

## Marketing Constraints and Price Perspectives for Onion in Khost Province, Afghanistan

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### ABSTRACT

The study was undertaken in the three districts of Yaqubi and Sabari, Mando Zayi and Bak of Khost province, Afghanistan, with the aim of evaluating marketing constraints, marketable surplus, intermediaries, and consumer perceptions regarding the price of onions. Despite its substantial influence on the economy and people's livelihoods, Afghanistan's onion marketing system has gotten insufficient attention. Onion prices in Afghanistan were volatile, which has a huge influence on the economy and people's capacity to buy basic foods. Data was collected from 120 farmers, 120 consumers, 30 wholesalers, and 30 retailers across the province. The study's main constraints faced by farmers in marketing onions included the majority of farmers 71.70 percent agreed that storage facilities were perceived to be expensive. 87.5 percent of respondents strongly agree that the lack of storage facilities was a major issue. Price changes were the biggest issue for customers, as 84.20 percent of respondents agreed. Limited market access was cited as a problem by 71.70 percent of respondents. The main constraint for wholesalers was the absence of facilities for grading onions, with 60.70 Lack of storage facilities was another key obstacle, resulting in 63.30 percent and No organizations (Councils) being available; 86.70 percent was a similar result for retailers too. The average onion production per Jerib of land was found to be 2386.16 kg/Jerib. Only 9.96% of the onion yield was used for domestic consumption, leaving the producers with a marketable surplus of 90.03%. Fluctuations in onion prices throughout different seasons were primarily attributed to the absence of proper storage facilities. The study has indicated that consumers tend to perceive the selling price of onions during the off-season as significantly higher than its on-season average price. The average price of onions during the off-season was 66.33 Afghanis per kilogram, whereas it was 22.16 Afghanis during the on-season. This indicated a significant price difference between the two seasons.

**Keywords-** Marketing constraints, Marketable surplus, onion, price perception, Khost.

### I. INTRODUCTION

The agriculture sector plays a vital role in the Afghan economy, serving as its backbone (Bolton, 2019). It contributes to approximately one-third of the country's GDP, and nearly 60 percent of the Afghan population is employed in this sector (Muradi & Rahmani, 2020). Particularly in rural areas, agriculture is a significant

source of employment, with the primary workforce consisting of unpaid family members (Siddayya et al., 2016). Aside from meeting food demands, agriculture also provides raw materials for agro-based industries (Sharma & Patil, 2018). Afghanistan currently faces challenges such as rising food and water insecurity, which result from a complex interplay of persistent social, political, and economic instability, further exacerbated by



the impacts of climate change (Poole et al., 2022). These challenges hinder the growth of the agriculture sector and limit farmers' returns due to their limited engagement in agricultural marketing. As production levels increase, it becomes crucial to evaluate the quantity of agricultural produce available for consumption among the non-farming population, as this directly relates to the issue of food security. Efficient agricultural marketing plays a vital role in accelerating agricultural production growth and expanding the marketable surplus. It is critical for improving the producers' share of consumer spending and maintaining increased production momentum (Dwivedy, 2013). In developing countries, the marketable surplus in the agricultural sector holds great significance as it promotes farm capital formation. This capital can be invested in land, modern inputs, and farm implements, leading to increased productivity and income for farmers (Sharma et al., 2017). The marketable surplus represents the quantity of agricultural goods that remain with the farmer-producer after fulfilling essential requirements such as family consumption, seed and feed for livestock, wages for labor, and rent payments to the landlord (Acharya and Agarwal, 2020). However, an increase in production alone does not guarantee higher income levels for farmers unless proper planning and implementation of marketing linkages are in place. Farmers in rural areas of Afghanistan face challenges in selling their crops at competitive prices due to the unavailability or high cost of critical agricultural inputs such as high-yielding seed varieties, fertilizers, pesticides, and agricultural machinery. This situation can lead to reduced crop yields and food insecurity at both the household and national levels. Agricultural commodities, especially onions, experience higher price volatility compared to non-farm commodities. This heightened price variability for primary products has far-reaching consequences, impacting producers, consumers, and other sectors of the economy through inflationary pressures. Among agricultural products, onions demonstrate even greater volatility than non-farm commodities due to their low price and income elasticity, as well as their inherently unstable production (Chengappa et al., 2012). Market inefficiencies, weak supply chains, and the presence of trade cartels further exacerbate this issue. Key obstacles to maintaining a smooth supply chain for onions include their high perishability and inadequate storage facilities (Rakshit et al., 2021). The marketing system for onions in

