



## ORIGINAL RESEARCH ARTICLE

# An analysis of marketing channels and constraints faced by rice farmers in marketing of Telangana Sona variety in Nalgonda district of Telangana

Shiva Karingu<sup>1</sup>, Nirmala Bandumula<sup>@\*</sup>, Srinivasa Reddy D<sup>1</sup> and Meena A<sup>1</sup>

<sup>1</sup> College of Agriculture, PJTSAU, Rajendranagar, Hyderabad - 500030

<sup>@</sup> ICAR-Indian Institute of Rice Research, Hyderabad-500030

<sup>\*</sup>Corresponding author- nirmalaicar@gmail.com

Received: 3<sup>rd</sup> September 2021; Accepted : 17<sup>th</sup> November 2021

### Abstract

The present study was undertaken in Nalgonda district of Telangana to analyse the marketing channels and constraints faced by rice farmers in the marketing of Telangana Sona variety. A total sample of 120 farmers from 6 villages of three mandals in Nalgonda district of Telangana was selected for the study. Producer → Miller → Retailer → Consumer was the major marketing channel in the study area. Garrett's ranking technique to identify the constraints faced by the farmers in marketing of Telangana Sona rice variety revealed that the most important problem perceived by the farmers in the study area was the low procurement price offered for Telangana Sona by the millers, compared to other popular varieties, followed by millers not buying the produce due to surplus stock. The other major problems for marketing the produce were lack of adequate and timely transportation and storage facilities and delay in payments. Since the procurement price offered for Telangana Sona by the millers was comparatively low, there is an urgent need to create awareness about the unique health benefits of the variety among the millers and consumers and support the farmers by providing price on par with the other popular varieties. Also, there is a need to devise a marketing strategy to help the farmers to realise a better price to accelerate the adoption of the variety in the state.

**Keywords:** Rice, Telangana Sona, Marketing Channels, Constraints, Garretts' ranking

### Introduction

In India, rice is the most important and extensively grown food crop, occupying nearly 43 million hectares, or nearly 44 per cent of the total area under cereals in the country. India has the largest area in the world accounting for nearly 28.2 per cent of the world area under rice. India is the second largest producer and consumer of rice in the world. The productivity of rice has increased from 1984 kg per hectare in 2004-05 to 2659 kg per hectare in 2019-20 due to improved technologies, irrigation facilities and government schemes and initiatives. Rice had a share of 43.5 per cent in the total cereals production in 2019. Major paddy growing states in India are West Bengal, Uttar Pradesh, Punjab, Telangana and Andhra Pradesh (Source: Directorate of Economics & Statistics, DAC&FW,2020).

Telangana has achieved a record procurement of 11 million tonnes of paddy in 2019-20 and became 'Rice Bowl' of the country. Total area under paddy in the

state reached to 2.8 million hectares in 2019-20 (DES, Telangana, 2020). Total paddy production in the state increased to 10 million tonnes in 2019-20 from 6.2 million tonnes in 2017-18. Productivity increased to 3436 kg per hectare in 2018-19 against 3176 kg per hectare in 2017-18 in Telangana.

Telangana Sona (RNR 15048) is a new paddy variety developed by PJTSAU in the year 2015 with special characteristics such as short duration (125 days), water conserving, fine grain, high yielding and blast resistant. Due to these traits, it was suggested for the farmers to cultivate this variety. Also, it has low glycaemic index, making it ideal for rice eating diabetics (<https://www.pjtsau.edu.in/files/Newlycrop2015.pdf>). Considering the growing importance to the variety, Telangana Sona, this study was undertaken to analyse the marketing channels and constraints in marketing of Telangana Sona variety in Telangana state.

## Methodology

In Telangana, Nalgonda, Karimnagar, and Nizamabad are the major paddy growing districts (**Table 1**). Nalgonda is the highest paddy growing district in the Telangana with 4.02 lakh acres of area in *Kharif-2020* (Source: Directorate of Economics and Statistics, Telangana 2020).

**Table:1 Area under rice in major rice growing districts of Telangana in Kharif– 2020**

S.No	District	Area (acres)
1	Nalgonda	4,01,684
2	Suryapet	4,01,580
3	Nizamabad	3,86,156
4	Khammam	2,83,942
5	Jagitial	2,83,107
6	Karimnagar	2,52,957
7	Peddapalli	2,05,089
8	Yadadri Bhuvanagiri	2,04,502

**Source:** Directorate of Economics and Statistics, Telangana, 2020

The study has been carried out in Nalgonda district as it is the highest paddy cultivating district in Telangana. The Nalgonda district is basically an agrarian district with good irrigation sources and favourable climatic

conditions. Approximately 75% of population depends directly or indirectly on agriculture in Nalgonda district. The major crops grown are paddy and cotton. Telangana state is the seed bowl of India and the contribution of Nalgonda district in this regard is sizeable.

