CHAPTER II

2. REVIEWS RELATING TO GOVERNMENT COMPANIES

2A. THE HUTTI GOLD MINES COMPANY LIMITED

HIGHLIGHTS

The Company has been incurrng losses continuously since 1997-98. The loss of Rs.2.62 crore as on 31 March 2001 was understated by Rs.24.88 crore due to non provision of depreciation, gratuity liability etc.,

(Paragraph 2A.5)

Fast depletion of broken ore stock at Hutti points to the fact that the pace of mine development was poor.

(Paragraph 2A.6)

Low utilisation of Large Diametre Blast Holes (LDBH) machinery led to heavy backlog in stope development necessitating engagement of outside contractor for drilling. Extra expenditure on not awarding the LDBH drilling contract to the lowest offerer amounted to Rs.0.63 crore.

(Paragraphs 2A.7.2.1.2 and 2A.7.2.1.3)

Due to uneconomic loco-transportation of ore from Central Shaft and Village Shaft the Company incurred an extra expenditure of Rs.1.66 crore.

(Paragraph 2A.7.2.1.6)

Entrusting the work of removal of overburden to a private contractor at higher rates compared to departmental cost resulted in an extra expenditure of Rs.1.31 crore.

(Paragraph 2A.7.2.2)

The excess tail loss over the anticipated tail loss in CIP technology (0.20 gpt) was 327.319 Kg. of gold valued Rs.13.86 crore.

(Paragraph 2A.7.3.2)

Operation of uneconomic diesel compressors for compressed air instead of operating cost-effective electrical compressors resulted in an avoidable extra expenditure of Rs.2.02 crore.

(Paragraph 2A.8.3)

Improper implementation of modernisation and expansion at Hutti resulted in creation of higher hoisting capacity than the milling capacity, which led to mismatch.

(Paragraph 2A.9.1)

Absorption of Turnover Tax on sale of bullion resulted in extension of undue benefit of Rs.0.72 crore to Bangalore Refinery.

(Paragraph 2A.11)

2A.1 Introduction

The Company was formed by the Nizam of Hyderabad as Hyderabad Gold Mines Company Limited in 1947. Later on, this Company was transferred (December 1956) to Karnataka State and its name was changed to 'The Hutti Gold Mines Company Limited'. With a view to rehabilitate, Chitradurga Copper Company Limited and Karnataka Copper Consortium Limited, operating Chitradurga and Kalyadi copper mines and incurring heavy losses, were taken over (July 1985) with retrospective effect from 31 March 1983. The extraction of copper concentrate in Chitradurga was discontinued from May 1994 due to uneconomic operations and the plant after modifications has been used (October 1995) to treat gold ore from Ajjanahalli Mines. The Kalyadi mine was also closed down in September 1996 due to uneconomic operations.

2A.2 Objectives

The main objectives as envisaged in the Memorandum of Association are to explore gold and other minerals and precious stones in Karnataka State, to acquire mining and other rights and to raise gold ores, other minerals and precious stones from the mines and convert such ores into metal. At present the activities of the Company are confined to exploration of gold, extraction of gold ore at Hutti, Ajjanahalli, Uti and Hirabuddani mines and converting ore into gold at Hutti and Chitradurga.

2A.3 Scope of Audit

The working of the Company was last reviewed and included in the Report of the Comptroller and Auditor General (Commercial) for the year ended 31 March 1988. This was discussed by Committee on Public Undertakings on 19 June 1997 but no recommendations were made. The present review conducted during October 2001 to March 2002 covers the activities of the Company for the last five years from 1996-97 to 2000-2001 including the implementation of the modernisation and expansion programme to enhance the mining capacity from 910 Metric Tonne per day (tpd) to 3,000 tpd. The findings of Audit are discussed in subsequent paragraphs.

2A.4 Organisational setup

The Company is managed by a Board of Directors consisting of seven members including the Chairman and Managing Director (CMD), all appointed by the Government. The CMD is the only full-time functional director of the Company and day-to-day affairs are carried out by him under the general directions and supervision of the Board. Three directors are drawn from Hindustan Zinc Limited, National Institute of Rock Mechanics and Indian Institute of Science. In the absence of full time functional directors, the

Company did not have the benefit of specialised knowledge in technical and financial areas when the Company was implementing the modernisation and expansion programme. The two production units at Hutti and Chitradurga are headed by an Executive Director and a Deputy General Manager respectively. The present CMD has been holding office since October 1999.

2A.5 Financial position and Working results

The authorised share capital of the Company as on 31 March 2001 was Rs.20 crore of which Rs.2.92 crore was subscribed and fully paid up by Government of Karnataka and Rs. 0.04 crore by private individuals. The financial position of the Company for the last five years up to 2000-01 is given in Annexure 10. The increase in borrowings from Government of Karnataka during 2000-01was due to conversion of Rs.4.65 crore royalty payable on sale of gold into interest free loan. The increase in Capital Work-in-Progress from Rs.1.22 crore in 1996-97 to Rs.28.08 crore in 2000-01 was due to implementation of modernisation and expansion programme. The working results of the Company for the last five years are tabulated below:

Particulars	1996-97	1997-98	1998-99	1999-2000	2000-01
	(Rupees in crore)				
Total income (net of stock adjustments)	79.18	71.12	70.27	69.78	86.18
Total expenses	68.20	76.85	72.85	75.43	86.52
Cash Profit/(Loss)	10.98	(5.73)	(2.58)	(5.65)	(0.34)
Depreciation	2.15	2.28	2.39	-	0.01
Write off of Deferred revenue expenses, losses etc.	2.04	2.21	3.13	2.86	2.27
Net profit/ (Loss) as per accounts	6.79	(10.22)	(8.10)	(8.51)	(2.62)
Provisions not made in Accounts♦	-	-	20.65	28.09	24.88
Profit /(Loss)	6.79	(10.22)	(28.75)	(36.60)	(27.50)

The Company has been incurring losses since 1997-98. The loss for the year ended 31March 2001 was understated by Rs.24.88 crore.

It could be seen from above table that the Company earned cash profit of Rs.10.98 crore in 1996-97 and thereafter started incurring cash losses. The losses were attributed to fall in the international price of gold and increase in finance charges from Rs.0.79 crore in 1996-97 to Rs.4.09 crore in 2000-01 due to bonds raised for modernisation. Audit analysis revealed that factors like low recovery, unviable investments in modernisation and low capacity utilisation also contributed to the cash losses. These are discussed in detail in the succeeding paragraphs.

2A.6 Ore Reserves

The ore reserves estimated by the Company during the last five years ending

♦ Towards Gratuity (1998-99, 1999-2000 and 2000-2001); Depreciation (1999-2000 and 2000-2001); Royalty (1999-2000); Leave encashment (1999-2000 and 2000-2001) and Capitalisation of revenue expenditure (2000-2001) as qualified by Statutory Auditors.

March 2001 are tabulated below:

Mine	1996-97	1997-98	1998-99	1999-2000	2000-01
	Lakh MT				
Hutti	68.72	63.82	64.71	66.02	63.90
Ajjanahalli	11.44	10.11	8.86	9.78	8.09
Uti	-	6.40	5.66	5.16	4.47
Hirabuddani	-	-	-	-	3.00

Fast depletion of broken ore stock at Hutti points to the fact that the pace of mine development was poor.

The Company has not documented its long-term policy for mine development and scientific mining practices to ensure simultaneous development commensurate with the exploitation of ore. The stock of broken ore available in the main underground mine at Hutti had reduced from 3.69 lakh tonnes in 1996-97 to 1.13 lakh tonnes in 2000-01. The fast depletion of the stock of broken ore points to the fact that the pace of mine development at Hutti was poor and not commensurate to the quantity of ore hoisted every year.

2A.7 Mining of Ore

2A.7.1 In underground mines, the basic operation consists of sinking a shaft slightly away from the gold bearing lodes (vein containing gold ore) and then approaching the lodes through cross cuts. Thereafter, tunnels are dug along the vein and the ore extracted. The extraction of ore involves drilling of holes, blasting, crushing, tramming and hoisting. This pattern is followed at regular levels with each level being approximately 30 metre below the other. The development of mines of the Company are discussed below:

a) Hutti Mine: The budget fixed by the Company for on-lode development varied from 1,017 metre in 2000-01 to 1,863 metre in 1998-99 during the last five years ending 31 March 2001. However, the budgeted targets were not achieved and the actual on-lode development had progressively decreased from 1,092 metre in 1996-97 to 236 metre in 2000-01.

Grade-wise classification of on-lode development for five years ending 31 March 2001 is tabulated below:

Year	0 to 2 gpt		2 to 5 gpt		5 to 10 gpt		10 to 17 gpt		> 17 gpt		Total mtrs	
	mtrs	%	mtrs	%	mtrs	%	mtrs	%	mtrs	%	Budg-eted	Actual
	Actual											
1996-97	670	61	184	17	123	11	61	6	54	5	1,740	1,092
1997-98	535	67	192	24	28	4	3	0	39	5	1,344	797
1998-99	310	70	67	15	29	6	3	1	35	8	1,863	444
1999-00	253	49	128	25	62	13	38	7	33	6	1,035	514
2000-01	128	55	67	28	18	7	13	7	7	3	1,017	236
Total	**1,896**	**61**	**638**	**21**	**260**	**8**	**121**	**4**	**168**	**6**	**6,999**	**3,083**

From the above table it is observed that 61 per cent of the development was in the non-payable grade of 0 to 2 gram per Metric Tonne (gpt) and the developments in the payable grades of 5 gpt and above constituted only a meagre 18 per cent.

Despite considerable mechanisation, mining development at Hutti had not kept pace with production requirements.

The fact that the production of ore in the underground mine at Hutti could not be increased to take advantage of the increased hoisting capacity (3,000 tpd) despite considerable mechanisation indicates that mining development had not kept pace with the production requirements. It is pertinent to mention that the development of the Hutti mine from 22nd level to 24th level took almost 20 years.

b) Uti mines: On the basis of detailed exploration plan, the Company decided in January 1996 to develop Uti mines situated at a distance of 20 km from Hutti. The total ore reserves available were estimated at 6.40 lakh Metric Tonne at an average grade of 2.41 gpt. However, the average grade of ore mined was 1.76 gpt. Underground mining was carried out up to July 1997 and due to sudden decline in gold prices and high cost of underground mining, the Company decided to switch over to open cast mining.

Continuing of mining activity for six years without examining the composition of ore for recoverability of gold resulted in avoidable expenditure of Rs.3.71 crore.

c) GR Halli: Based on the feasibility report prepared in June 1994, the Company commenced prospecting and mining of gold in GR Halli. The Company raised 13,533 MT of ore till October 2000 after incurring an expenditure of Rs.3.71 crore. In this connection it is observed that the Company continued the mining activity without conducting the analysis of ore characteristics for recovery of gold. The mining consultant also recommended in December 1997 to suspend the operations at GR Halli and commence only after proper evaluation of ore characteristics. The Indian Bureau of Mines, who were entrusted (February 2000) to conduct an examination of ore characteristics, in its report stated (September 2000) that about 30 per cent of gold is of free milling nature and the remaining gold is of refractory type and recommended detailed pilot scale tests with techno-economic feasibility studies prior to commercial exploration. As the refractory ore was to be roasted for recovery of gold involving substantial investment and as technology was not available in India, the Company decided to suspend the operation of GR Halli with effect from October 2000. Thus, mining activity at GR Halli for six years without examining the composition of ore for recoverability of gold resulted in avoidable expenditure of Rs.3.71 crore.

2A.7.2 Mining of ore

The Company follows underground mining at Hutti and Hirabuddini and open cast mining at Uti and Ajjanahalli. While the ore from Hutti, Hirabuddini and Uti are processed at Hutti plant, the ore mined at Ajjanahalli is processed at Chitradurga plant. The mine-wise ore raised/hoisted for the last five years are given below:

Year	Hutti	Uti	Hirabudani	Ajjanahalli
	MT			
1996-97	2,63,727	3,500	-	1,00,951
1997-98	2,77,430	11,160	800	1,31,618
1998-99	2,91,214	74,000	4,190	1,33,700
1999-00	2,54,529	49,231	3,085	1,17,620
2000-01	2,60,199	69,460	4,970	1,21,747

From the above it is seen that the ore hoisted at Hutti decreased during the last two years. This was due to dislocation on account of work of installation of new winder at Mallappa shaft at Hutti.

2A.7.2.1 Hutti Mine

On the basis of a mining plan prepared by the Survey Department, ore is extracted, crushed underground and hoisted to surface through the shafts using the winder. The following table indicates the quantity of ore extracted from each of the reefs during the period from 1997-98 to 2000-01:

Reefs	1997-98		1998-99		1999-2000		2000-01	
	MT	gpt	MT	gpt	MT	gpt	MT	gpt
Strike reef f/w	13,709	4.87	11,267	3.74	9,280	4.40	23,241	4.93
Strike reef	37,724	7.54	23,932	5.20	26,538	5.34	58,773	9.03
Zone I reef	57,362	3.88	39,520	4.87	41,089	5.13	64,140	5.92
Middle reef	25,928	6.39	15,209	11.35	16,319	10.20	25,964	10.60
Oakley's reef	26,207	6.00	55,183	5.74	54,049	5.84	27,385	8.58

As the middle reef contained richer grades of ore containing 6.39 gpt to 11.35 gpt and in view of the losses suffered by the Company since 1997-98, it could have utilised the richer grade ore reserves available in the middle reef as a short term contingency plan to tide over the difficult financial situation. Even the mining consultants recommended (December 1997) planning for extraction of high-grade ore. The Company stated in its reply (June 2002) that mining in richer areas is also resorted occasionally, thereby admitting the Audit contention. However, the fact remains that financial prudence required the Company to extract in middle reef.

2A.7.2.1.1 Utilisation of mining equipment

The Company did not maintain logbooks in respect of important machinery/equipment viz., drilling machines, rock breakers, locos and wagons, loaders and dumpers. It was observed that there were frequent breakdowns of these mining equipment, which were kept idle for want of spares etc. In the absence of data, the exact downtime of these underground machinery and consequent loss of production could not be assessed by Audit. The Company stated (June 2002) that it is not practicable to assess the utilisation of mining equipment. The reply is not acceptable as maintenance of logbooks is essential for monitoring and controlling utilisation of these equipment.

2A.7.2.1.2 Large Diametre Blast Hole Stoping

Low utilisation of the LDBH machines and decreased output resulted in heavy backlog in stope development and reduction of broken ore stock in underground.

