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RESEARCH ARTICLE

MARKETABLE, MARKETED AND MARKETING COST OF RICE AND WHEAT IN BALLIA DISTRICT OF UTTAR PRADESH, INDIA

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ABSTRACT

Rice and wheat is the most important food-grain crop in our country and it is the staple food of millions of Indians peoples particularly in the northern and north-western parts of the country. Present study was related Hanumanganj block of Ballia district of Uttar Pradesh finely 120 farmers randomly selected from six selected villages namely Karnae, Dharahra, Jirabasti, Barmaen, Gothawoli and Chhodhar for the study purpose. An average cropping intensity was observed to be 155.95 percent. Grant total of paddy and wheat consumption was observed to be 56.09 and 39.93 quintals respectively. An overall marketable surplus was 82.34 quintals, marketed surplus was varied with required of family consumption. The highest marketing cost per quintal was observed small farms growers of paddy crop whereas highest marketing cost per quintal was found in medium farms grower in wheat crop respectively.

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INTRODUCTION

Rice and wheat is the most important food-grain crop in our country and it is the staple food of millions of Indians peoples particularly in the northern and north-western parts of the country. From Green Revaluation period (1965 - 1966) to till now at (presenting year 2020-21) the country is estimated to achieve an all-time higher food grains production of 303.34 million tonnes (2020-21) where as the wheat grain production is 109.24 million tonnes and Rice production is 120.32 million tonnes respectively. The fourth consecutive year of record production, buoyed by good grains, (The Ministry of Agriculture and Farmers welfare). In the food grain production, India is stand second rank after China, and about 96 million metric tonnes producing of wheat, wheat is second most important cultivated food crop after rice and feeds hundreds of millions of Indian on a daily basis. It is an especially important staple food in the northern and northwest states of the country.

During cropping pattern years 2017-2018 total food grains production of our country was 277.49 million tonnes In India, Uttar Pradesh is the highest total food grain producing state followed by Punjab and Haryana. It contributes 42472 thousand tones production during 2014-2015. In Uttar Pradesh state, agricultural is the important sector of economy as compare to service as well as industrial sector. This is the main occupations of the peoples and it's about 181.886 million hectare of agricultural land from which 155.221 million hectare area is used for agriculture (2014-15). According to census 2011. Ballia district also keep a better place of food grain production and an important wheat producing district of Uttar Pradesh has produced 645048 million tonnes of food grain, the area under wheat in the district during year 2011-12 was reported as 13,63,46 hectare (39%) with the production of 443134 metric tonnes while (Statistical bulletin of Ballia District 2013) productivity was 32.50 quintals per hectare. Ballia district is one of the important functions of marketing system in the development of food grain surplus.

Marketable surplus plays a vital role in contributing capital formation as well as meeting the requirements for ever increased urban population. Estimation of marketable surplus is also considered necessary for a sound procurement policy and for adoption of an appropriate and flexible strategy for exports and imports. Besides marketable surplus is the quantity of the produce which can be made available by the farmers on non-farm population after meeting the requirements of his domestic requirement, seeds payment of villages in kinds and other needs. It is the monetary income on the farm to crop cultivation is the subject of quantum of different commodities saved as marketed surplus result in to greater monetary income on the farm. It is important to find out the causes that limit the growth of agricultural surpluses in the district and the farmers are unaware to sufficient marketing system in the district they are selling of their produce with low prices or un-remunerative prices to village traders and local banniyas keeping these views the study was conducted with following objectives: i) To work out the cropping intensity, production, and consumption of wheat and paddy grower on sample farms. ii) To study the marketable surplus, marketed surplus and marketing cost of wheat and rice grower on sample farms.

