Some Thoughts on Sugar Industry

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This is Mr. Mahalingam

"*And I am very happy I have come to a place where there is an industrialist who does not feel that the money earned by him belongs to him alone........... And when I went to his home for the first time let me admit - I saw a vision of my culture - the behaviour, the appearance, the thinking - and you are the custodian of that culture of India and I am expecting that that culture of India will vibrate through our hearts and reach the nook and corner not only of India but the whole world. And it will be possible for other intellectuals to draw inspiration from him*".

23-11-72 *His Excellency* *K. K. SHAH,*

Governor of Tamil Nadu.

Preface

India which was a net importer of sugar in the early 'thirties, has now become a net exporter (with a minimum of two lakh tonnes) of sugar in the sixties'. Production has increased twenty fold over the period 1931 – 1966 and a doubling of internal consumption has taken place in the last decade. It is now the country's second largest industry with an investment of Rs. 300 crores and employs five lakh workers. In addition, it provides employment for about 10 million farmers cultivating cane over an extent of 63 lakh acres. In 1965-66, receipts from exports under the International Sugar Agreement aggregated to Rs. 11.34 crores. Exports in that year, although not quantitatively a record, fetched higher prices due to a worldwide shortage. The industry pays on an average Rs. 85 crores by way of excise duty. The utilisation of raw materials, bagasse and molasses, have not reached optimum proportions because of cost factors. The Southern States, Maharashtra, Mysore, Tamil Nadu and Andhra Pradesh, have a natural advantage for the competitive production of sugar. Sugar is essentially a tropical cash crop and is more commonly grown in Southern latitudes (e. g., Java, Sumatra, Cuba, Mauritius, Guiana and the Phillipines being the other principal producers). The emergence of the earliest sugar factories in sub-tropical Bihar and Uttar Pradesh was an historical accident. The Southern States on the other hand failed to assert their claims of natural advantage within the framework of the industrial licensing policy. It was not in fact until the Second and Third Plan periods that the industry in the south received a determined impetus. The contribution of the mills in Uttar Pradesh and Bihar to the total output has fallen steadily from seventy to fifty-two per cent, while that of the Southern States has moved up from twenty-four to forty one per cent. The yield of cane per acre in the South is higher than that in Uttar Pradesh and Bihar; the Southern crushing season extends over two hundred days as against the Northern average of one hundred and twenty days. In the South, land-owners have converted some of their surplus land (that exceeding the statutory minimum for the land-reform purposes) for use in newly started sugar factories.

Against this background culled from this volume of articles and papers on the sugar industry written by Thiru Mahalingam, the subject matter falls into four easily discernible and indeed consciously ordered parts:

i) The ideal size and structure for the firm in the context of ensuring raw material availability or what is termed farm-linked factories;

ii) optimisation of the economics and technology of the sugar industry in India;

iii) recommendations bearing on a rational but total fiscal policy oriented to the growth of sugar production and consumption dealing with such elements in it as control, the proportion of levy sugar to total production, the quantum of the monetary excise levy and the financing of stocks compulsorily held by the industry inter alia a buffer stock by the Government has been proposed; and

iv) proposals for more intensive exploitation of the by-products of sugar manufacture, viz., molasses alcohol, and bagasse. In Mysore, which, in terms of soil and climate, has always been ideally suited to cane cultivation, the production of industrial alcohol as an alternative to gazolene was much talked about during the pre-independent days, but it was easy to see that, given the state of technology of those times, alcohol as an end product of production could not have been sold at competitive prices. Today, it is a valuable alternative to naphtha as yet scarce in this country and leads to valuable consumables such as polyvinyl chloride, acetic acid and cellulose acetate flakes, neoprene rubber polystrene, citric acid and yeast; and what is more, it is imported in large quantities at great expense.

Sugar is a key variable in national well being. It is a constituent of the nation's wage goods. It assuages the hardships of development and as an energy producing substance contributes to the minimum nutritional norm for children, pregnant mothers, the work force and the less privileged sections of the population. This, of course, implies a certain linearity of production function with a view to maximising output regardless of natural or national advantage, division of labour, etc. This also means that it is important to decide on the benefit expected from the sugar industry for commonweal and for overall economic development. Thiru Mahalingam notes that the industry's attitude towards the commodity has been one of obsession with growth regardless of other considerations (output being price unelastic) which brings to the fore a rather important distinction between factoral entrepreneurship and plan administration even in programming for a sector like sugar. Despite high starting prices for cane, high and differential fiscal levies, increased levy quotas alongside of inflexible controlled prices and favoured treatment of khandasari and gur as substitutes, the sugar industry and investment in it have been growing because of unsatisfied potential demand. In the language of economics, the marginal levels of indifference for investment in the sugar industry have not declined. In an era of development when growth levels, past and future, seem to be more decisive than profit margins, as Thiru Mahalingam remarks, the demand function has become a neglected measure of prognastication and feasibility. The only time that demand has been cited in this text as an argument is contained in the revealing statement that fifteen per cent of India's population living in Maharashtra and Gujarat consume twenty-seven per cent of the factory output of sugar. It is again noteworthy that the steady demand for sugar as a staple element in the diet has an urban industrial bias.

As noted earlier, Thiru Mahalingam has argued with an array of statistics that Maharashtra, Mysore, Tamil Nadu and Andhra Pradesh are more advantageously placed climatically and soilwise in their claim for sugar factories than say Bihar and Uttar Pradesh. To demonstrate this thesis, with a clarity of analysis well worthy of a planner, he resolves the deceptive ambiguity of figures. While Uttar Pradesh sugarcane (cane is fifty to seventy per cent of the cost of sugar) has a higher sucrose content of nine to ten per cent and above, the yield per acre is higher, more than proportionately, in Tamil Nadu. From this, Thiru Mahalingam draws two conclusions. One is that location should be decided on the basis of cane availability and not on the basis of pulls and pressures. He also thinks that the production of gur and khandasari should be discouraged through an excise levy, the processes are manifestly uneconomical and the value prohibitive. In fact two million tonnes of sugar are lost each year through lower recovery but is not there scope for something similar to the solvent extraction process used for cottage industry oil-cakes for a second-stage extraction of residual oil? Second is the case for an all-India price for cane-growers, fixed not only by tonne of cane but also based on a minimum of sucrose content of eight per cent. Then sugar, like all staple wage goods, will command a single price across the length and breadth of the country with pooling arrangements for freight.

And this brings me to Thiru Mahalingam's comments on fiscal policy. It will be recalled that the Bootalingam Committee drew attention to the fact that excise and customs revenues and the proceeds of indirect taxation generally would, in course of time, far outstrip the yield of direct corporate and income taxes. But all indirect taxes, particularly the excise, should be governed by Government's Industrial policy and its plan objectives and not exclusively by fiscal considerations. Thiru Mahalingam's incisive comments on differential rates of duty on levy and free-market sugar and the subsequent decision to compound them in a single uniform levy raises this question of the budget as essentially an expression of plan strategy and the larger question of the price level of essential goods over the plan periods. There is one point on which Thiru Mahalingam's papers on the sugar industry and the five-year plans generally are regrettably silent. The issue is the price paid for growth of an industry which comprises taxes paid by the established units and the intangibles contributed by the firms that fail. From this point of view, the compounded excise levy on sugar is a contribution made by an old established industry like sugar to growth, particularly of new industries. Another issue raised in this volume is the unique relationship established between the cane farm and the sugar factory, which are proximate and held in a single capital structure. The advantage here is that sugar output can increase continuously without reflecting the fluctuations in the national output. On the other hand, this growth is possible, because the firm substitutes for the cane grower, who is technologically disadvantaged compared with firm.

This volume of Thiru Mahalingam's thoughts embodies the experience of a public-spirited industrialist and a devoted Member of the State Planning Commission. It will be a contribution to resolving the paradox of India being the largest producer of sugarcane and yet having the highest sugar prices in the world. And this crisis of prices has come about at a per capita level of consumption of 6.9 kg. as against fifty kilograms and over of the U. K. and U. S. A. It should be a means of helping the Government to develop a long term consistent and integrated sugar policy which we lack. On all these issues, Thiru Mahalingam brings to bear a depth of experience, a width of vision and an unending human concern for the growth and development of the industry that is intimately connected with the well being of the state and the country of which he is a distinguished son and citizen. It is with pride that I associate myself with the pioneering concern for growth and development embodied in this volume.

Madras, *MALCOLM S. ADISESHIAH*
12th February, 1973.

Acknowledgements

It is not possible to list all those who helped to make this book a reality. We owe a debt of thanks to all individuals and organizations who generously made available to us all articles, speeches and memoranda contributed by Mr. Mahalingam.

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Contents

Prologue

The opportunity to be associated with the active development of the sugar industry in Tamil Nadu in the past decade has enabled me to have a clear insight into the problems of this major industry during a period when it had to pass through alternating phases of vicissitudes and prosperity. In spite of many handicaps and inhibitions arising out of unimaginative control in price policies, until recently, the industry has recorded significant progress in the sixties and Tamil Nadu is now one of the six major producers in the country meeting not only the needs of its population but also having a surplus which is useful in meeting the needs of the deficit areas.

During the different stages of development I had occasion to draw pointed attention to important issues concerning this vital industry. I have always been stressing the needs for bestowing serious attention to the cultivation of cane with a view not only to increase significantly the yield of cane and its sucrose content but also to make available to factories located near the coast the required land for raising cane on economic basis and exporting sugar to foreign countries on a competitive basis. The idea of factory owned farms will have, of course, to be generally acceptable in the prevailing trend of thinking. There is, however, the need, all the same, to provide the necessary encouragement as I have been repeatedly pointing out in my speeches delivered at the annual meetings of shareholders of Sakthi Sugars Limited and in my contribution to daily news papers and periodicals on current problems that there should be a properly conceived policy for the fixation of minimum prices for cane which will not retard the progress of the industry in regions which have natural advantages even though there may be a lower recovery of sugar per tonne of cane but not of sucrose content per acre. I have also been advocating the need for the evaluation of pragmatic credit policies and the availability of financial assistance to cane growers in factory areas directly and through the sugar mills concerned with the welfare of growers in the region.

The lapses in official policies at particular stages have been responsible for the slow growth of the industry in some years. There has, however, been latterly a clearer appreciation of the difficulties experienced by sugar producers and it must be admitted that the policies relating to fixation of cane prices, the continuance of partial decontrol and the extending of credit facilities to sugar producers and cane growers reveal a helpful understanding of the fundamental issues involved. I am sure that the industry will rise to new heights in the years ahead and in spite of the impressive progress recorded since 1958, resulting in a near trebling of the production at the peak level, all the major regions will have to be continuously expanding their output for meeting the growing needs arising out of an improvement in the standard of living and a continuously increasing population.

Though there is an awareness of the new responsibilities that have to be shouldered by the main producing regions, I must point out, however, that there is no adequate awareness of the importance of intensifying research in cane cultivation, scientific development of cane cultivation in factory areas and positive encouragement for long term planning for creating new capacity through the implementation of expansion of schemes and promotion of new units in the co-operative and private sectors. It is also only now recognised that the sugar industry has to be developed on a completely intergrated basis in order that sugar can be produced in large volume and economically too and there should at the same time be effective use of by-products like molasses and bagasse for manufacturing industrial alcohol, paper and boards. The intensive use of these by-products will lead to faster promotion of industries based on alcohol and the availability of raw material on a regularly regenerating basis for the manufacture of high grade paper and boards.

The compilation of my contributions to news papers and periodicals published at different intervals and important extracts from speeches delivered at the annual meeting of shareholders and other forums will reveal how the industry has progressed against serious odds and how difficult problems have been overcome during crucial period. As I have derived a special sense of satisfaction when using my services for the continuing expansion of this vital industry and for understanding the problems as they arrived, it shall be my endeavour to continue to give out my best to promote its cause and help it to attain a new stature along with others. There is no other industry which is capable of catering so sweetly to the needs of the common man providing large remunerative employment to workers in rural and urban areas and generating huge revenues in the form of direct and indirect taxes to the Central and State Governments. Every one who helps this industry to grow in a healthy and dynamic manner will be serving a good cause. I sincerely trust that this publication will be useful in stimulating further thinking on the future growth of the industry in a vibrant manner.

—*N. Mahalingam*

PART I

ARTICLES

In this article the author stresses the need to have "Farm Linked Sugar Factories" for improving the competitive power of the industry in the world market.

1

Economics of Sugar Production

FARM-LINKED FACTORIES

Indian sugar can compete in world markets and earn foreign exchange only if the production costs are reduced. This can be possible by starting farm-linked factories and starting ancillary industries. The following statistics will prove the soundness of the scheme for farm-linked factories.

The cane production in the last season was about 122.13 million tonnes, of which 35 million tonnes, were processed in about 198 factories started all over India and 65 million tonnes were converted into gur and khandasari. The remainder was used for purposes of seed, chewing etc.

Of these 198 factories, nearly 40 per cent crush below 800 tonnes per day and about 60 per cent have a crushing capacity between 800 tonnes and 1500 tonnes per day. Yet our competitive position in the world market is very weak. Such factors as low crushing capacity, low recovery, low yield of cane and inadequate utilisation of by-products have weakened the development of this industry. There is an imperative need for reducing the cost of production in order to improve the country's competitive position in the international market. This can be achieved by the creation of farm-linked factories; setting up of big-sized factories and full utilisation of molasses and bagasse.

THE SCHEME

Two distinct measures, which, when adopted with State help, will achieve our objective are.

1. The factory has to take over the cane farm so that the net income per acre from cane cultivation, hitherto enjoyed by the farmer, will be available for the factory to be utilised in such a way as to sell sugar in international markets at competitive prices.

2. By the elimination of items like the excise duty, State excise and profit from the price of sugar reserved for export.

The present price of sugar at Rs. 130 per bag of one quintal is determined on the basis of the following factors:

a. On the basis of 10% recovery, one tonne of cane, which will give one quintal of sugar, will cost Rs. 53;

b. Excise duty per bag of one quintal of sugar Rs. 37;

c. State excise duty for one quintal of sugar Rs. 5;

d. Manufacturing cost for one quintal of sugar Rs. 10;

e. Development rebate and depreciation per quintal of sugar Rs. 12;

f. Profit per quintal of sugar Rs. 13; total Rs. 130.

The cost of Rs. 53 for one tonne of cane includes Rs. 12 towards cutting and transport charges. On the basis of an average yield of 45 tonnes per acre, the total income per acre for the ryot will come to Rs. 1845 (45 x 41). Of this Rs. 800 has to be deducted towards the cost of cane cultivation. Thus the net income per acre for the ryot will be about Rs. 1045 (Rs. 1845 – Rs. 800).

If the farm is owned by the factory, this amount will be available to be utilised for reducing the overall export price of sugar which will then work out to about Rs. 23 (1045/45) per quintal. When we deduct this amount from the price of Rs. 130 per quintal, the export price will be reduced of Rs. 107 per quintal. A further deduction in the export price can be rendered effective on account of the elimination of excise duty, State excise duty and profit. The export price will ultimately come down to Rs. 52 per quintal (Rs. 107 – Rs. 55) which in terms of tonnes will be Rs. 520 per tonne. Thus, our export price of sugar when fixed at Rs. 520 per tonne will enable the industry to compete effectively in the world market where the price ranges between Rs. 500 and Rs. 700 per tonne.

THE FACTORY

This calls for the determination of the size of the factory and the farm. Recent developments in the cane extraction process have shown that a factory of the size of 3000 tonnes of crushing capacity per day will constitute the most economic size and it can be made to crush for about 250 days in the year, particulary in the tropical region. On this basis the annual crushing capacity of such a factory will be 7,50,000 tonnes. A farm of 16,700 acres producing at the rate of 45 tonnes of cane per acre, will more than satisfy the requirements of the factory in regard to the supply of cane. In addition an extra acreage of 8300 may have to be provided for the rotation of crops. Thus if a 25,500 acre farm can be developed around a factory, it will be possible not only to produce the cane needed to feed the factory, but also to develop a number of ancillary industries to sugar like industrial alcohol, beer and paper and paper boards from bagasse. In view of the fact that the factory has to work without the profit motive in order to compete for export, it is necessary to take up the manufacture of alcohol which may either be consumed in the wet areas of the country or be exported to other countries.

The cost of a farm-owning factory will not exceed Rs. 5 crores, of which Rs. 3.5 crores will be covered by the sugar unit and the balance of Rs. 1.5 crores will form the investment for the ancillary units. As this factory is capable of producing 75,000 tonnes of sugar, 10 units established at suitable places, will enable us to achieve the export target of 7,50,000 tonnes of sugar fixed for 1971-72 by the Sen Commission. Of course, such factories will have to be located in areas where land is undeveloped and where canal water is available. Further, the scheme will be workable only if the State is prepared to offer land as a gift to the farm-based unit. Each such factory can earn Rs. 3 crores by way of foreign exchange through exports.

The Mail,

21st March 1966.

Drawing upon his own study of the Sugar Industry in other countries, Mr. Mahalingam argues a case for decentralisation of the industry.

2

The Sugar Industry — Some Aspects and Prospects

INTRODUCTION

The Sugar Industry is one of the important farm-based industries of the Country and so its problems are diverse in their character. The cane production in the last season was about 122.13 million tonnes, of which 35 million tonnes were processed in about 198 factories situated all over India, and 65 million tonnes were converted into Gur and Khandasari and the remainder was utilised for chewing and other purposes. Due to historical factors as well as owing to the absence of other industries in the Indo-Gangetic Plain, nearly 50 percent of the white sugar production got concentrated in the Sub-tropical U.P. – Bihar region where cane production per acre is below 20 tonnes. The recovery too is on the lower side. For these reasons what three factories can crush in this region could be achieved by one factory in the tropical region which is ideally suited for growing cane.

Since 1945-46 the Government of India adopted a policy of encouraging the starting of sugar factories in the Southern States which are ideally suited for cane cultivation on agro-economic grounds. But unfortunately, the assistance offered by the Union Government was not availed by the Southern States upto 1951-52 and it is only after the advent of the planning era that large sized sugar factories, having a crushing capacity of over 1000 tonnes of cane per day, came to be established in the Southern States. This paved the way for the rapid growth of the industry in the tropical region; so much so, Maharashtra achieved an impressive record of 12 million tonnes of cane in 1964-65 with its white sugar production touching the figure of 6,25,000 tonnes. The performances of Andhra Pradesh and Madras were appreciable. Thus the location of big factories in the Southern region enabled them to achieve a large number of working days a year, secure a higher return from the cane and to put the industry on a stabler footing. Out of these 198 factories, nearly 40 percent of the factories crush below 800 tonnes per day and about 60 percent have a crushing capacity between 800 and 1500 tonnes per day. The problem of the smaller factories is that the by-products available in them, namely the molasses and the bagasse, are not put to proper uses and very often they are wasted. The production of molasses in the country is about 1.1 million tonnes annually, of which only four lakh tonnes are utilised for alcohol manufacture. Low crushing capacity, low recovery, low yield of cane and absence of the full exploitation of by-products together with the ryots' needs for a cash crop put him to the necessity of sticking on to it without making any attempt to solve his problems. It is now too difficult to plan for a shifting of the main base of the industry from U.P. – Bihar region to the more economically efficient tropical states. However, as the main reason behind the objective of shifting the industry to the South was to make it competitive in the export market, it is possible to achieve it by another method which may not cause any serious economic dislocation to the U.P. – Bihar region. Our objective of an export target of 7.5 lakh tonnes by 1971-72 could be achieved through the establishment of farm-based factories, the details of which are given below: –

THE SCHEME

The price of sugar, which is Rs. 123 per bag of one quintal, can be broken up into the following items:-

1. On the basis of 10% recovery one tonne of cane which will give one quintal of sugar will cost	.... Rs.	53—00
2. Excise Duty per bag of quintal	.... Rs.	30—00
3. State Excise Duty for one quintal	.... Rs.	5—00
4. Manufacturing cost for one quintal	.... Rs.	10—00
5. Development rabate and depreciation per quintal	.... Rs.	12—00
6. Profit per quintal	.... Rs.	13—00
Total	.... Rs.	123—00

Out of this amount of Rs. 123 such items as the Central Excise Duty of Rs. 30 per quintal, State excise duty of Rs. 5 per quintal and the profit margin of Rs. 13 per quintal, totalling about Rs.48 per quintal, can be deducted in such a way as to push down the export-price of sugar. But this measure alone will not make our sugar price competitive enough in the international market as our export-price of Rs. 75 per quintal (Rs. 123 minus Rs. 48) is still much higher than the international price which ranges between Rs. 40 and Rs. 60 per quintal. There is another statge where a further reduction can be brought about and that is in the cane price which is not possible as long as the factory gets its cane from a large number of small ryots. If the cane can be produced in a farm owned by the factory, it will be possible for us to reduce the profit available to the cultivator from the export-price of sugar. It works just this way. Let us assume that the production of cane per acre in the Southern States will average to the figure of about 45 tonnes. Out of the cane price of Rs. 53 per tonne at the factory gate, a sum of Rs. 12 has to be deducted for cutting and transport charges which would ultimately mean an income of Rs. 41 per tonne for the farmer. On this basis, his total income per acre will be Rs. 1845 (Rs. 45 x 41). Out of this, a sum of Rs. 800 has to he deducted towards the cost of cultivation of cane per acre which will ultimately give him a profit of Rs. 1045 per acre. If the factory owns the farm, the profit secured per tonne of cane, i. e. Rs. 23 (Rs. 1045/45) will be available to be deducted from the earlier figure of Rs. 75 which we arrived after eliminating the excise duties and profit on the manufacturing side. When this is done, the export price of sugar will be pushed down to Rs. 52 per quintal (Rs. 75 — Rs. 23) which is far below the international price. Of course, it need hardly be stressed that the whole scheme works on the assumption that we achieve an average recovery of ten percent. If we can sell sugar at a price of Rs. 52 per quintal in the international market, there will not be any necessity to subsidise our exports.

SIZE OF THE FIRM AND THE FARM

Now we have to decide two things. They are: (1) the economical size of the factory and (2) the optimum size of the cane farm. Recent developments in the cane extraction process have shown that a factory of the size of 3,000 tonnes of crushing capacity per day will constitute the most economic size and it can be made to crush for about 250 days in the year particularly in the tropical region. On this basis, the annual crushing capacity of such a factory will be 7,50,000 tonnes of cane. A farm of 16,700 acres, producing at the rate of 45 tonnes of cane per acre, will more than satisfy the requirements of the factory in regard to the supply of cane. In addition an extra acreage of 8300 have to be provided for achieving rotation of crops. Thus if a 25,000 acre farm can be developed around the factory, it will be possible for us not only to produce the cane for feeding the factory, but also to develop a number of industries which are ancillary to sugar. These are: (1) manufacture of industrial alcohol and beer; (2) manufacture of paper and paper boards from bagasse. In view of the factory working without the profit element on sugar-export-price, it is necessary to take up to the manufacture of potable alcohol which may either be consumed in the wet areas or be exported to other countries.

THE COST - SIDE

The cost of such farm-owning firms or factories will not exceed Rs. 5 crores of which Rs. 3.5 crores will be covered by the sugar unit and the balance of Rs. 1.5 crores will form the investment for the ancillary units. As this factory is capable of producing 75,000 tonnes of sugar, ten such units, established at suitable places, will enable us to achieve the export target of 7,50,000 tonnes of sugar fixed for 1971-72 by the Sen Commission. Of course, it goes without saying that such factories will have to be located in such areas of the tropical region where land is undeveloped and where canal waters are available. Further, the scheme will become workable if the State could offer land as a free gift to such Farm-based firms.

A great boon from the scheme to the nation comes in the form of foreign exchange earnings. Each such factory will secure a sum of Rs. 3 crores by way of foreign exchange and for ten factories it will come to about Rs. 30 crores.

CONCLUSION

This system of farm-owning factories will have certain distinct advantages. First, it will achieve reduction in manufacturing cost and promote the ability of the industry to compete in the world market. Second, it will achieve increased productivity in the farm, as well as in the firm. Third, it will pave the way for the growth of industries which are ancillary to sugar. Fourth, it will achieve a sort of decentralization of the industry without affecting the U.P. Bihar area. Last but not least is that it is a system which will throw open new avenues of employment on account of the increased size of the factories and proper utilisation of by-products consequent on the establishment of the sugar ancillary units.

The Hindu
Indian Industries
February 1966.

A high recovery percentage is a must for cane yield and the author suggests methods for a long term drive to raise cane yield in India.

3

A Long-Term Drive to Raise Cane Yield

The phenomenal growth of the sugar industry is excellent proof of the wonders which a policy of production can achieve. India, which was an importer of sugar in the early thirties is now an exporter and this is mainly due to the development of the industry in the post-Independence era. From 1.5 lakh tonnes in 1931-32, production of sugar touched an all-time record of 35.37 lakh tonnes in 1965-66-a twenty fold increase. What is more, after the initial spectacular growth, the later rapid development which followed a more than doubling of internal consumption, has come about in the past decade.

The industry, which is now our second largest industry with an investment of about Rs. 112 crores and a labour strength of two lakhs, provides, direct employment to about 300000 farmers, who cultivate cane on 6.3. million acres. Receipts from sugar exports in 1965-66 had a value of Rs. 11.34 crores. The quantum exported was larger than in 1964-65, at 3.11 lakh tonnes against 2.71

lakh tonnes. The value of exports in that year was much higher at Rs. 21.18 crores because of high prices, there being a temporary world-wide shortage. Moreover, the industry secures about Rs. 85 crores to the Exchequer by way of excise duty. Apart from these it gives valuable by-products such as molasses and bagasse which are important sources of raw material for such industries as power alcohol and paper and paper board.

HISTORICAL ACCIDENT

That sugarcane thrives best in the tropics has been proved beyond doubt, though it is grown successfully in the sub-tropical region too. In fact, the best sugar-producing countries of the world such as Java, Cuba, Mauritius, Guyana and the Philippines are all in the tropical region. But the location of the principal cane-growing areas of India in the sub-tropical north is a queer development and a historical accident.

The Government of India felt long ago that the Deccan region and the South are the best areas for increased sugar yield and for a longer crushing season. But its offer, prior to 1960, of concessions for shifting sugar factories from the less favourable North to the more favourable South, has not brought about any significant change in the location of the industry. U. P. and Bihar were encouraging increase in the number of factories, while the Southern States did not at all plan for the development of the sugar industry in the period between 1946 and 1956. But the second and Third Plan periods witnessed a remarkable development of the industry in the South.

The figures in Table I show the trends in the output of sugar during the last ten years.

TABLE I. **Sugar Production in India**

Year	Production in lakh tonnes
1956 — 57	20.74
1957 — 58	20.09
1958 — 59	19.51
1959 — 60	24.82
1960 — 61	30.29
1961 — 62	27.14
1962 — 63	21.52
1963 — 64	25.69
1964 — 65	32.60
1965 — 66	35.37

The contribution of the mills in U.P. and Bihar to the total output has fallen from 70 per cent to 52 per cent, while that of the Deccan and the Southern States has moved up from 24 per cent to 41 per cent. Out of the increase of 1.12 million tonnes in total sugar output in the period between 1953-54 and 1962-63, as much as 7,00,000 tonnes has come from units in the tropical South.

The per acre yield of cane in Maharashtra and Southern States is higher than that in U.P. and Bihar. The duration of the crushing season in the South is also as much as 200 days, as against the Northern average of 120 days. (See Table II)

TABLE II. **Crushing Days in the Southern Region***

Name of State	1960-61	1961-62	1962-63	1963-64	1964-65
Madras ...	213	154	141	185	202
Andhra ...	154	126	100	135	155
Mysore	179	173	144	137	212
Maharashtra	166	156	150	129	154
Southern Region	178	152	133	146	181
All India	167	146	108	120	153

* Kerala and Pondicherry excluded.

The credit for the shift in the relative contribution of the two regions goes to planned development as well as to the encouragement given to co-operative sugar factories. A study of the new factories started in the Southern States would show that they are either co-operatives or those of land-holders who started sugar factories in order to convert surplus land into stocks of the limited companies. The number of joint stock companies floated are few.

The co-operatives received good assistance from the State Governments and the Finance Corporations. The capital was raised by collection from ryots, contribution from co-operative institutions and State Government while loan finance was given by the I.F.C.

It is in Maharashtra that the co-operative factories have done comparatively very well. This is due to the fact that the recovery in that area is above 11.7 percent and the management is well organised. In addition to a non-official chairman, an I.A.S. officer was appointed as fulltime managing director, while in Madras, the business manager, normally a lower grade officer, is in charge of the factory.

The three co-operative sugar factories in Madras, which were started early at Ambur, Madurantakam and Amaravathi, are still in difficulties. In spite of several crushing seasons they are not out of the woods. The State Government has added two more co-operative units and has plans for six more co-operative sugar factories in the Fourth Plan period, without rectifying the administrative weaknesses of the existing ones.

When the Government or co-operatives take up an industrial establishment for management it is essential, that they adopt economical methods and practices, if heavy losses are to be avoided. The location of a factory should be on the basis of cane availability and not on the basis of pulls and pressures. A few of the co-operatives in Madras and Kerala are suffering because of faulty location and consequently transport charges for cane are a heavy item of cost. Maharashtra has been giving cutting and transporting charges to the ryots. The same practice has been adopted in Madras though the recovery here is only nine per cent.

If by 1970-71 the Southern States so develop the industry as to double the output in the region to 30 lakh tonnes the argument in favour of the tropical location will be more than justified and it will be proved that our attaining levels of production higher than those of Java and Hawaii is by no means difficult. Maharashtra and Madras together can contribute much in this direction.

