



## An economic analysis of milk marketing in helmand province (Afghanistan)

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### Abstract

Animal rising and dairy productions are an important element of the agricultural sector and have a key role in the socio-economic development for a province like Helmand. On average, every household in rural areas of Helmand province has 15 people, 11.5 Jerib (2.3 hectares) of agriculture land, and every dairy farmer has 19-year experience of animal rising. Agriculture products make 50% of their income source. consisted of 27% from animal raising, 12% from trading and 11% from other sources, respectively. On average, a local breed cow produces about 8.7 liter of milk per day and 1,360 liters in each lactation period.

Our findings show that 63% of the farmers do not supply the produced milk to the market because of the various reasons; namely, unavailability of market, low dairy price, unavailability of milk collection points, unavailability of milk process centers, and others. The findings show that 37% of the farmers supply the milk to the market.

The present study was undertaken to find out the milk production cost and returns from milk production, different marketing channels involved in the marketing of milk and milk marketing problems in the three district (nada-ali, nawa, and lashkargah city) of helmand province. Multistage stratified random sampling technique was adopted to identify the study area. Total five villages were selected randomly from each four district. A sample of 120 milk producing households consisting 60 small, 41 medium and 18 large farmers was drawn randomly

One liter of milk costs about afn 22.8 in Helmand province. The cost varies a little bit in different areas. For instance, in the capital Lashkar Gah city and nearby areas farmers sell one liter of milk for AFN 26 to AFN 30, this is where the farmers in a relatively remote districts like Nawa and Nade-Ali sell it for AFN 18 to AFN 22 or they do not sell.

**Keywords:** milk production cost, marketing and problems

### Introduction

Dairy production is one of the good sources of income in the world, especially in the developing countries. Helmand province of Afghanistan has a very suitable condition for dairy production and agriculture. The war of last about four decades in Afghanistan, particularly Helmand province caused very few scientists work on reforms in the field of agriculture. We believe that with some work one can make considerable change in peoples' life. From one side the farmers will be able to carry their products to market and from other side, the society will benefit from the dairy products which is the important complement of peoples' health. Animal products specially milk is valuable and nutritional food for human because of the essential Amino Acid. Animals provide raw material for the process industries, which has a key role in the economic development of a country. Dairy sector contributes significantly to generating employment opportunities and supplement

of the income of large, medium, small and marginal households and landless laborers in the rural areas of Helmand province in addition to the provision of food security. Milk production, like other economic activities in the country, have many problems in the field, such as lack of primary dairy processing equipment's, high production cost, low milk prices etc. In the livestock sector of Afghanistan particularly Helmand province the lack and in some cases unavailability of accurate data on animal census, production and marketing is a major challenge, In Helmand province every farmer household has two to three milk cows in their home that produce enough milk, but lacks the market, transportation facility, dairy storage, and processing equipment. We have conducted this study to address these problems. The objectives of this study is to find out the milk production cost and various marketing channels and to prepare suitable policy measures for the problems that the farmers have been having in the marketing of milk.

### 1.1 Objectives of the Study

1. To find out production cost and different marketing channels involved in the marketing of Milk.
2. To study problems faced by farmers in marketing of Milk and suggest suitable policy measures

### 2. Materials and Methods

The present study was carried out in Helmand province, Afghanistan in 2019. The Cross- Sectional Design method was used to collect the data. Dairy producer selection was done in three (3) districts of the province to collect the required information for the analysis and an exploratory research was adopted. The three districts are, namely, Nawa, Nad-e Ali and Lashker Gah city Multistage sampling technique was used to collect the data. We selected 120 respondents randomly for the study (Table 1).

**Table 1:** No of respondents from each district

S. No	District Name	No. of Respondents
1	Nawa	40
2	Nad Ali	40
3	Lashkergah	40
Total Respondents		120

### 2.1 Selection of Respondents

Multistage stratified random sampling technique was adopted to identify the study area. In total five villages were selected randomly from each three district (nad-e-ali, nawa, lashkargah city) of helmand province. A sample of 120 milk producing households consisting 60 small, 42 medium and 18 large farmers

was drawn randomly.

