



## **Constraints Faced By The Tribal Farmers In Rainfed Rice Production In Konkan Region- A Village Level Study**

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### **ABSTRACT**

*More than a third of world's population, predominantly in Asia, depends on rice as a primary staple food. In Asia, more than 2.8 billion people derive 35 to 60 per cent of their calories from rice (Swaminathan, 1989). The Konkan region occupies an area of about 4.01 lakh hectares under rice with productivity around 2.81 t ha<sup>-1</sup>. Konkan has the largest food-insecure population in the state of Maharashtra, and in several farming systems in the region, rice is the most important staple crop. The present study was undertaken in village Maide of Thane district of Konkan region of Maharashtra state. The village selected purposively for the study as it consist large number of tribal farmers. This study aims at understanding constraints faced by tribal farmers in rainfed rice production. Rice is one of the most important crops in Konkan region and it will continue to enjoy its leading position so long as it remains the staple food of almost entire of the population of this region. The study found that the agro-ecological constraints faced by farmers, ranked from more serious to less serious were related to dependence on monsoon; land/soil problems; and small land holdings. Under technical constraints, it was found that the Insufficient knowledge about various aspects of modern techniques in rice cultivation, Lack of awareness or knowledge of about certain technologies. Non-availability of desired technology and Lack of conviction in the new technology, the extension workers and the scientists concerned to conduct awareness campaign as a suitable means to reach greater mass effectively and to create awareness among the paddy farmers to suggest overcoming constraints experienced by the farmers. Government and voluntary agencies should organize demonstration in farmer's holdings to show the worthiness of various practices and thereby to reduce their constraints.*

**Key words:** Tribal farmers, Rain fed, Rice production, Constraints.

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### **INTRODUCTION**

The international community and national agricultural research systems (NARS) recognize the importance of supporting smallholders in order to reduce poverty and promote the food security status of some of the most vulnerable groups in the world. Rice is an important staple food-crop, which is grown in a diverse range of climatic and agroecological conditions in almost all parts of the world. In many third world countries, it is main or the only source of livelihood for over 50 per cent of population and contributes roughly the same proportion to the national income [8]. More than a third of world's population, predominantly in Asia, depends on rice as a primary staple food. In Asia, more than 2.8 billion people derive 35 to 60 per cent of their calories from rice [7]. The Konkan region occupies an area of about 4.01 lakh hectares under rice with production of about 11.28 lakh tonnes with productivity around 2.81 t ha<sup>-1</sup>. Konkan has the largest food-insecure population in the state, and in several farming systems in the region, rice is the most important staple crop. Major constraints to rice production that the country faces are land, labour, and other inputs (e.g., fertilizer, herbicides, and pesticides), other constraints relate to the land and soil. Stem borer, leaf folder, green leafhopper, and gall midge are major insect pests that cause large yield losses. [2]. This study examined the extent to which research has connected production constraints and environmental challenges faced by rice tribal smallholders.

## MATERIAL AND METHODS

The present study was undertaken in village Maide of Thane district of Konkan region of Maharashtra state. The village Maide is selected under the Tribal sub plan of the scheme AICRP on Agroforestry. The village selected purposively for the study as it consist large number of tribal farmers. This study aims at understanding constraints faced by tribal farmers in rainfed rice production. The main constraints towards farmers are focused in three problems viz. Agro-ecological constraints, Technical constraints and socio-economical constraints. Primary data were collected from 60 farmers through structured questionnaire method. Collected data was tabulated and analyzed by using suitable statistical methods like frequency and percentage.

## RESULT AND DISCUSSION

In accordance with the objective the constraints experienced by the respondents were studied under the three heads namely.