Afghanistan has not received sufficient attention, despite its significant impact on the economy and people's livelihoods. Onion prices in Afghanistan are prone to fluctuations, which can significantly impact the economy and people's ability to afford essential food items. Factors contributing to price changes include seasonal variations, transportation challenges, a lack of storage facilities, and middlemen controlling the supply chain. High onion prices can cause inflation during the off-season, leading to unaffordable essential food items. Conversely, low onion prices during harvesting seasons can result in financial losses for farmers and traders, negatively affecting their livelihoods. The current investigation aims to evaluate various issues related to the marketing constraints and price perspectives of onions from the farmer's, consumer's, wholesalers, and retailer's points of view in the Khost province of Afghanistan.

## II. METHODOLOGY

The Yaqubi-Sabari, Mando-Zayi, and Bak districts of Afghanistan's Khost province were purposefully chosen for the study because they had the highest area cultivated by onions. The study's primary data were obtained through in-person interviews with participants using a carefully constructed questionnaire. A pilot survey was conducted to ensure clarity and validity. Conduct in-depth interviews with key stakeholders involved in the onion marketing chain, such as farmers, consumers, wholesalers, and retailers. Data was collected from 40 onion growers, 40 onion consumers, 10 wholesalers, and 10 retailers in each district. A sample of 120 farmers, 120 customers, 30 wholesalers, and 30 retailers from the three districts of Khost province served as the source of the data.

### Analytical tools:

**SPSS:** descriptive statistics (Frequency and percentage) used for analysis of the tables

**Marketable Surplus:** The entire quantity of produce used for various reasons was subtracted from the crop's overall production in order to calculate the marketable surplus.

$$\text{Marketable surplus} = \text{Total Production} - \text{Total Consumption}$$

## III. RESULT AND DISCUSSION

**Table 1: Marketable Surplus of Onion by the selected Onion farmers in Khost**

S. No.	Particulars	Average	Percentage
1	Total Production	2386.16 Kg	100
2	Home Consumption	237.70 Kg	9.96
3	Marketable Surplus	2148.45 Kg	<b>90.03</b>

Source: Field survey (2023)

Table 1 represented the marketable surplus of onions in Khost province: According to the survey, the

total production of onions by the selected farmers in Khost averaged 2386.16 kilograms. This constituted

100% of the total production of onions in the area. A portion was consumed by the farmers themselves for home consumption. On average, the farmers consumed 237.70 kilograms of onions, which accounted for approximately 9.96% of the total production. The marketable surplus of onions, which represents the

quantity available for sale in the market, was calculated by subtracting the home consumption from the total production. On average, the selected onion farmers in Khost had a marketable surplus of 2148.45 kilograms, which constituted approximately 90.03% of the total production.

**Table 2: Marketing Constraints faced by farmers in marketing of onions (percent) (N=120)**

S. No.	Constraints	SA	A	N	DA	SDA
1	Far off location of selling unit	23.30	67.50	11.00	0.00	0.00
2	Less transportation facility	18.30	73.30	8.30	0.00	0.00
3	Less of market information	39.20	57.50	3.30	0.00	0.00
4	Malpractice of buyers	34.20	52.50	13.30	0.00	0.00
5	There is no grading facility	7.50	85.00	7.50	0.00	0.00
6	Less of packing Facility	8.30	82.50	9.20	0.00	0.00
7	Non-proper storage facilities	90.00	8.30	1.70	0.00	0.00
8	Limited Market Access	63.30	30.00	6.70	0.00	0.00
9	Limited of wholesale market	65.00	31.70	3.30	0.00	0.00
10	limited, regulated market	68.30	27.50	4.20	0.00	0.00
11	Dependence on Middleman	22.50	70.00	7.50	0.00	0.00

(Note: SA stands for "Strongly Agree." A stands for "Agree," N stands for "Neutral," da stands for "Disagree," and SDA stands for "Strongly Disagree.")