The mining consultants informed (October 1991) the Company that Large Diametre Blast Hole (LDBH) stoping was extensively being used in Khetri and Kolihan mines of Hindustan Copper Limited and recommended introduction of the same in Hutti mines to increase production and reduce cost. This technique involves drilling of large diametre holes with 115 mm and 57 mm drill rods as against 37 mm drill rods in the conventional method. However, the Company introduced the LDBH technology only in 1995, after a delay of four years. The utilisation of the LDBH machines was very low and ranged from six per cent to 25 per cent during 1997-98 to 2000-01. The technique envisaged higher output of three MT per kg of explosives against two MT per kg in conventional method. However, the actual output was 1.28 MT as against three MT per kg resulting in excess consumption of 1.13 lakh kg of explosives during 2000-01 and 2001-02 valued at Rs.48.59 lakh.

The Company stated (June 2002) that lack of training for personnel was the main reason for low output. The Company did not give reasons for not deploying personnel for study/impart training as recommended by consultants during October 1992. Thus, the low utilisation of the LDBH machines and decreased output resulted in heavy backlog in stope development.

2A.7.2.1.3 Drilling of LDBH by Kvaerner Cementation India Limited

Extra expenditure incurred on account of not awarding the contract of LDBH drilling to the lowest offerer of first tender was Rs.0.63 crore.

In order to overcome the lag in the drilled reserves, the Company invited (February 2000) tenders for drilling 25,000 metre of blast holes (57 mm dia and 115 mm dia). In view of large variation in the price bid between the lowest (Rs.200 for 115 mm dia and Rs.240 for 57 mm dia) and the highest (Rs.775 for both the dia) offers, the Company decided to re-tender. The Company neither called for technical and commercial bids nor assessed the technical competency of the lowest tenderer before re-tendering the work. The only offer received in the re-tender (April 2000) was from Kvaerner Cementation India Limited (KCIL) at Rs.557 and Rs.421 who had offered a rate of Rs.522 and Rs.378 for 115 mm and 57 mm dia holes respectively in the first tender. The Company entered (August 2000) in to an agreement with KCIL for drilling of 25,000 metre at their quoted rates.

The extra expenditure incurred on account of not awarding the contract to the lowest offerer of first tender was Rs.0.63 crore and the extra expenditure compared to the departmental variable cost of Rs.362 per metre during 2000-01 worked out to Rs.28.10 lakh.

2A.7.2.1.4 Output per man shift

The norm fixed by the Company towards output per man shift (OMS) for conventional method was 0.85 MT. However, the target was not revised even after substantial mechanisation in the underground, especially on LDBH stopes. The LDBH stopes were expected to give an OMS of 3.6 MT. However, the actual OMS was substantially low and varied from 0.63 MT in

1998-99 to 0.55 MT in 2000-01. Due to low OMS the cost per MT of underground operations increased from Rs.940.11 in 1996-97 to Rs.1,321.48 in 2000-01. The Company contested (June 2002) audit observation regarding OMS and cost per MT of underground operations by citing OMS figures/cost per MT figures of March 2001 and March 2002 only. The contention of the Company is not tenable as the audit observation was based on the data for the entire period and selective data for March 2001 and March 2002 would not serve the purpose of ascertaining the actual performance vis-à-vis the norm.

2A.7.2.1.5 Tramming and hoisting

Loss of production due to low bandy factor was 312.58 kg of gold and corresponding loss of contribution was Rs.2.83 crore.

The ore broken in the underground is trammed in the bandys/granby cars for hoisting. The Company has considered the bandy factor[⊗] at 0.85. It was observed that the bandy factor was less than 0.85 during the entire period due to not filling the bandy to the optimum capacity and spillage in tramming. During the period from 1998-99 to 2001-02 (up to December 2001) the shortfall in tramming due to lower bandy factor was 62,504 MT. Milling plant was under-utilised as discussed in para 2A.7.3.1 subsequently and had spare capacity to process this 62,504 additional tonnage. The loss of production on this account worked out to 312.58 kg of gold (at an average of 5.00 gpt) with corresponding loss of contribution of Rs.2.83 crore. The Company (June 2002) while confirming the low bandy factor attributed the shortfall to voids created due to poor fragmentation. However, this could have been overcome by secondary blasting.

The trammed ore is hoisted from the underground through skips. The skip factor[Θ] in all the shafts (Mallappa, Central and Village shafts) was less than the designed capacity except in the Mallappa shaft during 1998-99, due to under loading of the skips and spillage during hoisting resulting in extra expenditure (not quantifiable) involved in the trips which could have been avoided had the skip factor been as per designed capacity.

2A.7.2.1.6 Transportation of ore from Central and Village shafts

Uneconomic loco-transportation of ore from Central Shaft and Village Shaft the Company incurred an extra expenditure of Rs.1.66 crore.

The mining consultants suggested (October 1995) installation of a conveyor for transportation of ore from Central and Village shafts to the mill instead of loco tramming on surface to reduce manpower and operating cost. The Company did not work out cost benefit analysis of transporting the ore through conveyor and continued to transport the ore from village and central shaft to the main crushing plant by diesel locos. In view of high cost of operation of diesel locos, the Company started transportation of ore from Central shaft partially by tippers from 1998-99. However, in the case of Village shaft no attempt was made to make the modifications needed to enable transportation of ore by tippers. Considering the savings of Rs.40 per MT by transporting the ore by tippers as compared to diesel locos from Central shaft during 1999-2000, the extra expenditure incurred by transporting 4,14,886 MT ore by locos instead of tippers during 1999-2000 to 2000-01 worked out to Rs.1.66 crore.

[⊗] bandy factor represents the level up to which broken ore is to be trammed
[Θ] skip factor represents the level up to which the trammed ore is to be hoisted

2A.7.2.1.7 Incentive scheme

The Company had not fixed the production levels on scientific basis for payment of incentive to its employees. Instead, it has continued to pay incentive based on the threshold limit of 31 to 60 per cent fixed 15 years ago for manual operations. In view of low threshold limit fixed as against International Labour Organisation Standards of 75 per cent especially when most of the underground operations were mechanised, the total incentive of Rs.4.02 crore paid during the period 1997-98 to 2001-02 for threshold limits of less than 75 per cent remained unproductive.

2A.7.2.2 Uti Mine

As already mentioned in paragraph 2A.7.1(b) the Company switched over to open cast mining from August 1997. The mining operations were suspended from January 1998 due to imposition of layoff. The mining operations were resumed with effect from June 1998 after lifting of layoff.

Entrusting work of removal of overburden to a private contractor at higher rates compared to departmental cost resulted in an extra expenditure of Rs.1.31 crore.

In view of accumulation of 3.06 lakh cubic metre of overburden, the Company invited (October 2000) tenders for removal of 1,500 to 2,000 tpd of overburden. The Company estimated the departmental cost as Rs.39 per MT or Rs.110 per cubic metre (excluding Rs.6 per MT towards cost of explosives to be supplied free of cost and Rs.3 towards fixed wages cost). The composite offer of Kala Mines and Minerals (KMM) at Rs.162 per cubic metre for removal of three lakh cubic metre was accepted in January 2001. The KMM commenced operations from February 2001 and removed 1.58 lakh cubic metre of overburden up to July 2001. As no space was available for keeping further removal of overburden, the Senior Manager (New Projects) directed (September 2001) KMM not to proceed further with the work. In the next month the Company acceded to the request of KMM to continue the removal of overburden and allowed them to remove additional 0.74 lakh cubic metre of overburden. In all 18,643 cubic metre of ore was excavated during the period from February 2001 to January 2002.

In this connection it is observed that:

(i) By entrusting the work of removal of overburden to KMM at higher rate compared to the departmental cost, the Company incurred an extra expenditure of Rs.1.31 crore. The Company stated (June/August 2002) that Uti mine required additional machinery of Rs.1.25 crore and manpower of 150-200 persons. As the open cast mine had reserves lasting up to year 2004 only, it would have saddled with idle machinery besides surplus manpower after depletion of the ore. The reply is not tenable as the Company had surplus manpower (as reported in para 2A.13 subsequently), which could have been utilised for this work. The additional funds required for purchase of machinery was only Rs.1.25 crore as against the estimated savings of Rs.1.56 crore on the removal of three lakh cubic metre of overburden. Further the machinery could have been disposed off after removal of overburden. Company also did not reckon the cash flow that might accrue in disposal of the machinery before taking decision to outsource.

(ii) As against 52,760 MT (equivalent to 18,643 cubic metre) of ore extracted during February 2001 to January 2002, only 1,427 MT of ore could be milled. This indicated that the very purpose of awarding the work of extraction of ore was not need based. On being pointed out (4 February 2002) the Company started milling higher quantity of Uti ore.

2A.7.3 Processing of ore

2A.7.3.1 Milling of ore

The processing of ore is carried out at Hutti and Chitradurga units. Hutti Gold Unit consists of four mills at Hutti and Chitradurga unit consists of two mills. The installed capacity, actual ore milled, gold recovered from Hutti as well as from Chitradurga for the last five years from 1996-97 to 2000-01 are given below:

Year	Installed Capacity (MT)	Ore Milled (MT)	% of Utilisation	Production of gold (Kg)	Grade of ore (gpt)
Hutti Unit					
1996-97	3,60,360	2,83,083	78.56	1,408	4.97
1997-98	3,98,580	2,93,640	73.67	1,438	4.90
1998-99	4,65,580	3,23,974	69.59	1,427	4.41
1999-2000	5,42,580	3,49,084	64.34	1,395	4.00
2000-01	5,44,580	3,35,845	61.67	1,785	5.32
Chitradurga Unit					
1996-97	1,71,500	96,350	56.18	186	1.93
1997-98	1,71,500	1,19,942	69.93	210	1.75
1998-99	1,71,500	1,30,293	75.97	220	1.69
1999-2000	1,71,500	1,27,721	74.47	185	1.45
2000-01	1,71,500	1,27,257	74.20	173	1.36

As may be seen from the table, the capacity utilisation at Hutti declined from 78.56 per cent in 1996-97 to 61.67 per cent in 2000-01. The actual average grade of ore processed progressively decreased from 4.97 gpt in 1996-97 to 4.00 gpt in 1999-2000. The maximum capacity utilisation during the last 5 years in Chitradurga was 75.97 per cent in 1998-99. The recovery was also low and declined from 1.93 gpt in 1996-97 to 1.36 gpt in 2000-01.

2A.7.3.2 Loss of gold in mill tailings

(i) The Company has fixed the norm for residual loss in the form of un-dissolved gold in tailings at 0.35 gpt. The Company does not have a system to assess mill-wise efficiency for effective production planning and control. The actual residue loss ranged between 0.57 gpt and 0.31 gpt and gold lost due to excess residue over 0.35 gpt during the last four years ending March 2000 was 187.335 kg valued at Rs.7.95 crore.

The Company stated (June 2002) that the final residue in solids and liquids were inevitable in gold processing units and it would be highly impracticable to reduce the residue to 0.35 gpt with present mills and grinding methods adopted. The reply is not tenable as it was possible to achieve the norms for the previous years since the Company was able to reduce the loss to 0.31 gpt during 2000-01.

The excess tail loss over the anticipated tail loss in CIP technology (0.20 gpt) was 327.319 kg of gold valued Rs.13.86 crore.

(ii) The Company was following the zinc precipitation and filtration method for recovery of gold. In July 1994 the Company decided to switch over to the new Carbon-in-Pulp (CIP) technology to reduce tail loss from 0.55 to 0.20 gpt and lower power consumption. While the Company introduced 500 tpd CIP in Chitradurga during 1995-96, two CIP plants of 1,000 tpd and 300 tpd were commissioned at Hutti during November 1996 and December 1998 respectively. The expected reduction in tail loss from 0.55 to 0.20 gpt was not achieved. The excess tail loss over the anticipated tail loss (0.20 gpt) for the years 1997-98 to 2000-01 worked out to 327.319 kg of gold valued at Rs.13.86 crore.

The Company stated (June 2002) that the main objective of the CIP plant was to reduce the residue in solution and it is impracticable to bring down the tail loss in the solids by installation of CIP. The reply is factually incorrect as the Company's own report (August 1996) projected reduction of overall losses including loss of gold in solids.

2A.7.3.3 Cost of Production vis-à-vis London Metal Exchange (LME) prices of gold

The table below indicates the cost of production of gold and LME price of gold in rupee for the last five years.

	1996-97	1997-98	1998-99	1999-2000	2000-01
Cost of production (Rs. per 10 gms)	4,137.20	4,364.20	4,341.30	5,106.06	4,385.70
Rupee equivalent of LME price (Rs. per 10 gms)	4,332.96	4,023.14	3,963.25	4,048.25	4,203.15
Difference	(-) 195.76	341.06	378.05	1,058.35	182.55

It may be observed from the table that the cost of production of gold was more than the LME prices during four years ending 31 March 2001 by Rs.182.55 to Rs.1,058.35 per 10 gms.

2A.8 Utilities

2A.8.1 Loss due to purchase of unsuitable Thyristor Convertor

In March 1991, the Company proposed to install a Thyristor Convertor (TC) in place of the old motor generator set to avoid its idle run for about eight hours per day and to save about 1.44 lakh units of power per annum. Accordingly, the Company procured (February 1994) the equipment from Siemens Limited at a cost of Rs.39.13 lakh. However, due to delay in procurement of single core cables and inability to spare the shaft for five days the TC could be commissioned in January 1997. Even after delayed commissioning, the system was shut off in February 1997, due to component failure in the system and other operational drawbacks. The Company reverted to the old motor generator. The defects in TC are yet to be rectified (March 2002).

Thus, delayed action in commissioning of the TC and late replacement/rectification of the defective parts, coupled with resorting to usage of old motor generator

(i) rendered investment of Rs.0.51 crore unfruitful

(ii) deprived the opportunity to save Rs.39.33 lakh in cost of power consumed.

The Company stated (June 2002) the TC requires modifications before it can be used.

2A.8.2 Unaccounted power consumption in colony at Hutti

Loss due to unaccounted power consumption in residential colony at Hutti was Rs.1.22 crore.

The Company provided power supply to its residential colony at Hutti from its main line. The units of consumption were recorded at the main meter as well as the meters installed at individual quarters. Huge difference existed between the two sets of readings. The main reasons were non-metering of all the houses/installations and non-replacement of faulty meters during the period from September 1997 to November 2001. The difference between the main meter reading and individual meters ranged from 54,844 units (14.20 per cent) in May 1999 to 1,19,540 units (40.02 per cent) in October 2001. The total loss due to unaccounted power consumption during the above period worked out to Rs.1.22 crore.

