Most important of all, there exists a trust deficit between official dealing to promote trade between two traditional trading partners. At the same time we also need to understand political economy of trade because it is a sensitive issue and slowly and steadily trade should be promoted with mutual respect and acknowledgement between two countries. For this purpose the process of dialogue should be speed up and implemented in its real spirit. The officials from both sides should decide common issues and set schedule for their implementations.

2. Although there is no significant difference between yield of two countries for onion, potato and mango but comparing yields with other leading producers of the world revealed a significant yield gap. So research and development in Pakistan should focus on introducing high yielding varieties. In addition, scientific post harvest practices should be introduced to increase shelf life of these commodities. Further a culture of vale addition

should be promoted by introducing products like powdered onion, dried mangoes, onion paste etc.

3. Marketing system of selected commodities needs to be streamlined in order to enhance exportable quality surplus. For this purpose market intelligence system should be improved to provide stakeholders with timely and correct market information. This will help to predict correct estimates of demand and supply in the country thus avoid shortages and surpluses in the market. This will help to develop a sustainable export culture in the country meeting the domestic needs and concerns of stakeholders.
4. India is providing huge subsidies to its agriculture sector that outfits Pakistani farmers to compete with their Indian counterparts. India is subsidising its farmers and even consumers at three different stages. It is providing direct subsidies to farmers that amounts more than 60 billion USD, further it is providing support prices to 25 agricultural commodities and lastly it is also providing subsidies on food to consumers. On the other hand there is only one crop in Pakistan which is getting support price and that is wheat. Pakistani farmer has to pay commercial rates for electricity and often have to purchase inputs at higher prices at the time of need. In this miserable situation, it is suggested that govt. of Pakistan should support its farmers to place them in a competitive position with Indian farmers. For this sake, allocated budget to agriculture sector should be raised.

5. There is lot of potential for trading onion, potato and mango between Pakistan and India and for that we need to identify windows of opportunities like in case of mango. Indian mango arrives early whereas Pakistani mango stays longer and both these countries through trade can enhance the time of availability of mango in both countries through mutual trade. Mango is in negative list for trade between two countries and this needs immediate attention of policymakers. Diplomatic efforts need to redefine list of tradable commodities keeping in view the common interests of stakeholders in both countries. 6. Over the past couple of years, there has been improvement at wagha border but there is urgent need to strengthen infrastructure and allied activities. The situation at T-10 is rather worst and needs significant improvements. There is need to establish storage facility at border point to safe spoilage which is due to delay in consignments. Further custom procedures needs to speed up on both sides with considerable reduction on non/para tariff barriers. 7. Last but not least, it was the unanimous saying by farmers that they have potential and courage to compete India in trade provided that government will support them. The officials of FAP complaint that they have provided the government with their recommendations but government officials are not giving due importance to their point of view. They were of the opinion that any diplomatic effort to foster trade between two trading partners will be futile without involvement of farmers. It is thus inevitable to include representatives of farmers in dialogue process to make this more authentic and acceptable by all stakeholders. 8. This project covered three agricultural commodities viz onion, potato and mango however there is dire need to expand scope of this research by conducting similar sort of research on trade potential of

other agricultural and non-agricultural commodities like soyabean, tomatoes, chillies, ginger, garlic, cement, and other minerals.

References

1. Abid, Q. 2005. Trade between India and Pakistan: Potential Items and MFN Status, SBP Research Bulletin, Vol. 1, pp 47-48.
2. Ahmed, V and G. Samad. 2011. Trade Facilitation for Economic Corridors in South Asia: The Perspective of Pakistan. Planning Commission of Pakistan. Pakistan Institute of Development Economics. Islamabad.
3. Batra, A. 2004. India's Global Trade Potential: The Gravity Model Approach. Indian Council for Research and International Economic Relations. Working Paper No. 151. New Delhi, India.
4. Burki, A. A., M. A. Khan and S. M. T. Hussain. 2006. Prospects of Wheat and Sugar Trade Between India and Pakistan: A Simple Welfare Analysis. CMER Working Paper No. 06.
5. Burki, J. S. and M. Akbar. 2005. Pakistan. In South Asian Free Trade Area-Opportunities and Challenges. USAID. Washington.
6. Chandigarh. 2012. Traders Eye More Cross-Border Trade via Attari. Deccan Herald.
7. Dey, I 1993, Qualitative data analysis : a user-friendly guide for social scientists Routledge, London.
8. Furusawa, T and L. C. L. Edwin. 1999. Adjustment Costs and Gradual Trade Liberalization.
9. Ghuman, R. S. 1986. Indo-Pak Trade Relation. Deep and Deep Publications. New Delhi.
10. Gopalan, S., A. A. Malik and K. Reinert. 2013. The Imperfect Substitutes Model in South Asia: Pakistan-India Trade Liberalization in the Negative List. IGC working paper.
11. Government of India (GOI). 2013. Union Budget and Economic Budget 2012-13. Ministry of Finance, New Delhi, India.
12. Government of Pakistan (GOP). 2013. Pakistan Economic Survey 2012-13. Economic Advisor Wing, Ministry of Finance, Islamabad.
13. Government of Punjab. 2012. Agricultural Marketing Information System. Directorate of Agricultural Marketing. Lahore.
14. Hamid, N., I. Nabi. and N. Anjum. 1990. Trade, Exchange Rate and Agriculture Pricing Policies in Pakistan. World Bank. Washington.
15. http://www.dailytimes.com.pk/default.asp?page=2011%5C07%5C29%5Cstory_27-2011_pg3_2.
16. http://www.deccanherald.com/content/277903/traders-eye-more-cross-border.html.
17. Hussain, I. 2011. Prospects and Challenges for Increasing India–Pakistan Trade. Atlantic Council. Washington.