The performance of Maharashtra in cane production is creditable and this is in no small measure due to the effort of the factories which were owning cane farms and the co-operatives. This State has about two-fifths of all the co-operatives in India. During the period 1955-56 to 1964-65, the area under cane cultivation rose from 1.89 lakh acres to 3.52 lakh acres and cane production from 50 lakh tonnes to 120 lakh tonnes. The production of crystal sugar in 1965-66 was of the order of 7.44 lakh tonnes.

Further progress in this State could be realised through such measures as:

(a) intensive cultivation of cane so as to prevent conversion of food-growing areas into cane fields, and provision of adequate inputs;

(b) more attention to cane cultivation and development work;

(c) improvement of road communications in the factory areas;

(d) effective measures to prevent diversion of cane for gur manufacture; and

(e) Fiscal incentives to factories to provide advances to the cane growers.

Madras occupies an equally important place in the sugar map of South India. About 1.35 lakh acres are under cane cultivation of which as much as 30,000 acres are in North Arcot district. The average yield is about 45 to 50 tonnes per acre now, as against 20 to 22 tonnes per acre in the thirties. Additional units can be established at Ambur in North Arcot, Coimbatore, Madurai, Tiruchi and Ramnad Districts.

CANE PRICES

The cane price fixed by Government was based on 10.4 per cent recovery, with a bonus for the grower, if recovery is higher. As it is apprehended that in some areas, on account of drought conditions, there will be keen competition for available supplies, the basic price has been raised even though the recovery has been reduced to 9.4 percent. Previously a price Rs. 46.9 per tonne was fixed for a recovery of 9.4 per cent and a bonus was given for higher recovery. As the recovery is only around 9 per cent in the Southern States, there is need for devising a formula which will be equitable to sugar mills in this region.

The diversion of cane for jaggery production is a problem for sugar mills. Because of the heavy excise duty of Rs. 30 per tonne on the cane crushed in factories making sugar a high-priced item, only 40 per cent of the cane comes to factories, the balance being converted into jaggery. To remove this defect, it would be worthwhile to examine the possibility of levying a duty on cane in general, instead of on cane crushed in factories alone, so that the tax-burden can be distributed evenly.

A development which has become a matter of grave concern in recent years is the huge accumulation of stocks with sugar mills.

Sugar is the only commodity where Government requires the industry to carry stock on its behalf, and pay heavy interest charges on the funds so locked up. This also makes it difficult for the mills to pay the growers promptly and to declare dividends. The position will have to be remedied if the industry is to have a healthy growth. Government can arrange for the Food Corporation *to take over from the mills the stock which is above* normal.

UTILISATION OF BY - PRODUCTS

Fuller and more economic utilisation of by products is another aspect of the sugar industry. As the Madras Chief Minister, Mr. M. Bhakthavatsalam said, "The picture of the production economics of the sugar factories will not *be complete or rational unless the by-product of the* industry are also integrated with the main product". The use of molasses for the manufacture of power alcohol and the use of bagasse for paper boards must be seriously considered.

At present, out of an annual output of 1.1 million tonnes of molasses, only about three to four lakh tonnes are utilised for the manufacture of alcohol. As the supply of molasses is likely to increase in the coming years, we *should plan for more plants to produce power alcohol, which* can be used in the manufacture of plastics, acetate flakes etc. There is a feeling that power alcohol may not be in large demand because of the availability of naphtha from the refineries. But the damand from fertilizer factories for naphtha will be so heavy that the future of power alcohol is more or less assured.

Bagasse utilisation for paper making can be economical and the erection of a medium-sized paper board unit may not *involve anything more than Rs.30 lakhs. The necessary* finance should be given through banks or finance corporations. The problem, if at all any, is with regard to an alternative fuel for the sugar factory which can be either furnace oil or powdered coal. Furnace oil must be made cheaper.

The season 1965-66 was so good throughout the country because in the previous season heavy planting could be done. But it is feared that the planting in 1965-66 may be below the usual average because of drought, and hence production in 1966-67 may not be much over 30 lakh tonnes. What is actually worrying the industry is not so much the possibility of a fall in output, as the prospect of lower profitability. In view of the low recovery this season because of drought, Government recently revised sugar prices, as a result of which an increase of Rs. 7.25 per quintal of sugar was given for Madras State. This price-increase is available only for the carried over stock and so the factories are not really benefited. It would have been better if a reduction in excise duty for 1965-66 had been given, so that the one per cent fall in recovery could have been compensated.

By way of long-term remedies for increased cane-output, the following suggestions may be considered.

The scope of the Agricultural Refinance Corporation must be so widened as to afford facilities of credit for the farmer to develop dry land into garden land by digging wells. Factories should be provided with finance for production of hybrid seeds.

The services of the agricultural personnel of sugar factories can be utilised for the general agricultural development of the area near the factory. Government should insist that sugar factories should take up the production of hybrid seeds. Other agricultural extension services also can be undertaken by the cane department of the sugar factories with Government subsidy. The Companies Act should be amended to permit sugar factories to diversify their work.

Extensive research should be undertaken to improve recovery. The one research centre at Kanpur is not sufficient and another should be set up to serve the needs of the industry in the Southern Region.

Export of the high-priced Indian sugar is being done at a heavy loss, Government meeting it through subsidy to the industry.

The Sen Commission estimates that the loss would come to Rs. 31 crores on an export of 50000 tonnes (Rs. 620 per tonne) and Rs.45 crores on an export of 750,000 tonnes (Rs. 600 per tonne). This loss could be reduced if farm-linked factories are set up. The cane farm should be owned by the factory, so that the income from cane cultivation would also be available to it and can be utilised for producing sugar at internationally competitive prices. The elimination of Government levies can also help in reducing the export-price.

COST FACTORS

The cost of cane forms a good proportion of the price of sugar. The cost of Rs. 53 for one tonne of cane includes Rs. 12 towards cutting and transport charges. At an average yield of 45 tonnes of cane per acre, the income per acre for the ryot will be Rs. 1845. From this if a sum of Rs. 800 is deducted towards the cost of cane growing, the net income per acre for the farmer will be over Rs.1000. If the farm is owned by the factory itself, this sum can be made use of to reduce the overall export-price of sugar by about Rs. 23 per quintal. A further cut in the export price can be effected by eliminating the Government levies and reducing the profit. While international prices are artificially low and subsidies cannot be eliminated, the fact remains that Indian cane is costly.

A factory with a crushing capacity of 3000 tonnes of cane per day and capable of crushing for 250 days in the year, particularly in the southern region, must be the ideal and on this basis, the annual crushing capacity will be 7,50,000 tonnes. A farm of 16700 acres, producing at the rate of 45 tonnes of cane per acre, will satisfy its requirement.

The cost of a farm-owning factory will not be over Rs. 5 crores, of which Rs. 3.5 crores, will be covered by the sugar unit and the remainder of Rs. 1.5 crores may be utilised for ancillary units for power alcohol and paper board. As such a factory can produce 75,000 tonnes of sugar, 10 units established at suitable places will help us to achieve the export target of 7,50,000 tonnes fixed for 1971-72.

The Hindu
Survey of Indian Industry,
1966.

The author's thoughts on the various problems of the Sugar Industry and remedies to solve them are reflected in a manner worth approbation.

4

Organised Sector of Sugar Industry Deserves A Better Deal

COMPETITION FROM GUR AND KHANDASARI PRODUCERS

The economics of production of factory sugar is yet to be formulated on a rational basis and it is not possible for those units which are located in areas where there is keen competition from gur and khandasari producers for available cane supplies, to proceed in the expectation of a satisfactory utilisation of the installed capacity.

The output of refined sugar can be easily 4 million tonnes if only the factories in the North could work for at least 150 days in a season and in the tropical areas the crushing operations proved to be as satisfactory as they have been in the past many seasons.

The violent fluctuations in output have created serious problems for the producers as well as for the consumers and it is wondered how the industry could be made to utilise its facilities on an optimum basis and there is also greater regard for the interests of consumers. The experience of the 1966-67 season has been bitter as severe drought conditions have affected the cane crop and with a serious diversion of cane supplies for being converted into gur and khandasari the output of sugar has declined to the lowest level touched in recent years. It is estimated that not more than 22 lakh tonnes would be produced. This development has come about as an anti-climax as only in 1965-66 an all-time record was established at 35.32 lakh tonnes. In the previous two seasons there was a big increase in production. In 1962-63, the output touched a low level as in 1966-67.

While the physical output in the current season may not be much smaller than that achieved five years back, it is not correct to make direct comparisons as the installed capacity has increased substantially during this period and, as stated above, the industry's problem relates to the availability of cane supplies and not to the creation of fresh capacity.

FREE SALES

The Union Government has been compelled to revise again the minimum price for cane to Rs. 7.37 per quintal from Rs. 5.36 per quintal in the previous season, with provision for variations on the basis of recovery. Besides, there will be a rebate in the excise duty to the extent of Rs. 11 per quintal on the quantity in excess of 80 per cent of the output for 1966-67. The sugar mills have also been allowed to sell in the open market 40 per cent of their production in the 1967-68 season subject to the understanding that the Government would be assured of a minimum quantity of 13 lakh tonnes for being distributed at controlled prices among the weaker sections of society.

From the industry's point of view, the new policy has been generally considered helpful though the objective of maximising production would have been greatly facilitated if the manufacturers were allowed to sell sugar in the open market right from the date on which the new policy came into force and not late in November, as recently announced by Mr. Jagjivan Ram, *Union Minister for Food and Agriculture*, when he addressed the Indian Sugar Technologist's Association at Kanpur. (It had earlier been stated that free-sales should begin only from the new year.)

It was only after repeated representations that the anomalies involved in payment for cane for the manufacture of sugar for controlled distribution and that for free sale were recognised. The sugar mills in Western Uttar Pradesh are in an awkward position as growers even in the registered areas were demanding as much as Rs. 6 per maund or over Rs. 16 per quintal. The hope has been expressed that earlier free sale of sugar will bring down gur and khandasari prices and prevent large-scale diversion of cane from the factory areas.

The change in the base year from 1966-67 to 1967-68 will unfavourably affect those factories which were obliged to lose in the former season on account of an acute shortfall in production. While it can be argued that an extremely low base would enable the affected mills to sell large quantities in the open markets and realise handsome profits, assuming there would be a sharp recovery in production, it is overlooked that the higher levels of earnings would only compensate in some measure the earlier losses and no unfair advantage would be conferred on these units. But if it is stated that it would be discouraging those units, which had made a serious effort to maintain output at satisfactory levels, even under difficult conditions, it could be agreed that sugar mills would be offered the choice of a basic quota between the actual output in 1967-68 and the average for two seasons, whichever happened to be lower.

THE EXPORT ASPECT

This solution should reconcile all points of view. But it is necessary to realise that free sale would have to be permitted liberally. Otherwise, it will not be possible for mills to plan their production programme and make also payment against cane purchases on an agreed basis. Above all any opportunity for aggressive buying by the organised sector will prevent diversion of cane supplies to gur and khandasari producers.

Without an availability of atleast 30 lakh tonnes from internal sources, it will not be possible for us even to permit limited exports and meet the normal requirements for the internal market. I shudder to visualise what will happen in the latter half of the next season if the new experiment failed and there was a production of only 22 to 24 lakh tonnes as apprehended in some quarters. With a meagre carryover of about 3 lakh tonnes from the current season, it will be necessary to restrict releases for consumption at controlled prices and for free sale and an acute scarcity may prevail in several parts of the country. It is, however, felt that with suitable adjustments in the new policy and competitive buying of cane the difficult situation can be got over. But at what cost?

THE PRICE

It is difficult at this stage to make a correct guess of what will be the average of the open market prices in 1967-68. But controlled sugar may not cost more for the consumer on the ration card or may be only slightly costlier because of a reduction in the excise duty. But the factories will have to be paid a higher price, excluding the excise duty, for new season sugar which will be easily Rs. 22 per quintal. Because of the obsession with the problem of maximising output of sugar in the next season, cost consideration have been thrown overboard and the earlier criticisms that Indian sugar was costly and there was no prospect of export being made without heavy subsidies, have been ignored. Even before cane prices were raised, a subsidy of Rs. 400 per tonne had to be incurred. It was hoped that, after devaluation, the subsidy element would be reduced, if not eliminated. These hopes have now been dashed to the ground as the cost of cane has been raised by Rs. 20 per tonne which means that the cost of sugar has increased by over Rs. 220 per tonne. In the international markets, Cuban sugar is available at £ 20 per tonne or the equivalent Rs. 420 per tonne. The cost of cane in this country in every tonne of sugar works out to more than Rs. 800 per tonne even on the basis of the revised minimum prices. How are we going to reduce the cost of production and at the same time enable the industry to operate on a reasonably profitable basis in the face of keen competition from gur and khandasari producers?

A TAX ON CANE - PURCHASE

No attempt has so far been made to find satisfactory solutions to this question. Political considerations, more than economic have dictated official policies and gur and khandasari producers have been allowed to go scot free. When a bag of sugar was made available at Rs. 155 including the excise duty, even inferior quality of gur was being quoted at Rs. 250 per quintal. Subsequently, when there was a shortage of sugar, gur price also went up sharply. But even taking into account the lower figure of Rs. 250 per quintal, it works out to double the price realised by the sugar mill, the ex-factory price excluding the excise duty being on an average only Rs. 122 per tonne. The cost of cane producing one quintal of sugar will be Rs. 60 per tonne while with a lower recovery, the gur and khandasari producers pay an amount to the grower as much as Rs. 150 per tonne. How can it be expected that a diversion of cane for conversion into gur and khandasari, which is manifestly uneconomic from the national angle, can be prevented in the absence of any arrangements which will penalise such diversion? The heavy burden in the shape of a cess on cane and the excise duty on sugar have encouraged the producers of gur and khandasari, to step up their production. The levy of nominal excise duties on khandasari has not discouraged the unorganised sector. The solution obviously lies in a lowering of the burden on the sugar industry and the levy of a tax or duty on purchases of cane by gur and khandasari producers on the lines being practised in the tobacco industry.

Somehow, the suggestion of a tax on all cane consumed has been pooh-poohed on the plea that the scheme would be unworkable and it would also discourage the cultivation of cane. So long as the cane grower is assured of a reasonable price and the tax levied on cane consumption by the unorganised sector is passed on to the consumer, cane cultivation will not be discouraged. The nation will benefit considerably as only 30 per cent of the total cane output is at present consumed by the sugar industry. On the balance of 70 per cent nearly, the loss in output through lower recovery, can be easily at 2 million tonnes of sugar. If the output of gur and khandasari can be effectively discouraged and cane is also cultivated in areas where it is best suited for this purpose, there is no reason why the cost of cane cannot be reduced appreciably.

This may be impractical in the present context especially when large areas in U.P. and Bihar which produce only 13 to 14 tonnes of cane per acre against 30 to 40 tonnes per acre in the Southern States. There has to be a bold policy so that the industry can be developed on a defined basis in the coming years.

It should be examined how the sugar mills in Northern India can operate for a longer period in a season by undertaking the production of sugar beet and changing over to the diffusion process wherever possible. In the Southern States and the Deccan, cane cultivation should be encouraged and prices paid to the grower on a basis which has some relation to the return secured on other crops. During the period of transition, the output on gur and khandasari has to be discouraged with either an excise duty on the end-product or a tax on purchase of cane. Then only sugar can be freely available for internal consumption at Rs. 1.50 per kilo including a reasonable excise duty. The subsidy on exports too need not be large.

ADEQUATE RETURN

It is, of course, incorrect to base calculations of cost on international prices as there is always a big difference between export and home market prices. But there is no reason why even without the payment of higher prices for cane over the minimum as now proposed, the industry cannot get all its requirements.

The cane grower in this part of the country will be satisfied if he can get a return of Rs.1200 per acre. Under the new policy, he will get a 'bouns' of over Rs. 500 per acre.

But what is causing trouble is the fixation of price on the basis of sub-marginal producers and the fantastic returns secured on cane supplies to gur and khandasari producers. The penalty on account of higher cost of sugar is heavy from the national angle and it will be unfair to ask the community to continue to bear this burden. Is it too much to expect that the Government will be prepared to adopt a right approach to the problems of sugar industry and enable it to rise to new heights? It will not be long, before it will be necessary to produce 7 million tonnes of sugar as consumption will increase phenomenally with a rise in national income. This quantity of sugar cannot be produced without a higher yield per acre, which can be achieved only in the tropical areas and without effective checks on the diversion of cane for being converted into gur and khandasari.

The Weekly Mail
4th November, 1967.

The advantages of having a system of Wireless Communication for avoiding losses to the cultivators due to driage of cane are distinctly brought out by the author. Sakthi Sugars is the only Sugar Factory in India having the Wireless Communication.

5

Wireless Communications In Sugar Factories

The radio communication systems at VHF range can be very usefully adopted in modern industries for increasing productivity. While there is scope for its use in many major industries, its real usefulness lies in rural areas where other communication facilities are still under-developed.

APPLICABILITY IN SUGAR FACTORIES

In a sugar factory a radio communication system can be used very effectively, for increasing productivity and avoiding considerable losses to the cultivators, the factory and the nation. Sugar factories are necessarily located in rural areas and the main raw material of the industry is a live crop (sugarcane). Cane supplies are being drawn from areas lying within a radius of 20-25 miles of the factory and sometimes more than that. In India, unlike in foreign countries, land holdings are small and the factories have to deal with a large number of farmers. Transport and communication facilities in the rural areas are extremely inadequate besides being inefficient. The senior and junior officers of the factory are stationed in the factory precincts whereas members of the field staff are normally located in each division of the cane area reserved for the factory. It is these field staff who come in regular contact with the sugarcane ryots, help them in the cultivation of cane by rendering necessary advice for higher yield with a view to ensuring regular supplies of bonded cane to the factory.

DIFFICULTIES IN THE PRESENT SYSTEM

Whenever there is any break-down in the machinery (sugar being a continuous process industry such break-downs are not unusual) the field officers may have to be contacted without any loss of time for instructions to stop cutting of cane and if this is not done several hundreds of tonnes of cane moved to the factory would get dried up at the cane yard, resulting in loss of weight and sucrose content. The loss of weight affects the ryots, as payment is based on weight while a decline in sucrose content would mean for the factory lower production of sugar. The use of telephone or telegraph system wherever they are available take considerable time for contacting the field staff and conveying to them messages for stopping harvesting and for recommending cutting. Telephone facilities are not available in all the rural centres. Sending messengers by road transport would also not be practicable, as scores of persons would have to be contacted. A loss of Rs. 90/- (which is the current cane price paid by factories in Madras State) is caused to the ryots for every one tonne of cane lost due to driage. A fall in recovery of sugar by 1 per cent caused on account of driage would mean a loss of 10 tonnes sugar for a factory crushing 1000 tonnes of cane daily costing about Rs. 21,000/-. The Government also stands to lose by way of loss in tax receipts both Central and State.

THE SUPERIORITY OF THE MF 843/844 EQUIPMENT

The MF 843,844 Transreceiver manufactured by Messrs. Bharat Electronics Limited indigenously is an ideal equipment for use by a sugar factory. The cost of six units of this equipment with accessories would be around Rs. 34,000/- only and the life of the equipment is normally 10 years or more. This cost is well within the means of a sugar factory and in fact it will be justified by the return that would accrue to the factory by way of increased productivity and also benefit the cultivators and the nation. The Wireless Division of the Posts and Telegraphs Department offers a radio telephone facility which can be installed by it at the factory premises for which a rental will be charged. The rental for a network of six stations is at present Rs. 32,000/- with a right for the Postal Department to revise the rental with retrospective effect if such a decision is taken by the Government subsequently and the building, electricity and accommodation for staff of the P & T Department should be provided by the factory. They have no provision for sale of the equipment to the factory concerned. It is not clear why the P & T Department is fixing the rental at Rs. 32,000 - per annum when the cost of the equipment supplied by Messrs. Bharat Electronics for a similar facility is Rs. 34,000/- or so.

REMOVAL OF A SNAG

There are restrictions on the use of wireless sets in the country. The present policy of the Government does not encourage even progressive entrepreneurs to use modern techniques and devices for these purposes. I am aware of the case of a sugar factory in Coimbatore District which requested the Government for a licence and frequency allotment for the purchase of MF 843/844 transreceivers maunfactured by Bharat Electronics in preference to the offer of the P & T

Department, which was *turned down* by the Government and the factory was advised to avail of the facility of the P & T Department only. One can hardly be expected to go in for an equipment the annual rental of which is almost equal to the cost of the equipment itself.

It is high time the Government took a realistic view of matters such as these and encouraged progressive entrepreneurs to take to modern and fast communication facilities for raising productivity in the interest of all concerned.

Industrial Economist, Vol.1, No.7
June 15, 1968.

N. Mahalingam emphasises the need to formulate a "Long Term Policy for Sugar" which will be fair to the cane-growers, sugar mills and consumers.

Wanted a Long-Term Policy For Sugar

With the adoption of the policy of partial de- control from the 1967-68 season the problems of the sugar industry have assumed an entirely new character and no attempt has so far been made to assess precisely the social and economic significance of this new policy. As usual, there has been no effort to understand correctly the difficulties of a major industry and formulate policies which will be fair to the cane-growers, sugar mills and consumers.

It is needless to say that partial decontrol was decided upon by the Central Government as an emergency measure, as in 1967-68 there would have been a disastrous shortfall in sugar output if the manufacturers had not been helped to buy cane, which was in short supply, in competition with gur and khandasari producers. It was not to be expected that in a difficult period, even with the payment of high cane prices, there would be a sharp recovery in production. It can only be said that even the previous year's output of 21.50 lakh tonnes would not have been achieved, but for the opportunity to realise fairly high prices for sugar in the open market and pay to the canegrowers Rs.95 to Rs.100 per tonne in the Southern States. In Uttar Pradesh and Bihar, some mills paid even upto Rs.170 per tonne. In the current season, the same policy is being pursued as it has been argued that the cane-grower can derive full benefit out of this arrangement only when there was larger production and mills could pay them the same prices realised by the growers in the previous season. There has undeniably been an increase in the yield of cane by nearly 30 percent, the total output being estimated at around 130 million tonnes in 1968-69.

HAS PARTIAL DECONTROL YIELDED RESULTS?

But can it be said that partial decontrol has yielded the anticipated results and in a year of record output of cane, the industry can excel its performance in 1965-66, when there was an output of 35.15 lakh tonnes of sugar? It will certainly not be able to beat this record as even the most optimistic estimates place the output at not more than 32 lakh tonnes. This would mean an availability of only 33.5 lakh tonnes against 26 lakh tonnes in the past season. A critical situation did not arise in 1967-68 because the high prices for sugar had a discouraging effect on its consumption and it is not known whether in the States near the northern border there was smuggling of sugar into the country to take advantage of the high prices prevailing in the open market. However, there is no doubt that internal consumption has been severely discouraged by high prices; as against an absorption of 28 lakh tonnes three seasons back, internal consumption was less than 24 lakh tonnes last year. In the current season, there will be an improvement in availability. But with the commitments relating to exports and the need to maintain a carryover of at least four lakh tonnes, the quantity made available to consumers may not be more than 26 lakh tonnes. As there has been an increase in the purchasing power of the agricultural income groups, there may be a higher level of consumption notwithstanding high prices in the open market, higher than in 1967-68, as the hotel trade may handle a larger volume of business and it may happen that a bigger output of gur and khandasari also would be easily consumed.

But the peak levels of 1965-66 would not be surpassed. Also, will the consumer be prepared to pay high average prices for sugar continuously and is it desirable to soak him in this manner? Assuming that the average open market price for sugar for 1968-69 will be Rs.280 per quintal, the sugar bill in respect of the quota for free sale will be higher by Rs.90 crores. If it is remembered that the minimum cane price was raised in 1967-68 to Rs.73.70 per tonne from Rs.55.80 per tonne, it will be seen that in the aggregate the consumer will be paying additionally Rs. 140 crores in all for his requirements of sugar. A good portion of this amount, no doubt, benefits the cane grower and it must be acknowledged that the cultivation of this cash crop should be competitively remunerative if it is to be grown in the required quantities. But what is the optimum price for cane and what exactly are the implications of the developments of the past few years? As in a period of shortage the cane-grower was paid a stiff price the feeling has gained ground that a price of Rs.100 per tonne should be considered normal and there will have to be either an increase in the price of levy sugar and the whole output distributed on a controlled basis or the two-tier system will have to be continued until a satisfactory solution emerged of its own accord.

The period of indecision should not, however, be allowed to continue for long. In the light of developments in the coming months, some lasting solution should be found as it would not be correct to expect that high open market prices are normal features and the minimum requirements of the poorer sections of society can be made available on a subsidised basis. The happenings in 1969-70 will probably indicate where the sugar industry is heading to and what should be the policy that should be adopted by the Central Government when proceeding to create fresh capacity.

If the expectations regarding a record output of foodgrains and some cash crops in 1968-69 materialise, the wholesale prices for agricultural commodities will certainly remain stable and there may even be a downward trend in some directions. In that event sugarcane prices paid by mills may prove to be out of parity with the prices for other agricultural commodities and the cane-grower may be in a privileged position as against the handicap suffered by him when prices for other commodities were unduly high with a serious shortfall in production on account of severe drought conditions. There will naturally be a big shift in acreage in the next season and it may not be surprising if cane output rose to 160 million tonnes, if not more, in 1969-70. The return per acre of cane in Uttar Pradesh and Bihar will work out to Rs. 1700 against Rs. 1200 if foodgrains were grown instead. In Andhra Pradesh and Tamil Nadu, on the other hand, the return will be much higher as the yield can be taken on an average at 40 tonnes per acre which would suggest that the gross income would be Rs. 4000 per acre against Rs. 1800 per acre if rice was grown. If economic laws operated, either there will have to be an increase in prices for other agricultural commodities or a decline in sugarcane values. It remains to be seen whether the fiat of the Government will be respected in the next season when there would be abundant supplies or there will be a new trend in consumption with higher incomes of the rural population and an increase in the sugar bill will not be minded as its incidence per capita may not be crushing. The correct answers will certainly be provided if economic forces were allowed to have a free play. Towards the close of this season there may probably be a sharp decline in open market prices for sugar if it became clear that there would be a spurt in production to 40 lakh tonnes in 1969-70. This decline in prices may take place not only for sugar, but also for gur and khandasari. But a difficult situation may arise if, with a slump in gur prices, there was heavy tendering of cane at the factory gates and the mills were compelled to crush large quantities of high cost cane. It is precisely to avoid the emergence of such a chaotic situation that the Central Government should take timely action and evolve a long-term policy in consultation with all the interests concerned.

The importance of a proper relationship among gur, khandasari and sugar prices has not been sufficiently understood and no effort has been made in this regard in recent years and avoid unnecessary fluctuations in the output of sugar which take place with a diversion of cane supplies for being converted into gur and khandasari. In 1966-67, with a short crop there was a skyrocketing of prices for gur and at an average price of Rs. 250 per quintal, the producer of gur was in a position to pay more than Rs. 120 per tonne of cane. At that time, the minimum price for cane payable by the sugar mills was fixed at Rs. 55.80 per tonne. Since gur prices remained high and it was realised that low minimum prices for cane will not enable the mill industry to compete actively with the unorganised sector for available supplies, the minimum price of cane payable by sugar producers was raised to Rs. 73.70 per tonne. In the context of high prices for wheat and rice, an upward revision in minimum prices was perhaps inevitable and even desirable. But it has happened in actual practice that the minimum price has proved to be notional and as stated above, some mills in Uttar Pradesh and Bihar paid a price of as much as Rs. 170 per tonne. This was the experience of the last season. The position now, however, is different. Gur prices have slumped with a larger availability of cane and at Rs. 150 per quintal for medium grade gur, the producer of this commodity is not in a position to pay more than Rs. 80 per tonne of cane. In this anomalous situation, the sugar producer is being called upon to pay a minimum price of Rs. 100 per tonne while, even in Madras, a basic price of Rs. 85 per tonne has been fixed even though the cane-grower has been allowed to secure a share of the profits realised by the industry on its open market sales, on the basis of a price-linking formula. This is perhaps the first season in recent years when the sugar industry has been asked to pay more for its requirements of cane on a basis which is much higher than is warranted by the facts of the situation and there is no danger of a diversion of cane supplies to the unorganised sector.

It may be contented that the depressed state of the gur market might lead to a shortage of this sweetening agent and create trouble for the consumer in the next season. But the point that has to be borne in mind is this. Are gur prices at the present moment low and will the cane-grower be penalised because of compulsion on gur producers to lower prices for cane than they did sometime back? I will straightaway say that even at the present 'depressed' prices for gur, the return to the canegrower is not in any sense unattractive. For, even assuming that only about Rs. 80 per tonne can be realised for cane, the return to the cultivator in the Southern States is quite good being nearly double the yield available from rice. It is the scarcity of sugar for two seasons in succession that has been responsible for high prices for this commodity in the open market and the demand from the grower that he should be paid high prices for his produce in spite of the fact that he will not be able to get better prices either by diverting the acreage for the cultivation of other commodities or by selling cane to the gur and khandasari producers.

Assuming that the present level of prices for agricultural commodities are reasonable and will remain stable, it is not a fantastic assumption in any sense as there are definite indications of stability in prices for all agricultural commodities with the establishment of a break-through on the foodgrain front in two seasons, the minimum price of Rs. 73.70 per tonne is high enough to afford a reasonable price to the cultivator. There is therefore, no justification whatsoever for the demand from the powerful lobby of sugarcane growers that irrespective of the inter-relationship of prices of agricultural commodities, even higher minimum prices for cane can be fixed like the bidding of King Canute. If the demand of the Chief Minister of Maharashtra was conceded there will be no case for cultivating cane in additional acreage in Uttar Pradesh and Bihar. Mr.Naik went so far as to suggest that Maharashtra could profitably cultivate cane in large areas and produce sugar which will more than amply meet the cost of 'imported' foodgrains if the policy of State's self-sufficiency in the output of cereals was jeopardised by overmuch attention to the development of the sugar industry. There is force in the argument of the Maharashtra Chief Minister though in view of the need for dispersal of the industry and the scope for cultivating cane on a reasonably low cost basis in Andhra Pradesh, Mysore and Madras, the development of the industry should be concentrated mainly in Maharashtra and the three Southern States. What is relevant in this context is the unnecessary load on the consumer in the anxiety of some State Governments to placate the unreasonable demands of cane-growers.

