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A study on marketing pattern and constraints of major crops in Raigarh district of Chhattisgarh state

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Abstract

The study aims to examine the marketing pattern and constraints of major crops in Raigarh district of Chhattisgarh state. On the basis of maximum area under crops paddy, groundnut, niger and sunflower were selected for the detailed study. Three marketing channels were prevailing in study area viz, Channel first: Farmer – consumers, Channel second: Farmer – village merchant – wholesalers – distributor – consumers and Channel third: Producer – Krishi Upaj Mandi – Processer – wholesalers – distributor – end user. The marketable surplus of paddy, groundnut, niger and sunflower were 91.29, 69.51, 68.07 and 70.44 percent, respectively. The significant marketing restrictions were small marketable surplus for major crops followed by scarcity of transportation due to low yield of crops in the study area.

Keywords: Marketing pattern, marketing constraints and marketable surplus

Introduction

Paddy (*Oryza sativa*) Chhattisgarh are known as rice bowl of central India. Chhattisgarh, the newly emerging state in eastern India, is comparatively under development in terms of agricultural productivity relative to most Indian states. This state has diverse soil types, large tribal population, additional manpower and compatible agro ecological situations through which we can get sustainability in the agricultural sector. In Chhattisgarh, 3.77 Mha of rice is cultivated. It covers 8.58% of India's total area, with an average output of 1597 kg / ha and a cultivation of 6.03 million tons (Anonymous, 2012) ^[2].

Groundnut (*Arachis hypogea* L.): India is ranked as the second largest producer from Asia with production of about 4.2% of the global production in groundnut. Additionally, the major production areas in India are Madhya Pradesh and Maharashtra states which contributes about 90% of the country's produce. It is estimated that Gujarat is leading state for production of Groundnut with 2.36 million tonnes and in the world. India's second position with 6.77 million tonnes production of groundnut. Groundnut It includes 48–50% of the oil. 26 – 28 percent protein and 11 – 27 percent carbohydrate, minerals and vitamins. Groundnut is an

important oilseed crop that offers significant sources of money through seed sales, cakes oil and haulms. Groundnut plays a crucial role in rural populations diets. Groundnut pod yields from farmer's field are low, averaging about 800 kg per ha. less than 1/3 the potential yield of three thousand kg per ha. (Madhusudhana, 2013) ^[5].

Niger (*Guizotia abyssinica* cass.) is one of India's major oilseed plants currently cultivated in an region of approximately 0.6 million hectares with annual output of approximately 1.50,000 tons. Niger (*Guizotia abyssinica* cass.) is one of India's major oilseed plants currently cultivated in an region of approximately 0.6 million hectares with annual output of approximately 1.50,000 tons. India is the main producer of this crop. It is widely cultivated in tribal regions on hill tops and slopes on marginal and sub-marginal lands, although this crop thrives best on well trained loamy soils of excellent depth and texture. The niger seed usually includes 35-40% oil. Oilseed is the second biggest agricultural commodity after cereal sharing 13 percent of the country's gross crop region, accounting for nearly 6 percent of gross domestic agriculture production and 10 percent of the value of all agricultural commodities. (Project Director, Directorate of Oilseeds

Research, 1992 Rajendranagar, Hyderabad-500 030) [7].

Sunflower (*Helianthus annuus*) is a newly introduced oilseed crop, but it has been cultivated as an ornamental plant in India since pristine times. Sunflower was introduced in India as an oilseed crop for the first time in 1969. This is an important oilseed crop of today. Sunflower can give large quantity of better quality oil per unit area and per unit time. The Varieties available are cultivated during both Kharif and Rabi seasons. Hybrids also take good amount of area in these districts. E.C. 68414, Modern, APSH-11, KBSH- 1 and other Varieties and hybrids are popular. Sunflower is a relatively new crop to India and cultivated area in the country 0.82 M. ha.(2012-13). A.P. contributes 0.140 M. ha. occupying second place as sunflower crop is a highly cross pollinated one. It requires different pollination agents and management practices like rubbing of flowers for increased % of filled in grains. Composite A.P. stands 2nd in the Country in production next to Karnataka. Karnataka is leading state in India for the production of sunflower with 3.04 lakh tonnes and production from an area of 7.94 lakh hectares. In respect of the sunflower yields, the country records an average of 712 kg/hectares while, sunflower is higher oil percent (45–50%) over other oilseed crop. Oil is rich in polyunsaturated fatty acids (PUFA) and has a pleasant taste, great value when refined. The Sunflower cake produces high-quality livestock and poultry feed due to high protein (40 – 44 percent) and balanced amino acids. Sunflowers harvested at dough stage (green sunflower) makes an excellent quality forage, specially for milch cattle (Agriinformatics and service)