The Company stated (June 2002) that the variation was due to transmission and distribution losses. The reply is not tenable as the General Manager (Technical) had reported (June 1999) that about 32,700 units were not accounted for every month due to theft, tampering of meters etc., which alone works out to Rs.46.70 lakh. No action was taken to reduce such losses.

2A.8.3 Compressed air

The Company operates nine electrical compressors and 14 diesel compressors at Hutti mines. The Company assessed the leakage in the compressed air line at 20 to 25 per cent. The consultants attributed (February 2001) the reason for the excess consumption to high incidence of transmission losses due to leakage, leaving the valves open when not in use, diverting air in lines not operating etc. The loss due to leakage in the pipeline during 2000-01 alone worked out to Rs.0.71 crore. In spite of this the Company had not taken any action to plug the leakage or to replace the pipelines.

The extra expenditure incurred for compressed air on account of using diesel compressors instead of cost-effective electrical compressors was Rs.2.02 crore.

The requirement of compressed air was assessed (November 2001) by the Company at 12,582 cfm[▪] as against the existing capacity of 30,668 cfm (electrical 19,628 cfm, diesel 11,040 cfm). It was seen that the cost of production of compressed air by diesel compressors has gone up from Rs.468 in 1997-98 to Rs.795 in 2001-02 per K.cum[❐] as compared to Rs.362 to Rs.381 per K.cum by the electrical compressors. In spite of noticing the fact that the cost of production was more in diesel compressors right from April 1997, the Company did not utilise the electrical compressors for 35,509 hours during April 1997 to December 2001 as they were kept idle for want of pumps, intercoolers, piston rods, piston rings, other spares etc. By using diesel compressor during the above period, the Company incurred an extra expenditure of Rs.2.02 crore.

The Company replied (June 2002) that the DG compressor is used for high pressure compressed air, the compressed air of DG is at high pressure and as per the norm under the Mines Act, and high pressure DG compressed air is absolutely necessary to maintain the pressure during the peak period.

The reply is not tenable as the total requirement of compressed air was assessed (November 2001) by the Company at 12,582 cfm and the total capacity of electrical compressor was 19,628 cfm. Moreover, the high pressure capacity of electrical compressors was 8,900 cfm as against 2,880 cfm in respect of diesel compressors.

2A.8.4 Water

With a view to increase the pumping capacity and reduce high power cost due to multistage pumping, the Company decided (1991) to replace the existing pipeline of 7 inch dia with 375 mm dia from Tamanakal to Hutti. Accordingly, the work of supply, laying, testing and commissioning of 375 mm dia pre-stressed concrete pipeline from Tamanakal was entrusted (September 1991) to Arun Engineering Enterprises, at a total cost of Rs.1.45 crore. As per the agreement, the work was to be completed within 12 months excluding monsoon period. The contractor could not complete the entire work due to obstruction by landowners. After the obstructions were cleared by the Company in March 1996 the contractor agreed to complete the work by August 1996. However, the Company gave further extensions to the contractor stating that no extra expenditure would devolve on the Company. The work was completed only in January 1999 as against the scheduled time of August 1997 resulting in a delay of 17 months. The Company incurred an avoidable expenditure of Rs.1.01 crore on power cost during the period of delay.

The Company stated (June 2002) that the additional power cost during the period 1996-97 to 2000-01 has no relevance to the contractual obligations and the delay is not attributable to the contractor. This only indicated that the Company did not monitor and co-ordinate execution of the work and thus failed to minimise the consequential loss.

[▪] Cubic feet per minute
[❐] Kilo cubic metre

2A.8.5 Excess consumption of Sodium cyanide

The Company fixed (May 1995) a norm of 0.50 kg of sodium cyanide per MT of ore treated. The average consumption of Hutti unit was very much higher and varied from 0.61 kg per MT to 0.65 kg per MT and the excess consumption of sodium cyanide during 1996-97 to 2000-01 was 312.80 MT valued at Rs.2.72 crore. The Company replied (June 2002) that consumption of cyanide depends on several factors i.e., quality of ore, water and cyanide. The reply is not acceptable as the norms are fixed only after taking into consideration all these factors.

2A.9 Modernisation and Expansion Programme (MEP)

2A.9.1 The Company submitted (January 1995) the modernisation plan with an outlay of Rs.51 crore which included, inter alia, installation of new 3,000 tpd ore hoisting system (winder) and setting up of 2,000 tpd metallurgical plant at Hutti. The Government of Karnataka accorded 'in principle' sanction for the above proposal in October 1995. In the meanwhile, the Company submitted a revised project report requiring Rs.138.55 crore considering the need for conversion of loss making copper units into gold units, priority for increased mechanisation and setting up of a captive power plant. The project cost was to be partially funded through public issue of shares at a premium of around Rs.50 per share (Rs.30 crore). The Company scaled down (July 1997) the project cost to Rs.97 crore by excluding captive power plant, excluding certain items of machinery which were already procured and cost of conversion of Chitradurga unit from the original plan. As gold prices had fallen from Rs.515 to Rs.415 per gram during 1997, the Company further scaled down (November 1997) the project to Rs.45 crore by excluding 2,000 tpd CIP plant. The scaled down project cost was to be financed by issue of bonds (Rs.38 crore) and balance out of internal accruals. The truncated modernisation was implemented during 1997-98 to 2001-02 at a cost of Rs.27.98 crore (including expenditure on auxiliary assets and dedicated power line) by raising Rs.50 crore through issue of "Swarnapatra" bonds between October 1997 and January 2001. The balance was spent for acquisition of land (Rs.1.24 crore), construction of officer's quarters (Rs.1.40 crore), to meet working capital needs (including VRS payments) (Rs.3.29 crore) and servicing of debts (Rs.16.09 crore).

The following observations are made in the implementation of the modernisation and expansion project:

(i) According to mining consultants the hoisting capacity could be increased to 1,800 tpd (Mallappa Shaft 1,200 MT, Central Shaft 400 MT and Village Shaft 200 MT) without installation of a new winder. The Company went ahead with the installation of new winder (October 1997) without concurrent increase in milling capacity. This led to under utilisation of the new winder.

Improper implementation of modernisation and expansion programme at Hutti resulted in creation of hoisting capacity higher than the milling capacity leading to mismatch.

(ii) GMM Services (GMMS), Technical consultancy Division of Hindustan Zinc Limited estimated (Report of June 1997) the maximum production capacity of Hutti mine at 1,965 MT per day taking into account the mineable reserves, geometry of ore body, working space available, infrastructure facilities, proposed mechanisation, productivity, work culture, etc., using the Taylor's Rules. While revising the project cost in 1997, available reserves and resources vis-à-vis constraints (mining capacity) were not analysed and project viability was based on assumption of hoisting up to 3,000 MT per day.

(iii) Further as per the report, the attainment of maximum production of around 2,000 MT per day itself was dependent on high order of haulage to the tune of 1,200 MT per day at 20^{th} level/2,000 ft of the mine for which introduction of higher capacity locomotive and annual mine development of 6,600 metre was needed. However it was seen that the average annual mine development during the last five years was only 840 metre per annum. These requirements were not addressed in the current modernisation scheme.

2A.9.2 Implementation of MEP

The modernisation programme was grouped under three turnkey packages viz., design, supply, installation and commissioning of 3,000 tpd winder, installation of an underground crushing system and equipping the western compartment of Mallappa shaft. Accordingly, global tenders were invited (May 1995) for the same. The following observations are made in implementation of the turnkey packages:

2A.9.2.1 Infirm contract for underground excavation work

The work of underground excavation was entrusted (October 1996) to Mine Construction of India (MCI), a private company for Rs.1.26 crore. As the progress of work of MCI was not as per the time schedule, the contract was terminated (December 1999) and the balance work of surge bin and crusher chamber was completed (2000-01) departmentally.

Though the implementation of the expansion scheme was delayed due to non-execution of the work in time by MCI and the crushing system purchased from Mcnally Bharat Engineering Company Limited at a cost of Rs.2.93 crore was lying idle from August 1998 to December 2000, no liquidated damages (LD) could be recovered from MCI in the absence of a specific clause in the terms and conditions of the work order. The LD foregone worked out to Rs.15.85 lakh at the rate of 10 per cent of the contract value as included in other contracts. The Company replied (June 2002) that delay in completion of work had not affected commissioning of winder. But the fact remains that liquidated damages could not be recovered in the absence of enabling clause in the contract.

2A.9.2.2 Installation of winder

The offer of BHEL for detailed engineering, designing, supply, civil work, erection and commissioning of 3,000 tpd winder at Mallappa Shaft at

Rs.12.05 crore was received during January 1996 and a letter of intent was issued in March 1996. However, discussions regarding prices and commercial terms could be held only on 3 March 1997 due to uncertainty in implementation of MEP. Due to delay, BHEL insisted for a 10 per cent increase in view of inflation against which 5 per cent was agreed upon by the Company and orders were placed in October 1997. This resulted in avoidable expenditure of Rs.0.65 crore on price escalation.

As per the contractual terms the entire work should have been completed by August 1999. However, BHEL actually completed/commissioned the winder for trial runs only in February 2001, after a delay of 17 months of which four months was attributable to the Company for delay in handing over the site for civil works. Further, during the operations of the winder, the Company encountered certain technical snags/operational problems, which were rectified by BHEL during October 2001 and December 2001. Thus delay of 13 months in commissioning the winder and further three months time taken for rectification resulted in loss of production of 67,700 MT of ore. However, no liquidated damages could be levied in the absence of enabling clause in the agreement.

2A.9.2.3 Installation of underground crusher

The Company entered (December 1997) into an agreement with Mcnally Bharat Engineering Company Limited (MBECL) for design and supply of crushing system at a cost of Rs.2.45 crore plus duties and taxes. The time for completion of the work was 13 months. MBECL supplied all machinery between December 1997 to August 1998. It was however, noticed that the excavation contract for installation of crushing system was awarded (October 1996) to Mine Construction India (MCI) and was to be completed by May 1999 (actually completed in August 2000 departmentally after termination of contract with MCI). As the time required for supply of crushing system was only 13 months, the Company could have placed orders for supply of crushing system during April 1998 so as to synchronise the delivery with the completion of the excavation work. Thus, placing of purchase orders without proper planning resulted in locking up of funds of Rs.2.93 crore for 9 months (September 1998 to May 1999) and consequential loss of interest of Rs.38.41 lakh.

The crushing system was finally commissioned in August 2000. However, the crushing could start only from February 2001 due to the delay in installation of the winder by BHEL. Thus, delay in installation of the winder by BHEL (as discussed in para 2A.9.2.2) led to further delay in utilisation of crushing system. This resulted in loss of interest of Rs.0.74 crore for the period from June 1999 to December 2000.

2A.10 Conversion of Chitradurga Copper Unit

In 1995-96, Chitradurga plant was converted into a gold unit (CGU) at an investment of Rs.2.31 crore to process 500 tpd of gold ore available in the open cast mine at Ajjanahalli, situated at a distance of about 70 km, from Chitradurga. A Carbon-in-Pulp (CIP) plant was also commissioned (1995-96) at a cost of Rs.0.71 crore. Since inception till March 2001 the unit processed 6.45 lakh MT of ore and produced 1,018.80 kg of fine gold yielding an average of 1.58 gpt. Due to the diminishing recovery the cost of production per gram of gold has gone up from Rs.545.16 in 1998-99 to Rs.668.05 in 2000-01 while the average realisation was around Rs.430 per gram.

Based on the report (July 2000) of the unit head that the oxidised ore, which was amenable to easy leaching by cyanide solution, had almost depleted and the metallurgical process followed would affect economics of operation, the Board decided (September 2000) to close CGU with effect from October 2000. However, the unit was not closed and has been incurring cash loss of Rs.16 lakh per month. The Company stated that it had introduced voluntary retirement scheme to reduce the surplus manpower to make the unit economically viable. However, the Company needs to make further analysis as to economic viability of operations before taking a final decision.

2A.10.1 Heap Leaching at Ajjanahalli Gold Project

In view of low grade of ore and huge transportation cost involved in bringing the ore from Ajjanahalli to Chitradurga, the Company decided to introduce heap-leaching operation at Ajjanahalli mine site. The project envisaged processing of 10,000 tonnes of ore per month at an estimated total processing cost of Rs.17 lakh and per gram cost of Rs.262 with a feed grade of 1 gpt at an expected recovery of 65 per cent. The project was commissioned in November 1998 at a total cost of Rs.0.61 crore (including the cost of processing). The Company also deputed two of its officers to South Africa/Australia to study heap leaching process at a cost of about Rupees four lakh.

Between November 1998 and September 1999, the Company processed 12,016 MT of ore in two batches and recovered 4.85 kg of gold with an average yield of 0.40 gpt, which was 40.3 per cent as against the projection of 65 per cent. Due to low recovery and increased processing cycle time the cost of production against projected cost of Rs.262 per gram was Rs.1,200 per gram. In view of this, the Company abandoned the project in August 2000. Thus, by venturing in an unproven technology, the Company incurred an expenditure of Rs.0.65 crore against which the value of gold recovered was only Rs.20.85 lakh. The Company replied (June 2002) that latest technology was available and the infrastructure created would not be wasted. The reply is indicative of absence of proper evaluation before investing.

2A.11 Sale of bullion

Consequent on the repeal of Gold Control Order, the Company entered (April 1995) into agreements with Bangalore Refinery (BR) and Titan Industries Limited (TIL) without inviting competitive offers.

The Company entered (October 1997) into a fresh agreement with BR for sale of gold in Karnataka. The sale price was to be determined on the basis of prices published by Mumbai Bullion Association (MBA) on the date of delivery after adjusting a discount of two per cent. Maharashtra Government

Absorption of Turnover Tax on sale of bullion resulted in extension of undue benefit of Rs.0.72 crore to Bangalore Refinery.

levied (April 1999) Turnover Tax of one percent on these transactions which was later on merged (June 2000) with Maharashtra Sales Tax. Based on the request of BR, the Company agreed to absorb this tax. However, it was observed that the prices published by MBA during April 1999 to May 2000 were exclusive of Turnover Tax i.e., the Company was not required to bear this tax. Absorption of Turnover Tax not included in the basic price published by MBA resulted in extension of undue benefit of Rs.0.72 crore to Bangalore Refinery.

2A.11.1 The Company was selling bullion through negotiations up to January 2000. In January 2000 the Company invited tenders for sale of gold bullion against which 13 parties responded. However, no sale agreements could be concluded, as there were no specific offers to buy gold in bulk quantity other than BR. Therefore, the Company continued with the practice of selling gold through negotiations only.

The discount allowed to BR varied from 1.95 per cent to 2.5 per cent. Thus, allowing of discount higher than the quoted rate of two per cent resulted in extension of undue benefit of Rs.35.67 lakh.

