

CHAPTER TWO

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COST OF PRODUCTION AND AGRICULTURAL PRICING

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The price policy in India before 1965 was consumer-oriented and the policy regarding agricultural prices was rather ad hoc. The swing was more towards protecting the interests of the producer. These moves were conditioned by shortages and excess demand and sometimes by bumper harvests.<sup>1</sup> It is only with the setting up of the Agricultural Prices Commission (A.P.C.) in the year 1965 that a positive price policy emerged because the APC was given definite guidelines and objectives while fulfilling its responsibility. The objectives of the policy towards agricultural prices were stated as under:

- 1 to protect the interests of the producers against the steep fall in price;
- 2 to encourage agricultural production and to provide incentive to producers to adopt modern technology and to increase production;
- 3 to induce the desired output of different crops according to the needs of the economy; and
- 4 to protect the vulnerable sections of the society against excessive increase in prices.

To achieve these objectives the APC announces minimum support prices, statutory minimum prices, procurement prices and issue prices from time to time.

It seems from the very strong agitations launched in the

recent years by the farmers in Karnataka, Maharashtra, Tamil Nadu, Gujarat, etc. demanding reasonable prices for their products that the farmers are not satisfied with the method of price fixation of the APC. Therefore, once again, the issue of agricultural prices invited the attention of many thinkers, economists and politicians from different parts of the country. Much has been written, talked and discussed about this issue. In the light of their discussions and opinions an effort has been made in this chapter, to understand and examine important concepts relating to cost and price of agricultural commodities.

#### (A) PRICE CONCEPTS DEFINED

Very often the concepts like minimum support prices, statutory minimum prices and issue prices are confused and as such these concepts are to be made clear at the outset.

##### Minimum Support Price

Minimum support price is to provide a kind of insurance so that in the event of very good crop, when supply tends to outstrip demand, price will not be allowed to fall below the level that covers the cost of efficient production and provides a reasonable margin of profit. What is fixed is minimum and the government binds itself to support it by buying whatever quantity is offered for sale. This is to prevent distress sales due to the conditions of glut - a consequence of inadequate or ineffective demand.

### Procurement Price

Procurement price is used to procure such quantities of grains as are required for the public distribution system. Normally, the procurement price is lower than the open market but higher than the minimum support price. This situation is exactly the reverse of the one which makes the operation of support price necessary and desirable. It is the situation of scarcity resulting in excessive price rise which, if not checked, would cause distress to the consumers. The situation of procurement is justifiable in case of essential commodities. The level of procurement price depends upon the proportion of the marketable surplus which is sought to be procured, the quantum of subsidy and the judgement about the price-tolerance level of the consumers.

### Statutory Minimum Price

In case of statutory minimum price the government purchases a certain portion of the production as required for the public distribution system not directly from the farmers but from the manufacturers who use the agricultural commodity as the raw material, at a price which is known as a levy price; the rest of the production is allowed to be sold at the open market price. Since the open market price is higher than the levy price, the manufacturer must be able to pay price to the producer consistent with his overall realisation. The differential gains between the

open market price and the levy price are to be shared by the manufacturer with the farmer. The gains are shared on the basis of the contents of the raw material. Thus, the price the farmer gets increases with increase in productivity of the commodity. Case in point is the price of sugarcane.

### Issue Price

Issue price is the price at which the procured commodity is released to the public distribution system. This includes transport charges, handling charges, storage expenses, etc. as also subsidy.

### (B) GENESIS OF MINIMUM SUPPORT PRICES

V.M. Dandekar has mentioned two different sets of circumstances under which the demand for a minimum support price is made; they are short term and long term circumstances. In the short run, inputs or costs incurred by the producer are given and output is variable because of fortuitous circumstances like the weather. In a free market economy prices are determined by the conditions of demand and supply. In the short run, supply is given and the price is so determined that all the supply is taken up. The size of the harvest and the price elasticity of demand ultimately determine the price. The market price of foodgrains is thus liable to large fluctuations from year to year due to the fluctuations in the harvest and low price elasticity of demand. Generally, on account of low price elasticity of demand

for foodgrains, the fluctuations in prices are more pronounced than warranted by fluctuations in the harvest. In a year of good harvest the prices fall very sharply to such an extent that in spite of high yields the producers are at a loss. Hence, in the year of good harvest prices need to be supported. Dandekar speaks of a maximum ceiling price which is a corollary of a minimum support price. His argument is that why should the consumer pay a higher price than one demanded by the market in the year of good harvest unless this helps him in a year of bad harvest, to pay a lower price than that demanded by the market. Moreover, it would be impossible operationally to offer support without enforcing a ceiling so that the range of price fluctuations may be reduced. The support price should be neither too high nor too low. There should be a certain relation between the buying and selling prices.<sup>2</sup> In other words, guaranteed price range takes care of both producer and consumer.

