

Agriculture Strategies and Marketing Perspectives of Farmers in Vidarbha Region – An Empirical Analysis

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Abstract

Vidarbha is considered as one of the most backward region in comparison with rest of the Maharashtra. Low productivity and low income are the striking features of Vidarbha farmers. The present study tries to make the empirical analysis of agriculture strategies and marketing perspectives adopted by the farmers in selected districts of Vidarbha with regard to cropping pattern preferred and the distribution channel adopted by the farmers to sell the produce. The districts selected for the study are Amravati, Bhandara, Nagpur, Chandrapur and Gadchiroli. From each districts two talukas were selected based on judgement sampling and 104 farmers were interviewed using a structured questionnaire. The study concludes that the inclination of farmers is now undergoing a change towards the cash crops and the awareness about the distribution channels is significantly low amongst the farmers in Vidarbha which needs immediate attention.

Keywords: Marketing Perspectives, Vidarbha region, Cropping Pattern, Distribution Channel.

JEL Classification: Q13, Q15

.I. Introduction

Vidarbha region of eastern Maharashtra comprises of 11 districts of the Nagpur and Amravati Division. These include Yavatmal, Akola, Amravati, Wardha, Buldhana, Washim, Nagpur, Chandrapur, Bhandara, Gadchiroli and Gondia. The region occupies 31.6% of total area and holds 21.3% of total population of Maharashtra. The Kelkar Committee report (2013) highlighted the fact that Vidarbha is one of the most backward region in comparison with rest of Maharashtra, and stagnancy in agriculture in Vidarbha has worsened the regional economic balance. Looking into this fact, the main reason observed for this is high dependence of districts in Vidarbha is on climate change and heavy reliance of farmers on rainfed water makes the conditions more adverse. As pointed out by Behere & Behere (2008), the economic plight of farmers might be illustrated with the fact that a farmer having as much as 15 acres of land and hence considered a well off farmer in Vidarbha, with an average income of Rs 2700 per acre per annum, had an income just little more than what he would have earned the legal minimum wage for all 365 days of the year. If the Vidarbha is compared with Western Maharashtra, the utilization of irrigation potential in Western Maharashtra is 76.4%, whereas it is only 47.4% in Vidarbha. Also, paddy is an important crop of Vidarbha and Western Maharashtra, with area of 7.06 lakhs hectares and 3.08 hectares respectively, but average productivity is lowest in Vidarbha with 780 kg/ha while in Western Maharashtra it is 1850 kg/ha. (Roy A., 2014).

According to the Marketing Strategy Supplement (MSS, 2014) of various districts in Vidarbha, the average gross cropped area for the major crops is given in the Table below.

Table 1: Average Gross Cropped area for Major Crops in Selected Districts of Vidarbha

S N	Amravati		Bhandara		Nagpur		Chandrapur		Gadchiroli	
	Crop	Avg Gross Cropped Area (2009-13) (Ha)	Crop	Avg Gross Cropped Area (2009-13) (Ha)	Crop	Avg Gross Cropped Area (2009-13) (Ha)	Crop	Avg Gross Cropped Area (2009-13) (Ha)	Crop	Avg Gross Cropped Area (2009-13) (Ha)
1	Soyabean	3,13,114	Paddy	1,78,519.5	Soybean	2,55,973	Soybean	154,800	Paddy	1,52,945
2	Cotton	1,74,795	Wheat	11,103.7	Cotton	79,172	Paddy	147,077	Soybean	6,722
3	Red Gram	1,16,332	Lathyrus	8,880.50	Bengal Gram	74,891	Cotton	87,484	Red Gram	5,829
4	Bengal Gram	84,730	Tur	8,740	Wheat	72,827	Tur	34,237	Cotton	3,183
5	Orange	56,901	Gram	8,199.25	Paddy	68,345	Gram	30,893	Bengal Gram	2,368
6	Wheat	43,152	Linseed	2,512.50	Orange	16,239	Wheat	26,141	Linseed	2,195
7	Jowar	41,513	Soybean	2,363.80	Green Chilly	7,316	Linseed	8,605	Mango	2,122
8	Chilly	2,493	Brinjal	1,181.74	Brinjal	4,036	Jowar	7,458	Cashew nut	339
9	Onion	1,677	Chilly	928.67	Cauliflower	2,641	Tomato	1049.34	Key Lime	164
10	Sweet Orange	1,196	Tomato	645.86	Tomato	1,996	Brinjal	737.224	Guava	81

Source: Marketing Strategy Supplement (MSS) – District Amravati, District Bhandara, District Nagpur, District Chandrapur, and District Gadchiroli, GOM.

In Amravati district of Vidarbha, the main kharif crops are soyabean, cotton, jowar, and red gram. Soyabean and cotton are the dominant crops, together accounting for approx 70% of total cultivated land. Soybean acreage has been increasing at the cost of cotton and other crops (Bengal gram, wheat and jowar), since production of soybean is perceived to be cheaper and less risky. The major crops in the Bhandara district are paddy, pulses, oilseeds, wheat and spices. The Area under turmeric and chili cultivation is increasing in the district. Turmeric is another crop which is recently picking up in the district. While there are no major markets trading Turmeric in the district, a lot of turmeric is sold directly to processing units which are coming up in the district. There are around 20 turmeric processing units existing in the district. In Nagpur district, the major crops are Soybean, Cotton, Wheat, Bengal Gram, Paddy, and Orange. These five crops together account for around 86 % of the gross cropped area in the district. Among the Kharif crops in the district cropped area under Soybean is highest; in Rabi crops the cropped area is higher for wheat. Major horticultural crop in the district is Sweet Orange/ Mandarin. Soybean is the most widely grown crop by area and accounts for 36.6 % of the gross cropped area (in 2013). Cotton is the next most important crop accounting for 89432 Ha or 13.8% of the gross

cropped area in the district. In Chandrapur district, soyabean and paddy has significantly dominated the production area over the last 5 years. There are 2 big soya processing units in Chandrapur which have contributed significantly to the popularity of this crop amongst the district farmers. But inconsistent rainfall in the region makes the yield of soyabean vulnerable to risk of low yield and is the reason the farmers are looking for the crops having more stable yield profile. In Gadchiroli district, the major crops are Paddy, Red Gram, Soybean, Cotton, and Gram. These five crops together account for 95.2% of gross cropped area in the district and in the opinion of the forestry department officials, the forest area in Gadchiroli district is rich in NTFP (Non timber Forest produce) like Jamun fruits and Mango to some extent. (MACP Report 2014) Thus, looking at the present trend and miseries of agriculture in Vidarbha, the present study tries to make the empirical analysis of cropping pattern and preferences of farmers in selected district of Vidarbha and study the present marketing strategies adopted by the farmers in Vidarbha. The rest of the study is organized as follows: Section II discusses the literature review, Section III deals with the methodology and data collection, Section IV presents the empirical analysis, Section V discusses the findings of the study and Section VI concludes.