18. Hussain, T and U. Khan. 2014. Considerations for Pak India trade in Agriculture, Weekly Pluse Magnize, House No. 69, Bhitai Road F-7/4 Islamabad Pakistan assessed on February 10, 2014 available at http://weeklypulse.org/details.aspx?contentID=4560&storylist=10.
Journal of International Economics. Vol. 49. Pp. 333-361.
19. Khan, M. S. 2009. India-Pakistan Trade: A Roadmap for Enhancing Economic Relations. Peterson Institute for International Economics. Washington. Policy Brief Paper. Pp: 9–15.
20. Khan, M. S. 2009. India-Pakistan Trade: A Roadmap for Enhancing Economic Relations. Policy Brief 09-15, Peterson Institute for International Economics.
21. Mwaba, A. 2000. Trade Liberalization and Growth: Policy Options for African Countries in a Global Economy. The African Development Bank. Economic Research Paper No. 60. Abidjan, Côte d'Ivoire.
22. Nabi, I. and K. Javaid. 2011. Regional Trade Panel Report. DPRC working paper.
23. Nabi, I. 2012. Pakistan's Quest for a new growth vent: lessons from history. The Lahore Journal of Economics Vol. 17 SE Lahore School of Economics, Pakistan
24. Nanda, N. 2012. Agricultural Trade in South Asia: Barriers and Prospects. SAWATEE Working Paper No. 03/12, South Asia Watch on Trade, Economics and Environment (SAWTEE) Kathmandu, Nepal.
25. Naqvi, Z. 2008. Pakistan-India Trade Potential and Issues unpublished
26. Naqvi, Z. and P. Schuler. 2007. The Challenges and Potential of Pakistan-India Trade. The World Bank. Washington.
27. Nisha, T. 2008. Indo-Pak Trade Relations, ICRIER, Working Paper No. 182.
28. Nisha, T. 2007. Pakistan India Trade: Review from the Indian Exporters. Working paper New Dehli, India
29. Nisha, T., R. Saon, K. Neetika and D. R. Chowdury. 2011. Enhancing Intra SAARC trade: Pruning India's Sensitive list under SAFTA ICRIER, Working paper No. 255 New Dehli, India
30. Noorani, T. 2012. MFN Status and Trade Between India and Pakistan. Pakistan Institute of Legislative Development and Transparency. PILDAT.
31. Paswan, N. K. 2003. Agricultural Trade in South Asia: Potential and Policy Options. S. B. Nangia A. P. H Publishing Corporation 5 Ansari Road, Darya Ganj, New Delhi, India
32. Pasha, H. A and M. Imran. 2012. The Prospects for Indo-Pakistan Trade. The Lahore Journal of Economics. pp. 293–313.

33. Riezman, R. 1999. Can Bilateral Trade Agreements Help Induce Free Trade? Department of Economics. University of Warwick. CSGR Working Paper No. 44/99. Coventry, United Kingdom.

34. Sahoo, P. 2012. The Economic Relations of China and India with Pakistan: A Comparative Analysis. Asia-Pec. Dev. Jor. 19 (1).
35. Ahmad, S. and A. Shabir. 2005. Analyzing Potential Economic Costs and Benefits of Pakistan-India Trade: A Case Study of the Chemical Industry. International Institute of Islamic Economics, International Islamic University, Islamabad, Pakistan.
36. Srinivasan, T. N and G. Cananero. 1993. Preferential Trading Arrangements in South Asia, Yale University. Government of Pakistan, Ministry of Commerce, Pakistan-India Trade: Transition to the GATT Regime, Islamabad, pp-1.
37. State Bank of Pakistan. 2006. Implications of Liberalizing Trade and Investment with India Research and Economic Policy Department Report.
38. Tabish, M. I. and M. A. Khan. 2011. Harnessing India Pakistan Trade Potential. SAARC Chamber of Commerce and Industry
39. Taneja, N. 2006. India Pakistan Trade. Working paper 182, New Dehli: Indian Council for Research on International Economic Relations
40. Taneja, N. 2008. Pakistan–India Trade: View from The Indian Side. In Z. Naqvi & P. Schuler (Eds.), The Challenges and Potential for Pakistan–India Trade. World Bank. Washington.
41. Taneja, N. and P. Kalita. 2011. Most Favoured Nation: New Opportunities for India and Pakistan. Economic and Political Weekly. Vol. 46. No 49.
42. Trade Development Authority of Pakistan (TDAP), 2013. Normalization of Trade with India: Opportunities and Challenges for Pakistan. Trade Development Authority of Pakistan.
43. Zahra, F. 2011. Sustaining the India-Pakistan Dialogue. Daily Times. 29th July, 2011.