**Source:** Field survey (2023)

Table 2 represents the reasons for the non-storage of onions by farmers revealed several constraints that influenced their decision. The majority of farmers, 71.70 percent, agreed that improved storage facilities were perceived as costly. Another significant reason was the lack of knowledge about handling and caring for onions during the storage period, which was indicated by 56.70 percent of respondents. This lack of knowledge increases the risk of spoilage, leading farmers to opt against storing onions. Furthermore, 85 percent of farmers

stated that the high fluctuation in onion prices in the market was a reason for not storing onions. The unpredictable price fluctuations make it challenging for farmers to anticipate the future value of their stored onions, making storage less profitable. The importance of farmers having access to the necessary resources and knowledge to make informed decisions regarding onion storage was overwhelming 87.5 percent of respondents strongly agreed that the non-availability of storage facilities was a significant and real problem.

**Table 3: Marketing Constraints faced by consumers in the Purchase of onion (N =120)**

S. No	Constraints	SA	A	N	D	SD
1	No timely availability of products in the market	46.70	46.70	6.7	0.00	0.00
2	Price Fluctuations	6.70	84.20	9.20	0.00	0.00
3	No proper packaging	2.50	79.50	17.50	0.80	0.00
4	No Proper Grading of Onion	1.70	78.30	18.30	1.70	0.00
5	Quality concerns	72.50	20.00	6.70	0.80	0.00
6	Limited availability of Onion	66.70	25.80	6.70	0.00	0.80
7	Dependence on middleman	1.70	5.00	35.80	55.00	2.50
8	Poverty and financial difficulties make it difficult to purchase onions during the off-season.	50.80	41.70	7.50	0.00	0.00
9	Limited market access	5.80	71.70	20.00	2.50	0.00

**Source:** Field survey (2023)

Table 3 represents the constraints faced by consumers when purchasing onions in Khost Province. The survey results highlight various challenges that affect

consumers' ability to access and buy onions. The most significant challenge faced by consumers was price fluctuations, as agreed upon by 84.20 percent of

participants. This indicates that consumers struggle to predict onion prices, making it difficult for them to budget for household expenses. The limited availability of onions was a notable constraint, with 66.70 percent strongly agreeing. This constraint may arise due to the seasonal nature of onion production or the inadequate storage facilities mentioned by farmers in the previous table. Poverty and economic difficulties in affording onions during the off-season were identified as significant challenges, with 50.80 percent strongly agreeing. This

highlights the need for policies that address poverty and improve access to affordable food. Improper packaging was acknowledged as a constraint by 71.70 percent of participants. Limited market access, attributed to inadequate infrastructure, transportation facilities, and market information, was identified as a challenge by 71.70 percent. Quality concerns were also raised, with 72.50 percent of participants strongly agreeing. This may be due to the lack of proper grading facilities, as reported by farmers in the previous table.

**Table 4: Constraints faced by wholesalers in marketing of onions (percent) (N =30)**

S. No.	Constraints	SA	D	N	D	SD
1	Non-availability of grading facilities	66.70	33.30	0.00	0.00	0.00
2	Non-availability of storage facility	63.30	36.70	0.00	0.00	0.00
3	Limited transportation Facility	46.70	53.30	0.00	0.00	0.00
4	Wide price fluctuations	46.70	53.30	0.00	0.00	0.00
5	Inaccurate weighing	40.00	60.00	0.00	0.00	0.00
6	Difficulty in selling/second or third grade Onion	76.70	23.30	0.00	0.00	0.00
7	Non-acceptance of the fixed price by the customers.	90.00	10.00	0.00	0.00	0.00
8	Perishability of onions	90.00	10.00	0.00	0.00	0.00
9	Inadequate physical facilities	53.30	10.00	36.70	0.00	0.00
10	No availabilities of associations (Councils)	86.70	13.30	0.00	0.00	0.00

Source: Field survey (2023)

