Analysis of Production and Marketing Problems Faced By Tree Growers of Northern India

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ABSTRACT

In north Indian states viz. Punjab, Haryana, U.P. and Himachal Pradesh, those producing areas were selected which were the main feeding areas for the selected markets. The producing areas were selected after consultation with various market functionaries and officials of Forest Department in the respective states. The selected producing area of Saharanpur, Yamuna Nagar, Amritsar and Hoshiarpur represents western Uttar Pradesh, Haryana, and Punjab respectively while Una area represents Himachal Pradesh. Around 100 tree growers were selected for the study. Difficulty in getting harvesting permit, late information, small size of auction platform and high transportation charges were other important problems faced by the tree growers. The results of the study suggest the need to assure tree growers of the remunerative returns, if not by support prices then may be by further promoting wood-based industries and improving the industrial infrastructure for these industries. Establishment of such industries in the vicinity of producing areas will send a right message to the tree growers with regard to sustainability of the demand for their product. Forest corporations or tree growers' cooperatives need to be promoted and the same should show their presence to increase competition in the market to improve the efficiency of the timber markets

INTRODUCTION

A commercial activity involves different components like production of goods and services and their transfer to the ultimate consumer as per the market demand. Efforts should be made to encourage the protection, regeneration, exploration of alternatives to combat the bonafide needs of the local inhabitants (Banyal et al. 2015). Smooth functioning of the production, processing and marketing systems, therefore is crucial for the success of any commercial venture. It is in this regard that analysis of production and marketing problems of farm forestry timber species has been analysed. While the identification of various production and marketing problems helps in gearing-up of production systems to make it cost effective, an analysis of the associated production and marketing problems helps in identifying areas where the corrective measure are needed to make

the marketing system technically efficient and thus relatively cost effective. Identification and deeper understanding of these problems also helps in the preparation and implementation of sound production and marketing plans, so as to ensure reasonable level of profits to all engaged in the system; so that their enthusiasm for being in the business can be maintained. The analysis also helps in pursuing the required future course of action to run the commercial activity by ensuring that various hindrances in smooth functioning of the system are addressed in time. Timber growing unlike other farm activities requires a long gestation period before returns start coming. The visualization of various production and marketing problems and their timely redressal is important to maintain timber supplies from private lands on a sustainable basis. In this regard, respondent tree growers were surveyed to find out various production and marketing problems faced by them in timber trade in the selected production areas.

MATERIALS AND METHODS

In north Indian states viz. Punjab, Haryana, U.P. and Himachal Pradesh, those producing areas were selected which were the main feeding areas for the selected markets. The producing areas were selected after consultation with various market functionaries and officials of Forest Department in the respective states. The selected producing area of Saharanpur, Yamuna Nagar, Amritsar and Hoshiarpur represents western Uttar Pradesh, Haryana, and Punjab respectively while Una area represents Himachal Pradesh. A list of tree growers was prepared with the help of different market functionaries in respective markets and also with the help of local forest officials. Around 100 tree growers were selected for the study.

To study the various problems associated with the production and marketing of timbers, it was assumed that the extent of a particular problem varies from place to place and tree grower to tree grower. The multiple responses of producers reporting various problems were taken into consideration for analysis. These response were solicited during the survey; wherein the respondents were also requested to show the intensity of the problem on a 4 - point scale ($> 30\% = 1$; $30-50\% = 2$; $50-70\% = 3$ and $> 70\% = 4$).

Chi square test

To test whether there is any significant difference among the responses of tree growers and pre-harvest contractors of the study areas regarding the production and marketing problems faced by them, Chi square test in m x n contingency table was also applied.

The detail of approximate Chi square test (^{2}) is given as under:

$$\sum_{j=1}^{L} \sum_{i=1}^{K} \frac{(f_{ij} - n_i P_{ij})^2}{n_i P_{ij}} \sim c^2 \, (L-1)(K-1) \, d.f.$$

Where,

f_{ij} = Frequency of the jth study area's tree growers for the ith problem

P_{ij} = Proportion of the jth study area's tree for the ith problem.

$$n_i = \sum_{i=1}^{K} (f_{ij})$$

K = Number of problems

L = Number of study areas

Hypothesis

H_0 : $P_{i1} = P_{i2}$

(there is significant relationship of the production and marketing problems between the study areas)

H_1 : $P_{i1} \, ^1 \, P_{i2}$

(There is a no significant relationship of production and marketing problems between the study areas)

Where,

P_{i1} = Proportion of tree growers for the ith problem

P_{i2} = Proportion of tree growers for the ith problem

RESULTS AND DISCUSSION

A general view of different marketing problems has been presented by working out percentage multiple responses of respondents facing a given problem.