2A.12 Inventory Management

As on 31 March 2001, the excess inventory holding over and above the norm was Rs.2.28 crore.

The Company was holding abnormally high stock of stores, spares, consumables, loose tools and equipment ranging between 12.6 months to seven months consumption during the last five years ending 31 March 2001 compared to the norm of five months consumption for machinery and spare and three months consumption for other stores and consumables, set by the Company.

Considering the actual consumption of stores, spares, consumables etc., during the year 2000-01, the excess inventory holding over and above the norm as on 31 March 2001 was Rs.2.28 crore.

2A.12.1 Non-moving and slow moving items

Spares worth Rs.1.57 crore have been found to be non-moving for more than five years and represented 24 per cent of the total inventory. These included 30 items of spares and equipment procured against special orders at a cost of Rs.12.08 lakh, which have remained, unissued since 1996. Further, the Company identified (October 2000), 774 items of stores and spares valued at Rs.15.83 lakh for disposal, which are yet to be disposed off (June 2002).

2A.13 Human Resources Management

2A.13.1 Under utilisation of manpower – unproductive/idle wages

The total manpower of 4,173 (1996-97) was reduced to 4,015, as on 31 March 2001. Staff requirements/deployment in different departments was not made based on any scientific analysis/study. An in-house manpower deployment vis-à-vis productivity study made by the Company in July 1999 indicated about 500 employees as surplus. The idle/unproductive wages paid for employees identified surplus during July 1999 to March 2002 was Rs.2.06 crore.

2A.13.2 Excess payment of gratuity

(a) As per section 4(3) of the Payment of Gratuity Act, 1972, the maximum amount of gratuity payable was Rs.3.50 lakh with effect from 24 September 1997. However, the Company paid gratuity to its officers exceeding the limits prescribed in the Act. The excess gratuity paid to six officers from June 1997 to January 2001 amounted to Rs.5.84 lakh. The Company, on being pointed out (26 March 2002) started limiting the payment to Rs.3.5 lakh with effect from April 2002.

(b) The Company entered (July 1997) into a Memorandum of settlement with the employees and Staff Union for a period of five years from 1 April 1996. The agreement, inter-alia stipulated that Industrial Dearness Allowance should be taken into consideration for payment of gratuity and employees provident fund. Further, as per Section 2(s) of the Payment of Gratuity Act, 1972 wages does not include any bonus, commission, house rent allowance, over time wages and any other allowance for the purpose of payment of gratuity. However, the Company continued to consider the underground allowance also for the purpose of payment of gratuity. The extra payment on this account worked out to Rs.25.23 lakh.

2A.13.3 Defective Leave Rules

The Company extends the facility of encashment of unavailed sick leave to the workers every year. In the latest wage agreement entered during July 1997, the encashment of sick leave was, however, limited to 12 days in a year. As sick leave is granted to the eligible workers who are actually sick and as certified by Company's own medical officer, the question of encashment of sick leave appears to be not a prudent decision. The total encashment of sick leave permitted by the Company from April 1997 to January 2002 amounted to Rs.1.78 crore.

2A.14 Costing System

The Company has a system for collection and compilation of cost of inputs. However, there is no system for analysing cost in respect of cost centers like LDBH drilling, sub level stoping, tramming and hoisting for exercising cost control. Further, there is no standard costing system also for analysing and controlling costs of various inputs like explosives, drill rods, drill bits, chemicals etc.

An analysis of the cost statements revealed that the total variable cost per tonne of ore processed has gone up from Rs.2,105 in 1997-98 to Rs.2,572 in 2000-01. This was mainly due to increase in the salaries and wages, power cost and compressed air cost.

Conclusions and Recommendations

The Company should formulate a comprehensive and long-term mining policy based on scientific mining practices. As the broken ore available in the Hutti mine had reduced from 3.69 lakh MT in 1996-97 to 1.13 lakh MT in 2000-01, mine development needs to be accelerated. The existing mismatch between hoisting and milling capacity needs to be corrected to reap the full benefits of modernisation.

The Chitradurga unit, which processes ore from Ajjanahalli has become unviable due to high cost of transportation and low grade of ore and is incurring a cash loss of Rs.16 lakh per month. Continuity of the operation of the unit needs to be reviewed.

The Company is dependent on one party for sale of bullion/gold. Efforts should be made to establish alternative channels for sale of bullion/gold, to realise better revenue.

Efforts should be made to bring down the cost of production by increasing productivity, reducing cost of inputs and cutting down unproductive expenditure.

2B. THE MYSORE SUGAR COMPANY LIMITED

HIGHLIGHTS

The Company paid prices higher than the Statutory Minimum Price fixed by the Government of India. This resulted in excess payment of Rs.100.81 crore during the last five years ended 31 March 2002.

(Paragraph 2B.6.1)

Although the Company was incurring losses even in free sale sugar, stock of 30,484 MT sugar valued at Rs.37.58 crore was added by crushing cane purchased from non-oppigedars.

(Paragraph 2B.10.1.1)

Failure to obtain re-allotment of levy sugar resulted in accumulation of stock of sugar valued at Rs.21.01 crore.

(Paragraph 2B.11.1)

The Company took up modernisation of sugar plant without technical evaluation and Government approval. Though the Company incurred an expenditure of Rs.11.30 crore for modernisation, machinery worth Rs.3.48 crore were not put to use. During the period the Company incurred Rs.20.59 crore on repairs and maintenance of plant and machinery.

(Paragraphs 2B.12.1, 2B.12.3 and 2B.12.5)

An amount of Rs.3.5 crore spent on refurbishing old crushing mills had become infructuous as most of the sub systems would not withstand the proposed crushing level and hence are to be replaced at a cost of Rs.16 crore.

(Paragraph 2B.12.4)

The Company has envisaged co–generation project at a cost of Rs.76.35 crore with a capacity to produce 28 MW of power to be completed by January 2002. Delay in the completion of the project has deprived the Company of revenue potential of Rs.36.25 crore per annum anticipated from the sale of power.

(Paragraph 2B.13)

Delay in installation of package boiler resulted in non-accrual of expected savings of Rs.3.40 crore for four years.

(Paragraph 2B.14)

Failure to ensure minimum off-take of arrack by the contractors resulted in loss of profit of Rs.5.42 crore in 2 years (1998-2000).

(Paragraph 2B.15)

The Company failed to ascertain the actual differential price payable and made excess payment of Rs.2.53 crore.

(Paragraph 2B.15.1)

Failure to pay tax on captive consumption of Rectified Spirit resulted in levy of penalty of Rs.6.35 crore by the State Commercial Tax Department.

(Paragraph 2B.15.3)

Production incentive of Rs.11.05 crore was paid by applying unscientific method for calculation and in violation of the Government guidelines.

(Paragraph 2B.16.3)

2B.1 Introduction

The Mysore Sugar Company Limited was incorporated (January 1933) to establish and operate a sugar factory at Mandya for utilising the sugarcane grown in that area. The Company is having two crushing mills with a total capacity of 5,000 tonnes crushed per day (tcd), a primary distillation plant with a capacity to manufacture 32,000 litre per day alcohol out of molasses, and an Indian Made Foreign Liquor (IMFL)/Indian Made Liquor (IML) blending unit with a total vat capacity of 5.58 lakh litre. The Company's Acetic Acid Plant of 15 tonnes per day capacity was closed down during 1993-94.

In addition, the Company was entrusted (June 1993) with the work of blending, sacheting and distribution of arrack by the Government of Karnataka.

2B.2 Objectives

The main objectives of the Company as per Memorandum of Association inter alia include the following:

- To deal in sugarcane, molasses, syrups and all products and byproducts thereof,

- To operate, construct, acquire as the case may be, mills, factories, distilleries and other works, and

- To plant and raise or purchase sugarcane and transact such other business as may be proper or necessary.

2B.3 Scope of Audit

The performance of the Company was last reviewed and included in the Report of The Comptroller and Auditor General of India (Commercial) for the year ended 31 March 1989. The Committee on Public Undertakings (COPU) did not discuss the report. The activities of the Company for the period 1997-98 to 2001-02 were reviewed between November 2001 and April 2002 and the findings thereon are discussed in the following paragraphs.

2B.4 Organisational setup

2B.4.1 Board level appointments

There were no full time/functional directors with technical/financial expertise.

The Company is managed by Board of Directors consisting of 12 Directors including Managing Director. As on 31 March 2002 there were nine directors, of whom eight were nominated by the State Government. There are no full time/functional directors with technical/financial expertise. The Board is assisted by six sub-committees. Except for Purchase committee, other committees viz., Cane development, Works, Audit, Standing, High power are not functioning regularly. The Managing Director looks after the day-to-day affairs of the Company and is assisted by a team of officers headed by a General Manager. Incumbency of the Managing Director was subjected to frequent changes by the Government. There were eight Managing Directors during the last five years holding office for periods ranging from 2 months to 26 months.

2B.4.2 Recruitment of staff without functional responsibilities

The Company has been engaging most of its key personnel on contract basis.

The Company has been engaging most of its key personnel on contract basis. As on 31 March 2002, as many as 14 officers (including General Manager) out of 25 officers were on contract basis. All the benefits available to regular employees were also extended to these employees, though no responsibilities were assigned, leading to absence of accountability. No work analysis was carried out to estimate the requirement of staff as discussed in Para 2B.16.1 infra.

2B.5 Financial position and Working results

2B.5.1 Financial position

The financial position of the Company during the last five years is given in Annexure 11. The authorised capital of the Company as on 31 March 2002 was Rs.13 crore consisting of 1.27 crore equity shares of Rs.10 each and three lakh 11 per cent redeemable cumulative preference shares of Rs.10 each. The paid up equity share capital of the Company was Rs.6.73 crore of which Rs.5.81 crore was subscribed by Government of Karnataka, Rs.0.66 crore by farmers and the balance of Rs.26.23 lakh by banks and financial institutions.

2B.5.2 The borrowings as on 31 March 2002 amounted to Rs.73.05 crore. These consisted of cash credit from banks (Rs.64.11 crore), term loans (Rs.8.92 crore) and public deposits (Rs.2.31 lakh). The borrowings through cash credit increased from Rs.19.33 crore in 1997-98 to Rs.64.11 crore in 2001-02. During this period, capital expenditure of Rs.17.79 crore incurred by the Company was met from cash credit resulting in additional payment of interest as discussed in para 2B.12 subsequently.

2B.5.3 Adhoc loan

The Company paid Rs.5.26 crore during 1999-2000 as additional cane price at Rs.55.00 per metric tonne (MT) on the basis of estimated profit of

Rs.17.76 crore for the year. However, the actual profit for the year amounted to Rs.34.07 lakh only. This coupled with the diversion of working capital for capital expenditure forced the Company to avail adhoc loan of Rs.9 crore in June 2001 at 17 per cent interest per annum. The Company could repay only Rs.4.15 crore till 31 March 2002.

2B.5.4 Working results

The main activity of the Company i.e., production and sale of sugar not only continuously incurred losses but had also eaten away the profit earned by liquor division.

The working results of the Company as well three divisions for the last five years are given in Annexure 12 and 13 respectively. It is observed that the Company earned profit from the production and distribution of liquor in all the years under review with the major portion of profit coming from the monopoly business of arrack. The Company consistently incurred losses in all the years on its main activity of production and sale of sugar.

2B.6 Raw material planning

The requirement of sugarcane for the sugar unit of the Company is estimated at 9 lakh MT per annum. The Government of Karnataka demarcated 63,703 acre sugarcane area to the Company for procurement of sugarcane. The Company enters into annual agreement (oppige) for the supply of specified quantity of cane from the farmers, one year before the actual requirement. Cutting orders are issued based on agreement/harvest. Supply of quality cane at appropriate time forms the fulcrum of sugar activity as the percentage of sugar content in the sugarcane is based on the quality of cane procured.

Out of demarcated area, the Government of Karnataka transferred (March 2001) 6,090 acre to SCM Sugars Limited resulting in loss of 1.50 lakh MT (approx.) of sugarcane. The Company did not attend the meeting (held under the Chairmanship of Secretary, Commerce and Industries Department of Government of Karnataka) where the decision to transfer the land was taken. With the commissioning of the proposed co-generation plant, the annual requirement of sugarcane would increase to around 12.5 lakh MT from the year 2003-04. Considering the present supply position of cane, the chances of receiving this quantity are very bleak.

2B.6.1 Fixation of cane price

The Company paid Rs.100.81 crore in excess of statutory minimum price.

The Government of India fixes Statutory Minimum Price (SMP) for sugarcane linked to basic recovery of 8.5 per cent and such SMP is binding on every sugar factory. SMP, actual cane prices paid and sugar recovery percentage of the Company as well as that of Bannari Amman Sugars Limited, a neighbouring sugar factory (a private Company) during the last five years ending 31 March 2002 are tabulated below:

Year	SMP	The Mysore Sugar Company Limited					Bannari Amman Sugars Limited	
		Cane price				Sugar recovery percentage	Cane price paid	Sugar recovery percentage
		Initially paid	Cane subsidy extended	Additional cane price paid	Total			
	(Rupees per MT)							
1997-1998	484.50	735	15	50 to 60	800 to 810	8.44	780	9.82
1998-1999	527.00	810	15	40	865	9.00	805	9.97
1999-2000	613.80	810	15	55	880	9.28	825	9.95
2000-2001	665.00	810	15	55	880	9.23	845	10.29
2001-2002	686.20	810	15	55	880	9.38	N.A	N.A

Audit noticed that:

(a) The Company paid Rs.194 to Rs.338 per MT higher than SMP during 1997-98 to 2001-02. Higher rates (than SMP) were paid without prior approval of the State Government, a pre-requisite for such payment. Viewed from the fact that the Sugar unit incurred losses amounting to Rs.46.19 crore during the same period, payments at higher rates lacked justification.

(b) The higher prices paid by the Company over and above SMP were mostly due to extraneous reasons like political pressure and include Rs.19.81 crore being the additional cane price paid during the same period.

(c) The Company paid Rs.100.81 crore in excess of SMP during the period.

(d) When compared to the prices paid by neighbouring private sugar Company, the excess payment worked out to Rs.11.24 crore.

2B.6.2 Cane Procurement

The Company was not able to obtain the targeted quantity of 9 lakh MT of cane due to failure to take up the matter of diversion of sugarcane from its reserve area with the District Commissioner/Commissioner for cane development. This resulted in sugar cane of reserve area being diverted to jaggery units whenever the price of jaggery was lucrative. In spite of a clause in the agreement (oppige) for penalty (liquidated damages) for short supply or non-supply with provision for blacklisting defaulting farmers, the Company did not invoke these penalty provisions. The percentage of sugarcane supplied out of registered quantity ranged from 34.5 to 95.7 in the last five years. Consequently, the Company had to rely on non-oppige-cane (NOP) for running the sugar unit and purchased 5,14,784 MT of NOP.

