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CONSTRAINTS OF FARMERS IN RICE MARKET IN THE ALAPPUZHA DISTRICT

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ABSTRACT:| Rice is Kerala's major food crop, and demand for rice is gradually increasing as the state's population grows. The paper aimed to identify the constraints of rice farmers of Alappuzha district in the rice market. Both primary and secondary data were used for the study. Primary data were collected from rice farmers. 60 farmers were selected from the Champakulum block of Alappuzha district as the major rice-producing district in Kerala based on simple random sampling. The results were analysed based on the Garrett ranking method. Farmers were confronted with production constraints such as scarcity and high labour costs, making rice cultivation challenging due to its labor-intensive nature. High loading charge and delay in procurement came into the major constraints of rice market. Financial restrictions were recognised as the key constraints in the rice market, including a lack of subsidies, financial support, and access to sufficient credit. If MNREGA can consider rice cultivation in their list of operations, they can supply enough labour for the production and post-production operations of rice. The government can be more circumspect in its political intervention and avoid unnecessary interference of intermediaries who are suspected in the rice market.

KEY WORDS: Farmer, Rice, Alappuzha, Cultivation, Constraints

Rice is the world's second most popular cereal, both in terms of production and consumption. In terms of output, India ranks second. India produces 20 per cent of the world's white and brown rice, making it one of the world's most important rice producers. Rice is Kerala's major food crop, and demand for rice is gradually increasing as the state's population grows. The area under rice cultivation in Kerala during the agricultural year 2018-19 is 2, 02,907.13 Ha. It is increased by 8,672 .13 Ha than the previous agricultural year 2017-18(Economic review, 2020). There is 4,880.92 ha dry land rice cultivation in Kerala during 2018-19. Wet land Rice area during 2018-19 is 1, 98,026.21 Ha. Wet land rice area during 2018-19 is increased by 8,940 Ha (4.73%) than the previous agricultural year 2017-18. On comparing with in the year 2001-02 38.57% of wet land rice area decreased during 2018-19. On analysing the area of last 10 years, rice cultivation is high during the agricultural year 2009-10 and the area is 2,34,013 Ha. Total rice area accounted 7.89% of the total cropped area in the state during 2018-19.There was only a marginal increase in the productivity of rice during the past four decades (GOK: 2018-19).

STATEMENT OF PROBLEM

Kerala is deficit in rice production and the demand-supply gap for rice in the market, which was around 45 percent in 1957, increased to more than 85 percent in 2009 due to the large scale decline in area (Leenakumari, 2010). A study by Athira (2017) also shows that rice produced in the state meets only 15 percent of the total consumption requirement. Therefore, the flow of rice from Andhra Pradesh and West Bengal has increased in order to meet the consumption needs. In spite of this, area under cultivation for rice has increasingly been converted either to cultivation of other crops or for non-agricultural purposes. This is mainly due to the relatively low profitability, the existence of large number of intermediaries, frequent fluctuations in price and other marketing constraints faced by farmers in rice market.

There is a declining trend in the area under rice growing in the state. In 1961-62, the total rice area was 7.53 lakh hectares, and in 1975-76, it was 8.76 lakh hectares. Following that, rice cultivation decreased steadily, reaching 2.29 lakh hectares in the 2007-08 crop year. However, rice farming expanded to 2.34 lakh hectares in 2008-09. When compared to 1975-76, the area under rice cultivation declined by 76.49 per cent in 2018-19 (GOK: 2018-19). A study evaluated the problems in paddy cultivation reference to Palakkad district (Pramod, 2018). The result revealed that low price of paddy weeds problem, inadequate support price, labour shortage, and marketability problem, water scarcity, fertilizer problem, inadequate equipment problem, low quality of seeds, and flood were the major problems faced by farmers in the rice cultivation. Mukesh (2016) discussed in his article on dynamics of paddy cultivation in Kerala that main reasons for the declining trend in rice production in Kerala were low price for the output has given to farmers and it is unprofitable. But the price of rice in market was increasing due to intervention of intermediaries. It is

concluded that if government was not taking any initiatives in production and marketing of rice it might lead to continue the same declining trend in Kerala for rice production. In this situation, an in-depth study of the understanding of problems of farmers was needed. From pre-production to marketing of rice, the farmers were gone through various hazards. Here the study has made an attempt to study the constraints of rice farmers in Alappuzha district.

