

## MARKET DYNAMICS OF CHILLI FARMING IN NANDURBAR TAHSIL: A COMPREHENSIVE STUDY

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### ABSTRACT:

Chilli forms one of the very lucrative spices. It is indeed given the name wonder spice and is the one which is used most around the world. Various kinds are planted for applications like vegetable preparations, pickles, spices, and condiments. Cold spice is the most essential element of many cuisines worldwide since it gives pungency, flavor, and color to food. The marketability of Indian chillies is chiefly attributed to their colour and pungency, which deserve worldwide reputation and acclaim. Refrigeration includes certain quality characteristics like length, breadth, and thickness of skin. Due to the pigment, some varieties are renowned for red colour. About 8 million tons of chillis are produced and an area of 1.7 million hectares is in cultivation.

Chili production is one of Nandurbar's agriculture backbones and that is why Nandurbar Tahsil shows in particular some importance in chilies. On the one hand, India accounts for 50-60% of chili production in the world, while some major markets for chili around the globe are India, China, Mexico, Thailand, U.S.A., U.K., Germany and Sweden.

This study seeks to deal with the issues faced by the farmers of Nandurbar taluka, Nandurbar district, Maharashtra, in marketing their chillies.

**KEYWORD:-** Chilli farming, Agricultural economics, Market dynamics and analysis.

### INTRODUCTION:-

Chilli cultivation has a very important position in the agricultural economy of the Nandurbar Tahsil, the northernmost boundary of Maharashtra. This area is typically recognized for its optimal climatic and soil conditions suitable for growing various crops. Thus, as years passed, more and more farmers began taking up chilli production. Chillies have become one of the major cash crops of the region, contributing not just towards food security at the local level but also enabling the livelihoods of thousands of farmers. Many constraints, however, restrict this production and private income from it. These include fluctuating market prices and inadequate infrastructure development, domination of middlemen, and the absence of value-added processing facilities. On the other hand, the issues of changed rainfall pattern due to climate change have further reduced crop output, increasing the economic uncertainty faced by farmers.

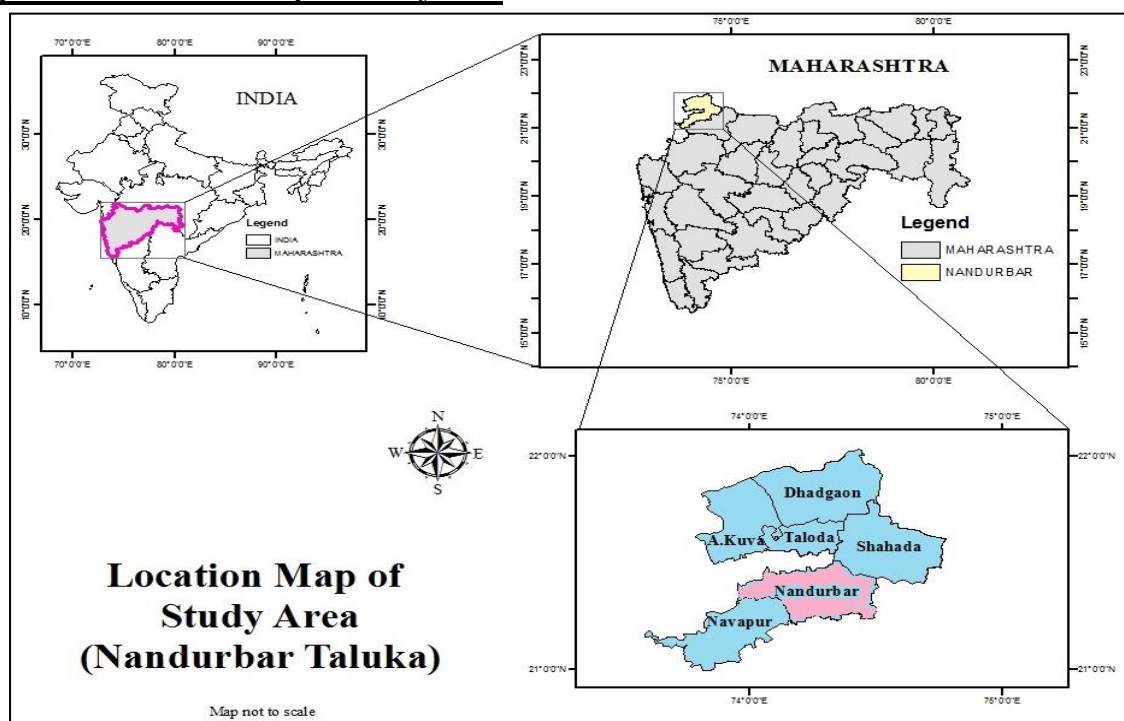
The market dynamics in Nandurbar pertaining to chilli farming arise out of a complex interaction between production, market access, price fluctuations, and the presence of various stakeholders at different levels. Understanding these dynamics is important for strategizing the economic viability of chilli farming, enhancing the farmers' income, and ensuring sustainable

