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RESEARCH ARTICLE

AN ECONOMIC ANALYSIS ON MARKETING OF MAIZE IN SERCHHIP DISTRICT, MIZORAM

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ABSTRACT

In the present research, an attempt was made to study an economics analysis on marketing of maize in serchhip district, Mizoram. The present study was conducted in North Eastern state of Mizoram during year 2020-2021. Primary market (Chawmeh bazaar) has been selected purposively according to the association of the producers with the market. There are only two channel exist for the marketing of maize and these are: Producer - consumer and Producer-wholesaler-retailer-consumer. The findings from the study shows that total marketing cost was higher in channel II Rs 122, followed by channel I Rs 47 respectively. The total marketing margins was Rs 225 for channel II and the price spread for channel I was Rs 47 and for channel II Rs 347. The study shows that apart from primary market (Chawmeh bazaar) most of the produce were bought by District agricultural office, serchhip which act as the wholesaler and it was later bought by the animal husbandry department which act as the retailer. Constraints in marketing was mainly due to lack of storage facilities, high transportation charges, and frequent price fluctuation.

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INTRODUCTION

Maize (*Zea mays* L.) is one of the most versatile emerging crop showing wider adaptability under varied agro-climatic conditions. Globally, maize is known as queen of cereals because it has the highest genetic yield potential among the cereals. It is cultivated on nearly 190 m ha in about 165 countries having wider diversity of soil, climate, biodiversity and management practices that contributes 39 % in the global grain production. India is one of the top 10 maize producers in the world; it contributes around 2-3% of the total maize produced globally and is one of the top-5 maize exporters in the world contributing almost 14% of the total maize exported to different countries around the world. South-East Asia is the biggest market for Indian maize with almost 80% of the exported Indian maize going to Indonesia, Vietnam and Malaysia.

The total cultivated area of maize in India is over 9.0 million ha (2013-14), with most of the Indian states growing it. Ten states in India represent around 80% of the total area of maize grown. Karnataka (15%) is the largest state for maize cultivation followed by Rajasthan (13%) and Madhya Pradesh (10%). Maize farming in India is important because it has a high export potential and a large population of marginal farmers are dependent on it. Maize is also important for India as it is a component of the national food security programme. About 9005.00 ha land (Statistical abstract 2011-2012, Directorate of Agriculture –CH, Aizawl, Mizoram) is reported to have been brought under maize cultivation in the state of Mizoram during the year 2011-2012. The Mizoram Agriculture Department is taking steps to increase maize production despite an outbreak of the fall armyworm, which has left a trail of destruction in the fields across the state. The production of maize in the state was 8,911 metric tonnes in 5,779 hectares in 2016-17, while it was 9,470.6 MT IN 5,979.2 hectares in 2017-

18. An increase in the cultivation area and production is expected due to the department's concentration on maize cultivation in the low-lying areas of central Mizoram serchhip district under the Rashtriya Krishi Vikas Yojana. Additional seeds have been distributed for rabi and kharif crops.

RESEARCH METHODOLOGY

Study Area: The district is mostly a hilly terrain with two main rivers flowing viz. Tuichang and Mat. Area upto slope 35 is only 389.86 sq. km with water body of only 4.55 sq. km. Temperature varies from 32°C in Summer and 9°C in the Winter.

The population of the district is 64937 as per the 2011 census of which 32851 were males and 32086 were females. The rural population is 50.69%. The district is thinly populated with 46 persons per square km, which is much below the State average of 52 persons per square km. The district has a literacy rate of 97.91%.

Selection of Market: Primary market (Chawhmeh bazaar) has been selected purposively according to the association of the producers with the market.

Data collection

Primary Data: The personal interview method was adopted for data collection from the selected respondents. The data includes packing practices, transportation pattern and constraint.

Secondary Data: The Data regarding the agro economic aspects of the study area were collected from District Agriculture Office, Serchhip and the chief from the market.

Analytical tools and technique: Suitable tabular as well as functional analysis as per need was applied to analyses the data and presentation of the results.

Marketing Analytical tools

Marketing cost: The total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it reaches the ultimate consumer was computed as follow:

$$M = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

Where, M = Total cost of marketing

C_f = Cost borne by the producer farmer from the produce leaves the farm till the sale of the produce, and

C_{mn} = Cost incurred by the ith middlemen in the process of buying and selling.