METHODOLOGY

Three stages purposive come stratified random sampling technique were used to select the block, the villages and cultivators or respondent. The primary data for the study were collected from Ballia district eastern region of Uttar Pradesh. A survey of wheat and rice growing farmers was conducted through personal interview technique using a pre-tested schedules and questionnaire was adopted of relevant information from heads of respondent. A list of the 17 block of Ballia district was prepared arranged in ascending order of area under production holding size. Hanumanganj block of Ballia district were selected purposively on the criterion of higher pressure of people on land. Finally 120 respondents were selected randomly from six selected villages namely Karnae, Dharahra, Jirabasti, Barmaen, Gothawoli and Chhodhar for the study purpose. and thus total number of the sample farms were equally distributed on the farms size i.e.60 on small farm groups (0.01to2ha), 40 medium farms group (2.01to4ha) and 20 on large farms group (more than 4 ha.) for the purpose of the study . Secondary data was collected from the Government records, newspapers, magazines, journals etc. the present study were pertaining to the Agricultural year July 1, 2016-to June 30, 2017.

Analytical Tools: Analytical tools like as Tabular analysis, calculation of marketable, marketed surplus and for marketing cost following formula were used.

The model as:

Computation of marketable, marketed and surplus it is plotted by the following formula.

$$1: MS=P-C$$

Where

MS = Marketable surplus

P= Total production (of wheat and paddy in the year of reference)

C= Total requirements (stand for following items in the same year consumption by the farm family wages paid as permanent labour, casual labour, quantity retained for seed, feed for animals and others and quantity retained for better, physical losses: others

Fallowing formula was used for computation of cropping intensity

$$\text{Cropping Intensity} = \frac{\text{Grossed cropped area}}{\text{Net cultivated area}} \times 100$$

Computation of Marketing Cost and total marketing cost fallowing formula were used as:

Producer' share in consumer rupee

$$PS = \frac{PF}{Pr} \times 100$$

PS=Producers share

PF=Price received by farmer

Pr=Retail price paid by consumer

Total Marketing cost of commodity:

$$C = C_f + C_{m1} + C_{m2} + \dots + C_{mn}$$

RESULT AND DISCUSSION

Cropping intensity has been presented in Table 1.0 it is depicted from the table that all size group of farms, the average cropping intensity was observed to be 155.95 percent whereas in case of small farms the cropping intensity was observed 174.01 per cent followed by medium and large farms corresponding to 159.59 and 134.24 per cent respectively. it is conclude small farmers are growing more crop in a year as compare to medium and large size farm. It is depicted from the table 2.0 that Production of paddy and wheat crop on different size of groups of sample forms v.i.z large size of groups has been produced more quantity of wheat and paddy as compare to small and marginal farms respectively ,whereas in case of paddy is to be 138.42, 46.28 and 42.31quintal respectively and fallowed by wheat is to be 74.44, 34.21 and 28.12 quintal respectively in the farm of main product.

And also observed in the table increasing the area of paddy and wheat of by product is produced more much quantity by large farmers as compared to small and medium farms . The actual production was received in small (28.12quintal)and medium farms(41.82 quintal) after harvesting and threshing losses due to old model using of threshing technology but in large farms harvesting and threshing losses was not done due awareness of modern technology of threshing . It is concluded that large farm size is in occurring first position of producing of paddy and wheat crops due to large size of farms and interested to earning of income. Per farm consumption requirement on sample farm families in relation to paddy and wheat commodity is presented in the table 3.0. It is clear from the table that consumption of paddy was much observed in large farms 20.32 quintals fallowed by on small farms 18.32 and medium farms 17.45 quintal respectively.

Table 1. Cropping intensity of sample farm in study area

Size group	Net cultivated area in ha.	Gross cropped area in ha.	Cropping intensity (%)
Small(<2ha.)	1.77	3.08	174.01
Medium(2-4ha.)	2.45	3.91	159.59
Large(>4ha.)	5.46	7.33	134.24
Total average	3.22	4.77	155.94

Table 2.0 Per farm Production on sample farms in study area

Commodities Operations	Per farm Production of different Size groups of sample farmers						
	Small		Medium		Large		
	Main Product (Q.)	By Product (Q.)	Main Product (Q.)	By Product (Q.)	Main Product (Q.)	By Product (Q.)	By Product (Q.)
Paddy Total production	42.31	65.5	46.28	73.33	138.42	210.67	
Harvesting loss	2.75	6.5	3.45	6.92	10.98	17.93	
Actual production Received	39.56	59	42.83	66.41	127.44	192.74	