Appendix 1: Pictorial Presentation of Round Table held at UAF


Improving Economic Governance
in the Agriculture Sector through
Trade Liberalization between
IBMS
ORIC


IBMS


conomic Governance
ulture Sector through
eralization between
stan and India
larch 10" 2014
Organized By:
sity of Agriculture, Faisalabad.
ada Fund for Local Initiatives (CFLI)
University of
AGRICULTURE

Appendix 2: Newspaper Clipping of Round Table held at UAF

16

روزنامہ دنیا فیصل آباد، منگل، 11 مارچ 2014ء

ایڈیٹر انچیف
میاں عامر محمود

روزنامہ دنیا فیصل آباد

لمز یونیورسٹی کے پرو چانسلر سید بابر علی، زرعی یونیورسٹی کے وائس چانسلر ڈاکٹر اقرار احمد، ایم این اے رانا محمد افضل و دیگر مقررین کانفرنس سے خطاب کر رہے ہیں

لمز طلباء کے وظائف کیلئے 35 کروڑ روپے مہیا کریگی، بابر شاہ

فیصل آباد چیمبر ذہین طلباء کے انتخاب میں مدد کرے، یونیورسٹی کے پرو چانسلر کا خطاب

فیصل آباد (نیوز رپورٹر) لاہور یونیورسٹی آف مینجمنٹ سائنسز (لمز) کے پرو چانسلر اور ہنکر لیجنڈ کے چیف ایگزیکٹو سید بابر شاہ نے کہا ہے کہ فیصل آباد چیمبر غریب اور ذہین طلباء کے انتخاب میں لمز کی مدد کرے جن کے مکمل تعلیمی اخراجات ادارہ برداشت کرے گا، امسال طلباء کے وظائف کیلئے 35 کروڑ روپے مہیا کئے جائیں گے۔ ان خیالات کا اظہار انہوں نے فیصل آباد چیمبر میں ارکان سے خطاب کرتے ہوئے کیا۔ انہوں نے کہا کہ معیاری تعلیم پاکستان کو ترقی اور خوشحالی کی بلندیوں تک لے جانے میں اہم قدم ہے جس کیلئے لمز ابھی تک 8000 گریجویٹس پیدا کر چکا ہے جن میں سے ایک ہزار گریجویٹس امریکہ، ایک ہزار مڈل ایسٹ، نیوزی لینڈ اور دوسرے ملکوں میں کام کر رہے ہیں جبکہ 6000 گریجویٹس ملک کے اندر خدمات سرانجام دے رہے ہیں۔ انہوں نے بتایا کہ ملک بھر کے ذہین طلباء کے انتخاب کیلئے لمز نے نیشنل آؤٹ ریچ پروگرام کا آغاز کیا ہے اور منتخب ہونے والے طلباء کو 100 فیصد مفت معیاری تعلیم فراہم کی جائے گی۔

THE DAILY JANG LAHORE

روزنامہ جنگ لاہور

رجسٹرڈ سی پی ایل 140 فون 6367480 تا 83

بانی..... میر خلیل الرحمٰن

جمعت

صفحات 16 قیمت 12 روپے

جلد 35 | منگل 9 جمادی الاول 1435ھ 11 مارچ 2014ء 28 پھاگن 2070ب | نمبر 146

معیاری اور جدید تعلیم کے بغیر ملکی ترقی ممکن نہیں، سید بابر علی

ذہین طلباء کیلئے نیشنل آؤٹ ریچ پروگرام کا آغاز کیا جو 100 فیصد مفت ہے، سہیل بن رشید و دیگر

فیصل آباد (کامرس رپورٹر) معروف صنعتکار اور سابق وزیر خزانہ سید بابر علی شاہ نے فیصل آباد چیمبر آف کامرس اینڈ انڈسٹری میں تاجر و صنعتکار برادری کے نمائندگان سے خطاب کرتے ہوئے کہا کہ معیاری تعلیم پاکستان کو ترقی اور خوشحال کی بلندیوں تک لے جانے میں اہم قدم ہے۔ ادارے نے 8000 گریجوایٹس پیدا کئے ہیں جن میں سے 1000 گریجوایٹس امریکہ میں نمایاں نشستوں پر کام کر رہے ہیں۔ انہوں نے کہا کہ پورے ملک کے ذہین طلباء کے حصول کیلئے ان کے ادارے نے نیشنل آؤٹ ریچ پروگرام کا آغاز کیا ہے اور ان کو 100 فیصد مفت معیاری تعلیم فراہم کی ہے۔ اس موقع پر صدر چیمبر سہیل بن رشید، سینئر نائب صدر ایوان ریاض الحق، نائب صدر ایوان چوہدری محمد اصغر، اظہر مجید شیخ، سابق صدر مزمل سلطان نے بھی اپنے خیالات کا اظہار کیا۔