In the long run, the size of the production is positively related to the inputs or costs incurred. Production increases with increase in inputs or costs. The producer will incur increasing costs only when the prices are high enough to cover them. When the production expands prices may be brought down below the economic level. In such a situation the producer needs an assurance in the form of support price. Thus, the support price is not directly but remotely related to the cost of production.

M.L. Dantwala speaks of stability when he comments that, "Minimum support price is the long term guarantee and assurance of unlimited purchases by the government. It has to have, therefore, a certain degree of stability. Otherwise, it would lose its insurance value if allowed to fluctuate especially downwards."<sup>3</sup> It follows from the statement that the minimum support price may be enhanced but not curtailed. If so, to what extent the minimum support price may be raised? If it is raised closer to the open market price, it may have an inflationary potential which cannot be ignored; and production may not increase. The case in point is the production of oilseeds and pulses. In spite of the rapid rise in prices of these commodities the production has not increased for over two decades till recently.

### (C) COST CONCEPTS

In the context of cost consideration of agricultural products, economists have thought of different concepts and argued in favour of one or the other. Total cost, bulk-line cost, average cost and marginal cost are the important ones.

#### Total Cost

Paid out costs and imputed costs are the two components of total cost of production of an agricultural product. On this basis, experts have evolved cost components as below:

I. Cost A<sub>1</sub> = (i) Value of hired human labour;

- (ii) value of farm and hired draft animal labour;
- (iii) value of seed and manure (both purchased and farm-grown);
- (iv) value of fertilisers;
- (v) value of insecticides and pesticides;
- (vi) irrigation charges;
- (vii) depreciation on implements and farm buildings;
- (viii) hiring charges for agricultural implements and machinery;
- (ix) interest on circulating capital;
- (x) land revenue and other taxes on owned land under self-cultivation; and
- (xi) other miscellaneous cash expenses.

II.  $\text{Cost A2} = \text{Cost A1} + \text{rent paid on leased in land.}$

III.  $\text{Cost B} = \text{Cost A2} + \text{imputed rental value of owned land (less land revenue paid thereon)} + \text{imputed interest on owned fixed capital (excluding land).}$

IV.  $\text{Cost C} = \text{Cost B} + \text{imputed value of human labour provided by the family.}$

Thus Cost C contains all the components of Cost A1, A2 and B plus the imputed value of human labour provided by the farming family. Naturally, it gives the highest estimate of cost.

#### Bulk-line Cost

It is the cost of producing nearly 80 to 90 per cent of



the total supply of a particular product, descending from the least-cost production. It covers a much greater proportion of farmers, output and area than the average cost. Such costs are calculated in order to set a selling price high enough to attract enough producers to guarantee sufficient supplies of a product. The term was used during World War I when the United States Government investigated the costs of various products in the course of determining and fixing fair prices for such products.

#### Average Cost

Average cost of production has two approaches, namely, average cost of efficient farmers and the average cost of all the farmers.

#### Marginal Cost

Marginal cost has been defined as operational cost which is incurred by marginal farmers or that incurred on marginal lands per unit of production.

#### (D) CHOICE AMONG THE COST CONCEPTS FOR PRICE FIXATION

The question is which cost concept be chosen for fixing up the price ? It is contended that if average cost of efficient farmers is taken the problem is how to determine the efficiency of the farmers, for efficiency depends upon many factors such as

production per unit, yield per acre, return on capital, use of improved technology, etc. Average cost of all the farmers is not a satisfactory base because it does not cover all the farmers. Large number of farmers whose costs are above the average would be left. Besides, there are wide variations in the cost of production from region to region, from farm to farm and from farmer to farmer. If the marginal cost approach is adopted, it would lead to two evil consequences: (a) in an attempt to protect the marginal farmer (less efficient) by covering his cost of production on a continuous basis, it will stoke further the fire of inflation, and (b) it will induce the capitalist farmers to reap rich windfalls without cost. Further, marginal cost displays even larger variations than the average cost. In such a situation if marginal cost becomes the sole basis for determining the official price policy, the very objective of bringing in the price stability might be endangered.

