CHAPTER THREE

COST ESTIMATION OF BIDI TOBACCO IN NIPANI TRACT

Before entering into the data relating to the cost of production, it is essential to clarify the methodology used for and the scope of the various cost items included in the course of field investigation. The latter details would fully clarify the conceptual base of the data produced and the inferences drawn.

I

METHODOLOGY

(1) Selection of the Villages

The Nipani Tract covered in all 4 Multiple Office Ranges (MORs). Hence, one village from each MOR was taken up for investigation. The sample of villages, thus, was as shown in Table-1.

Table-1

SELECTION OF VILLAGES FOR INVESTIGATION

MOR	No.of villages	Villages selected	Sample percentage
1 Nipani	27	1	3.7
2 Soundalga	14	1	7.1
3 Khadaklat	12	1	8.3
4 Galatga	7	1	14.3
Total	60	4	6.66

Actually the villages that were picked up from each MOR were so done purposively. The consideration was that the villages should be prominent in the MOR and should be known for production of good quality bidi tobacco. Accordingly, the four villages chosen were Kodni (MOR Nipani), Kognoli (MOR Soundalga), Khadaklat (MOR Khadaklat) and Bhoj (MOR Galatga).

(2) Selection of Growers

In order to get the correct cost figures, only those cultivators who exclusively produced bidi tobacco were considered.

Such growers from each sample village were then classified according to the agrarian relationships as: (A) owner-cultivators, (B) share-croppers, and (C) tenant-cultivators. Sample cases from each of the three groups were picked up. In doing this, care was taken to give equal representation to each category of the grower. In addition, equal number of growers in each category was chosen to represent the small, medium and large growers so that the aggregates would fairly represent the overall position of the growers at large. The resultant sample of growers was as per Table-2.

Table-2

SELECTION OF GROWERS FROM EACH SAMPLE VILLAGE

Size of holding/ category of growers	No.of growers selected			
	Owner cultivators	Share croppers	Tenant cultivators	Total
1 to 5 acres small grower	2	2	2	6
6 to 10 acres medium grower	2	2	2	6
11 acres and above large grower	2	2	2	6
Total for each village	6	6	6	18
For all the 4 villages	24	24	24	72

Thus the present investigation covered in all 72 growers of tobacco growing only bidi tobacco. As the study sample was bound by various considerations (viz., growers of tobacco only, growers from different kinds of agrarian relations and representing different categories), the selection of growers had to be purposive with weightage given to those who would be able to give the detailed information with greatest reliability. Utmost care was taken while eliciting the information.

As regards the agrarian relationships prevalent in the

region, owner-cultivation and share-cropping have been much in vogue. Tenant-cultivation happens to be the last resort for every land-owner and hence is practised only exceptionally. Land reforms measures are responsible for this. It was observed that the owner was inclined to cultivate his land on crop-sharing basis where the size of the holding was above 10 acres because of the problems in getting sufficient number of workers when needed and difficulties in regular management of the farm affairs. Even a good number of middle growers was favouring share-cropping for two reasons. One, the white-collared land owners could not themselves be the actual cultivators. Two, such people did not desire to get trapped into the provisions of the tenancy laws by leasing out their lands. Share-cropping was thus the most suitable alternative to them. The landlord supplied all the capital inputs; the cultivator provided human and animal labour and shared one-fourth crop (in kind or cash) in lieu of that.

(3) Questionnaire

A well-structured questionnaire (given in Appendix) was employed to elicit the information from the growers. To begin with, it was pre-tested in two villages and then finalised in view of the responses of the growers.

(4) Years of Study

The study pertained to 1981-82 and 1982-83. The noteworthy features of these years are that 1981-82 was a good year but prices were slightly lower while in 1982-83 production was comparatively lower and prices higher due to hike in demand for tobacco.

II

TOBACCO CULTIVATION

Bidi tobacco is a cash crop taken during the kharif season. The period of production is normally 5 to 6 months spread over August to January. In case of the late plantation, it extends upto February-end. Usually, immediately after the crop is harvested, the land is ploughed with the help of bullocks and an iron plough preferably or with a tractor. Large farmers very often use tractors. The soil is thus let loose and exposed to sun for the entire summer so as to regain its fertility. With the onset of the monsoon, the ploughed land is prepared for the sowing of either udid or jute seeds and by June-end the seeds are sown. Simultaneously, nursery beds for tobacco saplings are prepared and tobacco seeds are sown therein. In the month of August udid or jute plants are cut off and ploughed back into the soil to provide nitrogenous green manure for tobacco crop. Thereafter, tobacco saplings from nursery beds are transplanted in the field. Normally, an acre of land consists of about 3,000 to 3,500 plants depending upon the distance between the two plants maintained by

the grower. The inter-cultural operations include topping of the extra leaves, removing weeds, application of fertilisers, spraying of pesticides and watering the crop once or twice at the late stage. Animal and human labour is required for this. For lifting water diesel pump-sets are in use; at some places, electric pump-sets are used. Cutting of the matured crop begins from January. Entire plant is cut off and kept upside down into the field itself for sun-curing for about 9 days continuously. Dried leaves are broken into pieces and filled up in the 'bodhs' (two gunny bags make one bodh). The crop cutting and curing is done in instalments looking to the maturity of the plants and protecting the crop from winter rains. Once the harvesting work is over, then the grower pours all the containers together for removing unwanted contents in the raw tobacco like stems and earth and make the consignment a single mix to market. This process is called '<u>Chaaki</u>' by local name. The produce - raw tobacco - is then refilled in the containers (bodhs), weighed and stacked in home or in farm-house till it is taken to the market. Raw tobacco is called "Anagad" and is sold by the grower in that form.

III

<u>COST COMPONENTS OF BIDI TOBACCO</u>

The items relevant to tobacco production cost have been divided into two parts: (1) cost of cultivation (production) and

(2) cost of marketing. Cost of production includes expenses on all the operations of tobacco cultivation, i.e., from preparing the land for cultivation till the tobacco is ready for marketing. Cost of marketing includes all the items of cost since the consignment leaves the grower's house till it reaches the trader's warehouse and all proceeds are received. Before presenting the details of costs, it is necessary to clarify about the individual items included in cost calculations.

(A) COST OF PRODUCTION

For computing the production cost all the operations of cultivation carried on throughout the year, are taken into account. Itemwise details are given below.

