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Potential of Potato Exports from Pakistan



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Executive Summary

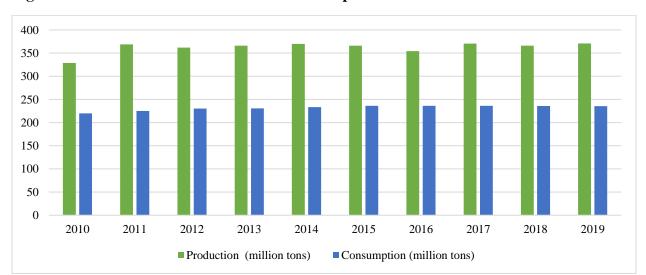
Potatoes are the world's most important food crop and are regularly consumed by billions of people around the world. According to the most recent FAO statistics, total global potato production is estimated at 371 million metric tons, with 236 million metric tons consumed globally. The gap between the production and consumption of table potatoes is filled by utilizing potatoes for various value-added products. Global potato consumption is now changing from fresh potatoes to value-added products. The top five potato-producing countries in the world are China, India, Ukraine, the Russian Federation, and the United States.

In Pakistan, potatoes are one of the major staples after wheat, rice, and corn, which have a significant contribution to national domestic consumption and food needs. According to the Ministry of National Food Security and Research, potato production has jumped to 7.74 million tons in 2021-22 as compared to an estimated 4.55 million tons in 2020, which is an increase of almost 50% as compared to the last year. In Pakistan, the major production is concentrated in Punjab, followed by Khyber Pakhtunkhwa (KPK).

Potatoes are a major crop in Pakistan and have great potential to increase revenue through exports. Statistics reveal that the export growth for Pakistan has mostly remained positive in the past decade, except for some years. According to 2021 statistics, Pakistan contributes the US \$112 million to the global market through potato exports. As of the year 2021, the top five destinations for Pakistani potatoes are Afghanistan, Sri Lanka, the UAE, the Russian Federation, and Qatar. Exports to Afghanistan have increased to US \$29 million and US \$15 million to the Russian Federation in 2021, as compared to the US \$3 million and the US \$2.7 million in 2020, respectively. Potato production in Pakistan is increasing progressively and is expected to further increase in the coming years. This situation demands increasing the potato exports from Pakistan, which can only be done by increasing our share in the importing countries where we are already marketing and also by exploring the potential new markets for exports. Among the top existing markets are Azerbaijan, Uzbekistan, Oman, Malaysia, Tajikistan, Kazakhstan, and Russia, whereas the newly identified markets are Egypt, Bangladesh, and India.

1- Introduction

Potatoes are one of the four staple foods cultivated and consumed widely in many parts of the world. There are several types and varieties that are cultivated all around to suit the local agroclimatic conditions, food habits, and other socio-economic factors. Most of the potato is used as "table potato", whereas hundreds of value-added products have also been developed and are used all over. Potatoes are a rich source of nutrition as one hundred grams of potatoes contains 77% water, 1.9% protein, 20% carbohydrates, 0.9% sugar, 1.8% fiber, and 0.15 fat. The potatoes' carbohydrates contain 60-80% starch by dry weight. According to FAO estimates, in 2020, over 359 million metric tons of potatoes were produced worldwide. During the last decade, potato production exhibited an increase from a production volume of 329 million tons in 2010 to 371 million tons in 2019 (Figure 1). Worldwide potato consumption, on the other hand, showed a slow increase from 220 million tons in 2010 to 236 million tons in 2019. The gap between the production and consumption of table potatoes is filled by utilizing potatoes for value-added products in food and industry (Soare and Chiurciu, 2021).





Source: FAOSTAT

Figure 1 clearly shows that the overall consumption of table potato has remained almost stagnant during the last ten years despite the increase in production that ranged between 329 and 371 million tons.

Figure 2 shows the trend between population growth and consumption of potato in the world. The world average population has grown at a rate of $\sim 1.1\%$ from 2010 – 2020, with very low variations on yearly basis. However, there is a decline in the consumption of table potato from 2.43% in 2010 to -0.012 % in 2019 in the world. According to the Soare and Chiurciu (2021), the consumption of potatoes in the less developed countries is on an increasing trend and in the developed countries the consumption of potatoes is on a decreasing trend.

It is now well established that the global potato consumption is changing from fresh potatoes to processed potato or value-added products (Planning Commission of Pakistan). According to Throne (2012), the per capita consumption of table potato has decreased and the use of potatoes has shifted from consumption of table stock potatoes towards processed value added potato products.

