



ORIGINAL RESEARCH PAPER

Agricultural Science

ECONOMIC PERFORMANCE OF AGRO-TOURISM CENTRE IN MAHARASHTRA STATE

KEY WORDS: ATC, KATC, IRR, B:C ratio, BEP.

Dr. J. S. Kumbhar

Assistant Professor and Kishor Pansare, M.Sc. Scholar, Agriculture Economics Section, College of Agriculture, Pune.

ABSTRACT

The present study revealed that, the initial investment for establishment of Krushiraj Agro-tourism centre (KATC) was Rs 66,56,500. Major items of cost were land, infrastructure, irrigation facility and machinery. Out of that land has highest costing of Rs 38,50,000. Variable cost of agro-tourism centre (ATC) was Rs 26,21,910. Benefit cost ratio was worked out and it was 1.18, which shows that ATC was economical viable. The payback period of ATC was 7.7 years. By considering the fixed cost, per head variable cost and per head charges, the breakeven point (BEP) was calculated, in monetary term it was Rs 98,94,797 and in physical (No. of Visitors) 9,635. The internal rate of return (IRR) of KATC was worked out to 16.70 per cent. All economic parameters shows that selected KATC was economical viable

INTRODUCTION

Agrotourism is not new for the farmers, from point of economics this concept has more importance as many farmers of India have different resources which are not used fully in some season especially in summer and in some parts in rainy season, which includes unused rooms, man power etc.

Such resources if utilized in managed manner can give additional income to farming family. Some farmers move toward Agro-tourism as professional business, which give them year around income plus their regular cropping income. India is one of the major tourists centres in the world and there is large scope and great potential to farmers in developing agro-tourism in country and improve their economic status.

Agro-tourism have potential to boost up the economic condition of agrarian economy. The keeping in view of importance of Agrotourism in Maharashtra state the study was under taken in Ahmednagar district as a case study i.e., Economic Analysis of Agrotourism Centre In Maharashtra State.

MATERIALS AND METHODS

Pune district of Western Maharashtra were purposively selected. A list of active Agro-tourism centres with the names and address of each were taken from the official website of MART (Maharashtra State Agriculture and Rural Tourism Co-Operative Federation Ltd.) Saiban Agro-tourism Centre was selected from Pune district.

For estimation of the economic viability of the KATC

1. B:C Ratio

$$B:C \text{ ratio} = \frac{\text{Total returns (₹)}}{\text{Total costs (₹)}}$$

2) Net Present Value (NPV)

$$NPV = \sum_{t=0}^n \frac{Rt}{(1+i)^t}$$

Where,

Rt= net cash inflow

i= discount rate

t= Time period in years

3. Payback period

$$P = \frac{I}{E}$$

Where,

P = Payback period in years

I = Investment in rupees

E = Annual net cash revenue in rupees.

4) Break-even point analysis (BEP) of ATCs

i) BEP in physical unit

$$BEP = \frac{F}{P}$$

ii) BEP at Monetary terms

$$BEP = \frac{F}{1 - V/P}$$

Where,

F = fixed cost of ATC

P = Charges paid by per Visitor

V = Variable cost incurred per visitors.

$$V = \frac{\text{Total variable cost of ATC}}{\text{No. of visitors visited to ATC}}$$

$$P = \frac{\text{Total cost of ATC}}{\text{No. of visitors visited to ATC}}$$

5) Internal Rate of Return (IRR)

$$IRR = \text{Discount Rate} + \frac{\text{Difference between two NPW at lower discount rate}}{\text{Difference between NPW at two discount rates}}$$

RESULTS AND DISCUSSION

Table 1 Total Capital Assets Of KATC

Particulars	Land	Construction	Irrigation	Implement	Live stock	A) Total	B	C	Total imputed cost (A+B+C)
Value in ₹	38,50,000 (57.83)	7,28,500 (10.95)	2,92,000 (4.39)	14,91,000 (22.40)	2,95,000 (4.43)	66,56,500 (100)	2,80,650	3,85,000	73,21,150

(*Figures in parentheses indicate percentage to the total)

B) Interest on fixed capital @ 10% of value (excluding land value)

C) Rental value of land @ 10% of value

Share of each item in total capital investment was having very difference. Land have maximum 57.83 % share in total fixed asset. followed by construction and irrigation.

Table 2 Total Variable Cost Of KATC

Particulars	Total operating cost (T)	Total Employment expenditure (E)	Sub-total (T+E)	Interest on working capital @ (6%)	Total variable cost
Value in ₹	3,73,500	21,00,000	24,73,500	148410	26,21,910

(*Figures in parentheses indicate percentage to the total)

Variable costs vary with the level of Production and extent of use. These costs included variable resources such as, electricity charges, transportation facilities charges, machineries maintenance charges, drinking water, advertisement cost, miscellaneous charges and employment wages, etc. The total operating cost of KATC on the various items and activities was estimated to ₹ 3,73,500. The total operating cost share to 14.24 % and expenditure on employment was 80.09 %.