It is wrong to say that the minimum needs of consumers have been met by the supply of subsidised levy sugar. It is true that availability on this basis has been welcome. But in the rural areas the extension of the sugar habit has been seriously discouraged as the quantum available for a family in the interior areas is half to one kg. per month. Even this quantity is not available on an assured basis in the informal rationing areas. There is necessarily dissatisfaction over this meagre availability and with the need to supplement one's requirements with purchases from the open market, the average cost goes up considerably mainly for the rural consumer. Besides, the poor consumers who take their food in hotel establishments are unnecessarily penalised and it is no exaggeration to say that the cost of coffee or tea per cup has been inflated by one to three paise on account of the high cost of sugar alone. It is wrong to presume that the better class of consumers alone are obliged to pay high prices for their purchases of sugar in the open market. The poorer sections of society bear perhaps a good portion of the increase in the cost of open market sugar.

SPURT IN CONSUMPTION FORESEEN

Since a new situation will develop in 1969-70 and consumption of sugar is bound to increase at a rapid rate in the coming years, an entirely different policy should be pursued so that, at least over a period of five years, the cost of sugar can be reduced with its cultivation in areas most suited for this purpose. As it is likely that in the next one or two decades there will be an increase in sugar consumption to undreamt of levels prudence would dictate that the further dynamic development of this industry should be concentrated in areas south of the Vindhyas. It may not be possible to go back to the days of 1965-66 but it should be possible to produce ample quantities of cane with a minimum price of Rs.60 per tonne and a maintenance of the parity of prices for other agricultural commodities at around the present levels. Only then sugar consumption can be doubled or trebled from what it is now. Even otherwise, with a slower growth in consumption, the load on the cousumer will go on increasing if the development of the industry in uneconomic areas is not arrested. This would mean that the objective should be to beat a slow retreat from the present level of minimum prices in the light of new developments and with a continuance of the "Green Revolution". It will not do to pursue an ostrich-like policy and penalise unduly the poor consumer. The sugar industry, for its part, will be helped to earn reasonable profits with a better utilisation of its capacity and a proper relationship between cane and sugar prices. I will conclude by saying that the sugar industry is on the eve of a new era of dynamic expansion and new policies will have to be formulated to enable the expansion to take place on the most economic basis.

The Hindu Survey of Indian Industry, 1968.

"A reasonable Price-Linking formula and economic prices for levy sugar are the surest guarantees against high cane market prices".

—N. Mahalingam

7

Economics Of Sugar Production

The economics of sugar production is getting out of focus with the anxiety of the Government to secure a high price for cane without any proper relationship with the prices realised by the industry on its sale of levy sugar and the disposal of the quota for free sale in the open market.

The policy of partial decontrol, initiated in 1967-68, is no doubt, sound in conception as it aims at meeting the needs of the poorer sections of society to the maximum extent possible at controlled prices which have a subsidy element and realising higher prices in the open market from those who can afford to pay and who desire to supplement their requirements out of free sale. But the method of implementation of this scheme has not been on the desired lines and in the immediate anxiety to boost the output of sugar and secure high prices for the growers, the long-term interests have been overlooked.

NO CHOICE

In the 1967-68 season, the sugar industry had no choice but to meet the demands of the growers as there had been a decline in the acreage under the crop on account of drought condition and high prices for other commodities. As in the open market, sugar was very costly and there was also a large-scale diversion of cane for conversion into gur and khandasari, the growers were in a position to dictate their prices and it is common knowledge that in some parts of Uttar Pradesh as high as Rs.170 per tonne was paid by sugar mills for their requirements of cane.

In Andhra Pradesh, the grower got Rs.100 per tonne and more while in Madras State the price paid was Rs.90 per tonne. While Madras State put a ceiling of Rs.350 on the free market sugar, Andhra Pradesh did not fix any such limit and hence the units in the Madras State were not able to secure the full benefits of free-market sales. The net result of it was that while the units of Andhra Pradesh gained on account of the liberal policy of the State Government, those working in Madras were deprived of a higher margin of profit on account of the ceiling on the free market sugar. This put a hurdle on the industry particularly when it wanted to compete with gur offering higher prices for cane.

If the industry did not buy its requirements on a competitive basis, it would not have been possible to achieve even an output of 22.50 lakh tonnes, though only slightly more than the output of the previous season. While this achievement in absolute terms cannot be considered praiseworthy, the industry would not otherwise have been in a position to produce even 16 lakh tonnes. With an acute shortage of sugar, a serious situation would have arisen in the internal market and the consumer would have been fleeced on account of the unhealthy activities of hoarders and speculators.

CHANGED CONDITIONS

But conditions have vastly changed in the current season and it has been confidently esitmated that the area under the crop has increased by 30 per cent and the yield would be over 125 million tonnes of cane exceeding the record of 1965-66. One would have normally expected that sugar cane would be available freely at lower prices and open market values for sugar also would prevail at reasonable levels. The expectations in this regard, however, have gone wrong and there has been an unseemly wrangle, thoroughly unjustified, between sugar mills and the representatives of cane growers about the prices that should be paid for this cash crop. Even though gur prices have come down and the growers themselves are willing to sell their cane to the factories at reasonable prices, considerations other than economic factors have clouded thinking and crushing operations were seriously delayed in Uttar Pradesh and Bihar because of the dispute over cane prices.

FALL IN OUTPUT

In the first three months of the current season, output has declined by 1 lakh tonnes of sugar compared with the corresponding period in 1967-68 and it will be necessary for the units in Uttar Pradesh and Bihar particularly to make good this loss in output in the earlier weeks by maximising crushing and working for a longer period. As in other States no difficulty is anticipated in regard to the availability of cane, the output of sugar can be easily 30 lakh tonnes and more in the absence of unforeseen developments.

The sugar mills, however, are worried about the outlook for the current season so far as their earnings are concerned. At no stage it was thought possible that the performance of the last year of the units in Maharashtra and Southern Region would be repeated. But it was hoped that, with a larger quantity of cane crushed, earnings could be maintained at reasonable levels even with lower average prices realised on open market sales and the payment of prices for cane much higher than the 'notional' minimum. It is also necessary to point out here that, in spite of the realisation of high open market prices, sugar mills in Uttar Pradesh and Bihar did not fare very well in 1967-68 because of a short crushing season, lower recovery and payment of high prices for cane.

The State Governments have not cared to understand the full implication of their actions and it was somehow asserted that high cane prices could still be paid as the industry was in a position to bear the increase in the cost of production resulting therefrom. The minimum price for cane has remained unchanged at Rs.73.76 per tonne while the cut in prices for levy sugar imposed in August, last year has been only partially restored. Even on the notional basis it cannot be said that the industry can avoid a loss as no proper note has been taken of the increase in costs of production since the Sen formula was evolved and average experience of the industry also in regard to recovery has been somewhat disappointing.

Since it was abundantly clear that lower average prices would be realised for free sugar in the whole season and high prices had to be paid for cane, the normal course would have been to raise suitably controlled prices for sugar especially as there had been a decrease in the quota for free sale to 30 per cent, from 40 per cent. Beyond the vague assurances given by the Union Minister for Food and Agriculture, Mr. Jagjivan Ram, that the Government would go to the rescue of the industry, if it suffered losses on account of the payment of high prices for cane, no concrete action has been taken to ensure reasonable profit margins. All the time, the emphasis has been only on the payment of higher prices for cane without safeguarding the interests of consumers or the industry.

The fallacy of the whole approach will be clear if it is pointed out that the industry will lose heavily if cane had to be purchased at Rs.100 per tonne where the recovery proved to be much lower than 10 per cent.

AVERAGE RECOVERY

In Madras State, it would be resonable to presume that an average recovery of only around 8.7 per cent can be achieved. If cane cost Rs.100 per tonne for this sucrose content, only 87 bags can be produced for every hundred tonnes of sugar-cane. Even assuming that there was no loss on sales effected at controlled prices on the basis of notional minimum prices for cane, sugar mills in Madras State would have to sell 26 bags of sugar constituting the quota for free sale out of 100 tonnes of cane in the open market at an average price of Rs.320 per quintal to make up for the losses sustained through the payment of higher prices. It will, therefore, be appreciated that the sugar mills will be in a vulnerable position if there was a sharp drop in open market prices. Even now, it is felt that there might be a rush to sell sugar with a larger output in the first quarter of the year and bigger releases both for controlled distribution and free sale.

Sugar mill-owners were naturally insisting that they would prefer to pay a basic price which was much higher than the 'notional' minimum while additional payments which were related to the prices realised for sugar in the open market would be made later. The formula of Madras Government in this context should be considered as a happy compromise. The grower will be getting a minimum of Rs.80 per tonne and bonus payments at the rate of Rs.1.50 per tonne for every additional Rs.10 per quintal of sugar realised in the open market in excess of Rs.200 per quintal excluding excise duty.

In this process, even if the average price for open market sugar worked out to Rs.278 per quintal eventual price secured for cane would be Rs.87.50 per tonne. This price cannot be considered unreasonable as the return to the cane grower would be much more than that available on other cash crops.

Also there is great equitability in this formula as the cane grower will get 55 per cent of the 'profits' made by sugar mills and only the remaining 45 per cent will be available for off-setting the losses sustained on sales of levy sugar and for reasonable net disposable profits. High cost sugar has come to stay and the consumers may not grudge to pay slightly higher prices for controlled sugar and a little more for supplimental sugar obtained from the open market. But it would be wrong to presume that open market prices can be maintained at levels much above Rs.275 per quintal especially when there is a large cane crop. The best course would be to raise prices for levy sugar by Rs.10 per quintal and increase also the quota for free sale if possible by reducing the percentage of levy sugar to 65. There need not be any reduction in the excise duty for protecting end-prices as after the adjustments had been completed, the selling prices would be higher by only 5 to 7 paise per kg. (It is necessary to remember here that the cut imposed in controlled sugar prices sometime back has not been restored.) If there was a larger output of sugar with a bigger cane crop and the industry was in a position to spread its overheads conveniently, the consumer as well as the grower will be benefited.

It is necessary to examine the whole question dispassionately as violent fluctuations in the output of sugar should be avoided in a period of rising consumption. Also, a situation should not be allowed to arise in which there was availability of cane but high prices had to be paid not because of keen competition from the producers of gur and khandasari but because the sugar-cane grower had a powerful lobby. A reasonable pricelinking formula and economic prices for levy sugar are the surest guarantees against high cane market prices. The sugar industry would be helped to make better use of its capacity and helped to meet the growing demand for refined sugar which may well assume unexpectedly big dimensions in the next five years if the current boom in agriculture is sustained.

Economic Times
2nd February, 1969.

With force and logic Mr. Mahalingam stresses the need for revising cane price policy as well as the system of partial decontrol.

8

Sugar Industry in Bitter Predicament

In a year of glorious achievement, with the production of sugar likely to exceed 43 lakh tonnes against the previous record of 35.60 lakh tonnes, the industry is finding itself in a pathetic plight. Many mills have been obliged to continue crushing cane entailing fresh losses. The recovery in the last few months of the season is usually low and there is no prospect of selling sugar so produced because of heavy stocks. The Central and State Governments have not shown any keen awareness of the difficulties endured by the mills. They seem to believe that the rebate in excise duty to the extent of Rs.8 per quintal, in respect of production in excess of 105 per cent of the output of 1968-69 season, and the additional rebate of Rs.8 per quintal announced recently, for offsetting any loss sustained by sugar mills in crushing cane of poor quality in the hot months, will give the necessary relief.

The facts, however, are otherwise. The policy of partial decontrol, which was conceived as an emergency measure in 1967-68, outlived its usefulness. In that season, when sugar cultivation was not attractive and there was a diversion of acreage to other crops, high minimum prices had to be fixed. Also, as a result of high prices realised by the industry on its sale of sugar in the open market it was possible to pay to the cane growers prices which were much in excess of the minimum fixed by the Government in order to prevent a diversion of cane for production of gur and khandasari. These payments and the policy of partial decontrol were, however, helpful in preventing only a decline in the output of sugar in 1967-68 compared to 1966-67.

EARLY BENEFITS OF PARTIAL DECONTROL

In 1968-69 there was a sharp increase in the output of cane. The sugar mills raised their production to 35.60 lakh tonnes from 22.17 lakh tonnes in 1967-68. There was a sharp drop in open market prices which was welcome. But the industry was compelled to pay higher prices to cane growers, hoping to make large profits. The developments after February 1969 came about in an entirely unexpected manner. The decision of the Government to levy an *Ad valorem* duty of 23 per cent in place of the specific duty on quotas for levy sugar as well as for free sale seriously affected profit margin, especially because of high cane prices.

BITTER EXPERIENCE IN 1969-70:

Sugar mills all over the country, with the exception of those in Maharashtra and Mysore, are sure to incur heavy losses in the current season perhaps as a result of the payment of high minimum prices, a sharp decline in open market prices for sugar, higher production costs and the levy of differential and higher excise duties on levy sugar and sugar for free sale. Even mills in Maharashtra and Mysore are unlikely to earn reasonable profits. Continuance of the present conditions will cause serious harm to the cultivators of cane, the shareholders and the further development of the industry.

STOCKS EXCEED 2 MILLION TONNES

The output for the 1969-70 season is likely to exceed 43 lakh tonnes and the total consumption for the entire season would be 33 to 34 lakh tonnes. Exports in the first nine months were only 75,000 tonnes and the total for the whole season may not be more than 2 lakh tonnes. Thus, at the outside limit the offtake for internal consumption and exports will not be more than 36 lakh tonnes leaving 7 to 8 lakh tonnes to be added to the carry over of 13.06 lakh tonnes from the last season. There will thus be heavy accumulated stocks of 2 million tonnes at the end of September this year. The stocks are now at 30 lakh tonnes.

The heavy accumulation of stocks has posed serious problems in regard to payments to cane growers and cess to the State Governments, the finding of resources for holding stocks and the addition of heavy interest charges to manufacturing costs. On the basis of even a minimum price of Rs. 73.70 per tonne of cane the cost of production of an efficient mill in Tamil Nadu will work out to Rs.147 per tonne of sugar against a price of Rs.135.09 fixed by the Government under the Sen formula. The increase in costs is due to lower recovery and higher interest charges. Only a small rise in manufacturing expenses has been assumed though an element of Rs.2 per quintal has been included for purpose of rehabilitation. This will be clear from the details given in table 1.

TABLE 1.

SEN FORMULA		ACTUAL COST	
	Rs. P.		Rs. P.
Cost of cane including taxes and cess at 8% recovery	100.45	Cost of cane including taxes, and cess at 7.8% recovery	106.00
Manufacturing expenses	24.14	Manufacturing expenses	27.00
Return on employed capital	10.50	Interest charges on excess stocks	3.50
		Return on employed capital	10.50
	135.09		147.00

In Tamil Nadu, it is assumed that a sugar mill having a crushing capacity of 1800 to 2000 tonnes daily will be able to handle 4.5 lakh tonnes of cane in a season. The interest charges have been calculated in respect of excess stocks. Allowing for the maintenance of base stocks of about 8 lakh tonnes, the actual burden of interest charges will be very much more than the figure indicated above. Due to the inability or refusal of the banking system to extend enough credit against the accumulated stocks of sugar, many mills have been obliged to borrow from outside sources or accept deposits at higher interest rates. With the slump in open market prices for sugar and the levy of a differential ***Ad valorem*** excise duty of 37½ per cent, the producers in Tamil Nadu and else-where have been able to realise only a net amount of Rs.125 per quintal after payment of the excise duty as the open market wholesale price is only around Rs.175 per tonne. There is thus a loss of Rs.10 per quintal or Rs.100 per tonne, which in the case of the typical mill referred to above will result in an aggregate loss of Rs.11.5 lakhs.

Thus even under the most favourable conditions the net profit, after depreciation and before taxation, on an output of 36,000 tonnes of sugar cannot be more than Rs.26 lakhs. If allowance was made for interest charges on excess stocks gross profits will come down to Rs.13 lakhs. If it is borne in mind that a loss in profit margin of Rs. 5.50 per quintal (excluding interest charges) is being sustained even on levy sugar, there will be a residual loss of Rs.6 lakhs. This loss will be more pronounced where the average recovery has come down to 7.5 per cent. It should, therefore, be crystal clear that even with a record output, the different units in Tamil Nadu will be either barely recovering their depreciation charges or incurring heavy losses.

NEED FOR BUFFER STOCKS

Thus, the Government has to take a quick decision on the question of creating buffer stocks for at least one million tonnes for relieving the industry of the burden of maintaining huge stocks. There will then be a reduction in costs by Rs.3.50 per quintal because of a saving in interest charges.

SUBSIDISING EXPORTS

In order to prevent a deterioration in the quality of stocks and avoid waste in storage, it would be advisable to step up exports to atleast 5 lakh tonnes through an effective scheme of subsidies. The total foreign exchange earning will be Rs.36-40 crores. The Exchequer should not have any difficulty in meeting the loss on exports as, on its own reckoning, the proceeds from the basic excise duty on sugar in 1970-71 will be nearly Rs.100 crores against only Rs.55.10 crores in 1960-61. The estimates for the current financial year, however, are very much on the low side. With the anticipated increase in consumption to 33 lakh tonnes, the receipts can be easily Rs.110 crores. Even if the subsidy was fully borne by the Government it would still be realising its estimates of revenue for 1970-71.

CHANGE IN SUPPLY POSITION

The decision of the Government to establish State zones and even bifurcate Uttar Pradesh for fixing levy prices for sugar was taken to concede the demands of mills in Tamil Nadu so as to compensate them for the lower recovery of sugar. At present, the State Governments are refusing to lift fully the allotted quotas as a result of tne serious disadvantage arising out of heavy freight charges for disposing the huge surplus. There has been a fundamental change in the supply situation. The Maharashtra and Mysore mills are in a position to sell the quotas for free sale at much lower levels. It has so happened inTamil Nadu that free sale quotas have been sold at a loss while quotas for levy sugar have not been fully lifted. This is estimated roughly at 25 per cent. Some part of the quotas have lapsed and will have to be released again in later months. The increase in stocks of Tamil Nadu mills will be more pronounced than for those in other regions.

CANE PRICE POLICY NEEDS REVISION

If minimum prices can be fixed on the basis of a recovery of 8 per cent, the handicap experienced by mills, particularly in Tamil Nadu, will be removed while those in Uttar Pradesh and other places will not suffer any disability. This will be an important step to eliminate the anomalies in the cost structure now in evidence; suitable adjustments in the excise duty can be effected to compensate for increases in costs, interest charges and wages. This may not come to more than Rs.8 per quintal.

MODIFYING THE DECONTROL SYSTEM

It is necessary to modify the system of partial decontrol. There could be regular releases out of current production and accumulated stocks while mills should be free to dispose of their quotas anywhere in the country as only then the marketing of large quantities of sugar can be briskly effected and consumption stimulated with the adoption of new techniques. If there is a tendency for prices for sugar in the open market to rise, as a result of decontrol, the Government can release additional quantities and bring down prices.

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Here is what a distinguished industrialist has to say on "A Rational policy for Sugar"

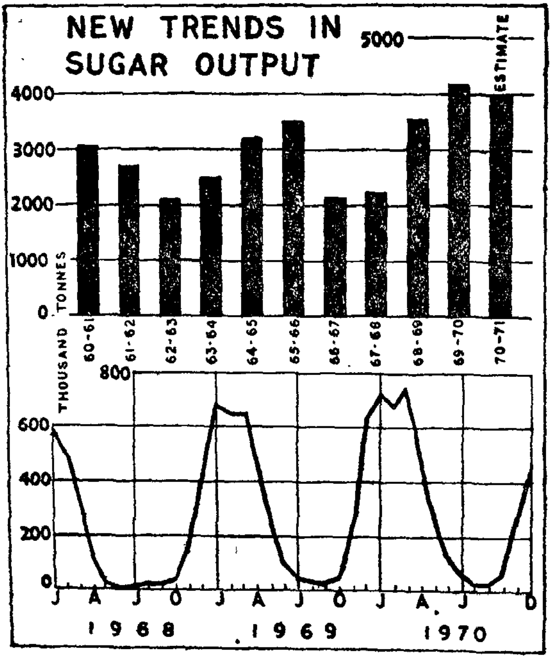
Wanted a Rational Policy for Sugar

The developments in the last two seasons have clearly indicated the need for a change in the policy of partial decontrol for sugar and the refixation of minimum prices for cane on a realistic basis if the sugar industry is to fulfil its new responsibilities in the years ahead without difficulty.

Unlike in previous years, a serious shortfall in production at a time of phenomenal growth in consumption will have unexpected complications. A long-term policy should therefore be evolved for eliminating the mistakes of earlier approaches and safeguarding also tne interests of cane-growers, sugar producers and consumers in a fair manner. The need for entirely different thinking will be clear from the fact that the offtake of sugar has been increasing at a fast rate latterly and in the next decade the output may have to be raised to nearly ten million tonnes from the present level of 4 million tonnes (36 lakh tonnes for internal needs and 4 lakh tonnes for export).

RISE IN LEVEL OF CONSUMPTION

Even in the early fifties the home market absorbed only about one million tonnes annually and it was only after the experiment in decontrol in 1965 that there was a sudden spurt in consumption. In the past three years with an increase in the purchasing power of the agricultural income groups and a boom in the hotel trade, the level of consumption has risen significantly and it is expected that it will be around 36 lakh tonnes in 1970-71 against only 26 lakh tonnes in 1966-67. Even with the present level of consumption the per capita intake is low at 6.5 kg. against 50 kg. in U .S. A. and 52 kg. in U. K. with an extension of the sugar habit and



a higher level of economic activity it may not be surprising if the target had to be fixed at 10 million tonnes by 1980. This may appear fanciful at this stage. But this would mean only a doubling of per capita consumption as there will be an increase in the population by over 25 per cent in ten years.

However, a rapid development of this industry can take place only if there was a strenuous effort to increase the yield per acre and also sucrose content of cane. The policy of partial decontrol aimed only at raising the output of cane at any cost and a high minimum price was fixed at a time when the income derived from other crops was more attractive. On account of the drought in 1965-67, prices for foodgrains ruled high and a diversion of acreage from foodgrains to cane could not be brought about otherwise. It was also felt that payment of higher prices would be possible if high prices were realised for sugar in the open market in respect of the quota for free sale. Sugar mills all over the country actually paid attractive prices to the growers for two seasons.

CANE PRICING FORMULA

There has, however, been a spectacular change in the complexion of the agricultural economy in the past four seasons and cane cultivation even in Uttar Pradesh and Bihar is quite attractive with a fairly stable level of prices for fine cereals and a remunerative price for cane. There is no doubt that the cane grower will be satisfied if he can derive the full benefit of the attractive minimum price in all areas. But only those tendering cane to the factories are being benefited while those supplying their produce to gur and khandasari manufacturers are getting very much less because of the depressed state of the gur and khandasari markets until recently.

But for the attractiveness of cane cultivation there would have been by now a decline in the area under this crop. The present opportunity should therefore be used for recasting the cane pricing formula as there is the need for extending the area under cane and increasing the yield per acre for raising output in areas best suited for the purpose. Then only there can be economic use of land and a healthy growth of the Industry.

The future development of the industry has to take place in Maharashtra, Andhra Pradesh, Tamil Nadu and Mysore. Maharashtra and Mysore are ideally suited for an enlargement of capacity as by virtue of climatic and soil conditions the yield as well as recovery of sugar are quite high.

In Andhra Pradesh and Tamil Nadu, the yield is quite high though the sucrose content is not encouraging. But the sucrose content per acre is much higher than in Uttar Pradesh and I can confidently say, as a result of experiments carried out in many cane farms in the factory areas in Tamil Nadu, that the average yield can be raised to over 45 tonnes per acre and also the recovery to over 9 per cent. This will, of course, take time to become a common feature and the cane price policy will have to be fashioned in a manner that eliminates the special disability endured by sugar mills in Tamil Nadu particularly and even in Andhra Pradesh. This disability can be overcome if the minimum price was fixed on the basis of a basic recovery of 8 per cent instead of 9.4 per cent. There will naturally have to be a proportionate adjustment in the minimum prize from the present level to have a basic recovery of 8 per cent through a higher premium may be granted for increases in the sucrose content above the basic level.

There is a demand for even a higher cane price in Uttar Pradesh and Bihar and the Government may take a new acceptable decision taking into account all points of view. In any case, with the revised policy, Andhra Pradesh and Tamil Nadu can easily produce more than 1½ million tonnes in a decade as they are even now capable of attaining production of over 7 lakh tonnes with the existing capacity. The cane price policy has therefore to be changed as the losses now being suffered by Tamil Nadu mills as a result of the relatively higher cost of cane and unrealistic fixation of levy prices could not otherwise be avoided.

AN ADDITIONAL HANDICAP

While a new formula has to be adopted for fixing the minimum price for cane, the policy of partial decontrol which reserves now 60 per cent of current production for controlled distribution against 70 per cent in the last two seasons and 40 per cent for free sale (against 30 per cent) has outlived its usefulness. There has to be either a policy of complete control or complete decontrol under the altered circumstances. It is inexplicable why the Central Government is unmoved in spite of the vigorous representations made by sugar producers and organisations regarding the need for fixation of realistic prices for levy sugar and the abolition of the system of differential excise duty now prevailing. Instead of giving assistance to the sugar industry the latest decision actually imposes an addititional handicap as the release of additional quantities of sugar for free sale will only result in additional losses.

With practically no change in sugar prices for controlled distribution and for free sale the net price realised by sugar mills is lower by at least Rs. 10 per quintal. It had been expected that the excise duty on sugar for free sale would be reduced to 25 per cent and there will be regulated releases of sugar for controlled distribution as well as for free sale. The Government is, however, persisting in the levy of a differential excise duty when it is amply clear that sugar mills are not making even normal profits. Besides, a differential *"ad valorem"* duty on the same commodity cannot be imposed legally. As in the case of the automobile industry, sugar mills will be justified even in contesting the decisions of the Government regarding the fixation of levy prices for sugar as the high cost of cane, rising manufacturing expenses and higher interest charges on accumulating stocks, have all pushed up overall costs which are above the levy prices fixed by the Government based on an outmoded Tariff Commission formula. Even here, the Central Government has not been quick to revise the levy prices in the light of changes in the recovery percentages and with continued sales of old season sugar without any offsetting price adjustments many units are likely to incur heavy losses in the current season as well.

ABNORMAL STOCK POSITION

In 1969-70, the output of sugar constituted a record for all time at 42·80 lakh tonnes and even with an increase in internal consumption to 33 lakh tonnes and in exports to 3 lakh tonnes, the carryover from the last season has risen to 20·88 lakh tonnes. The industry has thus been obliged to maintain abnormal stocks without any assistance from the Government or without an interest element being included in the levy price for sugar. There is no prospect of these stocks coming down to normal levels in two or three years as it is expected that in the current season as well the output will be around 40 lakh tonnes and even with a fresh increase in consumption of crystal sugar and the fairly high level of exports it will be possible only to market current production with difficulty If, for any reason, actual production proves to be more than 40 lakh tonnes, there is the prospect of even fresh additions to stocks and the interest charges on about 21 lakh tonnes of sugar will work out to over Rs. 26 crores resulting in an inflation in production costs by Rs. 6 per quintal of current outupt.

Even allowing for a normal carry-over of 6 lakh tonnes, the industry's profits are being eroded to the extent of Rs. 18 crores annually. As there is the likelihood of output being maintained at well over 40 lakh tonnes, with a continuance of the present cane price policy, it will be possible to reduce stocks only gradually. It is therefore necessary that the Government should take an early decision in regard to the maintenance of buffer stocks of at least 12 lakh tonnes. If for any reason, it does not feel inclined to implement its earlier assurances, the industry should be compensated fully for the additional expenses incurred by way of interest charges, godown rents, supervisory charges, etc. through a rebate in the excise duty or increase in the levy price.

The Government will be helping itself and the industry if the opportunity was utilised to stimulate consumption of sugar and reduce accumulated stocks. This can be done only if sugar mills were helped to undertake marketing of their output in the interior areas through whole-salers and retailers on the lines of cloth and other commodities. Even now sugar is not freely available in the rural areas and there is no aggressive marketing through retailers or appointed agents. I have no doubt that the increase in consumption will take place at a faster rate if the Government decided to abolish altogether quotas for levy sugar and for free sale and regulated distribution with periodical releases from stocks. Alternatively, controlled distribution should be only in respect of 50 per cent of current production and the balance should be available for free sale after paying a uniform *"ad valorem"* duty.

There has thus to be a complete re-orientation of the Government's policy and it is no use persisting in arrangements which are obviously harmful from the long-term angle. It cannot be expected that mills will continue in production by suffering heavy losses and the sad experience of many units in 1969-70 is amply borne out by the huge losses sustained by mills in Tamil Nadu and a sharp reduction in the earnings of units in other States.

As there has to be continuous expansion of capacity in the private and co-operative sectors, the desired progress can be achieved only if fresh investment was worthwhile and fairly reasonable profits can be earned for attracting funds from investors. In view of the difficulties experienced by the industry in the past two seasons, the schemes for expansion of some units in the southern region have either not been implemented or have been staggered due to the paucity of resources. Some have actually not taken any decision on the erection of sister factories even though the letters of intent have been issued by the Central Government to the parties concerned. I only hope that the sad plight of this major industry will be recognised and the Government will realise the need for pursuing a rational policy for ensuring steady growth in production. As there is need for raising output to 10 million tonnes by 1980, as stated earlier the industry has before it a formidable task in order to be in a position to meet this demand. The industry will thus have to atleast double its capacity. This would mean that what has been accomplished in four decades will have to be achieved in a single decade. This challenge can be met only if the special disabilities now endured by the industry are removed and the industry was helped to function on a reasonably profitable basis.