Marketable surplus

$$MS = P - C$$

Where, MS = Marketable surplus

P = Total Production

C = total requirements (family and farm)

Marketing Margin of Middlemen:

$$(a) \text{ Absolute margin} = P_{Ri} - (P_{pi} + C_{mi})$$

$$(b) \text{ Per cent margin} = \frac{P_{Ri} - (P_{pi} + C_{mi})}{P_{Ri}} \times 100$$

Producer's share in Consumer's Rupee

$$P = \frac{(C - M)}{C} \times 100$$

M

Where, P = Producer's share in Consumer's Rupee

C = Consumers' rupee

M = Marketing cost

Price Spread = Total Marketing Cost + Total Marketing Margin

Marketing Efficiency

$$\text{Marketing efficiency} = \frac{\text{Consumer price}}{\text{Total marketing cost} + \text{Marketing margin}}$$

Garret ranking

$$\text{Percentage} = \frac{100 (R_{ij} - 0.5)}{N_j}$$

N_j

Where, R_{ij} = Rank given for ith item by jth individual

N_j = No. of items ranked by jth individuals

RESULTS AND DISCUSSION

The study reveals that in channel I the producers sale price was Rs 1500/qtl and the marketing cost include cost of bags Rs 10/qtl, unloading & loading cost Rs 25/qtl, weighing charges Rs 2/qtl and miscellaneous charge Rs 10/qtl which makes the total marketing cost 3.13 per cent. The net price received by the producer was Rs 1453/qt. Producer share's in consumers rupee was Rs 96.87/qtl. Price spread was Rs 47/ha which makes the marketing efficiency 31.91 per cent. In channel II, cost incurred by the producer shows that the total marketing cost was 1.88 percent and net price received by producer was 58.12 percent. Cost incurred by wholesaler includes marketing cost like packing cost Rs 10/qtl, transportation cost Rs 30/qtl, weighing charges Rs Rs5/qtl and miscellaneous charges Rs 10/qtl respectively. This makes the total marketing cost of 2.20 per cent. Sale price of wholesaler to retailer was 72 per cent and the wholesaler margin was 9.8 per cent. Cost incurred by retailers includes unloading & loading cost Rs 10/qtl, weighing charges Rs 5/qtl and miscellaneous charges Rs 5/qtl respectively which makes the total marketing cost 0.80 per cent. Sale price of retailer to consumer is Rs 1800/qtl and retailers margin was 4.45 per cent. Price spread was Rs 347 and producer's share in consumers rupee was Rs 80.65, which makes the marketing efficiency 5.19 %. The study reveals the constraints in marketing of maize. The respondents stated that constraints in marketing was due to lack of storage facilities which rank 1, followed by high transportation charges rank 2, lack of availability of market information at farm level rank 3, lack of information about govt. scheme and subsidies rank 4, lack of support price when there is a glut in the market rank 5,

Table 1. Marketing Cost, Marketing Margin, Price spread and Marketing Efficiency in Channel I

| Channel I = Producer Consumer | | | |
|-------------------------------|-------------------------------------|-----------|------------|
| S.no | Particulars | Price/Qtl | Percentage |
| 1 | Producers sale price | 1500 | |
| 2 | Cost incurred by the producer | | |
| A) | cost of bags | 10 | 0.1 |
| B) | Unloading & loading cost | 25 | 1.67 |
| C) | Weighing charges | 2 | 0.13 |
| D) | Miscellaneous charge | 10 | 0.1 |
| | Total marketing cost (a,b,c,d) | 47 | 3.13 |
| 3 | Sale price to consumer | 1500 | 100 |
| 4 | Net price received by producer | 1453 | 58.12 |
| 5 | Consumer paid price | 1800 | |
| 6 | Producer share's in consumers rupee | 96.87 | |
| 7 | Price spread | 47 | |
| 8 | Marketing efficiency (in %) | 31.91 | |

Note: Figure in the parenthesis indicates percentage to the total consumer price

Table 2. Marketing Cost, Marketing Margin, Price spread and Marketing Efficiency in Channel II

| Channel II = ProducerwholesalerRetailerConsumer | | | |
|---|--------------------------------------|-----------|--------------------------------|
| S.No | Particulars | Price/qtl | % to consumer's purchase price |
| 1 | Producers sale price | 1500 | 60 |
| 2 | Cost incurred by the producer | | |
| A) | Cost of bags | 10 | 0.4 |
| B) | Unloading & loading cost | 25 | 1 |
| C) | Weighing charges | 2 | 0.08 |
| D) | Miscellaneous charge | 10 | 0.4 |
| | Total marketing cost (a,b,c,d) | 47 | 1.88 |
| 3 | Net price received by producer | 1453 | 58.12 |
| 4 | Cost incurred by wholesaler | | |
| A) | Packing cost | 10 | 0.4 |
| B) | Losses & miscellaneous charges | 10 | 0.4 |
| C) | Transportation Charges | 30 | 1.2 |
| D) | Weighing charges | 5 | 0.2 |
| | Total marketing cost | 55 | 2.2 |
| 5 | Sale price of wholesaler to retailer | 1700 | 72 |
| 6 | Wholesaler margin | 245 | 9.8 |
| 7 | Cost incurred by retailers | | |
| A) | Unloading & loading cost | 10 | 0.4 |
| B) | Weighing charges | 5 | 0.2 |
| C) | Miscellaneous charges | 5 | 0.2 |
| | Total marketing cost | 20 | 0.8 |
| 8 | Sale price of retailer to consumer | 1800 | 100 |
| 9 | Retailers margin | 80 | 4.45 |
| 10 | Price spread | 347 | |
| 11 | Consumers paid price | 1800 | |
| 12 | Producer's share in consumers rupee | 80.65 | |
| 13 | Marketing efficiency(%) | 5.19 | |