II. Literature Review

Shende et. al. (2013) examined the growth rate and instability of area, production and productivity of three major crops, viz., jowar, cotton and soyabean based on secondary data for the period of 23 years (1984-85 to 2006-07) in Western Vidarbha of Maharashtra. The study concludes that the compound growth rate for almost all the crops in all the districts of Amravati division were declined by 3% per annum in area as well as production of jowar crop. Also the growth rate of cotton in the Amravati division found to be declining but in case of soyabean it is positive and significant throughout the period. According to Thakre & Thakre (2016), the farmers in Vidarbha are suffering miseries due to various reasons like non-production of crops, bad debts, drought, lack of markets to sell the produce, lack of marketing and irrigation facilities, exploitation by private money lenders and various other social and family reasons arising out of the combination of various factors. Dhankar G.H. (2003) in the study on the development of Internet based Agricultural Marketing Information System in India stated the importance of MIS from the point of view of farmers that helped them to gain market information to improve their livelihood. There are several areas of agricultural marketing which the farmers need to be fully familiarized in order to improve price realization. Important areas amongst these are standardisation and grading, packaging and labelling, storage and warehousing, marketing infrastructure including direct markets, SPS and marketing regulations, forward and future markets and export markets. Awareness on the part of farmers in each one of these areas will enable to plan their production and sale it in an economically manner to get the better advantages.

According to Dhawale A (2014), the major challenges for agriculture in Maharashtra are chronic drought and lack of irrigation policies of the state, skewed nature of development in the region, worrisome crop pattern and yield, anarchy and loot in the cooperative sector, etc. Thus, from the various literatures it can be seen that the cropping pattern in Vidarbha and marketing strategies adopted by farmers are crucial for eliminating the miseries of the farmers in Vidarbha. Hence the study is proposed.

III. Methodology and Data

The present study is descriptive research study, based on primary data collected through surveys of farmers in selected districts of Vidarbha. Vidarbha region comprises of 11 districts namely Nagpur, Wardha, Bhandara, Gondia, Gadchiroli, Chandrapur, Amravati, Akola, Washim, Buldhana, Yavatmal. Amongst these districts, five districts of Vidarbha are selected for the study based on judgement sampling. These five districts cover 4 districts of East Vidarbha (viz., Nagpur, Bhandara, Chandrapur and Gadchiroli) and one prominent district of West Vidarbha (viz., Amravati) to get the better representation

of Vidarbha. From each district, two talukas were selected. The various talukas and the sample size details are given as below:

SN	District	Taluka	No of farmers (Sample size)
1	Amravati	Morshi	12
		Warud	10
2	Bhandara	Bhandara	11
		Paoni	10
3	Nagpur	Nagpur	11
		Umred	10
4	Chandrapur	Brahmapuri	10
		Warora	10
5	Gadchiroli	Gadchiroli	10
		Wadsa	10
Total Sample Size			104 nos.

A structured questionnaire was designed to get the opinions of the farmers with regard to cropping pattern which includes the major crops taken and the various other crops taken by the farmers in each region. Also the opinions are taken from the farmers with regard to the distribution channels used by them to sell their produce. The awareness about the various aspects of distribution channels were taken on a five point scale (1 – very low to 5 – very high), and statistical testing is done to test whether the awareness is significant using t-test. The results of the analysis are presented using suitable bar graphs, tables and diagrams to draw the suitable inferences.

IV. Empirical Analysis

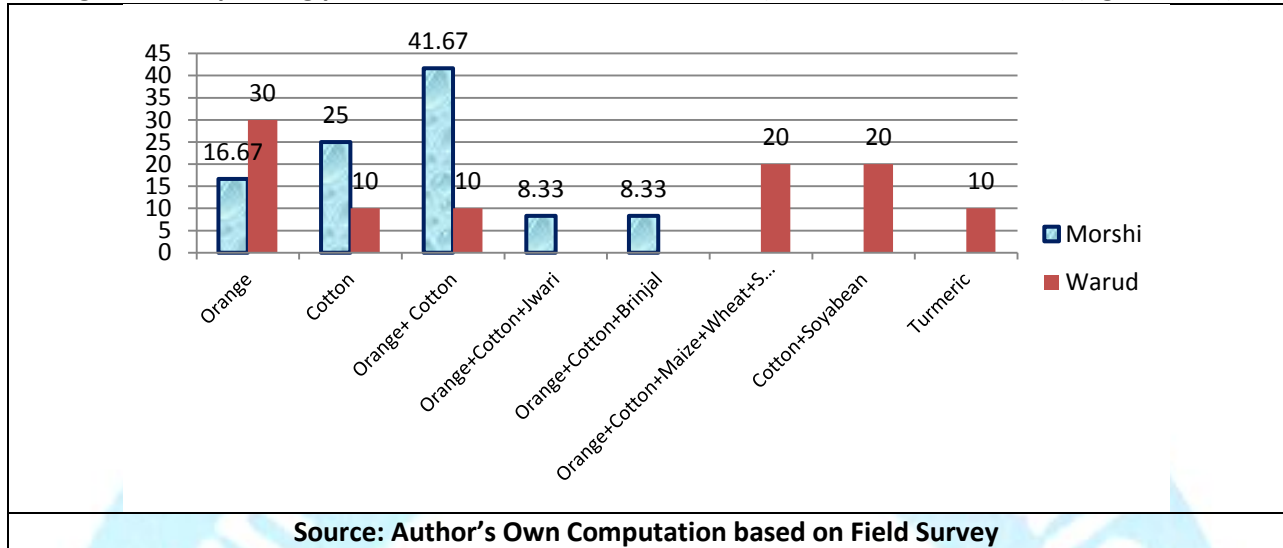
A. Crop Pattern of the Vidarbha region

Vidarbha region comprises of 11 districts namely Nagpur, Wardha, Bhandara, Gondia, Gadchiroli, Chandrapur, Amravati, Akola, Washim, Buldhana, Yavatmal. These districts differ from each other in terms of cropping pattern with little variations. Hence for empirical analysis, five districts of Vidarbha are selected based on judgement sampling which covers 4 districts of east Vidarbha and one prominent district of west Vidarbha to get the appropriate representation of the farms of Vidarbha. The survey of farmers of these five districts is conducted during January 2016 to March 2016. The analysis of the crop pattern of the sample districts selected for the study is presented as under:

Amravati District crop pattern

Amravati district is the Western part of the Vidarbha region & prominent district in the Vidarbha with reference to agriculture activities. This district is also known as the 'Warhad Prant'. The district is famous for the Oranges, Cotton & Soyabean. The use of technology is widespread in the district. In Amravati district the two talukas Morshi and Warud are selected as a representative sample for the study.