Table 4 represents the constraints faced by wholesalers in the marketing of onions in Khost, Afghanistan. The survey found considerable difficulties in this region's onion marketing procedure. The main obstacle cited by wholesalers was the lack of facilities for grading onions, with 60.70% of respondents strongly agreed. Lack of grading facilities was a concern since it has an impact on onions' uniformity and quality, two factors that are important to both wholesalers and consumers. Without adequate grading, quality discrepancies may occur, which would make customers unhappy and decrease demand. The lack of storage facilities was another key issue that wholesalers cited, and 63.30 percent of respondents agreed that this limitation

had an effect on their operation. Because onions were perishable, wholesalers struggle to maintain product quality, resulting in loss and waste. 46.70 percent of respondents agreed strongly. Because of a lack of stable and adequate transportation infrastructure, delivery of onions to markets was delayed, resulting in lost sales and lower profitability for wholesalers. Another key concern, with which 46.70 percent of respondents strongly agreed, was the fluctuation in prices. Inaccurate produce weighing was another issue, and 60% of respondents agreed that it presents difficulties. Inaccurate weighing can result in disagreements between wholesalers and clients, which lowers client satisfaction. Finally, No availability of associations (councils): 86.70 percent.

**Table 5: Marketing constraints for retailers in marketing of onion (percent) (N =30)**

S. No.	Constraints	SA	D	N	D	SD
1	Absence of grading facilities	73.30	26.70	0.00	0.00	0.00
2	Absence of storage facility	63.30	36.7	0.00	0.00	0.00
3	Lack of transportation Facility	33.30	66.70	0.00	0.00	0.00
4	Wide price fluctuations	46.70	53.30	0.00	0.00	0.00
5	Inaccurate weighing	56.70	43.30	0.00	0.00	0.00
6	Difficulty in selling/second or third grade Onion	76.70	23.30	0.00	0.00	0.00
7	Non-acceptance of the fixed price by the customers.	73.30	26.70	0.00	0.00	0.00
8	Perishability of onions	76.70	23.30	0.00	0.00	0.00
9	Inadequate physical facilities	76.70	10.00	13.30	0.00	0.00
10	No availabilities of associations (Councils)	76.70	23.30	0.00	0.00	0.00

Source: Field survey (2023)

The constraints faced by retailers in the marketing of onions in the Khost are presented in Table 5. According to the research, 73.30 percent of retailers said that the lack of grading facilities was a limitation, while 63.30 percent of retailers cited the lack of storage facilities as a constraint. 53.30 percent of retailers cited wide price variations as a limitation, while 66.70 percent of retailers cited a lack of transportation options. 56.70% of the retailers cited inaccurate weighing as a problem, and 76.70% said it was difficult to sell second- and third-grade onions. 73.30 percent of retailers cited customer resistance to setting prices as a barrier, and 76.70 percent

cited the perishability of onions as another barrier. 76.70 percent of the retailers cited inadequate physical facilities as a barrier, and 76.70 percent listed a limitation as not having any associations or councils available.

For retailers, the perishability of onions can be a problem because they need to meet a number of restrictions. The number and quality of onions that retailers can sell can be impacted by a lack of storage and grading facilities, and a lack of transportation facilities can drive up transportation costs and prolong the time it takes for onions to arrive.

**Table 6: Farmers perspectives about high prices of onions (N = 120)**

S. No.	Particulars	Percentage
1	Nov, Dec, Jan, Feb	99.20
2	Mar, Apr, May, June	0.80
3	Price of onions in off-season	66.50 Afghani/Kg
4	Price of onions in On Season	20.50 Afghani/Kg

Source: Field survey (2023)

Table 6 shows farmers' perspectives on onion prices over different seasons. Because the onion was only grown in Afghanistan for one season and farmers lacked suitable storage facilities, price volatility in the local market was higher. Almost all of the sample farmers (99.20 percent) predicted that onion prices would be high from November to February. Most farmers reacted to 66.50 Afghani per Kg during the off-season, and it was approximately 20.50 Afghani per kg during the on-

season. Similar findings were discovered by (Banshi 2014), who conducted research on the economic evaluation of onion storage and market information systems in the Ahmednagar area of Maharashtra. According to the survey, prices were higher from November to February, and the average off-season price of 66.50 Afghani per kilogram was much higher than the price of 20.50 Afghani per kilogram on-season.