The collected data was summarized as well as analyzed using descriptive statistical tools which includes frequencies, percentages, pie chart and bar chart.

### 3. Results and Discussion

Table 2 indicates the price of milk in Helmand province. The average price of one-liter milk was AFN 22.8 in Helmand province. The price varies a little bit in different areas. In Lashker Gah city and nearby areas, the selling price of one-liter milk is AFN 26 to AFN 30 where in Nawa and Nade-Ali districts the selling price is AFN 18 to AFN 22 and the selling price of one-liter yogurt is 35 AFN to 28 AFN.

**Table 2:** Price of Milk in three District of Helmand Province

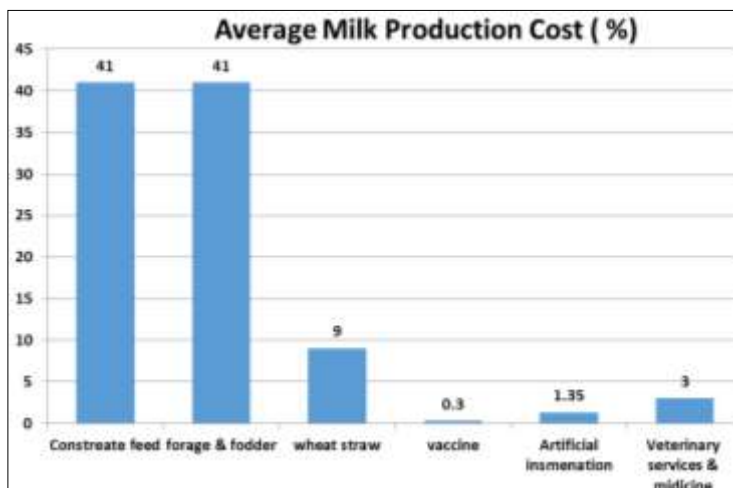
Products	Maximum Price (AF/Lit)	Minimum Price (AF/Lit)	Average Price (AF/Lit)
Milk	30	18	22.8
Yogurt	35	28	31

### 3.1 Milk Production Cost

The cost of milk is presented in Table 3 and Fig.1 (28.3 %) consternate feed, (47.2 %) green fodder, (21 %), dry fodder, (0.21 %) vaccination, (0.48) Artificial insemination, (2.9 %) was veterinary services. Average income from milk production per farmer household is AFN 77,800., Total income from milk production of 120 farmer households is AFN 933,528 and per liter cost of milk production for each milk cattle was (AFN 7) Farmers have easy access to green fodder and dry fodder due to their cheaper costs in Helmand province.

**Table 3:** Cost of milk production on Different sample farms (AFN / farm/year)

Particulars	Small	Medium	Large	Average
Forage & fodder	2400 (28.5%)	80000 (51%)	220000 (54%)	100800 (41%)
Consternate feed	3600 (43%)	65000(41)	165000 (40%)	77866 (41 %)
Wheat straw	1800 (21%)	5400(3.4)	10200 (2.5)	5800 (9 % )
Veterinary services & medicine	300 (3.5%)	5000(3%)	10000 (2.4 %)	5100 (3 %)
Vaccination	50 (0.6%)	430 (0.3 %)	1000 (0.3 %)	493 (0.3 %)
Artificial insemination	250 (3%)	900 (0.6 %)	1800 (0.45%)	983 (1.35 %)
Total AFN	8400	156730	408000	191043



