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# Pakistan's Agriculture Trade with South Asia

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## Abstract

Agriculture sector has major contributor towards GDP of Pakistan and also absorbs the extensive portion of labor force. It is observed from the examination of trade data from 2010 to 2017 that integration within South Asia is limited merely with Afghanistan and India while trade with Maldives and Nepal shows negligible figures. Agriculture exports can be increased by developing value chains and trade ties with countries towards which Pakistan has limited export volume. Further, to expand the agriculture exports Pakistan must also focus on export of animals and food products. Overall agriculture growth can be achieved by making public investment in basic inputs including water and seeds through which productivity can be increased.

**Key words:** Agriculture, Food products, Livestock, South Asia, Value chains, Exports

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## Introduction

The geographical location of Pakistan provide basis for favorable environment for agriculture which is why Pakistan remained heavily reliant on the sector for employment and contribution towards GDP. Agriculture's share in GDP now stands at 18.9% whereas the total labor force absorption in the sector is 42.3% (Economic Survey of Pakistan 2017-18). In the agriculture sector livestock contributes 58.92% whereas its share in GDP is 11.11%.

Agriculture sector is facing number of challenges which includes lack of water, unavailability or lack of access towards basic inputs (Kiani et al. 2008). Public investment in agriculture sector can bridge this gap and ensures that farmers can have access towards basic inputs timely so that the agriculture production and productivity can be increase (Ahmed and Javed, 2015). Plant diseases are other factors which reduce the likelihood of getting better agriculture production (Ashraf et al, 2014). Apart from that, livestock sector also faces immense challenges as health of animals is affected from diseases such as Foot and Mouth disease (FMD).

South Asia possessed diverse climate conditions which is an advantage in a sense that it promotes production and trade of several agriculture products (Saxena et al. 2015). Regional integration is beneficial for all the member states in developing investment, trading and technology prospects which will ultimately enhance the economic growth of each country (Kher, 2012). Moreover, food security and stable prices can also be ensured through better trade integration among member states.

Pakistan's trade linkage with South Asian countries is significant for increasing agriculture trade. Major trading partner of Pakistan in terms of exports towards South Asia is Afghanistan whereas imports are coming mainly from India. Tariff and non-tariff measures implemented by India are restricting Pakistan's agriculture exports towards India (Quddus, 2014). The drawback of these restrictions is that it promotes informal trade between India and Pakistan (Ahmed et al. 2014) as a result of which both governments are facing revenues loss. These barriers can be reduced through developing regional value chains which will help in reducing cost of production and promoting gains from trade (Ahmed, et al. 2015). Trade linkages with Nepal and Maldives are negligible which can be promoted through targeting the respective markets.

In agriculture sector, Pakistan's exports are mainly based on vegetable products which account 69% of total agriculture exports during 2010-17.

**Table 1: Pakistan's Agriculture Exports (Million US \$)**

Years	01-05_Animal	06-15_Vegetable	16-24_FoodProducts
2010	457	2900	429
2011	581	4138	590
2012	615	3343	656
2013	720	3569	1275
2014	710	3438	1053
2015	706	3210	862
2016	671	2767	681
2017	689	2659	1125

<b>Total</b>	<b>5150</b>	<b>26024</b>	<b>6670</b>
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Source: WITS

Table 1 point out Pakistan's agriculture exports during 2010-17 with respect to HS chapters. Pakistan's total agriculture exports were US \$ 37844 million out of which vegetable exports were US \$ 26024. Total exports were at its maximum level during 2013 when agriculture exports were at US \$ 5564 million.

**Table 2: Pakistan's Agriculture Imports (Million US \$)**

<b>Years</b>	<b>01-05_Animal</b>	<b>06-15_Vegetable</b>	<b>16-24_FoodProd</b>
2010	113	3668	1178
2011	154	4567	562
2012	153	4238	551
2013	147	3765	627
2014	187	4576	902
2015	261	4347	814
2016	251	5106	638
2017	249	5976	669
<b>Total</b>	<b>1516</b>	<b>36242</b>	<b>5941</b>

Source: WITS

On the other hand, Pakistan's major agriculture import is also based on vegetable products as its share in total agriculture imports during 2010-17 is 96%. Agriculture imports are increasing with the passage of time and in 2017, total imports were at the maximum point with US \$ 6894 million.