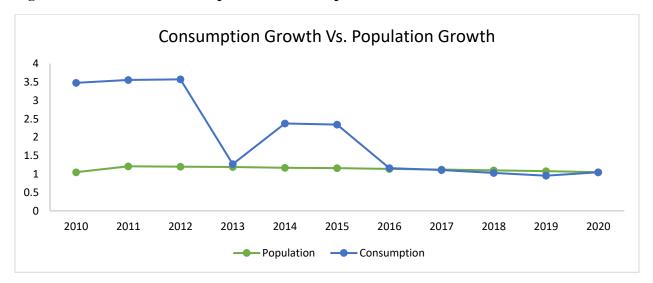


Figure 2: World Potato Consumption vs. World Population Growth

According to FAO statistics (2020), the top five potato producing countries in the word are China, India, Ukraine, Russian Federation and United States. China and India are the largest producers of potato with a total production of 78 million tons and 51.8 million tons respectively and about one-third of the potatoes in the world are produced by these two countries. ¹ It can be seen in the figure below that China is the largest producer with 40% share in total world

Source: FAOSTAT, World Bank

¹ <u>https://www.statista.com/statistics/382174/global-potato-production/</u>

production. India is 2nd largest producer with 26% share while Pakistan has only 4% share in total world potato production.

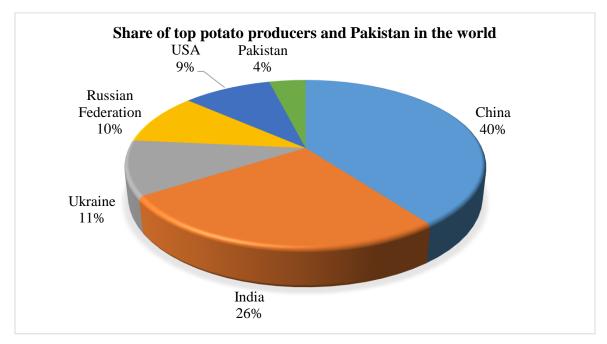


Figure 3 Share of Top Potato Producers in the World

Pakistan stands at 19th position in terms potato production and 16th and in terms of area cultivated for potato production. However per hectare yields in Pakistan are much less than other parts of the world as Pakistan stands at 54th position.

2-Potato production trend in Pakistan

In Pakistan, Potato is the fourth most important crop after wheat, rice and corn (Khan, Ullah and Murtaza, 2020). It is one of the four major staples which has a significant contribution to national domestic consumption and food needs (Majeed and Zia, 2018). There is a gradual increase in potato production in Pakistan. During 2020, potato production was estimated to be 4.55 million tons utilizing the cultivated area of 234,400 hectares. ²However, in 2021-22, according to MNFS&R the potato production has jumped to 7.74 million tons which is an increase of almost 50% as compared to the last year. Figure 4 shows that the potato production in Pakistan is on

Source: FAOSTAT

² Ministry of National Food Security and Research Statistics-2020

continuous increase since 2010, whereas the consumption trend is more or less stagnant to range between 3.07 in 2010 to 3.31 million tons in 2021. In the last decade Pakistan produced not only enough potato to cater its needs but had surplus to export except in 2010 and 2014.

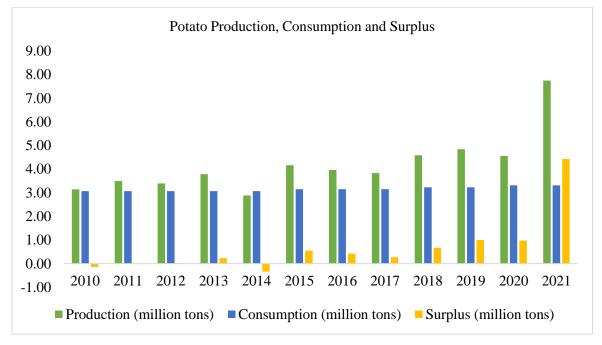


Figure 4: Potato Production, Consumption & Surplus for Pakistan

Potato is grown throughout the country of Pakistan, however the major production (94%) is concentrated in Punjab (93.6%), followed by Khyber Pakhtunkhwa (5.17%), Balochistan (1%), and Sindh (0.33%). There are two major potato clusters, one is in Punjab (Okara) and the other one in GB (Hunza).³

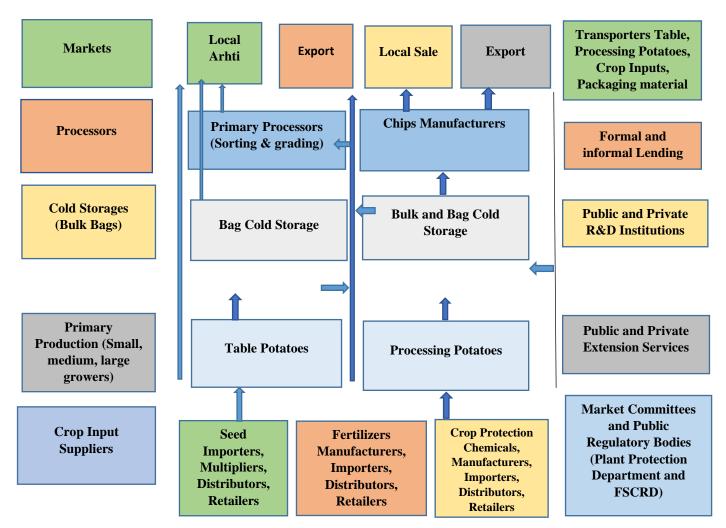
3-Potato Value Chain

Seed, fertilizers, crop protection chemicals, farm machinery, distributors and retailers costs are the main cost input in the value chain (VC). Figure 5 shows the complete description of potato value chain in Pakistan.