**Fig 1:** Milk Production Cost.

### 3.2 Marketing Channels

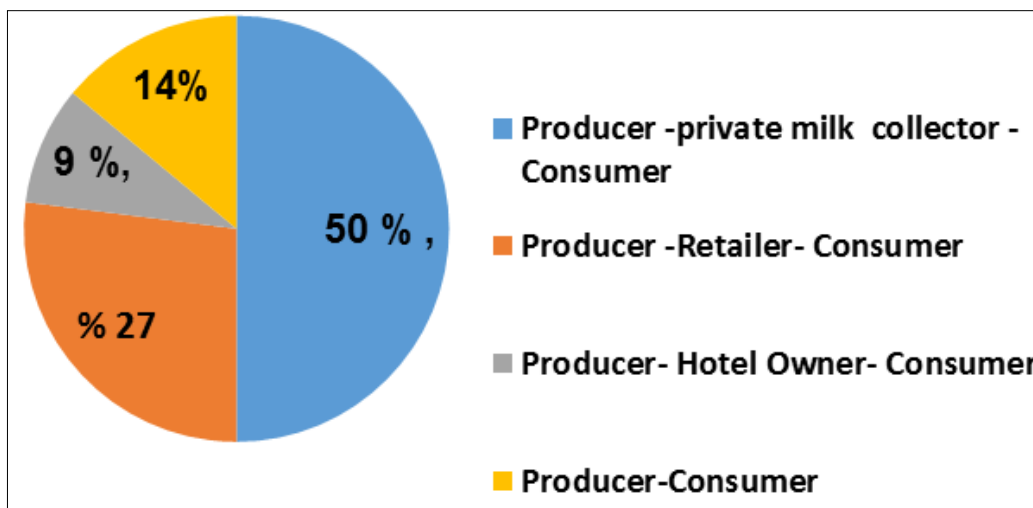
During the study four marketing channels were observed which were involved in the marketing of milk. These channels are as below.

Channel I: Producer – Consumer

Channel II: Producer – Retailer – Consumer

Channel III: Producer – Wholesaler – Retailer – Consumer

Channel IV: Producer– Retailer (Restaurant and Ice cream shops) – Consumer.

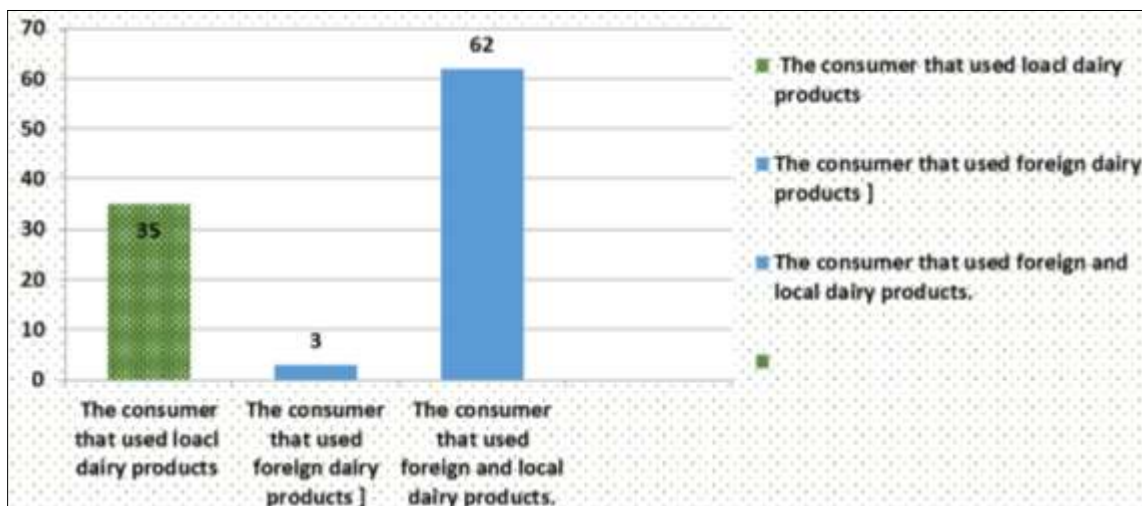


**Fig 2:** indicates that (50 %) farmers sell their milk to local milk collector (privets milk collecting agency), (9 %) farmers transfer their milk to city and sell to Ice- cream and dairy processing shop, (27 %) farmers sell their milk to Retailer and also (14 %) farmer sell their milk straight to consumers in the villages.