growth for the sector. The market for chillies does not remain stable, either at the local or national level, and is fluctuating to a large extent due to demand shifts, transport costs, and varying quality of produce. Also, one cannot excuse the existence of some market inefficiencies, which further complicate this situation: limited access to transparent price information, weak farmer-producer organizations, and underdeveloped market infrastructure. The present study intends to create a full-fledged analysis on the market dynamics of chilli farming in Nandurbar Tahsil and the key factors affecting production and marketing. The value chain analysis in the paper looks forward to studying the actors in the markets from smallholders to traders, wholesalers, and consumers, among others, with regard to their influences in price and availability of chillies. It also examines external factors like government policy, agricultural extension services, and market regulation through their economic outcome on farmers. The above-mentioned aspects will be covered in order to make the research attempt towards exposing possible recommendations to improve market access, reduce price fluctuations, and empower farmers in the region.

Finally, it seeks to bring forth conclusions that would profitably contribute toward policymaking, strengthening market linkages, and enhancing the sustainability of chilli farming in Nandurbar Tahsil.

### **LOCATION OF THE STUDY REGION:**

#### **Map No: 01 Location map of Study area**



Nandurbar district is situated in the northwestern part of Maharashtra and extends over an area of 5034 sq. kms. between latitudes  $21^{\circ}00'$  and  $22^{\circ}03'$  N and longitudes  $73^{\circ}34'$  and  $74^{\circ}47'$  E in Survey of India degree sheet nos 46 G, H, K and J. It is bordered by Madhya Pradesh state in the north and northeast, Dhule district in the east and south and Gujarat state to the west and

northwest, Nandurbar is the district headquarters and Akkalkuwa, Shahada, Dhadgaon, Taloda and Navapur are other major towns in the district. Nandurbar is an important township and business center in the district.

Particularly in the region of central India where farming conditions may be generally regarded as semi-arid to desert, these patterns are in charge of producing ideal agricultural sites. They are part of the Western Ghats' larger range and are distinguished by their undulating topography with moderate to high slopes.

From the Satpura hills in Madhya Pradesh, the Tapi receives its first drop, which then travels through Maharashtra and Gujarat on the Indian subcontinent before drain into the Arabian Sea.

### OBJECTIVES IF THE STUDY:-

The present paper's study objective is as follows:

1. To study the structure of the chilli market in Nandurbar Tahsil, including key players, types of transactions, and distribution channels.

### STUDY METHODS AND MATERIALS:

**Literature Review:** Gather existing literature on chilli farming, market dynamics, agricultural economics, and concern topic.

**Field Surveys and Interviews:** Conducted interviews with Nandurbar Tahsil's chilli farmers to gather firsthand data on farming practices, inputs costs, yields, market access, and challenges faced. Interviews with key informants such as farmers, traders, local agricultural officers, and market intermediaries to gather qualitative insights.

Organize focus group discussions with farmers to explore shared experiences and collective views on market trends, pricing, and challenges.

Analyze market trends by collecting data on chilli prices over time from Nandurbar Tahsil's market, agricultural cooperatives, and government databases.

### DATA SOURCE AND MATERIALS:

**Books and Journals:** Textbooks on agricultural economics, market analysis, and sustainable farming practices. Academic journals like the "Journal of Agricultural Economics," "Agricultural Systems," and "International Journal of Agricultural Science."

**Government Reports:** Access reports from agricultural departments, market committees, and research institutions that provide data on chilli production and market trends in Nandurbar.

**GIS Mapping Tools:** Use Geographic Information Systems (GIS) for spatial analysis of chilli farming areas, market locations, and transportation routes.

**Conferences and Agriculture Exhibition:** Attend conference, workshops and on agriculture to gather insights and network with professionals in the field.