Figure 1: Crop taking pattern – Amravati District Farmers (Warud & Morshi Taluka) (figures in %)



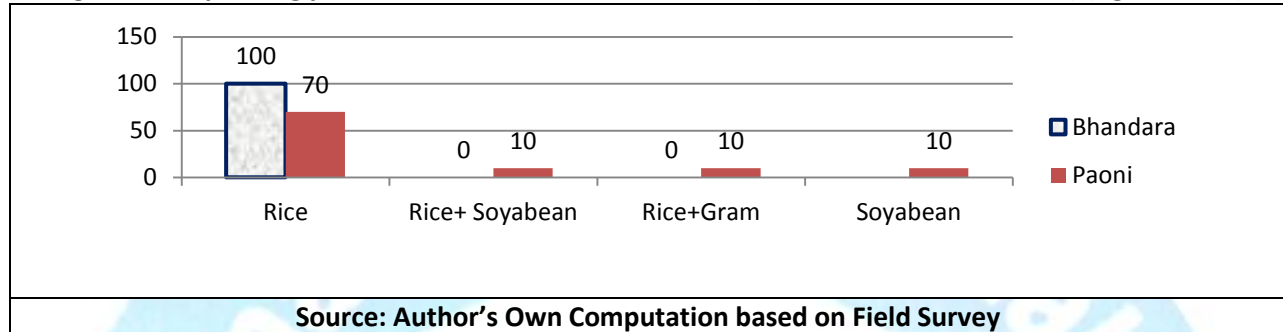
Morshi & Warud Taluka – Crop Pattern

The figure 1.1 shows the crop pattern of Amravati district in Morshi and Warud Taluka. It can be seen that in Morshi taluka 16.76% farmers take only oranges, 25% farmers take only cotton, 41.67% farmers take both orange & cotton, 8.33% farmers take orange, cotton & brinjal and 8.33% take orange, cotton & Jawar. The figure 1.1 clearly shows the inclination of farmers of Morshi region towards the Oranges and Cotton crops. According to the farmers, these crops are considered as cash crops of the region. Similarly, in Warud taluka, about 30% farmers are taking only oranges & 10% farmers are taking cotton crop, 10% Farmers are taking both oranges and cotton. There are about 20% famers who are taking mixed crops such as Oranges, Cotton, Maize, Wheat & Soyabean. 20% farmers are taking both Cotton as well as Soyabean. 10% farmers are taking Turmeric. Thus, most of the farmers in Warud region are taking only Oranges compared with the other crops. According to the farmers, as the Oranges are grown twice in a year and give better prices, it is the most preferred crop of the region. Some farmers are nowadays taking the production of turmeric in the region. It can be inferred from the above description that the farmers in Morshi taluka prefers Cotton and Warud taluka prefers Oranges most over any other produce. Thus, the major crops taken by farmers in Amravati district are Cotton and Oranges. The availability of ginning mills in good numbers in Morshi region is the advantage for cotton crop which results in lower transportation cost and better prices for the crop. The existence of wholesalers and trading agents in large number in Warud taluka helps the farmers to sale the oranges easily and at better prices. Thus, in 2016 the preference of farmers towards Cotton and Oranges has increased in comparison with the year 2009-13.

1) Bhandara District crop pattern

Bhandara district is the district of the eastern part of the Vidarbha. This district is famous for the production of Rice (Paddy) as majority of the farmers are taking this crop. This district is also known as the “Dhanache Kothar”. For studying the crop pattern of this district, the farmers of Bhandara & Paoni Talukas were selected for the study and the results are presented as below:

Figure 2: Crop taking pattern – Bhandara District Farmers (Bhandara & Paoni Taluka) (figures in %)