Agricultural Prices Commission is guided by absolute cost - total cost of the efficient (relatively low-cost) farmers as the sole guide for determining the price. Thus, Cost 'C' becomes the guideline. But, looking into the components of cost 'C', it would be observed that some components are either missing or neglected.

(1) There is no provision made for the inclusion of risk and uncertainty. The stand of the APC is that it does not restrict its analysis to one year's data but time series data.

It holds the view that risk bearing is an entrepreneurial function which is rewarded in the form of profit - a differential between price and cost. Profit does not determine the price but is price determined. The APC suggests that adoption of crop insurance scheme or credit insurance scheme where the crop damage is serious. Further, support prices themselves provide insurance against fall in a price. Therefore, no purpose would be served by adding this component into the cost of production.

(2) No provision is made for managerial functions in the comprehensive scheme of studying cost of production. The APC contends that after paying out for the various factors of production, the residual forms the profit of the farmer which is a reward for his managerial function.

(3) Transportation cost was ignored for long. However, in recent past the Government of India took positive steps to include cost of transportation charges as also actual time spent in arranging the supply of inputs as items of cost while determining prices. Experts feel satisfied about this inclusion.<sup>4</sup>

To overcome the injustice involved in adopting average cost as the basis for determining prices, adoption of what is known as bulk-line cost is suggested. In a sense, the bulkline cost is the marginal cost of producing, say, 85th unit of output assuming that a total of 100 units of the commodity is being produced. Its chief advantage is that it rewards efficiency without encouraging inefficiency. Its only drawback is that it

does not consider the effect of changes in demand. This difficulty can be overcome by taking into account periodically average market prices and other relevant factors. D.S. Tyagi and Dantwala advocate bulkline cost approach for fixing the prices. Tyagi says, "Recognising that there are significant variations in the cost of production of different farmers and the average cost, if used, may not cover the cost of production of majority of farmers, the bulkline cost approach would form a better basis for price policy formation."<sup>5</sup> Dantwala also means the same thing when he says, "The disparity in the cost of cultivation between different regions is as glaring as that within the region. It would thus appear that till more refined and accurate cost data become available, the price fixing authority will have no alternative but to use its best informed judgement in recommending levels of minimum prices."<sup>6</sup>

However, when it is advocated that the price fixed should be an incentive to farmers to adopt new technology to increase production, the total cost approach would be appropriate. The incentive price based on total cost of production would serve as an assurance to the farmers against fall in the prices. An incentive price need not be necessarily too high or too low. A guaranteed price would be an incentive price so long as it covers the total cost of production. Since every quintal of production is needed by the country, the highest cost of production or the production of least efficient farmer should be

covered in determining the price. This would be a long term assurance to the farmers to adopt improved technology and farming practices. Hence, care should be taken to include almost all the components of the cost while arriving at the cost of production. The APC too arrived at the same conclusion when it observed that there had been adverse movement in the terms of trade for agricultural commodities and, therefore, had given due consideration to it in the fixation of prices when it accepted cost 'C' concept.

However, to make the cost 'C' concept still more meaningful due recognition needs to be given to the elements of risk and uncertainty, management and transportation. The argument put forth by the APC for non-consideration of risk and uncertainty may fit well in theory in the context of manufacturing activity but a deeper thinking would reveal that risk and uncertainty are inherent in agricultural production because of its dependence largely on Nature. In developed countries crop insurance scheme or credit insurance can work better because agricultural costing is standardised. Further, the element of risk and uncertainty is more glaring in agriculture than in industry. Hence, some provision must be made to cover this element too. A suggestion regarding the inclusion of managerial cost in the existing concept of cost 'C' was made in the group discussion on agricultural prices held during the 41st Annual Conference of The Indian Society of Agricultural Economics held at Dharwar

in 1981. Two specific suggestions came up for discussion. First, the managerial cost be derived on the basis of time spent by the farmer in performing managerial functions. Secondly, it would be practically impossible to allocate precisely the time spent by the farmers as a labourer and as a manager. Hence, the managerial cost can be considered by evaluating the family labour at a wage rate higher than the on-going wage rate.