In addition to payment of price applicable to oppigedars, all other facilities applicable (including payment of late cane subsidy of Rs.32.76 lakh exclusively meant for oppigedars to stagger their sugarcane planting) were also extended to non-oppigedars even though the Company was under no legal obligation to buy from them as discussed under para 2B.10.1.1 subsequently.

2B.6.3 Quality of cane

The optimum age of cane in terms of sugar content is around 12 months for obtaining optimum recovery. Considering this fact and the general practice of the Company to start crushing operations in July/August, the registration for supply of cane should ideally start only from June/July of the preceding year and close by February. But the practice of registering cane as early as May of the preceding year led to crushing of 14-15 month old sugarcane. Low crushing of sugar cane per day also led to accumulation of over matured/overaged cane resulting in extension of crushing season beyond February. The percentage of overaged cane received, was 90.7, 76.9, 92.1, 98.8 and 91.6 during the last 5 years ending 31 March 2002. As against the overall recovery of 9.35 per cent for the last four years up to 2001-02, the four years averages for the months of January, February and March were 9.28, 8.93 and 8.86 respectively, indicating adverse effect in recovery due to accumulation of overaged cane. In spite of this, the Company did not evolve a system whereby it could receive matured cane for crushing in time, so as to get better recovery and avoid diversion of cane to other private factories. In the absence of age-wise recovery of sugar, the loss of sugar production due to crushing of over matured cane could not be assessed in Audit.

2B.6.4 Improper implementation of bore well scheme

With a view to improve the production of sugarcane in the demarcated area, the Company implemented the scheme of sinking bore wells during 1990-91 and 1992-93 under the Central Government Cane Development Plan. The cost of 219 bore wells amounting to Rs.1.25 crore was treated as loan to the beneficiaries identified among the farmers in the demarcated area and the loan was to be fully recovered along with interest by the end of 1998-99. It was, however, observed that the Company did not obtain oppige from most of these farmers and failed to get title deeds deposited with it, as a result it could not take any action against the defaulters. The Company recovered Rs.0.62 crore from the beneficiaries, an amount of Rs.6.84 lakh was written off, while recovery of the outstanding amount of Rs.0.56 crore as on March 2002 was doubtful.

2B.6.5 Research and Development

Even after 70 years in the business, the Company failed to introduce new sugar rich varieties of sugarcane within its demarcated area. As against a target of 60 per cent for rich varieties by 2000-2001, the sugar rich varieties were only 5 per cent. The other sugar factories in the State achieved 15 to 56 per cent for rich varieties.

The yield of sugarcane in 91 acre farm of the Company used for research and development was less than 30 MT per acre compared to the average yield of 40 MT achieved by farmers. The farm incurred losses of Rs.13.07 lakh during the period 1997-98 to 2001-02. Further, only a meagre quantity of 1,568 MT of cane setts was supplied to farmers during the last five years ending 31 March 2002.

2B.7 Production Performance

2B.7.1 The Company estimates the content of sugar in the sugarcane procured at the time of procurement. The estimated sugar content, actual sugar recovered and total loss of sugar for five years up to 2001-02 is given below:

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
Sugarcane crushed (MT)	3,56,818	8,40,639	9,58,135	9,18,235	8,21,440
Sugar produced (MT)	30,155.56	75,625.00	88,967.70	84,900.00	77,229.33
Estimated percentage of sugar content in sugar cane	10.81	11.45	11.57	11.62	11.72
Percentage of sugar recovered	8.44	9.00	9.28	9.23	9.38
Percentage of sugar lost	2.37	2.45	2.29	2.39	2.34

For an ideal recovery, the Company expects sugar content in sugarcane to be 12 to 12.5 per cent. However, no attempt was made by the Company to grow the sugar rich variety in the fields of registered cane grower or to purchase NOP sugarcane of sugar rich variety and as a result the sugar content of cane during the period under review was in the range of 10.81 to 11.72.

The excess sugar lost over the norms fixed by Government of India and the consultant were Rs.7.88 crore and Rs.20.52 crore respectively.

2B.7.2 Government of India has fixed (May 1998) norms of 2.2 per cent, after calibration of steam and water flow meters, for loss of sugar for factories set up prior to 1971. Further, the consultant, who was entrusted with the work of technical analysis of functioning of the sugar plant and on whose recommendations modernisation programme was taken up, also recommended (December 1997) various norms for losses. The actual loss of sugar vis-à-vis the norms prescribed by Government of India and the consultant are tabulated below:

Loss of Sugar in	Norms fixed by Government of India	Norms recommended by the consultant	Actual sugar loss				
			1997-98	1998-99	1999-2000	2000-01	2001-02
Bagasse	0.8	0.60	0.84	0.95	0.90	0.97	0.96
Molasses	0.9 to 1.1	1.20	1.33	1.30	1.22	1.24	1.20
Filter cake	0.30 (Including others)	0.05	0.08	0.10	0.09	0.09	0.08
Un – determined		N.A	0.12	0.10	0.08	0.09	0.10
TOTAL	**2.2**	**1.85**	**2.37**	**2.45**	**2.29**	**2.39**	**2.34**

As would be observed from the above table the actual loss was more than the norms fixed by Government and Consultant in all the five years. Even though the Company had carried out calibration of steam flow and water flow meters, it could not effectively control the losses within the prescribed norms. The excess sugar lost over the norms fixed by Government of India and the consultant were Rs.7.88 crore and Rs.20.52 crore respectively for the last five years. The reasons, as analysed by the consultant, for losses over the norms were mainly due to (a) Loss of sugar in bagasse on account of improper mill setting and low imbibition[1] (b) Excess loss of sugar in filter cake on account of improper maintenance of vacuum pumps; yet to be set right (March 2002).

2B.8 Plant performance

The Company is having two milling tandems with a total crushing capacity of 5,000 tcd. The details of number of working days and capacity utilisation during the last five years are indicated below:

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
No. of working days	174	279	279	256	229
Installed capacity (tcd)	5,000	5,000	5,000	5,000	5,000
Total Cane crushed (MT)	3,56,818	8,40,639	9,58,135	9,18,235	8,21,440
Average cane crushed per day (MT)	2,051	3,013	3,434	3,587	3,587
Capacity utilisation (per cent)	41	60	69	72	72

As could be observed from the table the capacity utilisation ranged from 41 to 72 per cent of the installed capacity. The reasons for low capacity utilisation were non-availability of sugar cane, mechanical and electrical troubles, general cleaning and miscellaneous factors as per details given below:

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02	Total
Total hours available	4,168	6,692	6,186	6,116	5,476	28,638
Hours worked	2,982	4,961	5,174	4,459	4,169	21,745
Hours lost due to						
(i) Non availability of Cane	418	90	102	149	349	1,108
(ii) Mechanical and Electrical troubles	373	1,122	607	1,067	579	3,748
(iii) General cleaning	47	221	164	239	195	866
(iv) Miscellaneous	348	298	139	202	184	1,171
Total hours lost	1,186	1,731	1,012	1,657	1,307	6,893
Percentage of hours lost to available hours	28.45	25.87	16.36	27.07	23.87	24.07

The percentage of hours lost to available hours varied from 16.36 per cent to 28.45 per cent as against the normal stoppage time of 10 per cent.

An expert technical committee appointed by Government of India opined (31 May 1998) that the normal time for stoppages during crushing should not exceed 10 per cent of the available hours. However the percentage of hours lost varied from 16.36 per cent to 28.45 per cent. A further analysis of hours lost revealed the following:

- Non-supply of cane represented 16.1 per cent of hours lost which indicated lack of proper co-ordination between the mill and cane procurement section.
- Mechanical/Electrical troubles represented 54 per cent of the hours lost and this was in spite of spending Rs.11.30 crore for modernisation and Rs.30.05 crore on repairs and maintenance during 1997-98 to 2001-02.

[1] Insufficient mixing of water in sugar juice extraction.

- The hours lost due to miscellaneous reasons represented 17 per cent of the total hours lost. The reasons for the same have not been analysed by the Company.

The Company did not analyse the reasons for excess hours lost and has also not ascertained the financial implications for corrective action.

2B.9 Consumption of bagasse/wood in boilers

The sugar unit of the Company is having four Boilers with a capacity to produce 120 MT steam per hour by using bagasse/firewood. As per standard one MT of firewood could generate three MT of steam while one MT of bagasse with 50 per cent moisture could produce two MT of steam.

The details of steam generated using bagasse and firewood consumed during the five years up to 2001-02 are given below:

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
	(MT)				
Bagasse consumed (own)	1,01,432	2,74,637	2,96,926	2,91,504	2,51,449
Bagasse consumed (purchased)	526	1,122	6,700	2,252	1,253
Fire wood	1,868	1,965	5,400	5,183	5,091
Steam to be produced as per standard					
Out of own bagasse	2,02,864	5,49,274	5,93,852	5,83,008	5,02,898
Out of purchased bagasse	1,052	2,244	13,400	4,504	2,506
Out of Fire wood	5,604	5,895	16,200	15,549	15,273
Total	**2,09,520**	**5,57,413**	**6,23,452**	**6,03,061**	**5,20,677**
Actual Steam generated for production of sugar and distillery products	1,90,410	4,79,737	5,49,461	5,19,203	4,88,092

The value of excess consumption of bagasse for generation of steam was Rs.6.60 crore.

From the above it would be seen that the actual generation of the steam was less than the norms. It would also be observed that had the company achieved norms prescribed the entire requirement of steam could have been met only by using own bagasse. Consequently the consumption of part of bagasse generated and purchase of entire bagasse and firewood was not required. The value of such excess consumption was Rs.6.60 crore during the five years up to 2001-02. The Company did not analyse the reasons for excess consumption.

2B.10 Stock and Sale of sugar

2B.10.1 Essential Commodities Act, 1955 and Levy Sugar Supply (Control) Order 1979 provides for issue of direction to producers for supply of specified quantity of sugar requisitioned by Government for issue to nominees under public distribution system at a price fixed by Government from time to time.

The table below indicates sales and stock of sugar of the Company for the five years up to 2001-02.

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
Opening stock (MT)	38,675.40	16,828.40	35,669.10	68,314.90	64,847.70
Total production (MT)	29,403.40	74,316.00	89,416.80	82,022.20	81,129.50
Total (MT)	68,078.80	91,144.40	1,25,085.90	1,50,337.10	1,45,977.20
Total Qty sold (MT)	51,250.40	55,475.30	56,771.00	85,489.40	80,372.80
Closing balance (MT)	16,828.40	35,669.10	68,314.90	64,847.70	65,606.40
Cost per MT (Rs.)	14,226.40	13,782.30	14,190.20	13,975.00	14,446.17
Sales realisation per MT (Rs.)					
A) Levy	10,043.26	10,209.80	10,605.91	11,472.38	11,271.50
B) Free	13,445.01	13,181.21	12,895.66	12,477.89	12,584.60
Loss per MT (Rs.)					
A) Levy	4,183.14	3,572.50	3,584.29	3,797.16	3,174.67
B) Free	781.39	601.09	1,294.54	1,497.11	1,861.57
Total loss					
A) Levy (Rs. in crore)	7.99	7.90	6.80	3.21	4.68
B) Free (Rs. in crore)	2.51	2.01	4.89	10.88	12.22
Total loss (Rs. in crore)	10.50	9.91	11.69	14.09	16.90

As would be seen from the above table, the average sales realisation per MT for both levy as well as non-levy sugar was less than the cost of production in all the five years up to 2001-02. Though the Government of India announced (March 2002) sugar policy wherein decontrol of sugar was contemplated, the Company continued to get allotment as levy and free sale sugar.

2B.10.1.1 Release of sugar for levy and free sale has not increased corresponding to availability of sugar i.e., opening stock plus production, resulting in heavy accumulation of stock. The table below summarises the proportion of sales to closing stock in terms of month's sales.

Year	Opening stock + production (MT)	Total sales (MT)	Closing stock (MT)	Closing stock in terms of month's sales
1997-98	68,078.80	51,250.40	16,828.40	3.9
1998-99	91,144.40	55,475.30	35,669.10	7.7
1999-2000	1,25,085.90	56,771.00	68,314.90	14.4
2000-01	1,50,337.10	73,489.40+ 12,000-Export	64,847.70	9.1
2001-02	1,45,977.20	80,372.80	65,606.40	9.8

Although the Company was incurring losses even in free sale sugar, stock of 30,484 MT sugar valued at Rs.37.58 crore was added by crushing cane purchased from non-oppigedars.

The quantum of sales did not correspond to the sugar available. To set right this imbalance, the Company should have drawn up production programme each year by considering the cane registered for purchase, stock of sugar and expected release of sugar. It is observed that although the Company was incurring losses even in free sale sugar, 30,484 MT of sugar valued at Rs.37.58 crore was added to stock by crushing 3,27,900 MT of cane purchased from non-oppigedars (there was no obligation on the Company to do so) during last three years up to 2002. The loss of interest on sugar produced but not sold as on 31 March 2002 worked out to Rs.16.58 crore for the last three years.

2B.11 Sale and Marketing Management

2B.11.1 Lapse of Levy Sale Quota

Failure to obtain re-allotment of levy sugar resulted in accumulation of stock of sugar valued at Rs.21.01 crore.

The levy sugar allotment to the nominees of State Governments are made by the Directorate of Sugar and varied from 40 to 15 per cent of the total production of the Company. The levy sale quota allotted was to be lifted by the nominees within the validity of the release order. In the event of non-lifting, the sugar factories concerned were to get the quota re-allotted.

However, the Company failed to initiate action within the validity period for getting re-allotment of 19,102 MT of levy sugar (46 per cent of levy sugar allotted during the period) not lifted by the nominees during the period July 2000 to October 2001, resulting in lapse of levy quota and consequential accumulation of inventory of Rs.21.01 crore.