(1) Depreciation Allowance

While calculating depreciation allowance on the agricultural equipments used by the grower throughout the year, agricultural equipments were divided into two parts, namely, precision equipments and non-precision equipments. For the precision equipments the life span was taken to be 10 years and for non-precision equipments 20 years. With the help of the following formula the depreciation allowance was calculated.

$$\text{Depreciation Allowance} = \frac{\text{Cost of the equipment} - \text{Estimated scrap value}}{\text{Estimated life of the equipment}}$$

Five per cent scrap value was considered. In case of companies,

the scrap value is assumed to be 5 per cent of the original cost of the asset. In other words 95 per cent of the cost of an asset is to be written off over its life.[1] This rule was applied while calculating the depreciation allowance.

(2) Cost of Maintenance of Bullocks

The expenditure on maintaining a pair of bullocks was obtained from a grower who maintained a pair of bullocks with reasonable expenditure on the items such as green grass, hay, medicines, rope, depreciation on the value of cattle shade, etc. The details are given in Table-3. It is to be noted at this juncture that when a grower maintains a pair of bullocks, its maintenance cost for the entire year should be accounted in the cost computation, and not the cost of its use only during the period of production.

Table-3

COST OF MAINTENANCE OF A PAIR OF BULLOCKS FOR A YEAR

Items of expenditure		Expenditure (Rs.)
1) Grass (green)	...	750
2) Fodder	...	600
3) Grass (summer)	...	500
4) Medicines	...	15
5) Cow-peas	...	700
6) Rope	...	50
7) Depreciation on cattle shade (on the value of Rs. 4,000)		76
Total	...	2,691

(3) Cost of Growing Green Manures

To make the land usable for the cultivation of tobacco crop summer time tilling of the soil and growing green manures is essential. This item of cost includes expenditure on udid or jute seeds and price paid for the labour - both animal and human. For this operation animal labour and human labour are used almost jointly and hence the cost of this operation had to be considered collectively. The hiring charges of a pair of bullocks covered the labour charges of the person accompanying the bullocks.

(4) Cost of Saplings

It was observed that some growers prepared nursery beds to have their own saplings while others purchased from the commercial growers of saplings. Sometimes the saplings in the nursery beds die due to pests and diseases as also changes in weather conditions in spite of all the possible care. Similarly, the output of the saplings also may not be sufficient to the requirements at the particular time of transplantation. Under such eventualities the growers have to purchase saplings from commercial suppliers. Hence, the expenditure on self-prepared saplings and on the purchased one could not be separated. Both had to be combined. Further, for the preparation of the saplings manure, insecticides and pesticides are used for nursery beds. While calculating the cost of saplings the expenditure on such

items had to be accounted. Thus the cost of saplings includes (a) cost of tobacco seeds, (b) cost of manure, (c) cost of insecticides and pesticides, (d) charges of human labour, and (e) cost of purchased saplings.

(5) Transplantation Cost

It is nothing but expenditure on human labour for doing the work. Therefore, it was covered under labour cost.

(6) Cost of Fertilisers

Since the stage of transplantation fertilisers are used both in direct and in mixture form throughout the season depending upon the requirements of the soil and growth of the plant. For calculating expenditure on fertilisers the rates actually prevailing in the open market in 1981-82 and 1982-83 were considered. Since the supplies of the fertilisers from the cooperative societies were not to the requirements of the farmers they had to procure bulk of the fertilisers from the open market at the rates given below.

Table-4

RATE SCHEDULE OF FERTILISERS IN NIPANI MARKET

Kinds of fertilisers	Market Rates (Rs.)	
	1981-82	1982-83
1	2	3
1) Ox brand mixture per 100 kg.	140	150
2) Tree ,, ,, ,, ,, ,,	155	175

contd.

Table-4 contd.

1	2	3
3) Urea per 50 kg.	115	115
4) Super phosphate per 50 kg.	45	47.50
5) Calcium ammonium nitrate per 50 kg.	102	112
6) Dyeammonium phosphate per 50 kg.	180	185
7) Ammonium sulphate per 50 kg.	85	90
8) Sulphate of potash per 50 kg.	66	66

(7) Cost of Manure

Both farm-made and purchased manures were used by the growers. Manure prepared at the farm level was being sold at the price from Rs. 20 to 60 per cartload in both the years and deoiled cake (Karanji-pend) at Rs. 900 and Rs. 950 per ton in 1981-82 and 1982-83 respectively. The cost of manure here excludes the cost of manure used at the time of saplings.

(8) Cost of Pesticides and Insecticides

Expenditure on pesticides and insecticides used both at the time of saplings and throughout the year, was calculated separately at the rates prevailing in the open market during the years 1981-82 and 1982-83. They are given in Table-5.

Table-5

RATE SCHEDULE OF PESTICIDES AND INSECTICIDES IN NIPANI MARKET.

	Kinds of pesticides and insecticides	Market rates (Rs) 1981-82	1982-83
1	Faytolon per pack of 500 grams	15	16
2	Morchud per kg. ...	14	15
3	Lime water per kg. ...	1.50	1.50
4	Thymet per $3\frac{1}{2}$ kg. ...	72	82
5	Aldex per litre ...	64	72
6	Rogor per litre ...	71	74
7	Dimecron per litre ...	150	160
8	Folidol dust per bag of 25 kg.	72	72
9	Sevin 50 per 500 grams. ...	25	27.50
10	Metasystox per litre ...	72	72
11	Metacid 50 per litre ...	85	85
12	Tracil per pack of 500 grams	10	10.50
13	Bavistin per 50 grams ...	21	21.50

(9) Labour Cost (Animal and Human Labour)

Cost of labour included -

(i) expenditure on transplantation,

(ii) labour charges paid for different agricultural operations carried on throughout the year.

(iii) expenditure on transporting the commodity from farm to house, and

(iv) expenditure on preparing the anagad-mix for marketing.

Labour charges were calculated at the wage rates prevailed in the villagesin question during the years 1981-82 and 1982-83.

(10) Water Charges

Water charges included expenditure on -

(i) diesel and oil,

(ii) engine or pump repairs,

(iii) electricity,

(iv) price of water if purchased, and

(v) hiring charges of diesel engine, if hired.

(11) Cost of Working and Blocked Capital

The growers borrowed capital, in addition to their own, from different agencies like commercial banks, cooperative societies, traders and others. Cost of working capital was worked out on the basis of rate of interest at which it was actually borrowed. Cost of own capital was worked out by calculating at the average rate of interest of the borrowed capital.

(12) Cost of Land Improvement

Soon after the harvest the activities such as bunding, field channelling, levelling, etc. are undertaken. Actual

expenditure on such activities made by the grower during the years in question was considered.

(13) Cost of Containers

This included expenditure on 'bodhs' and tarpaulins possessed by the grower.

(14) Cost of Filling and Stitching

This included expenditure on stitching material and wages paid for filling and stitching of the containers.

(15) Land Revenue

Actual land revenue paid by the grower was taken into account.