Table 1 presents various production and marketing problems faced by tree growers feeding the important timber markets of northern India. So far as production problems are concerned, a good number of the tree growers were facing problems with regard to the shortage of labour. Response in this regard was highest (60 %) in Una area followed by tree growers of Yamuna Nagar,

Table 1. Production and marketing problems faced by the tree growers of the study area

(Multiple response, %)

Problems faced by the tree growers	Study Area				
	Saharanpur	Yamuna Nagar	Amritsar	Hoshiarpur	Una
A. Production					
i. Shortage of labour	40.00	50.00	40.00	30.00	60.00
ii. Lack of capital	35.00	40.00	35.00	30.00	10.00
iii. Lack of quality planting material	0.00	40.00	25.00	25.00	35.00
iv. Lack of all weather roads	45.00	40.00	25.00	25.00	60.00
B. Harvesting					
i. Higher wage rate	45.00	45.00	40.00	40.00	55.00
ii. Non-availability of labour at peak operation time	60.00	50.00	40.00	45.00	50.00
iii. Difficulty in getting harvesting permit and transit permit	60.00	20.00	40.00	35.00	60.00
C. Transportation					
i. Lack of vehicles	40.00	55.00	40.00	35.00	45.00
ii. Village not linked with road	40.00	40.00	30.00	25.00	30.00
iii. High transport charges	60.00	55.00	50.00	45.00	60.00
D. Market Intelligence					
i. Late information	65.00	55.00	50.00	40.00	35.00
ii. Information available limited	65.00	75.00	45.00	40.00	45.00
iii. Limited to markets only	45.00	50.00	45.00	35.00	30.00
iv. Inadequate information	65.00	60.00	45.00	35.00	30.00
v. Misleading information	65.00	60.00	40.00	30.00	25.00
vi Price information not available in time	60.00	75.00	70.00	65.00	45.00
vii. Depend upon marketing agencies	75.00	80.00	65.00	60.00	55.00
E. Market Yard					
i. Small size of auction platform	60.00	65.00	50.00	50.00	45.00
ii. Unregulated vehicles and traffic jams in market	40.00	75.00	45.00	40.00	35.00

Problems faced by the tree growers	Study Area				
	Saharanpur	Yamuna Nagar	Amritsar	Hoshiarpur	Una
F. Malpractices					
i. Deduct more charges	25.00	10.00	15.00	15.00	10.00
ii. Part payment	30.00	25.00	25.00	25.00	15.00
iii. Late payment	15.00	35.00	15.00	20.00	15.00
iv. Deduct undue charges	10.00	5.00	5.00	0.00	0.00
v. Do not take the consent of farmers while selling	25.00	20.00	25.00	25.00	10.00
vi Quote lower than actual price	35.00	45.00	35.00	40.00	25.00
vii Trade collusion	45.00	35.00	25.00	25.00	15.00
G. Miscellaneous					
i. Lack of awareness about harvesting laws	50.00	45.00	45.00	35.00	35.00
ii. High price fluctuation	60.00	70.00	50.00	45.00	50.00
iii. Harassment by govt. officials (check post)	55.00	75.00	65.00	55.00	55.00

Amritsar and Saharanpur areas respectively. Other production problems like lack of capital and lack of quality planting material were, interestingly not found to be as severe as that of shortage of labour. The highest response regarding these problems was that of 40 per cent in Yamuna Nagar market for both capital and quality planting material constraints. After shortage of labour, lack of capital was relatively more prominent production problem followed by lack of quality planting material. The average response in respect of these production and marketing problems in different producing areas has been presented in table by working out average score after taking into consideration the severity of the problem, as depicted by scale of response of the tree growers for that problem in a given area.

Different marketing problems of tree growers and pre-harvest contractors have been analyzed under the heads (i) harvesting (ii) transportation (iii) market intelligence (iv) market yard (v) market malpractices and (vi) miscellaneous problems. Again, like in case of production problems average score for marketing

problems for tree growers and pre-harvest contractors has also been worked out to get a general view of the severity of a problem in the region. So far as problems regarding harvesting are concerned difficulty in getting harvesting/transit permits in Una and Saharanpur, while non-availability of labour at peak operation time was a common constraints in smooth completion of harvesting operations in all the areas under study. The average score for this problem was found to be highest (1.30) followed by the scores of difficulty in getting harvesting permit (1.06), higher wage rate (1.01) and lack of clarity over harvesting rules with average score of 0.84.

In case of transportation, most common problem was that of high transportation charges as shown by the multiple responses of tree growers. As high as 60 per cent of tree growers in Una and Saharanpur area felt strongly about this problem. In Yamuna Nagar, Amritsar and Hoshiarpur, the response was 55, 50, and 45 per cent respectively in this regard. Tree growers' average response for this problem worked out to be 1.43. Other problems like that of producing areas not linked

with roads, lack of all weather roads and lack of timely availability of vehicles are important problems relating to the transportation of the produce from producing areas to the market.