The Hindu Survey of Indian Industry, 1970.

To ensure a reasonable price for the consumer and fair profit for the industry Mr. Mahalingam evolves a new stratefy for marketing.

10

Sugar Industry in the Wake of Decontrol

The Union Government's decision to remove all controls on the price, distribution and movement of sugar has received a mixed reception. The decision of the Government took the industry a little unawares and the mill-owners in certain areas preferred the policy of partial decontrol to continue atleast for the current season. The policy of partial decontrol was first intiated in 1967-68 when the levy and free proportions were fixed at 60:40 and this was subsequently revised at 70:30 in 1969–70. In the current season (1970–71) levy and free proportions were further revised at 60:40. The industry achieved an all-time record production of 42.6 lakh tonnes in 1969-70 resulting in a huge carry over stocks to the extent of about 21 lakh tonnes. In spite of a marked rise in internal consumption from 26 lakh tonnes in 1968-69 to 33 lakh tonnes in 1969-70, the stocks with the mills at the end of the sugar year in September will again be 21 lakh tonnes even with a further rise in consumption and the likelihood of a slight decline in production to 41 lakh tonnes in 1970-71. This situation of surplus production caused considerable worry to factories as well as to the Government and the latter thought it prudent to decontrol the commodity rather than worry about engaging in buffer stock operations. Decontrol, it is presumed, will be helpful in three ways: (i) to unload stocks by the mills, (ii) enable the mills to clear their arrears of payment to the growers and (iii) overcome the court orders secured by some mills with the levy prices fixed at a high court level. However, it has not solved the real problem facing the industry viz. the continuance of a highly inequitable price structure.

PRINCIPLE OF PROPORTIONAL PREMIUM

The official view is that there should be no change in the price of sugar following decontrol. But it cannot be denied that there will be regional variations. It is possible that the price map fall in the surplus areas and rise in the deficit states. It is gratifying that Mr. Fakhruddin Ali Ahmed * has assured that the interests of the cane growers would be protected and the Government would fix the minimum prices of cane, region-wise, according to their cost of production. Cane prices may be fixed as per the recommendation of the Sen Commission which held that the minimum cane price fixed should be linked to a lower recovery with a suitable premium fixed for higher recovery which will be proportionate to the minimum price. Hence, it is necessary that the minimum cane price may be fixed at Rs. 73·70 per tonne linked to a recovery of 8·5 per cent and below instead of 9·4 percent. However, it must be born in mind that in fixing the premium above 8·5 per cent recovery, the principle of proportionately should be adhered to and this would mean providing a premium for every increase of 0·1 per cent of recovery and the proportionate cost based on the linking of a price of Rs. 73·70 with a recovery of 8·5 per cent. The principle will work out as shown below:-

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Union Minister For Agriculture

Rs. 7.37 / 8'5 per cent or 737 paise / 85 points	8'7 paise per quintal as against the present rate of 5'36 paise per quintal.

There has been a very steady and sharp increase in the excise duty on sugar. From Rs. 2'60 per quintal in 1937, it was increased to Rs. 28'65 per quintal in 1968 and in 1969-70 the specific rate of Rs. 28'65 per quintal was converted in to an "*Ad Valorem*" rate of 23 per cent on entire sugar, both levy and free. In 1970-71, a discriminating rate of excise duty was levied on free and levy sugar. While free sugar was subjected to a high rate of 37'5 per cent *Ad Valorem*, levy sugar was subjected to a duty of 25 per cent *Ad Valorem*. Now this discrimination has been abolished and the excise duty on sugar is now fixed at an average of 30 per cent *Ad Valorem*. The basic excise duty will now be 24 per cent *Ad Valorem* and the additional excise duty in lieu of sales-tax will be 6 per cent *Ad Valorem* making a total of 30 per cent *Ad Valorem*. But even this uniform rate of 30 per cent duty is high enough to effect their profitability as it is levied on the basis of tariff value representing in effect a weighted average of earlier duties and hence has to be brought down to 27½ per cent *Ad Valorem*

EVOLVING A NEW MARKETING STRATEGY

The revised cane price policy will be found extremely helpful in evolving a new strategy regarding marketing. It should be the objective to ensure a uniform price through the pooling of freight arrangements. It is necessary that in a planned economy, the prices of essential commodities must be kept uniform all over the country. This calls for a new strategy in the marketing of sugar. For this purpose, the country can be divided into appropriate zones and the mill owners must set up an organisation of their own to exercise a kind of self-regulating informal control over the distribution of sugar and to maintain a uniform f. o. r. price as approved by the Government from time to time. Sales efforts in rural areas should be done by making sugar available in bags of 102 kilograms. A set of wholesalers and retailers, with their areas of operation broadly defined, will have to be created and they may be given a small margin to keep stocks. The wholesale price fixed must take into account a margin for carryover charges as well as distribution cost. Any extra expenditure on transport, not met in pricing, has to be met out of Central excise collections. If the industry is organised on these lines, it will be helpful in eliminating the anomalies that now exist in the cost structure and enable mills to avoid the violent fluctuations in output witnessed in recent years.

Industrial Economist,
Vol. IV, No. 7.
15th June, 1971.

A "Sugar King" presents a course of action for a minimum and incentive-oriented cane price as well as the adoption of efficient marketing.

11

Sugar Decontrol and After

The Central Government's eventual decision to remove controls over prices, distribution and movement of sugar effective from May 26, 1971 should be considered as the first major step for solving the tangle of major problems confronting this important industry.

The policy of partial decontrol had outlived its usefulness and indeed its continuance in the modified form was proving to be more harmful than helpful. The levy of an ***Ad Valorem*** excise duty on sugar for controlled distribution and another on that for free sale, the lapsing of quotas for levy sugar and the delays in creating buffer stocks, caused considerable hardship for those mills which had higher production costs on account of the anomalies arising out of the cane price policy.

The industry naturally made vigorous representations to the Government and suggested that there should either be complete decontrol, which would dispense with the minimum price for sugar cane also, or there should be regulated releases, buffer stocks, revised prices for levy sugar and uniform excise duties. It was not possible, however, for the Government to arrive at specific decisions and a somewhat escapist policy has been adopted which nevertheless will be helpful in bringing about a significant improvement in the functioning of sugar mills though not in their profitability, to the desired extent. The successful implementation of the new policy should ensure, as the Union Minister for Agriculture Mr. Fakhruddin Ali Ahmed, has observed in Parliament, that the releases of sugar will be effected in such a way that the growers' interests will be assured and the minimum prices for cane will be secured for them from the mills.

The fixation of a revised excise duty of 30 per cent on an *Ad Valorem* basis on a tariff value of Rs. 125 per quintal undoubtedly removes the anomalies that existed previously. There will no longer be any loss that was sustained by mills previously as a result of levy of differential duty on sugar for free sale· while there will also be no difference in incidence of the excise duty that were experienced when levy prices for sugar varied from zone to zone. The Government, however, has been careful to avoid a loss in revenue to itself as the revised duty of 30 per cent is a weighted average of the previous two levies, when there was duty of 25 per cent on levy sugar and 37 ½ per cent on free sugar.

Actually, the Exchequer will be receiving much larger revenues than before because the net yield from the revised duty will be higher and there will also be an increase in the consumption of sugar in 1971-72. Assuming that there will be a rise in consumption to 36 lakh tonnes and there was no change in the tariff value for computation purposes, in ten months the collections on a consumption of 31 lakh tonnes of sugar will be a sum of Rs. 115.75 crores. In the first two months April-May on a quantity of 6 lakh tonnes, the collections will be roughly Rs. 18.75 crores. The total receipts can thus be Rs. 134.50 crores. The budget estimates for 1971-72 placed the yield at only Rs. 109.63 crores. The Government can, therefore, think of reducing the excise duty to 27½ per cent and the tariff value to Rs.120 per quintal as sugar mills are still adversely affected by the higher interest rates on advances by banks as well as the larger quantum of stocks in their godowns. It will also be necessary to regulate monthly releases carefully as even a drop in the open market price by Rs. 4 to Rs. 5 per quintal from the present levels will have a crippling effect on the earnings of the mills.

While, therefore, I earnestly hope that the new policy will be sympathetically administered, there should be a careful examination of the cane price policy before the minimum price for the next season is announced. It cannot probably be expected that the Government will be prepared to dispense with minimum price altogether as this practice has been in vogue for several decades but the time has arrived for a careful review of this policy with a view to eliminating various anomalies.

Under the present formula minimum price of Rs. 73.70 per tonne is to be paid with a basic recovery of 9.4 per cent and there are adjustments for paying premiums on the basis of increase in sucrose content above 9.4 per cent, There are, however, many regions in which sugar mills have been able to achieve a recovery only below 9.40 per cent, the fortunate regions being Maharashtra, Mysore and Gujarat in 1969-70 out of a total ot 16 regions.

In 1968-69 too with a much smaller quantity of cane crushed, 11 regions had a recovery below 9.40 per cent. and 5 regions above this level. What is noteworthy, however, is the fact that sugar producers in Uttar Pradesh had an average recovery of 9.06 per cent, in 1968-69 and 8.98 per cent, in 1969-70. There were, of course, many other areas like Tamil Nadu, which had a much lower level of recovery. Above all, the average for all India in 1969-70 was only 9.33 per cent.

The decline in these percentages of sugar recovery to 9.33 per cent, from 9.46 per cent, in 1968-69 should not be taken to mean that there has been a deterioration in the quality of cane. The output of sugar has no doubt been affected in some regions on account of unfavourable weather conditions and drought but this standing crop that has been quite good in both seasons and the drop in recovery in 1969-70 particularly had been due to the necessity for continuing crushing in the summer months to achieve a higher output, and handle available supply of cane. With a fast rise in consumption and regular exports, longer crushing season will continue to be a regular feature in the coming years, and it may not be easy to achieve a recovery of above 9 per cent, in Uttar Pradesh and Bihar, where the sucrose content is slightly higher than in Tamil Nadu and Andhra Pradesh but the yield of cane per acre is very much less.

CHANGE NEEDED

It has, therefore, become imperative that there should be a change, in the cane price formula without delay and the best course in my opinion would be to make a suitable adjustment in the minimum price for cane based on a recovery of 8·5 per cent, and provide also for the payment of even higher premiums for increases in sucrose content. Cane prices may be fixed as per the recommendation of the Sen Commission which held that the minimum cane price fixed should be linked to a lower recovery with a suitable premium fixed for higher recovery which will be proportionate to the minimum price. Hence, as suggested by the SISMA it is necessary that the minimum cane price may be fixed at Rs. 73·70 per tonne linked to a recovery of 8·5 percent and below, instead of 9·4 per cent. However, it must be borne in mind that in fixing the premium above 8·5 per cent, recovery, the principle of proportionality should be adhered to and this would mean providing a premium for every increase of 0·1 per cent, of recovery and the proportionate cost, based on the linking of a price of Rs. 73.70, with a recovery of 8·5 per cent, which will work out to:

$$\frac{\text{737 paise}}{\text{85 points}} = \text{8·6 paise per quintal.}$$

If the principle of proportional premium is accepted, then the variations in sugar prices in different zones can be much narrowed down as the cost of raw material, which actually forms about 70 per cent of the cost of production of sugar, would have been equalised so long as the average recovery remains at 8·5 per cent or above. If this procedure was adopted, only three States, Punjab, Pondicherry and Tamil Nadu, out of the 16 producing regions, had a recovery below 8·5 per cent, in 1969-70. The experience of Tamil Nadu in the two seasons 1968-69 and 1969-70 was exceptional due to unfavourable and drought conditions. The average recovery in 1970-71 will actually be much higher and the new formula will operate equitably. The anomalies in regard to variations in costs on account of sugar cane would have been largely eliminated and the problems encountered in the enforcement of uniform prices can be easily tackled.

ADVANTAGE

The advantage arising out of this change in pricing policy will be understood if it is pointed out that the cost of cane in the case of Andhra Pradesh with an average recovery of 9·4 per cent will be Rs. 81·50 per tonne and the cost of cane in one quintal of sugar will be Rs. 86·70 (81·50 x 100/94) In respect of Mysore, with an average recovery of 10 percent, the cost of cane per tonne will be Rs. 86·70 and the cost of cane in one quintal of sugar will again be Rs. 86·70 (86·70 x 100/100). In regard to Maharashtra, with an average recovery of 11 per cent the cost of cane per tonne will be Rs. 95·37 and the cost of cane in one quintal of sugar will be Rs. 86·70 (95·37 x 100/110). Uttar Pradesh for its part will have a price of Rs. 78·03 per tonne and cost of care in one quintal of sugar will again be Rs. 86·70 (78·03 x 100/90).

MARKETING STRATEGY

In the context of decontrol, the revised cane price policy will be found extremely helpful in evolving a new strategy regarding the marketing. It should be the objective to ensure a uniform price through the pooling of freight arrangements. It is necessary that in a planned economy, the prices of essential commodities must be kept uniform all over the country. In fact, even in the U. S. such articles as milk, sugar, orange, egg, bread, etc., are sold at a more or less uniform price throughout the country. It is surprising that in a planned economy like ours, the Central planners run away from their responsibility of providing sugar at the same price all over India. This calls for a new strategy in the marketing of sugar. For this purpose, the country can be divided into appropriate zones with a stress on the fact that Bombay City and Calcutta should be treated as separate zones in such a way as to absorb sugar from all the regions. To ensure a smooth changeover from the long period of control and also partly to preserve the procedural efficiency gained under Central control, the mill owners must set up an organisation of their own to exercise a kind of self-regulating informal control over the distribution of sugar and to maintain a uniform f. o. r. price as approved by the Government from time to time. This organisation may be called the Sugar Allocation and Co-ordinating Organisation (SACO). Sales efforts in rural areas should be done by making sugar available in bags of 102 kilograms. A set of wholesalers and retailers with their areas of operation broadly defined. will have to be created and they must be given a small margin to keep stocks. As many as 600 wholesalers each with an assignment of 5000 tonnes of sugar may be appointed. The wholesale price fixed must take into account a margin for his carryover charges as well as distribution cost. Any extra expenditure on transport, not met in pricing, has to be met out of Central excise collections. If the industry is organised on these lines it will be helpful in eliminating the anomalies that now exist in the cost structure and enable mills to avoid the violent fluctuations in output witnessed in recent years.

Economics Times
2nd July 1971.

As a person of deep foresight Mr. N. Mahalingam asserts: "It may not be surprising if there was a doubling of the per capita consumption of sugar before the end of this decade even with a growth in population by over 2 percent annually"

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Challenging Tasks Ahead of Sugar Mills

There is no proper appreciation in Government and industrial circles of the new importance that the sugar industry has attained in the past three years and of the need for constructive long-term planning if the growing requirements of sugar of a vast population are to be fully met with a rising level of production. The big improvement in consumption of this sweet commodity by over 50 per cent or on an average of 14 per cent annually will be evident from the fact that the intake of the population in 1972–73 is likely to be even 42 lakh tonnes against only 26.89 lakh tonnes four years earlier. As in 1968-69 the output was in excess of consumption by 8.70 lakh tonnes and in 1969-70 an all-time record output of 42.60 lakh tonnes was established-there was an increase in the carry-over into 1970-71 to 20·85 lakh tonnes in spite of a jump in internal consumption to 33 lakh tonnes. There was thus a sense of complacency in official quarters and it was somehow assumed that there would be no problem of production and sugar mills would experience difficulty in marketing fully their output.

This attitude was responsible for the indifference in 1969-70 and 1970-71 to the acute difficulties experienced by the industry in financing huge stocks of sugar and making payments also to cane growers. Somehow the proposal for the creation of buffer stocks was not vigorously pursued and there was even refusal to recognise that at some stages cane tendered at the factory gates was converted into sugar only to be stored in the godowns. In spite of the non-availability of credit for maintaining stocks, sugar producers were accused of delaying payment for cane purchases in Uttar Pradesh and elsewhere. The State Governments instituted proceedings against sugar mills for recovery of overdue payments for cane supply.

DIVERSION OF ACREAGE TO CEREALS

While this policy created hardship for sugar producers especially when they were making losses, the cane growers understandably got frustrated and in the past two seasons, there has been a diversion of acreage under this cash crop to rice or other cereals and in 1970-71 there was a drop in production of sugar to 37·40 lakh tonnes because of inadequate supply of cane. There was, however, a sharp rise in internal consumption and exports to 44·20 lakh tonnes. Stocks at the end of September last year came down to 14·05 lakh tonnes. In the current crushing season internal consumption alone should be around 42 lakh tonnes and even with restricted exports of 1·5 lakh tonnes there will be a total offtake of 43·5 lakh tonnes. As the latest report indicates the output for 1971-72 may not be more than 33to34 lakh tonnes, there may be a further decline in stocks by 10 lakh tonnes to a little over four lakh tonnes at the end of the season.

It will, therefore, be seen that due to the failure of the Government and Reserve Bank to adopt a helpful policy, there has been a sharp setback in production in the face of rise in consumption and the situation could be managed so far without difficulty because of the availability of stocks carried over from the previous seasons. But the prospect of a shortage being experienced in 1972-73 has led to a sharp rise in prices in the open market. Also in view of the informal reintroduction of the policy of partial control and the compulsion to pay prices for cane much higher than the statutory minimum, there is again the earlier phenomenon of fairly high prices for free market sugar as compared to the concessional price charged for distribution of 60 per cent of current production for meeting the bare needs of individual consumers.

The payment of higher cane prices to the cultivators in different parts of the country will certainly be helpful in bringing about an increase in the acreage and it may not be difficult to raise again production to above 40 lakh tonnes. But with the harvesting of bumper food crops in 1971-72, and a higher level of output of cash crops like raw jute, raw cotton and oilseeds, it is quite probable that internal consumption in 1972-73 will be even 45 lakh tonnes and exports at least 2 lakh tonnes.

How are we going to ensure this high level of availability in the next crushing season and plan also for a further improvement in consumption in the coming years taking the total to nearly 60 lakh tonnes by 1975-76? These projections can in no sense be considered unrealistic as even after making the per capita levels of consumption in different States even there will be a big spurt in demand if only the agricultural sector continued to be prosperous and there was also a higher level of production.

The data relating to Statewise consumption of sugar show that the population in Maharashtra and Gujarat is accounting for 15 per cent of the total population, consumed 27 per cent of total offtake from sugar factories while Tamil Nadu with a population. which was 8 per cent of the total, consumed only a proportionate share of total offtake. The same is true of many other States and if there was even an increase in consumption in these areas to the levels of Maharashtra and Gujarat, additionally 15 lakh tonnes of sugar will be required. There has been no doubt a general rise in per capita consumption latterly and the regional disparities are not so pronounced as in earlier years. It will be justifiable in the changed circumstances to proceed on the assumption that there will be an annual growth in consumption of about 10 per cent from the present levels.

The sugar industry has, therefore, a challenging task ahead and it will not be possible to increase production to 50 lakh tonnes without creating additional capacity in a short period if there was no concerted effort to grow large quantities of improved qualities of cane in the factory areas and use the existing capacity for an average season of at least 190 days if not 200 days for all-India. In 1969-70 when there was a record production with the average of 170 working days for all India, only Tamil Nadu had an average of 202 days while sugar mills in Maharashtra worked for 183 days and those in U. P. for only 153 days. Having regard to the fact that many units have implemented expansion schemes in the last two seasons and some new units have also come into being in the co-operative and private sectors it should be possible to achieve an increase in output by nearly 20 per cent over the peak levels with careful attention to the cultivation of cane, taking the total to easily 50 lakh tonnes in 1972-73. There can even be a more pronounced growth in output because many units have not paid attention to the proper use of the facilities due to inadequacy of cane supplies.

I had occasion to make a careful study of the working of the sugar mills in Tamil Nadu and it was found that only some sugar mills have been paying proper attention to the cultivation of cane in their areas and where output could be 4.5 lakh tonnes in 1970-71 the actual production was only 3 lakh tonnes.. There was uneven recovery and the co-operative sugar units particularly worked for shorter seasons and there was wasteful use of capacity. I am drawing attention to this aspect of the problem only to emphasise the fact that there is similar under utilisation of capacity in other States and in period of rising consumption the industry can hope to meet the demand only with an intelligent policy in regard to cane cultivation.

It is only careful attention to the needs of cultivators and a systematic policy of extending acreage under cane, with provision for rotation of crops that the the sugar mills can hope to secure adequate supplies and increase production with a fairly high level of recovery. This approach has yielded good results in the case of Sakthi Sugars which hopes to achieve a much higher level of output of sugar in the current season than in 1970-71 even when there would be a drop in all-India production for the second season in succession by over 12 per cent. The cultivator has to be given the necessary technical advice apart from credit facilities in order that the raising of cane will be suitably rewarding and the sugar mills concerned do not also suffer from low recovery. It has been amply demonstrated by several mills in Tamil Nadu that a recovery of over 9 per cent can be achieved even with a long crushing season if only there was proper planting of cane for enabling crushing operations to be carried out begining from September to middle of May omitting the hot months upto August.

There is also a fallacious notion that simply because the formula for fixing the minimum price of cane stipulates payment on the basis of a recovery of 9.4 per cent and below, Tamil Nadu sugar mills are high cost producers. This is far from the truth as the yield of sucrose per acre is over 2½ times that of Uttar Pradesh and sugar mills are handicapped doubly because of the compulsion to have a longer crushing season for overcoming the effect of low recoveries, and a higher effective cost of cane due to a wrong policy pursued for the fixation of minimum prices. This peculiar hardship needs to be rectified because the growth in production of sugar by 2 million tonnes in the next five years has to take place mainly in Maharashtra, Andhra Pradesh, Mysore and Tamil Nadu. Because of the compulsion to carry out modernisation programmes and increase also the capacity of individual units, to make them more viable, Uttar Pradesh can hope to make a good contribution to the increase in production only over a period. As it also requires some time for new units to be promoted in large numbers the immediate problems can be got over only with intensive use of existing facilities and expeditious completion of expansion schemes. Tamil Nadu sugar mills as stated earlier, are in a position to increase their output by 50 per cent with greater attention to cane cultivation while they can even double the output in two or three years with expansion of capacity to 2,000 or 2,500 tonnes per day in all cases where cane supplies could be ensured and to even 4,000 tonnes per day where particular mills have been successful in extending acreage and ensuring a fairly high level of recovery.

The importance of maintaining production of sugar at high levels in the coming years cannot be over-emphasised and any failure to ensure availability of at least 50 lakh tonnes in the next season may result in an explosive situation. The sugar industry will also have to build up its marketing facilities as with pressure for securing supplies in the open market, when there is even a marginal shortage, there is likely to be an exaggerated rise in prices. Unless special distribution agencies were formed and the sugar mills also had contact with traders at particular levels in specified regions, the common man cannot hope to secure his requirements at reasonable prices. The adoption of new packaging techniques will also eliminate waste and pilferage.

The Central and State Governments should, therefore, realise the new importance of the sugar industry and adopt a policy which will foster the growth of sugar mills both in private and co-operative sector on a defined basis. There is not only to be a continuing increase in the capacity of the industry but also a systematic extension of acreage under this crop in factory areas for overcoming deficiencies in availability of cane and there should at the same time be intensive cultivation with a view to achieving a proper balance between the weight of the crop and its sucrose content so that the sucrose content is maximised and the cane grower also is benefited by a larger weight of cane. The new challenges must be successfully met as the country is on the threshold of an era which may witness an unprecedented increase in the demand for essential articles of consumption. It may not be surprising if there was a doubling of the per capita consumption of sugar before the end of this decade even with a growth in population by over 2 per cent annually.

The Hindu Survey of Indian Industry, 1971.

The need to "realise fully the importance of suitably restructuring the rates of excise duties on sugar for bringing about the most optimum use of capacity of the industry and ensuring a continuing rise in output for meeting the growing demand", has been brought out with a scholarship which is unique.

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Long Term Policy for Sugar Essential

The new policy of the Union Government for the next crushing season has more than usual significance as it has to serve the objective of boosting substantially sugar production for avoiding sugar scarcity by the middle of next year.

In the past decade fitful policies have been pursued and the officials of the Union Ministry of Agriculture are yet to realise fully the importance of suitably restructuring the rates of excise duties on sugar for bringing about the most optimum use of the capacity ot the industry and ensuring a continuing rise in output for meeting the growing demand.

It has always happened in the best years of production of this industry that record outputs have been achieved only with fairly long crushing seasons.

In Uttar Pradesh and Bihar which are prominent sugar producing States, the duration has fluctuated widely; and in some other areas also no serious efforts have been made to prolong the crushing season by bringing a larger area under cane in the factory areas and using intensively installed capacity. The new policy should be such as to eliminate completely the disappointing experiences in earlier years at particular stages.

In the current season sugar mills in Uttar Pradesh and Bihar may have worked for only 100—110 days against the record of 187 days in 1969-70 and it is not surprising that the output will be only a little more than 50 percent of the record achieved in 1969-70.

On the other hand, in Maharashtra and Tamil Nadu, thanks to greater attention to the cultivation of cane in factory areas, the average duration is much longer, though, even here, some units have been successful in continuing operations for long periods through planned cane cultivation and improvement in quality.

In view of the need to avoid wide fluctuations in output and prevent ineffective use of crushing capacity the graded rebates in excise duty should be granted on the basis of the number of days worked in a particular season.

This system will provide adequate compensation for losses in recovery of sugar due to early and late crushing and also improve the competitive ability of mills to acquire cane supplies and prevent diversion to gur and khandasari producers.

Under this formula, the full excise duty should be payable only in respect of the output involved in the first 120 days.

EXCISE DUTY

Thereafter, there should be a rebate of 25 per cent in additional production achieved during 150—200 days, a higher rebate of 45 per cent for that portion of the output secured during 200—250 days and a handsome rebate of 60 per cent where a mill succeeds in working beyond 250 days and secures additional production.

It may even be considered whether the initial slab may be lowered to 130 days as in some areas except in the best years the average of the crushing season has been less than this total.

It will also be necessary to go back to the system of specific duties per quintal of sugar as the present *"ad valorem"* duties operate anomalously, differential excise duties having to be paid in respect of even levy sugar because of wide disparities in their prices between regions.

One feels that the rebates in excise duties on the basis of the number of days worked will be helpful in bringing about a substantial increase in production as an analysis of the data for 1960-61, 1965-66 and 1969-70, which were the best years in the past decade, shows that a higher level of production can be obtained only with a fairly long crushing season.

If this was the experience in respect of earlier years when there was ample capacity, there is greater justification for adopting the procedure suggested here because in the existing situation a big rise in output can be ensured only if the all-India average is nearer 200 days than the previous peak of 170 days touched in 1969-70.

It may also be examined whether an overall rebate in the excise duty can be given where the output in subsequent season is in excess of that for the previous season — a scheme somewhat on the lines of the tax credit scheme in respect of excess production which was in vogue until recently.

While evolving a national sugar policy on a long-term basis, it is essential to take a decision on the cane pricing policy as the cost of raw material in the manufacture of sugar is nearly 60 to 65 per cent....

Unless the raw material cost is made uniform throughout the country, it will not be possible to evolve a rational policy.

It has, therefore, become imperative that there should be a change in the cane price formula without delay and the best course would be to make a suitable adjustment in the minimum pirce for cane based on a recovery of 8.5 per cent and provide also for the payment of even higher premiums for increase in sucrose content.

It is necessary that the minimum cane price may be fixed at Rs. 85 per tonne linked to a recovery of 8·5 per cent and below.

However, it must be borne in mind that in fixing the premium for higher recovery the principle of proportionality should be adhered to and this would mean providing a premium of one rupee for every increase of 0·1 per cent in recovery.

The anomalies in regard to variations in costs on account of cane will be largely eliminated and the problems encountered in the enforcement of uniform prices can be easily tackled.

The details given in the accompanying table indicate that the inequality now inherent in the existing formula can be made to disappear.

PREMIUM

A higher premium will have to be paid for higher sucrose content and sugar mills having a recovery between

9 and 10 per cent will not have any disadvantage in respect of Maharashtra and Mysore which have a higher percentage of recovery.

The advantage arising out of this change in pricing policy will be understood if it is pointed out that the cost of cane in the case of Andhra Pradesh with an average recovery of 9·4 per cent will be Rs. 94 per tonne and the cost of cane in one quintal of sugar will be Rs. 100.

In respect of Mysore, with an average recovery of 10 per cent, the cost of cane per tonne will be Rs. 100 and the cost of cane in one quintal of sugar will again be Rs. 100 $\frac{(100 \times 100).}{100}$

In regard to Maharashtra, with an average recovery of 11 per cent the cane per tonne will be Rs. 110·00 and the cost of cane in one quintal of sugar will be 100 $\frac{(110 \times 100).}{110}$

Uttar Pradesh for its part will have a price of Rs. 90 per tonne and cost of cane in one quintal of sugar will again be Rs. 100 $\frac{(90 \times 100)}{90}$.

INCIDENCE OF CANE PRICE IN COST OF SUGAR

(Rs.)

Cane price of Rs. 8·50 quintal for a recovery of 8·5 per cent and lower and a premium of one rupee for every 0·1 per cent increase in recovery over 8·5 per cent.

Recovery per cent	Price of cane per tonne	Cost of cane per quintal	Cost of cane per quintal of sugar
8·5	85	8·50	100
8·7	87	8·70	100
9·0	90	9·00	100
9·4	94	9·40	100
9·8	98	9·80	100
10·0	100	10·00	100
10·5	105	10·50	100
11·0	110	11·00	100
12·0	120	12·00	100
12·5	125	12·50	100

It will also be necessary to help the cultivation of cane throughout the year in areas best suited for this purpose.