### **Literature Review**

Raza and Siddiqui (2014) identified the determinants of agriculture output in Pakistan which includes better seed quality, water availability, number of tube-wells and tractors and labor force. Availability of these factors ensures better agriculture output. Kiani et al. (2008) also examined the positive impact of number of tractors, tube-wells and research spending on total factor productivity. Usage of fertilizer, agriculture credit and human capital are other factors which contribute towards agriculture growth (Ahmad and Heng, 2012). The availability of fertilizers at affordable rates and provision of agriculture credit can enhance the total factor productivity.

Lack of significant growth in agriculture sector can be attributed to the traditional practices which are still in use and they are required to be replaced with modern techniques which involve packing and storing of food especially perishable products (Hamid and Ahmad, 2006).

The agriculture exports are affected due to restrictions implemented by European Union and NAFTA, and to counter this Pakistan must look into South Asian region where it has export potential with countries such as Bangladesh and Sri Lanka (Gul and Yaseen, 2011). Regional trade agreements in this regard can play a substantial role to promote agriculture exports of Pakistan (Atif, 2016). Agriculture subsidies issues among India and Pakistan condenses the trade

flow which can be countered with technology trade as it will be helpful for agriculture sector growth (Chand and Saxena, 2016).

Livestock sector is major component in agriculture sector which provides food security to households, however animal diseases are serious threat for livestock (FAO, 2010). Disease outbreak also affects the trade pattern as there are number of examples including restrictions imposed by Nepal on poultry imports from India (WHO, 2007). Transboundary Animal Diseases in South Asia reduces the price and market of livestock (SAARC, 2013) and to tackle the issue regional and global strategies are required.

Foot and Mouth Disease (FMD) is major disease which is affecting the health of animals and also causing revenue shortfall for farmers (Awan, 2009). The prevalence of disease is also due to the informal trade of animals and animal products (Afzal, 2009). Lack of quarantine inspection increases the likelihood of disease spread which can be reduced through promoting vaccine production and quality control of veterinary drugs.

Plant diseases reduces the output and the major factors behind inability to control the losses include lack of finance and higher input cost which limits the farmers' income to spend on pest control sprays (Ashraf et al, 2014). Virus attacks are observed quite often in Pakistan which results in output loss (Arif et al, 2005). The inability of farmers to track the diseases at time is also one element behind spread of pest related diseases (Iqbal et al. 2009).

Climate change affected the agriculture output and growth due to which food security issue has intensified (Ahmed, 2016). Input cost, indirect taxes and lack of technology and credit issues have halted the agriculture growth. With the loss in production, revenues for farmers have reduced (Ahmed and Zeshan, 2014). For these reasons, public investment in agriculture is vital for sustainable development as it helps farmers more access towards quality inputs including fertilizers and seeds (Ahmed and Javed, 2015). Federal government of Pakistan has a key role to play in ensuring equality among provinces so that development expenditures on agriculture should be spent.

Lower growth rates for agriculture over longer period have increased the poverty in Pakistan (Malik, 2015) for which role of market forces must be promoted. Agriculture value chains are required to develop through which agriculture production can be enhanced and revenue generation for farmers can be ensured. Pre and post-harvest losses are causing lower agriculture growth rate for which main causes are lower investment in research and development, lack of water availability and inefficient use of farm size (Qureshi, 2009). Investment in research and technology development can boost the agriculture output (Malik, 2007).

## **Results and Discussion**

Pakistan's agriculture sector has observed growth of 3.8% in FY 2017-18 as contrary to the FY 2016-17 when it was 2.1% (Economic Survey of Pakistan 2017-18).

### **Pakistan's Agriculture Trade with South Asia**

The exports and imports to the world and South Asian region are discussed in table 3.

**Table 3: Total Agriculture Trade of Pakistan 2010-17 (US \$ Million)**

<b>Exports</b>	<b>01-05_Animal</b>	<b>06-15_Vegetable</b>	<b>16-24_FoodProducts</b>	<b>Total</b>
World	5150	26024	6670	37844
South Asia	1339	6794	2053	9553
% share of South Asia	13.7	26.1	30.8	25.2
<b>Imports</b>				
World	1516	36242	5941	43700
South Asia	122	3381	1477	4979
% share of South Asia	8.0	9.3	24.9	11.4

Source: WITS

Table 3 shows that Pakistan's total exports of agriculture sector amounting US \$ 37844 million during period of 2010-17 whereas the imports were US \$ 43700 million, thus the imports are higher as compared to exports volume. Pakistan is importing more vegetable products as compared to exporting it due to which overall imports in agriculture sector are higher than exports. On the other hand, exports of animals and food products are higher than that of imports.