Wheat Total production on farms	30.55	45.32	38.61	57.12	80.97	120.45
Harvesting loss	1.45	3.50	3.10	4.95	6.53	13.49
Threshing loss	0.98	---	1.30	---	---	---
Actual production actual Received	28.12 (19.97)	41.82	34.21 (25.19)	52.17	74.44 (54.84)	106.96

Commodities	Per farm consumption requirement of different size groups of sample farmers									Grand Total (In Qtls.)
	Small			Medium			Large			
	Consumption	Seeds	Total	Consumption	Seeds	Total	Consumption	Seeds	Total	
Paddy	18.32	---	18.32 (32.67)	17.45	---	17.45 (31.11)	20.32	---	20.32 (36.22)	56.09 (100)
Wheat	8.45	2.25	10.7 (26.80)	8.23	4.00	12.23 (30.62)	9.00	8.00	17.00 (42.58)	39.93 (100.00)

(Figure in parenthesis indicates percentage in grant total consumption)

Whereas in case of wheat crop in the matter of consumption same condition was observed in previous crop. Large farms consumption 17.00 quintals was more much followed by medium 12.23 quintal and small 10.70 quintals respectively. also observed that all sample farms were not kept food grains for seed for next cropping year due to using of hybrid variety .But in wheat food grains all sample farms were kept food grains for seed to believing of indigenous varieties for purity germination. Grant total of paddy and wheat consumption and was observed to 56.09 quintals and 39.93 quintals respectively After observing the data as a whole it is obvious to say that the requirement level is also proportionate to the size of holding thought it is irrelevant to say that family requirement is the function of sizes of holding.

Because, it is ready establishment that family requirement is directly the function of number of member in the family. Marketable surplus is obtained after utilization of consumption and other requirements. It has been presented in the table4.0 It depicted from the table that overall marketable surplus was 82.34 quintals with amongst 21.24, 25.38 and 107.12 quintals at medium, small and large farms of paddy grains .And in wheat grains overall all marketable surplus was 58.44 quintals with amongst 17.21, 21.92 and 57.44 quintals at small, medium and large farms respectively . Marketable surplus shows positive relationship with size of farms. It is depicted from the table 5.0 .Marketed surplus of Paddy produce of different size of farms were observed Marketing within one month , Marketing during the year and Marketing during end of year did not have additional marketed surplus on small and large farms excluding of medium farms .

Medium farms sell their produce in form of marketed surplus for different type of family needs. as for as for wheat production , the small farms were not interested to sell their produce marketing within one month because there was no values in the market , Marketing during the year values of produce was increased due to market demand and marketing during end of year, market value of wheat was come down due to bumper production of food grain. Medium sample farms were not interested to sell their produce in market within one month, but marketing during the year have kept more desire due to higher prices of wheat food grain in market. Marketing during the end of the year due to more production, the village trader reduced the prices of wheat grain whereas the price value of wheat grains was zero. large sample farm were more interested to sell their produced marketing within the one month and marketing during the year, a part from this marketing during end of the year they were not keeping desired for selling because of low down prices value of wheat grain in the market .

The marketing cost of different commodities presented in Table 6. The table is indicating that an overall per quintal cost of paddy crop was Rs15.83 per quintals with all farms as Rs.16.75 small farm and Rs. 16.50 medium farm and 14.25 per quintal large farms respectively . The highest marketing cost per quintal was observed small farms as compared to medium and large farms due high charges of transportation resources and unaware of marketing prices and services. an overall per quintals cost of wheat was Rs.16.66 per quintal with throughout all farms as Rs.17.50 small farm and Rs. 18.00 medium farm and 14.50 per quintal large farms respectively.

Table 4: Per farms marketable surplus on sample farms (in quintal) in study area.