Nalgonda district has 31 mandals and among them Miryalguda, Nidamanoor, Nalgonda, Kanagal, Thripuram, Thipparthy and Vemulapally are major paddy growing mandals. In Nalgonda, Telangana Sona, Chintu, MTU-1010, KNM-118, MTU-1156, BPT-5204 and HMT, are major paddy varieties grown in fine grain paddy production. Telangana Sona (RNR-15048) was the major cultivated variety in the study area, as it covered more than 80 percent of area in *kharif 2020*.

Telangana Sona occupies the major rice area in Nalgonda district. Among the 31 mandals in Nalgonda district, three major paddy cultivating mandals were selected. From each mandal two villages and from each village 10 farmers cultivating Telangana Sona variety and 10 farmers cultivating Chintu, the other popular variety grown in the study area, were selected as sample for the study. Total sample size was 120 farmers (**Table 2**).

**Table 2: Mandal wise distribution of sample farmers**

S. No	Mandal	Villages	Sample farmers who cultivated Telangana Sona	Sample farmers who cultivated Chintu variety
1.	Nidamanooru	Muppam	10	10
		Errabelli	10	10
2.	Adavidevulapalli	Ulshaya palem	10	10
		Bangarigadda	10	10
3.	Kanagal	Dorepalli	10	10
		Shabdullapuram	10	10
<b>Total</b>			60	60

Marketing channel reveals how the produce passes through different agencies from producer to final consumer. In marketing of Telangana Sona, the major marketing channels were identified through survey data collected from the sample farmers.

Constraints in marketing were studied by Garrets

ranking technique. Constraints faced by farmers were grouped under following heads:

- ❖ Lower price compared to other popular varieties
- ❖ Transportation problem
- ❖ Storage problem
- ❖ Delay in payments



- ❖ Millers not buying produce due to surplus stock
- ❖ Problems at the miller level
- ❖ Malpractices at the market

### Garett's ranking technique

Garett's ranking technique was used to indicate the constraints faced by the farmers in marketing of Telangana Sona. The individual rank was converted into percent position by using the formula given below.

$$\text{Percent position} = \frac{100 \times (R_{ij} - 0.5)}{N_j}$$

$R_{ij}$  = Rank given to the  $i^{\text{th}}$  attribute by the  $j^{\text{th}}$  individual

$N_j$  = Number of attributes ranked by the  $j^{\text{th}}$  individual.

The percent position of each rank was converted into scores using Garrett's table. For each constraint, scores of individual respondents were added together and were divided by total number of respondents for whom scores were added. Thus, mean score for each constraint was ranked by arranging them in descending order. Similar analysis was done by Nirmala *et al.*, (2013).

## Results and Discussion

### Marketing channels for Telangana Sona

Marketing channel reveals how the produce passes through different agencies from producer to final consumer. In marketing of Telangana Sona, the following channels were observed (**Table 3**).

**Table No.3: Marketing Channels for Telangana Sona in the study area**

Sl. No.	Marketing Channel	Percentage of farmers who adopted the marketing channel
I.	Producer Miller Retailer Consumer	80
II.	Producer Commis- sion agent Miller Retailer Consumer	5
III.	Producer Milled by producer farmer Consumer	8.4
IV.	Producer Govt. procurement agen- cies Miller Retailer Consumer	6.6

Channel I (Producer → Miller → Retailer → Consumer) was the major marketing channel in the study area. Eighty percent of the sample farmers growing Telangana Sona were selling their produce directly to the rice millers. Very few farmers (8.4%) were milling their produce on their own and selling directly to their neighbour farmers or at nearby towns and gaining additional income. Five percent of the farmers were selling the produce to the commission agents and 6.6 % of the sample farmers were selling the produce to government procurement agencies.

The constraints faced by the farmers in the marketing of Telangana Sona were identified and listed. Their ranks based on Garrett's Ranking method are presented in the **Table 4**. The major problems faced by farmers in marketing of Telangana Sona were lower price offered by the millers for Telangana Sona compared to the other popular varieties (73.2%). During the survey, the sample farmers informed that few millers cited the comparatively high broken kernels in Telangana Sona as the reason for offering low price for Telangana Sona. Since the procurement price offered for Telangana Sona by the millers was comparatively low, there is an urgent need to create awareness about the unique health benefits of the variety among the millers and consumers and support the farmers by providing price on par with the other popular varieties. Millers not buying produce due to surplus stock (60.3%), lack of adequate and timely transportation (58.2 %) and lack of adequate storage facility (46.4%), delay in payment (38.35%), problem at miller's level (38.25%) and malpractices at market (31.03%) were the other constraints as opined by the sample farmers (**Figure 1**).