The complete market surplus was purchased through Channel I, about 28.22 percent, while remaining 71.77 percent throughout Channel II. The share of producers in consumer value was 87.10 percent greater in channel I (controlled market) compared to channel II, where 85.31 percent of total marketing costs were Rs.151 per quintal in channel I compared to Rs.87 in channel II (Prasad *et al.* 2013) [6]. Analyzed marketing margins obtained by different organizations for channels II, III and IV were ' 158.00, 133.00 and 113.00 respectively. The consumer's cost was ' 871.50, ' 852.60 and 846.80 per quintal for the corresponding channels. Marketing costs, margins and consumer purchases were the highest in channel-II followed by channel-III and channel-IV. It was because of the reality that Channel-II engaged a greater amount of intermediaries. Channel-IV's marketing effectiveness index was highest compared to channel-III and channel-II. It showed the most effective channel – IV. The producer's share was discovered to be highest in the situation of channel-IV, where the amount of intermediaries was lower. Channel-IV was discovered to be the most effective and appropriate for farmers (Kumar, 2017) [3]. Major constraints pertained to cultivation of these crops were lack soil testing facility (82.00%) and labor shortage during peak season (81.25%). Long distance from the crop increasing area of the controlled market (81.25 percent) and absence of transportation equipment (77.80 percent) were some of the significant limitations encountered by the study area producers. In view of the very limited use of agrochemicals, organic farming should be promoted in the research area through grants, which should also be applicable for organic manures such as farm yard manure, compost and natural fertilizers and natural pesticides. Farmers involved in organic farming should be connected to niche markets where they will receive a premium price to compensate for

any yield loss (Lakra *et al.* 2017) [4].

Materials and Methods

Chhattisgarh state consists of 27 districts. Raigarh district is placed in the eastern part of Chhattisgarh state. Raigarh district was selected purposively for the study because Raigarh is covered maximum area and production of four major crops, i.e. Paddy, groundnut, niger and sunflower. Raigarh district having nine blocks, viz., Dharamjaigarh, Lailunga, Gharghoda, Tamnar, Raigarh, Baramkela, Kharsia, Sarangarh, and Pussour. Out of 9 blocks, Dharamjaigarh block was selected purposively as a study area because this block is the most producing area for these crops. There are 190 numbers of villages in Dharamjaigarh block. Out of these villages, five villages, i.e. Sakarliya, Kataipali- D, Shahpur, Sisringa and Baisy colony was selected randomly which cover all four major crops for the study area. A sample of 150 respondents was selected by randomly using probability proportion criteria for each village. The collection of required data on relevant variables. The farm holding categorized into four size groups: Marginal (Below 1.00 ha.), Small (1.01 - 2.00 ha.), Medium (2.01 - 4.0 ha.) and Large (Above 4.0 ha.). The study was based on both primary and secondary data. The primary data was collected from the sample households by survey method using well structure schedule through personal interview. Secondary data regarding the total geographical area of the district, agro-climatic features, cropping pattern, area under major crops, production, and productivity of major crops will also be collected from state statistical abstract and district statistical abstract, etc.

Result and Discussion

Marketing Pattern of Major Crops

1.1 Marketing channels

The marketing channel means the passage or channel through which commodity travel from the producer to the final consumer.

There were three marketing channels for major crops of marketing in local market as given below:

Channel-I: Producer – consumers.

This is most commonly used method of sale between the producer and consumer.

Channel-II: Producer –village merchant – wholesalers – retailers – consumers.

This channel is most likely by marginal and small farmer they sell their produce to village merchant at his home with cash on hand.