Commodities	Per farms marketable surplus on sample different Size of sample farms groups									
	Small			Medium			Large			
	Actual production	Utilized for consumption and other requirement	Marketable Surplus	Actual production	Utilized for consumption and other requirement	Marketable Surplus	Actual production	Utilized for consumption and other requirement	Marketable surplus	Average Marketable surplus
Paddy	39.56	18.32	21.24	42.83	17.45	25.38	127.44	20.32	107.12	82.34
Wheat	28.01	10.7	17.31	34.21	12.23	21.98	74.44	17.00	57.44	58.44

Table 5: Marketed surplus on sample farm (Food Grains) in the study area

Size of farms	Time of sold	Paddy				Wheat			
		Village trader		Market		Village trader		Market	
		Quantal	Value	Quantal	Value	Quantal	Value	Quantal	Value
Small	Marketing within one month	13.50 (100.00)	17850 (100.00)	---	---	4.50 (21.95)	7200 (42.10)	---	---
	Marketing during the year	---	---	16 (100.00)	28550 (100.00)	16 (78.05)	9900 (57.90)	3.50 (58.33)	5517.5 (55.77)
	Marketing during end of year	---	---	---	---	---	---	2.50 (41.67)	4375 (44.43)
	Total	13.50 (100.00)	17850 (100.00)	16 (100.00)	28550 (100.00)	20.50 (100.00)	17100 (100.00)	6 (100.00)	9892.5 (100.00)
Medium	Marketing within one month	12.50 (71.42)	16562.5 (69.56)	---	---	---	---	---	---
	Marketing during the year	5 (28.58)	7250 (30.44)	4.50 (100.00)	5737.50 (100.00)	4 (53.33)	6200 (52.85)	10.50 (100.00)	16890 (100.00)
	Marketing during the end of year	---	---	---	---	3.50 (46.67)	5530 (47.15)	---	---
	Total	17.50 (100.00)	23812.5 (100.00)	4.50 (100.00)	5737.50 (100.00)	7.50 (100.00)	11730 (100.00)	10.50 (100.00)	16890 (100.00)
Large	Marketing within one month	72.50 (100.00)	103312.5 (100.00)	24.50 (100.00)	33425 (100.00)	---	---	25.50 (22.85)	42.75 (73.46)
	Marketing during the year	---	---	---	---	8.50 (58.62)	13175 (58.15)	9.50 (27.15)	15200 (26.54)
	Marketing during the end of year	---	---	---	---	6 (41.38)	9480 (41.85)	---	---
	Total	72.50 (100.00)	103312.5 (100.00)	24.50 (100.00)	33425 (100.00)	14.50 (100.00)	22655 (100.00)	35 (100.00)	57275 (100.00)

(Figures in brackets shows percentage)

Table 6. Per farm marketing cost on different size group on samples farms in the study area

Crops	Per farm marketing cost on different size group on samples farms.									
	Small			Medium			Large			Average Marketing cost per quintal
	Quantity sold (qtl.)	Per (Qtl.) cost	Amount (Rs.)	Quantity sold (qtl.)	Per (Qtl.) cost	Amount (Rs.)	Quantity sold (qtl.)	Per (Qtl.) cost	Amount (Rs.)	
Paddy	21.24	16.75	355.77	25.38	16.50	418.77	107.12	14.25	1526.46	15.83
Wheat	17.31	17.50	302.90	21.98	18.00	395.64	57.44	14.50	832.88	16.66

All of these farms highest marketing cost per quintal was found in medium farms followed by small and large farms because unknown different marketing charges as well as transportation cost.

SUMMARY AND CONCLUSION

In this paper we have examined to the Marketable, marketed and marketing cost of rice and wheat Ballia District of Uttar Pradesh with using primary level data for the periods to the Agricultural year July , 2016-to June 2017. Rice and wheat is the most important food-grain crop in our country and it is the staple food of millions of Indians peoples, particularly in the northern and north-western parts of the country. The country is estimated to achieve an all-time higher food grains production of 303.34 million tones (2020-21) .Present study was related Hanumanganj block of Ballia district of Uttar Pradesh finely 120 farmers randomly selected for the study purpose. An average cropping intensity was observed to be 155.95 percent. Grant total of paddy and wheat consumption was observed to be 56.09 and 39.93 quintals respectively .An overall marketable surplus was 82.34 quintals; marketed surplus was varied with required of family consumption. The highest marketing cost per quintal was observed small farms growers of paddy crop whereas highest marketing cost per quintal was found in medium farms grower in wheat crop respectively .

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