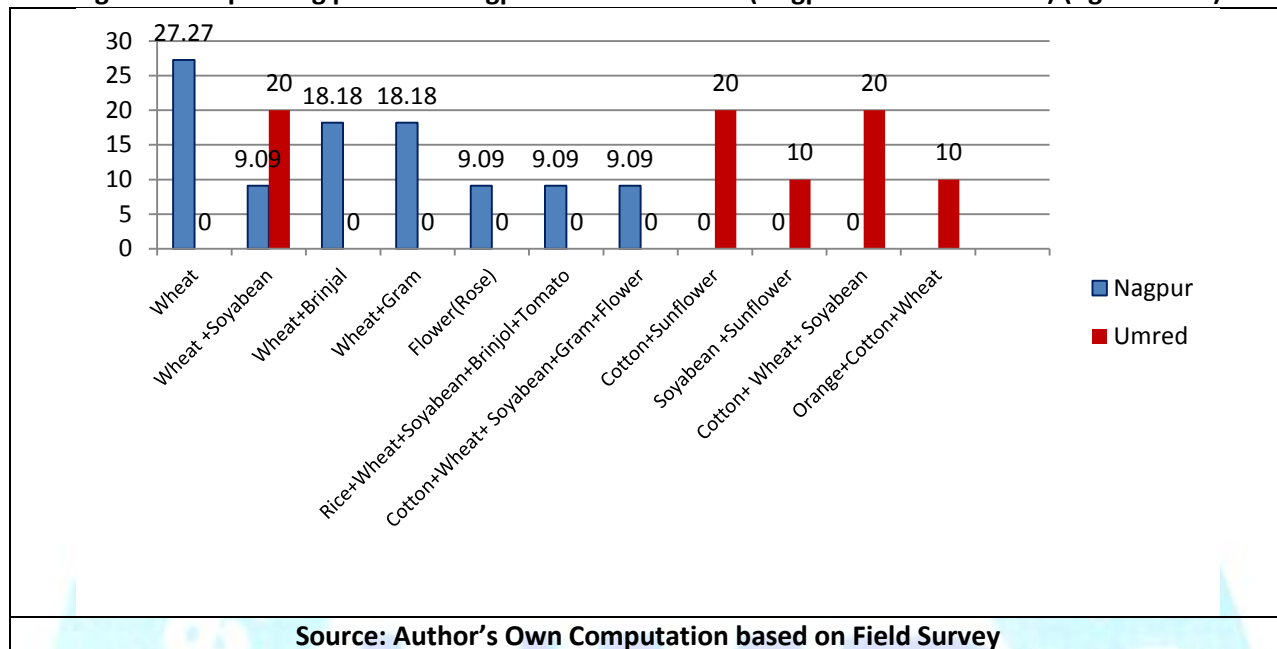
Bhandara & Paoni – Crop Pattern

The figure 1.2 shows the crop pattern of Bhandara district in Bhandara and Paoni Taluka. It can be seen that in Bhandara taluka all the farmers take only rice (Paddy). Similarly, in Paoni taluka, 70% farmers take only rice production, whereas 10% farmers take rice plus soyabean, 10% farmers take rice plus gram and 10% farmers take only soyabean. Thus, the majority of farmers in Paoni taluka take rice production while Soyabean and Gram are the subsidiary crops of the region. It is inferred that in Bhandara and Paoni taluka, rice (Paddy) is the highly preferred crop of the region. Thus, the major crop preferred by Bhandara district farmers is rice. According to the farmers in Bhandara district, the farmers are majorly depend upon the rain water for taking the crop and adopt traditional farming techniques. There is very low usage of advance technology in the farming. Also as the rice being the major crop of the region, large numbers of rice mills are available in the region for grinding the paddy. Secondly, large numbers of wholesalers are available in the vicinity to the farmers to support the selling activity. These factors results in economies of scale in rice production for the farmers in the region. Hence paddy has continued to be the most preferred crop of Bhandara district in 2016.

Nagpur District crop pattern

Nagpur being one of the largest markets of agriculture produce in Asia, is one of the significant place in Vidarbha from agriculture perspective. In recent times, Nagpur is growing as the industrial hub due to various developmental projects like MIHAN (Multimodal Industrial Hub Airport Nagpur), acquisition of 252 acres of land by ‘Patanjali Ayurvedic Private Limited’ for production and operation, etc., it is going to create better opportunity to the farmers in near future to sell the produce easily & at good market price. Also due to existence of several agri-processing activities and favourable weather conditions for oranges production, farmers growing oranges earn good amount. With this background the empirical study of agricultural activities of two taluka’s namely, Nagpur & Umrer is conducted and the crop taking pattern of these taluka’s is presented as below:

Figure 3: Crop taking pattern – Nagpur District Farmers (Nagpur & Umred Taluka) (figures in %)



Source: Author’s Own Computation based on Field Survey

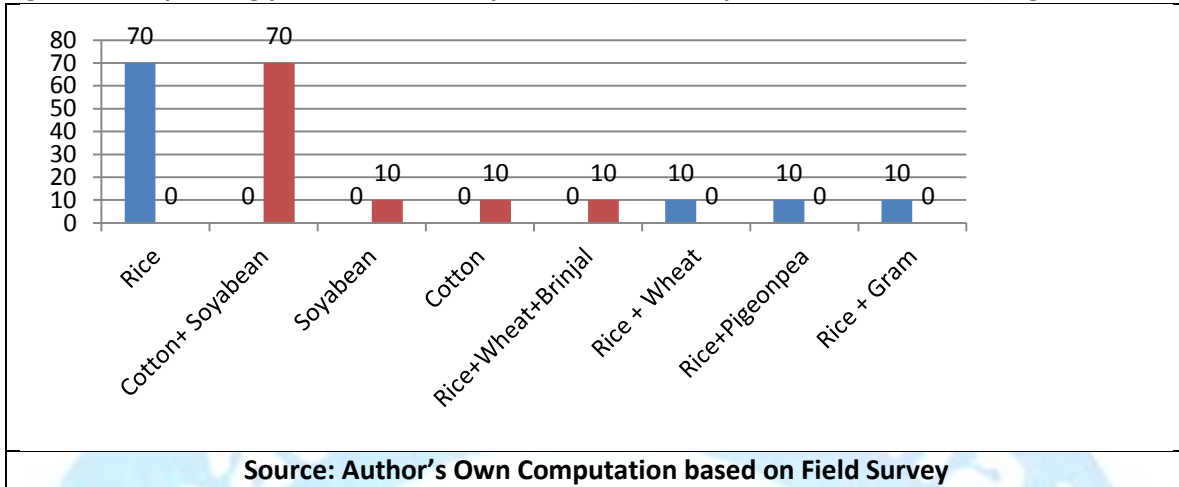
Nagpur & Umred Taluka – Crop Pattern

The figure 1.3 shows the crop pattern of Nagpur district in Nagpur and Umred Taluka. In Nagpur taluka, 27.27% farmers cultivate only wheat, whereas 18.18% farmers cultivate wheat and brinjal and same 18.18% farmers cultivates wheat and gram. Thus, the majority of farmers in Nagpur taluka cultivate wheat in their fields. In Umred taluka, 20% farmers are taking wheat and soyabean, 20% are taking cotton and sunflower, 20% prefer to take three crops viz., cotton, wheat and soyabean, 10% prefer to take organges, cotton and wheat and 10% take soyabean and sunflower. Thus, in Umred taluka majority of farmers prefer the crop soyabean followed by wheat. It is inferred that wheat is the most preferred crop by farmers in Nagpur taluka, whereas soyabean is the most preferred crop in Umred taluka followed by wheat. Thus, in comparison with the year 2009-13 as shown in table 1 above, the preference of farmers towards wheat has increased in 2016.