Channel-III: Producer – Krishi upaj Mandi – Processer – wholesalers – retailers – consumer.

All categories of farmers are preferred this channel for selling their produce mostly medium and large are using this because their produce's quantity is huge and they can afford to transportation facilities and can reach to govt. krishi upaj mandi or cooperative societies.

1.2 Marketable Surplus

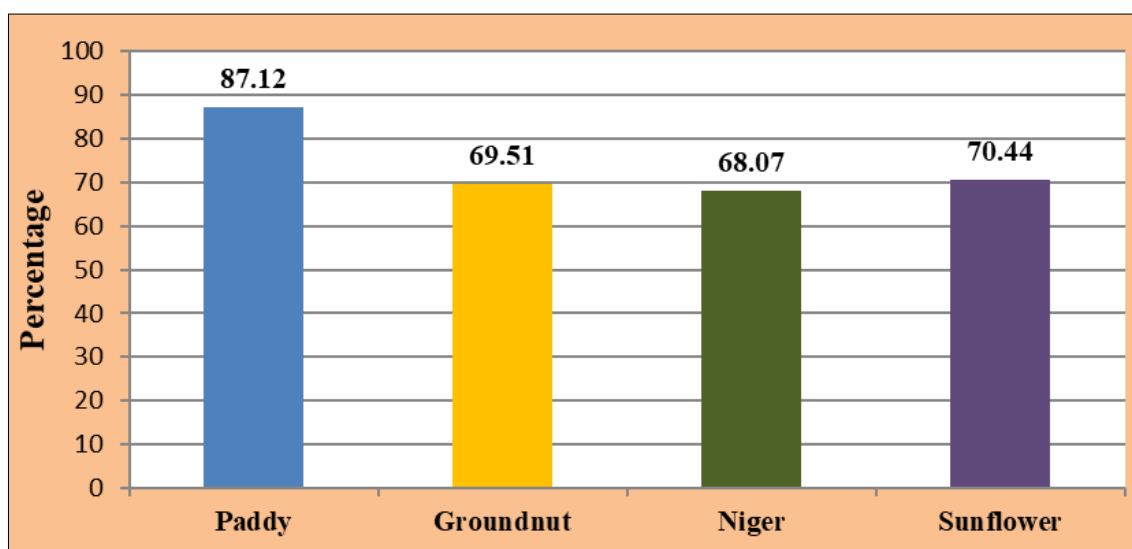
In Table 1 and Fig. 1 shows that the highest marketable surplus was observed in case of paddy (91.29 percent)

followed by sunflower (70.44 percent), groundnut (69.51 percent) and niger (68.07 percent). It can be also observed from the table that the marketable surplus shows rising trend

as farm size increases. It clearly indicates that marginal and small farms have smaller marketable surplus as compared to medium and large farms.

Table 1: Marketable surplus of major crops of sample farms (in qtl/farm).