It has been amply demonstrated by the efforts made by many sugar mills in Tamil Nadu and Mysore that crushing operations can extent to 300 days and more if only there could be proper planting of cane and with intelligent water management the cultivator was assured of water for 10 months in a year.

This system has worked successfully in some parts of Mysore State, while the Tamil Nadu Government has been requested to adopt this procedure in areas where there are assured irrigation facilities and it has also been found that the same quantity of water needed for six months can be made to go a longer way for even 10 months to sustain cane cultivation.

Availability of an adeduate supply of water at least for 10 months in a year, if not for the whole year, is an important factor.

This is possible only through the adoption of a regulated system of distribution of water. Proper storage at different areas away from headworks and economised distribution will go a long way to solve the problem.

Also, it may be necessary to convene a meeting of the Chief Engineers of different States to adopt suitable measure for achieving a steady but regulated supply of water for over 10 months in a year. Besides it will also be necessary to avoid waste of water during the period of plentiful supply.

These measures will be helpful in raising output from the present level of about 31·50 lakh tonnes to nearly 45 lakh tonnes in 1972-73 beating the previous record of 1969-70.

What is more important is the continuance of the upward trend in production in coming years as it has been tentatively estimated that the needs of the home market and export will be around 52 lakh tonnes even in 1973-74 and the target for the Fifth plan will have to be much higher than 60 lakh tonnes, possibly at 65 lakh tonnes.

There will thus be need for continuous expansion of the capacity of the industry and a conscious effort to prolong the duration of the crushing season all over the country.

If Tamil Nadu can have a proud record in this respect there is no reason why similar success cannot be achieved by other regions and the industry meets effectively the challenge now facing it and make a significant contribution for bringing about a substantial increase in the per capita consumption of sugar.

This will also greatly help the Central and State Governments as they will realise huge amounts by way of excise duty and purchase taxes.

The Financial Express,
14th August, 1972.

"A long-term policy, has, therefore, to be evolved for encouraging the growth of paper mills, board mills and news print which can, without any mental reservation, use bagasse as raw material", said Mr. N. Mahalingam an authority on Sugar Industry.

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Paper Board from Bagasse

INTRODUCTION

The versatile character of the sugar industry has not been fully realised yet though the possibilities were evident a long time back. For quite some years, the main pre-occupation was only with the manufacture of refined sugar and adequate attention was not paid even to the utilisation of molasses, which is now considered to have golden value. With a fast growth of alcohol-based industries, it can be expected that, within in a short period, there will be effective utilisation of available quantities of molasses and increasing supplies, with a rising output, will come in handy. But it is not recognised at the same time that equal attention should be paid to the utilisation of bagasse, which is the fibre content of cane. Large quantities of bagasse, are now being used as fuel for being burnt in the furnaces which are considered economic from the point of view of sugar mills, as for one thing, it solves without difficulty the disposal of large quantities of bulky material. Again, the use of bagasse as fuel is considered a good method of recovering good value out of a product which would otherwise go to waste.

PAPER FROM BAGASSE

The stage has, however, been reached where it is necessary to give greater attention to the use of this important raw material which is being regenerated in large quantities every year. Some years back it was thought that bagasse was not a suitable base for manufacturing pulp and that its qualities were not good enough for producing paper and boards. But technology has advanced fast in the past decade and it is now acknowledged that bagasse can be used for manufacturing pulp suitable for high-grade paper and boards. It has indeed been claimed latterly that good quality newsprint can be made out of bagasse-pulp with an admixture of chemical-pulp for, say, 10 to 15 percent. But no impressive progress has been recorded so far on account of the unimaginative policy of the Government. The subsidy granted by the Central Exchequer in the shape of a rebate in excise duty for paper made out of bagasse is not adequate and in view of the higher cost involved in the manufacture of bagasse pulp, there has been no anxiety on the part of paper mills to use this raw material in appreciable quantities.

I do not see, however, how the Government can avoid facing an important problem in its proper perspective with the paper industry having to make much larger quantities of paper and boards in the coming years with a rising percentage of literacy and a higher level of economic activity. It cannot be expected that the required quantities of bamboo would be available or forests destroyed wholesale for securing the required quantities of soft and hard woods. It is necessary to remember in this context that there will be increasing competition for these types of raw materials from the manufacturers of staple fibre, viscose yarn, polynosic fibre and other cellulosic fibre.

The rayon-grade pulp plant in Kerala is already finding it difficult to obtain the required quantities of raw materials and the schemes for planting soft woods can yield results only over a period. It has, therefore, been found even advisable to defer implementation of expansion schemes for some time. There is a proposal for starting a rayon grade pulp plant in Mysore, based on bamboo and soft woods, while in Madras an existing rayon staple fibre plant is implementing a scheme for manufacturing pulp based on soft woods from the Nilgiris. If it can get hold of bamboo supplies it will be only too anxious to use them.

I am only referring to these projects to show that as the years pass by there will be an increasing shortage of conventional raw materials and there would be compulsion to use bagasse, linseed-straw, jute sticks and other "*rejects*" as raw materials. There will be difficulty in using linseed-straw, jute sticks and other raw materials mainly for manufacturing paper or boards because of the high cost involved in their processing and also dispersed availability. The quantities required will not be adequate to feed large units. In respect of bagasse, however, the sugar industry is already crushing 30 to 35 million tonnes of cane which would yield wet bagasse of 4 to 4·5 million tonnes and bone-dry bagasse of 1·2 to 1.5 million tonnes. (In 1965-66 a record quantity of 30 million tonnes of cane was crushed). This quantity of bagasse can be expected to be available regularly every year as hence-forth the violent fluctuations in output of sugar, witnessed recently may not recur again. Indeed, with the increasing demand for sugar and the growing capacity of the industry it will not be long before the quantity of cane crushed will be 50 or 60 million tonnes, making possible the availability of bone-dry bagasse to the extent of 2 to 2.5 million tonnes annually. What is more important is the easy regeneration of this raw material which does not call for any special effort. Assuming that about 2½ tonnes of bone-dry bagasse is required for making one tonne of paper the quantity of finished products by using this raw material can be easily 5 lakh tonnes, if not more. Even allowing for the fact that it will not be economic to transport bagasse over long distances from sugar mills, which are located in remote areas, it would be possible to produce 3 to 4 lakh tonnes of paper and boards annually with the present availability and after 5 years, 7 to 8 lakh tonnes.

The paper industry will have to increase its output to over 9 lakh tonnes from the present level of around 6 lakh tonnes annually by 1974-75 and it is worried about its inability to use bagasse for making pulp because of the unimaginative policy of the Central Government. It will also be necessary to manufacture 3 lakh tonnes of newsprint or inferior grade paper for which also there will be a problem of securing raw materials. It will, therefore, be seen that the industry will be in a position to step up its output by 50 per cent immediately and even double it in the next five years without bothering about the availability of raw materials.

ALTERNATIVE SUPPLIES OF FUEL

The main trouble arises out of the fact that sugar mills are not prepared to sell bagasse at a stipulated price as they want to be assured of alternative supplies of fuel without increasing their costs. It has, therefore, been stipulated that bagasse should be exchanged for furance oil and there is an agreement between a sugar mill at Madras State and another paper mill that about 2½ tonnes of bone dry bagasse should be exchanged for 1 tonne of furance oil. As the sugar mill was not sure about continued supplies of furnace oil against the regular offtake of bagasse it was suggested to the paper mill that separate boilers should be erected for using furance oil at the latter's cost and the existing boilers which were fixed with bagasse should be kept in use. At the time when the agreement was concluded, a decade back, the exchange of furnace oil for bagasse was not considered unprofitable by the paper mill. But with a steep increase in the excise duty on furnace oil, bagasse has become costly as a raw material and it is not being used in such large quantities as it was expected at one stage. With the rising cost of bamboo and scarcity of this type of raw material, it may become compulsory at some stage to use bagasse. But owing to the lower yield of pulp out of the digesters for the same machine hours and the necessity for using larger quantities of chemicals for processing purposes bagasse can continue to be used only if it was economical. The difficulties experienced by a paper mill in Mysore which used bagasse pulp to a great extent in the manufacture of its products are too well known to be recounted here. I can only say that it will pay the Government rich dividends if it agreed to grant full rebate in respect of excise duty on furnace oil where bagasse was used for the manufacture of pulp by the paper industry. It may also be agreed that a higher development rebate will be granted to the paper mills where the digesters were used for processing bagasse.

It has been estimated that where a continuous digester is capable of producing 60 tonnes of pulp daily by using bamboo, it will be possible to produce only 55 tonnes daily if bagasse was used instead. This would incidentally mean that overhead charges go up by more than 8 per cent, apart from the fact that there will be a large consumption of chemicals in processing. That is the reason why I suggested there should be a complete rebate in excise duty in respect of furnace oil and a higher development rebate for digesters. The suggestion to use furnace oil extensively, it can be argued, would lead to heavy expenditure in foreign exchange. But there is now a surplus of furnace oil which has to be exported and which may not fetch large sums in foreign exchange. Besides, the foregin exchange content of crude oil involved in importing crude by using surplus furnace oil internally will not be net additional expenditure if it is remembered that in the absence of a suitable increase in the output of paper and boards, much larger amounts will have to be spent in importing paper and boards. There is, besides, the prospect of our imports of crude oil being reduced or eliminated with an increase in indigenous production. In any case, an overall view must be taken when arriving at important policy decisions. It will, of course, have to be examined how the foreign exchange element could be minimised by encouraging the use of coal in the place of bagasse. There will be no problem of using coal in Bihar and Uttar Pradesh at the sugar mills. Indeed, it will be desirable as the required quantities of coal can be easily moved from the nearest point in the Bihar coal belt. What is needed is an active subsidy scheme much more realistically administered than is now being done in the case of the cement industry. Coal from Madhya pradesh can be sent to Maharashtra if considered possible. Even a big subsidy will not cost the exchequer heavily as the quantity of coal consumed will not be very heavy. Where railway transport bottle-necks exist and it is also felt that the distances involved will make for uneconomic utilisation of rail transport facilities, the use of furnace oil, as alternative fuel, can be advocated. Even here, it may be considered whether a fleet of collieries can be employed on the coastal routes for calling at Vizakhapatnam, Madras and Tuticorin. The possibility of moving coal from the Singareni Collieries to serve the needs of sugar mills in the southern region may be explored. In any case, what is needed is an integrated approach to the whole problem. A satisfactory solution can be found for enabling the use of coal and furnace oil in place of bagasse without costing the exchequer heavily in terms of loss of revenue or the country in the form of fresh outlays in foreign exchange.

IMMENSE POSSIBILITIES IN MADRAS STATE

Coming now to the possibilities of manufacturing paper and boards in Madras State, it is fascinating to know that there are immense possibilities. It is unnecessary for me to draw your attention to the fact that the State is not richly endowed with forest resources and only limited quantities of bamboo are available. If the manutacture of paper boards and newsprint is to be undertaken on a large scale, bagasse will have to be utilised for producing pulp. In the current crushing season, the existing 14 sugar mills in the State can hope to handle a quantity of 3 million tonnes of cane which would yield 1.2 lakh tonnes of bone-dry bagasse. on the basis of 2½ tonnes of bagasse for manufacturing a tonne of paper, it will be seen that 48,000 tonnes of finished products can be easily produced. With the expanding capacity of the sugar industry and the likelihood of more units being established in the private and co-operative sectors, it can be easily expected that 2·5 lakh tonnes of bone-dry bagasse will be available enabling the manufacture of nearly a lakh of tonnes of paper and boards. The only large-sized paper mill using mainly conventional raw materials is having an output of 20,000 tonnes annually and this is proposed to be increased to 30,000 tonnes after the implementation of the expansion schemes for undertaking the manufacture of boards. It is now contemplating to use only about 13,000 tonnes of bagasse pulp because of cost limitations. It will, there fore, be appreciated that there is scope for establishing two or three large-sized paper mills which will also be capable of producing boards or units for manufacturing boards alone. What is needed is an intelligent subsidy scheme. As the cost of a paper mill with a capacity of 100 tonnes daily is around Rs. 15 crores, there will have to be an investment of about Rs. 50 crores in three units.

BOARDS AND KRAFT-LINERS

It wil be more remunerative, however, to manufacture boards and kraft liners as there are not at present many units in this country and there is a large unsatisfied demand. The advantage of manufacturing boards and kraft liners lies in the fact that the machines can account for a larger output, nearly double the weight they could produce as paper. It has been roughly estimated that a paper machine capable of producing 30 tonnes of paper can handle 60 tonnes of boards and kraft liners. This would mean that the overhead charges in the case of a board mill, so far as machines are concerned, would be halved. What is more, the selling prices for boards and kraft liners are very remunerative and it is not expected that supply will exceed demand for quite sometime even if several board units come into being in the next few years. It has also been pointed out that the yield of pulp can be increased with the same capacity of digesters if semi-chemical pulp was manufactured. What is, therefore, needed is a helpful policy on the part of the Central and State Government. The requisite facilities from the State Government for starting new units for manufacturing boards and kraft liners, in the first instance should be made available by granting the concessions as is now being done by the Uttar Pradesh Government and others. It should also be worthwhile to undertake the manufacture of writing and printing paper.

NEWSPRINT MANUFACTURE

I would even go so far as to suggest that bagasse should be used for manufacturing newsprint which will be needed in large quantities in the coming years. The efforts to start bagasse-based newsprint units have been a failure on account of the high cost of pulp. The technical snags have been got over and the feasibility of bagasse-based newsprint has been fully established. But no entrepreneur has had the courage so far to start a newsprint mill because of its poor profitability.

I will be disclosing no secret if I tell you that three years back there was an ambitious plan to start a newsprint mill, based on bagasse available in South Arcot district. Even though the required foreign exchange was available from U.S. sources for importing plant and machinery and there was also no difficulty in securing rupee funds, the promoters, however, were not prepared to proceed with the project because it was feared that, in the absence of special facilities from the Central and State Governments, it would not be possible to manufacture newsprint on a competitive basis. A long-term policy, has therefore, to be evolved for encouraging the growth of paper mills, board mills and newsprint units which can, without any mental reservation, use bagasse as raw material. I earnestly hope that the Central Budget for 1969-70 will contain proposals of a constructive character as it is now realised that in spite of decontrol over prices of white and printing paper, there is no real anxiety to start new units or implement expansion schemes in a big way because of the poor profitability of paper making. This is due to a heavy excise duty on the end products, a multiplicity of taxes on raw materials and intermediary products, costly power, etc. As Madras State is ideally suited for producing paper, boards and newsprint, based on bagasse, and it will afford the Government an opportunity to develop agro-based industries on ambitious lines, it should impress on the Central Government the need for providing the necessary incentives. The sugar industry would then have been truly a Kamadhenu.

Seminar on Utilisation of Agricultural Wastes,
Discussion Papers.
Tiruchirapalli,
9th March, 1969.

" The State Governments will urge on the centre the necessity for revising its policies towards the alcohol industry", held Mr. Mahalingam while giving his views on the "Multiplicity of uses for Molasses ".

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Multiplicity of uses for Molasses

INCREASED OUTPUT OF SUGAR

The sugar industry has grown phenomenally in the past decade and no one could have anticipated in the early 'fifties that this vital agro-based industry would be capable of more than trebling its production in one and a half decades. If in the 1966-67 and 1967-68 seasons, there was a serious setback and the output declined by nearly 40 per cent from the peak level touched in 1965-66, it was due to an acute shortage of cane with a reduction in the area under cultivation and the prevalence of drought conditions in several parts of the country. There was also keen competition for available cane supplies from gur and khandasari producers. Thanks to the policy of partial decontrol and the adoption of new techniques of cultivation, the output of cane in 1968-69 is expected to constitute a new record, probably at 130 million tonnes of cane and the three Southern States of Madras, Mysore and Andhra Pradesh, which are important producers of sugar, may account for 25 per cent of the output of cane. In 1967-68, the share of cane production of these three States was 22 per cent of the all-India total with the sugar output also working out to the same ratio. The growth in importance of the industry in this region will be evident from the fact that in 1960-61 sugar cane production was only 17 per cent of the all-India output of sugar. In the current season, the output of sugar may well be a record for all time, Madras alone being expected to crush 40 lakh tonnes against the previous peak of 26.43 lakh tonnes touched in 1965-66 and produce 3.5 lakh tonnes of sugar against 2.23 lakh tonnes. As the sugar mills in Andhra Pradesh and Mysore too will be handling larger quantities of cane they may produce 3 lakh tonnes and 2.5 lakh tonnes of sugar respectively, taking the total for the whole region to 9 lakh tonnes out of an estimated production for all India of 30 lakh tonnes. This will clearly indicate the possibility of the share of the three States increasing to 30 per cent. But while impressive progress has already been recorded, I have a feeling that the sugar industry has a very important task before it in the coming years. It may even happen that the output of sugar will ultimately be over 50 lakh tonnes in the next five years which would give Madras State a share of 6 lakh tonnes of sugar on a modest estimate. This output is by no means impossible of achievement as the crushing capacity of all the existing 14 units will be over 25,000 tonnes shortly and with the efforts made to raise the yield and sucrose content per acre there is the definite prospect of Madras State improving its share in total production in spite of an increase in all-India production.

ALLIED INDUSTRIES

As Tamil Nadu has not much scope fcr implementing new irrigation and hydel projects and the best use will have to be made of available land resources, there can be an increase in employment and the per-capita income only if the scope that exists now in some d rections is ful y exploited. We are here concerned only with the outlook for the sugar industry and allied industries.

I have so far made an attempt to peep into the feature of the sugar industry in the State only to give you some idea of what exactly are the possibilities before us. With the prospect of sugar production of 3.5 lakh tonnes in the not distant future, it has, therefore, to be examined how allied industries can be established either on an integrated basis or separately. If the by-products are effectively used the cost of sugar production can be brought down or the profitability of the industry improved. Molasses and bagasse are the two main by-products though wax and other products can be produced after suitable processing. I am examining in this paper only the scope for utilising molasses in a remunerative manner.

REMUNERATIVE UTILISATION OF MOLASSES

It is only now realised that what was considered almost a "*waste*" product in the early 'fifties' and gave trouble for many factories in regard to its disposal, is now greatly in demand. The alcohol industry has grown so much in importance that a critical situation arose in 1966-68 when there was a slump in sugar production with a shortage of cane and keen competition from gur and khandasari producers. It is superfluous to point out that the output of molasses is directly related to the output of sugar, the average recovery of molasses being about 4 per cent of the total quantity of cane crushed while the recovery of sugar is about 9.5 per cent for the whole country. Industrial alcohol is now being used on a large scale for the manufacture of synthetic rubber, polystrene, polythene, polyvinyl chloride, cellulose acetate flakes, citric acid, yeast, cattle feed and so on. Since there is an unsatisfied demand for industrial alcohol, an acute shortage in the last two seasons with a low output of molasses, created serious problems and the Central Government was obliged to issue liberal licences for importing alcohol at heavy cost. The economics of working of many plants was seriously upset as the cost of production of polythene, synthetic rubber and other products was heavily inflated because of the high cost of imported alcohol. The position in regard to the availability of alcohol is expected to improve considerably in the current season and one can only hope that there will be no repetition in future of the happenings of 1966-68.

In Tamil Nadu, no attempt was made for a long time to utilise available molasses effectively. There was only one medium-sized distillery at Nellikuppam with a capacity of one million gallons annually. The quantity of molasses required for running this distillery was not more than 25,000 tonnes though even in the sixties the availability of molasses was about 50,000 tonnes. It is only recently that another distillery came on the scene with a capacity of 3 million gallons annually. In the current season, the output of molasses can be expected to be easily 1,60,000 tonnes. Even assuming that the large distillery at Tiruchy will need 70,000 tonnes annually, there is a regional *'surplus'* of 65,000 tonnes which is capable of sustaining another distillery with a capacity of 3 million gallons.

BETTER PRICING POLICY

Since there is an acute shortage of alcohol and it is desirable from the national angle to maximise the output of this product in order to meet the demands of the alcohol-based industries and relieve pressure in naptha, which is expected to be in short supply after some time, the Central and State Governments should provide the maximum encouragement for the promotion of this industry which has now become basically important. For some reason or other, the Central Government is not able to change its policy regarding the pricing of alcohol which is the main factor standing in the way of faster development of this industry. As matters stand it is not quite remunerative to establish a distillery independently as the collection of mollasses is presenting a problem and the necessity to sell at controlled prices, which are not remunerative, is also discouraging entrepreneurs. After the happenings of the last two seasons, there is no reason why the Government cannot agree to the fixation of prices for alcohol at levels which will encourage the establishment of new distilleries for selling alcohol to outside parties. This is necessary as not all the sugar mills and distilleries can think in terms of implementing projects on an integrated basis. It may be possible to emulate to some extent the example of Mysore Sugar Mills in Mysore State where an effort has been made to produce alcohol and acetic acid and then sell these products to a sister company for manufacturing acetate chemicals. A large-sized plant of this kind has only been recently commissioned and the chemicals are very useful for the photo film plant in Ootacamund in Nilgiris. Such co-ordinated activity should be welcomed though it would be wrong to expect that it can be common. It is not, therefore, unreasonable to presume that the State Governments will urge on the Centre the necessity for revising its policies towards the alcohol industry.

ALCOHOL-BASED INDUSTRIES IN MADRAS

The possibilities for development of alcohol-based industries in Madras State are immense. Already, a unit is functioning at Mettur for producing polyvinyl chloride. This unit will shortly raise its output to 13,000 tonnes. There is also a programme for expanding the output to 20,000 tonnes. The quantities of alcohol required by this plant can be easily met if a new distillery was established not far off from Mettur. There are a number of factories in the Salem and North Arcot districts. Apart from the likelihood of the existing units increasing their capacity, more units also may come into being. In view of the need for using fully available quantities of molasses and ensuring a proper allocation to distilleries in need, the movement of this product should be intelligently rationalised. Reasonable prices should also be paid to the sugar units for their supplies of molasses as internal prices payable by nominated buyers have been fixed at ridiculously low levels while export prices are remaining at high levels.

BREWERIES

I have stated above that even with the present availability of molasses there is room for establishing a big-sized distillery. It will be readily accepted that when sugar output increased to 6 lakh tonnes in the early seventies, the output of molasses also will increase to 2.6 lakh tonnes which would afford scope for establishing two more distilleries. But the objective should be to erect processing units for polythene, photographic chemicals, acid or other alcohol based chemicals. In a State, which is practising a policy of total prohibition and the use of liquor is allowed on the basis of permits after medical recommendation, a suggestion that breweries should be established for producing potable alcohol, rum, gin and other products based on molasses may not be well received. But breweries exist in Mysore and Kerala State and are making huge profit. There are no breweries in Tamil Nadu at present. These can be started with no large outlay for manufacturing different kinds of liquor. There will be no problem of selling, as besides meeting the requirements of permit holders, tourists and Armed Services, large quantities can be exported for earning foreign exchange. The few breweries functioning in the country are flourishing and the investment will be remunerative. The investment will not be large and the required financial resources can be easily mobilised.

OUTLAY AND EMPLOYMENT EFFECT

It will be no exaggeration to say that the fresh investment required for this purpose will be easily Rs. 20 crores

TREND OF PRODUCTION OF SUGAR AND MOLASSES IN 1952-1968. (In Tonnes)

Year	Region	Quantity of Cane crushed	Sugar output	Molasses Production
1951-52	All India	1,54,94,892	14,83,140	6,06,699
	Madras	11,44,783	99,026	52,292
	Mysore	3,19,618	37,155	12,056
1955-56	All India	1,89,36,918	18,61,837	7,38,282
	Madras	6,08,082	53,879	27,575
	Mysore	5,65,577	57,458	22,777
	Andhra	14,56,319	1,37,910	63,416
1960-61	All India	3,06,19,065	29,80,689	12,20,452
	Madras	14,35,636	1,29,394	64,644
	Mysore	11,67,708	1;18,333	48,447
	Andhra	19,02,057	1,79,848	87,072
1964-65	All India	3,34,59,500	32,31,786	13,38,585
	Madras	23,59,900	2,10,044	1,11,212
	Mysore	17,75,300	1,80,305	71,012
	Andhra	32,98,200	3,05,585	1,44,361
1965-66	All India	3,64,03,900	35,32,359	15,19,415
	Madras	26,42,900	2,23,580	1,26,889
	Mysore	14,93,500	1,53,677	60,599
	Andhra	31,88,900	2,98,548	1,39,790
1966-67	All India	2,16,49,100	21,58,947	8,45,887
	Madras	19,42,900	1,72,835	85,702
	Mysore	7,98,000	88,100	30,100
	Andhra	16,60,100	1,45,455	69,245
1967-68	All India	2,30,70,000	22,27,000	9,02,000
	Madras	19,30,000	1,73,000	85,000
	Mysore	10,10,000	1,14,000	38,000
	Andhra	20,30,000	1,89,000	84,600

for the processing units alone while the sugar industry for its part will need freshly an outlay of Rs. 30 crores. With sugar mills, distilleries, breweries, chemical units and compounding units, an investment of Rs. 75 crores will be required. This outlay in its turn will yield an output having a value of Rs. 125 to Rs. 150 crores. Direct and indirect employment can be provided for large numbers. It will obviously be necessary to work out detailed estimates and project reports so that precise ideas can be formed about the feasibility and the remunerativeness of new industrial units. But I am sure that, with the development of new techniques and an increase in the efficiency of operations, the possibilities indicated by me in this paper can be fully realised. I would go even so far as to suggest that the State Government and Industrial organisations would be well advised to prepare detailed project reports for various industrial ventures, based on industrial alcohol, so that intending entrepreneurs will not be obliged to spend valuable time on laborious preliminary work. There will, of course, be need for revising these project reports in the light of technical collaboration arrangements and developing situations. But the consequential changes can be easily made. What is necessary is a correct realisation of what can be achieved and it is fascinating to know that the sugar industry alone is capable of providing a multiplier effect which can prove to be greatly advantageous for our regional economy which has to make a hard search for opportunities for developing in new directions in the agro-industrial field.

Seminar on Utilisation of Agricultural Wastes,
Discussion Papers,
Tiruchirapalli,
9th March 1969.

PART II

COMPANY SPEECHES

A few golden thoughts of Chairman Mahalingam on the Sen Commission Report on Sugar.

1

Problems of the Industry

The production of sugar in India in recent years has shown remarkable progress. It has risen rapidly from 18.92 lakh metric tonnes in 1956-57 to about 30.28 lakh metric tonnes in 1960-61 and after a setback in output in the next three years, the 1964-65 season witnessed a reversal of this trend. With less keen competition from Gur and Khandasari producers and a recovery in output in U.P. and Bihar, which have been experiencing violent fluctuations in output over a period, an all-time record production of 32.60 lakh tonnes was achieved in the 1964-65 season. The contribution of Madras State to this record achievement was 2.08 lakh tonnes. What is more important is the fact that there has been a doubling of output in three years just when there was a slowdown trend in output for the whole country. The three Southern State of Madras, Mysore and Andhra Pradesh as well as Maharashtra have been increasing their share of the total output and this is bound to ensure greater stability of performance of the industry in the years to come if further active development can take place in the private and co-operative sectors in the tropical region which is ideally suited for growing cane.

It is expected that the production in Madras State will touch 5.9 lakh tonnes in 1970-71 and to achieve this production target six units will be established in the Co-operative and Public sectors during the next plan period. The crushing capacity is expected to be increased from 12,850 tonnes of cane per day to about 23,000 tonnes of cane per day.

ACCUMULATION OF STOCK

The policy relating to releases of stocks every month, pursued by the Government, has resulted in an accumulation of stocks with the factories, causing considerable financial strain to them. With the carry-over stock of about 2 lakh tonnes from the 1963-64 season, the total supply in the country in 1964-65 was about 34 lakh tonnes. The carry-over with 1965-66 will be at least three times the figure of the previous year and this would imply a heavy burden on the factories. The position in this regard is expected to worsen as it is expected that the output in the current season will constitute another record and the increase in stocks will continue uninterrupted, unless a liberalised policy of distribution is adopted in the meantime. The Government should give 30% free sales to factories so that the stocks may come down or the Food Corporation should be empowered to take over the stocks of factories so that the industry may not be burdened with *"carry-over-stock"* for a long time.

SULPHUR SHORTAGE

Another problem of the industry is on the raw material side and this is the problem of sulphur shortage. The tight foreign exchange situation necessitated the imposition of severe restrictions on the import as well as on the consumption of sulphur. It has been estimated that sulphur requirement of the industry will be of the order of 21,000 tonnes annually. But the industry has been allotted only 8,000 tonnes for the year 1965-66. The resulting situation was the rapid rise in the open market price of sulphur far above the control price of Rs. 300/- per tonne. On this point I wish to suggest that the adoption of single sulphitation as a uniform process all over the country will reduce the demand for sulphur from sugar factories. Otherwise, suitable measures will have to be taken by the Union Government to assure the factories of an adequate quantity of sulphur.

THE SEN COMMISSION

A slight digression on the salient points of the recommendations of the Sugar Enquiry Commission, presided over by Dr. S.R. Sen, will not be out of place here, as I feel that the future Sugar Policy of the Government of India is likely to be influenced by its report.