Source: Ministry of National Food Security & Research (MNFS&R), FAOSTAT

³ <u>https://www.pc.gov.pk/uploads/report/Potato_Cluster_Report.pdf</u>





Source: Planning commission of Pakistan & SBP

Potato cultivation involves a lot of inputs before sowing and throughout the growing period. Huge costs are involved in agronomic practices viz. seed preparation, fertilizer and plant protection measures (Ahmad *et.al*, 2005). Most of pheasants in the value chain are small farmers, being the primary producers and the key players in the food supply chain. Yet, they remain the most sidelined in the value chain (Hassan *et.al.*,2021).

4-Export of potato from Pakistan

At present according to 2021 trade map figures, Pakistan's share in a \$4.4 billion global potato market is just \$112 million. Current standing of Pakistan in terms of exports is 12th and it represents 1.6% of world total potato exports. Currently, the top export destinations of Pakistan

are Sri Lanka, UAE, Qatar, Malaysia, and Oman. Most of our potato goes to Sri Lanka and Oman. Beside these top five importing countries a substantial quantities are exported to nonconventional markets like Afghanistan, Russian Federation, Azerbaijan, Iraq etc.

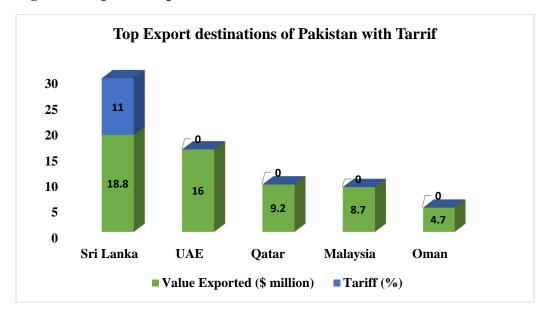


Figure 6: Top Five Export destinations with Tariff

Figure 7 below shows the trend of potato exports from 2016 to 2021. It can be seen that potato export growth has remained positive during 2017 and 2018 but there is a negative growth during 2019 and 2020, the reason for this decline was Covid-19. However, the growth in exports has increased after 2020.

Source: ITC, Trade Map

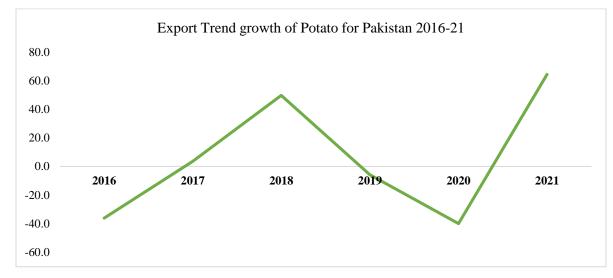


Figure 7: Export Trend of Pakistan during last 5 years

Source: ITC Trade Map

4.1- Impact of local potato price on exports in Pakistan

Local market price and the price offered by international market plays a key role on exports. In years when the local price is higher there is a decline in potato exports as the traders get enough margins locally. In the years 2013, 2016, 2019 and 2020 the international prices were less than local prices that left little incentives for the exporters to sell their product in international market. However, there were other factors that contributed to the exports specially the market disruption due to Covid 19.

Figure 8 depicts the difference between average domestic price of Potato in Pakistan and the price at which Pakistan has exported potato to the world. The difference shows that whenever the domestic price has remained low, the quantity of potato exported has increased and Vice versa.

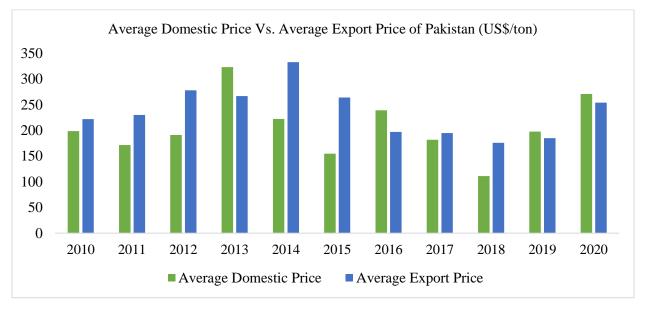


Figure 8: Comparison of Average Domestic Price and Average Export Price of Pakistan

Source: Pakistan Bureau of Statistics (PBS) & ITC, Trade Map



Figure 9: Comparison of Average Domestic Price and Quantity Exported

Source: <u>https://www.potatopro.com/pakistan/potato-</u>, https://www.selinawamucii.com/insights/prices/pakistan/potatoes/

5- Potential Markets for Exports of Potato from Pakistan

The potato production in Pakistan is increasing progressively and is expected to further increase in the coming years. However the past trend shows that potato consumption is not likely to change in the coming years. This situation demands increasing the potato exports from Pakistan which can only be done by increasing our share in the importing countries where we are already marketing and also by exploring the potential new markets for our exports. This study covers both the areas as it explores further expansion potential of existing export markets and also looks into the potential of exploring the possible new markets to increase the potato exports from Pakistan.