S. No.	Particulars	Marginal	Small	Medium	Large	Overall
A.	Paddy					
1.	Total quantity produced	21.50 (100)	52.53 (100)	109.04 (100)	244.32 (100)	87.65 (100)
2.	Quantity retained for seed	0.52 (2.41)	0.83 (1.58)	2.27 (2.08)	4.78 (1.95)	2.10 (2.39)
3.	Consumption	7.25 (33.72)	9.43 (17.95)	10.53 (9.65)	17.48 (7.15)	11.17 (12.74)
4.	Total quantity utilized	7.77 (36.13)	10.26 (19.53)	12.80 (11.73)	22.26 (9.11)	13.27 (15.13)
5.	Marketable surplus	13.40 (62.32)	41.48 (78.96)	94.55 (86.71)	218.62 (89.48)	80.02 (91.29)
B.	Groundnut					
1.	Total quantity produced	3.17 (100.00)	7.32 (100.00)	9.78 (100.00)	26.57 (100.00)	11.17 (100.00)
2.	Quantity retained for seed	0.31 (9.77)	0.77 (10.53)	1.00 (10.90)	2.93 (11.01)	1.25 (10.51)
3.	Consumption	0.75 (23.65)	1.60 (21.85)	2.02 (20.65)	4.93 (18.54)	2.32 (19.81)
4.	Total quantity utilized	1.06 (33.43)	2.37 (32.37)	3.02 (30.87)	7.86 (29.57)	3.57 (30.48)
5.	Marketable surplus	2.11 (66.56)	4.95 (67.62)	6.58 (67.28)	18.72 (70.42)	8.14 (69.51)
C.	Niger					
1.	Total quantity produced	0.96 (100.00)	1.70 (100.00)	2.06 (100.00)	6.70 (100.00)	2.85 (100.00)
2.	Quantity retained for seed	0.10 (10.41)	0.18 (10.58)	0.26 (12.62)	0.82 (12.23)	0.34 (11.92)
3.	Consumption	0.24 (25.00)	0.40 (23.52)	0.44 (21.35)	1.20 (17.91)	0.57 (20.00)
4.	Total quantity utilized	0.34 (35.41)	0.58 (34.11)	0.70 (33.98)	2.02 (30.14)	0.91 (31.92)
5.	Marketable surplus	0.62 (64.58)	1.12 (65.88)	1.36 (66.01)	4.68 (69.85)	1.94 (68.07)
	D. Sunflower					
1.	Total quantity produced	2.16 (100)	2.70 (100.00)	3.20 (100.00)	5.03 (100.00)	3.27 (100.00)
2.	Quantity retained for seed	0.21 (9.72)	0.30 (11.11)	0.36 (11.25)	0.44 (11.30)	0.32 (10.84)
3.	Consumption	0.45 (20.83)	0.53 (19.62)	0.59 (18.43)	0.93 (18.48)	0.62 (19.34)
4.	Total quantity utilized	0.66 (30.55)	0.83 (30.74)	0.95 (29.68)	1.37 (27.23)	0.94 (28.74)
5.	Marketable surplus	1.50 (69.44)	1.87 (69.25)	2.25 (70.31)	3.66 (72.76)	2.33 (70.44)



Note: Figures in parentheses indicate percentages to total quantity produced.

Fig 1: Marketable surplus of major crops (%)