2B.11.2 Export of Sugar

i) Against individual offers received, the Company finalised four orders for supply of 22,500 MT of sugar for export (between October 2000 to February 2002) and realised revenue ranging from Rs.10,585 to Rs.11,447 per MT. Compared to the average realisation of Rs.12,327 per MT of sugar (2000-2001), the Company incurred a loss of Rs.2.89 crore in these supply orders. It is pertinent to note here that the Company was not able to realise even the levy price of Rs.11,472 per MT on the sugar exported. The Company's plea that it resorted to export to tide over its financial crunch is not justified as the Company added 30,484 MT of sugar during 1998-99 to 2001-02 out of non-oppige cane which the Company was under no obligation to procure.

ii) The Company finalised (September 2000) an export order for supply of 12,000 MT of sugar to PEPSICO India Holding, Haryana for export at US$ 264 (net) per MT, FOB Mangalore port, of which 6,000 MT were to be bagged in 100 kg bags and the balance in 50 kg bags. The Company transported (September/October 2000) 12,000 MT to New Mangalore Port, out of which 6,000 MT of sugar in 50 kg bags were rejected by foreign buyer, as the International Commission for Uniform Method of Sugar Analysis (ICUMSA) (colour/whiteness of sugar) was more than 150 specified in the contract. Consequently, the Company was compelled to accept the reduced price of US$ 258 (net) per MT offered by the foreign buyer resulting in loss of revenue of Rs.16.56 lakh compared to original price. In addition the Company incurred Rs.2.76 lakh towards storage charges apart from delayed realisation of Rs.7.60 crore resulting in loss of interest of Rs.26.49 lakh.

The Company did not consider applicable duties and taxes at the time of quoting. This, coupled with non adherence to specification as per the contract led to forfeiture of performance guarantee of Rs.0.64 crore.

(iii) The Company entered (22 October 2001) in to an agreement with Nepal Food Corporation, Nepal (NFC) for export of 10,000 MT of sugar at a net realisable price of Rs.12,884 per MT and furnished a performance guarantee amounting to Rs.0.64 crore. Subsequent to signing the contract the Company approached (23 October 2001) NFC for change in ICUMSA from 111 to 130 and consider increase in price of sugar by Rs.850 per MT, being the excise duty payable, which was not considered earlier. The export order was not executed, as the NFC did not agree for increase of ICUMSA and payment of Excise duty. As a consequence of non-performance, the performance guarantee of Rs.0.64 crore was forfeited. The Suit filed (November 2001) is pending in the Appellate Tribunal at Katmandu. The Company did not consider applicable duties and taxes at the time of quoting. This, coupled with non adherence to specification as per the contract led to forfeiture of performance guarantee of Rs.0.64 crore.

(iv) Further, as per State Government Order of December 2001, sugarcane used for export was exempted from purchase tax w.e.f. April 2001. However, the Company did not claim purchase tax exemption of Rs.38.92 lakh on 8,000 MT exported after 1 April 2001.

2B.11.3 Non-accountal of gunny bags issued for bagging of sugar

The requirement of gunny bags each of 100 kg capacity for each crushing season varied between 9 and 11 lakh valued at more than Rs.3 crore. The issue of gunny bags for bagging should tally with the quantity of sugar bagged. However, during the crushing period 1997 to 2000 against the issue of 28,41,750 bags only 27,09,104 bags were utilised for filling. The details for the difference of 1,32,646 empty bags valued Rs.38.53 lakh issued for bagging but not utilised were not available.

2B.11.4 Alternative Packing

As per provisions of the Jute Packing Materials (Compulsory use in packing commodities) Act 1987, all sugar factories are required to pack sugar compulsorily in new "A" twill gunny bags. In partial modification of the above provision, the Government of India permitted use of alternative packing materials viz., High Density Poly Ethylene (HDPE) bags for packing sugar to the extent of 20 per cent of production in March 1999 and 10 per cent of production for the period April 2000 to February 2002. However, the Company did not use HDPE packing material thereby incurring extra expenditure of Rs.15.30 lakh.

2B.12 Modernisation of sugar plant

The Company took up Modernisation of sugar plant without any technical evaluation and Government approval and incurred an expenditure of Rs.11.30 crore.

2B.12.1 The Company with a view to improve the operation of the plant and machinery to crush 5,000 tcd on a continuous basis took up modernisation of sugar plant during 1998-99. It was noticed that the approval of State Government was required for purchasing capital machinery exceeding Rupees one crore. However, the Company did not seek approval of the Government by deciding to use the word "replacement" instead of "modernisation" of sugar plant. The Company thus incurred Rs.11.30 crore on modernisation without the approval of the Government.

However, in order to avail concession of deferment of purchase tax granted by the Government of Karnataka for a period of five years without interest on the additional cane crushed in excess of average annual cane crushed over a period of three years prior to expansion/modernisation, the Company used the term modernisation of plant while writing to the Secretary to Government of Karnataka. The sanction of State Government for grant of purchase tax deferment is yet to be received.

2B.12.2 In spite of huge capital investment involved in modernisation, the Company did not identify the source of funds for the programme. The entire expenditure was met from cash credit from commercial banks at high rate of interest instead of long term loans, resulting in additional interest payment of Rs.0.56 crore during 1998-99 and 1999-2000.

2B.12.3 The Board of Directors while approving the purchase proposals in implementing the modernisation for the years 1998-99 and 1999-2000 desired (November 1998 and November 1999) that modernisation for the years should be completed before the start of crushing seasons for 1999-2000 and 2000-01 respectively so that the benefits anticipated from installing new machines could be derived in full. However, most of the machines were either installed in the middle of crushing season or at the fag end of the season. The entire process of modernisation was taken up without preparing Detailed Project Report and mainly without considering technical evaluation. The machineries were purchased based on individual requisitions from user departments, opinion/suggestions expressed by progressive farmers/union leaders and Company officers and without following purchase procedures.

Consequently machineries purchased at a cost of Rs.3.48 crore have not been put to use as the modernisation plan was not properly synchronised and likely benefit of Rs.0.78 crore per annum could not accrue to the Company.

An amount of Rs.3.5 crore spent on refurbishing old crushing mills had become infructuous as most of the sub systems would not withstand the proposed crushing level and hence are to be replaced at a cost of Rs.16 crore.

2B.12.4 The Company spent (1999-2000 and 2000-01) Rs.3.5 crore on refurbishing the old crushing mills to achieve the crushing capacity of 5,000 tcd. However, the refurbished mills could not achieve the expected level. J.P.Mukerji Associates, the consultants appointed to study the existing condition of mills and suggest alternatives for rehabilitation and modernisation of mills opined (January 2002) that both refurbished mills and most of the sub systems would not withstand the proposed crushing level of 5,000 tcd and suggested replacement of the mill at a cost of Rs.16 crore. As these rehabilitated mills had to be replaced, the entire expenditure of Rs.3.5 crore had become infructuous.

2B.12.5 Thus, modernisation which anticipated crushing of 5,000 tcd leading to reduced number of crushing days and improved recovery were not fully derived. It would be pertinent to mention that during this period the Company had spent Rs.20.59 crore on repairs and maintenance of the machinery.

2B.13 Co-generation project

Delay in the completion of the project has deprived the Company of revenue potential of Rs.36.25 crore per annum anticipated from the sale of power.

2B.13.1 The Company decided (August 1995) to undertake bagasse based co-generation project with a capacity of 14.5 MW to meet its requirement. The surplus power was to be exported to State Electricity Board. However, the proposal for the project was submitted to the Government with a capacity of 26.5 MW at an estimated cost of Rs.47.90 crore. The Government approved (March 1998) the proposal and released (August 1998) Rs.2 crore as equity contribution for implementing the project. Later on, considering the advantage of increased power generation, the Company revised the project to 28 MW at a cost of Rs.76.35 crore to be financed through equity contribution of Rs.5 crore from Government of Karnataka, contribution of Rs.4.5 crore from farmers, internal accruals of Rs.9.58 crore and the balance of Rs.57.27 crore as loan from HUDCO. The revised proposal submitted to the Government in February 1999 was approved in January 2000. The revised project approved by Government was scheduled to be completed within 24 months from the date of approval. The project, on commissioning was expected to generate revenue of Rs.14.50 lakh per day for 250 days on export of 19.22 MW power after meeting its requirements. It was observed in audit that:

- The Company took nearly four years to firm up the expected capacity of project.

- Out of Rs.5 crore to be contributed by Government, Rs.2 crore was released during 1998-99. Though Government sanctioned Rs.1 crore in March 2000, the claim for release was submitted (April 2000) after the closure of financial year and the claim was rejected due to lapse of budget grants.

- The Company collected Rs.4.05 crore from farmers during 1996-97 to 1998-99. However, the entire amount was refunded (from 1999-2000 onwards) on expiry of 3 years period, as per the agreement with the farmers. Thus, collecting deposits did not serve the purpose.

- The Company had drawn Rs.7.48 crore in instalments since November 2001, out of Rs.57.27 crore sanctioned by HUDCO in June 2000. However, it failed to generate internal accruals. Consequently, the Company approached (March 2001) the Government for guarantee for raising Rs.15 crore through issue of nonconvertible redeemable debentures. In spite of obtaining Government guarantee in August 2001, the Company has not issued bonds so far.

- Orders for purchase of entire plant and machineries for all the six packages identified by the consultant were to be finalised and placed by March 2001. However, the Company could finalise and place purchase order for only three packages by March 2002.

- The project is now rescheduled to be completed by March 2003. The delay has deprived the Company of potential revenue of Rs.36.25 crore per annum anticipated from the sale of power.

- Though the project was approved by Government in January 2000, the Company did not take steps to monitor the project by reviewing the implementation regularly. In spite of a direction (October 2001) from the High Power Committee consisting of Government nominees to form a core committee involving the Directors of the Company and top-level officers connected with the project, no efforts were made in this direction. Lack of monitoring led to cost and time overrun. It is observed that in respect of entrustment of civil package alone (finalised in March 2002) the Company had committed Rs.1.64 crore over and above the estimated cost proposed in the revised project.

2B.13.2 Synchronisation of Co-generation implementation with modernisation programme

The efficiency of the co-generation project is directly related to the operation of the sugar mills, as the co-generation plant requires continuous supply of bagasse at the rate of 63 MT per hour. This requirement of bagasse could be met only if the sugar mill could operate at 5,000 tcd. However, the refurbished mills could not achieve the envisaged crushing capacity and have to be replaced as discussed in paragraph 2B.12.4. Although the Company incurred Rs.11.30 crore for modernisation during 1998-99 and 1999-2000, delay in implementation of the co-generation project resulted in non-utilisation of most of the machines installed during modernisation due to steam imbalance and other constraints, which were related to the implementation of co-generation project.

2B.14 Distillery

2B.14.1 The Company has a primary distillery unit to manufacture Rectified Spirit (RS) and alcohol out of molasses. The installed capacity of the unit is 32,000 litre per day. The actual production vis-à-vis the installed capacity and shortfall for the last five years are tabulated below:

Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
No. of days worked	203	289	337	330	281
Installed Capacity (in lakh litre)	64.96	92.48	107.84	105.60	89.92
Production (in lakh litre)	49.98	76.54	98.59	103.69	85.19
Shortfall (in lakh litre)	14.98	15.94	9.25	1.91	4.73

The Company could not achieve the capacity of 32,000 litre per day in any of the 5 years up to 2001-02 and the shortfall in production ranged from 1.91 lakh litre to 15.94 lakh litre.

Though the output of RS depends upon the sugar contents in molasses, the Company did not monitor the output of RS with respect to sugar content in molasses. Consequently, the loss of RS on this account could not be assessed.

2B.14.2 Package boiler

Due to delay in installation of package boiler, expected saving of Rs.3.40 crore for four years could not be derived.

(a) With a view to overcome the pollution problem due to discharge of untreated effluent from distillery unit, the Company decided to install a Biogas plant and a package boiler during 1990-91. It was envisaged that methane gas generated would be used as fuel for the boiler with a saving of Rs.0.85 crore per year. Though the Biogas plant had been installed during 1993-94 at a cost of Rs.1.54 crore after availing a capital grant of Rs.1 crore from Government of Karnataka, the package boiler was not installed till November 1998 due to delay in placing of purchase orders for boiler and other related works. No reasons for the delay were available on records produced to Audit. The proposed benefit by usage of methane gas could not be realised for about four years and expected saving of Rs.3.40 crore for the period could not be derived.

(b) The Company purchased 12 MT capacity boilers during 1997-98 considering the requirement of steam of 9 MT/hour for Distillery and Acetic Acid Plant. However, as the Acetic Acid Plant was closed in 1993-94 itself and the steam requirement for Distillery only was 5 MT/hour, procurement of 12 MT/hour boilers was not need based.

2B.14.3 Indian Made Liquor (IML) operation

The unit, which had a total vat capacity to blend 5.58 lakh litre, was shut down in February 2000 due to uneconomical operation. The following were the main reasons for the uneconomical operation of IML.

- Failure to establish a brand of its own,
- Failure to retain the regular orders of Canteen Stores Department.

At the time of closure, the Company had 2.98 lakh litre of blended and bottled IML valued at Rs.0.73 crore. Consequent to deterioration in the quality of liquor due to passage of time, the Company redistilled the entire stock of blended IML (1.62 lakh litre) and 1.35 lakh litre of bottled IML and obtained 1.34 lakh litre of Rectified Spirit. The Company realised only Rs.18.49 lakh from the sale of Rectified Spirit and incurred a loss of Rs.42.64 lakh. The remaining 5,174 cases (1,064 litre) of bottled liquor (Rs.12.13 lakh), packing materials and liquor flavors (Rs.24.16 lakh) were yet to be disposed off (April 2002). Even after two years of its closure (February 2000) the management has failed to initiate any steps to sell or lease the unit.

2B.14.4 Acetic Acid plant

The acetic acid plant, established in 1968, was closed in September 1993 due to its uneconomical operations. But the Company continued to incur expenditure till June 1998 (total expenditure of Rs. 5.22 lakh) on the Excise Staff deputed. It was only after seven years of its closure the Company sold the plant for Rs.28.70 lakh to Keerti & Company. However, the plant is yet (April 2002) to be delivered due to Company's failure to sort out the dispute regarding Excise Duty liability.

2B.15 Arrack operation

Failure to ensure minimum off-take of arrack by the contractors resulted in loss of profit of Rs.5.42 crore during two years.

The Company was entrusted (June 1993) with the work of manufacturing and selling arrack in 12 districts (now 14) by the State Government. As per the arrangement, the Government would supply to the Company the required quantity of Rectified Spirit for manufacture of arrack through monthly allotments. The Company has to blend arrack and sell the same in polyethythelene (LDPE) sachets at the rates fixed by the Government to the licensed arrack contractors appointed by the Government in those 14 districts where the Company is the sole distributor. The Company was getting Rs.2.42 per litre of arrack so sold from the Government as reimbursement towards blending and sacheting charges till the end of 1998-99, which was enhanced to Rs.2.50 per litre from 1999-2000 onwards.