**Table 7: Wholesalers perspectives about the prices of onions (N =30)**

S. No.	Particulars	number of respondents	Percentage
1	Nov, Dec, Jan, Feb	30	100.00
2	Price of onions in off-season	30	65.66 Afghani/kg
3	Price of onions in On Season	30	20.81 Afghani/kg

Source: Field survey (2023)

Wholesalers' perspectives on the price in different seasons were presented in Table 7. There were 30 responses, and 100 percent said that onions were in season from November to February. The average price of onions during the off-season was 65.66 Afghani per kg

from wholesalers, while the average price during the on-season was 20.81 Afghani per kg. There was a significant difference in prices between the two seasons, with prices being much higher during the off-season.

**Table 8: Retailers perspectives about prices of onions (percent) (N =30)**

S. No.	Particulars	number of Respondents	Percentage
1	Nov, Dec, Jan, Feb	30	100.00
2	Price of onions in off-season	30	66.33 Afghani
3	Price of onions in On Season	30	22.16 Afghani

Source: Field survey (2023)

Table 8 represents the perspectives of retailers on onion prices throughout the year. As a result of the table, 30 people replied, and they stated that the price of onions

increased from November to February. The average price of onions during the off-season was 66.33 Afghanis per kilogram, whereas it was 22.16 Afghanis during the on-season. This demonstrated a considerable price disparity



between the two seasons, with off-season prices being substantially higher.

#### IV. CONCLUSION

The agriculture (Onion) marketing system in Afghanistan has been largely overlooked, resulting in challenges for farmers trying to increase their income levels. Merely increasing onion production does not guarantee higher profits unless proper planning and effective marketing linkages are established. The study revealed that the average onion production per Jerib of land was 2386.16 kg/Jerib, with farmers retaining only 9.96 percent of the total produced onions while the remaining 90.03 percent constituted a marketable surplus. During the off-season, the price of onions significantly rose to 66.50 Afghani per kg, compared to 20.50 Afghani per kg during the on-season. This price disparity was largely due to the lack of storage facilities in Afghanistan. Consequently, onions were exported to Pakistan at lower prices during the on-season and imported back at much higher prices during the off-season, undermining the potential benefits for farmers. The study identified three marketing channels: Channel I (Farmer-Wholesaler-Retailer-Consumer), Channel II (Farmer-Retailer-Consumer), and Channel III (Farmer-Consumer). Among these, Channel III was found to be the most efficient in terms of net price received by farmers and total marketing cost. Participants highlighted the significant challenge of far-off sales locations. Furthermore, the lack of market information was reported as a constraint by a majority of participants, underscoring the necessity for reliable and up-to-date market information systems. On the consumer side, poverty and economic problems were identified as major challenges during the off-season, while price fluctuations made it difficult for consumers to budget for household expenses. Wholesalers and retailers faced constraints such as the absence of associations (councils), inaccurate weighing practices, and high price fluctuations.

#### SUGGESTIONS

- Increasing the volume of onion production in Afghanistan directly impacts the marketable surplus of onions. Therefore, to enhance the marketable surplus, efforts should focus on expanding the area under onion cultivation or increasing onion yields. However, expanding the onion cultivation area is limited, necessitating a focus on improving yields through enhanced agricultural practices such as better irrigation, fertilizer application, plant protection chemicals, and the adoption of short-duration hybrid seeds. It is crucial to prioritize the transfer of these technologies from laboratories to the fields through effective agricultural extension services.
- The market infrastructure and storage facilities, as well as establish direct connections between farmers and

consumers. Currently, farmers in rural areas of Afghanistan face challenges selling their crops at competitive prices. To address this issue, it is essential to incentivize onion farmers to establish farmer-producer organizations. By organizing themselves, farmers can improve their bargaining power and facilitate more efficient onion marketing processes.

- The development of an integrated agricultural marketing information system is crucial. This system would strengthen the linkages between onion farmers and other actors in the value chain within the province and beyond. By providing timely and relevant market information, such a system can help farmers make informed decisions and improve their market engagement.

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