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An economic analysis of production and marketing of banana in Bilaspur district of Chhattisgarh state

Shekhar Kumar and Dr. Ajay Tegar

Abstract
An attempt has been made in study to examine the production and marketing aspect of banana. The current research was carried out in Bilaspur district of Chhattisgarh state. Two blocks namely Masturi and Bilha were selected for the study. One twenty four farmers were randomly selected from eleven villages on the basis of their land holding size *viz.* small, medium and large farmers. Therefore 32 small, 48 medium and 44 large farmers was selected. The major finding of the study concluded that the average cost of banana cultivation is calculated at 187274.34 rupees per hectare. The average production cost of bananas per quintal is 240.72 rupees per hectare and average net return was Rs. 356882.32. The overall B:C ratio obtained is 1:1.91. For banana marketing, three marketing channels are observed in the study area i) Channel-I: Producer → Consumer. ii)Channel-II: Producer → Retailer → Consumer. iii) Channel-III: Producer → Wholesaler → Retailer → Consumer. The overall marketable surplus of banana was found 99.52 per cent. The marketing efficiency ratio was 34.46 in first channel, 4.62 in second channels and 2.35 in third channels which shows channel-I was more efficient followed by channel-II and channel-III.

Keywords: Cost of cultivation, cost concept and marketing pattern

Introduction
Banana, which is understood through one-of-a-kind names like plant of virtue, fruit of god and apple of paradise, is one of the maximum critical fruit vegetation of India. Modern fit to be eaten banana types were developed from the 2 famous species this is Musa accuminata and Musa balbisiana. It is developed in India in an exceedingly space of 830.5 thousand ha and absolute creation is around 29,779.91 thousand tons. Principle banana developing states are Tamil Nadu, Maharashtra, Gujarat, Andhra Pradesh and Karnataka. The total production of Banana in Chhattisgarh is 602717 metric tons, and total area of Banana fruits in Chhattisgarh is 25791 ha. It is cultivated in almost all the Districts in State. The major Banana growing districts are Bilaspur (2830 ha), Balrampur (2550 ha), Durg (1895 ha), Surajpur (1815 ha), Raigarh (1725 ha), Raipur (1255 ha) and maximum area under banana crop in Bilaspur district with the 2830 ha in the year 2019-20. The study is being concerned with following objectives: To find out cost and return in cultivation of banana in and To identify important marketing channel for marketing of banana in the study area.

Collection of data
Primary data has been collected from selected and categorized banana growers into small, medium and large. Data were collected through personal interview method with the help of pre tested questionnaires. The secondary data has been collected through different government offices such as Department of Agriculture, Department of Horticulture, Department of Economics and Statistics, Government of Chhattisgarh and through all other authentic sources.

Research Methodology
The cost and return were estimated with the help of cost concept given by Commission on Agricultural Costs and Price (CACP). The detailed cost concept used in present study is as below.

Cost A1: All actual expenses in cash and kind incurred in production. Consist of following items of costs.

- Value of hired human labor
- Imputed value of owned bullock labor

- Value of hired bullock labor
- Charged of hired machinery
- Imputed value of owned machinery
- Imputed value of owned seed
- Value of fertilizers
- Value of insecticide and fungicide
- Value of irrigation
- Land revenue, chess and other taxes
- Depreciation on farm implement
- Interest on working capital
- Cost A2= Cost A1+ Rent paid for leased-in-land

Cost B1= A1+ Interest on value of owned fixed capital (excluding land)
Cost B2= B1+ Rental Value of owned land and rent paid for leased land
Cost C1= B1+imputed value of family labour
Cost C2= B2+ imputed value of family labour
Cost C3= C2+ managerial cost of 10% of cost C2 on account of managerial function performed by farmer

Result and Discussion

From the table 1, it is observed that the average cost of cultivation of sample farmers was Rs.174098.47 for small categories of farmers Rs.186412.41 for medium categories of farmers and Rs. 201312.15 in case of large categories of farmers. The higher cost of cultivation found on large categories of farmers as compare to small and medium categories of farmers. The overall cost of cultivation is observed as Rs.187274.47. From the table it is clear that under cost of cultivation the maximum cost shared by planting material which is Rs.47119.00 i.e. 25.16 per cent of total cost on an average basis.