Note: Figure in the parenthesis indicates percentage to the total consumer price

Table 3. Constraints in Marketing of Maize in Different Size of Farms Group

| S.No | Particulars | Total in percentage | RANK |
|------|--|---------------------|------|
| 1 | Lack of availability of market information at farm level | 101 (84.17) | 3 |
| 2 | Frequent price fluctuation | 82 (68.33) | 7 |
| 3 | Lack of storage facilities | 116 (96.67) | 1 |
| 4 | Lack of skilled labor for packing | 78 (65.00) | 8 |
| 5 | High transportation charges | 103 (85.83) | 2 |
| 6 | Delay in cash payment | 88 (73.33) | 6 |
| 7 | Lack of information about govt. scheme and subsidies | 95 (79.17) | 4 |
| 8 | Lack of awareness of new technologies | 56 (46.67) | 9 |
| 9 | Lack of support price when there is a glut in the market | 92 (76.67) | 5 |

Note: Figures in the parenthesis indicate percentage to the total

delay in cash payment rank 6, frequent price fluctuation rank 7, lack of skilled labor for packing rank 8 and lack of awareness of new technologies rank 9.

CONCLUSION

On the basis of the analysis there are only two marketing channel and most of the produce were bought by District

agricultural office, serchhip which act as the wholesaler and it was later bought by the animal husbandry department which act as the retailer. The producer's share of rupee in channel I is higher than channel II shows that it might be more beneficial to market a produce in channel I for the farmers. Improving storage facilities will be beneficial in for the producer as well as the seller. Forming a market intelligence on foreseeing the

future demand and prices of the maize might minimize the price fluctuation.

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REFERENCES

- Ayinde Opeyemi Eytayo, Ibrahim, Hussain Kobe, Salami Mercy Funke & Yusuf Kamil Oladapo. (2019). The Determinants and Efficiency of Maize Crops Marketing in Ilorin Metropolis. *Research Gate*. 1:10.
- Abdul Azis Jakfar¹, Muhammad Syarif², Rachmad Hidayat³, Sabarudin Akhmad⁴, Kuku Winarso³, and Anis Arendra. (2020). Development Strategy for the Master Plan of Maize Commodities Supply Chain Network Infrastructure in Madura, Indonesia. *International Conference on Culture Heritage, Education, Sustainable Tourism, and Innovation Technologies*. 1:277.
- Abdul Azis Jakfar¹, Muhammad Syarif², Rachmad Hidayat³, Sabarudin Akhmad⁴, Kuku Winarso³, and Anis Arendra. (2020). Development Strategy for the Master Plan of Maize Commodities Supply Chain Network Infrastructure in Madura, Indonesia. *International Conference on Culture Heritage, Education, Sustainable Tourism, and Innovation Technologies*. 1:277.
- Abdulai Adams, Livingstone Divine Caesar, Nana Yamoah Asafu-Adjaye. (2021). What Informs Farmers' Choice of Output Markets? The Case of Maize, Cowpea and Livestock Production in Northern Ghana. *International Journal of Rural Management*. <https://doi.org/10.1177%2F0973005221994425>.
- Channabasavanagouda, p. (2019). Marketing channel and performance value chain A-study of maize crop in Karnataka. *Indian Journal Research in Social Science*. 9(2):383-390.
- Kutoya Kusse, Kebede Kassu, Yidnekachew Alemayehu. (2019). Market Chain Analysis of Maize (Zea Mays) in South Omo Zone in South Nation Nationalities Peoples Region (Snnpr), Ethiopia. *International Journal of Research in Agriculture and Forestry*. 6(8): 34-48.
- Srikanth, B., Kausadikar, H.H., Jondhale, R.N, and Gandhi, N. (2017). Economic Analysis of Maize Production and Marketing in Khammam District, Telangana. *Asian Journal of Agricultural Extension, Economics & Sociology*. 20(4): 1-13.
- Singh, A., Devi, E., Dayal, Saha Saurav, Lungmauna, Dutta, S.K., et al. Diversity of Landraces Maize in Mizoram: Prospect, Challenges and Opportunities. *Scientific maize cultivation in north east India*. 2019; (98-104).
- Sang Isaac Kipchirchir, Ng'eno Elijah Kiplangat, Kibett Joash Keino. (2020). Analysis of Dry Maize Grain Market Integration in Kipkelion East and West Sub Counties, Kericho County, Kenya. *Journal of World Economic Research*. 9,(2) 83-90. doi: 10.11648/j.jwer.20200902.11
- Thombre, R. F., K. V. Deshmukh, S. S. More and Chavan, R. V. (2020). Constraint and Suggestion Analysis in Production and Marketing of Maize in Marathwada Region of Maharashtra using Garrett's Ranking Technique. *Int.J.Curr.Microbiol.App.Sci*. 9(8): 1773-1778. doi: <https://doi.org/10.20546/ijcm.2020.908.205>
- Yugraj Singh and Baljinder Kaur Sidana. (2019). Severity Analysis of Problems Faced by Maize Growers in Punjab. *Economic Affairs*. 64(2) 317-322.