5.1- Potential Existing Markets for Potato

Table 1 shows the existing markets for the export of potato by Pakistan are Azerbaijan, Uzbekistan Oman, Malaysia, Tajikistan, Kazakhstan, and Russia. Different intrinsic and exotic factors that regulates and determine the import of potato in these countries are documented in the table viz. potato production, consumption, import requirements and sources of imports in these countries etc. etc. The table also highlight the export of potatoes from Pakistan to these countries during different years and further potential of increasing the exports.

Among the existing markets outlined in table 1 countries where Pakistan is already exporting at its full potential have not been included as there is less space of expansion. Five countries to include Kazakhstan, Tajikistan, Azerbaijan, Uzbekistan and Russia belong to Central Asia. Whereas Malaysia is from Far-East and Oman from Gulf. Kazakhstan is a good producer of potato. However, due to higher per capita consumption of about 110 kg annually the country traditionally imports from the Russian Federation, if required. The higher potato prices in Russia in 2021 compelled Kazakhstan to diversify its imports and these were met by the imports from Pakistan, Iran, Afghanistan, and Kyrgyzstan. In 2022, it is expected that potato harvest in Northern areas of Kazakhstan will be exported to Russian markets due to higher prices in Russia and three countries will be looking for potato imports from other sources.

Table 1. Potential of market expansion in the existing markets where Pakistan is already exporting its potato

ts	million	mption (ts of the nillion)	kports	kistan		Major					
Potato exports markets	Production (million tons)	Total Consumption (million tons)	Total imports of the countries (\$million)	Pakistan's exports (\$million)	Share of Pakistan (%)	Tariff (%)	Country	Total exports (\$million)	Price (\$/ton)	Tariff (%)	Economic Feasibility	
Azerbaijan	1.03	0.73	49.5	0.5	1.01	13.8	Iran	23.6	241	13.8	Good	
Azerbaijan	1.05	0.75	49.5	0.5	1.01	13.0	Russian Federation	23.5	296	0	G000	
Uzbekistan	2 1 /	2.93	64.5	21.63	33.5	10	Kazakhstan	24.2	80	0	Carl	
UZUEKIStali	5.14	2.95	04.5	21.05	55.5	10	Russian Federation	8.6	123	0	Good	
							Egypt	8.5	393	0		
Oman	0.016	0.11	20.2	5.3	26.2	0	India	6.5	283	0	Good	
							Germany	4.15	268	0		
	NA			6.9	8.5	0	China	44.6	331	0	Good	
Malazzaia		0.44	81.4				Bangladesh	9.2	301	0		
Malaysia N							USA	6.4	746	0		
							India	5.4	381	0		
T 1	0.00	0.25	2 70	2.7	00.1	12.4	Russian Federation	1.2	222	0	Moderate	
Tajikistan	0.98	0.98 0.35	3.79	3.7	98.1	13.4	Kazakhstan	0.78	216	0		
Vanalshat	4.01	2.09	16	1 5 1	22.0	9 6.9	Russian Federation	2.3	60	0	Madanata	
Kazakhstan	4.01	01 2.08	4.6	1.51	32.9		Iran	0.7	201	6.9	-Moderate	
							Egypt	73.5	378	7	Good	
Russia	20	13-15	210.2	17.9	8.5	6.9	Azerbaijan	30.9	446	0		
							Belarus	5.4	247	0		

Source: FAOSTAT, ITC, Trade Map

Tajikistan produces about 1 million tons of potato. However, its requirement is 1.4 million tons to feed the population at the rate of 92 kg/annum/person. According to official data, Tajikistan does not import or export potatoes. However, there is a huge difference in potato prices in Uzbekistan and Tajikistan (almost double) which leads to cross-border transactions. The shortages are generally met by buying potatoes from Kyrgyzstan. However, due to new restrictions, the border most of the time is closed between the two countries. Moreover, as a result, of regional situation, the demand for Kyrgyzstan potatoes has gone much high.

Malaysia imports potato worth US\$ 81.4 million annually. Most of the imports are made from China (52%), whereas Pakistan and Bangladesh are the next major exporters (about 10% each). There is no record of potato cultivation in Malaysia. However, sweet potato is widely cultivated.