Another point in the context of cost C. Cost of production studies consider only the hours of bullock labour utilised for the purpose of production. But bullocks are to be maintained round the year and the cost of maintaining them in unutilised time should also be considered in arriving at the cost of cultivation.

(E) PRICE FIXATION VIS-A-VIS COST OF PRODUCTION

One of the important criteria that the APC has taken into account while fixing the prices is the cost of production; others being trend in market prices, demand and supply, intercrop price parity, input-output prices, changes in input-output prices, terms of trade, etc. but the weightage given to each of them is not known.

The issue of the appropriate level of minimum support price revolves mainly around the cost of production, but there are some conceptual and practical difficulties. They are:

(1) which costs to consider, and (2) whose costs to consider. As regards the first difficulty the problem is whether costs of production with traditional technology or improved technology be considered. In one of its earliest reports the APC viewed the minimum support price as a price which would not discourage a progressive farmer from augmenting his production through adoption of improved technology and farm practices through apprehension of a slump in price.<sup>7</sup> This means that cost of production with improved technology would be a relevant consideration, for it is cost reducing. Dantwala takes a different stand when he says, "Price itself has to perform the function of determining cost. Production takes place within varying degrees of efficiency (levels of cost). Price has to indicate the minimum level of efficiency which the producer has to attain in order to remain in business, especially in the long run ... So, the price advisory authority may not altogether neglect the cost of production. To stimulate production, the policy should be to ensure that the cost of production of the progressive, who is prepared to adopt improved technology, is covered through a price guarantee".<sup>8</sup> The question is how to arrive at cost of such cultivation when large number of farmers in India are practising the old technology. The suggestion is that, by definition, improved technology is cost reducing and hence any price which covers the cost of traditional cultivation will automatically cover the cost of cultivation with improved technology. V.M. Dandekar is of the opinion that the improved

technology may not be necessarily cost reducing, but cost increasing. In his own words, "A technology is an improved technology because it converts something that was not available into something that is available for human consumption."<sup>9</sup>

Another question whether complete average cost of production which includes the value of the family labour computed at the going wage rate or only the paid out costs which excludes family labour be considered. There are two objections to include family labour as a cost item. Firstly, the opportunity cost of farm family labour is almost zero and hence it will continue to be engaged in farming whatever be the price of the product. Secondly, small farmers push the use of the family labour well near to the point of zero marginal product and as such the cost be unduly inflated. Farm management studies in India have shown that if value is imputed to the family labour at the market wage rate the cost of cultivation would exceed the gross return in case of majority of farmers.

As regards the second difficulty whose cost of production should be taken into account, one has to bear in mind that a number of factors such as size of the farm, quality of the soil, cropping pattern, farm investment, level of technology and managerial ability influence the cost of production. Heterogeneity in these factors poses the questions whose costs to be considered. Should it be the average cost of efficient farmers or the bulkline cost ?



There are two different sets of opinions about the relation between cost of production and price. The spokesmen of farmers' lobby maintain that, "Eradication of poverty is the ultimate objective of the farmers' agitation. In order to achieve this objective agriculture should be made economically viable, that is to say, cost of production of agricultural commodity be covered."<sup>10</sup> As against this, V.M. Dandekar observes vehemently that, "Cost of production is only remotely connected to the notion of a minimum support price and, therefore, an operationally meaningful policy and programme in this field can be evolved without an active reference to the notion of the cost of production."<sup>11</sup> In the context of these two statements the relation between and the issues arising out of it may be examined.