The quantity of the off-take by the contractors as analysed by audit was less than the allotment and was not sufficient even to cover the license fee payable by them. During the year 1998-99 and 1999-2000 for which detailed taluk-wise licence fee and quantity of arrack lifted were available, the loss of revenue to the Company due to shortfall in off-take by arrack contractors in 69 taluk was Rs.3.49 crore and Rs.6.13 crore respectively. The loss of profit to the Company on this account worked out to Rs.1.93 crore and Rs.3.49 crore.

The fact that the Company lost profit of Rs.5.42 crore in two years despite the sole seller status should have been sufficient reason for the Company to take up the matter with the Excise Department/Government highlighting lower off-take by the licencees.

2B.15.1 Payment of Rectified Spirit differential price

Despite the presence of a Special Officer the Company failed to ascertain the actual differential price payable and made excess payment of Rs.2.53 crore.

Rectified Spirit (RS) is used for the manufacture of arrack. As RS produced by the Company is insufficient to meet all its requirements, the Government allots RS from other distilleries to the Company. The allotted price of RS is fixed by the Government, which specifies both the basic price and tax. Further, the Government also specifies cost price and tax of RS used in fixation of the sale price of arrack. Difference between allotted and sale price is compensated (or collected from the Company) by the Government. Until February 2000 the price payable/receivable was adjusted at the year-end and since February 2000 it is being paid in advance at the time of RS allotment.

In this connection it was observed that the Company despite the presence of a Special Officer (Liquor) failed to ascertain the actual differential price payable based on the Government orders and made excess payment of Rs.2.53 crore up to February 2002. The Company did not analyse the causes and claim refund of excess payment so far (August 2002).

Further, as already discussed, since February 2000, the Company has been paying the differential price before receipt of release orders for RS. However, the Company failed to ensure receipt of 44 loads as on March 2002 for which differential price of Rs.21.03 lakh had been paid.

2B.15.2 Supply of unmatured arrack

As per the Government Order while supplying arrack, the Company should ensure that the arrack supplied is matured for at least 15 days. While supply of arrack matured for less than 15 days would attract penalty of 2 per cent of blending charges, the penalty for supply of arrack matured for less then 7 days is 5 per cent. It was observed in Audit that the Company supplied un-matured arrack and paid Rs.0.58 crore as penalty from 1997-98 to September 2001. The Company's reply that it was economical to pay penalty rather than invest huge amount on vats required for maturation is not tenable as the Company had to fulfill the social objective of Government to supply matured arrack to the consumers.

2B.15.3 Tax liability on captive consumption of Rectified spirit

Failure to remit sales tax on captive consumption of Rectified Spirit resulted in levy of penalty of Rs.6.35 crore by the State Commercial Tax Department.

The Company manufactures arrack on behalf of Government. Apart from using its own RS, the Government also directs other distilleries to supply RS. Sales tax was leviable on RS used in manufacture of arrack. However the Company did not pay tax on using its own RS treating it as captive consumption. But while calculating the differential price to be reimbursed or paid to the Government the Company had considered tax element also. Hence, the Sales Tax authorities assessed tax on the value of internal consumption of RS as sale and levied a tax of Rs.6.53 crore and penalty of Rs.6.35 crore for suppressing the turnover and failing to pay tax for the years up to 1997-98. The appeal of the Company for exemption from payment of sales tax treating it as captive consumption was rejected (November 2000) by the Honorable Supreme Court. Besides this, the Company has also become liable to pay tax and penalty on 349.62 lakh litre of RS consumed by its arrack units from 1998-99 to February 2002.

Failure to remit the Sales Tax on captive consumption of RS for manufacture of arrack resulted in levy of penalty of Rs.6.35 crore up to 1997-98.

2B.15.4 Purchase of LDPE film

For the year 1998-99, the Company finalised (July 1998) requirement of LDPE films used in sacheting of arrack. As per the terms of purchase order, the price variation was allowable whenever there was a revision of LDPE price and corresponding taxes. These terms were extended from time to time up to June 2001. It was observed that:

(i) While effecting the price variations, the Company failed to consider the discount of Rs.1,600 to Rs.2,400 per MT and regional subsidy of Rs.400 to Rs.600 per MT extended to the Karnataka suppliers by manufacturers of LDPE. This resulted in extra expenditure of Rs.32.84 lakh on 15.49 lakh kg of film purchased from April 1999 to June 2001.

(ii) Further, while finalising (July 1998) the tenders for purchase of LDPE films, the price to be paid to outside suppliers was reduced to the extent of entry tax payable by the Company on the same. However, the Company was liable to pay entry tax on local purchases also with effect from April 1999. By not asking the local suppliers to match the basic price of outside suppliers, which was cheaper by Rs.1.28 per kg, the Company incurred an extra expenditure of Rs.13.24 lakh on 10.34 lakh kg of film purchased during 1999-2000 and 2000-01.

2B.15.5 Failure to opt for composition of tax

The turnover derived by the Company from the sale of arrack is liable to be taxed as turnover tax on works contract. By opting for composition of tax as provided for under sub section 6 of Section 17 of Karnataka Sales Tax Act, 1957, the Company could avail exemption from the liability of turnover tax on works contract. To avail this benefit the Company was required to file Form-8 with the Sales Tax authorities. But even this simple work was not performed by the Company till April 2001, and the Company finally filed Form-8 for the year 2001-02. Consequently, the Company was forced to pay Rs.1.69 crore for the years 1993-94 to 1997-98 and the estimated liability for next 3 years up to 2000-01 is Rs.1.66 crore. Thus, as a result of negligence of the officers concerned, the Company had to bear huge burden of tax to the tune of Rs.3.35 crore which was avoidable.

2B.16 Human Resource Management

2B.16.1 Under-utilisation of staff strength

As on 31 March 2002, the Company had a total strength of 1,288 persons in 29 different sections. The staff requirement/deployment in these departments were neither based on any scientific study nor considering seasonal nature of the Sugar industry.

During July 1996, State Sugar Directorate suggested staff strength of 781 persons for Sugar factories with 5,000 tcd capacity. An expert committee consisting of Board of Directors and experts in the technical field to study manpower requirement suggested (February 1997) in its interim report downsizing the staff strength by 340 persons. No action was taken on this report nor the final report submitted.

In spite of the existence of surplus staff total payment of Rs.1.38 crore was made to contract labourers.

Subsequently, a Standing Committee was constituted (August 2000) to review manpower requirement based on the suggestion made by State Sugar Directorate and report of expert committee. The standing committee recommended (January 2002) downsizing the staff strength to 1,004 persons. Based on the above recommendations, the Board decided (January 2002) to refix the staff strength to 1,010 persons and suggested bringing down the excess strength by not filling the retirement vacancies and also by implementation of Voluntary Retirement Scheme. However, it was observed that during the period 1998 to 2002 the payment made to contract labourers increased from Rs.10.96 lakh to Rs.53.48 lakh in spite of the existence of surplus staff. The total expenditure on contract labourers for the five years worked out to Rs.1.38 crore.

In addition, the Company during the above period incurred Rs.2.94 crore on overtime. The Company neither made any effort to analyse the reasons for such payment nor exercised control over such expenditure despite having surplus work force.

2B.16.2 Absorption of trade apprentices

The Company during February 1997 engaged 33 trade apprentices in various trades in accordance with the Apprentice Act. Though the Company under the rules of the Act had no obligation to appoint these trainees after training, it suggested (December 2000) to the Government to appoint these candidates against vacancies identified by the Company and subsequently based on the approval from the Government, appointed 31 trainees even though none of the candidates had completed the training and passed the apprenticeship exam.

Thus, the action of the Company in suggesting the appointment of candidates on the plea of availability of vacancies at a time when there was surplus staff led to appointment of under trained candidates incurring recurring expenditure of Rs.24 lakh per year.

2B.16.3 Payment of production incentive

As per the guidelines issued by the Government, the payment of bonus linked with production or productivity is the only alternative for payment of bonus. The guidelines also stipulated that if a Company desires to introduce a production incentive scheme, besides paying bonus, such a scheme should be specifically formulated based on a scientific work study undertaken by Industrial Engineers.

Production incentive of Rs.11.05 crore was paid by applying unscientific method for calculation and in violation of the Government guidelines.

The Company paid production-linked bonus in addition to statutory bonus, without undertaking work-study by Industrial Engineers, on the basis of bilateral agreement with the employees. Thus, the Company resorted to an unscientific method and disregarding guidelines issued by the Government, paid Rs.11.05 crore during 1997-98 to 2001-02 towards production incentive

A further analysis of incentive payment revealed that:

- During three seasons 1997-98, 1998-99 and 2000-01, the Company paid 15,10 & 5 days bonus respectively in excess of the agreed number of days with employees association resulting in excess payment of Rs.0.59 crore.

- The Company and Employees Association during August 1999 agreed to payment of production incentive for the crushing season 1999-2000 which was related to improved crushing, improved recovery etc. However, the Company paid Rs.42.40 lakh incentive bonus based on level of crushing without linking the payment to the actual performance, which was lower.

2B.16.4 Payment of ex-gratia

As per the guidelines issued by the Government of Karnataka, prior approval of the concerned administrative department must be obtained for the payment of ex-gratia on a year-to-year basis. The Company however made the payment of ex-gratia of Rs.1.64 crore from 1997-98 to 2001-02 without obtaining the Government's approval. Thus, the entire payment of Rs.1.64 crore made towards ex-gratia was irregular.

Further, for the year 1998-99, the Company in addition to payment of annual ex-gratia of Rs.33.99 lakh (October 1999) in violation of Government guidelines paid (January 2000) additional ex-gratia of Rs.32.02 lakh for the year 1998-99 even without Board’s approval.

2B.16.5 Encashment of leave

As per the leave rules of the Company employees are allowed to avail 12.5 days or 25 days half pay as Furlough Leave per year subject to production of medical certificate. The unavailed portion of this leave would be credited to the leave account of the employee at the end of seven years which could be availed subsequently even without medical certificate.

The Company during 1996 made a bilateral agreement with the employees association and agreed for the encashment of furlough leave subject to retaining minimum balance of 15 days at credit. As this leave is in the nature of sick leave, extension of encashment benefit to this leave to the employees in terms of bilateral agreement lacked justification.

2B.17 Internal control system

The Company though in existence for almost 70 years, had not developed sound internal system to ensure effective monitoring of various activities of the Company. The Company had also failed to evolve corporate plan, budget and Management Information System even though the same was commented (December 1997) upon by S.B.Billimoria & Co, the consultants appointed to study the working of the Company.

The Internal Audit of the Company during the period under review was carried out by external Auditors appointed annually. The scope of audit entrusted to them did not cover vital areas like sale of sugar, cane payment and annual accounts. The statutory Auditors too had been reporting about the need for scope and coverage of internal audit to be widened and strengthened. Even in respect of areas covered by audit, the Company failed to take effective steps on the observations of Internal Auditors. viz., selling only premature arrack, non accounting of arrack crates and carrying of cash balances in its bank accounts without periodically remitting to head office.

The Company had started computerisation of its activities from 1990 and incurred Rs.0.68 crore as on 31 March 2002. It was observed in Audit that various modules have not been integrated and manual work still persists. Further, based on the reports of Internal Auditors, the Audit sub-committee of the Company also expressed (October 2001) dissatisfaction and felt that the computerisation was not up to the mark. Thus the benefits of computerisation are not fully derived.

In the absence of above control measures, the Company's internal control system is rendered ineffective.

Conclusion and Recommendations

Improper sugarcane procurement led to dependence on non-oppige cane, extension of crushing season and low recovery. Payment of sugarcane price much higher than the SMP is not based on sugar recovery percentage and without any justification. Non-promotion of sugar rich varieties and failure to minimise the losses led to the sugar unit incurring huge losses. Action is required to streamline the procurement and promote sugar rich varieties to make the sugar unit viable.

The Modernisation scheme taken up for implementation without any technical evaluation resulted in many of the machines remaining unutilised though installed, due to steam imbalance and other constraints, which were related to co-generation project. To utilise the machinery already installed as well as to derive the benefits of generation of power, co-generation project implementation should be expedited. Further, as the efficiency of co-generation project depends on the efficiency of the mills to operate at 5,000 tcd, action is required to attain the expected crushing level.

The off-take of arrack by the contractors was less than the allotment and not sufficient even to cover their license fee. The Company should take up the matter with excise department/Government highlighting lower off-take by contractors to maximise the profit from the arrack operations.

The Company should evolve a personnel policy outlining job description and qualification requirements. Further, the payment of incentives to employees should be based on productivity instead of crushing levels.

The Company should formulate strategies to identify core and non-core activities and concentrate on core activities to make them more profitable.

2C. THE MYSORE PAPER MILLS LIMITED

SECTORAL REVIEW ON THE WORKING OF SUGAR MILL UNIT

HIGHLIGHTS

The Sugar unit has incurred loss of Rs.23.53 crore during the five year period ending 31 March 2001 mainly due to payment of prices higher than the Statutory Minimum Price fixed by the Government.

(Paragraph 2C.4)

The Company was paying higher prices for sugar cane than the Statutory Minimum Price resulting in excess payment of Rs.35.76 crore during the last five years ending 31 March 2002. The Company did not fix final sugar cane price based on profitability or sugar price realisation in the market.

(Paragraph 2C.6)

Quantity of bagasse used for generation of one MT of pulp varied widely from 4.77 MT to 6.38 MT. As the bagasse pulp plant was not utilised to its full capacity, imported chemical pulp was purchased from outside resulting in extra cost of Rs.12.47 crore for the last four years.

(Paragraphs 2C.9.1(a) and 2C.9.1 (b))

About 63 per cent of the total employees in the sugar mill were engaged throughout the year as non-seasonal employees.

(Paragraph 2C.11 (a))

Even though the crushing capacity remained at 2,500 tpd since commencement of commercial production in September 1985, the permanent labour, which was 194 during 1988-89 increased to 317 during 2001-02 resulting in payment of additional wages amounting to Rs.7.27 crore apart from overtime wages of Rs.45.81 lakh.

(Paragraph 2C.11 (b))

2C.1 Introduction

The Mysore Paper Mills Limited (MPM) incorporated in May 1936, became a Government Company in November 1977 when the State Government increased its share holding to 56.2 per cent. Paid up capital of the Company as on 31 March 2002 was Rs.118.84 crore, out of which Government of Karnataka held Rs.77.06 crore (64.84 per cent), Nationalised Banks Rs.39.49 crore (33.23 per cent) and public and others Rs.2.29 crore (1.93 per cent).

During 1982-84 when the sugar cane residue viz, bagasse, emerged as the prime raw material for paper, the Company set up (September 1985) a sugar plant with a crushing capacity of 2,500 tonnes per day (tpd) in Bhadravathi. Bagasse pulping plant with an installed capacity of 21,450 tonnes per annum (tpa) for utilising bagasse in the manufacture of paper was commissioned in 1988-89, i.e., after a delay of four crushing seasons.