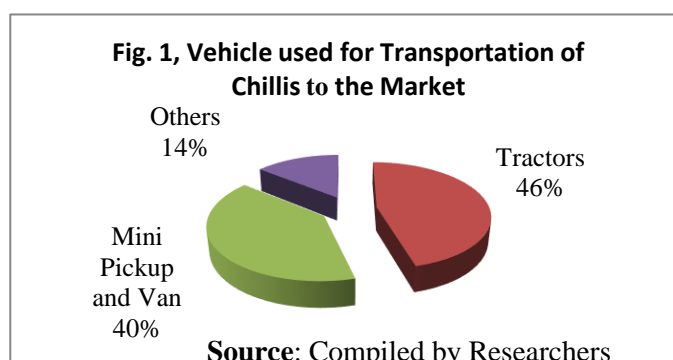
### DISCUSSIONS AND RESULTS:

**Table No.1 Vehicle used for Transportation of Chillis to the Market**

Sr.	Mode of	No. of	Percentage
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No	Transport	Respondents	
1	Tractors	55	45.83
2	Mini Pickup & Van	48	40.00
3	Others	17	14.17
	<b>Total</b>	<b>120</b>	<b>100</b>

Source: Compiled by Researchers



The table no.1 and fig. no.1 shows that 46 % of the respondents preferred to Tractors transport, 40% of the respondents preferred to Mini Pickup and Van transport and 14 % of the respondents preferred other types of transport.

#### Marketing Procedures of Chilli:

The growers of chillies bring their produce to a communal area during harvest season so that it can be sold. Very few growers save some of their produce for themselves. Some sell the total amount that was gathered. The local traders prefer to use pickup to convey their wares. The rationale is that the items can be delivered more affordably and swiftly. A single pack of chilli villages has costs more than Rs 100 in goods. The pack is transported to Nandurbar by the truck owners for a charge of more than Rs 150.

#### Marketing procedure of chillies practiced in Nandurbar Taluka:

Small and medium-sized sellers need sufficient storage space. A significant portion of the chilli market is owing to local traders or private moneylenders. They have naturally been eager to pay back the loans. As a result, they sell the whole amount they have harvested. Produce collected from the communal area is stored ahead of time. The buyers have come to this public location and make their market purchase. There are small-scale chilli powder extractors and local traders.

#### SALE TO REGULATED MARKETS:-

The direct channel, which has no middleman, is the regulated markets. But this channel is not very popular among the farmers because of various reasons. The number of farmers and quantity of chillies sold to the regulated markets are presented in the below table no.2.

**Table-2 No. of Farmers and Quantity of Chilli**

Size of Farmers	Number of Farmers	Percentage of Group Concerned	Average Quantity of Chillies Sold (in quintals per acre)	Percentage of Marketed Surplus of the Group Concerned
Small	10	20	0.90	10.55
Large	10	25	0.84	11.37
Overall	20	22	1.74	10.93

**Source:** Compiled by Researchers

It is clear from table that 25 and 20 per cent of the large and the small farmers sold their produce through regulated markets respectively. The average quantity of chillies sold per acre by the small and the large farmers is 0.90 and 0.84 quintals respectively. The percentage to the marketed surplus of the group concerned namely the small and the large farmers are 10.55 and 11.37 per cent respectively.

The Table No.3 the information exhibits that among the reasons for selling through regulated markets, remunerative price ranks first. The reasons namely, spot payment, low market charges weight and easy method of sale are ranked II, III, IV and V whereas the VI<sup>th</sup> and VII ranks are assigned to incentives like long term long term practices and absence of middlemen respectively.

**Table-3 Reason for Selling through Regulated Markets in Ranked**

REASONS	MEAN SCORES	RANK
Remunerative price	68.71	I
Spot payment	61.16	II
Low market charges	53.72	III
Correct weight	49.16	IV
Easy method of sale	42.73	V
Long term practice	39.63	VI
Absence of Middlemen	33.71	VII

**Source:** Compiled by Researchers

### CONCLUSION:-

To incentivize farmers to store, sell, and utilize the pledge loan system at their leisure, the Maharashtra government ought to set up appropriate storage facilities. By taking these safety precautions and steps, the farmers would be able to get a fair price for their produce. The majority of the marketing expense is made up of the consumer pricing. In addition, the government ought to support farmers in establishing cooperative organizations and a controlled market for chilli. Therefore, the government should order the cooperative and commercial banks



in the research region to give farmers access to lending facilities at a fair interest rate and without requiring them to follow strict procedures.

The second most important crop in Nandurbar Taluka after paddy is chillies, which are known as the Universal Spice of India. Chillies are a tropical commercial crop that grows well in South India's hot climate. However, a variety of issues make the research area's marketing of chillies the best. Even though the government has made numerous efforts to remove these issues and flaws from the chilli marketing industry, the marketing group does not profit from these initiatives. The market intelligence and information system need to be improved by the government.

Visual media, such as radios and televisions, should be used to assess marketing information strategies. When it comes to estimating the marketable surplus, daily average price, and demand for chillies, computers should be used wherever feasible. The policy makers and authorities in question could improve the economic conditions of the chilli marketing industry in the study area by implementing these recommendations effectively and providing a fair and remunerative pricing.

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