



## Value chain analysis of medicinal rice in Kerala

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### Abstract

Value chain is a business model that describes the full range of activities needed to create a product or services. A value chain comprises the steps that involve bringing a product from conception to distribution, and everything in between- such as procuring raw materials, manufacturing functions and marketing activities. The value chain work best when their actors cooperate to produce high quality products and generate income for all participants along the chain. The present study was undertaken with the objectives viz., to map the value chain of Navara rice and Rakthashali rice of Kerala, to identify and explore the various chains and actors involved in the value chain, to analyse the price spread efficiency and factors influencing it, and to identify the constraints and possible solutions at different levels in the value chain

**Keywords:** value chain, price spread, market efficiency

### 1. Introduction

Rice is individual principal grains of India. Moreover, this country has the leading area under rice nurturing, as it is one of the principal food crops. It is in reality the central trim of the nation. Asian country is one in each of the first makers of this trim. Rice is that the essential nourishment edit and being a tropical plant, it flourishes comfortable in hot and damp climate. Rice is particularly mature in rain fed areas that accept serious annual precipitation. That's why it's largely a kharif crop in Asian nation. Rice is additionally mature through irrigation in those areas that receives comparatively less precipitation. Rice is that the staple food of eastern and southern components of Asian nation. Rice involves as it were the third position among Kerala's agrarian crops with regard to region beneath development, and it is distant behind coconut and elastic. Rice has been an crucial nourishment grain edit, which has been expectedly refined and devoured all through India. Conceivably usually one among the exceptional crops which is expended by all lesson of buyers; destitute, center and wealthy wage gather Rice could be dietary staple nourishment in numerous social cuisines around the world. It gives momentary vitality as its most noteworthy figure is carbohydrate (starch). Rice flour is well off in starch in addition to it is used for creation diverse nourishment materials. It is besides utilized by brewers to form alcoholic malt. Rice is additionally utilized within the arrangement of confectionery foodstuffs like bread, snacks, treats and rolls. The rice bran oil isn't as it were utilized as edible oil, but is additionally utilized in cleanser and greasy acids built-up. Other than it is utilized for makeup, engineered strands, plasticisers, cleansers and emulsifiers. The defatted fiber is furthermore utilized as livestock bolster, natural fertilizer (compost), therapeutic reason and in wax making

The wellbeing benefits of rice incorporate its capacity to offer quick and immediate vitality, control and progress bowel developments, stabilize blood sugar levels, and moderate down the maturing prepare, whereas too given that an fundamental source of vitamin B1 to the human body.

Other benefits incorporate its capability to boost skin wellbeing, boost the digestion system, help in absorption, lessen tall blood weight, offer assistance weight misfortune endeavors, get way better the resistant framework and give protect against diarrhea, cancer, and heart malady.

### 2. Objectives

1. To map the value chain of Navara rice and Rakthashali rice of Kerala,
2. To identify and explore the various chains and actors involved in the value chain,
3. To analyse the price spread efficiency and factors influencing it, and
4. To identify the constraints and possible solutions at different levels in the value chain.

### 3. Research Methodology

The study confined to the state of Kerala. Both primary and secondary data were collected from Palakkad and Malappuram districts of Kerala. Primary data was collected from 60 farmers (30 each from the selected districts) and 60 consumers (30 each from selected districts) using snowball sampling. Sample from the rest of the actors in the value chain was selected based on the information received from farmers, processors, marketers and consumers. Secondary data were collected from Department of Agriculture, Kerala, KVVKs, District and Block level offices in the two districts of Kerala and relevant Krishi Bhavan. Value chain mapping tool and other appropriate tools were used in the study.

### 4. Result and Discussion

The mapping of medicinal rice value chain revealed that the core process involved in the value chain of medicinal rice includes input supply, production process, procurement, processing, marketing and consumption. Farmers, millers, organic certifying agency, retailers, consumers and Krishi Bhavan were the major actors involved in the value chain of Navara rice. Whereas farmers, millers, processors, retailers, consumers and Krishi Bhavan were the major actors

involved in the value chain of Rakthashali rice. The main sources of information were Krishi Bhavan and fellow farmers for Navara and Rakthashali farmers. These rice varieties were sold within the various places of Palakkad, Malappuram and Thrissur districts of Kerala. It was found that Navara farmers were earning a high margin of ₹ 109.37/Kg per farmer in channel II. In the case of Rakthashali rice, the farmers were earning a high margin of ₹ 95.06/Kg per farmer in channel III followed by ₹81.24/Kg per farmer in channel I and ₹65.06/Kg per farmer in channel II. The analysis of various chains and actors involved in the value chain highlighted that there was two marketing channel for Navara rice and three for Rakthashali rice in the study area. The price spread efficiency in the value chain showed that, the increase in the number of intermediaries in a value chain decreases the market efficiency through increasing cost and margin of intermediary. The percentage of producers share in consumer rupee is better for lesser intermediary chain. Among the two channels in the Navara rice marketing, channel I is least efficient with market efficiency of 0.6. Channel II is most efficient channel with market efficiency 1. The producers share in consumer rupee was found to be higher in channel II (100) followed by channel I (66.67). In the case of marketing channels of Rakthashali rice, channel I and channel II were least efficient with market efficiency with 0.6. The producers share in consumer rupee was found to be higher in channel III (100) followed by channel II (66.66) and channel I (60). The only channel which gives maximum return to farmer is the channel of marketing directly to consumers. The major factors that are influencing the choice of selecting the channels were income of the actors and holding capacity of farmers. The entry into a specific chain by an actor depends on the revenue benefit receivable. When the farmer is unable to keep the product they choose to sell it through processor, retailers and consumers. So the ability of a farmer to store the product also influences choosing a particular channel for marketing

## 5. Conclusion

The organisation like Krishi Bhavan should come forward with training and advisory services for improving the knowledge of the farmers. The government may support the farmers by providing new machineries at the subsidised rate and also educate the farmers about the new technologies and machineries prevailing in the market through the Krishi Bhavan. Government may take steps to provide storage spaces for the farmers to minimise the effects of price fluctuations. The middlemen involved in the marketing channel, they may either incur loss or get low margin. Because of this many farmers hesitated to come forward for the cultivation. Therefore, government may help the farmers to avoid private middlemen either through direct procurement or by getting the services of cooperative to market the produce.

## 6. References

1. Caius JF. The medicinal and poisonous plants of India (Reprint). Pbl. Scientific Publishers, Jodhpur, India. Oudhia P. 1999. Medicinal weeds in rice fields of Chhattisgarh (India). International Rice Research Notes. 1986; 24(1):40.
2. Prakash. Sequential analysis of constraints in increasing production of rice and coconut in Kerala. M. Sc (Ag)

- thesis Dept of agriculture extension, Kerala Agricultural University, Thiruvananthapuram, 1989.
3. Kaplinsky R, Morris M. Globalization and Unequalisation: What can be learned from Value Chain Analysis. Journal of Development Studies. 2000; 37(2):117- 146.
  4. Prabha R Chaudhari, Nishesh Tamrakar, Laxmi Singh, Ambika Tandon, Deepak Sharma. Rice Nutritional and Medicinal Properties: A Review Article, Journal of Pharmacognosy And Phytochemistry, 2018.
  5. Lisha Das Sivadasan. An Analysis of Rice Cultivation by Joint Liability Groups of Kudumbashree in Palakkad, M. Sc thesis, Kerala Agricultural University, Thrissur, 2018.
  6. Keerthi PN. Mapping of value chain of paddy in Thrissur district. M. Sc thesis, Kerala Agricultural University, Thrissur, 2018.