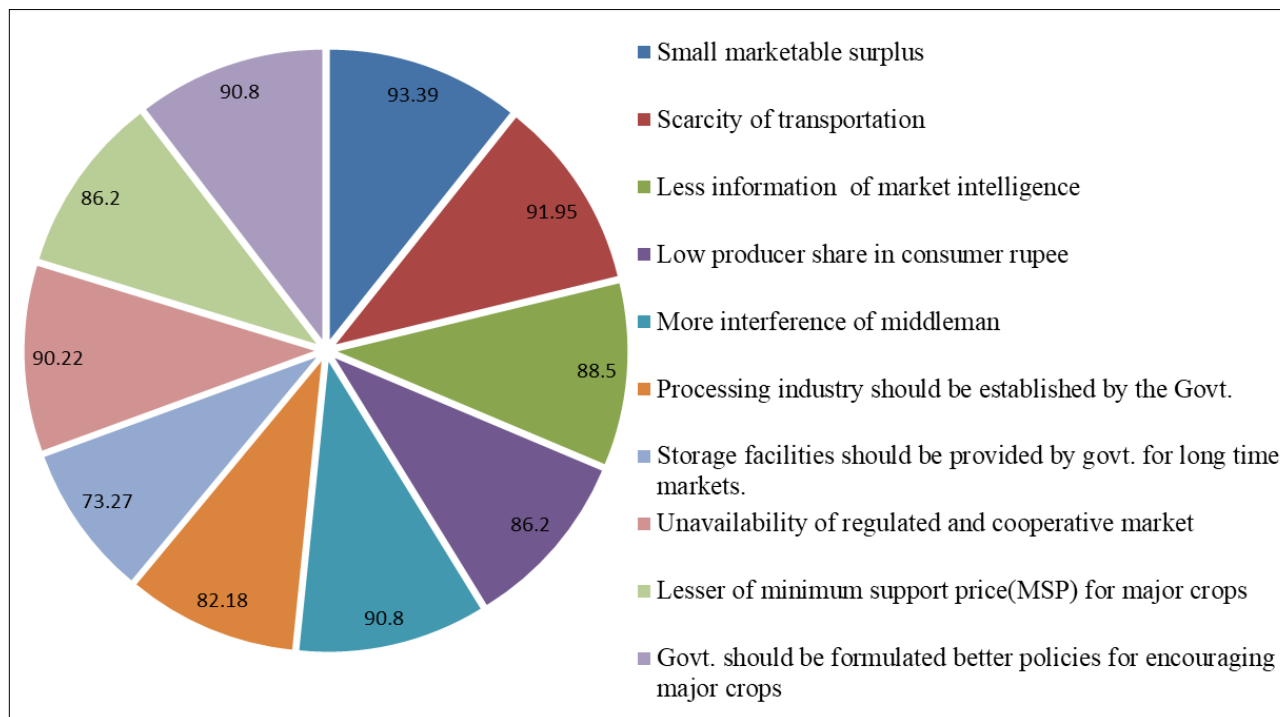
Constraints in marketing of Major crops

The major constraints in marketing of major crops are presented in Table 4.22. The major problem felt by farmers was small marketable surplus (93.39 percent), Scarcity of transportation (91.95 percent), More interference of middlemen (90.80 percent), Govt. should be formulated better policies for encouraging major crops (90.80 percent), Unavailability of regulated and cooperative market (90.22

percent), Less information of market intelligence (88.50 percent), Low producer share in consumer rupee (86.20 percent), Lesser of minimum support price (MSP) for major crops (86.20 percent), Processing industry should be established by the Govt. (82.18 percent) and Storage facilities should be provided by govt. for long time markets (73.27 percent).

Table 2: Constraints in marketing of Major crops (%)

S. No.	Number of respondents n =348					
	Problems	Paddy	Groundnut	Niger	Sunflower	Total
1	Small marketable surplus	143 (95.33)	84 (93.33)	57 (91.93)	41 (89.13)	325 (93.39)
2	Scarcity of transportation	135 (90.00)	86 (95.55)	59 (95.16)	40 (86.95)	320 (91.95)
3	Less information of market intelligence	137 (20.00)	78 (86.66)	55 (88.70)	38 (82.60)	308 (88.50)
4	Low producer share in consumer rupee	131 (87.33)	78 (86.66)	53 (85.48)	38 (82.60)	300 (86.20)
5	More interference of middleman	135 (90.00)	82 (91.11)	57 (91.93)	42 (91.30)	316 (90.80)
6	Processing industry should be established by the Govt.	125 (83.33)	83 (92.22)	45 (72.58)	33 (71.73)	286 (82.18)
7	Storage facilities should be provided by govt. for long time markets.	90 (60.00)	77 (85.55)	49 (79.03)	39 (84.78)	255 (73.27)
8	Unavailability of regulated and cooperative market	130 (86.66)	88 (97.77)	55 (88.70)	41 (89.13)	314 (90.22)
9	Lesser of minimum support price(MSP) for major crops	142 (94.66)	75 (83.33)	47 (75.80)	36 (78.20)	300 (86.20)
10	Govt. should be formulated better policies for encouraging major crops	140 (93.33)	83 (92.22)	55 (88.70)	38 (82.60)	316 (90.80)

**Fig 2:** Constraints in marketing of Major crops (%)**Conclusion**

- The marketable surplus of major crops (paddy, groundnut, niger and sunflower) on an average per hectare was observed to be 80.02 quintals (91.02 percent), 8.14 (69.51 percent), 1.94 quintals (68.07 percent) and 2.33 quintals (70.44 percent) respectively of the total quantity produced.
- Three marketing channels were prevailing in the study area.

Channel-I: Producer – consumers.

Channel-II: Producer –village merchant – wholesalers – retailers – consumers.

Channel-III: Producer – Krishi Upaj Mandi – Processer – wholesalers – retailers – end users.

- The major constraints of marketing of major crops was small marketable surplus (93.39) for major crops followed by scarcity of transportation (91.95) in the study area.
- Distance between farmer's field and market which is

reducing farmers share's in the price paid by the ultimate consumer is very small.

- Unorganized market and unstructured storage facilities are causing spoilage of produces which is decreasing quality and price of farmer's produce.

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