(16) Cost of Management

A few things need special consideration while calculating the cost of management. Firstly, the work of supervision starts from the month of August and ends up by January-end. Secondly, upto 10 acres of land 1 manager is enough and above 10 acres 2 managers are essential. Thirdly, in case of ownership cultivation with hired labour, management is of special importance. The manager has to look after every operation carefully; he has to chalk out the plan and make decisions. He has to get the assigned work done in time. If his decisions are right and timely, he is rewarded profusely. If case of ownership

cultivation, on the basis of crop-sharing, the managerial work is divided between the owner and the crop-sharer. The owner and the crop-sharer hold frequent consultations and take decisions. The owner, therefore, need not go to the farm every day. On the contrary, the crop-sharer often visits the owner for consultation and reporting about the progress of the work in hand and condition of the crop. In both types of cultivation, i.e., ownership cultivation with hired labour and ownership cultivation on the basis of crop-sharing, a special feature of management is that it is not a full time job. In case of ownership cultivation with hired labour the owner of the land spends a few hours a day on farm and in case of ownership cultivation on the basis of crop-sharing the owner visits the farm once or twice a week. For the sake of convenience of the costing the period of 180 days of management was considered. In case of ownership cultivation with hired labour, managerial emoluments to the owner manager were computed equal to one-and-a-half times the labour charges in the village in question. In case of crop-sharing, the land owner's managerial emoluments were taken as half the amount calculated for the owner cultivator. No separate allowance was made for the managerial work of the crop-sharer.

(17) Cost of Risk and Uncertainty

It goes without saying that Indian agriculture is a gamble with monsoon. Heavy rains as well as no rains badly affect the crops. Tobacco is no exception.

In industry reserve fund is created to cover the contingencies. Such a kind of fund cannot be created in agriculture by small farmer due to his meagre earnings, and by big farmer on account of his strong financial power to sustain the eventualities. In some developed countries, the crop insurance scheme has been in force. It does not exist in India. Therefore, to compensate for the loss on account of the natural calamities, the risk factor should be treated as an item of cost and due allowance made for it. With this in view, in the investigation it was assumed that in the span of 10 years, the grower's loss equalled one year's yield . Therefore, one-tenth of the aggregate input cost was finally added to reach to the ultimate figure of cost of production.

Looked at the items of cost of production one would find that no provision was made for depreciation of land as one of the items of the cost. This was so for the reason that the agricultural land under tobacco is mostly used for raising one crop only so that for almost five to six months in a year it remains fallow and is exposed to sun to recoup its fertility. Secondly, a number of growers practise crop rotation. And finally, the tobacco crop in Nipani Tract is moderately irrigated and low doses of chemical fertilisers are applied. Hence, the crop land has maintained its fertility; the land capital has remained intact. As such, there is no propriety in dabbling with depreciation of land. The land capital has continued to be

a perennial source of income.

Thus it could be observed that all the items of cost implied in cost 'C' were accounted in computation of cost of cultivation of bidi tobacco in Nipani Tract. In addition, an allowance of risk element as also managerial function too was made to make the estimates more realistic.

One more point worth noting. As this study is founded on sampling technique, it is consequently concerned with the estimation of average cost of bidi tobacco in Nipani Tract.

Having clarified the conceptual approach of the present study, the next stage is to give out the consolidated results.

The first step is computation of average yield of bidi tobacco in Nipani Tract. Table-6 gives the details.

Table-6

PER ACRE YIELD OF BIDI TOBACCO IN NIPANI TRACT

Region	Average yield per acre (Kgs) 1981-82	1982-83
MOR Soundalga	656	713
MOR Galatga	549	540
MOR Khadaklat	452	484
MOR Nipani	678	724
Nipani Tract	584	615

Source: Field work.

Using these details, cost of cultivation has been calculated per acre and per kilogram of bidi tobacco produced. Final results for Nipani Tract are given in Table-7. Regionwise break-up of the data is given in Table-A in the Appendix.

Table-7

COST OF CULTIVATION PER ACRE AND PER KG. OF BIDI TOBACCO IN NIPANI TRACT (1981-82 AND 1982-83)

Cost per acre(Rs.)		Item of cost	Cost per Kg. (Rs.)	
1981-82	1982-83		1981-82	1982-83
1	2	3	4	5
166.14 (4.37)	166.14 (4.11)	1) Depreciation	0.29 (4.39)	0.29 (4.32)
272.54 (7.17)	272.54 (6.75	2) Maintenance of bullocks	0.50 (7.56)	0.47 (7.00)
313.03 (8.24)	361.62 (8.96)	3) Growing green manures	0.54 (8.17)	0.60 (8.94)
83.11 (2.19)	90.25 (2.24)	4) Saplings	0.15 (2.27)	0.15 (2.24)
470.15 (12.37)	484.09 (11.99)	5) Fertilisers	0.80 (12.10)	0.79 (11.77)
245.31 (6.46)	264.37 (6.55)	6) Manure	0.44 (6.66)	0.45 (6.71)
138.62 (3.65)	143.11 (3.54)	7) Pesticides and insecticides	0.25 (3.78)	0.24 (3.58)
940.49 (24.75)	1,078.73 (26.71)	8) Labour (animal and human)	1.61 (24.36)	1.75 (26.08
186.24 (4.90)	178.33 (4.42)	9) Watering	0.31 (4.69)	0.29 (4.32)
223.88 (5.89)	224.09 (5.55)	10) Cost of working and blocked capital	0.39 (5.90)	0.37 (5.51)

contd.

Table-7 contd.

1	2	3	4	5
80.13 (2.11)	91.78 (2.27)	11) Land improvement	0.14 (2.12)	0.15 (2.24)
44.54 (1.17)	45.23 (1.12)	12) Containers and tarpaulins	0.08 (1.21)	0.08 (1.19)
26.42 (0.70)	29.97 (0.74)	13) Filling and stitching	0.05 (0.76)	0.05 (0.75)
6.78 (0.18)	6.78 (0.17)	14) Land revenue	0.01 (0.15)	0.01 (0.15)
246.48 (6.48)	244.60 (6.06)	15) Management	0.44 (6.65)	0.41 (6.11)
356.28 (9.37)	356.28 (8.82)	16) Risk and uncertainty	0.61 (9.23)	0.61 (9.09)
3,800.19	4,037.91	Total Average cost	6.61	6.71

Note: 1) The averages are drawn from the averages of the individual MORs the details of which are given in Table-A in the Appendix.