### 3.3 Consumer

Most of the consumers for the milks produced in the study area of this work live in Lashkar Gah city and nearby villages. They buy dairy products from dairy shops, supermarkets, and direct from dairy producers. They consume different dairy products (Fresh milk, butter way, yogurt, curd, milk cream,

ghee, and other products. Some consumers also buy imported dairy products for their daily needs (Milk Pak, Pegha and other). The findings show that 35 % of the consumers use only local dairy products, 62% the consumers’ use both locally produced as well as the imported dairy product and 3% consumers use only imported dairy products, (Fig 3).



**Fig 3:** Show the percentage of consumer which consume different products (external, local and both)

### 3.4 Problem Associated in Milk Marketing

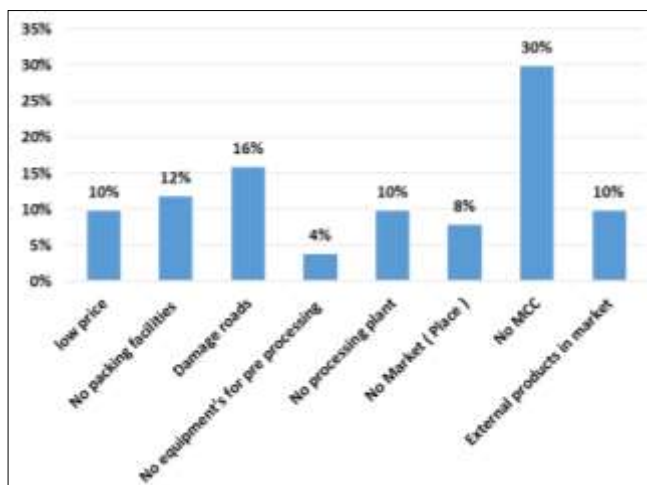
One of the objectives of this research is addressing of the problems in the marketing of milk and dairy products. The main problems of milk marketing includes unavailability of proper and specific market for milk and milk production, low price, unavailability of milk collection center (MCC), damage

roads, lack of milk processing plants, lack of milk equipment’s for collecting and storages, long distance between village and city, abundantly availability of imported dairy products, lack of advanced packing facility, no milk collecting and distribution network and many more problems. Contribution of each of these problems is illustrated in Table

and Fig 4.

**Table 4:** Problems Associated in Marketing of Milk

S. No.	Problem	Number of Respondent		Rank
		Yes	No	
1	Lock of MCC ( milk collection center )	120	0	
2	External products in Market	12	108	
3	Damage roads	19	101	
4	Low price	12	108	
5	Lack of milk processing plants	85	25	
7	Lack of equipment's for pre processing	90	20	
8	No market ( place)	45	75	



**Fig 4:** Constraints in Milk Marketing

### 3. Conclusion

This study was conducted in pre urban and urban areas Lashkara Gah, Nada Ali and Nawa districts of Helmand province. We found that the green fodder cost constituted about 45 % of total cost and that was the major component of milk production in milk cattle. The major challenges in milk marketing were faced by milk producers that are the lack of Milk collection center (MCC). The main milk buyers in the research area were local private milk collection agencies. They buy 50% of produced milk. One liter of milk price is about AFN 22.8 in Helmand province. The cost varies a little bit in different areas. For instance, in Lashkar Gah and nearby areas farmers sell one liter of milk for AFN 26 to AFN 30, this is where the farmers in Nawa and Nade-Ali districts sell it for AFN 18 to AFN 22 and some farmer do not sell their produced milk. Home consumption of milk is a big issue. Our findings show that 63% of the farmers do not supply the produced milk to the market because of the various reasons, only 34% of the farmers supply the milk to the market. The consumers use both imported and locally produced dairy; however, locally produced milk makes the major supply for the consumers.

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