Farmers' agitations, in recent years, demanded reasonable prices for their products. By reasonable price they meant that price which covered the cost of production. The main argument of the farmers is that the prices of industrial products are fixed on the basis of their cost of production and as such agricultural products also be treated likewise. If such a price is not obtained from the open market, the government should intervene and purchase whatever quantity is available in the market at the price which covers the cost of production and leaves something over and above. On the contrary some sections of the people argue that they (manufacturers of industrial products) never demand government intervention to purchase whatever quantity is available

when prices fall below the prices fixed by them. Likewise, the farmers also, if allowed to fix up the prices of their products on the basis of cost of production, should not demand the government intervention and bank on support prices. Here the basic differences between the agricultural production and industrial production seems to be forgotten. Firstly, in agriculture supply of the product cannot be controlled so easily as in industry. In industry demand is assessed and production takes place accordingly. If the assessment made is found wrong production is curtailed or even suspended for some time. Moreover, supplies in the market can be blocked by accumulation of inventories by the producers. As against this, in agriculture, the decisions regarding production are taken months in advance, and a very large portion of the production goes to the market whatever be the price. Perishability of the product forces most of the farm products to find a market. In case of shortages supplies cannot be increased immediately; the market has to wait until the next crop is harvested. Secondly, in agriculture expansion often results into higher cost per unit. Since it is not possible to raise more than two crops in a year under normal conditions of production, the marginal land and inefficient producers also are brought into business to increase production. This pushes up the cost of production. In case of an industry, increase in production is for long associated with decreasing unit cost of production and the output is attempted to be stabilised at the lowest unit cost. Thirdly, when production is

high in agriculture, prices are relatively low and when production is low prices are high. The output in industry is low when prices are low and high when prices are high. Fourthly, fluctuating weather conditions cause variations in acreage and yield in agriculture. In industry the variables which cause variations in production are very much controlled. Finally, there are millions of consumers who demand agricultural commodities in a finished form e.g., sugar, cloth, bidi etc., whereas, agricultural products in their crude form e.g., sugarcane, cotton, tobacco, etc., are not demanded by the consumers at large but by the manufacturers who use them as raw materials. In that case the range of demand for agricultural products and terms of trade are dictated by a few agencies who use them as raw materials. In spite of all these differences between agriculture and industry, if it is assumed that the agriculturists decide to control production and produce only that much that would suffice their household needs then what would be the fate of the millions of consumers in the country ?

Other section of people argue that there are several problems in setting of agricultural prices like an industry and linking up prices of agricultural commodities to an input-prices index. They are: agricultural production process is conditioned by natural factors and quick adjustment of demand and supply is not possible; there is a problem of developing an index of input-prices because resource utilization is not

standardised, e.g., family labour and hired labour are used jointly, rental value of the land is fixed by customs. The evaluation of quality and quantity differences becomes difficult. This is not a difficulty in the real sense if the prices of the inputs of each year are accounted.

The question often raised is that the rise in the prices of farm machinery, tractors, etc., would raise the cost of production. Though this impact cannot be denied altogether, the fact is that the share of machinery cost in the aggregate cost of production is relatively small and hence the impact would be much less felt. However, in case of technological input like fertiliser which has a very significant weight in the cost of production, a substantial rise in price would raise the cost of production next year. Hence, a backlog in agricultural business is created. How, then, will this backlog be filled up? According to Sharad Joshi, "While accounting for the cost of production interest on the money amount locked up over the entire period of production is included. Similar to capital costs, if interest on current costs - i.e., expenses on seeds, manures, fertilisers, insecticides, transport, etc., - over the period of production is also included in the cost of production, the backlog can be covered."<sup>12</sup>

Instead of fixing the prices on the basis of cost of production, some find solution to the problem in input subsidization. But they forget that farmers immediately respond to the

product prices and hence input subsidization has very little value.

It would be a step ahead if argued that the price should not only cover the cost of production but the cost of marketing too. The farmer's income is affected not only by the cost of production but other economic factors like marketing margins and non-institutional credit. The marketing system in case of many agricultural commodities is still traditional, at times, in spite of the regulated markets. Consequently, the grower incurs a noticeable cost on marketing his produce; it is often much more than warranted by fair marketing system. As such, the realised price for the produce should necessarily cover the entire cost of marketing also.

(F) EXPERTS VERSUS FARMERS' ORGANIZATION

The preceding text brought to the highlight the fact that both the experts and the farmers value cost of production most in the process of agricultural pricing. However, there exists a cleavage between the two sections principally on two fundamental issues: (i) the cost components, and (ii) should the cost of production be the sole factor or one of the factors (rather, a major factor) in determining agricultural prices? As no acceptable solution on these two issues has so far come up on account of differences of opinions between the experts and farmers on the one hand and among the experts on the other, the only thing that can be done at this juncture is to note the areas of agreement and difference between the sections of experts and

farmers by leaving out the scrutiny of disagreements among the experts. Cost component happens to be the principal issue at stake in this controversy. Therefore, the analysis is focussed on it.