**Table: 4. Constraints faced by farmers in marketing of Telangana Sona**

Factor	Average score	Rank
Lower price compared to other popular varieties	73.2	1
Millers not buying produce due to surplus stock	60.3	2
Transportation problem	58.2	3
Storage problem	46.4	4
Delay in payments	38.35	5
Problem at miller's level	38.25	6
Malpractices in Market	31.03	7

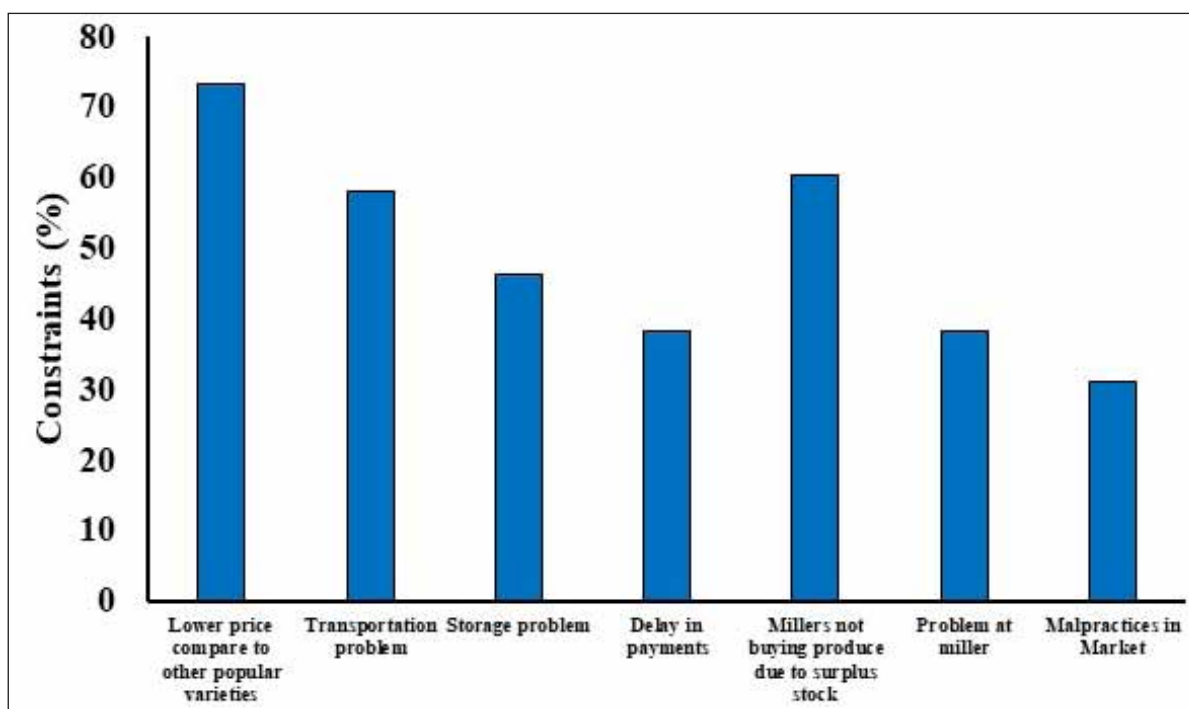


Figure 1: Constraints faced by farmers in marketing of Telangana Sona

## Conclusion

(Producer → Miller → Retailer → Consumer) was the major marketing channel in the study area. Garrett's ranking technique to identify the constraints of farmers in marketing of Telangana Sona rice variety revealed that the most important problem perceived by the farmers in the study area was the low procurement price of Telangana Sona compared to other popular varieties, followed by millers not buying produce due to surplus stock. The other major problems were transportation, storage and delay in payments. The problems at miller's level and the malpractices at the market were other constraints as opined by the sample farmers. Since the procurement price offered for Telangana Sona by the millers was comparatively low, there is an urgent need to create awareness about the unique health benefits of the variety among the millers and consumers and support the farmers by providing price on par with the other popular varieties.

Also, there is a need to devise a marketing strategy to help the farmers to realise a better price to accelerate the adoption of the variety in the state.

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