Pakistan stands a good chance of increasing its exports to Malaysia as it imports palm oil from Malaysia and can demand to balance the trade between the two countries.

Oman imports potato from Pakistan since 2012. However, the quantities have fluctuated widely in different years. Pakistan's share in total imports is about 26.2% that values 5.3 million US\$. The major imports are from Egypt followed by India. There is a good potential in increasing the exports of potatoes to Oman.

Azerbaijan is a potato consuming country with a per capita per annum consumption of about 80 kg. The total requirement is 0.73 million tons and the production is 1.04 million tons. Azerbaijan is a trading hub for all the countries of Central Asia and besides its own surplus imports it sources potato from other countries for marketing in the region. Pakistan exports potato to Azerbaijan worth less than 0.5 million US\$ and its share is about 1% to the total imports. Azerbaijan is a good market for exploring potato exports due to increased prices of potato in Central Asian countries and Russian Federation.

Uzbekistan is another potato-consuming country with an average potato consumption of about 86 kg/capita/annum. The country produces about 3.14 million tons of potato against its requirements of 2.93 million tons. Due to narrow gap between production and consumption the imports are largely met from Kazakhstan and Russian Federation. The Uzbek potato instead of coming to main markets is also sold to Russian markets in nearby border areas. Pakistan's share in their imports is 33.5%.

Russian Federation produces about 20 million tons of potato. Whereas its requirement is about 15 million tons. The per capita per annum potato requirement is 108 kg. Country imports potato worth 210.2 million US\$. More than half is imported from Egypt followed by Azerbaijan and little quantities from Belarus. Pakistan's total potato exports to Russian Federation is 17.9 million US\$ and is 8.5% of the total potato imports. According to Pakistan Business Council, among other products, potato stands good potential for inclusion in a potential FTA/PTA. Pakistan was the 4th largest potato import sourcing market for Russia in 2020 having a share of 3.4 percent in Russia's total potato imports from the world. However, for Pakistan to be able to access the Russian market, Pakistan needs to adopt various value-addition techniques

5.2- Exploring new markets for the export of potato

Iraq, Turkmenistan, Kuwait and Turkey can be the new markets that regularly imports potato from other countries and have not been explored by our exporters.

As shown in the table 2, Iraq produces 0.67 million tons of potato and its imports value 75.7 million US\$. The production-consumption gaps are met by imports from Iran (30 million US\$) Netherlands (18 million US\$).

Kuwait produces a negligible quantity of potato and requirements are met by the imports. The country's total imports values at 37.5 million USD from Egypt, Lebanon, and Syria. Pakistan's total export to Kuwait worth 2.5 million USD with a share of 6.2%.

Turkmenistan produces about 0.3 million tons of potato every year. The shortages are largely met by imports from Russian Federation, Kazakhstan, and Iran. However, due to pandemic, the border with Iran was closed, the country faced a shortage resulting in high prices in the local market. The total value of potato imports is 8.9 USD and Pakistan's share in this market is zero. Since the country is working on increasing its own production and also looking for diversifying its imports, Pakistan has a chance to enter this market.

ts	on	u (i	ts of s	exports	istan orts	Μ				
Potato exports markets	Production of potato (million tons)	Total Consumption (million tons)	Total imports the countries (\$million)	Pakistan's e (\$million)	share of Pakistan in total imports (%)	Country	total exports (\$million)	Price (\$/ton)	Tariff (%)	Economic Feasibility
Iroa	0.67	0.7	75.7	0	0	Iran	30.3	129	-	Good
Iraq	0.07	0.7	15.1	0		Netherlands	18.1	711	-	
						Egypt	9.6	403	0	
Kuwait	0.044	0.14	37.5	2.46		Lebanon	8.9	346	0	Good
						Syria	4.7	335	0	
						Russia	3.6	168	-	
Turkmenistan	0.3	0.2	8.9	-	-	Kazakhstan	3.2	152	-	Poor
						Iran	1.5	151	-	
						Netherlands	10	720	20	
Turkey	5	3.9	17	-	-	France	2	761	20	Moderate
						Germany	2.1	532	20	

Table 2. New Potential Markets for Potato Exports

Source: FAOSTAT, ITC Trade Map

Kyrgyzstan produces about 1.4 million tons of Potato annually. The shortages that accounts for 0.424 million tons are met by imports from Kazakhstan and Russia. Due to higher prices in the region, there is a chance to export to Kyrgyzstan.

6-Trade routes of potato in central Asian countries

Potato is one of the staple food in central Asian countries and its per capita annual consumption is among the highest in the world. There is a frequent movement of potato from one country to another and in case of a regional shortage potato from Iran, Afghanistan and Pakistan are also imported to meet the shortage, Figure 10 highlights the possible trade related movement of potatoes in the region. This pattern changes as per demand, cost-economics and availability of resources.