Table 3 Income From Tourists (2019)

Sr. No.	Particulars	Tourists	KATC
I	No. of tourist arrived in one year (1 day visit) (2019)	Adult	3,390
		Children / students	3,850
	Total Tourist		7,240
	Total Income from Tourist (₹)	Adult	20,34,000
Children / students		17,32,500	
	Total Income day (₹)		37,66,500 (33.74)
II	No. of tourist stayed at night in one year (2019)	Adult	3,098
		Children / students	2,747
	Total tourists		5,845
	Total Income from Tourist (Night) (₹)	Adult	46,47,000
Children / students		27,47,000	
	Total income night (₹)		73,94,000 (66.26)
III	Grand Total of Tourists (Day+ Night Stay)		13,085
IV	Grand Total of Income (Day+ Night Stay)		1,11,60,500 (100)

(*Figures in parentheses indicate percentage to the total)

The ultimate objective behind establishing the ATC is to increase or supplementing the income of farmers. ATC owners have main income from Agro-tourism. This has been categorized viz. income from one day visit and income from night stayed tourists. The total income received from tourist in day visit for the year 2019 was ₹ 37,66,500 and its share was 33.74 %. Income from night staying was ₹ 73,94,000 and shared 66.26 % to total income from tourism.

Table 4 Total Net Income Of KATC (2019)

Sr. No.	Particulars	Total Income In (₹)
1	ATC	1,11,60,500
2	Crop Production	5,00,000
3	Livestock Production	1,45,000
4	Total	1,18,05,500

Out of total income 94.53 % income was from Agro-tourism. from crop and livestock 5.47 % So, for KATC main source of income was Agro- tourism.

As the the B:C ratio of KATC was above 1, i.e. 1.18 so the KATC was have good returns from investment and it is economical viable.

Table 5 Benefit: Cost Ratio Of KATC

Sr. No.	ATC	Costs (₹)			Total income (₹)	B:C Ratio
		Fixed (₹)	Variable (₹)	Total (₹)		
1	KATC	46,36,500	7,80,160	54,16,660	83,78,600	1.18

Table 6 Pay Back Period Of KATC

Sr. No.	ATC	Payback period (year)
1	KATC	7.7

KATC took 7.7 years to gain its initial investment from Agro-tourism.

Table 7 Break-even Point Analysis Of KATC

Sr. No.	Particulars	KATC
1	Fixed Cost (FC) (₹)	73,22,150
2	Variable cost (VC) (₹)	26,21,910
3	Total cost (TC) (₹)	99,44,060
4	Total income (I) (₹)	1,18,05,500
5	VC Incurred /visitor	200.3
6	Per head charge (₹)	759.95
7	Total No visitors	13,085
8	i) BEP in physical unit (Tourists)	9,635
9	ii) BEP in monetary value (₹)	98,94,797

Break-even point analysis indicated that, the level of production at which no profit or loss to owners. In another way it is the quantity which just meets costs allocated to business known as break-even point (BEP). BEP in physical unit was 9,635 number of tourists and BEP in monetary value ₹ 98,94,797

Table 8 Internal Rate Of Return Of KATC

Sr. No.	ATCs	Lower discount rate (%)	Upper discount rate (%)	NPV @ 15%	NPV @ 20%	IRR (%)
1	KATC	15	20	172211.5	-1023035.6	15.72

KATC have good returns of 15.72 % on its initial investment. This proves that KATC was in economical viable entrepreneur.

SUMMARY AND CONCLUSIONS

As selected. SATC have following economic parameters like

- Total capital asset Rs 73,22,150
- Income from tourism Rs 1,11,60,500
- Net income of owner Rs 1,18,05,500
- B:C ratio 1.18
- payback period 7.7 years
- BEP -Monetary Rs 98,94,797 and physical- 9,635
- IRR 15.72 %

As all statistical tools show that selected Krushiraj Agro-tourism Centre, have positive values. From this it can be conclude that Agro-tourism is economical viable entrepreneur and have potential capacity to support the agricultural economy of the rural India.

From this case study it was suggested that In consideration of all economic parameters. The farmers having all resources to start ATC should go for it, as it will helps to increase the income and standard of life.

REFERENCES

1. Chadda and Bhakare., (2012) Socio-Economic Implications of Agri Tourism in India. unpublished M.Sc. (Agri) thesis. Thesis submitted to Punjab Agriculture University
2. Kumbhar, V., (2009). Agro-Tourism: A Cash Crop for Farmers in Maharashtra (India). MPRA Paper No. 25187.
3. Misal R. (2017) Socio-economic appraisal of agro-tourism in Maharashtra, unpublished M.Sc. (Agri) thesis. Thesis submitted to MPKV, Rahuri.
4. Upadhye J., (2015) Problems of Agro Tourism Industry in Maharashtra, International journal of English language, literature and humanities, (3):15.32.