بھارت سے آلو، پیاز اور آم کی تجارت کیلئے کاشتکار دوست پالیسی بنانے کا فیصلہ

فیصل آباد (آن لائن) آلو، پیاز اور آم کی بھارت سے تجارت کے لئے کاشتکار دوست پالیسی بنانے کا فیصلہ کیا گیا ہے تاکہ عوام پر اس کا بوجھ نہ ڈالا جائے اور کاشتکار زمینداروں کو بھی اس پالیسی سے مالی فائدہ ہو سکے یہ بات وفاقی پارلیمانی سیکرٹری خزانہ دیگاری رانا محمد افضل نے فیصل آباد زرعی یونیورسٹی میں سیمینار سے خطاب کرتے ہوئے کہی۔

DAILY EXPRESS

روزنامہ ایکسپریس فیصل آباد

پاکستان کے 11 شہروں سے بیک وقت شائع ہونے والا واحد اخبار

TUESDAY, MARCH 11, 2014

لمز یونیورسٹی کے پرو چانسلر سید بابر علی، زرعی یونیورسٹی کے وائس چانسلر ڈاکٹر اقرار ایم این اے رانا افضل خاں و دیگر کانفرنس سے خطاب کر رہے ہیں

پاک بھارت تجارت میں کسانوں کے مفادات کو مدنظر رکھا جائے ماہرین

حکومت بجٹ کا 10 فیصد زرعی ترقی کیلئے وقف کرے، بابر علی، ڈاکٹر اقرار و دیگر کا خطاب

فیصل آباد (سٹاف رپورٹر) پاکستان اور بھارت کے مابین تجارتی فروغ کیلئے کسانوں کے مفادات کو مدنظر رکھتے ہوئے ایسی پالیسی ترتیب دی جانی چاہیے جس سے دونوں ممالک یکساں طور پر استفادہ کر سکیں۔ ان باتوں کا اظہار زرعی یونیورسٹی میں پاک بھارت آزادانہ تجارتی اُمور پر منعقدہ راؤنڈ ٹیبل کانفرنس کے مقررین نے کیا۔ لاہور یونیورسٹی آف مینجمنٹ سائنسز کے پرو چانسلر سید بابر علی نے کہا کہ پاکستان میں زراعت کو ایک مکمل پیشہ کے طور پر آگے بڑھاتے ہوئے منافع بخش فصلات کی کاشت کو فروغ دیا جانا چاہیے۔ وائس چانسلر ڈاکٹر اقرار احمد نے کہا کہ پاکستان میں کسانوں کو ترغیبات دیئے بغیر مثبت نتائج حاصل نہیں کئے جا سکتے۔ وفاقی پارلیمانی سیکرٹری رانا محمد افضل خاں نے بتایا کہ حکومت زرعی ترقی اور کسانوں کی معاشی بہتری کیلئے اقدامات بروئے کار لا رہی ہے۔ فارمرز ایسوسی ایشن کے صدر ڈاکٹر طارق بچہ نے حکومت پر زور دیا کہ بجٹ کا کم سے کم 10 فیصد حصہ زرعی ترقی کیلئے وقف کرنے کے ساتھ ساتھ پاک بھارت تجارت کے حوالے سے تمام متعلقین کو اعتماد میں لیا جائے۔

لاہور/اوپلنڈی/اسلام آباد/کراچی/پشاور/کوئٹہ/فیصل آباد اور سرگودھا سے بیک وقت شائع ہونے والا قومی اخبار

Daily Nai Baat

روزنامہ

نئی بات

چیف ایڈیٹر
چوہدری عبدالرحمن

www.naibaat.com
e-mail: info@naibaat.com

بدھ 10 جمادی الاوّل 1435ھ 12 مارچ 2014ء 28 پھاگن 2070ب

زراعت کی ترقی کیلئے منافع بخش فصلوں کو فروغ دیا جائے: ماہرین

خشک اور کم بارشوں والے علاقوں میں پودینہ کاشت کیا جائے: بابر علی، کسانوں کو ترغیبات دیئے بغیر مثبت نتائج نہیں مل سکتے: ڈاکٹر اقرار

حکومت زرعی ترقی اور کسانوں کی بہتری کیلئے کام کر رہی ہے: رانا افضل، بجٹ کا 10 فیصد حصہ زراعت کیلئے رکھا جائے: ڈاکٹر طارق