Table 1: cost of cultivation of banana (Rs./ha)

S.No.	Particulars	Small	Medium	Large	Overall
Variable cost (A)					
1	Family labour	11745.28 (6.74)	8318.35 (4.46)	4578.89 (2.28)	8214.17 (4.34)
2	Hired human labour	23235.84 (13.35)	27802.73 (14.90)	30932.77 (15.37)	27323.78 (14.59)
3	Machine charge	6504.15 (3.73)	7642.18 (4.10)	10588.88 (5.26)	8245.07 (4.40)
4	Planting materials	44125.78 (25.35)	46049.22 (24.70)	51182.00 (25.42)	47119.00 (25.16)
5	Manure	10826.41 (6.22)	11560.74 (6.20)	12026.89 (5.97)	11471.34 (6.13)
6	Fertilizer	22276.73 (12.79)	24677.92 (13.03)	27636.55 (13.74)	24863.73 (13.29)
7	Plant protection chemicals and herbicides	8901.88 (5.12)	9236.81 (4.94)	9725.55 (4.83)	9288.08 (4.96)
8	Irrigation	6754.71 (3.88)	7600.17 (4.07)	8801.11 (4.37)	7718.66 (4.13)
9	Propping	10528.30 (6.04)	11493.36 (6.17)	12047.78 (5.98)	11356.48 (6.07)
10	Interest on working capital	3994.62 (2.30)	4381.89 (2.35)	4888.25 (2.43)	4421.58 (2.36)
	Total variable cost (a)	148893.73 (85.52)	158763.42 (85.17)	172408.69 (85.64)	160021.94 (85.45)
Fixed cost (B)					
11	Land revenue	12 (0.00)	12 (0.00)	12 (0.00)	12 (0.00)
12	Depreciation on implements	415.5 (0.24)	610.15 (0.32)	750.21 (0.37)	591.95 (0.32)
13	Rental value of owned land	22076.73 (12.68)	24064.45 (12.90)	25044.44 (12.44)	23728.51 (12.68)
14	Interest on fixed capital	2700.50 (1.55)	2962.39 (1.59)	3096.80 (1.54)	2919.90 (1.56)
	Total fixed cost (b)	25204.73 (14.48)	27649.00 (14.83)	28903.45 (14.36)	27252.39 (14.55)
	Total cost (a+b)	174098.47 (100)	186412.41 (100)	201312.15 (100)	187274.34 (100)

Note: Figures in parentheses are percentage to total.

Cost of cultivation of banana as per cost concept at sample farm in the study area.

It is clearly visible from the Table 2 that maximum cost can be seen at cost C3 which was Rs.206001.77 followed by cost C2, B2, C1, B1 and A1, A2 with the amount of Rs.187274.34, 179060.16, 163545.80, 155331.62 and 152411.72 respectively. Total both maximum and minimum cost was higher in case of large farms followed by medium and small farms. Maximum cost can be observed at cost C3 which includes cost C2 plus 10% of cost C2 on account of managerial function performed by farmer and the minimum cost can be observed at cost A1 which includes all actual expenses. It shows the increasing trends with the increasing in farms size.