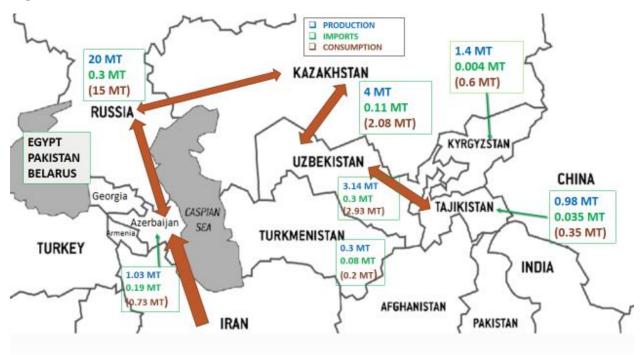


Figure 10: Trade of Potato in Central Asian Countries

Source: Author's illustration

The figure shows that potato is transported from Tajikistan to Uzbekistan, Uzbekistan-Kazakhstan, Kazakhstan-Russia, Iran-Russia and Russia-Iran. These central Asian countries are landlocked and most of the trade occurs within their borders in order to meet the demand. Kazakhstan is the largest potato producer among these countries. Kazakh potatoes are exported mainly to Uzbekistan, Turkmenistan and Tajikistan. Kazakhstan meets its demand through imports from Russia, however, potatoes in Russia were too expensive in 2021and the prices almost doubled the level of 2019 and 2020. Resultantly Kazakhstan has to search for alternative markets for potato imports. Azerbaijan is the largest market for Iranian potatoes, but it is believed that potatoes are re-exported to Russia from Azerbaijan.

6.1- Discussion on comparative yield, production, consumption and surplus in potential export markets

Figure 11 shows the average per hectare yield of potential export markets and Pakistan. Turkey ranks the highest in terms of average yield producing approx. 34 tons per hectare followed by Uzbekistan, Oman and Iraq. Pakistan is at 5th position among these markets in terms of yield per hectare. It can be concluded from the graph that Iraq's average yield from 2010-15 to 2016-20 has increased by 58% which is the highest increase among all the potential markets.

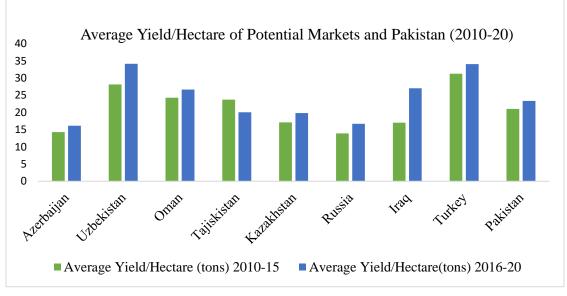


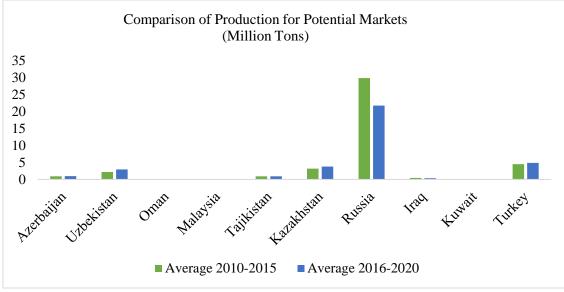
Figure 11: Potato Average Yield/Hectare of Potential Markets and Pakistan

Source: FAOSTAT

Russia is the world's 5th largest producer of potato after China, India and Ukraine. It has the highest average production of 21.7 million tons (2016-20) with an average consumption of 13.3 million tons of table potato and a surplus production of 8.66 million tons. Beside the local surplus Russia imports potato for its value added products.

Figure 12 shows the production of potatoes in the potential markets where potato can be exported. Russia's average potato consumption is highest among all the potential markets, it was 15.7 million tons between 2010-2015 and thereafter there is a decline in consumption by 15% due to decrease in table potato consumption and increased use of processed food i.e., chips mainly due to greater access to a variety of foods and higher income levels (Vassilieva, 2013). Among the countries where potentially potatoes can be exported the 2nd largest potato consumer is Turkey with an average consumption of almost 3.7 million tons, there is no significant change in availability of surplus in these markets as depicted in Figure 12. Russia's average surplus was 14.1 million tons between 2010 and 2015 that went down by 38 percent between 2016 and 2020 mainly due to decrease in production. Kazakhstan has the second highest surplus followed by Turkey and Tajikistan. Iraq and Kuwait has negative surplus.