Chandrapur district crop pattern

Chandrapur district is one of the hottest places of the Maharashtra, and thus selecting the right crop which suit the environment & producing the yield is challenging. The talukas taken for the study in Chandrapur district are Warora & Brahmpuri and the crop taking pattern of these talukas is presented below:

Figure 4: Crop taking pattern – Chandrapur District (Brahmpuri & Warora Taluka) (figures in %)



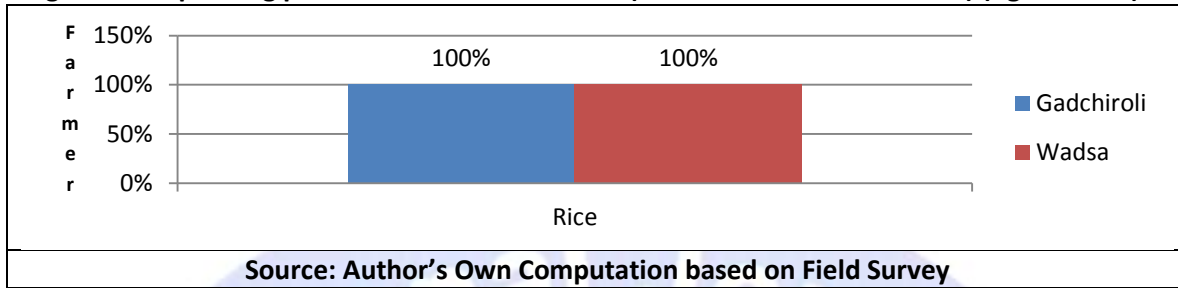
Brahmapuri & Warora – Crop Pattern

The figure 1.4 shows the crop pattern of Chandrapur district in Brahmapuri and Warora Taluka. In Brahmapuri taluka maximum farmers prefer to take rice, whereas in Warora taluka 70% farmers are cultivating cotton as well as Soyabean, 10% farmers are cultivating Soyabean only, 10% farmers are cultivating only Cotton & 10% farmers are cultivating Rice, Wheat and Brinjal. Thus, most of the farmers from Warora taluka takes the crop of Cotton & Soyabean. It is inferred that farmers from the Warora taluka mostly taking Cotton as well as Soyabean & the farmers from the Brahmpuri taluka are producing the crop Rice. According to the farmers in Brahmapuri, good amount of rainfall in the region, hot climatic conditions and inability of the land to absorb the water completely creates the humid weather in the region which is most favourable for cultivation of paddy. Similarly, according to farmers in Warora availability of soya processing units nearby Warora has contributed to the popularity of soyabean crop in the region. But, the yield of soyabean crop is vulnerable to inconsistent rainfall in the region, due to which soyabean is being replaced by cash crops. This has contributed to increased cotton's yield in the region as being a cash crop.

Gadchiroli district crop pattern

Gadchiroli district is one of the backward regions in the State as well as district in the Vidarbha. The district is famous for the widespread forest, network of rivers, and very less industrial development as the major profession of the people in this district is agriculture and allied activities. The region is dominated by tribes who are economically and educationally backward due to lack of formal education remains largely unaware about the various government schemes related with the agriculture. Hence the district is selected for the empirical analysis of cropping pattern. The talukas selected for the study are Gadchiroli and Wadsa.

Figure 5: Crop taking pattern – Gadchiroli District (Gadchiroli & Wadsa Taluka) (figures in %)



Gadchiroli & Wadsa – Crop Pattern

The figure 1.5 shows the crop pattern of Gadchiroli district in Gadchiroli and Wadsa taluka. It is seen that rice is the only crop which is preferred by farmers in Gadchiroli and Wadsa taluka of Gadchiroli district.

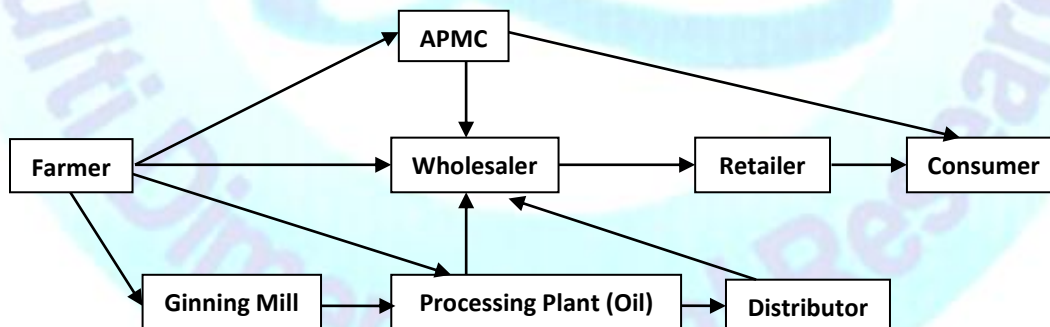
According to the farmers in Gadchiroli district (both talukas) they mostly depend upon the rainfed water and the region normally gets good rainfall every year. Secondly, availability of Rice mills in good numbers helps the farmers to grind the paddy economically. Also wholesalers are present in large quantities nearby to help them sell the produce, which saves time and cost of transport. Hence, paddy is found to be the most preferred crop in Gachiroli by the farmers in 2016 as well in comparison with the period 2009-13.

B. Distribution Network adopted by Farmers in Selected Districts of Vidarbha Region

1. Present Marketing Scenario in Amravati region

In Amravati district the agriculture seems to be diversified with wide range of major crops grown in the district. The major crops grown by the farmers in Morshi & Warud taluka are cotton, Jawar, Maize, Wheat, Brinjal, Soyabean & Turmeric. The distribution channel representing marketing scenario of Amravati district with special reference to Morshi and Warud taluka farmers is presented in Fig 6 below:

Figure 6: Distribution channel of Amravati district (Morshi/Warud taluka)



Source: Author's Own Computation based on Field Survey

As seen in Fig 6, in Amravati district (Morshi & Warud taluka) most of the farmers sell the produce to the wholesalers at village level through negotiations and very few sell to nearby markets such as Amravati, Nagpur, Warud or other such market places. It is observed that due to presence of more number of ginning mills and orange traders in both the talukas, the farmers sell the cotton directly to ginning mills and oranges through trading agents at farms only. Also, the processing plants which process the seeds of cotton, either purchase directly from the ginning mills or from the farmers. There also exists APMCs, but their role is at small level for the cotton and oranges sell only.

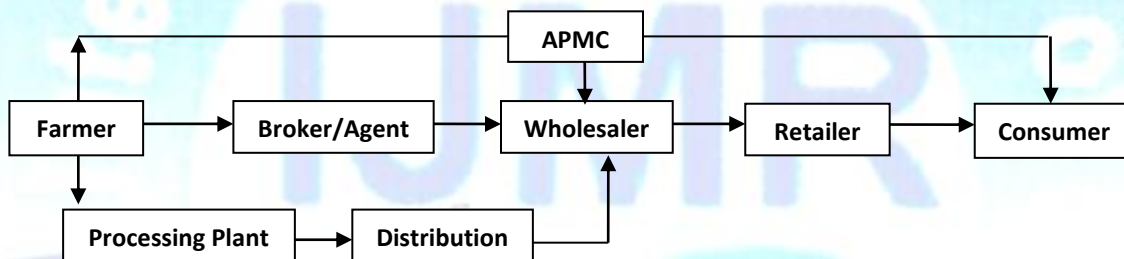
According to MSS-Amravati District (2014), in Amravati district, apart from the above marketing scenario, and the regulated markets (APMCs), there are 137 rural haats, 16 livestock markets which are unregulated and managed by gram panchayats, ITC E-Chaupal which purchases directly from farmers, private markets known as Shetkari Krushi Utpanna Bazaar, cooperatives other than APMC working with Amravati Vidarbha Co-op Federation on Fertilizers & Milk collection, direct vegetable purchasers like college canteen, military canteen, hospital, etc.