Table 2: Cost of cultivation of banana as per cost concept at sample farm in the study area. (Rs/ha)

S. No.	Cost	Size of land holdings			
		Small	Medium	Large	Overall
1	Cost A_1	137575.95	151067.20	168592.01	152411.72
2	Cost A_2	137575.95	151067.20	168592.01	152411.72
3	Cost B_1	140276.45	154029.60	171688.81	155331.62
4	Cost B_2	162353.18	178094.05	196733.25	179060.16
5	Cost C_1	152021.74	162347.96	176267.70	163545.80
6	Cost C_2	174098.47	186412.41	201312.15	187274.34
7	Cost C_3	191508.31	205053.65	221443.35	206001.77

Yield, cost and return of banana at the sample farms in the study area. (Rs/ha)

The average yield per hectare was maximum in case of large farm which was 796.08 q followed by medium farm 776.00 q and small farms 760.02 q the overall yield was observed 777.36 q on an average basis. The average price of banana was 700 Rs. for all categories of banana farmers. The maximum cost of cultivation occurred in large farms which was Rs. 201312.15 followed by medium and small farms as Rs.186412.41 and Rs.174098.47 per ha respectively. Therefore the cost of production per quintal observed minimum in case of small farms which was Rs. 229.07 followed by medium farms Rs. 240.22 and large farms Rs.252.88.

Gross income can be seen higher in case of large farms which Rs.557256 followed by medium and small farms with the Rs. of 543200 and Rs.532014 respectively. The net return has been observed maximum in case of small farms which is Rs. 357915.53 followed by medium farms Rs. 356787.59 and minimum in case of large farms with the Rs. 355943.85. The Benefit Cost ratio was maximum for small farms with 1:2.06 followed by medium farms with 1:1.92 and minimum in case of large farms with 1:1.77.

Table 3: Yield, cost and return of banana at the sample farms in the study area. (Rs/ha)

S/No.	Particulars	Small	Medium	Large	Overall
1	Main yield (q/ha)	760.02	776.00	796.08	777.36
2	Price (Rs/q)	700	700	700	700
3	Gross income	532014	543200	557256	544156.66
4	Cost of production(Rs/q)	229.07	240.22	252.88	240.72
5	Cost of cultivation (Rs./ha)	174098.47	186412.41	201312.15	187274.34
6	Net income	357915.53	356787.59	355943.85	356882.32
7	B:C Ratio	1:2.06	1:1.92	1:1.77	1:1.91

Marketing channels of banana at sample farms in the study area

Banana moves from producers to different marketing intermediaries until it reaches the consumer. It is important to find out the numerous marketing platforms used during the present analysis of banana marketing. It has been observed that essential intermediaries were in the marketing of banana and further observed three marketing channels.

Channel I: Producer→ Consumer

Channel II: Producer→ Retailer→ Consumer

Channel III: Producer→ Wholesaler→ Retailer→ Consumer

Marketing efficiency in different marketing channels of banana in the study area

Table 3 reveals that channel-I (34.46) was more efficient than channel-II (4.62) and channel-III (2.35) respectively. The study found that marketing channels more efficient thus channel-I was the most effective platform in banana marketing.

Table 4: Marketing efficiency in different marketing channels of banana in the study area

S. No.	Particulars	Channel-I	Channel-II	Channel-III
1	Net priced received by producer	679.69	666.16	603.54
2	Total marketing cost	20.31	55.80	153.04
3	Total marketing margin	-	128.04	293.42
4	mc +mm	20.31	183.84	446.46
5	Price paid by consumer	700	850.45	1050.15
6	Marketing efficiency ratio	34.46	4.62	2.35

References

1. Beulah S. Cost and return analysis of banana cultivation among marginal and small farmers in tiruchendur taluk 2018.
2. Kathirvel N. Cost and Returns of Banana Cultivation in Tamil Nadu with Special Reference to Karur District. Journal of Contemporary Research in Management 2007;2(1):11-19.
3. Kumar R, Nishad TL. Studies on cost and return structure of banana on sample farm. Plant Archives 2018;18(1):935-938.
4. Kumari S. Production and marketing of Banana crop in Vaishali district of Bihar (Doctoral dissertation, Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur (Bihar).
5. Raman MS, Umanath M. Production and Marketing of Banana in Tiruchirapalli District of Tamil Nadu: an Economic Analysis. International Research Journal of Agricultural Economics and Statistics 2016;7:67-75.