فیصل آباد (آن لائن) لاہور یونیورسٹی آف مینجمنٹ سائنسز کے پرو چانسلر نامور ماہر تعلیم و کاروباری شخصیت سید بابر علی نے کہا ہے کہ چین نے زرعی شعبہ میں خاطر خواہ ترقی کی ہے اور اس کی بین الاقوامی تجارت میں چینی کسانوں کے مفادات کو مقدم رکھا جاتا ہے لہٰذا پاکستان میں زراعت کو ایک مکمل پیشہ کے طور پر آگے بڑھاتے ہوئے منافع بخش فصلات کی کاشت کو فروغ دیا جانا چاہیے۔ ان خیالات کا اظہار انہوں نے زرعی یونیورسٹی کے زیر اہتمام پاک بھارت آزادانہ تجارتی اُمور پر منعقدہ گول میز کانفرنس میں خطاب کرتے ہوئے کیا۔ کانفرنس سے ڈائریکٹر جنرل ایوب زرعی تحقیقاتی ادارہ ڈاکٹر عابد محمود ایوان زراعت کے صدر چوہدری نسیم صدیقی ڈائریکٹر اورک ڈاکٹر آصف علی دیگر نے بھی خطاب کیا۔ سید بابر علی نے کہا کہ خشک اور کم بارشوں والے علاقوں میں پودینے کی کاشت کو فروغ دے کر کسانوں کی آمدنی بڑھائی جاسکتی ہے۔ یونیورسٹی کے وائس چانسلر پروفیسر ڈاکٹر اقرار احمد خان نے کہا کہ بھارت کا مقابلہ کرنے کیلئے پاکستان میں کسانوں کو ترغیبات دیئے بغیر مثبت نتائج حاصل نہیں کئے جاسکتے۔ پارلیمانی سیکرٹری رانا محمد افضل خاں نے بتایا کہ حکومت زرعی ترقی اور کسانوں کی معاشی بہتری کیلئے اقدامات بروئے کار لا رہی ہے۔ فارمرز ایسوسی ایٹس کے صدر ڈاکٹر طارق بچہ نے حکومت پر زور دیا کہ بجٹ کا کم سے کم 10 فیصد حصہ زرعی ترقی کیلئے وقف کرنے کے ساتھ ساتھ پاک بھارت تجارت کے حوالے سے تمام متعلقین کو اعتماد میں لیا جائے۔

DAWN LAHORE, TUESDAY MARCH 11, 2014

Bridge Indo-Pak trust deficit thru' dialogue'

/ Our Staff Correspondent

FAISALABAD: Speakers at a conference commended that trust deficit between ıkistan and India should be bridged rough a dialogue that would promote ıde and protect rights of stakeholders of ıth countries.

The conference, titled 'Improving :onomic Governance in Agri Sector rough Trade Liberalisation between ıkistan and India', was arranged by the niversity of Agriculture Faisalabad (UAF).

Addressing the gathering, UAF Vice-Chancellor Dr Iqrar Ahmed suggested identifying a seasonal window for commodities. He quoted examples of potato, whose peak season was August and September in India and October and November in Pakistan.

He said trade with the seasonal window would open a new chapter of progress. He also said strengthening of domestic production market was also essential to tap potential of the sector. He said India was a big market with around a billion consumers.

Dr Ahmed said India was providing highest subsidy on electricity; in Indian Punjab subsidy on tube wells amounted to Rs1 trillion.

Lahore University of Management Sciences (LUMS) Pro Chancellor Syed Babar Ali said Pakistan needed to tap potential of the agriculture sector by promoting state-of-the-art technologies in the country.

He said China had done some excellent work in garlic and Pakistan could do the same as "we have to benefit from experience of other countries".

MNA Rana Afzal said the government was making all-out efforts to strengthen the agriculture sector, which was the backbone of the economy, contributing 21pc to the gross domestic product.

Farmers Associates Pakistan President Tariq Bucha urged the government to take tangible steps to address issues of the farming community. He said at least 10pc of the budget must be allocated to agriculture.

He said in the process of trade policy formulation, farmers must be taken on board.

BUSINESS
RECORDER
Lahore, Tuesday 11 March 2014, 9 Jamadi-ul-Awwal 1435

'Pak, India trade to be promoted by protecting rights of stakeholders'

KHALID ABBAS SAIF

FAISALABAD: Trade between Pakistan and India should be promoted by protecting the rights of stakeholders particularly the growers.

It was recommended by the roundtable conference titled "improving economic governance in agricultural sector through trade liberalization between Pakistan and India" arranged at the University of Agriculture Faisalabad. The recommendation was made by the UAF Vice Chancellor Prof Dr Iqrar Ahmad Khan while Lahore University of Management Sciences (LUMS) Pro Chancellor Syed Babar Ali, MNA and Parliamentary Secretary Rana Afzal, Farmers Association Pakistan President Tariq Bucha and other progressive farmers were present on the occasion.

While informing the audience about recommendations, the Vice Chancellor suggested the identification of the seasonal window for the commodities.

He quoted the examples of potato which has peak season in August and September in India and in Pakistan it has the peak season in October and November.