The awareness of the farmers in Morshi and Warud taluka about the distribution channel was tested using t-test on a 5 point scale from very low to very high. In Morshi taluka, the awareness about the distribution channel is found to be not significant, whereas in Warud taluka the awareness is found to be significant at 5 % level of significance.

2. Present Marketing Scenario in Bhandara region

In Bhandara district the agriculture seems to be concentrated with crop of Paddy grown in the district. The major crop grown by the farmers in Bhandara & Pauni taluka is Paddy, with Soyabean and Gram as the subsidiary crop. The distribution channel representing marketing scenario of Bhandara district with special reference to Bhandara and Pauni taluka farmers is presented in Fig 7 below:

Figure 7: Distribution network of Bhandara District (Bhandara & Pauni taluka)



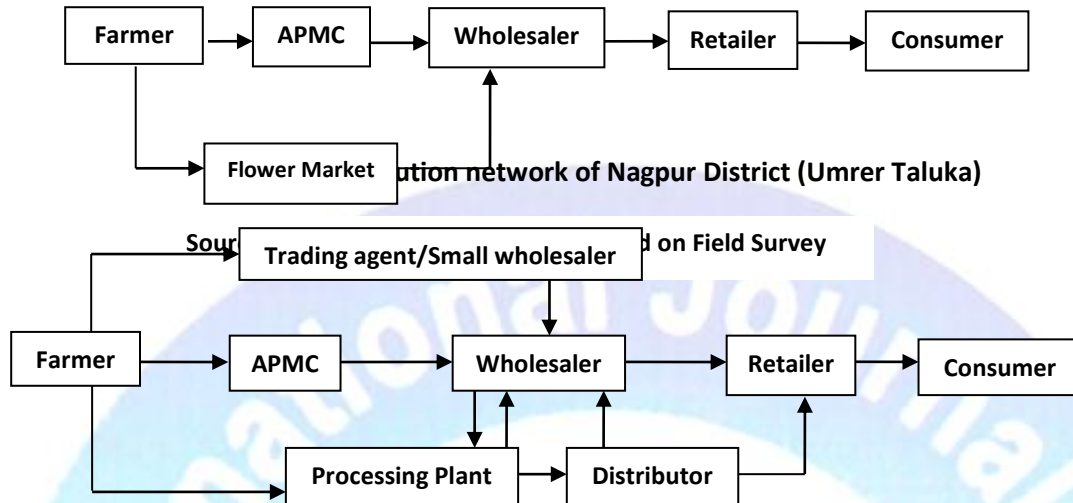
Source: Author’s Own Computation based on Field Survey

As seen in Fig 7, in Bhandara district (Bhandara & Pauni taluka) mostly the three channels of distribution are prominent, viz., the farmers’ sale directly to the processing plant (rice mills) as their number is large in the region, many small farmers’ sell to wholesalers through brokers and agents and some are selling directly through APMC market which sells it further to wholesalers and consumers. The availability of large number of rice mills and trading agents is the advantage to the farmers in both the talukas’ results in lower transportation cost and easy availability of buyer at satisfactory prices. According to MSS-Bhandara district (2014), in Bhandara district, apart from the above marketing scenario and the regulated markets (APMCs), there are 20 rural haats, 5 livestock markets which are unregulated and managed by 5 APMC, 11 milk collection centre, 9 privately owned while 2 are cooperatives. The private markets have very small presence in the district. The awareness of the farmers in Bhandara and Pauni taluka about the distribution channel was tested using t-test on a 5 point scale from very low to very high. In Bhandara & Pauni taluka, the awareness about the distribution channel is found to be non-significant at 5% level of significance.

3. Present Marketing Scenario in Nagpur region

In Nagpur district also the agriculture seems to be diversified with wide range of major crops grown in the district. The major crops grown by the farmers in Nagpur & Umrer taluka are Wheat, Soyabean, Gram, Cotton, Sunflower, Orange, Brinjal, Sunflower & Flowers. The distribution channel representing marketing scenario of Nagpur district with special reference to Nagpur and Umrer taluka farmers is presented in Fig 8a and Fig 8b below:

Fig. 8a: Distribution network of Nagpur District (Nagpur Taluka)



Source: Author's Own Computation based on Field Survey

As seen in Fig 8a, in Nagpur district (Nagpur taluka) most of the farmers sell the produce through the APMC known as the Kalamna market, as is it is one of the largest market in the Asia. Farmers from the vicinity as well as farmers from the distant places come here for selling their produce. As seen in fig 8b, in Umrer taluka of Nagpur district the farmers sell their produce to wholesalers through trading agents and few sell it through AMPC. The farmers growing paddy sell the paddy to processing plants (rice mills) which further sell it to distributors and wholesalers. The farmer does not sell their produce directly to retailers.

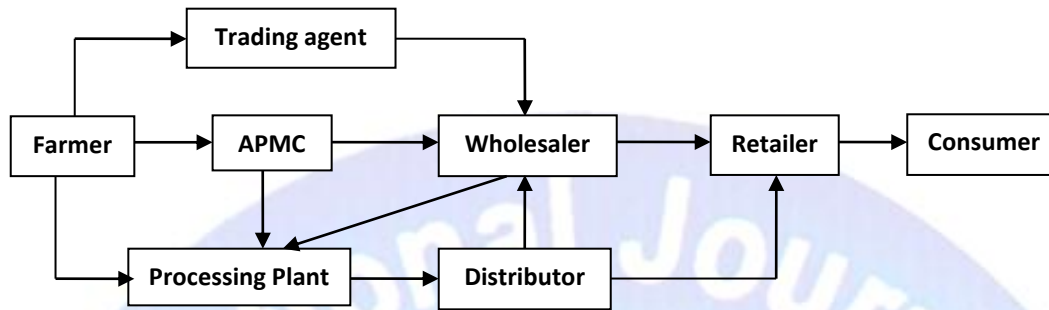
According to MSS – Nagpur District (2014), in Nagpur district, apart from the above marketing scenario, and the regulated markets (APMCs), there are 136 rural haats, 11 livestock markets in the district. Initially cooperative sector was dominating in milk market but due to the entry of private players like Dinshaw, Haldiram, Mahananda, Wasundhara, etc., private sector players are dominant buyers in the market.