The cost components as considered by the experts and farmers' organizations are presented in juxtaposition so as to understand at a glance the points of agreement and difference. Chart-1 gives the details.

Chart-1

Components of cost of production according to experts and farmers.

| EXPERTS<br>1   | FARMERS' LOBBY<br>2                                    |
|--|--|
| <u>Cost A1 =</u>   |  |
| 1 value of hired human labour                                | 1 Value of hired human labour;                         |
| 2 value of farm and hired draft animal labour;               | 2 value of hired animal labour;                        |
| 3 value of seed and manure (both purchased and farm grown);  | 3 value of seed and manure;                            |
| 4 value of fertilisers;                                      | 4 value of fertilisers;                                |
| 5 value of insecticides and pesticides;                      | 5 value of insecticides and pesticides;                |
| 6 irrigation charges;  | 6 water charges;                                       |
| 7 depreciation on implements and farm buildings;             | 7 depreciation on capital investments (including land) |
| 8 hiring charges for agricultural implements and machinery ; |  |

| 1   | 2  |
|---|--|
| 9 interest on circulating capital   | 8 interest on working capital                        |
| 10 land revenue and other taxes on owned land under self-cultivation; and   | 9 land taxes on owned land;                          |
| 11 other miscellaneous cash expenses  | 10 other miscellaneous cash expenses;                |
| Cost A2= Cost A1 + rent paid for leased in land   |  |
| Cost B = Cost A2 + imputed rental value of owned land (less land revenue paid thereon) + imputed interest on owned fixed capital (excluding land) | 11 interest on the capital blocked (including land); |
| Cost C = Cost B + imputed value of family labour  | 12 imputed value of family labour;                   |
|   | <u>Others</u>  |
|   | 13 maintenance of implements and machinery;          |
|   | 14 storage charges;                                  |
|   | 15 preparing the commodity for marketing;            |
|   | 16 transport charges;                                |
|   | 17 management;                                       |
|   | 18 risk and uncertainty;                             |
|   | 19 maintenance of bullocks.                          |

It could be observed from the Chart-1 that the experts and farmers' lobby disagree on many points. A perusal of the chart would be enlightening.

- (1) Experts take into consideration depreciation on implements and farm buildings whereas farmers' lobby takes into account value of capital expenditure plus interest on the capital blocked. Here the experts are more judicious as in the case of capital where wear and tear exists depreciation has to be calculated. It would be just on the part of farmers' lobby to include depreciation and interest on capital and not the value of capital expenditure. Even in industry both value and interest on capital are not accounted.
- (2) Experts consider hiring charges for agricultural implements and machinery while farmers' lobby counts repairing charges of the implements assuming perhaps that every farmer possesses his own implements. This is not so. Many of the farmers hire the implements and machinery.
- (3) Farmers' lobby accounts for expenditure on animal shelter; this item of cost is included by experts in cost 'C' under depreciation.
- (4) Expenditure on land improvements has not been considered by the experts. Every year the farmer has to spend something on account of bunding, field channelling, etc. and as such this item of cost needs to be included in cost 'C'.



(5) Experts have totally neglected the cost items like storage charges, preparing the commodity for marketing, transportation charges, management, risk and uncertainty, maintenance of bullocks and interest on the value of land. These components except interest on the value of land, should be included in cost computation, as the functions associated with these charges are indispensable in production and disposal of the commodity.

Provision for depreciation is made in case of wear and tear of an asset. As regards land, it does not lose its fertility if used rationally. On the contrary, annually efforts are made to retain farm fertility by use of fertilisers and manures, keeping the land fallow for some time in the year and deep tilling of the land after harvest; consequently, land fertility is maintained rather than deteriorated. Hence there is no propriety in accounting for depreciation of land asset in the process of cost calculation.