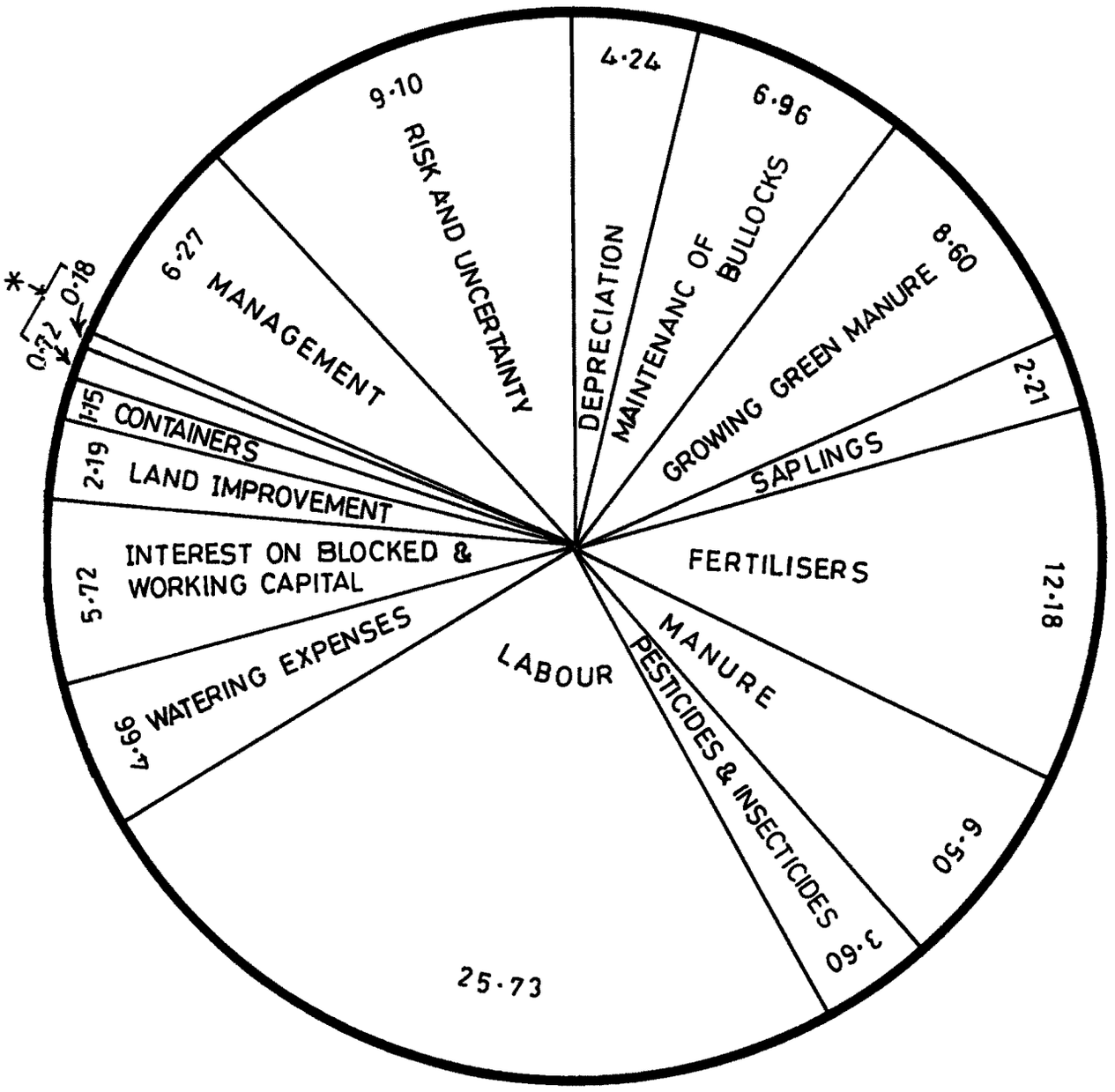
2) Figures in parenthesis indicate percentages to the respective totals.

Source: Field survey.

The average cost of cultivation of bidi tobacco in 1981-82 was Rs. 3,800.19 which increased to Rs. 4,037.91 in 1982-83 - an increase of 6.26 per cent. The cost per Kg. too showed an increase of Rs. 0.10 in 1982-83. This was attributed to rise in the wages of labour - both animal and human -, prices of fertilisers, insecticides and pesticides. The mean average cost

PERCENTAGE SHARE OF EACH ITEM OF COST TO THE TOTAL AVERAGE COST OF CULTIVTION PER ACRE

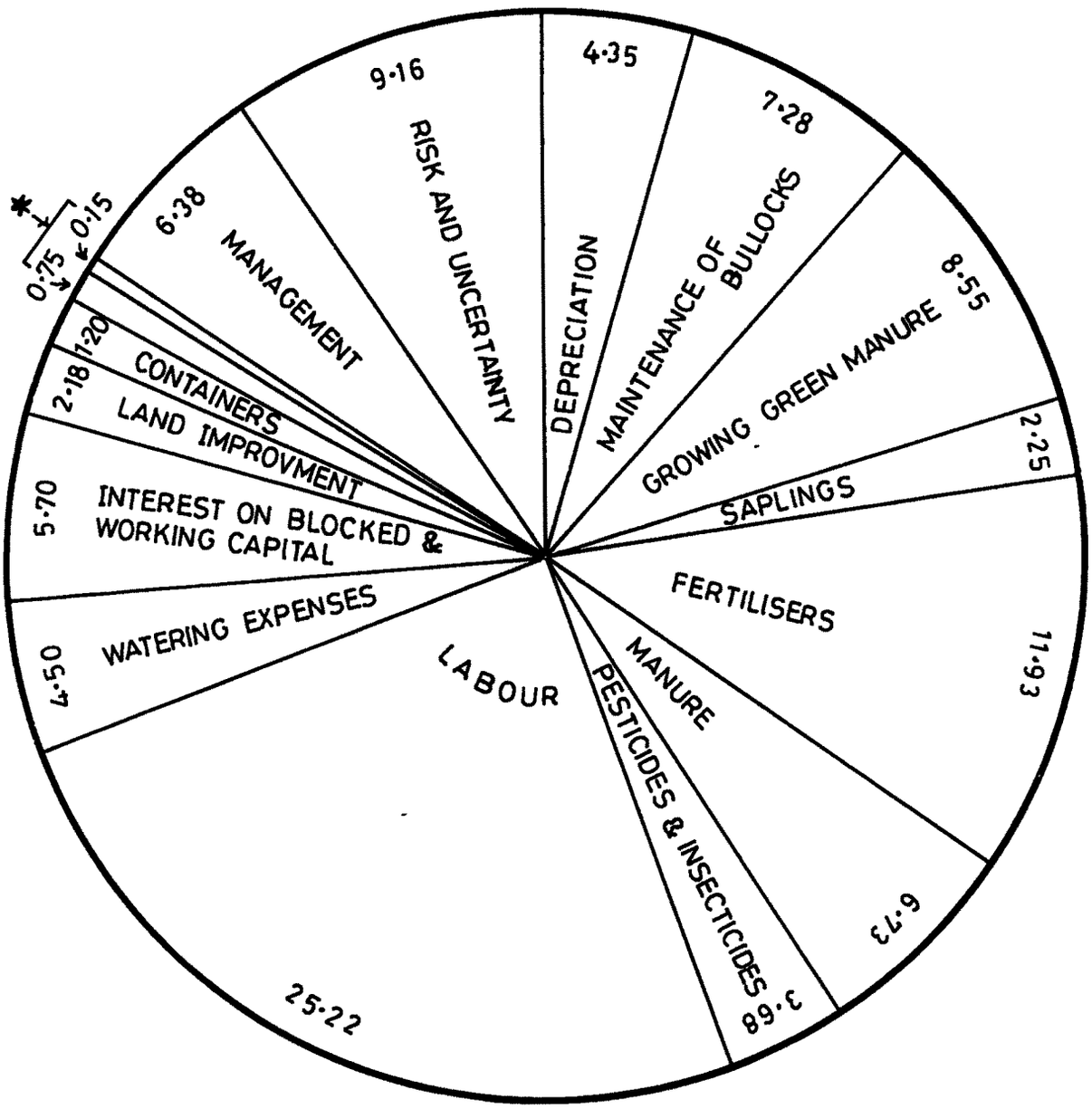
(MEAN VALUES OF THE AVERGE VALUES OF 1981-82 AND 1982-1983)