According to the Commission, the installed capacity of the industry in 1965-66 could be placed at 32.5 lakh tonnes as against the target of 63 lakh tonnes to be achieved by 1975-76. There will be a gap of 30.5 lakh tonnes which will be licenced during the Fourth and Fifth Five Year Plan Periods. The Commission wants that out of this additional capacity of 30.5 lakh tonnes, to be licenced in the Fourth and Fifth Plan periods, about 4.9 lakh tonnes may be kept in suspense for export prospects to be taken up only towards the end of the Fourth Plan period. From the remainder of 25.6 lakh tonnes, about 12.8 lakh tonnes are to be reserved for new units and 12.8 lakh tonnes be set apart for the purpose of expansion of the existing factories. The Commission desires that new units are to be located in the States of Maharashtra, Gujarat, Mysore, Madras, Andhra Pradesh, South Madhya Pradesh, Interior Orissa, U.P and Bihar for the reason that these areas are suitable on agro-economic and climatic grounds. I feel that it would have been better if the commission had been a little more specific on this recommendation.

On the commission's recommendation of de-control, I wish to say that it might affect the capacity of the new units to compete with older units for they have to provide large sums for depreciation and development rebate, as their capital cost is high. The old units which do not have to set apart large sum for these items from the gross profits, will be much better placed to compete in the open market and in this process of competition many of the new units are likely to be hit hard.

The price policy of the Commission for cane has been conceived realistically. It has been recommended that for 1965-66 season minimum price for cane should be fixed at Rs. 49.60 per tonne for 9.4 per cent recovery failing which atleast a price of Rs. 48.20 per tonne should be fixed for the 1966-67 season for 9 per cent recovery with the provision for sufficient incentives for higher recoveries. The Government, however, have not accepted the Sen Commission's recommendation for 1965-66 in regard to price fixation for cane. It is only to be hoped that a more rational approach to this question will be adopted at least for the next season.

On the question of excise duty rebate, though the Commission is in favour of its continuation, stress has been made on the rationalisation of the present system through the adoption of a system of graded rebate of 20 to 50 per cent of production exceeding 90 per cent of the capacity of a unit and this, I am sure, when adopted, would result in better incentives for greater turn-over which in its turn would cause more revenue for the State.

On the problem of rehabilitation and modernisation the Commission does not seem to favour the creation of a special financial institution for the Sugar Industry. Here I feel that since the existing financial institutions cannot adequately meet the credit needs of the industry for this purpose, it would be better for the Government to accept the recommendation of the Gundu Rao Committee and provide for the creation of a special financial institution which would meet the credit needs of the industry.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E., Chairman of the Board of Directors at the Fourth Annual General Meeting of the Shareholders held at Coimbatore on the 30th of December 1965.

A distinguished Sugar Magnate asserts "Fuller utilisation of the by-products, namely, molasses and bagasse, has to be achieved as it will put the industry on an economically stabler footing".

2

The Industry and its Problems

The season 1965-66 was successful from the national angle, though not from the point of view of the industry in many regions because in the previous season heavy planting had been done and it was exclusively for this factor that in spite of drought and low recovery that a total production of 35.37 lakh tonnes could be achieved as against 32.60 lakh tonnes in the previous season. However, it is feared that the planting in 1965-66 has been below the usual average and hence it is likely that in 1966-67 sugar production may register a drop to 30 lakh tonnes. Nevertheless, with a carry-over stock of about 10 lakh tonnes, there is no cause for alarm with regard to availability of sugar to meet the demands of internal consumption and exports.

The problems of the industry have not been receiving the consideration that they should at the hands of the Central and State Governments. The industry has a legitimate claim for being included in the priority list in order to be eligible for higher development rebate and preferential rates of taxation. The scheme for allowing tax credit certificates to excisable commodities for increasing production has not been made applicable to the sugar industry. In fact there is little justification for fixing the Bank margin of 20% for sugar, while for some other industries it is less. On the other hand it should be fixed at least at 10% and I hope the authorities will accede to the repeated representation of the industry in this regard. Moreover, the impact of devaluation on this Industry will be reflected in the higher cost of machinery that will have to be secured for modernisation and the expansion of existing units. The outlay on entirely new units will necessarily have to be on a much larger scale while the cost of sulphur and other imported items also have risen sharply.

CANE PRICE

The Government of India has been fixing the price of cane irrespective of its relation to the quality and the harmful effect of linking 10.4% recovery to a minimum price of Rs. 53.60 per tonne had been repeatedly pointed out by the industry. The statutory price for cane was rather on the higher side for at the most 25 per cent of the factories, perhaps located in Maharashtra, are capable of achieving this 10.4% recovery. The principle of revision of the basic price of cane for giving encouragement to growers for improving quality by giving a lower recovery for determining a statutory price has been recognised, though in an unexpected manner. In their latest announcement the Government of India have notified that the cane price has been raised to Rs. 56.80 per tonne, from Rs. 53.60 per tonne linked to a recovery of 9.4% or less against a 10.4% or less. I feel that the exceptional situation in U.P., and Bihar in the current season could have been met by appropriate reliefs in the excise duty and cane cess. It is only to be hoped when conditions become normal the basic price should be linked to a recovery of 9% or less with even an increase in the premiums payable to growers for increases in the sucrose content of cane above the minimum recovery. This is particularly necessary, to eliminate the disabilities experienced by mills in the Madras State where the recovery is less than 9%. Besides, certain special measures such as increasing the scope of the Agricultural Refinance Corporation to enable the factories to give financial aid to cane farmers for such purposes as well-digging, installation of pump sets, etc., establishment of a Southern India Sugar Research Association with its headquarters at Hyderabad or Madras and the adoption of the V.H.F. sets by factories to have contact with its field officers will go a long way to enable our farmers to improve the quantity as well as the quality of cane.

STOCK ACCUMULATION

Though the accumulation of stock at 9.68 lakh tonnes at the end of 1965-66 indicates a favourable climate for full decontrol, the problem has to be tackled by means other than mere decontrol, for, it is feared that the adoption of full decontrol might put a restraint on the competitive position of the new units which have to set apart large sums for depreciation and development rebate. It is rather unfortunate that the Sugar Industry is the only industry where the Government requires the industry to carry stock on its behalf and hence in order to relieve the industry of this strain, it is necessary for the Food Corporation to take over stocks which are in excess of normal levels. Moreover the mills also may be allowed to effect free-sales up to 30% of their production.

SUGAR PRICE

The Industry's hope of a fair deal in regard to the revision of prices has been belied as the revised prices announced are highly uneconomical for the reason that there has been an inordinate delay in the announcement of the revised prices for the 65-66 season which ended on 31st October 1966 and by the 20th October as much as 70% of production has already been despatched by the factories at the old rates and the revised rates are applicable only to the remainder of 30% and naturally no consideration has been shown for the sugar already despatched at the old rates and loss on this account is considerable. Further, the new prices do not make any provision for the multi-directional cost increases which have taken place since the preparation of Sen Commissions' cost schedule, and "the new prices provide merely for the adjustments due to variations in recovery and duration." The situation has been complicated further by the announcement, a few days back, relating to the revision of statutory prices for cane. The Government in their anxiety to prevent an immediate increase in selling prices for sugar have stated that there will be an upward adjustment only when new season sugar begins to be marketed and they will not be applicable to stocks carried over from the last season. There should be no delay in giving effect to this decision and the revisions also should be made in such a way that the industry is fully compensated for the increases in the cost in the different regions.

BY-PRODUCTS

Fuller utilisation of the by-products, namely, molasses and bagasse, has to be achieved as it will put the industry on an economically stabler footing.

(i) MOLASSES

The molasses control order requires the sugar factories to surrender their molasses at Rs. 6.70 at a time when much higher prices can be secured on exports. It would be economical to convert molasses into alcohol before it starts deteriorating.) But so long as there was control over the establishment of new distilleries the compulsion to sell to nominated distilleries involved hardship to sugar mills. With the delicensing of distilleries more remunerative utilisation of molasses can be achieved. (A substantial increase in the output of alcohol will be useful for producing many valuable fermented chemicals and make available naptha for the manufacture of fertilisers, pesticides and other petro-chemicals.

(ii) BAGASSE

Bagasse utilisation for paper and paper boards can be economical and the erection of a medium sized paper board unit may not involve more than Rs. 30 lakhs. The policy of the Government in regard to the utilisation of bagasse by the existing paper mills needs to be modified as the high cost of furnace oil which has to be supplied to the sugar mills by the paper units against supplies of bagasse has seriously discouraged the use of this raw material in place of bamboo which is not available in abundance. The rebate offered by the Government in respect of bagasse pulp has proved woefully inadequate and has not neutralised the adverse effect of the heavy excise duty on furnace oil.

Before I conclude, I would like to emphasise the necessity of maintaining cordial relations with the cane cultivators. It has always been the aim of your company to provide them with all possible assistance. The cultivators in our area have always been very co-operative with us and have been evincing keen interest in the successful working of your factory. I would urge upon them to take to new varieties and to improved methods of cultivation with a view to increase the yield per acre and the sucrose content of the cane in their own interest, and in the interest of the sugar industry.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E., Chairman of the Board of Directors at the Fifth Annual General Meeting of the shareholders held at Coimbatore on the 29th December, 1966.

3

Industry's Performance

The last season has been outstanding from the point of view of the sugar industry in many respects. The policy of partial decontrol helped sugar mills all over the country to earn satisfactory profits on their output as the quota of sugar released for free sale could be disposed of on a remunerative basis. But it should be said that the policy of partial decontrol was helpful on'y in preventing what would otherwise have been a very critical situation since gur and khandasari prices were high and there was keen competition for available cane supplies which were not in any sense ample. Even with the payment of h'gher prices for cane by the organised sector, the output could be only 22.50 lakh tonnes representing a marginal increase over 1966-67. It is, however, true that but for the partial decontrol policy it would not have been possible to produce 22 lakh tonnes of sugar even.

IMPACT OF PARTIAL CONTROL

The full impact of the new policy, will, however, be felt in the current season. Thanks to the prevalence of favourable weather condition in most parts of the country and an attractive return from the cultivation of cane, the area under the crop has considerably increased and it should be normally expected that the record of 1965-66 would be surpassed. The problems relating to the pricing of cane have got complicated and it is little realised by the consuming public that the so-called high prices for sugar in the open market are due to the necessity to offset the losses sustained in supplying as much as 60 per cent of the output at prices which were determined on a '*notional*' minimum price for cane of Rs. 7.37 per quintal having a recovery of 9.4 per cent and below. The cane grower has to be paid a uniform price for all the cane he supplies. But little is it realised that not only had the price of cane increased, but also the cost of the other items. The Purchase Tax had been increased to 7 per cent (in Madras State), the cost of stores and repair charges had increased considerably, dearness allowance to employees had been increased, annual increments and minimum bonus had to be given to employees, additional transport charges on cane had to be incurred, and cost of extra fuel due to lower rate of crush had to be borne. Apart from these, a large amount of interest charges on stock had to be paid for. The factories were also asked to bear the export losses. When all these aspects are taken into consideration on an average cane price of Rs. 9.50 per quintal, the cost of production including excise duty will work out to Rs. 2 per kg. against the controlled price of Rs. 1.61 per kg. Even here, on the pretext that the industry was making 'excessive' profits, mills in the Southern States (in Zone II) were penalised, along with others, and the price for levy sugar was reduced from August this year to Rs. 1.5385 per kg. This cut in the ex-factory price has been only partially restored as the new price announced in the middle of this month is only Rs. 1.5827 per kg. and this is lower than the level prevailing prior to August. Though the minimum price for cane is unchanged at Rs. 7.37 per quintal, the growers are insisting that they should be paid the same prices as in the last season in spite of the fact that the industry is not in a position to realise the same average prices for open market sugar as in the previous season.

FLUCTUATING FORTUNES

There are two factors which stand in the way of repetition of the happenings of the last season in 1968-69. First, the Central Government have reduced the quota for free sale of sugar to 30 per cent from 40 percent of total production;

secondly, with the prospect of a higher level of output of 30 lakh tonnes, the quantity of levy sugar will be much larger than in the previous season resulting in a lower demand for open market sugar. The factories in North India paid even upto Rs. 17/- per quintal of cane during last season to ensure a steady and continuous supply of cane for their factories and yet it could not be said that they were successful in their attempts due to price of free market sugar coming down and upsetting their calculations of profitability. They cannot be expected to pay similar cane prices this year. The open market price of sugar which was ruling at Rs. 450/- per quintal when partial decontrol was announced, came down to Rs. 275/- in a short period and in fact touched at one stage a very low level of Rs. 240/- per quintal. Open market prices are now ruling higher; but these will not remain so when more factories start production, and the current year production comes to the market, Gur and jaggery prices being low the farmer will have an aptitude to supply cane to the factory.

EFFICACY OF PRICE—LINKING FORMULA

Under these circumstances, it is difficult to understand why high price for cane is being insisted upon and some State Governments are compelling the sugar producers to accede to the demands of the growers. The Madras Government has been helpful in concluding a satisfactory arrangement for the supply of cane on the basis of a price-linking formula. Under this scheme, sugarcane growers will be paid a basic rate of Rs. 8 per quintal. They will also be entitled to an additional payment of Rs. 1.50 per quintal for every Rs. 10 realised per quintal of sugar in excess of Rs. 200 per quintal exclusive of the excise duty. The additional payment would be determined on the basis of the average prices realised by the factories at the end of the season. This arrangement gives an opportunity to the growers to participate roughly in equal proportions in the additional profit that would be realised by sugar mills through open market sales.

NEED FOR A HIGHER LEVY SUGAR PRICE

While it is difficult to hazard a guess about the prospects for the current season, as there are many imponderables in the current situation, I would urge on the Central Government to adopt a realistic policy in regard to the pricing of sugar for controlled distribution. The present price for levy sugar is most unremunerative and as far as your factory is concerned, there is practically no profit margin in that. The levy price should provide for a reasonable profit to the factories after paying a fair cane price to the grower. The objective of the Government should be to enable the industry to operate on an assured basis. Even though it is capable of producing 4 million tonnes of sugar annually with the existing capacity, the output has been fluctuating in wide limits with the consequent loss suffered by the industry and uncertainties about the availability of crystal sugar for a growing population. The authorities must take stock of the situation and evolve a long-term policy on an objective basis, taking into consideration the interests of the growers, the industry and the consumers.

IMPORTANCE OF LONG-TERM POLICY

There has obviously to be a consistent policy in regard to the fixation of cane prices and cultivation of this cash crop on an assured basis. In the past few weeks, crushing operations have been needlessly held up in many important regions because of the dispute between the growers and reprensentatives of sugar mills over the prices that have to be paid for cane. There is a minimum price of Rs. 7.37 per quintal and the price for levy sugar has been fixed on this basis. The growers, however, have been demanding higher prices. There has been an increase in the acreage under the crop by over 30 per cent as compared to the previous season. The slump in prices for gur and khandasari has made it unremunerative for cane growers to sell their produce to the manufacturers in the decentralised sector. This leads us to the question what should be the correct price for cane. A straight answer cannot be provided because economic considerations alone are not the determining factors.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E. Chairman of the Board of Directors at the Seventh Annual General Meeting the Shareholders held at Coimbatore on Monday the 30th December, 1968.

" High cost of sugar is mainly due to the prohibitive cost of cane and high taxation-Central Excise, Purchase Tax and Cane Cess", observed the Chairman of Sakthi Sugars Limited.

4

Sugar Output at All-Time High

The 1968-69 crushing season has been outstanding in the history of the sugar industry as a record for all time was established in respect of sugar output at 35.60 lakh tonnes. But this unique achievement brought with it new problems and the industry is faced today with an accumulation of stocks of a magnitude which was witnessed in 1965-66, the previous season in which an output of almost equal dimensions was achieved. But the position is now fundamentally different from the one that existed three years back. The policy of partial decontrol resulting in the fixation of high minimum prices for cane provided big incentives for the farmers while the interest of sugar producers and consumers have not been given serious consideration. As the minimum price for cane will remain unchanged in the current season and there are expectations of another bumper crop being realised, the industry may be obliged to handle unprecedentedly large quantities of cane. On a conservative estimate the output of sugar may exceed easily 38 lakh tonnes, and it may even become necessary for many units in different parts of the country to continue crushing till late in the season for absorbing the quantities of cane that will be offered to the factory, both registered and unregistered.

EMBARRASSING ACCUMULATION OF STOCKS

The Government do not seem to be aware of the problems that will be experienced by the industry and trade as a result of a higher level of production for two seasons in succession. With a carry-over of 12 lakh tonnes from the last season and the prospect of an output of at least 38 lakh tonnes in 1969-70, there will be a total availability of 50 lakh tonnes for internal consumption and exports. Even if with liberal releases of 2.5 lakh tonnes every month and additional releases of about three lakh tonnes during the festival season it cannot be expected that more than 35 lakh tonnes will be consumed within the country. This is an optimistic estimate as the previous record with easy availability the internal consumption was only 27 lakh tonnes. It may be argued that with an increase in the purchasing power since 1965-66, apart from a growth in population, there can easily be an improvement in internal consumption by at least 20 per cent. But, this may not be possible with the keen competition from gur and khandasari producers and fairly high prices for the refined sugar. Besides, the problems relating to storage and acquisition of stocks also have been standing in the way and the retailers have not been helped to stimulate consumption of sugar.

NEED FOR NEW TECHNIQUES IN MARKETING

It occurs to me that, instead of selling in bags to retailers in the rural areas particularly, sugar mills should be encouraged to develop their own agencies and also distribute sugar in polythene packets of 1 kg. and 2 kgs. so that the retailer could stock his requirements without difficulty and the consumers too would be able to buy their immediate needs easily. The additional expenditure involved in packing should be allowed to be added to the selling price. But the additional cost will not be large and there will also be considerable saving of sugar due to prevention of deterioration in storage.

Even if the offtake were to be increased to 33 lakh tonnes in the current season, there will still be a problem of disposing of current production in spite of the new techniques of marketing and active steps for stimulating consumption. If the exports could not be increased substantially the carry-over into the next season may easily exceed 18 lakh tonnes. At this point, it would be pertinent to ask how exports of high-cost sugar can be stimulated and how the industry itself can hope to operate on a profitable basis. Even granting that only the minimum price for cane will be paid by the sugar mills to cane growers it is highly doubtful whether the industry can operate on a profitable basis in 1969-70 and indeed in the coming seasons. There has been a slump in prices in the open market though the consumers may not agree that they are getting their requirements at reasonable prices. It is necessary at this stage to educate the consumer that the high cost of sugar is not of the industry's making, but is mainly due to the prohibitive cost of cane and high taxation-Central Excise, Purchase Tax and Cane Cess.

SLUMP IN OPEN MARKET SUGAR PRICES

The trading conditions, however, have vastly changed in the past six months. Though the policy of partial decontrol has been successful in bringing about a big increase in the acreage under cane and consequent increase in the output of sugar, the big increase in the output of sugar has resulted in a slump in the open market prices. Those who have not been so unfavourably affected have reported very much lower profits, as in our case, many are worried about even earning profits in the current season which will enable them to cover depreciation charges and other overhead expenses.

This raises the question what shoud be done to assure reasonable profitability for sugar mills and whether there should be any change in the method of fixing prices for cane and sugar for controlled distribution. The mere availability of a quota for free sale cannot be of any great advantage as it was in 1967-68 as with the issue of liberal quantities for controlled distribution, there is not much difference between ex-factory prices for levy sugar and those for free sale. This clearly emphasises the need for fixing prices for levy sugar in a manner which does not involve any loss to the sugar mills on the basis of minimum prices for cane and the actual recovery of sugar. This question was overlooked so long as it was possible for the industry to secure fairly remunerative average prices on total sales of sugar, both for controlled distribution and for free sale, and it was even possible to pay to the growers prices which were higher than the minimum fixed by the Central Government. This policy, however was not calculated to be in the interests of consumers. The only consolation is perhaps that had it not been for the increase in output following the adoption of the policy of partial decontrol, the consumers would have been obliged to pay very much more for their requirements of sugar. The country also would have been compelled to import some quantity of this sweet commodity involving expenditure in foreign exchange in order to relieve serious shortages. In the altered circumstances, when prices for other competing crops have remained fairly stable and it has been clearly demonstrated that the existing minimum price for cane is unduly attractive, the Government should make an attempt to revise the price for cane as well as sugar and gradually reduce the cost of production.

NEED FOR REVISING PRICING POLICY

A revision of the cane pricing policy is necessary not only from the point of view of the consumer but also of the difficulties experienced by sugar mills in different parts of the country particularly those in Tamil Nadu. Under the present formula, a minimum price of Rs. 73.70 per tonne is payable where the recovery is 9.4 per cent and below. If there was an increase in the sucrose content to above 9.4 per cent, a premium of 5.36 paise for every increase in the recovery ratio by 0.1 per cent is to be paid. This formula does not affect those who have a recovery of 9.4 per cent and above. But in 1968-69, with a record quantity of cane crushed and a prolongation of the crushing season, the recovery was very much below 9.4 per cent even in some parts of Uttar Pradesh, Bihar and Andhra Pradesh. Tamil Nadu was badly hit by severe drought conditions, in the cane growing areas and some units have reported an average recovery of only 7.4 per cent. Even under normal conditions, except for 1 or 2 units the recovery is between 8.5 per cent and 9 per cent, in Tamil Nadu, either because of the nature of the soil or the delay in introducing new varieties having a higher sucrose content. It is therefore necessary to refix sugar price based on a recovery of 8.00 per cent.

At the same time, It is necessary to fix levy prices for sugar on a State-wise basis as pronounced differences in the recovery rate and difference in Cane Cess and purchase Tax between States in a zone have placed sugar mills in Tamil Nadu at a disadvantage. If levy prices could be increased suitably and there were also adjustments in these prices when there was a drop in the recovery unduly due to drought or crushing in summer, sugar need not be so costly as it is now. The force of this argument will be understood if it is pointed out that even with the crushing of 4.6 lakh tonnes by a sugar factory in Tamil Nadu, the existing levy price does not help it to operate on a break-even basis. It is assumed that the recovery of sugar will be 8.5 per cent. It will, of course, be necessary to effect a suitable reduction in the excise duty so that the end price for the consumer for his requirements of sugar on a controlled basis will be the same or even slightly lower. This policy has to be adopted if the excessive burden imposed on the consumer during a period of stress is to be reduced and the sugar industry is to function with reasonable confidence.

If, as a result of the findings of the Tariff Commission and the necessity to allow an element in levy prices for higher interest charges for holding huge stocks, it became necessary to raise levy prices, even with a recasting of the price structure of cane, the Government should not hesitate to reduce the excise duty. The consumer may not then be obliged to pay more or may even get some relief. The State Governments too can adopt a helpful attitude as the burden of Cess and Purchase Tax in some cases works out to nearly 15 per cent of the minimum price which has boosted production costs. In view of the increasing quantities of cane being crushed there can certainly be a reduction in the burden at the State level.

HOW TO EXPORT CHEAP SUGAR

While on the subject of costs, I would like to emphasise the importance of building up a viable export trade with the neighbouring countries. Besides fulfilling the quota under the International Agreement the scope for exporting sizeable quantities on a barter or a rupee payment basis should be examined. It may then be possible to import rubber, non-ferrous metals, copra and other items against sugar exports. But heavy losses against all these exports will be involved if factories were not helped to overcome the handicap on account of the high cost of cane. With the international sugar prices ruling around Rs. 630 per tonne, a heavy loss cannot be avoided as the cost of cane per tonne of sugar alone will work out to Rs. 800/- while the ex-factory price is around Rs. 1,300 per tonne. Even excluding profit margins the subsidy will amount to over Rs. 500 per tonne which cannot be afforded by any country when attempting to export large quantities. The factories also cannot absorb this loss easily as the internal prices will have to be loaded considerably which will add to the burden on the consumer. The difficulties in this regard can be overcome if as I pointed out on earlier occasions, the Government allotted 25,000 acres of irrigable land to develop cane farms on the definite understanding that the sugar produced was completely exported. If the mills were made responsible for cultivating cane, the cost of production can be considerably reduced with a big increase in the yield of cane and the sucrose content. In that event, the exporting factories can eliminate the losses completely and even function on a profitable basis. The satisfactory experience of these units in the growing of cane will have a favourable impact in other directions and lead ultimately to an improvement in the operating efficiency of the industry.

DEVELOPMENT OF CANE-GROWING AREAS

The State Governments too should spend a much larger amount than they are now doing out of the revenues that they get from various levies for reducing the cost of cane and for improving communication facilities in the cane-growing areas. While I am grateful to the Tamil Nadu Government for improving road communication facilities in the cane-growing areas serving our factory, much more remains to be done. It is well to remember that all-weather road in the cane-growing tracts will facilitate quick movement of this agricultural produce and minimise loss of sucrose content due to delay in transport. Another measure which will be helpful in improving the quality and yield per acre is the need to make available water supply in the cane growing areas throughout the year. This will not involve any additional quantity of water as the cane crop consumes only two-thirds of the water required for double crop paddy cultivation. If there were regulated water releases and scientific wettings of the standing crop a much higher yield per acre can be secured.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E., Chairman of the Board of Directors at the Eighth Annual General Meeting held at Coimbatore on the 29th December 1969.

Mr. Mahalingam's effort was directed " towards a more helpful cane-price policy " and in this he did succeed in influencing the thoughts of the Government.

5

Unhelpful Cane Price Policy

I am sure you will readily agree that the sad experience of the industry in a year of record production and sales is due to the unhelpful policy of the Government. There has been no readiness so far to effect suitable adjustments in the light of practical difficulties and the disabilities endured by sugar mills in general, and by units in Tamil Nadu in particular, for no fault of their own. It is rather ironical that in spite of a spectacular achievement the industry should find it difficult to earn even reasonable profits. The lower recovery in Tamil Nadu is, of course, partly due to the unfavourable weather conditions witnessed in the region for a time. But the cane price policy is completely unsuited, in the altered circumstances, as under the most favourable conditions the recovery for the whole region cannot be more than 8.4 per cent while cane has to be purchased at a minimum price of Rs. 73-70 per tonne with a basic recovery of 9.4 per cent and below. It had been hoped that the Government would listen to the representations of sugar producers from areas where the recovery was below 9.4 per cent and refix the cane price in a manner which will not impose any special disability on those mills handling cane with a lower sucrose content.

The Government has unfortunately refused to realise the hardship caused to sugar units in Tamil Nadu, Bihar and Madhya Pradesh and the old minimum price has remained unchanged. The experience of mills in Tamil Nadu is ample evidence to show that the manufacture of sugar is not a rewarding proposition and many mills in the private and co-operative sectors may go out of production if the present conditions continued for another season. Your company is probably among the few in this region to avoid a cash loss and distribute a dividend on the equity capital, albeit token, out of reserves. But this process cannot be continued and with the need to pay a reasonable dividend after providing depreciation and generate also part of the resources required for expansion schemes, the level of earnings for our factory for 1968-69 atleast should be considered normal. But there is no prospect of such reasonable working as high interest charges have to be borne on accumulated stocks and even on levy sugar a loss of over Rs. 5 per quintal has to be incurred. It is much more in respect of sugar for free sale. As the open market price is very nearly the same as that for levy sugar the incidence of differential *Ad Valorem* duty of 37½ per cent has enabled the mills to realise only a net price of Rs. 125/- per quintal exfactory leading to a loss of another Rs. 10/- per quintal. Any factory producing, therefore, 30,000 tonnes of sugar in a season will be obliged to suffer a loss of as much as Rs. 36 lakhs, after depreciation on the assumption that there was no increase in cost on account of heavier interest charge and the whole of current production is marketed. This is not, however, the present position as the industry has actually on hand nearly 50 per cent of last season's output while many units in Tamil Nadu have 65 per cent of that season's output in their godowns, which means that the actual losses sustained have been much more.

PROBLEM OF DISPOSAL OF LEVY SUGAR

This pathetic state of affairs can be remedied only if the cane price was fixed on the basis of recovery of 8.5 per cent. Logically, there should be an adjustment in the *premium for every increase in the sucrose content by 0.1* per cent. Whatever may be the actual minimum price decided upon, what matters most is the removal of the present anamoly in the shape of a penal element in the price which does not bring any return to the producer. If this procedure was adopted, Tamil Nadu sugar mills will not have the special handicap of sustaining a loss on levy as well as free sugar. The quotas for levy sugar have also no meaning if they are not compulsorily lifted by the States concerned. The latter are naturally unwilling to buy sugar on a costlier basis when it is in glut. There should be a formula for automatic conversion of levy sugar into free sugar when quotas are allowed to lapse. There should also be no difference in the duty paid on both quotas. There is no justification in continuing the present policy of partial decontrol as in conditions of plenty only total releases should be regulated. The mills should be allowed to evolve their own marketing arrangements and, as in the case of textile and other commodities, there should be a reasonable margin of profit for the retailer so that he can sell sugar in small lots or in packaged form.

NEED FOR NEW THINKING

Instead of thinking on new lines and ensuring the healthy functioning of a major industry, the Government has been pursuing a policy of drift. Even though it was very nearly agreed by Government spokesmen that buffer stocks should be created for atleast one million tonnes, no decision has been taken on this question so far and mills are obliged to pay heavy interest charges which work out to as much as Rs. 4.40 per quintal. It is understandable that the Government is not in a position to find the requisite funds for maintaining these buffer stocks. But as the banking system has already financed these stocks what is all needed is a national segregation of the excess stocks of one million tonnes and the inclusion of an element in the levy price for interest charges, godown rent, supervision and other items, which are connected with the maintenance of bufferstocks. Alternatively, the Government can agree to give a rebate in the excise duty for this purpose which in the aggregate will not amount to more than Rs. 6 crores or Rs. 1.40 per puintal of total production in 1969-70.

It will, of course, have to be ensured that there will be no further increase in stocks and the current season's production will have to be fully absorbed by the home market and through a stimulation of exports. Clearly, some early solution will have to be found for the ticklish problems. Otherwise, unexpected difficulties will arise and it may not be possible to maintain output at the desired level when new consumption trends are emerging and it is on the cards that by the next season internal demand would be of the order of 40 lakh tonnes, if not more.

WHY MILLS ARE IN ARREARS?