Figure 12: Production of Potato in Potential Export Markets



Source: FAOSTAT

Figure 13: Consumption of Potato in Potential Export Markets

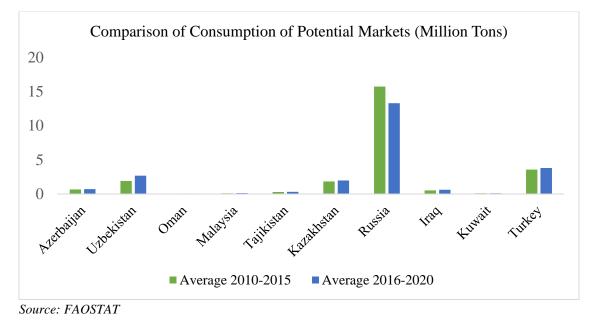
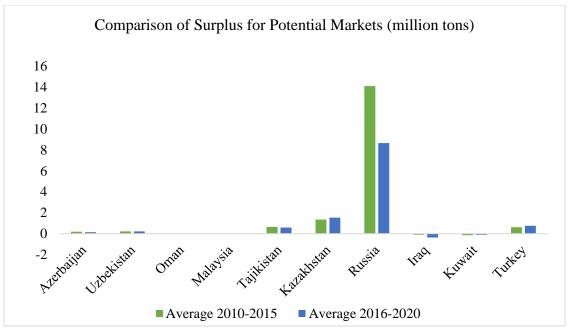


Figure 14: Availability of surplus potato in potential export markets



Source: FAOSTAT

Among the existing and new potential markets, Iraq has the highest wholesale price of US\$ 1360 per ton followed by Malaysia US\$ 920, Kuwait US\$ 850. However, Tajikistan offers the lowest wholesale price US\$ 210 per ton. Figure 15 shows the whole sale price of potato in various markets. It is obvious that Iraq, Malaysia and Kuwait offered the maximum price.





Source: https://www.selinawamucii.com/

7- Competitor Analysis

In this section we have discussed Pakistan's competitor countries in some of the potential markets on the basis of exported quantities and export price. In Kuwait our competitor country is Egypt.

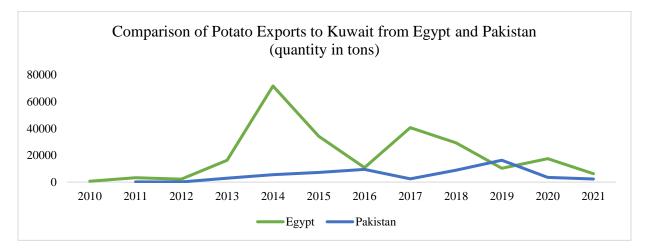
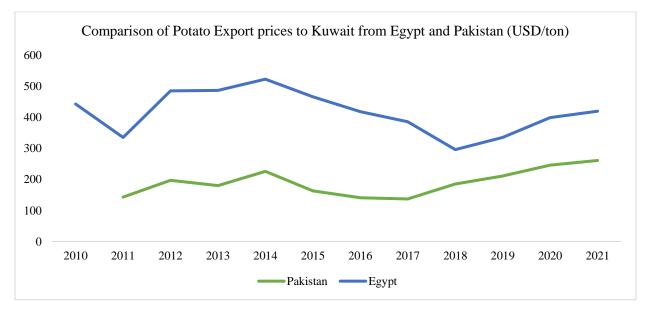


Figure 16: Comparison of Potato Exports to Kuwait from Egypt & Pakistan

Source: ITC, Trade Map

The above graph depicts the comparison of quantity of potato exported to Kuwait from Pakistan and Egypt. It can be seen from the trend line that Egypt is the key player in Kuwait for potato exports. From 2010 to 2021 Kuwait's potato exports remained higher from Egypt as compared to Pakistan except 2019.

In fact that Pakistan's export price is much lower than Egypt as shown in figure 17. One of the main reason for this difference is the better quality of Egyptian potatoes.



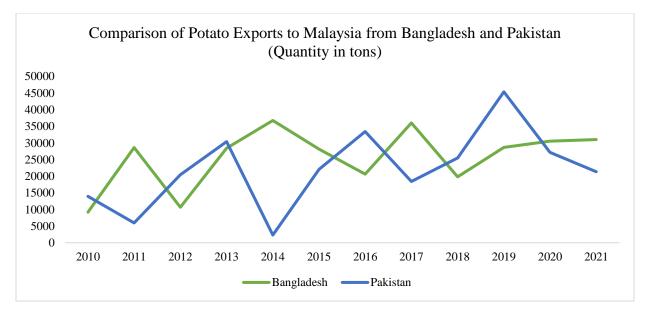


Source: ITC, Trade Map

Malaysia is top export destination of Bangladesh for potato exports. Bangladesh's share in total potato export of Malaysia is 14% while Pakistan's share is 9.8 percent. It is pertinent here to mention that 57% of the market share of potato imports to Malaysia is with China. Bangladesh is the second largest exporter to Malaysia followed by Pakistan.

One of the major reasons for China to be the top potato exporter to Malaysia is that China is the largest producer of potato in the world. The reason for selecting Bangladesh as a competitor for Pakistan in Malaysia is that the difference between shares of export of both countries is not that high. Pakistan's share can be increased easily in Malaysia given Pakistan's 2021 potato production which is 7.74 million tons.