* → 0·72 FILLING AND STITCHING
0·18 LAND REVENUE

PERCENTAGE SHARE OF EACH ITEM OF COST TO THE TOTAL AVERAGE COST OF CULTIVATION PER KG.

(MEAN VALUES OF THE AVERAGE VALUES OF 1981-82 AND 1982-1983)



* 0·75 FILLING AND STITCHING
0·15 LAND REVENUE

of production comes to Rs. 3,919.05 per acre and Rs. 6.66 per kg.

It could be very easily made out that more than 80 per cent of the cost (81.06 in case of per acre and 80.95 in case of per kg.) was spread over 8 items of cost, namely, maintenance of bullocks, growing green manures, fertilisers, manures, labour, working capital, management and risk and uncertainty and 20 per cent of the cost was spread over the rest. To put it in different words, 50 per cent of the cost items shared 80 per cent of the cost and the remaining 50 per cent of cost items shared 20 per cent of the cost. The highest portion of the cost, that is, a little more than 25 per cent, was incurred upon a single factor, labour. Fertilisers (12 per cent), risk and uncertainty (9 per cent), growing green manure (9 per cent), maintenance of bullocks (7 per cent), management (6 per cent) and cost of working capital (6 per cent) followed in order.

(B) COST OF MARKETING

For computing marketing cost, existing market practices were taken into account. Itemwise details are given below.

(1) Transport, hamali, weighment and incidental costs

A general practice that has been in vogue for many years in the past is that transport, hamali, weighment and incidental costs are to be borne by the grower when the consignment is transported from his house to the trader's warehouse. In case the grower arranges for his own transport, he directly pays for

these expenses. But if the buyer-trader arranges for transport of the consignment from the grower's place to his godown, initially he pays the expenses but later on recovers them from the final bill. The incidence is thus on the grower.

(2) Consignment Discount

A traditional practice still continued at least by some of the traders in Nipani market is to take an overall discount of 1 kg. of tobacco per consignment for no specific reason. This is a direct loss of the grower. In vernacular this discount is known as 'labh' or 'Kalam soot'.

(3) Stalks, Earth and Air Discount

On the pretext that the consignment contains stalks and earth and as it loses weight during transport and summer heat the traders have adopted a practice of discounting 1 to 3 kgs of tobacco and sometimes even more, per bodh. Such discounts were made even though the consignments were kept clean without stalks and earth. This discount was fully unjustified.

(4) Market Cess

It is provided in the rules and regulations of APMC that the Market Cess, at the rate prescribed, is to be borne by the buyer-trader. True that the buyer traders remitted the amount of market cess to the APMC but more often recovered the same from the producer-sellers when the final bill was paid. Since 1982-83, however, this practice has been discontinued due to the awareness among the farmers.

(5) Cost of Bill Collection

It was observed that the producer-sellers did not receive the amount of their produce immediately after the sale but in instalments. This has been an old practice in the market. However, it was noted that bills upon Rs. 2,500 approximately, were paid immediately, from Rs. 2,501 to Rs. 5,000 in 2 instalments, from Rs. 5,001 to Rs. 10,000 in 3 instalments and Rs. 10,001 and above in 5 instalments. However, there were no hard and fast rules about the instalments. It all depended upon the mutual understanding of the seller and the buyer.

The cost of bill collection was worked out on the basis of the number of instalments. To collect the bill the producer-seller had to travel from his native place to Nipani, wait till the accounts were settled and bills paid and spend for refreshment, etc. during waiting period. Overall expenses were as under:

Amount of the bill (Rs.)	No.of instalments	Expenditure (Rs.)
Upto 2,500	1	10
2,501 to 5,000	2	20
5,001 to 10,000	3	30
10,001 and above	5	50

Rs. 10 divided as -	Travelling	Rs.4
	Refreshment	Rs.4
	Incidental	Rs.2
		Rs.10

(6) Other Discounts

This included cash discount, commission and entry tax. It was found that 17 per cent of the producer-sellers paid cash discount, 2.08 per cent paid commission and 2.08 per cent paid entry tax during 1981-82 and 1982-83. Hence, these items of costs were neglected while computing the marketing cost.

These details were kept in mind and the marketing costs per acre and per kg. of bidi tobacco for Nipani Tract were estimated. They are given in Table-8. Regionwise details are presented in Table B in the Appendix.

Table-8

COST OF MARKETING OF BIDI TOBACCO IN NIPANI TRACT
(1981-82 and 1982-83)

Cost per acre (Rs)		Particulars	Cost per Kg. (Rs.)	
1981-82	1982-83		1981-82	1982-83
1	2	3	4	5
5,114.83	6,315.57	1) Total net amount	-	-
-	-	2) Average agreed price	8.75	10.26
29.85 (10.16)	32.12 (11.37)	3) Transport, hamali, weighment and incidental charges	0.05 (10.0)	0.06 (12.50)
8.22 (2.80)	8.59 (3.04)	4) Bill collection charges	0.01 (2.0)	0.02 (4.17)
1.71 (0.58)	1.36 (0.48)	5) Consignment discount	.001 (-)	.002 (-)

contd.