RESEARCH METHODOLOGY

For the proposed study, rice market is defined as the market for unmilled rice from rice farmers (excluding registered seed growers and specialty rice growers) till the point of its sale for processing. Both primary and secondary data were used for the study. Primary data were collected from rice farmers. 60 farmers were selected from the champakulum block of Alappuzha district as the major rice producing district in Kerala. List of farmers were collected from Krishibhavan and the respondents were selected randomly from the list. Data from farmers were collected by adopting personal interview method using pre tested structured interview schedule.

RESULTS AND DISCUSSION

The study identified various constraints of farmers viz, production, procurement, marketing, institutional and financial constraints. The results were analysed based on the Garrett ranking method (Dhanavandan, 2016). Based on the Garret ranks, the garret value was calculated. The Garret tables and scores of each constraint were taken and multiplied and finally by adding each row, the total Garret score were obtained.

$$\text{Percent position} = \frac{100\,(Rij - 0.5)}{Nj}$$

Where;

Rji = Rank given for the ith variable by the jth respondent

Nj = number of variables ranked by the jth respondent

Based on the ranks obtained, the highest score is considered as the major constraint of farmers and least score obtained constraint is considered as the less affected constraint for a farmer.

PRODUCTION CONSTRAINTS

From land preparation to rice harvesting, rice production goes through several stages. It is beset by issues such as a lack of inputs, irrigation, high labour costs, natural disasters, weed development, pests and illnesses, and so on. Production limits for farmers in three districts may alter depending on local conditions. Rice producers' difficulties in rice production are shown in the table- 1.

Table 1: Production constraints of farmers

Constraints	**Alappuzha (n=60)**		
	Score	Average	Rank
High cost of inputs	2552	42.53	10
Non availability of quality inputs	2640	44.00	9
Scarcity of labour	4265	71.08	2
High cost of labour	4526	75.43	1
Inadequate supply of seeds	3566	59.43	4
Insufficient availability of irrigation	1580	26.33	12
Untimely availability of irrigation	1176	19.60	13
Excessive weed growth	3601	60.02	3
Occurrence of pests ad diseases	3019	50.32	7
Natural calamity	3338	55.63	5
Uneven rainfall pattern	3307	55.12	6
Difficulties related to mechanization	2429	40.48	11
Salinity of soil	2934	48.90	8

It is clear from the table-1: that how the farmers were identified and ranked their problems that occurred in production times. In the Alappuzha district, the high cost of labour and scarcity of labour were considered major problems for farmers followed by excessive weed, inadequate supply of seeds and natural calamity respectively. They were also having issues with the quality of seed provided by Krishibhavans. The number of seedlings produced from seeds will be minimal, and some seeds will not germinate. Therefore, it was necessary to acquire more seeds in addition to the subsidised seed. It is expensive for farmers to either buy seed or make seed at home. Farmers in Alappuzha do not need to worry about irrigation because the Kuttanad region has plenty of water. Farmers, on the other hand, find it difficult to generate high-quality rice crops due to the salinity

of the soil. Various ponds or backwaters span a large area in Alappuzha and are connected to the sea. In much of the coastal terrain, deltaic areas near river mouths and reclaimed backwaters are either at sea level or 1.0 to 1.5 metres below MSL. Production is tough in these fields, which are occasionally flooded with saline water. In recent decades, the 'Thannirmukkam-barrage,' built to protect rice growing from salt intrusion during the summer season has reduced such natural saline water intrusion, but it is still diminishing soil productivity. (Ray et.al, 2014). In other districts, salinity is not considered as an issue for the farmers. The seasonal shortage of agricultural labour is generally cited as a major cause of the current change in rice growing in Kerala. There has been a shift in the labour force from agriculture to a variety of non-agricultural occupations. Even though rice cultivation can be mechanised, many of the operations are still following manpower for their better results like filling of plants, weeding, fertilizing and so on. If MNREGA can consider rice cultivation in their list of operations, they can supply enough labour for the production and post-production operations of rice. Government is considerate in providing subsidies for seeds. However, if the government can guarantee the quality of the seeds, it may help in the production of larger and higher-quality harvests, as well as provide support to farmers.