1. Agro-ecological constraints
2. Socio economic constraints
3. Technological constraints

Table- 1 Constraints faced by the tribal farmers in rainfed rice production. (N=60)

Sl. No	Constraints	No. of Respondents	Per cent	Rank
<b>1.</b>	<b>Agro-ecological constraints.</b>			
a	Dependence on monsoon.	55	91.66	I
b	Land and soil problems.	40	66.66	III
c	Small land.	29	48.33	V
d	Heavy pest and disease incidence.	42	70.00	II
e	Occurrence of heavy weed growth.	35	58.33	IV
<b>2.</b>	<b>socio-economical constraints</b>			
a	High cost of inputs.	51	85.00	I
b	High cost of labour	50	83.33	II
c	Non-availability of credit facilities.	46	76.66	III
d	Lack of subsidy for inputs.	41	68.33	IV
<b>3.</b>	<b>Technological constraints</b>			
a	Insufficient knowledge about various aspects of modern techniques in rice cultivation	43	71.16	I
b	Lack of awareness or knowledge of about certain technologies.	41	68.33	II
c	Lack of conviction in the new technology.	19	31.66	IV
d	Non-availability of desired technology.	23	38.33	III

### The results are presented in table-1

#### Agro-ecological constraints

The first and foremost Agro-ecological constraint experienced by then respondents was “Dependence on monsoon” reported by majority (91.66 %) of the respondents. Most of the respondents reported that “Heavy pest and disease incidence (70.00 %). Land and soils was ranked as the third important constraint reported by 66.66% of the respondents. Most of the respondents revealed that the occurrence of heavy weed growth (58.33 %) is another major constraint. “ Small land was expressed as a constraint by nearly half the proportion (48.00 %) of the respondents. Different studies show that the major rice production constraints and priority research problem areas of rainfed rice production in eastern India are drought and submergence, [3]. On average 30 to 40 per cent of the total yield loss in eastern India is caused by the insect-pests was found by [8]. The yield loss due to weeds in rainfed ecosystems was found to be greater than that of irrigated ecosystems [5].

**Socio-economic constraints**

The first important socio-economic constraint expressed by majority of the respondents (85.00 %) was high cost of inputs. This might be due to rise in price of seed, fungicides, pesticides and chemical fertilizers every year. But at the same time, the price of agricultural produce had not increased proportionately. Sometimes due to the shortage of inputs, traders sell their inputs at high cost. High cost of labour was a constraint expressed by 83.33 % of the respondents most of the respondents expressed that the agricultural labourers were demanding higher wages irrespective of nature of work. In rural areas most of the labourers are migrated to other places for employment and earn higher wages when compared to the wages in their own places. Non-availability of credit facility in time was revealed as the constraint by more than one third (75.66 %) of the respondent. Lack of subsidy for inputs was the constraint reported by 68.33 % of the respondents. Some of the respondents felt that the cost of production is increased every year but credit facility and subsidy for paddy growers does not increase every year.

**Technological constraint**

The first and foremost technological constraint expressed by 68.33 per cent of the respondents was lack of conviction in the new technology. The technology like seed treatment, weedicide application, pest and disease management might lead to increased cost of cultivation and risk, especially among the small and marginal farmers. Thereby reducing the net income of the farmers. Hence most of the respondents were not convinced about merits of some of the costly paddy technologies and did not adopt them. Non-adoption of modern varieties as well as their component technologies has been a crucial production constraint under rainfed rice ecosystem. The studies show that the accumulated stock of technologies for rainfed rice production was able to increase yield by 30 to 40 per cent [1, 3, 4, 6].

**CONCLUSION:**

Rice is one of the most important crops in Konkan region and it will continue to enjoy its leading position so long as it remains the staple food of almost entire of the population of this region. The study found that the agro-ecological constraints faced by farmers, ranked from more serious to less serious were related to dependence on monsoon; land/soil problems; environmental pollution; lack of water and small land holdings. In case of the socio-economic constraints, the study found that poor infrastructures; high cost of inputs; credit problems; inadequate inputs and lack of trainings were the most important constraints as perceived by large percentage of farmers. Under technical constraints, it was found that the Insufficient knowledge about various aspects of modern techniques in rice cultivation, Lack of awareness or knowledge of about certain technologies. Non-availability of desired technology and Lack of conviction in the new technology, therefore the extension workers and the scientists concerned need to conduct awareness campaign as a suitable means to reach greater mass effectively and to create awareness among the tribal paddy farmers to suggest overcoming constraints experienced by them. Government and voluntary agencies should organize demonstration in farmer's holdings to show the worthiness of various practices and thereby to reduce their constraints.

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