1	2	3	4	5
196.17 (66.74)	240.54 (85.11)	6) Stalks, earth and air discount	0.34 (68.0)	0.40 (83.33)
57.97 (19.72)	- -	7) Market cess	0.10 (20.0)	- -
-	-	8) Other discounts (cash discount, commission and entry tax	-	-
293.92	282.61	9) Total average cost of marketing	0.50	0.48
4820.91	6032.96	10) Amount/Price actually received	8.25	9.78

Note: 1) The averages were obtained from the averages of the individual MORs, the details of which are given in Table-B in the Appendix.

2) Total net amount per acre is calculated by multiplying average per acre yield with the average market price secured by the sample growers.

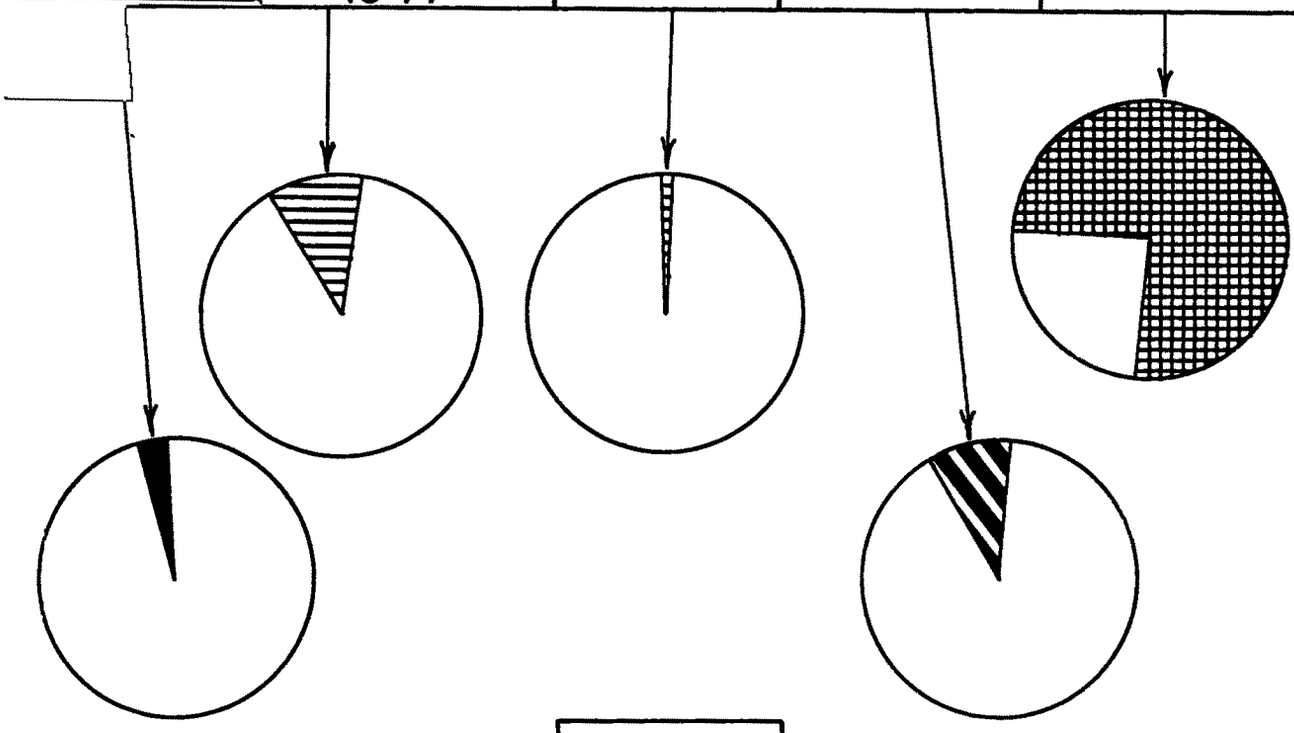
3) Figures in parentheses indicate percentages to the respective totals.

It could be seen from Table-8 that the cost of marketing of tobacco per acre was Rs. 293.92 in 1981-82 which decreased to Rs. 282.61 in 1982-83. At the same time cost of marketing per kg. too decreased from Rs. 0.50 to 0.48. This could be attributed to the fact that market cess was collected by the trader-buyers from a large number of producer-sellers only in 1981-82. The The practice was discontinued in 1982-83. The mean average cost of marketing for the two years comes to Rs. 288.26 per acre and

PERCENTAGE SHARE OF EACH ITEM TO TOTAL AVERAGE COST OF MARKETING (MEAN VALUE OF 1981-82 AND 1982-83)

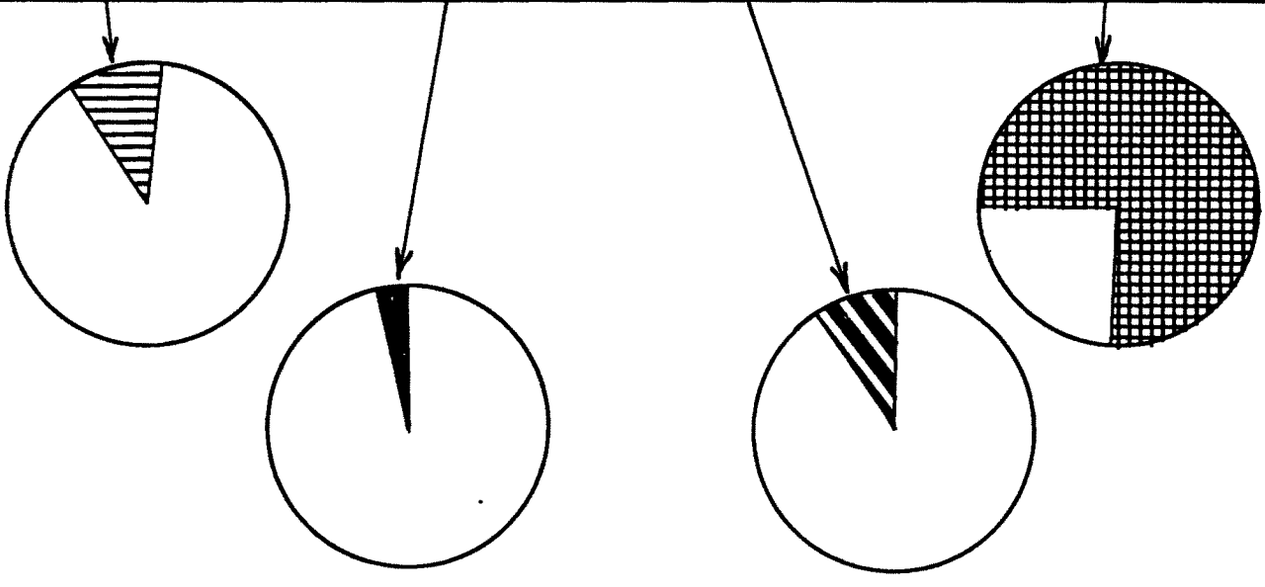
PER ACRE

Bill Collection	Transport Hamali Weighment and Incidental	Weighmen discount	Market cess	Stalk, Earth and Air discount
2·92	10·77	00·53	9·86	75·92



PER KG.