Table 2. Average score of the marketing problems faced by the tree growers of the study area

Problems faced by the tree growers	Saharanpur (20)	Yamuna Nagar (20)	Amritsar (20)	Hoshiarpur (20)	Una (20)	Total Score	Average Score
A. Harvesting							
i. Lack of clarity over harvesting rules	20	18	18	7	21	84	0.84
ii. Higher wage rate	18	18	16	16	33	101	1.01
iii. Non-availability of labour at peak operational time	36	30	16	18	30	130	1.30
iv. Difficulty in getting harvesting permit and transit permit	36	4	16	14	36	106	1.06
B. Transportation							
i. Lack of vehicles	16	33	16	14	18	97	0.97
ii. Village not linked with road	16	16	12	5	12	61	0.61
iii. High transport charges	36	33	20	18	36	143	1.43
iv. Lack of all - weather roads	18	18	5	4	48	93	0.93
C. Market Intelligence							
i. Late information	39	33	20	16	14	122	1.22
ii. Limited information available	39	60	18	16	18	151	1.51
iii. Misleading information	26	24	16	12	5	83	0.83
iv. Price information not available in time	36	60	42	39	18	195	1.95
v. Depend upon marketing agencies	60	64	39	36	33	232	2.32
D. Market Yard							
i. Small size of auction platform	36	39	20	20	18	133	1.33
ii. Unregulated vehicles and traffic jams in peak season	16	60	27	24	21	148	1.48
E. Malpractices							
i. Over charging	5	2	3	3	2	15	0.15
ii. Part payments	12	5	5	5	3	30	0.30
iii. Late payments	3	14	3	4	3	27	0.27
iv. Deduct undue charges	2	1	1	0	0	4	0.04

Problems faced by the tree growers		Study Area					Total Score	Average Score
		Saharanpur (20)	Yamuna Nagar (20)	Amritsar (20)	Hoshiarpur (20)	Una (20)		
v.	Do not take the consent of grower while selling	5	4	5	5	2	21	0.21
vi	Quote lower than actual price	14	18	14	16	5	67	0.67
vii	Trade collusion	18	14	5	5	3	45	0.45
F.	**Miscellaneous**							
i.	Lack of capital	14	16	14	12	2	58	0.58

When, where and how much produce should be sent to a given market are the key questions for tree growers in timber trade. This is because timber is bulky, difficult to transport and store and also difficult to handle for resale if last moment changes in market are to be made. Therefore, availability of sound market intelligence is very important in timber trade. Analysis reveals the tree growers dependence on different marketing agencies for market intelligence is the major problem in this regard for tree growers. Non availability of timely information is another important problem faced by tree growers with an average score of 1.95. This was followed by problem of limited information, late information and misleading information in order of their importance respectively.

Production area wise response regarding various problems related to market intelligence reveal that tree growers of Yamuna Nagar and Saharanpur were relatively at a disadvantage as compared to tree growers in other selected timber producing areas. However, so far as the dependence on various marketing agencies for market intelligence is concerned the response of tree growers did not differ much in various selected timber growing areas.

Chi-square test was also carried out to test that whether the problems identified for the producers are timber market specific or they are independent of timber markets. The result of the chi-square for different production and marketing problems is presented in the Table 3. It can be seen from the table that harvesting and malpractices problems proposed by the producers differ significantly between the different selected markets.

Table. 3. Chi-square test for different marketing problems faced by tree growers and pre-harvest contractors among selected study areas

Sr. No.	Problems	χ^2 value Tree growers
i.	Harvesting	4.26*
ii.	Transportation	1.29
iii.	Market Intelligence	4.68
iv.	Market Yard	0.98
v.	Malpractices	9.99*
vi.	Miscellaneous	1.43*

*significant at 1% level of significance

SUMMARY AND CONCLUSIONS

Difficulty in getting harvesting permit, late information, small size of auction platform and high transportation charges were also listed as the important problems by the tree growers apart from labour shortage and lack of capital.

Farmers' cooperatives such as tree growers' organisations/groups need to be encouraged so as to gain bargaining power in the market. Market malpractices, like high brokerage, commission charges, storage charges and during the process of final payments, etc. need to be checked because the current practices often work to the disadvantage of the sellers. There is an urgency to ascertain that quality nursery, particularly of poplar and eucalyptus of good clones is available on demand in the producing areas. Proper market intelligence and the security of remunerative returns, particularly the latter, in case of this long term activity are felt to be a must. Farmers often cite the case of the earlier enthusiasm of eucalyptus growing; when farmers in the region were urged to grow eucalyptus and were assured remunerative returns for their plantations. The bitter memories of failures of the related agencies to keep this promise are still fresh in the minds of tree growers. Since tree growing is a long term activity, promises made by the public agencies should properly and timely reflect in public policies; so that the cloud of regarding the rules and regulations as well as incentive are cleared at the earliest and farmers can take appropriate decisions. There is thus a need to assure tree growers of the remunerative returns, if not by support prices, then by promoting wood-based industries and improving the industrial infrastructure for these industries. Establishment of such industries in the vicinity of producing areas will send a right message to the tree growers with regard to sustainability of the demand for their product.

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