The awareness of the farmers in Nagpur and Umrer taluka about the distribution channel was tested using t-test on a 5 point scale from very low to very high. In both the taluka's the awareness about the distribution channel is found to be significant at 5 % level of significance.

4. Present Marketing Scenario in Chandrapur region

In Chandrapur district the agriculture has relatively limited cultivation options of crops grown in the district. The major crops grown by the farmers in Brahmpuri & Warora taluka are Rice, Cotton, Soyabean, Pegion-Pea and Gram. The distribution channel representing marketing scenario of Chandrapur district with special reference to Brahmpuri and Warora taluka farmers is presented in Fig 9 below:

Fig 9: Distribution network of Chandrapur District (Brahmpuri/Warora taluka)



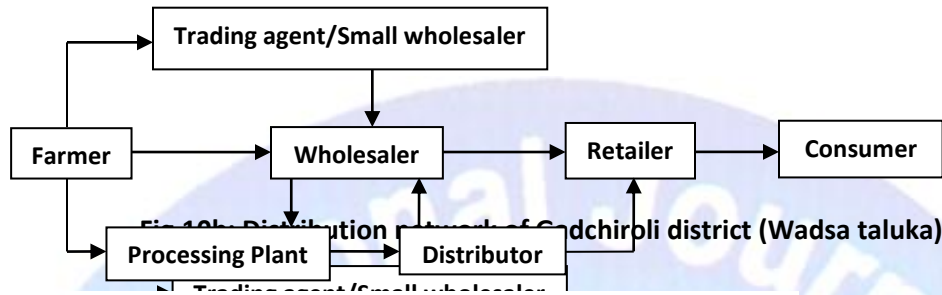
Source: Author's Own Computation based on Field Survey

As seen in Fig 9, in Chandrapur district (Brahmpuri & Warora taluka) the farmers' sell the produce directly to the wholesaler at village level or at Brahmpuri or Nagbhid market. The farmers also sell their produce through APMC especially for selling paddy or sell it through the trading agents. There are number of rice mills (processing plants) in the region, which also purchase it from the farmers in Brahmapuri taluka. Similarly, in Warora taluka, many of the farmers prefer to sell the produce at Warora or Hinganghat market. The paddy is sold directly to the rice mills (processing plants) or to the trading agents by the farmers producing paddy and rest of the crops are sold at AMPC. According to MSS-Chandrapur district, in Chandrapur district, apart from the above marketing scenario, and the regulated markets (APMCs), there are 114 rural haats, which are unregulated and managed by gram panchayats, 20 livestock markets, 242 milk collection centres. The awareness of the farmers in Brahmpuri and Warora taluka about the distribution channel was tested using t-test on a 5 point scale from very low to very high. In Brahmpuri and Warora taluka, the awareness about the distribution channel is found to be non-significant at 5% level of significance.

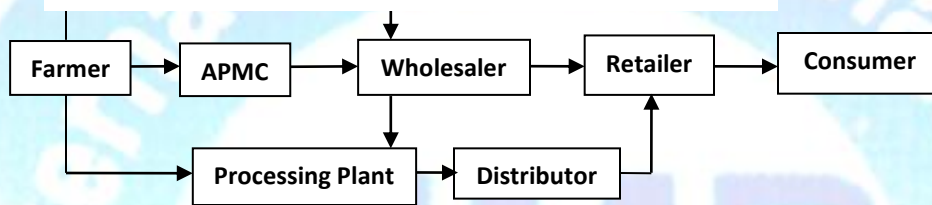
5. Present Marketing Scenario in Gadchiroli region

In Gadchiroli district the major crop grown by the farmers in both Gadchiroli & Wadsa taluka is Paddy. The distribution channel representing marketing scenario of Gadchiroli district with special reference to Gadchiroli and Wadsa taluka farmers is presented in Fig 10a & 10b below:

Fig.10a: Distribution network of Gadchiroli district (Gadchiroli taluka)



Source: Author's Own Computation based on Field Survey

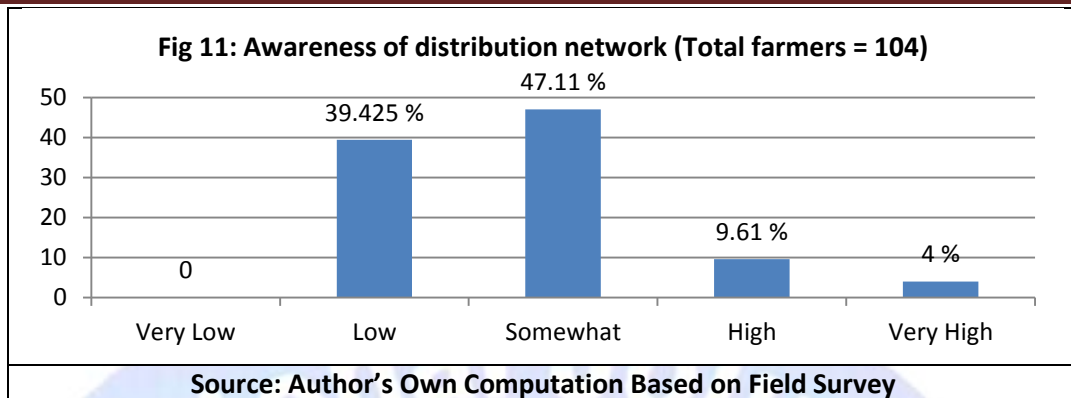


Source: Author's Own Computation based on Field Survey

As seen in Fig 10a & 10b, in Gadchiroli district the channel of distribution seems to be similar in both the talukas with very small change. In Gadchiroli taluka, that the farmers sells the produce either directly to the wholesalers or sells to trading agents or small wholesalers who sells it further to wholesalers. There are several rice mills which also either purchases the paddy directly from farmers or the wholesalers in the region. Similarly, in Wadsa taluka, the distribution channel adopted by the farmers is similar as that of Gachiroli taluka, with the exception of existence of APMC in the region. According to MSS-Gadchiroli district (2014), in Gadchiroli district, apart from the above marketing scenario, and the regulated markets (APMCs), there are 76 rural haats, which are unregulated and managed by gram panchayats, 7 live-stock market, 114 cooperative societies. The awareness of the farmers in Gadchiroli and Wadsa taluka about the distribution channel was tested using t-test on a 5 point scale from very low to very high. In both taluka's, the awareness about the distribution channel is found to be not significant.