Transport Hamali Weighment & Incidental	Bill Collection	Market cess	Stalk, Earth and Air discount
11·25	3·08	10	75·67



Rs. 0.49 per kg.

It appeared from the analysis of Table-8 that the major item of cost of marketing was stalks, earth and air discount, which alone accounted for a little over 75 per cent of the total average cost; next came transport, hamali, weighment and incidental cost, market cess, bill collection and consignment discount in descending order.

IV

GROWERS' EARNINGS

The earnings of bidi tobacco growers can now be estimated. Table-9 and 10 present the details.

Table-9

GROWERS' EARNINGS PER ACRE OF BIDI TOBACCO IN NIPANI TRACT

MOR	Average cost (Rs.) cultivation + marketing	Average Revenue (Rs.)	Grower's earnings (Rs.)	Years
1 Soundalga	4,296.65	5,472.57	1,175.92	1981-82
	4,539.77	7,459.68	2,919.91	1982-83
2 Galatga	4,034.24	4,579.60	545.36	1981-82
	4,186.90	5,108.91	922.01	1982-83
3 Khadaklat	3,703.90	4,054.35	350.45	1981-82
	3,970.48	5,066.08	1,095.60	1982-83
4 Nipani	4,341.62	6,352.81	2,011.19	1981-82
	4,584.94	7,597.59	3,012.65	1982-83
Nipani Tract	4,094.11	5,114.83	1,020.72	1981-82
	4,320.52	6,315.57	1,995.05	1982-83
Tract mean for two years	4,207.32	5,715.20	1,507.88	-

Table-10

GROWERS' EARNINGS PER KG. OF BIDI TOBACCO IN NIPANI TRACT

MOR	Average cost (Rs.) cultivation + marketing	Average Price (Rs.)	Grower's earnings (Rs.)	Years
1 Soundalga	6.59	8.34	1.75	1981-82
	6.38	10.50	4.12	1982-83
2 Galatga	7.36	8.34	0.98	1981-82
	8.27	9.46	1.19	1982-83
3 Khadaklat	8.11	8.97	0.86	1981-82
	8.21	10.46	2.25	1982-83
4 Nipani	6.41	9.34	2.93	1981-82
	6.35	10.49	4.14	1982-83
Nipani Tract	7.11	8.75	1.64	1981-82
	7.19	10.26	3.07	1982-83
Tract mean for two years	7.15	9.51	2.36	-

The average earnings of the grower per year are a function of three variables: yield per acre, price and average cost per acre. The relationship can be put by way of the following formula:

E = YP - C, where

E - average earnings

Y - yield per acre

P - Price per kg.

C - average cost per acre.

Earnings are directly related to yield and price and inversely related to average cost.

Looking to the position of Nipani Tract for 1981-82 and 1982-83, average earnings per acre were Rs. 1,507.88. However, there was rather a wide variation among the four MORs on account of yield, cost and revenue differences. On the side of yield, per acre Nipani, Soundalga, Galatga and Khadaklat MORs ranked in descending order. The same ranking existed in respect of average revenue and growers' earnings per acre in both the years. However, the ranking was exactly reversed in case of average cost per acre. As the revenue side was stronger than the cost side, the opposite ordering of cost for the MORs did not change the ordering ultimately for growers' earnings for both the years.

Coming to the numerical part, the average cost of bidi tobacco in the MORs of Nipani Tract ranged between Rs. 3,704 (MOR Khadaklat) and Rs. 4,342 (MOR Nipani) in 1981-82 and Rs. 3,970 (MOR Khadaklat) and Rs. 4,585 (MOR Nipani). The gap between the maximum and minimum costs was of Rs. 638 in 1981-82 and Rs. 615 in 1982-83, an indication of almost a proportionate increase in both the limits of cost.

Revenue per acre moved between Rs. 4,054 (MOR Khadaklat) and Rs. 6,353 (MOR Nipani) in 1981-82 and Rs. 5,066 (MOR Khadaklat) and Rs. 7,598 (MOR Nipani) in 1982-83. Minima-maxima gaps were Rs. 2,299 in the former case and Rs. 2,532 in the

latter. The variations in yield and price in 1982-83 were such that they together pushed up the revenue of the growers but without a large increase in the gap between minimum and maximum in the Tract.

Surprisingly, a greater disparity in the growers' earnings within the region was noticeable. Earnings in 1981-82 remained between Rs. 350 (MOR Khadaklat) and Rs. 2,011 (MOR Nipani) and in 1982-83 between Rs. 922 (MOR Galatga) and Rs. 3,013 (MOR Nipani) resulting into the limits gap of Rs. 1,661 and Rs. 2,091 respectively. Income gap was, indeed, astonishing.