Figure 18: Comparison of quantity exported from Bangladesh and Pakistan to Malaysia



Source: ITC, Trade Map

According to FAO, there is a drastic decline in Pakistan exports in 2014 due to decline in potato production by 23 percent in the same year.

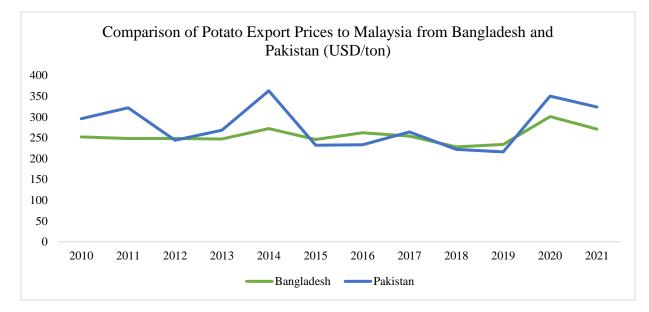


Figure 19: Export Price Comparison of Bangladesh and Pakistan

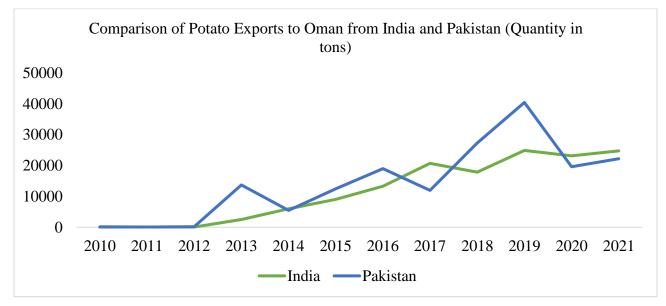
Source: ITC, Trade Map

Pakistan's export price of potato remained high as compared to Bangladesh over the years except for 2012, 2015, and 2018-19.

In Oman, Pakistan's competitor is India. Figure 20 and 21 shows the quantity exported and export price comparison of Pakistan and India. The quantity exported from India to Oman has remained high during the years 2020 and 2021.

India's exports to Oman is growing at steady rate as seen in figure 20 however, more fluctuations can be seen in the exports from Pakistan to Oman. However, the export price offered by India to Oman has remained high throughout the years as compared Pakistan. Despite low export price per ton offered by Pakistan, Oman's imports of Potato from Pakistan is decreasing.

Figure 20: Comparison of Comparison of quantity exported from India and Pakistan to Oman



Source: ITC, Trade Map

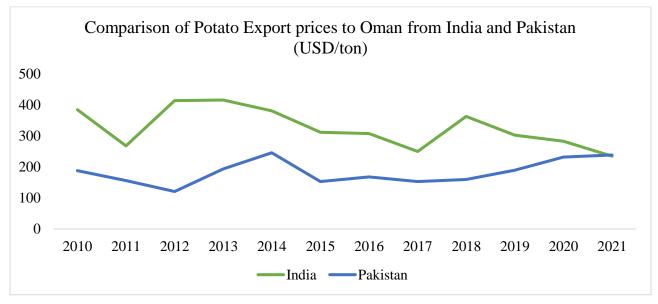


Figure 21: Export Price offered by India and Pakistan to Oman

Source: ITC, Trade Map

8- Conclusion and Policy Recommendations

Pakistan is self-sufficient in potato production and this year's potato production has increased significantly. Pakistan has been exporting potatoes to many countries, viz. Malaysia, UAE, and Oman being principal potato export destinations. Due to bumper crop production of potatoes, Pakistan has the capacity to increase the export volume and explore new markets. Kazakhstan, Iraq, and Kuwait could be the new potential export destinations for Pakistan.

General Recommendations

There are certain issues related to potato production and exports. As per some studies, the seed used for production is contaminated and results in poor yield. Similarly, inadequate use of fertilizer also results in low yield.

To increase the yield, a focus on the control of diseases like white fly and others is required. Another major constraint is poor transportation means and the absence of cold storage infrastructure, which leads to low quality. To overcome this issue, the government should join hands with the private sector and invest in developing better infrastructure so that production and quality are not compromised and exports are not affected.

Moreover, the industry should go for value-added products of potatoes as we can earn more by exporting by-products. For this purpose, an investment in processing units is required.

Market-Specific Recommendations

Due to the ongoing conflict between Russia and Ukraine, the cross-border trade of potatoes within the region has been badly affected due to non-trade barriers and price differentials.

- 1- In the surrounding regions of Pakistan, Central Asian Countries are the most lucrative markets for potatoes, as they have been sourcing from Russia.
- 2- Central Asian states especially Kazakhstan are diverting to new potato exporting countries to meet the demand. It is need of hour for Pakistan to take advantage of this situation and acquire the potato market of Central Asia.
- 3- Moreover, Iraq is a lucrative market with good returns. The direct export of potato to Iraq and indirect export through Iran is required to be streamlined.

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