The conference also recommended that trust deficit between the two countries needs to be bridged through dialogue. The strengthening of the domestic production market is also essential to tap the potential of the sector.

The Vice Chancellor said India is the big market of around one billion of the people. He said the trade with the seasonal window would open up new chapter of progress. He also sought the policy interventions in this regard to flourish the sector in Pakistan. He said India is providing the highest subsidy on the electricity. Even in the Indian Punjab, the subsidy on tube wells is amounting to Rs1trillion.

Syed Babar Ali said we need to tap the potential in flourishing the agricultural sector by promoting the state-of-the-art technologies in the country.

He said China has made tremendous work in the garlic. Our country can do the same. We have to get the benefit from others experience.

He said 70 percent of the population is directly or indirectly linked to the agricultural sector that must be strengthened.

He also suggested setting up entrepreneurship cell at the UAF in order to equip the youth with the skill and to transform the knowledge into goods and services.

MNA Rana Afzal said the Government is making all-out efforts to strengthen the agricultural sector in the country. He said the recommendations to be made before the government.

He said agriculture is the backbone of our economy, contributing 21 percent in the Gross Domestic Product.

Tariq Bucha urged the government to take the tangible steps to address the issues of the farming community. He said at least ten percent of the budget must be allocated for the agricultural sector. He said in the process of trade policy formulation, the farmers must be taken on board.

ORIC Director Prof Dr Asif Ali, Dr Abdul Ghafoor, Dr Waseem Ahmad, Dr Mubashair Mehdi, Director Ayub Agriculture Research Institute Dr Abid Mehmood, Aiwan-e-Zarat President Dr Sadique Naseem and others also attended the meeting.

Quality education prerequisite for progress: Baber Ali

RECORDER REPORT

FAISALABAD: Quality education is pre-requisite to take Pakistan to new heights of progress and prosperity, said Syed Baber Ali, Chief Executive Packages Ltd and Pro-Chancellor, Lahore University of Management Sciences (LUMS).

Addressing a gathering of leading entrepreneurs and businessmen at FCCI, he said LUMS has produced 8,000 graduates out of which 1,000 are working on key-posts in North America. Similarly, another 1,000 are employed in leading multi-national companies in Middle East, New Zealand and other countries, remaining 6,000 are working within the country out of these 10-15 percent graduates have started their own businesses and are considered business leaders. He said LUMS started national Outreach Programme to identify talented students across the country and equip them with quality education with 100 percent free education. He said we select 7,000 students from Government schools every year and provide them an opportunity to visit and work with LUMS for shorter duration. He said 80 percent of these students belong to low socio-economic class but their performance is as good as graduates from Western universities.

He asked the FCCI to help LUMS for selection of talented but poor students. He assured that LUMS will fully bear their expense. He disclosed that this year LUMS will disburse scholarship to the tune of Rs.350 million to share their expense, he added.

He said that one specific discipline is not enough for a dynamic and vibrant educational university; hence we have started departments of social sciences, economics, science, engineering and law. He hoped that LUMS will create good future leaders who would take Pakistan to new heights.

Regarding LUMS campus at Faisalabad, he said it requires passion, dedication and commitment, 'give one or two such persons, who could devote themselves round the clock,' he said and added that he would feel proud to work with you.

Earlier in his welcome address to Syed Baber Ali, President FCCI Engr. Suhail Bin Rashid said USA, UK, India, China and other countries are spending huge money on education and research whereas literacy rate in Pakistan is 49% which is 61% in case of India and 92% in Sri Lanka and Pakistan, among 204 countries, is on 185th position in educational ranking.

He deplored that Government is also spending paltry amount of only 2% on education which should be at least 5% of our GDP. After 18th Amendment, the education should be the first priority of all provinces. He said we must re-prioritize our budget allocation with maximum funding towards education and promoted idea of 'Educational Emergency' to cultivate the culture of education at the gross-roots level so that our country could also compete with emerging and developing countries of the region.

He urged for a campus of LUMS in Faisalabad, representation on various Boards of LUMS and guidance as to how the industrial and business concerns of Faisalabad could move forward from 'Family-owned businesses' to 'Corporate Institutions'. It would help these businesses to grow and make progress at the international level.

Vote of Thanks was presented by Ch. Muhammad Asghar, VP FCCI. Riazul Haq, SVP FCCI, Arshad Malik, Azhar Majeed Sheikh and others also shared their views on the occasion.