While the industry is crying for relief, Mr. A. P. Shinde, Union Minister of State for Food & Agriculture, has criticised sugar mills all over the country for delaying payments against cane purchase unduly and that arrears amount to as much as Rs. 21 crores. The sugar mills have also been told that the State Governments have been directed to recover these amounts from the farmer as arrears of land revenue where they had not been paid within 14 days from the date of supply of cane. No thought seems to have been bestowed on the question why sugar mills have not paid the dues to cane growers. This is only due to the heavy losses sustained on sugar sales in the past season and the huge amounts locked-up in accumulated sugar stocks. The lending institutions have not been providing full accommodation against sugar stocks in spite of the oft-repeated expression by the Government that the commercial banks had been asked to lend liberally against sugar. The absence of suitable revisions of lending limits and the incurring of losses have compelled many mills even to accept deposits at penal rates for holding sugar stocks. It is not, therefore, surprising that the sugar mills have been obliged to default on their payments to cane growers and also find it difficult to pay the dues against the cess levied by the State Governments.

It is, therefore, ironic that the threat of forcible collection of sugar cane dues owing by mills has been held out when the Government should have enquired deeper into the industry's peculiar difficulties and removed its disabilities. The policy for the current crushing season has not been fully spelt out and beyond the affirmation that there will be no change in the cane price formula and the decision relating to a change in the quotas for levy sugar and for free sale, it has not been indicated whether there will be an upward revision of prices for levy sugar or the proposal for creating buffer stocks will be implemented. Indeed, the increase in the quota for free sale to 40 per cent from 30 per cent of current production and a corresponding decrease in the quota for levy sugar to 60 per cent from 70 per cent will impose even a special disability on Tamil Nadu Sugar Mills. Rather inexplicably, no announcement has been made so far about a reduction in the *Ad Valorem* excise duty on sugar for free sale and it would happen that the Government would be realising larger revenues through excise duties and increasing the losses of Sugar Mills. It is very likely that in the absence of a reduction in the Excise Duty and an increase in prices for levy sugar there will be drop in open market prices with heavier offerings, creating fresh complications. After the depressing performance of many sugar mills in 1969-70, there is no need for constantly drawing the attention of the Government to the pathetic state of affairs in the sugar industry. There is no justification at all for vacillation or piece-meal decisions as delays will only mean additional losses, particularly for those mills which have a recovery of less than 9.4 per cent.

While there is no case for levying a differential duty on sugar for free sale, the tariff value for levying the *Ad Valorem* duty on sugar for free sale is still being arbitrarily fixed and there is no prospect of improved working as old sugar will constitute more than 50 per cent of sales in the current season and losses will continue to be sustained.

If the special difficulties experienced by mills in Tamil Nadu and elsewhere are not recognised, the Government may be forcing some big units to go temporarily out of business. This will be undesirable from the national angle as it will throw out of employment thousands of workers apart from denying opportunities for remunerative cultivation of cane. A slowing down of the pace of expansion of the sugar industry and an impairment of its efficiency to increase production when new consumption trends are emerging will only lead to a perpetuation of shortages in the coming years and a repetition of the happenings of 1966-67, under different circumstances.

SAD PLIGHT OF TAMIL NADU UNITS

No elaborate defence is needed to highlight the sad plight of sugar mills as almost without exception sugar mills in Tamil Nadu have not been successful in earning even depreciation charges while quite a number have suffered heavy losses. The results of five companies in the private sector published so far, covering the working of 1969-70, season, show that a loss of Rs. 39.57 lakhs, even, before providing for depreciation charges, has been sustained against a gross profit of Rs. 214.54 lakhs for 1968-69. The net loss after depreciation, works out to as much as Rs. 121.22 lakhs against a net profit of Rs. 136.49 lakhs. Huge debit balances have, therefore, been carried forward even after adjusting available reserves for covering part of the losses. Some units are engaged in the implementation of expansion schemes which had been undertaken before the crisis developed in the industry and have necessarily to complete these schemes as they cannot be left unimplemented half-way. The using of available resources for these projects and the raising of new loans have led to an increase in interest charges over and above those that have to be borne on accumulated stocks. The industry has also to bear in future the incidence of increase in wage bill as recommended by Second Wage Board. The economics of working of the units, which have suffered heavy losses due to lower recovery and which have also incurred heavy expenditure on new schemes, has been badly upset and if there was no substantial improvement in operating results in 1970-71, many units may go to the wall.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E., Chairman of the Board of Directors at the Nineth Annual General Meeting held at Coimbatore on December 30, 1970.

" What is needed is a long-term policy regarding the sale and distribution of free-sale-sugar so that an assured future for the industry can be created ".

6

Towards a Better Policy

As there was acute shortage of sugar in 1967-68, the Government adopted a policy of partial control under which 60 per cent of current production was earmarked for controlled distribution and the balance of 40 per cent for free sale. This resulted in the increase of output and open market prices came down sharply from Rs. 425/- to Rs. 250/- per quintal. There was actually a substantial increase in production from 22.48 lakh tonnes in 1967-68 to 42.62 lakh tonnes in 1969-70. Unfortunately, the policy in regard to levy of excise duties in 1969 discouraged the industry. The levy of 37.5 per cent excise duty on free sugar in 1969-70 created a situation when selling even free market sugar entailed a loss to the mills. Many producers preferred to lapse their quotas as larger sales were only adding to their losses. Due to the accumulation of sugar stocks, payments to cane growers were delayed. Thus, in the year of peak production, it was ironical that many factories had to face a loss and even your unit has to draw from reserves to pay a dividend of 6 per cent. The situation became so frustrating that many producers resorted to legal redress which eventually resulted in the Government deciding to lift control over sugar prices in May this year. The objective of the Finance Ministry to secure merely the revenues brought about a sizeable fall in the output in 1970-71. Even in 1971-72, there is no prospect of reaching the peak production in spite of the new excise rebate granted. What is really needed is a long-term policy for the industry and the ideal course will be to fix a minimum price of Rs. 75/- per tonne with a recovery of 8.5 per cent and below with an increase of 80 paise for every 0.1 per cent increase in the recovery. The Government has fought shy of a pragmatic change in the cane prices policy and instead has decided to grant a rebate in the excise duty on sugar at the rate of Rs. 17/- per quintal for the first two months of the current season and at Rs. 16/- per quintal for the remaining 10 months in respect of that quantity which is in excess of 80 per cent of production in the corresponding periods in 1970-71. While this policy is to be welcomed, it would be more helpful if a bigger rebate was granted in respect of the qualifying output of sugar secured after April as there will be a sharp drop in the recovery, in the summer months. Again, it is imperative to revert to the old system of levying a specific excise duty on sugar instead of the existing *Ad Valorem* duty in order to eliminate uncertainties and ensure equitable distribution of incidence.

The incidence of cane cess, in Tamil Nadu particularly is very high. The original intention of imposing the cane cess was to spend the entire amount on the development of the roads surrounding the factory area in order to facilitate easy transport of cane which otherwise would get delayed causing driage and reducing the recovery of sugar. This is resulting in a serious loss of production to the nation. It is, therefore, necessary that at least 80 to 90 per cent of the amount collected by way of cess, if not the whole, should be spent on the construction of roads. It is also necessary to bring down the incidence of cane cess on par with other States in order to reduce the cost of cane to the factory.

PROSPECTS FOR TAMIL NADU

As regards the further development of this industry in Tamil Nadu, the State Government should take efforts to help the establishment of a dozen new factories in different districts in the next ten years so that the agriculturists in Thanjavur, Tiruchirappalli, and Tirunelveli will be able to secure a larger income through a cash crop. Besides, in order to facilitate export of sugar to marketing centres in Bombay and Calcutta, the Tamil Nadu Government should grant a rebate in respect of purchase tax on cane involved in this sugar export. Also, the existing factories can be enabled to increase their crushing capacity to 4,000 tonnes daily and adequate quantities of cane should be grown with the availability of water for ten months with the co-operation of the irrigation Department.

BAGASSE UTILISATION

An important by-product which can be profitably used and which is now being utilised for raising steam in boilers is bagasse. If boilers are provided with alternative fuel at equal cost, bagasse can be used for making paper pulp. Fuel oil without excise duty will have to be given to the sugar mills in the South while coal can replace bagasse in North India. For achieving this objective, early steps will have to be taken by the Union Government.

CREDIT FOR THE INDUSTRY

The credit policy of the Reserve Bank of India must be modified in such a way as to enable the industry to develop on right lines. I fail to understand why the Reserve Bank should fight shy of financing purchase of cane by suitable expansion of credit against sugar stocks when they were accumulating, as this is one form of procurement of cane and providing an assured income for growers. There should be no hesitation to adopt a pragmatic credit policy. Then only the output of cane and its processing into sugar can be increased substantially.

CONSUMERS' INTEREST

Another important question that has to be tackled is the selling of sugar to consumers at reasonable prices. Hotels, bakeries and fruit processors depend very much on sugar for the manufacture of their end-products which cannot be marketed profitably if sugar prices fluctuate widely. Hence, it is essential for the industry to follow a policy of distribution of its output at a stipulated price for its large and bulk consumers. In this context, I am happy to inform you that the industry has agreed to release 60 per cent of its current production for distribution as desired by the Union Ministry of Food and Agriculture at an agreed price to the consumers which is well below the ruling market rates. Also, if large urban centres can be fed with sugar at a suitable price by steady marketing arrangements, we can create a goodwill towards the sugar industry. If we do not think about the difficulties of the consumer, it will only create a bad feeling and the industry will lose its long-term advantages. The Indian Sugar Mills Association (ISMA) and the South Indian Sugar Mills Association (SISMA) should evolve a long-term policy regarding the sale and distribution of 40 per cent of the free-sale-sugar so that an assured future for the industry can be created.

From the speech of Sri N. Mahalingam, B.Sc., M.I.E., Chairman of the Board of Directors at the Tenth Annual General Meeting held at Coimbatore on 24th December, 1971.

PART III

MEMORANDUMS

"Increase of indigenous capacity, regulated distribution and creation of a Sugar Marketing Board and a differential Price between bulk consumers and the citizen should be the basis of the new policy" were the suggestions which Mr. N. Mahalingam gave to the Union Planning Minister.

1

Towards a more Stable Sugar Policy

The problems relating to the production and distribution of sugar have not been tackled in the manner they should have been by the Central and State Governments. Even though self-sufficiency in food-grains has been achieved, a correct policy, for ensuring a rising level of sugar production, for meeting the growing needs of consumers, is yet to be evolved. In most countries where the per capita consumption of sugar is high, arrangements are usually made between the manufacturers and the distributing agencies for the supply of sugar at the retail end at stipulated prices. It is unfortunate that a suitable machinery has yet to be created in this country which has all the facilities for acquiring a high level of production when new trends in consumption have emerged. In spite of the fact that we have a well organised Ministry of Agriculture and the industry has acquired the requisite experience over a period of forty years, no stable policy has been shaped.

2. In the early forties, a Committee appointed by the Government of India, to enquire into the working of the sugar industry, recommended that its further development could be advantageously carried out in the areas South of the Vindyas. This was because the tropical areas in Maharashtra, Andhra Pradesh, Mysore and Tamil Nadu were better suited for the cultivation of cane as only half the acreage was required for raising an identical quantity of cane in the subtropical region of Uttar Pradesh and Bihar. The view was based upon the fact that the production of cane was about 15 tonnes in Uttar Pradesh and Bihar while it was about 30 tonnes in the South. Government of India, also gave concession for the transfer of factories from the North to the South in order to increase the working of this vital industry.

The sugar industry has been passing through a series of ups and downs since 1966-67 due to the lack of a steady policy. If a study of the industry during last 10 years is made (1961-71), it will be seen that from 10%' cut on cane crushed in 1961, restricting production, the country passed through many stages such as full control, partial decontrol, full decontrol and voluntary partial decontrol. Since cane is the principal raw material, the high cost of sugar in India is due to such items as cane price, duties levied by the State and Central Governments, manufacturing cost and profit margin for the mills. It is unfortunate that a policy has not been evolved till now to put this industry on a basis similar to cement so that the consumers will be enabled to get this essential commodity at a fair price.

3. For a long time, sugar industry grew only in jaggery centres and due to cold climate, jaggery production and consumption was heavy in the North India and due to historical reasons, small factories of the size of 300–500 tonnes developed in Uttar Pradesh and Bihar. But the industry from the beginning had to be sustained on Government assistance as the factories could not be run for more than 120–150 days and some units could be worked only for 90 days. This

was the reason for the appointment of the Expert Committee in 1945 as stated earlier. Since then, the sugar industry has developed impressively in the Southern State; so also in Maharashtra. The per acre production of cane in various States is shown on page number 146.

4. The recovery of sugar varies markedly ranging from 8.5% in Madras to 12% in Maharashtra. The cane price is now fixed on a basic recovery of 9.4% to a price of Rs. 73.70 per tonne of cane with provision of increase in cane price for higher recovery. The price of cane, which was only about 45 rupees in 1963, has now come upto Rs. 85 per tonne and many factories pay upto Rs. 120 per tonne.

5. Due to historical reasons, the main production centre was located in Uttar Pradesh, Bihar; but now if we take the production in the last ten years, it will be seen that the share of the main producing states in the total production has significantly changed. In the current season, Uttar Pradesh and Bihar will be mainly responsible for the set-back in total production with their share being estimated at only 33% against Maharashtra 30% and the Southern States another 30%. The steady decline in the importance of Uttar Pradesh and Bihar and the significant growth in stature in the tropical tracts have been amply borne out by the recent trends.

6. Without apportioning blame for the past lapses, I would like to present the problems of the industry in terms of:

(1) the total sugar needed for the next 20 years and the future development of the industry;

(2) cane price policy;

(3) the place of State and Central levies on sugar;

(4) development of ancillary products; and

(5) distribution policy.

Name of the States	'60-61	'61-62	'62-63	'63-64	'64-65	'65-66	'66-67	'67-68	'68-69	'69-70	'70-71
Andhra Pradesh	34.7	32.9	35.6	35.2	33.9	32.2	29.9	32.6	32.9	28.7	31.6
Assam	12.9	15.9	14.0	15.0	16.9	14.3	13.3	15.2	15.3	21.0	15.8
Bihar	15.4	12.8	12.0	14.9	16.8	14.4	11.9	13.9	15.8	15.8	16.3
Maharashtra	30.3	24.2	30.9	32.7	27.5	25.4	25.1	25.7	30.3	29.6	31.3
Gujarat	20.4	21.2	20.6	24.4	26.7	22.6	20.9	20.4	19.3	20.5	21.1
Tamil Nadu	34.9	33.5	15.7	33.7	33.8	33.6	31.6	32.1	34.9	33.2	34.3
Orissa	11.9	11.9	19.6	19.5	20.0	20.0	19.9	20.1	23.4	21.4	21.1
Punjab	15.3	12.9	12.5	15.5	16.9	15.2	11.4	14.5	13.3	16.9	16.7
Uttar Pradesh	16.7	14.9	13.3	15.7	16.4	15.9	13.4	15.4	16.9	17.8	16.5
West Bengal	20.8	21.1	17.3	19.1	18.6	18.3	17.8	17.9	17.9	18.9	18.9
Mysore	29.2	29.4	32.3	34.7	30.7	27.9	36.5	35.3	37.3	33.4	35.5
All India	18.3	17.1	16.6	18.7	18.9	17.4	16.3	18.9	19.9	19.9	19.6

* Indian Sugar.

5. (1) TOTAL SUGAR REQUIREMENT

The task before the industry is stupenduous and the Government cannot afford to be complacent. Against the maximum production of 42.65 lakh tonnes achieved in 1969-70 the output in 1971-72 is not expected to be more than 31–32 lakh tonnes. A catastrophic situation would have arisen, even by now, if there has not been large stocks carried over from the 1969-70 season. Internal consumption alone will require 42 lakh tonnes in 1970-71 and on the basis of the recent trends in consumption the quantity required by 1982 and 1992 will be a minimum of 70 lakh tonnes and 100 lakh tonnes respectively.

The economics of working of sugar factories also will have to be improved by increasing the capacity of established and new factories. For producing 70 lakh tonnes of sugar by 1982, the quantity of cane required on the basis of a recovery of 9 per cent will be 77.7 million tonnes. The area required for raising this quantity of cane will be only 3 million acres assuming an average yield of 30 tonnes per acre. This may, of course, have to be more so long as Uttar Pradesh and Bihar which have a low yield per acre continued to be important producers. The necessary steps will have to be taken to intensify research for developing new types of cane which will be suitable for being grown in different regions and which will not only increase the weight of cane but also its sucrose content. The improvement in the quality of cane and its yield will by itself lead to a reduction in working expenses. This is because cost of cane alone works out to more than 60 per cent of total production cost.

There will also have to be an increase in the size of factories besides creating conditions for enabling sugar units in all parts of the country to work for at least 200 days in the crushing season. In my opinion, sugar factories, having a capacity of 4,000 tonnes daily, will have to be located in Maharashtra and Southern States. Twenty such factories alone can handle 8 lakh tonnes annually, accounting for a total crush of 16 million tonnes. Again, 80 factories having an individual crushing capacity of 2,500 tonnes daily will be able to take care of 40 million tonnes of cane. These factories also may be conveniently located. Similarly 80 sugar mills, having an individual capacity of 1500 tonnes daily, will be able to crush 24 million tonnes of cane. In all, 180 sugar mills will be in a position to crush 80 million tonnes of cane and produce 7.2 million tonnes of sugar. The following Table illustrates the idea:

Daily crushing capacity	No. of days	No. of factories	Total crushing capacity
4,000 tonnes	200	20	16 million tonnes
2,500 ,,	200	80	40 ,, ,,
1,500 ,,	200	80	24 ,, ,,
		180	80

6. (2) CANE PRICE POLICY

While evolving a National Sugar Policy on a long-term basis, it is essential to take a decision on the cane pricing policy as the cost of raw material in the manufacture of sugar is nearly 60 to 65%. Unless, the raw material cost is made uniform throughout the country, it will not be possible to evolve a rational policy. It has therefore become imperative that there should be a change in the cane-price-formula without delay and the best course in my opinion would be to, make a suitable adjustment in the minimum price for cane based on a recovery of 8.5 per cent and provide also for the payment of even higher premiums for increase in sucrose content. It is necessary that the minimum cane price may be fixed at Rs. 85.00 per tonne linked to a recovery of 8.5 per cent and below. However, it must be borne in mind that in fixing the premium above 8.5 per cent recovery, the principle of proportionality should be adhered to and this would mean providing a premium of one rupee for every increase of 0.1 per cent of recovery.

The anomolies in regard to variations in costs on account of sugar-cane would have been largely eliminated and the problems encountered in the enforcement of uniform prices can be easily tackled. The details given in Table on next page will indicate that the inequality now inherent in the existing formula can be made to disappear. A higher premium will have to be paid for higher sucrose content and sugar mills having a recovery between 9 and 10% will not have any disadvantage in respect of Maharashtra and Mysore which have a higher percentage of recovery. The advantage arising out of this change in pricing policy will be understood if it is pointed out that the cost of cane in the case of Andhra Pradesh with an average recovery of 9.4 per cent will be Rs. 94 per tonne and the cost of cane in one quintal of sugar will be Rs. 100.00 $\left(\frac{94 \times 100}{94}\right)$. In respect of Mysore with an average recovery of 10 per cent, the cost of cane per tonne will be Rs. 100.00 and the cost of the cane in one quintal of sugar will again be Rs. 100.00 $\left(\frac{100 \times 100}{100}\right)$. In regard to Maharashtra with an average recovery of 11 per cent the cane per tonne will be Rs. 110.00 and the cost of cane in one quintal of sugar will be Rs. 100.00 $\left(\frac{110 \times 100}{110}\right)$. Uttar Pradesh for its part will have a price of Rs. 90 per tonne and cost of cane in one quintal of sugar will again be Rs. 100.00 $\left(\frac{90 \times 100}{90}\right)$.

INCIDENCE OF CANE PRICE IN COST OF SUGAR

Recovery %	Price of cane per tonne Rs.	Cane price of Rs. 8.50/- quintal for a recovery of 8.5 % and lower and a premium of one rupee for every 0.1% increase in recovery over 8.5%	
		Cost of cane per quintal Rs.	Cost of cane per quintal of sugar. Rs.
8.5	85	8.50	100
8.7	87	8.70	100
9.0	90	9.00	100
9.4	94	9.40	100
9.8	98	9.80	100
10.0	100	10.00	100
10.5	105	10.50	100
11.0	110	11.00	100
12.0	120	12.00	100
12.5	125	12.50	100

6. (3) THE PLACE OF STATE AND CENTRAL LEVIES ON SUGAR

In our country, the cane is an important commercial crop and yields revenue both to the State and the Central Exchequer. In order to help the proper development of cane throughout the country, it is essential to have uniformity in the excise levies. The Central Excise Duty was for a long time fixed on a quintal basis but due to the partial decontrol and in order to get more revenue, the flat excise duty was converted into a percentage of the price of sugar. In view of the fact that it is proposed to handle the cent per cent of the sugar produced in the country by a NATIONAL SUGAR MARKETING BOARD, there would not be fluctuation in prices for the factory and so a flat excise duty as in previous years may be arrived at. The present available crushing capacity in the country can be made to crush a higher tonnage of cane by running the factories for a longer period. This can be done by planting cane round the year. But this policy is likely to give lower recovery as summer months are reached and also during the special season, namely, July, August and September.

6. (4) A MORE RATIONAL EXCISE DUTY

Unless, some encouragement is given by showing concession for a longer period of crush, it may not be possible to achieve results. For that purpose, the basic excise duty should be charged upto a crush of 150 days. The following table will show the concession to be given for a higher crush:

PROPOSED RATE OF EXCISE DUTY

(1)	Rate of excise duty upto 150 days	....	Full duty
(2)	Between 150 and 200 days	....	25% rebate
(3)	Between 200 and 250 days	....	45% rebate in excise duty
(4)	Between 250 and 300 days	....	60% rebate in excise duty

6. (5) DEVELOPMENT OF ANCILLARY PRODUCTS

The rising level of sugar production affords an opportunity for increasing the output of industrial alcohol and paper and paper boards by using larger quantities of molasses and bagasse that will become available. The utility of alcohol for industrial purposes has only latterly been correctly appreciated and many alcohol based industries for producing polyvinyl chloride, plasticisers, acitate chemicals and other items. There is also, the use for potable purposes. If it is remembered that certain naphtha based operations can be conveniently carried on with the substitution of alcohol the need for encouraging the production of the latter raw material will be recognised. As it is not also difficult to get the required machinery from indigenous sources for establishing distilleries and allied units, the Government should even think of offering special incentives for boosting alcohol production as part of making a success of a new fuel policy designed to encourage the consumption of petroleum products. With an anticipated output of 70 lakh of tonnes of sugar by 1982 it should be easily possible to produce 140 million gallons of alcohol and this should mean that there should be at least 70 distilleries of 2 million gallons each in different parts of the country.

As for bagasse, the time has arrived for formulating a positive policy designed to encourage the manufacture of paper and boards based on bagasse. The feasibility of manufacturing high grade paper and board with this raw material has been established beyond doubt. The sugar industry should be assured of an alternative fuel at an equitable price. This can be done by the Government supplying coal at a concessional rate or ensuring furnace oil without excise duty. If this is effected, atleast 50% of bagasse will be available for the manufacture of Paper and Boards. More than fifty per cent is not possible as the boilers cannot be converted for 100 per cent operation with coal or fuel oil.

6. (6) DISTRIBUTION POLICY

There is no reason why sugar cannot be made available to the different classes of consumers on a pooled basis and some schemes, formulated on the lines of the cement industry for ensuring uniformity in price, will be helpful in the long run. For achieving efficient distribution of sugar, a NATIONAL SUGAR MARKETING BOARD will have to be constituted. The free market sugar of 40% is now being bought by the bulk consumers at high prices which in turn sucks away the 60% of the allotted sugar for the general consumer. The duty of the NATIONAL SUGAR MARKETING BOARD should be to distribute this 40% at Rs. 2.50 per Kg. For all bulk consumers, quotas being given on the basis of the sales tax returns of the previous year. The factory should get at-least Rs. 200/- per quintal leaving the balance for meeting the expenses towards excise duty transport and handling charges.

In addition, the newly, constituted Marketing Board will also take charge of the 60% of the levy sugar at Rs. 1.50 per kg. from the factory for distributing it at Rs. 2/- per kg. to the general consumer uniformly throughout the country. To get this done, a fixed excise duty per quintal will have to be levied by the Government. The SUGAR MARKETING BOARD should organise about 50 to 100 public limited companies with a capital of Rs. one crore each to handle distribution of sugar throughout the country. These companies will pack sugar in one or two kg. packets and release the product through the retailers who can be co-operatives as also private traders.

In the promotion of these companies for the distribution of sugar, the specialised financial institutions of the country will have to come forward to assist them as they do in the case of industrial concerns. The posts of Managing Directors of these companies will open a new avenue of employment for the M. B. As. and M. Coms. and other qualified young men. Besides dealing in sugar, these companies can assist the distribution of other essential commodities such as wheat flour, cloth, kerosene, vanaspathi and dhal.

7. CONCLUSIONS

A commodity like sugar can be and should be supplied at a steady price and this can be done only by having a surplus capacity for production in case of any urgent need. It is only by projecting the future need for the next 20 years that we will be able to assure the growing internal demand for sugar at a reasonable price. Eternal vigilance is the price for freedom. Similarly, freedom from scarcity also needs eternal vigilance. Increase of indigenous capacity, regulated distribution and creation of a SUGAR MARKETING BOARD and a differential price between bulk consumers and the citizen should be the basis of the new policy.

Note presented to Union Planning Minister.

ANNEXURE–I.

STATEMENT SHOWING REGIONWISE INSTALLED CAPACITY AND PRODUCTION (in 1,00,000 Tonnes)

	At the beginning of the First Five year Plan i.e. 1950—51.				At the end of the Third Five Year plan i.e. 1965—66				Capacity expected in 1973–74 (in 100,000 tonnes)	Percentage of the total
	Installed capacity	Percent of total	Production	Percent of total	Installed capacity	Percent of total	Production	Percent of total		
Uttar Pradesh	8.55	51.2	6.02	53.8	12.63	39.2	13.74	38.9	13.66	23.13
Bihar	3.43	20.6	2.29	20.5	3.85	11.9	3.71	10.5	3.79	7.80
Haryana & Punjab	0.45	2.7	0.2	1.9	1.30	4.0	1.59	4.5	1.30	2.71
MadhyaPradesh	0.36	2.2	0.13	1.2	0.46	1.4	0.36	1.0	0.45	0.93
Rajasthan	0.13	0.7	0.01	0.1	0.19	0.6	0.18	0.5	0.22	0.45
West Bengal & Nagaland	0.10	0.6	0.04	0.3	0.22	0.7	0.12	0.4	0.27	0.56
Orissa	0.03	0.2	0.03	0.3	0.18	0.5	0.11	0.3	0.22	0.45
Assam	—	—	—	—	0.10	0.3	0.09	0.3	0.05	0.10
Maharashtra	1.63	9.8	1.23	11.0	5.83	18.3	7.81	22.1	13.85	28.52
Andhra Pradesh	1.03	6.2	0.24	2.1	2.67	8.3	2.98	8.4	3.82	7.86
Tamil Nadu	0.50	3.0	0.92	8.2	2.35	7.3	2.23	6.3	3.94	8.10
Mysore	0.41	2.4	0.02	0-2	1.48	4.6	1.53	4.3	3.98	8.20
Gujarat	—	—	—	—	0.45	1.4	0.55	1.6	2.60	5.35
ALL INDIA	16.68	100.0	11.18	100.0	32.25	100.0	35.33	100.0	48.56	100.0

ANNEXURE-II

Statement showing the area under cane, sugar produced, yield of sugar cane per acre, recovery per cent of cane yield of sugar per acre & number of factories worked in various states in our country during 1969–70 in important States.

States	Area under sugar cane in '000 acres.	Average yield of sugar cane per acre in tonnes	Production of sugar cane in '000 tonnes	No. of sugar factories	Total cane crushed in sugar factories in thousand tonnes	Sugar produced in tonnes	Recovery per cent of cane	Sugar produced per acre in tonnes.	Average No. of days worked.
Andhra	376	29.10	1160	19	3695	335227	9.07	2.64	152
Assam	82	19.40	163	1	121	10370	8.58	1.66	138
Bihar	415	14.17	588	28	3638	332522	9.14	1.30	128
Maharashtra	479	26.50	1427	41	9700	1042626	10.72	2.84	183
Gujarat	91	20.60	187	5	1027	98670	9.60	1.98	172
Madhya Pradesh	135	10.30	139	5	407	37380	9.17	0.94	113
Tamil Nadu	334	30.60	1108	16	3669	288759	7.87	2.41	202
Mysore	220	33.80	746	10	2498	242979	9.73	3.29	181
Orissa	96	25.00	240	2	196	17237	8.79	2.20	147
Punjab	386	13.20	510	6	793	69191	8.12	1.07	149
Rajasthan	125	5.40	67	3	233	19899	8.52	0.46	106
Uttar Pradesh	3454	17.70	6126	71	18077	1623840	8.98	1.59	187
West Bengal	66	17.30	118	1	148	14034	9.47	1.64	132
Haryana	405	19.00	768	3	1109	97139	8.76	1.66	184
ALL INDIA	6715	19.54	134438	215	47736	41656011	9.33	1.82	170

ANNEXURE–III.

Statement showing the per capita consumption of Sugar in Kilo gram in some of the countries in the world during the years from 1965 to 1969.