PROCUREMENT CONSTRAINTS

Procurement is an unavoidable aspect of the rice market since it ensures the right purchase of rice from farmers and its distribution to consumers based on SUPPLYCO. However, farmers, millers, and SUPPLYCO are having issues since rice procurement requires distinct methods. The difficulties may be conflicts between millers and farmers, as well as delays in procurement and other challenges with rice drying and cleaning. As a result, the constraints described in Table by farmers, millers, and SUPPLYCO regarding procurement of rice.

Table- 2: Constraints related to procurement

Constraints	**Alappuzha (n=60)**		
	Score	Average	Rank
Lack of demand	2570	42.83	5
Delay in procurement by agents	4113	68.55	1
High loading/unloading charges	3472	57.87	2
Favourable terms of sale with procurement agency	1536	25.60	6
Inadequate facilities for drying and cleaning	2791	46.52	4
Conflicts between procurement agents and farmers	3375	56.25	3

From table 2 based on ranks, it can be clear that delay in procurement and high loading charge are the major constraints in the Alappuzha district which is faced by farmers. The district's geographical situation differs from that of other districts in that rain might cause flooding. Due to the farmers' practice of storing rice in the field, any delays in procurement may have an impact on the yield's quality and quantity. As a result, the government should concentrate on obtaining rice from Alappuzha as soon as it is harvested. In the district, the loading fee is likewise very high. When farmers are required to use water transportation to reach marketplaces, the cost of loading may be doubled because of two time loading in boat and from boat to tipper of miller. They are not considering terms of sale of agents as a constraint as it is favourable to them. Because the price is set by the government, although there are disagreements between agents and farmers on quality and quantity of produce. They claimed that the agents were conducting the fraudulent activities impact on produce quality standards on purpose. As a result, they seek to make compromises by giving their produce to millers who will count it as less than what they sold. These are the most significant restrictions for farmers in the Alappuzha district. Based on these findings, it is possible to conclude that high loading charge and delay in procurement came into the major constraints of rice market. So for alleviating these issues, the government may impose a common loading charge or that the government should contribute to the loading charge. The government may take steps to establish warehouses in each area to ensure prompt procurement. As a result, rice millers may procure and store a larger number of loads at a given time.

MARKETING CONSTRAINTS

All of the farmers sold their produce to SUPPLYCO. As a result, farmers do not need to look for traders to sell their produce. Farmers continue to face challenges such as transportation availability and

expense, payment delays, product loss, and so on. Millers are also limited by a shortage of vehicles, distance from procurement hubs, and other factors.

Table -3: Marketing constraints of farmers

Constraints	**Alappuzha (n=60)**		
	Score	Average	Rank
Delay in payment	2612	43.53	5
More distance to marketing centers	2112	35.20	7
Lack of transportation	3303	55.05	2
Transportation cost	3082	51.37	4
Losses occurred in transit	4258	70.97	1
Undue interference of agents	3284	54.73	3
Lack of storage facility	2148	35.80	6

From the table 3 losses in transit and a lack of transportation was the most prominent limitations mentioned by farmers in the Alappuzha district when it came to the marketing of rice. Losses occurred means when agents procured the entire quantity of produce but recorded a lower quantity on the receipt slip for the quality adjustments of produce. The amount is reduced to compensate for quality requirements that have been compromised. As a result, it is a huge issue for farmers.