(6) An important point of difference is that the experts take into account imputed rental value of the owned land. The farmers' lobby is not satisfied with that. Instead, it is vehement on including interest on the value of land. As the land is the permanent asset in the sense that it is indestructible experts' approach appears to be more realistic. This would save the cost accountant from accounting ever increasing amount of interest due to appreciating land value. Increase in the rental value of land is not commensurate with the appreciation of land value. Besides the components of the cost, the two sections of people.

differ fundamentally on the concept of cost of production by itself. Though the experts advocate for cost 'C', opinions differ on the question of average cost, marginal cost and bulk-line cost. On the contrary, the farmers' lobby is putting forth what it calls the 'synthetic model method'<sup>13</sup> for computation of cost of production. The gist of this method is like this. Cost calculation should be done for the land of specific fertility. The cost of land (that is, interest on its value) would be higher for a better quality land but cost of inter-cultural operations on it would be low and yield would be high. For a low quality land the cost of land itself would be low but of inter-cultural operations high and yield would be low. This means, there would not be appreciable difference in the average cost of production on both the kinds of land.

Further, how the land is to be cultivated ? By modern method or the most traditional method ? A golden mean of the two methods is inevitable considering the availability of resources for modern system and capabilities of the farmers. For the purpose, it would be imperative to presume a specific level of farm technology and efficiency. This level should be, in principle, increased annually; it will have to be decreased if drought conditions prevail. The cost of production should be calculated with reference to a given level of farm technology and efficiency by using an artificial system of sampling. The farmers above the cost level so calculated would enjoy special benefit and those below it would sustain loss. The benefit of



this method is that it eliminates the defects in the method of averaging; it smoothens the large differences in the cost of production of a commodity in different regions.

#### CONCLUSION

Thus the controversy between the experts and farmers' organization revolves on the issue of components of cost and method of its calculation. One must think of a feasible way out that would take into account all the factors influencing cost of production. For the purpose, various operations of raising a particular crop in a region are to be studied initially and the cost of each operation is to be noted. This would be the basic cost of production. To this should be added depreciation on capital, interest on working and blocked capital, managerial cost, cost of risk and uncertainty, storage and transport costs, cost of marketing, tax payments, rent on land and actual expenditure during the year on land improvements. This would be, in a way, ascertained cost of production. Cost 'C' as modified by the contents here would thus provide the foundation for cost estimation. While making a choice of farmers of a region for the purpose of a study, care should be taken to see that the farmers of different sizes of holdings are given equal weightage in the scheme of study. Due consideration also should be given to the agrarian systems prevailing in the region. Cost figure thus arrived would provide a reasonable base for price policy.

The present study attempts to calculate the cost of production of bidi tobacco in Nipani Tract on these lines for two years, 1981-82 and 1982-83.

#### REFERENCES

- 1 Varma, Rameswari: Agricultural Price Policy In India  
And Some Issues In Price Fixation" in Agricultural  
Prices And Economic Development, (Eds.) Srinivasamurthy,  
A.P. and Varma, Rameswari, Himalaya Publishing House,  
Bombay, 1984, p. 236.
- 2 Buying Price: Support price.  
Selling Price: Ceiling price.
- 3 Dantwala, M.L.: "Principles And Problems of Agricultural  
Price Determination" in Agricultural Prices And  
Economic Development, Op.cit., p. 206.
- 4 Tyagi, D.S.: "Summary of Group Discussion on Issues in  
Agricultural Price Determination And Price Policy" in  
Indian Journal of Agricultural Economics, Vol. XXXVII,  
No. 1, January-March, 1982, p. 27.
- 5 Ibid.
- 6 Dantwala, M.L. Op.cit., p. 211.
- 7 Dantwala, M.L.: "Agricultural Price Policy - Facts and  
Issues" in Economic Times, dt. February 7, 1981.
- 8 Ibid., p. 208.



- 9 Dandekar, V.M.: "Minimum Support Prices For Foodgrains - Guidelines For A Policy And A Programme", in Agricultural Prices And Economic Development, Op.cit., p. 228.
- 10 Joshi, Sharad: "Shetkari Sanghatana - Vichar Aani Karya- Paddhati (Marathi), Shetkari Prakashan - 1, Alibag (Raigad), 1982, p. 17.
- 11 Dandekar, V.M.: Op.cit., p. 221
- 12 Joshi, Sharad: Op.cit., p. 34.
- 13 Ibid., p. 28.