Country	Year				
	1965	1966	1967	1968	1969
United Kingdom	53.8	52.6	51.9	51.9	52.9
U.S.A.	47.4	48.2	48.0	49.9	49.5
U.S.S.R.	43.5	43.8	45.9	47.1	45.0
Canada	46.7	46.2	50.1	46.2	50.9
Australia	59.2	58.6	57.7	57.3	55.6
Germany	32.7	31.9	34.4	35.8	37.3
Japan	20.0	20.0	22.2	22.9	25.6
India	5.7†	6.3†	5.0†	4.6†	5.8†
World Average	18.3	18.6	18.9	19.4	19.4

† Exclusive of consumption of jaggery and khandasari.

ANNEXURE IV

Total Sugar Production Directly from Cane in important States in India (in metric tonnes)

State	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Andhra Pradesh	182726	187663	172192	237062	305585	298548	145455	188265	338660	335227	267219
Assam	6529	5428	4272	4379	6048	9040	6477	4011	5016	10370	7519
Bihar	385428	358677	170033	237873	391631	370989	211333	145959	259585	332522	292799
Gujarat	27808	33861	36893	41683	43300	54936	41707	46746	76638	98670	83957
Maharashtra	522907	507419	530230	546671	636387	780784	639332	620435	980669	1042626	1054884
Mysore	120266	137753	125408	114840	180305	153677	188100	122457	206451	242979	204684
Orissa	2812	4242	3533	5775	8366	11492	8591	5386	14843	17237	7603
Punjab	122436	90592	61445	68935	98311	157316	34856	26737	38344	69191	48093
Haryana	—	—	—	—	—	—	48013	53706	60205	97139	82756
Tamil Nadu	131464	116261	99064	138225	210044	223580	172855	185302	329808	288759	299024
Eastern Uttar Pradesh	468120	892950	231504	304452	430118	422763	266613	279011	372124	428354	382991
Western Uttar Pradesh	958474	809580	611117	799949	811879	951832	444028	571222	802587	1195486	916402
West Bengal	16006	16081	10773	9887	11989	12629	8108	6754	7490	14034	7660
All India	3028380	2730419	2135183	2562345	3231786	3532359	2158947	2242650	3557908	4265601	3740389

ANNEXURE–V

Figures showing the Average Recovery of Sugar percent in important States in India

States	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Andhra	9.47	9.90	10.29	9.64	9.26	9.29	8.76	9.30	9.14	9.07	10.21
Assam	7.89	8.60	9.69	9.17	9.07	9.10	9.31	9.38	9.06	8.58	8.16
Bihar	9.22	9.12	9.66	10.01	9.43	9.27	9.73	9.45	9.58	9.14	9.01
Gujarat	10.74	10.90	10.46	10.89	10.16	10.26	10.40	10.48	9.25	9.60	10.22
Maharashtra	11.65	11.85	12.12	11.97	11.65	11.32	11.29	11.44	11.04	10.72	11.25
Mysore	10.13	10.54	11.13	10.79	10.16	10.29	11.03	11.04	10.11	9.73	10.56
Orissa	9.12	8.68	8.81	8.26	8.39	8.61	8.44	8.90	9.68	8.79	8.32
Punjab	8.92	8.22	8.93	8.67	8.49	8.58	8.32	8.20	7.02	8.12	8.57
Harayana	—	—	—	—	—	—	9.01	8.62	8.02	8.76	8.69
Tamil Nadu	9.00	9.37	9.42	8.74	8.92	8.46	8.90	8.83	7.94	7.87	8.99
Uttar Pradesh	9.53	9.32	9.62	9.47	9.23	9.47	9.58	9.56	9.06	8.98	9.16
West Bengal	9.65	10.18	9.44	9.54	9.39	9.89	9.71	9.53	9.64	9.47	8.73
ALL INDIA	9.74	9.77	10.24	9.69	9.64	9.68	9.91	9.94	9.46	9.33	9.78

ANNEXURE VI

Average Duration of Crushing season in important States in India

State	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Andhra Pradesh	154	126	172	135	155	147	82	84	151	152	100
Assam	104	83	50	64	82	116	85	56	67	138	111
Bihar	156	656	68	88	148	143	75	59	104	128	116
Gujarat	142	116	154	152	164	195	132	108	161	172	100
Maharashtra	167	156	150	129	154	186	145	132	196	183	164
Mysore	179	173	144	137	212	152	83	99	167	181	129
Orissa	91	143	113	77	96	114	97	65	114	147	91
Punjab	165	136	84	78	140	184	89	72	99	149	106
Haryana	—	—	—	—	—	—	92	108	124	184	162
Tamil Nadu	213	154	141	185	202	190	134	124	240	202	192
Uttar Pradesh	177	151	99	124	152	154	82	92	137	187	146
West Bengal	103	105	57	51	115	107	73	70	70	132	83
All India	167	146	108	120	153	159	95	94	150	170	142

" While it is imperative that the distribution of levy sugar should be on a fool-proof basis and there is no leakage into the open market, the quota for free sale also should be marketed in an organised manner." wrote Mr. N. Mahalingam to the Executive Committee of I.S.M.A.

2

Towards Self Sufficiency in Sugar

INTRODUCTION

The Indian Sugar Mills Association, South Indian Sugar Mills Association and Decan Sugar Mills Association have a special responsibility in the 1972-73 crushing season to increase production to the maximum extent possible and ensure also its proper distribution among all States. There is really no warrant for taking an extremely pessimistic view of the report of 1972-73. This is because even with the unfavourable weather conditions in Uttar Pradesh, Bihar and Maharashtra, cane supplies will be much larger than in 1971-72 when the standing crop was much smaller than 1970-71 due to the fitful policy pursued by the Government and the heavy arrears in respect of cane payments with an unprecedented accumulation of sugar stocks and the failure of the Government to provide the necessary financial assistance for maintaining stocks of over 21 lakh tonnes. As the arrears have been cleared and higher cane prices also have been paid in many States, the area under the crop has increased. The industry may not, of course, have the full benefit of the additional acreage and higher *productivity as the hot weather and dry spell should have affected quality and yield to some extent as happened* in Tamil Nadu two seasons back when there was a drought in some districts.

II. NO CAUSE FOR ALARM

With a higher minimum price for cane and a continuance of a policy of partial decontrol it should certainly be possible to achieve an output of 36 lakh tonnes against nearly 31 lakh tonnes in the current season. With the carry-over likely to be 5.50 lakh tonnes at the end of the season and *stocks with the trade of about 3 lakh tonnes, the total availability* in 1972-73 may be around 44.50 lakh tonnes. This quantity will be sufficient to take care of the needs of all classes of consumers in different States in the next season. There has been discouragement to consumption on account of high prices in the open market. There has also been a slowing down in the growth rate after the sharp rise in consumption recorded in *1969-70 and 1970-71. As there will also be* reduced purchasing power in the next agricultural season due to poor harvest in 1972-73 it will be reasonable to presume that aggregate consumption will not be more than 37.38 lakh tonnes. Allowing for export obligations of one lakh tonnes the total *requirement will be* 39 lakh tonnes at the outside limit. This will mean that stocks at the end of the 1972-73 crushing season will *not be more than 5½ lakh tonnes. If the* trade continued to maintain stocks of 3 lakh tonnes, the carry-over by mills into 1973-74 may not be more than 2½ lakh tonnes.

This will indeed be a precarious situation. But I have no doubt that there will be a *sharp increase in production* in 1973-74 to 45 lakh *tonnes with the favourable weather* conditions for cane cultivation and payment of higher cane prices. *With* aggregate availability of 50.50 lakh tonnes, the carry-over will *improve distinctly even with the* upward trend in consumption was *resumed in* 1973-74 *and including* exports of 2 lakh tonnes, the total requirement was of the order of 43 lakh tonnes. In this situation even if internal production happened to be about 44 lakh tonnes, the situation can be easily managed.

When framing the new policy, it is therefore, necessary to take into consideration the developments that are likely to take place in the next three years. This is imperative because new trends in consumption may arise after one or two years with a pick up in agricultural production and a higher level of plan outlay. There is no escape from fixing a minimum price for cane at Rs. 85 per tonne and making also additional payment to the grower where the recovery was higher than 8.5 per cent by granting a premium of one rupee per tonne where there was an improvement in the recovery by 0.1 per cent. If this higher cane price was fixed, the losses that would have sustained on levy sugar may not be so heavy as it is now and there will be no anxiety on the part of sugar mills to secure unduly high prices for the quota for free sale and make reasonable profits after wiping out these losses.

III. NO NEED FOR IMPORT

Under these circumstances, any talk of importing sugar will be only aggravating the situation without being helpful in bringing about any immediate relief to the consumer in the shape of easier availability or lower prices. Actually Mr. M. L. Apte's suggestion that there will have to be imports of sugar for 5 lakh tonnes to get over the problems of 1972–73 has been responsible for an unnecessary rise in prices. The fears about an accentuation of shortage have led to speculative buying and hoarding. Apart from the fairly high level of prices now prevailing in the international market, at £ 80 per tonne, it will be difficult to arrange for immediate imports of large quantities without pushing up prices in the international market to over £ 120 per tonne. It will take at least 18 months to arrange for regular deliveries of sugar from abroad by which time, the crisis would have been passed and only the harm of talk of importing sugar would have been caused.

The really difficult period will be October—November this year when actual production may not be more than 1½ lakh tonnes. As stocks on hand with mills may not be more than 5½ lakh tonnes, this would mean a virtual obliteration of stocks with mills by the end of November to one lakh tonnes, before it builds up again in the subsequent months with a higher level of seasonal production. If only as many mills as possible could be coaxed to commence their crushing operations in October and November with the grant of a sizeable rebate in excise duty on sugar produced in these two months and the State Governments also agree to waive the cess on cane and purchase tax, there can be additional production of two lakh tonnes if not three lakh tonnes. Even if it is meant that the industry as a whole would have to complete its crushing operations in 1972-73, by May, in nearly all States, on account of the commencement of early operations, the effort would be worthwhile as the sense of crisis would disappear once the situation is properly handled in October - November. It would in any case be possible to produce 36 lakh tonnes and with the grant of rebate also for late crushing and an overall rebate for excess production over 1971-72, the actual output can be even raised to 38 lakh tonnes.

IV. DISTRIBUTION POLICY

Simultaneously with these arrangements for boosting production there will also have to be clear thinking in respect of distribution of sugar at controlled prices and for free sale. The distribution of levy sugar particularly is not being carried out effectively as inadequate arrangements for meeting the needs of consumers in the semi-urban and rural areas particularly and delays in lifting stocks from mills have added to the pressure on supplies in the open market. As the machinery is defective, the allotted quotas of levy sugar do not move quickly into consumption. This has compelled the consumers to get their requirements at least in part from the open market and the opportunity is utilised by traders to push up prices.

In this process, some part of the levy sugar also finds its way into the open market because of the wide disparity in prices between levy sugar and sugar for free sale.

While it is imperative that the distribution of levy sugar should be on a fool proof basis and there is no leakage into the open market, the quota for free sale also should be marketed in an organised manner. The trade should not be given an opportunity to handle the whole quantity. The quota of free sale should, in fact, be placed at the disposal of the Central Government at agreed prices and the Central Government in turn should give directions to the mills or appoint wholesalers to supply stipulated quantities to bulk consumers like bakeries, confectioners, hostel establishments, canteens and others at a fixed price, not exceeding Rs.240/- per tonne excluding excise duty, sales tax and transport charges. The quota of sugar for free sale not disposed of by the Central Government by 20th of every month can be sold without any restrictions by the sugar mills concerned in the open market. It may work out in actual practice that about 75% of the quota for free sale will be absorbed directly by bulk consumers and the balance will have to be marketed through the trade. In effect, 60% of production constituting levy sugar will be sold through their fair price shops. Another 30% of current production constituting part of the quota for free sale will be at the disposal of the Central Government which will allot the quantities involved to bulk consumers in consultation with the State Governments. The balance of 6.5 per cent of production after reserving 3.5 per cent for export can be marketed without any restrictions. There will, therefore, be three sets of prices, one for levy sugar, another agreed higher price for supplies to bulk consumers and the third fluctuating price in the open market which will relate only to 6.5 per cent of total production.

It will not be correct to place at the disposal of State Governments any part of the quota for free sale as it is only with an equitable allocation of levy and free sale quotas that the requirements of individual States can be satisfactorily met.

An analysis of production and consumption for 1970-71 of the estimates of production and consumption for 1971-72 and assumed production and consumption for 1972-73 (vide Tables) will show that 10 out of 16 Regions have a deficit in respect of their requirements of sugar and only Uttar Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu and Mysore have surpluses, which have to be marketed in other States. Mr. M.L.Apte's move unilateraly to make available to the Government of Maharashtra sugar for free sale at an agreed price of Rs.230/- per quintal might, therefore, result in the denial of the legitimate requirement of other States. On the basis of the estimates of production and consumption in 1972-73, Uttar Pradesh will have a surplus of production over consumption in its region of 6.25 lakh tonnes, Maharashtra 3.51 lakh tonnes, Andhra Pradesh 93,000 tonnes, Tamil Nadu 90,000 tonnes, Bihar 38,000 tonnes and Mysore 32,000 tonnes. Maharashtra's surplus over its requirements constitutes actually 28% of the total surplus of 12.29 lakh tonnes.

Uttar Pradesh, of course, is in a better bargaining position in respect of prices for its quota of sugar for free sale and may demand a higher price on the plea that its cost of production is higher than those of other States. Maharashtra has, of course, the advantage of higher recovery and lower costs and may make good profits even at Rs. 230/- per quintal. SISMA area, on the other hand, may need a higher price of Rs. 240/- per quintal. The question may be considered whether the Government can think of pooling the agreed prices for surrendering part of the quota, for free sale for being supplied to bulk consumers. The problem will not present any serious difficulties as only about 12 lakh tonnes will be involved. Unnecessary movement of sugar can be avoided and the bulk consumers also benefited on the same basis all over the country.

V. SPECIFIC DUTY

With fool-proof distribution of levy sugar and the satisfaction of the needs of bulk consumers to a great extent, the pressure on open market supplies will not be so keenly felt as now. The Government can also help to bring down prices by fixing a uniform specific excise duty of Rs.40/- per quintal for levy as well as free sugar. In that case, even the bulk consumers may not have to pay more than Rs. 300/- per quintal even assuming that the agreed price for surrendering free sale quotas will be Rs.240/- per quintal. Taking into account an excise duty of Rs.40/- per quintal and transport and other charges of Rs.10/- per quintal, the end- price to the bulk consumer will not be more than Rs.300/-per quintal. It will be inadvisable to surrender completely the quotas for free sale to the State Governments or even part of the quotas to them without reference to the All-India picture and direction from the Central Government as it will create problems for deficit States which can be helped only by the six surplus States and by Maharashtra and Uttar Pradesh particularly out of these six States as they have the largest surpluses.

VI. THE SUMMING UP

To sum up, any talk of imported sugar is highly impractical and will only do more harm than good. The situation is not really so alarming as it is made out to be. Besides, the difficulties involved in importing sizeable quantities of sugar for use in the first two months of next season, the difficult situation if anything, will be only in October - November, 1973, when the stocks with the mills would have declined to ridiculously low level. But the position then will not be desperate because of the prospect of bumper production of 45 lakh tonnes. The new policy should be so fashioned that the achievement of an output of 38 lakh tonnes in 1972 – 73, 45 lakh tonnes in 1973 - 74 and 50 lakh tonnes in 1974 - 75 is facilitated. The minimum price for cane should be Rs. 85 per tonne based on a recovery of 8.5 per cent. There should be a premium of Re. 1/- per tonne for every increase in the percentage of recovery of 0.1 per cent over the basic recovery of 8.5 per cent. When fixing levy prices for sugar the increase in wages, cost of other raw materials, higher interest charges etc., should be borne in mind and these should not give rise to any dispute and should not also result in any notional loss for mills even on the basis of the revised minimum price for cane. The excise duty on sugar for controlled distribution and free sale should be only on a specific basis, say Rs. 40/- per quintal. This will obviate the differential incidence of the excise duty even in respect of levy sugar where the prices vary and avoid the complications arising out of frequent revisions of tariff value for determining the excise duty on sugar for free sale. The quotas for levy sugar should be expeditiously distributed on a fool-proof basis. Three fourths of the quota for free sale or 30% of current production should be made available to the Central Government for being supplied to bulk consumers at a price of Rs. 240/- per quintal exfactory and before payment of excise duty. The balance of 6.5 per cent of production after reserving 3.5 per cent for exports should be at the disposal of sugar mills to be sold in the open market at their discretion. The residual balance of 3.5 per cent may be earmarked for exports though it may be considered as a temporary measure whether exports can be completely suspended in the first few months of the 1972-73 season and obligations completed in the light of developments after April, 1973. With an intelligent handling of available stocks of sugar incentives for boosting production in the next three seasons and complete understanding between the sugar mills, the state Government and the Central Governments, the crisis can be easily got over without importing sugar and without there being any skyrocketing of price.

TABLE—1

State-Wise Trends in Production and Consumption 1970-71

	States	Production (1)	Consumption (2)	Excess or deficit † (2–1)
1.	Assam	0.08	1.04	+0.96
2.	West Bengal	0.08	3.41	+3.33
3.	Bihar	2.93	2.11	—0.82
4.	W. Uttar Pradesh	11.99	5.23	—6.76
5.	E. Uttar Pradesh			
6.	Orissa	0.37	0.66	+0.29
7.	Punjab	0.48	2.89	+2.41
8.	Haryana	0.82	1.14	+0.32
9.	Tamil Nadu	2.99	2.66	—0.33
10.	Andhra Pradesh	2.67	2.02	—0.65
11.	Maharashtra	10.54	7.49	—3.05
12.	Gujarat	0.83	3.09	+2.26
13.	Madhya Pradesh	0.37	1.87	+1.50
14.	Mysore	2.04	1.97	—0.07
15.	Rajasthan	0.13	1.68	+1.55
16.	Kerala	0.15	1.10	+0.95
17.	Others	0.93	1.89	+0.96
		37.40	40.25	+2.85

† 1. Excess represents the additional requirement over regional production.

2. Deficit represents the surplus in production after meeting regional consumption.

TABLE—2

State-Wise Trends in Production and Consumption

(Estimated Production-Estimated Consumption 1971-72)

	States	Production (1)	Consumption (2)	Excess or Deficit † (2-1)
1.	Assam	0.05	0.96	+0.91
2.	West Bengal	0.01	3.15	+3.14
3.	Bihar	1.52	1.95	+0.43
4.	W. Uttar Pradesh	8.40	4.84	—3.56
5.	E. Uttar Pradesh			
6.	Orissa	0.06	0.61	+0.55
7.	Punjab	0.32	2.67	+2.35
8.	Haryana	0.72	1.05	+0.33
9.	Tamil Nadu	2.96	2.46	—0.50
10.	Andhra Pradesh	3.02	1.87	—1.15
11.	Maharashtra	10.00	6.93	—3.07
12.	Gujarat	0.95	2.87	+1.92
13.	Madhya Pradesh	0.21	1.73	+1.52
14.	Mysore	2.38	1.82	—0.56
15.	Rajasthan	0.07	1.55	+1.48
16.	Kerala	0.11	1.02	+0.91
17.	Others	0.22	1.72	+1.50
		31.00	37.20	+6.20

† 1. Excess represents the additional requirement over regional production.

2. Deficit represents the surplus in production after meeting regional consumption.

TABLE—3

State-Wise Trends in Production and Consumption
(Project 1972-73)

	States	Production (1)	Consumption (2)	Excess or Deficit † (2-1)
1.	Assam	0.08	0.96	+0.88
2.	West Bengal	0.08	3.15	+3.07
3.	Bihar	2.33	1.95	—0.38
4.	W. Uttar Pradesh	11.09	4.84	—6.25
5.	E. Uttar Pradesh			
6.	Orissa	0.37	0.61	+0.24
7.	Punjab	0.48	2.67	+2.19
8.	Haryana	0.82	1.05	+0.23
9.	Tamil Nadu	3.36	2.46	—0.90
10.	Andhra Pradesh	2.80	1.87	—0.93
11.	Maharashtra	10.44	6.93	—3.51
12.	Gujarat	0.83	2.87	+2.04
13.	Madhya Pradesh	0.37	1.73	+1.36
14.	Mysore	2.14	1.82	—0.32
15.	Rajasthan	0.13	1.55	—1.42
16.	Kerala	0.15	1.02	+0.87
17.	Others	0.93	1.72	+0.79
		36.40	37.20	+0.80

† 1. Excess represents the additional requirement over regional production.

2. Deficit represents the surplus in production after meeting regional consumption.

EXPLANATORY NOTE ON STATISTICAL DATA SUPPLIED ON PAGES 169 to 171

The estimates of production and consumption for 1970-71 on a State-wise basis have been given in Table 1 based on the data provided by the Indian Sugar Mill Association. The consumption of all-India in 1970-71 at 40.25 lakh tonnes as compared to 32.50 lakh tonnes in 1969-70 is exaggerated because stock with trade have been replenished to the extent of 3 lakh tonnes. The actual consumption is, therefore, taken at only 37 lakh tonnes. (2) In respect of 1971-72, no increase in consumption has been assumed as the despatches from sugar factory show that aggregate consumption in the current season may not be again more than 37 lakh tonnes. As estimated production will be only 31 lakh tonnes, the surplus and deficit in production over consumption have been separately computed in Table 2. (3) Total production in 1972-73 season has been assumed at 36 lakh tonnes. It has also been assumed that there will be no increase in consumption because of high prices and drought in several parts of the country. Production and consumption in the next season can thus be nearly in balance, but there may be variations in surpluses and deficits because of variation in production in some States even though aggregate production will be higher by 5 lakh tonnes at 36 lakh tonnes. This position is brought out in Table 3.

Note Presented to I S M A Committee Meeting — 17-8-72.

" An integrated sugar complex, having a Sugar Mill, a Paper Mill and an Alcohol Plant, is a must for Tanjavur District" The scope for three such complexes was outlined by Mr. Mahalingam in a note presented to the Tamil Nadu Planning Commission.

3

Integrated Sugar Industry in Tanjavur District

Three sugar mills with a daily crushing capacity of 4,000 tonnes each can be advantageously located in the areas, a little interior from the coast, in Tanjavur District with the definite objective of establishing an Industrial complex, within a defined period, which will be in a position to produce not only large quantities of sugar but also alcohol-based products and bagasse-based paper. No attempt has so far been made to create integrated production facilities by making the best use of the opportunity available for bringing about a spectacular growth of the sugar industry in different parts of the country.

In Tanjavur District, it will not be difficult to divert about one lakh acres now under other crops for cultivating cane as the yield of paddy and other crops is being substantially raised with an increase in the area under high yielding varieties and the adoption of new techniques of cultivation. Besides, the location of three large-sized sugar mills on a suitably dispersed basis can be helpful in bringing about a metamorphic change in the complexion of the district economy.

It has been assumed that the new mills will be successful in having a crushing season of 300 working days in a year. On this basis, an optimum quantity of 12 lakh tonnes of cane can be crushed in a season. The land required for raising this quantity of cane will be 30,000—35,000 acres. The cost of each mill will be around Rs. 7 crores including working capital of Rs.75 lakhs. There will be no difficulty in raising the required funds as with suitable pursuasions, the cane growers may be asked to make a good contribution. In any case, the total of Rs.21 crores for three mills can be raised without much difficulty if the existing entrepreneurs were permitted to locate these factories in the private sector. The equity and preference capital will have to be Rs.2.80 crores, equity capital being Rs.2.25 crores and preference capital Rs.55 lakhs. The balance of Rs. 4.20 crores will have to be in the form of loans from the statutory financial corporations and credit against deferred payment terms. The sugar mills will be earning reasonable profits right from the beginning with adequate attention to the development of cane cultivation in areas adjoining the factories. It should be possible to produce 1.08 lakh tonnes of sugar in a season with the handling of 12 lakh tonnes of cane (on the basis of a recovery of 9%). Even if the quantity of only 10 lakh tonnes of cane was handled the output of sugar can still be 90,000 tonnes in a season. The gross profit before depreciation and interest charges can be reasonably estimated at Rs. 1.25 crores under a scheme of total controlled distribution of sugar and reasonable levy prices and of Rs. 175 crores with a policy of partial de-control. It will not, therefore, be difficult to pay a reasonable dividend on equity capital. With an increase in the yield per acre it may be even found desirable to expand crushing capacity at later stages.

With the crushing of 10 lakh tonnes of cane, by a sugar mill, there can easily be an output 40,000 tonnes of molasses.

The total output of three units will be 1.2 lakh tonnes on a conservative estimate and 1.44 lakh tonnes on a liberal basis. As it will be desirable to construct distilleries with an optimum capacity of 3 million gallons each, only two distilleries can be located in two of the three mills on the understanding that the quantity of molasses of these units will be earmarked for the two distilleries. The cost of each distillery will be Rs. 1 crore. As the equipment required for distilleries is available indigenously and the distilleries can be brought into being in the second year of operation of sugar mills, the required loan can be raised at the appropriate stage. It may, however, be necessary to have a larger share of equity and preference capital in the case of sugar mills which will also have their own distilleries. In that event, the paid-up capital may have to be higher at Rs. 3.20 crores with the equity capital of Rs. 2.50 crores and preference captial at Rs. 70 lakhs. The balance of Rs. 4.8 crores will be in the form of loans and deferred payment. The toal capital cost in respect of a sugar mill having a crushing capacity of 4000 tonnes daily and a capitive distillery will be Rs. 8 crores.

It may, however, be desirable to promote separate companies for establishing distilleries and manufacturing subsequently alcohol-based chemical like polyvinyl chloride, styrene monomer, cellulose acetate flakes and other alcohol based chemicals. For manufacturing alcohol-based products the capital outlay will be Rs.10 crores for each project, requiring a total outlay of Rs. 20 crores for two projects. The pattern of production of the two units will have to be suitably co-ordinated. For a capital outlay of Rs. 10 crores, the equity and preference capital will have to be Rs.4 crores, the balance of Rs. 6 crores being in the form of loans and deposits. The distilleries alone will be able to make a profit of Rs. 20 lakhs after interest charges and before depreciation on an outlay of Rs. 1 crore. The project for manufacturing alcohol-based chemicals will be able to earn a profiit of 2.5 crores, before depreciation and after interest charges, on an outlay of Rs.10 crores in each case. What is really important, is the absence of haulage in respect of molasses over long distances and the use of alcohol for industrial purposes proving to be helpful in avoiding the use of scarce naphtha.

It should also be the objective to encourage the use of bagasse for the manufacture of paper and boards in increasingly large quantities in the coming plan periods as raw materials like bamboo and soft woods will not be available in the required volume. It is also imperative that a regular source of raw materials should be found for sustaining a growing paper industry and this will not be possible without using bagasse as the raw material in a big way.

With the crushing of 10 lakh tonnes of cane by each sugar mill, bone-dry-bagasse may be available for 1.6 lakh tonnes annually. The three mills together will thus be in a position to generate 4.8 lakh tonnes of bagasse every year. Assuming that three tonnes of bagasse are needed for one tonne of paper (the actual quantity required is 2.83 tonnes of bagasse per tonne of paper) an output of 1·6 lakh tonnes of paper can be produced. Allowing for variations in availability it will be advisable to instal one paper mill with an initial capacity of 250 tonnes daily capable of an output of 80,000 tonnes annually. This capacity can be subsequently raised to 400 tonnes daily for enabling an annual production of 1,40,000 tonnes of paper annually. The quantity of bagasse required will be 4.2 lakh tonnes for feeding the expanded capacity which can be easily supplied by the three sugar mills. In order to release this quantity the sugar mills will have to be supplied furnace oil on a duty free-basis. Then only, it will be feasible to use bagasse as raw materials in the place of conventional bamboo or soft woods.

The exchequer will not be a loser on account of the full rebate in excise duty in respect of furnace oil used by sugar mills. It is quite likely that after optimum production of sugar has been established, 25% of bagasse will be surplus to the requirements of mills. This will be 1.2 lakh tonnes of bagasse or 30% roughly of the requirements of the paper mill. It will have to be assumed however, that nearly the whole of the quantity required as fuel will have to be in the form of furnace oil, which may result in the loss of the excise duty for about Rs. 2 crores. This loss will not however, be a net loss to the exchequer as on an output of 1·4 lakh tonnes of paper alone, the excise duty collected will be Rs.3½ crores. The amount will be more if the whole quantity of 4.8 lakh tonnes of bagasse is used for producing 1.6 lakh tonnes of paper.

It is also pertinent to point out that the foreign exchange expenditure involved in imports of furnace oil needed by the Sugar Mills or the equivalent quantity of crude will be only Rs. 1.75 crores while the value of paper produced will be easily Rs.28 crores. In the absence of this output of paper there may be need for liberalising imports of paper and paper boards for meeting the growing demand. The advantage of effective import displacement in this manner will be readily recognised.

The cost of a paper mill with an initial capacity of 80,000 tonnes will be easily Rs.80 crores. This cost will increase to Rs. 125 crores as an output of 1.4 lakh tonnes is reached. For a capital outlay of Rs.80 crores the equity and perference capital will have to be Rs. 27 crores (assuming a higher debt equity ratio of 2:1), the balance of Rs. 53 crores will be in the form of loans and deferred payment. There will be subsequent issue of equity and perference share, apart from additional loans when the output is increased to 1.4 lakh tonnes annually.

On rough estimate, therefore, the investment in the sugar industry complex envisaged on the above lines, will be Rs. 121 crores in the first stage and Rs. 166 crores in the second stage. The output of sugar will be a minimum of 2.7 lakh tonnes, alcohol 6 million gallons, and paper 80,000 tonnes annually. These will be higher at 3.24 lakh tonnes of sugar, 7 million gallons of alcohol, and 1.4 lakh tonnes of paper when available facilities are fully utilised.

Note Presented to State Planning Commission Tamil Nadu, Oct. 1972.