INSTITUTIONAL CONSTRAINTS

Institutional constraints meant that legal and political constraints involved in the rice market. Law and politics may influence a market and it can make hindrances to farmers by unnecessary intervention or negligence in their needs. Those constraints are identified and shown in Table- .4.

Table -4: Institutional constraints of farmers

Constraints	**Alappuzha (n=60)**		
	Score	Average	Rank
MGNREGA not covering rice	3773	62.88	1
Ineffectiveness of Kerala Rice Land and Wetland Conservation Act, 2018	1553	25.88	5
Intervention of political parties in the procurement industry	3353	55.88	2
Political influence in rental government machineries	2997	49.95	4
Communication gap between institutions and farmers	3235	53.92	3

When considering the farmers in the district of Alappuzha, they believe that MGNREGA does not cover the rice and therefore insufficient labour and more labour costs are incurred in farming. Farmers also pointed to the intervention of the political party. This resulted in unfairness in procurement, such as early procurement of produce from politically influenced padasekharasamitis and the availability of government machinery only in their preferred locations. The government can be more circumspect in its political intervention and avoid unnecessary interference of intermediaries who are suspected in the rice market. If MNREGA can include rice in their conditions, to reduce the cost of production and thereby better income.

FINANCIAL CONSTRAINTS

Financial constraints may occur in rice cultivation as it is a costly process. It is inevitable for the cultivation and the farmers were looking for the support from the government. Table 5 identified the financial constraints observed in the study area

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Table- 5: Financial constraints of farmers.

Constraints	**Alappuzha (n=60)**		
	Score	Average	Rank
Lack of adequate subsidy from government	3303	55.05	1
Lack of sufficient quantum of credit	2827	47.12	5
Untimely availability of credit	3206	53.43	2
Lack of information on source of credit	2943	49.05	4
Lack of financial support for recovering loss	3050	50.83	3
Resistance of bank to provide credit	2551	42.52	6

The table 5 indicates that all the farmer respondents were experiencing a shortage of suitable government subsidies. Cultivation is quite tough in the Alappuzha district due to the topographical conditions. As a result, it is both risky and costly. As a result, the government has announced numerous subsidies to farmers to help them overcome these challenges, such as free seeds, fertiliser subsidies, and subsidies for bund formation and pump installation for lift irrigation. However, they claimed that the subsidies they were receiving were insufficient. Financial assistance for loss recovery is insufficient and not available on time, particularly during floods and other natural disasters. Finance is unavoidable for farmers who want to earn a profit from rice farming. Owned funds are sometimes insufficient for the operation of rice farming, necessitating government assistance. Subsidies and support can be provided through Krishibhavan based on the common needs of farmers at the time of cultivation, rather than off-seasonal benefits. So they can put the money to actual use rather than wasting it on frivolous expenses.

CONCLUSION AND SUGGESTIONS

The researcher identified various constraints faced by farmers and traders in rice market. Farmers were confronted with production constraints such as scarcity and high labour costs, making rice cultivation challenging due to its labor-intensive nature. If MNREGA can consider rice cultivation in their list of operations, they can supply enough labour for the production and post-production operations of rice. High loading charge and delay in procurement came into the major constraints of rice market. So for alleviating these issues, the government may impose a common loading charge or that the government should contribute to the loading charge. Losses in transit, lack of transportation, shortage of storage facilities and agency meddling were the major marketing constraints faced by the farmers in Kerala. Institutional constraints identified were MGNREGA does not cover the rice and therefore insufficient labour and more labour costs are incurred in farming. Intervention of the political party in the area of machine allocation and procurement of rice were also faced by farmers. The government can be more circumspect in its political intervention and avoid unnecessary interference of intermediaries who are suspected in the rice market. Financial restrictions were recognised as the key constraints in the rice market, including a lack of subsidies, financial support, and access to sufficient credit. Krishibhavan can give subsidies and support to farmers based on their common needs during the growing season, rather than off-seasonal benefits. So they may put the money to productive use instead of squandering it on unnecessary purchases.

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