Awareness of Vidarbha Farmers about the Distribution Channels

The awareness about the distribution channel of Vidarbha farmers is studied for the selected districts and taluka of Vidarbha region and the results are presented as below:



From the Fig 11 above it is clear that most of the farmers i.e. 47.11% come under the category of somewhat aware and 39.425% farmers have low knowledge about the distribution network. Only 9.61% farmers have high and 4% of farmers have very high awareness about the distribution network. Thus, statistically also the awareness is not significant amongst the farmers with 5% level of significance.

V. Findings of the Study

The following cropping pattern and preferences of the farmers are observed in selected districts of Vidarbha:

- In Amravati district, Cotton and Oranges are the most preferred crops of the farmers in Morshi and Warud taluka. Thus, these crops are the most preferred crops of farmers in Vidarbha. Recently, some farmers are taking turmeric as the additional crop in the region. The availability of ginning mills and trading agents is the advantage to the farmers in the region.
- In Bhandara district, Rice is the most preferred crop amongst the farmers in both Bhandara and Paoni taluka. In Paoni taluka, some farmers are also taking soyabean and gram as the subsidiary crop. The availability of large number of rice mills and trading agents to sell the crop is the advantage for the farmers in the region.
- In Nagpur district, wheat is the most preferred crop by farmers in Nagpur taluka, whereas soyabean is the most preferred crop in Umred taluka followed by wheat. Thus, wheat is the most preferred crop of Nagpur district followed by various other subsidiary crops like Soyabean, Gram, Cotton, Sunflower, Orange, Brinjal, Sunflower & Flowers. The availability of various agri-processing activities, better market to sell the crop and favourable weather conditions are the important factors in Nagpur district for producing the above mentioned crops.
- In Chandrapur district, the maximum farmers in Brahamapuri taluka cultivate rice, whereas majority of farmers in Warora cultivates cotton and soyabean. The favourable weather conditions and availability of rice mills in Brahamapuri is the advantage for rice production and availability of large number of soya processing units in Warora is the advantage for soyabean production in the region.
- In Gadchiroli district, almost all the farmers cultivate paddy in both Gadchiroli and Wadsa taluka. The availability of rice mills in large number makes the paddy most preferred crop amongst the farmers.

The present marketing scenario in terms of distribution channel adopted by farmers in selected districts of Vidarbha and their awareness about the distribution channels is studied and is summarized as below:

- In Amravati district (Morshi & Warud taluka) most of the farmers sell the produce to the wholesalers at village level through negotiations and very few sell to nearby markets. Also due to

presence of more number of ginning mills and orange traders in both the talukas, the farmers sell the cotton directly to ginning mills and oranges through trading agents at farms only. The role of AMPC seems to be very limited. The awareness of the farmers in Morshi and Warud taluka about the distribution channel was tested. In Morshi taluka, the awareness about the distribution channel is found to be not significant, whereas in Warud taluka the awareness is found to be significant at 5 % level of significance.

- In Bhandara district (Bhandara & Pauni taluka) mostly the three channels of distribution are prominent, viz., the farmers' sale directly to the processing plant (rice mills) as their number is large in the region, many small farmers' sell to wholesalers through brokers and agents and some are selling directly through APMC market which sells it further to wholesalers and consumers. The awareness of the farmers in Bhandara and Pauni taluka about the distribution channel was tested and is found to be non-significant at 5% level of significance in both the talukas.
- In Nagpur district (Nagpur taluka) most of the farmers sell the produce through the APMCs. In Umred taluka of Nagpur district the farmers sell their produce to wholesalers through trading agents and few sell it through AMPC. The farmers growing paddy sell the paddy to processing plants (rice mills) which further sell it to distributors and wholesalers. The awareness of the farmers in Nagpur and Umred taluka about the distribution channel was tested and is found to be significant at 5 % level of significance in both the talukas.
- In Chandrapur district (Brahmpuri & Warora taluka) the farmers' sell the produce directly to the wholesaler at village level. The farmers also sell their produce through APMC especially for selling paddy or sell it through the trading agents. There are number of rice mills (processing plants) in the region, which also purchase it from the farmers. The awareness of the farmers in Brahmpuri and Warora taluka about the distribution channel was tested and is found to be non-significant at 5% level of significance.
- In Gadchiroli district (Gadchiroli and Wadsa taluka), the farmers sells the produce either directly to the wholesalers or sells to trading agents or small wholesalers who sells it further to wholesalers. There are several rice mills which also either purchases the paddy directly from farmers or the wholesalers in the region. In Wadsa taluka, farmers also sells the produce through APMC. The awareness of the farmers in Gadchiroli and Wadsa taluka about the distribution channel was tested and is found to be significant at 5 % level of significance in both the talukas.
- Also, the overall awareness about the distribution channel of Vidarbha farmers is studied and tested for the selected districts and taluka of Vidarbha region and is found to be non-significant at 5% level of significance.

VI. Conclusion

To conclude, according to the Marketing Strategy Supplement, 2014, in Amravati district, the major crops are soyabean and cotton, in Bhandara district, it is paddy and wheat, in Nagpur district, soyabean and cotton, in Chandrapur it is soyabean and paddy and in Gadchiroli it is paddy and soyabean during 2009 to 2013. The empirical analysis shows that the cropping preferences of farmers have changed in certain districts of Vidarbha in 2016. In Amravati districts, the farmers prefer cotton and oranges, in Bhandara district paddy is still the preferred crop along with soyabean, in Nagpur district, the preference seems to be towards wheat and then soyabean, in Chandrapur district, the farmers take paddy, cotton and soyabean in order of preference, whereas in Gadchiroli district paddy is the most preferred crop. The shift in preferences of crop taking pattern is attributed to production of high yielding and less risky cash crops. The awareness about the distribution channel shows that the farmers lack sufficient knowledge about the various facilities available in the market for selling their crops and following the traditional ways of selling the crops. Hence, the awareness about the various points of distribution

channels and government support available to sell the crops is necessary in Vidarbha region. If this issue is addressed appropriately, the farmers will be benefited in terms of reaping the benefits of government benefits and also getting the better market prices for their goods.

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