روزنامہ دنیا فیصل آباد، بدھ، 12 مارچ، 2014ء

زرعی یونیورسٹی فیصل آباد کے تحت پاک بھارت تجارت پر کانفرنس

حکومت کسانوں کی معاشی بہتری کیلئے اقدامات کر رہی ہے، پارلیمانی سیکرٹری رانا افضل

فیصل آباد (آن لائن) وفاقی پارلیمانی سیکرٹری رانا محمد افضل خان نے کہا ہے کہ حکومت زرعی ترقی اور کسانوں کی معاشی بہتری کیلئے اقدامات بروئے کار لا رہی ہے اور وفاقی و صوبائی سطح پر بجٹ 2025ء میں زرعی بہتری کے حوالے سے متعلقہ حکام کی مشاورت سے ٹھوس منصوبہ بندی کر لی گئی ہے۔ ان خیالات کا اظہار انہوں نے زرعی یونیورسٹی فیصل آباد کے زیر اہتمام پاک بھارت آزادانہ تجارتی اُمور پر منعقدہ راؤنڈ ٹیبل کانفرنس سے خطاب کرتے ہوئے کیا۔ اس موقع پر لاہور یونیورسٹی آف مینجمنٹ سائنسز کے پرو چانسلر سید بابر علی نے کہا کہ پاکستان میں زراعت کو ایک مکمل پیشہ کے طور پر آگے بڑھاتے ہوئے منافع بخش فصلوں کی کاشت کو فروغ دیا جانا چاہیے۔ کم بارشوں والے علاقوں میں کاشت کو فروغ دے کر کسانوں کی آمدنی بڑھائی جا سکتی ہے۔ یونیورسٹی کے وائس چانسلر پروفیسر ڈاکٹر اقرار احمد خان نے کہا کہ بھارتی پنجاب میں حکومت کسانوں کو سبسڈی دے رہی ہے جس کا مقابلہ کرنے کیلئے پاکستان میں کسانوں کو ترغیبات دیئے بغیر مثبت نتائج حاصل نہیں کئے جا سکتے۔ انہوں نے حکومت پر زور دیا کہ دونوں ممالک کے مابین سیزفل تجارت کو آگے بڑھایا جائے۔

4

Roundtable recommends Pak-India trade promotion

Experts say trust deficit needs to be bridged through talks

N
OUR STAFF REPORTER
FAISALABAD

Trade between Pakistan and India should be promoted by protecting the rights of stakeholders particularly the growers, recommended a roundtable held by University of Agriculture Faisalabad.

At the conference titled "improving economic governance in agri sector through trade liberalisation between Pakistan and India", the recommendation was made by UAF Vice Chancellor Dr Iqrar Ahmad. The vice chancellor suggested the identification of a seasonal window for the commodities. He quoted the examples of potato which has peak season in August and September in India while Pakistan has the peak season in October and November.

The conference also recommended that trust deficit between the two countries needs to be bridged through dialogue. The strengthening of the domestic production market was also essential to tap the potential of the sector.

The vice chancellor said that India was a big market of around one billion of people. He said the trade with the seasonal window would open up new chapter of progress. He also sought the policy interventions in this regard to flourish the sector in Pakistan. He said India was providing the highest subsidy on the electricity. Even in the Indian Punjab, the subsidy on tube wells amounted to Rs1 trillion. On the occasion, Lahore University of Management Sciences Pro Chancellor Syed Babar Ali, MNA and Parliamentary Secretary Rana Afzal, Farmers Association Pakistan President Tariq Bucha and other progressive farmers were present.

Syed Babar said, "We need to tap the potential in flourishing the agricultural sector by promoting state-of-the-art technologies in the country. He said that China has made tremendous work in the garlic. Our country can do the same. We have to get the benefit from the others' experience. The 70 percent of the population is directly or indirectly linked to the agriculture sector that must be strengthened."

He suggested the setting up of entrepreneurship cell at the UAF in order to equip the youth with the skills and to transform the knowledge into goods and services.

The MNA said that the government was making an all-out effort to strengthen the agri sector in the country. He said that the recommendations to be made before the government. He said that the agriculture is the backbone of the national economy as it contributes 21 percent to the gross domestic product.

Tariq urged the government to take tangible steps to address the issues of the farmers. He said that at least 10 percent of the budget must be allocated for the agriculture sector. He said that in the process of trade policy formulation, the farmers must be taken on board.

ORIC Director Dr Asif Ali, Dr Abdul Ghafoor, Dr Waseem Ahmad, Dr Mubashair Mehdi, Director Ayub Agriculture Research Institute Dr Abid Mehmood, Aiwan-e-Zarat President Dr Sadique Naseem and others also attended the meeting.

The Nation Lahore
12-3-2014

List of Participants in Roundtable of the Project on "Improving Economic Governance in the Agriculture Sector through Trade Liberalization between Pakistan and India" held on 10-3-14

Economic Governance in the Agriculture Sector through Trade Liberalization between Pakistan and India" held on 10-3-14