If we look at the scenario for South Asia, vegetable exports towards the region are more than the imports so Pakistan contains the advantage within South Asian region and further exports can be increased if Pakistan integrates more into the region. Overall exporting volume with South Asian countries is also higher than the imports which depict Pakistan's dominance in agriculture sector within South Asian region.

**Table 4: Animal's Exports to South Asian Countries (Value in 1000 US \$)**

<b>Countries</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total</b>
Afghanistan	66912	94303	90415	112465	92997	74716	64611	62015	658435
Bangladesh	1310	660	1274	2238	1058	1977	1119	1045	10681
India	757	802	1086	72	203	671	991	170	4752
Maldives	-	0.4	-	-	0.007	28.7	40.1	-	69
Nepal	-	14.2	6.8	-	7.1	-	-	-	28
Srilanka	3490	3348	2667	4744	4039	5081	4433	3958	31760

Source: WITS

Major export partner of Pakistan in animal products is Afghanistan with total exports of US \$ 658435 thousands from 2010-17. This is due to the fact that demand of food products in Afghanistan is quite high<sup>2</sup>. Further trade can be strengthen with development of roads and railways through which integration of cities between Afghanistan and Pakistan can become possible (Ahmed and Shabbir, 2016). Srilanka is other major destination for Pakistan's export of animals with US \$ 31760 thousands. The least exports volume is with Nepal and also there exist discontinuation as in some years Pakistan does not export animals at all for which reasons include higher custom duties and tariffs, lack of interaction among business community (Muhammad et al. 2015).

<sup>2</sup> Our dwindling exports to Afghanistan <https://dailytimes.com.pk/220474/our-dwindling-exports-to-afghanistan/>

**Table 5: Animal's Imports from South Asian Countries (Value in 1000 US \$)**

Countries	2010	2011	2012	2013	2014	2015	2016	2017	Total
Afghanistan	198	383	123	555	156	260	444	696	2816
Bangladesh	44.1	20.2	80.3	75.9	-	0.2	0.2	-	221
India	5527	6472	7153	18837	32013	19302	21450	7658	118411
Maldives	-	-	-	-	-	-	-	-	0
Nepal	85.7	52.0	21.8	0.5		-	3	-	163
Srilanka	3	3	3	11	6	5	8	11	49

Source: WITS

India is the top exporter of animals to Pakistan in South Asian region with US \$ 118411 thousands during 2010-17 (Table 5). However, since 2014 imports from India are declining and now in 2017, imports only accounted US \$ 7658 thousands. Afghanistan is second major destination for animal imports and the highest import volume was observed in 2017 when imports volume reached at US \$ 696 thousands. Apart from these two countries, import volume is negligible from other countries.

**Table 6: Vegetable Exports to South Asian Countries (Value in 1000 US \$)**

Countries	2010	2011	2012	2013	2014	2015	2016	2017	Total
Afghanistan	348267	883500	839429	761928	617310	746801	530032	449821	5177088
Bangladesh	100895	290992	6528	15556	10186	13054	6437	17654	461301
India	50835	56658	76617	97448	82673	77514	98517	97964	638225
Maldives	2061	2893	3357	4092	3853	3754	3130	3295	
Nepal	1.9	324.9	683.7	102.8	175.0	20.2	1.3	0.1	1310
Srilanka	81627	128381	47617	65616	52208	43943	31348	39078	489820

Source: WITS

Afghanistan is also major destination for Pakistan's vegetable exports as the export volume stands at US \$ 5177088 thousands from 2010-2017. India is the second major export market for vegetable products as the export volume during 2010-17 was US \$ 638225 thousands. Free Trade Agreement between Pakistan and Srilanka was signed in 2002 and became effective in 2005. Pakistan's fruits and vegetable exports toward Srilanka dropped after 2011 as duty structure on various vegetables was changed by Srilanka, thus Pakistani exporters lost FTA concessions between both countries (PBC, 2015). However, Srilanka is now keen to increase trade ties with Pakistan particularly in fruits and vegetables<sup>3</sup>.