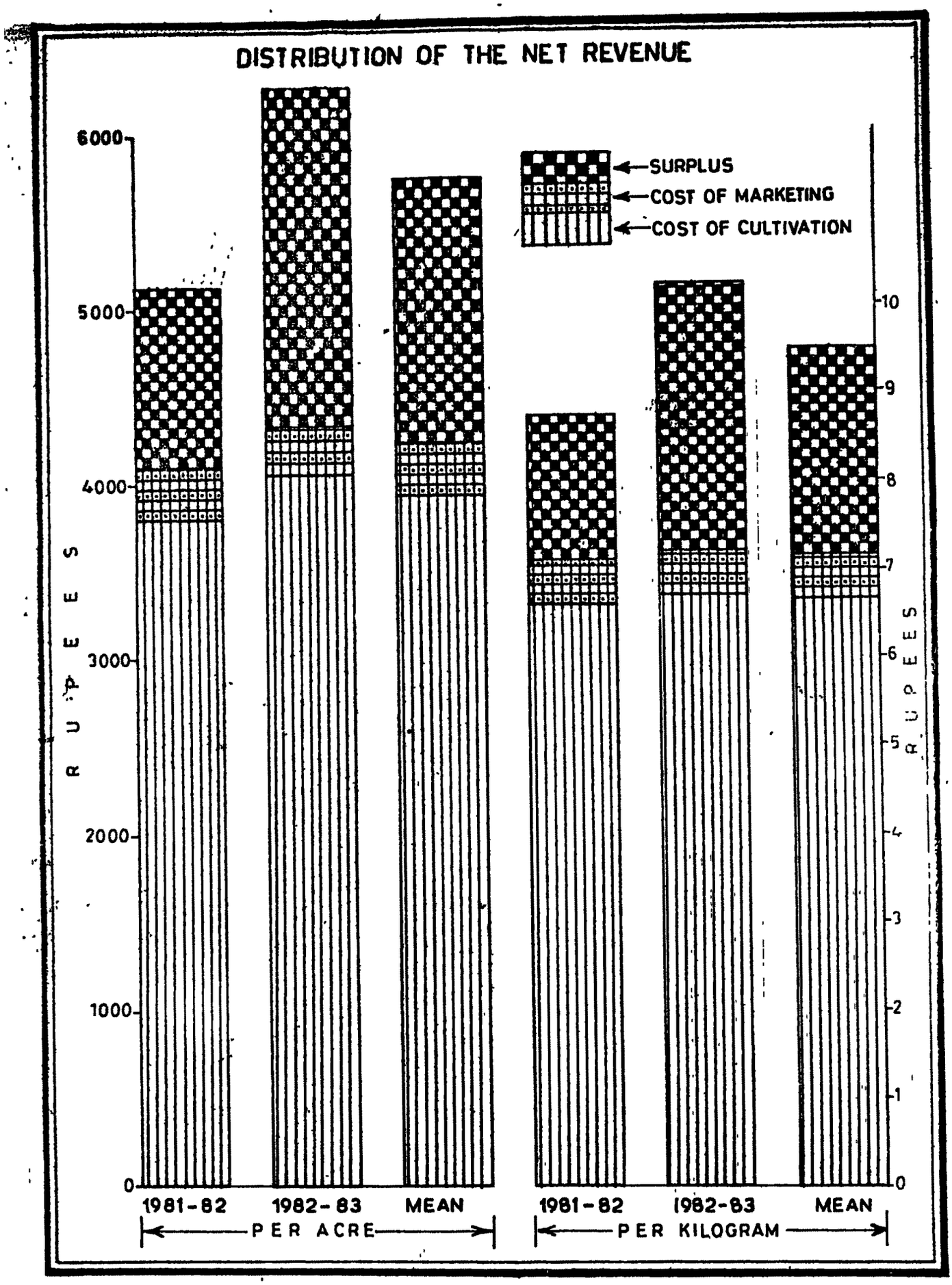
A reading of Table-10 would reveal the behaviour on per kilogram side. Per kilogram cost moved between Rs. 6.41 (MOR Nipani) and Rs. 8.11 (MOR Khadaklat) in 1981-82 and Rs. 6.35 (MOR Nipani) and Rs. 8.27 (MOR Galatga). The gap for the two years was Rs. 1.70 and 1.92 respectively. Price moved within the range of Rs. 8.34 (MOR Galatga and Soundalga) and Rs. 9.34 (MOR Nipani) in 1981-82 as against Rs. 9.46 (MOR Galatga) and Rs. 10.50 (MOR Soundalga) in 1982-83, maintaining almost the status quo in the gap.

Growers' earnings per kilogram showed a gap of Rs. 2.07 between Rs. 0.86 (MOR Khadaklat) and Rs. 2.93 (MOR Nipani) in 1981-82 and of Rs. 2.95 between Rs. 1.19 (MOR Galatga) and Rs. 4.14 (MOR Nipani).

On the counts of per kilogram, minima-maxima gaps of average cost, price and earnings thus did not show any noticeable change and therefore the relative position of the MORs also did not change.

Tables-9 and 10 reveal that within the Nipani Tract MOR. Nipani enjoyed the greatest advantage among the four MORs: lowest average cost, highest price per kilogram and highest earnings per kilogram as also per acre. Another plus point was the highest yield per acre. MORs Galatga and Khadaklat follow only after MORs Nipani and Soundalga. The case of Galatga needs a careful attention, because traditionally this area happened to be a producer of the best quality bidi tobacco and produce of the region by and large fetched almost the highest range of price. The findings of the two years in question speak of perhaps the poorest gains by the growers of this region. This can be attributed principally to a widespread substitution of the traditional variety by high-yielding Gujarat varieties. Because of heavy fertilisation, watering and use of insecticides for them, cost of cultivation increased considerably, but the price fetched was rather lower than for the traditional product. Yield improvement was rather modest with a large number of small and middle farmer. Hence, the maximum restlessness about tobacco pricing being unremunerative could be noticed within the villages of MOR Galatga and Khadaklat.

Grower's surplus could be enhanced a little more if income


DISTRIBUTION OF THE NET REVENUE
SURPLUS
COST OF MARKETING
COST OF CULTIVATION
RUPEES
6000
5000
4000
3000
2000
1000
0
10
9
8
7
6
5
4
3
2
1
0
1981-82
1982-83
MEAN
PER ACRE
1981-82
1982-83
MEAN
PER KILOGRAM

earned by him from the sale of stalks ('Kadi') prop-roots and stems ('Khodavi') is added. Generally stalks are sorted out from the anagad mix and sold separately at a price between 30 and 80 Paise per kilogram as per market situation. The trader processes them into granules and sells it to the fellow-traders for preparing the bidi-mix. Stems and prop-roots are used as firewood. The survey revealed that the grower received on an average Rs. 89.13 and Rs. 104.00 per acre in 1981-82 and 1982-83 respectively. As a result grower's income was Rs. 1,109.85 and Rs. 2,099.05 in 1981-82 and 1982-83 respectively.

Finally, a point to be clarified. Price, marketing cost and ultimate earnings of the growers of bidi tobacco are all considered under the given conditions of marketing of bidi tobacco prevailing in the Tract. The marketing system was far from satisfactory and left a good deal of scope for the traders to cut the feet of the grower in the course of transactions. Grower's ultimate income was thereby reduced. An improvement in the marketing system would certainly lead to a better reward to the grower. To know how could this happen, a peep into the working of the system under the leadership of APMC, Nipani would be worthwhile.

The results of 1981-82 and 1982-83 were rather optimistic in the sense that not only the average price for Nipani Tract but that for each MOR in the Tract covered the cost of production

and left a surplus for the growers for both the years. Hence, at least for the two years the hypothesis that the growers of bidi tobacco in Nipani Tract were getting unremunerative prices for their produce stands disproved.

REFERENCE

1 Shukla, M.C., Grewal, T.S., Advanced Accounts, S.Chand and Company Ltd., New Delhi, 1983, pp. 197-98.