Sr. No.	Name and Address of Participants
1	Syed Babar Ali, Lahore University of Management Sciences, Lahore
2	Rana Muhammad Afzal Khan, MNA, Faisalabad
3	Dr. M. Tariq Bucha, President, Farmers Associates Pakistan, House No. 66-P, Guberg-II, Lahore (0300-8441100)
4	Dr. Afzal Haider Rizvi, Potato Seed Importer, 1-Ali Colony, Tehsil Road, Okara (0300-8441132)
5	Syed M. Jawad Hassan, Potato Exporter, FAP, Okara (0300-6973080)
6	Ch. Maqsood Jutt, Vice President, Potato Growers Cooperative Society, Fruit Market, Okara (0333/313-6982641)
7	Abdul Hameed Chaudhry, Potato Grower, Ahmad Cold Storage, Deepalpur Road, Okara (0300-6969109)
8	Azam Sabri, Mango and Onion Exporter, Fruit and Vegetables Market, Multan (0322-8639600)
9	Major Tariq Khan, Mango Grower and Exporter, Office No. 214-15, 2nd Floor, Metro Plaza, Multan Cant, Multan (0302-8632863)
10	Dr. Habib Agha, Mango Grower and Exporter, Office No. 214-15, 2nd Floor, Metro Plaza, Multan Cant, Multan
11	Mr. Nasrullah Khan, Mango Gower and Exporter, Office No. 214-15, 2nd Floor, Metro Plaza, Multan Cant, Multan
12	Sarfraz Ahmad Khan, Vice President, Kissan Board, Lahore (0321-4388355)
13	Syed Shaukat Ali Sherazi, Country Manager, Star Farms Private Limited, D-802, 8th Floor, City Tower, Main Boulevard, Gulberg-II, Lahore
14	Mr. Ahmad Ramzan, Miraj Din Muhammad Ramzan and Co., 64-B, New Fruit Market, Link Ravi Road, Lahore (042-37727676)
15	Shahid Hassan Gillani, Potato Grower, FAP, Potato Growers Cooperative Society, Okara (0300-8434351)
16	Dr. Ishtiaq Rajwana, Campus Director, BZU, D G Khan (0300-6351551)
17	Dr. Abid Mahmood, DGA (Research), AARI, Faisalabad (0300-5478226)
18	M. Akram Asi, Mango Exporter, Sabri Enterprises, Fruits and Vegetables Market, Multan (0300-8639300)
19	M. S. Naseem Chaudhry, Sadar Aiwan-e-Zaraat (0345-7773535)
20	Javed Anwar, Farmer and Exporter, J. K. Group (0323-6527771)
21	M. Khalid Malik, Former Chairman, NFC (0300-8464786)
22	Niaz Ahmad, Trader (0333-6160573)
23	Dr. Shahid Niaz, Director, VRI, Faisalabad (0301-6054769)

24	Dr. Noor ul Islam, Subject Expert, Department of Plant Breeding and Genetics, UAF (0300-7686552)
25	Muhammad Saleem Khan, Deputy Chief Manager, State Bank, Faisalabad
26	Faisal Hassan, Farmer and Exporter (Basmati) (0321-8475305)
27	Qamar Shakil, Assistant Botanist, Fodder Research, Sub Station, AARI, Faisalabad (0300-7717544)
28	Maqbool Lodhi, Bureau Chief, Online/F.P057 (0300-6608778)
29	M. Shafeeq, Bureau Chief, A.N.N. (0300-7931961-6608778)
30	Asif Riaz Taj, Business Coordinator, J. K. Agriculture Farm (0333-6032767)
31	Syed Aslam Shah (0300-4845458)
32	Dr. Muhammad Iqbal, Assistant Professor, Institute of Soil and Environmental Sciences, UAF (0300-6631841)
33	Noshaba, Director, Shahzad Asia International Private Limited (0345-8557864)
34	Dr. M. Amjad, Professor, Institute of Horticultural Sciences, UAF
35	Dr. Amanullah Malik, Professor, Institute of Horticultural Sciences, UAF
36	Dr. Aslam Parvaiz, Professor, Institute of Horticultural Sciences, UAF
37	Dr. Jafar Jaskani, Professor, Institute of Horticultural Sciences, UAF
38	Dr. Sajjad ur Rehmad, Professor, UAF (0333-6503912)
39	Dr. Asif Ali, Director, ORIC, UAF (0300-9651941)
40	Dr. Ashfaq Ahmad Chattha, Dircetor, External Linkages, UAF (0300-7204372)
41	Dr. Masood Sadiq Butt, DG, NIFSAT, UAF
42	Dr. Abdul Ghaffar, Assistant Professor, Institute of Agricultural and Resource Economics, UAF
43	Dr. Khalid Bashir, Assistant Professor, Institute of Agricultural and Resource Economics, UAF
44	Dr. Babar Shahbaz, Assistant Professor, Institute of Agricultuarl Extension and Rural Development, UAF
45	Dr. Syed Nosheen, Assistant Professor, Institute of Business Management Sciences, UAF
46	Mr. Kashif Hamid, Lecturer, Institute of Business Management Sciences, UAF
47	Mr. Yawar Abbas, Lecturer, Institute of Business Management Sciences, UAF
48	Dr. Sahar Munir, Lecturer, Institute of Business Management Sciences, UAF
49	Dr. Abdul Naveed, Associate Professor, ORIC, UAF (0300-6602577)