<sup>3</sup> Sri Lanka keen to enhance trade ties with Pakistan, <https://nation.com.pk/20-Dec-2017/sri-lanka-keen-to-enhance-trade-with-pakistan>

**Table 7: Vegetable Imports from South Asian Countries (Value in 1000 US \$)**

Countries	2010	2011	2012	2013	2014	2015	2016	2017	Total
Afghanistan	27004	37011	50000	59596	100355	194297	186328	203096	857688
Bangladesh	2330	2292	2186	1193	3211	1342	883	3214	16651
India	224697	257625	314410	325317	390710	275882	272248	157072	2217962
Maldives	-	-	-	-	-	-	-	0.007	0
Nepal	132.6	108.7	260.7	15.1	28.0	16.3	76.1	128.9	766
Srilanka	21070	22068	48741	35575	34497	45659	43026	37141	287776

Source: WITS

Total import volume of vegetables from India was US \$ 2217962 thousands during 2010-17 (Table 7). It can be observed that after 2014, the imports volume decreased considerably. Pakistan imports vegetables of US \$ 857688 thousands from Afghanistan in the same time period and the import volume kept on increasing with each year. Srilanka is also exporting vegetables to Pakistan which amounts US \$ 287776 thousands during 2010-17.

**Table 8: Food Products Exports to South Asian Countries (Value in 1000 US \$)**

Countries	2010	2011	2012	2013	2014	2015	2016	2017	Total
Afghanistan	62977	128323	156232	294849	310789	312060	215799	378986	1860017
Bangladesh	1414	1965	1073	1234	1500	1023	1278	1122	10609
India	2240	3862	4858	29766	3134	3436	5944	12042	65282
Maldives	408	557	566	684	1029	1046	1045	608	5942
Nepal		5	20	66	18		46	1263	1419
Srilanka	5062	8297	12726	38306	5965	11951	12385	15321	110013

Source: WITS

In South Asian region, Pakistan's food products are mainly going towards Afghanistan as the total exports during 2010-17 were US \$ 1860017 thousands (Table 8). Apart from 2016, export volume increases every year and in 2017 food products exports to Afghanistan were US \$ 378986 thousands. Srilanka is second largest export destination for export of food products with US \$ 110013 thousands during 2010-17. Although Pakistan Agriculture Research Council, Ministry of Food, Agriculture & Livestock and Bangladesh Agriculture Research Council have MoUs among them but the total trade volume between two countries is merely US \$ 10609 thousands during 2010-17. Similarly, Pakistan only exported US \$ 65282 thousands to India from 2010-17 despite of large market.

**Table 9: Food Products Imports from South Asian Countries (Value in 1000 US \$)**

Countries	2010	2011	2012	2013	2014	2015	2016	2017	Total
Afghanistan	234	141	54	20	183	108	548	200	1488
Bangladesh	3460	3963	2762	2833	3994	2776	3734	3748	27268
India	290137	240289	269667	302114	219342	88733	16831	17747	1444861
Maldives	-	-	-	26.438	-	0.525	-	0.02	27
Nepal	96.4	147.7	174.3	-	3.3	-	-	0.3	422



Srilanka	291	162	460	158	189	205	587	479	2531
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Source: WITS

Food products from South Asian region are largely coming from India which amounts US \$ 1444861 thousands during 2010-17. However, the trend is declining as after 2013 imports continuously declined from India. Other major importing country was Bangladesh from which Pakistan imports food products of US \$ 27268 thousands.

### **Conclusion**

Pakistan's agriculture exports in South Asia are mainly going towards Afghanistan and despite of huge market, exports towards India are not up to the desired potential. In agriculture, exports towards South Asian markets are mostly based on vegetable products. Pakistan has limited export volume towards Maldives and Nepal which demonstrates integration within South Asia is limited. For further trade promotion in existing markets and countries where export volume is low, agriculture value chains can be a viable option. Apart from this, food products and animal exports can also bring forth export revenues. In order for agriculture growth, Pakistan must learn from the practices in India where government is giving subsidized inputs to farmers and also investing in research and development to develop new varieties of seeds which are less water intensive and pest resistant (Quddus, 2014).

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