2C.2 Scope of Audit

A review of "Sugar Mill Project and Bagasse Storage, Handling and Pulping Project" of the Company was included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1989 (Commercial).

The Committee on Public Undertakings (COPU) did not discuss the Report. The present review covers the performance of the sugar unit for five years from 1997-98 to 2001-02 and findings thereof are discussed in the succeeding paragraphs.

2C.3 Organisational set up

The Company is managed by Board of Directors and headed by Chairman and Managing Director (CMD). The present CMD is holding charge since January 2002. The sugar operations are handled by General Manager (Production) and supervised by an Assistant General Manager (Sugar) who is assisted by two Senior Managers – Engineering and Process control.

2C.4 Financial position and working results

The financial position and working results of the Company as a whole for the five years up to 2001-02 are given in the Annexure 14 and 15.

The net worth of the Company as on 31 March 1993 was Rs.110.61 crore. The Company is under Rehabilitation package for a period of 10 years from 1993 to 2002 for revival under which the State Government agreed to provide certain subsidies and rebates like exemption of sales tax on newsprint, exemption of sales tax (50 per cent) on raw materials supplied by Karnataka Forest Department/Karnataka Forest Development Corporation, exemption of electricity tax and exemption of purchase tax on purchase of sugarcane. The total concessions availed by the Company from 1993-94 to 2001-02 was Rs.180.57 crore. Relief and concessions extended by financial institutions and banks during the rehabilitation period was Rs.54.20 crore. This in turn enabled the Company to improve upon financial position in terms of net worth.

The working results of the sugar mill for the five years up to 2000-01 is summarised below:

Year	Income	Expenditure	Profit/loss	Depreciation	Cash loss (-) / profit (+)
	Rupees in lakh				
1996-97	4,692.43	5,541.47	-849.04	19.91	-829.13
1997-98	6,045.53	5,840.32	205.21	20.40	+184.81
1998-99	4,164.54	4,358.73	-194.19	17.92	-176.27
1999-00	5,071.87	6,182.23	-1,110.36	20.41	-1,089.95
2000-01	5,272.44	5,677.39	-404.95	40.08	-364.87

The Sugar unit has incurred loss of Rs.23.53 crore during the five year period ending 31 March 2001 mainly due to payment of prices higher than the Statutory Minimum Price fixed by the Government.

It is observed from the above table that:

a) Except in 1997-98, in all the other four years the Sugar Mill had incurred loss. The total loss on working of Sugar Mill for the five years up to 2000-01 was Rs.23.53 crore. During the year 1997-98 the Sugar Mill earned profit due to higher prices realised on sale of molasses.

b) The main reason for loss was payment of higher cane price than that declared by the Government of India as discussed in para 2C.6 subsequently.

c) The Company is crediting the sugar account with the equated cost[2] of sugarcane towards bagasse used for captive consumption instead of average sale price. Had the Company credited the sugar account with average sale price of bagasse the loss incurred during five years would have been Rs.67.23 crore instead of Rs.23.53 crore.

2C.5 Cane procurement

2C.5.1 Cane area development and cane procurement

In August 1982, the State Government demarcated 46,595 acre of area in Bhadravathi and Tarikere Taluks to the Company for procurement of sugarcane from the farmers. The Company started (July 1983) a Cane Development Section to manage the reserved area demarcated to the Company. Since the Company could not get required quantity of sugarcane from the demarcated area, the Government allotted (September 1998) further 8,000 acre in the villages of Shimoga and Bhadravathi to enable the Company to secure the required 4.50 lakh tonnes of sugarcane from the reserve area by entering into agreements with cane growers to supply 95 per cent to the Company directly or through society and avoid diversion of cane without the prior permit of the Deputy Commissioner for Cane Development.

The following table shows the total cane area and registered cane area during the period 1996-97 to 2001-02:

[2] Cost of one MT of sugarcane is equated to one MT of bagasse.

Year	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Total allotted area (acre)	46,595	46,595	46,595	54,595	54,595	54,595
Total cane area (acre)	14,648	13,320	16,233	17,497	13,763	12,442
Percentage of total cane area to total allotted area	31	28	35	32	25	23
Registered cane area (acre)	12,283	12,546	14,223	13,799	11,344	11,075
Percentage of registered area to total cane area	84	94	88	79	82	89

From the above table it is seen that even with the allotment of additional cane area, total cane area started decreasing and came down to 23 per cent (2001-02) from 35 per cent and 32 per cent (1998-99 and 1999-2000). The reasons stated for decrease was due to better prices obtained for paddy and arecanut by the farmers. Registered cane area which was 14,223 acre in 1998-99 when the additional land was allotted, came down to 11,075 acre in 2001-02. This decrease in total cane area and registered cane area indicates that in spite of having a cane development section, the Company failed to attract more farmers to grow cane.

The crushing for 2001-02 season was expected to be of the order of only 3.80 lakh tonnes mainly due to diversion of cane due to increase in jaggery price. The farmers though had registered with the Company diverted the sugarcane grown in such registered area to the sugar factories in Davanagere and Duggavati. The total Sugar cane diverted from the demarcated area of the Company during 2001-02 season was of the order of 28,175 tonnes (up to December 2001). In 2000-2001, diversion of cane for jaggery was 24,000 MT as against 39,000 MT in 1999-2000. In spite of specific allotment of area to the Company for sugarcane extraction and the rate paid being higher than the statutory minimum price the farmers diverted the cane to neighbouring sugar factories. The Company had no control over the diversion of sugarcane. The Company replied (July 2002) that it had issued notices to cane growers, issued pamphlets and taken the matter with Commissioner for Cane Development and Director of Sugar in Karnataka to stop diversion of sugarcane in November/December 2001, in addition to taking up the matter with South India Sugar Mills Association to advise the member factories to stop poaching of sugarcane. It further stated that diversion of sugarcane to jaggery cannot be controlled if the jaggery prices rules high. The fact remains that the Company took up the matter of sugarcane diversion with the Commissioner for Cane Development only in 2001-02.

2C.5.2 Cane variety, yield and recovery

The Company has been trying to propagate early maturity, high yielding and high rich varieties. The variety-wise cane area during 1997-98 with change in the crop pattern during 2001-02 season were as follows:

Type	Variety	1997-98		2001-02		Average yield Ton/ acre	Maturity (months)
		Acre	per-cent	acre	per-cent		
Non Rich variety							
Late variety	CO 62175	11,280.00	85.52	4,476.00	40.42	45	14-17
Rich variety							
Early maturity	CO 7704	1,700.00	12.89	1,703.00	15.38	35	12
	CO 7804	180.00	1.37	70.00	0.63	35	12-13
Mid late variety	CO 8371	12.00	0.10	4653.00	42.01	45	13-15
	COVC89249	0.20	-	73.00	0.66	40	13-14
Others		16.20	0.12	100.00	0.90	--	--

It could be seen from the above that:

a) In 1997-98, the non-rich variety of CO 62175 with a yield of 45 MT/acre formed 85.52 per cent of the total area planted and the rich varieties were only 14.48 per cent. By 2001-02, the non-rich variety decreased to 40.42 per cent and rich varieties viz., CO 7704, CO 7804, CO8371 increased to 59.58 per cent of total cane area planted.

b) Even though rich varieties were planted, the transporting and crushing of rich varieties were not planned systematically and as a result their crushing was delayed beyond their maturity period. During the year 2000-01, the entire cane of early maturity high rich varieties was crushed beyond their maturity period. By crushing over-mature cane the benefit of rich variety cane could not be derived fully.

2C.6 Price fixation for purchase of sugarcane

The Statutory Minimum Price (SMP) of sugar cane payable by sugar factories for each crushing season is fixed by the Government of India. The SMP is linked to basic recovery of 8.5 per cent. A premium was payable for every 0.1 percentage point increase in recovery above 8.5 per cent. However, the State Government was advising a higher State Advisory Price (SAP) payable to farmers, which the Company was forced to pay up to 1996-97. Consequent to the industry challenging the SAP fixed by the State Government for the year 1996-97, the Karnataka High Court stayed the Government orders and had done away (August 1997) with the fixing of SAP by the State Government. Hence no SAP was fixed from 1997-98 onwards. In the absence of SAP in 1997-98 and 1998-99, the cane prices are to be fixed in terms of Sugar Control Order 1966 of Government of India by entering into an agreement with cane growers. Though the Company had an option to restrict the prices to SMP, it continued to pay higher prices than SMP for which no reason was found on record.

Though the competence of Government of Karnataka was taken away, the Government in August 1999 issued guidelines fixing the sugar cane price for sugar season 1999-2000 which stipulated that the sugar cane price for sugar season 1999-2000 was to be at the same rate as was paid during the last year i.e. 1998-99. The final sugar cane price was to be worked out by considering the profitability of the Company for the year and fixed after completion of crushing season with the prior approval of the Government. Further, the Company had to obtain permission of the Government for fixation of sugar cane price in future as well.

The Statutory Minimum Price fixed by Government of India, and the agreed price paid by the Company for five years up to 2001-2002 are detailed below:

Year	SMP	Price paid
	(Rupees per Ton)	
1997-98	592.50	790.00
1998-99	626.20	860.00
1999-00	679.80	860.00
2000-01	742.00	880.00
2001-02	803.00	880.00

The Company incurred an extra expenditure of Rs.35.76 crore during the last five years due to payment of sugar cane prices higher than Statutory Minimum Price.

It is observed that

a) The Company was paying prices higher than SMP. The Company incurred an extra expenditure of Rs.35.76 crore during the last five years.

b) The Company fixed price payable to farmers irrespective of SMP/sugar price realisation in the market.

c) The Company did not fix final sugar cane price based on the profitability of the sugar operation. In 1999-2000 and 2000-2001 the Sugar Mill incurred losses of Rs.11.10 crore and Rs.4.05 crore respectively but the prices were not fixed based on profitability as per Government guidelines.

The Company neither obtained prior approval of the Government to fix the final sugar cane prices nor obtained permission to fix sugar cane price in future.

2C.7 Research and Development

The Company purchased 100 acre of land for Rs.20 lakh during November 1990 from the Government of Karnataka at Karehalli near Bhadravathi and was using it as Research and Development farm for research on cane and supply of seeds to farmers. It was observed that even though the Company took possession of the land for research activities during 1991-92, it took four years in levelling of fallow land and arranging water and started planting of sugar cane only in the month of November 1995. The first harvest in September 1996 yielded 320 MT in four acre of land (80 MT per acre) which came down drastically over the subsequent years to 17.61 MT/acre in 1999-2000, far less than the average yield of 35 MT/acre in Bhadravathi area. Further, the area utilized was only 23 to 40 per cent of the land purchased and 6,074.13 MT of cane seed was produced and sold to farmers since inception to March 2002.

2C.8 Performance of Sugar Plant

2C.8.1 Expansion of Sugar Mill

The Company got (July 1996) license from Government of India for the expansion of Sugar Mill from 2,500 tpd to 5,000 tpd and establishment of co-generation plant using the additional bagasse generated. Consequent to delay in financial closure for Sugar Mill expansion and State Government's approval for investment, the expansion scheme as well as co-generation project was deferred. A paragraph on "Avoidable expenditure on preparation of tenders and its evaluation" was included in the Report of the Comptroller and Auditor General of India (Commercial) for the year ending 31 March 2001.

2C.8.2 Capacity utilisation

Number of days in a season, cane to be crushed, cane crushed and capacity utilisation in the last five years ending on 31 March 2002 is given below:

Particulars	1997-98	1998-99	1999-00	2000-01	2001-02
Season days (April to March)	171	209	238	189	157
Sugar cane to be crushed as per installed capacity (2,500 tpd x no. of days)	4,27,500	5,22,500	5,95,000	4,72,500	3,92,500
Sugar cane crushed (MT)	3,77,962	4,60,356	5,03,705	4,23,782	3,96,706
Average capacity utilisation (tpd)	2,210	2,202	2,116	2,242	2,527
Per cent utilisation	88	88	85	90	101

It is observed from the above table that the Sugar Mill could attain its full capacity in 2001-02 only.

2C.8.3 Production performance of Sugar Mill

The estimated recovery and actual recovery of sugar, actual content of sugar in cane crushed and total loss of sugar for five years up to 2001-02 is given below:

Particulars		1997-98	1998-99	1999-00	2000-01	2001-02
Sugar cane Crushed (MT)		3,77,962	4,60,356	5,03,705	4,23,782	3,96,706
Sugar produced (MT)		36,054	46,212	51,162	44,389	41,489
Estimated sugar recovery (percentage)		9.82	9.60	10.00	10.00	10.50
Actual sugar recovery (percentage)		9.54	10.05	10.15	10.47	10.46
Percentage of Sugar content in Sugar cane		11.75	12.25	12.30	12.69	12.61
Loss of sugar in	**Norm (per cent)**	**Actual (per cent)**				
Bagasse	Below 0.80	0.94	0.83	0.86	0.85	0.80
Molasses	0.90 to 1.10	1.09	1.24	1.12	1.21	1.21
Other losses	0.30	0.18	0.13	0.17	0.16	0.14
Total Loss•	**2.2**	**2.21**	**2.20**	**2.15**	**2.22**	**2.15**

• Fixed by G.O.I vide notification of 31 May 1988

It could be seen from the above during the years 1997-98 and 2001-02, actual recovery was less than the estimated recovery. However, the recovery estimated during 1999-2000 and 2000-01 was lower than the previous year's recovery. The Company stated (June 2002) that the estimated sugar recovery was only a forecast for the coming years, which was arbitrarily worked based on previous few years average sugar recovery. The reply is not tenable as it is seen from the table that the recovery increased year after year but the estimates were kept low.

2C.8.4 Operational performance of Sugar Unit

The operational performance for the period 1997-98 up to 2001-02 is tabulated below:

Particulars	1997-98	1998-99	1999-00	2000-01	2001-02
Installed crushing capacity (tpd)	2,500	2,500	2,500	2,500	2,500
No. of days sugarcane crushed	171	209	238	189	157
Available working hours	3,991.15	5,002.00	5,275.00	4,512.00	3,762.00
Actual hours utilised	3,340.15	4,246.10	4,600.35	3,816.05	3,397.50
Hours lost	651.00	755.50	674.25	695.55	364.10
Controllable	598.55	703.15	597.30	605.35	165.35
(Percentage)	91.94	93.07	88.58	87.03	45.41
Uncontrollable	52.05	52.35	76.55	90.20	198.35
(Percentage)	8.06	6.93	11.42	12.97	54.59

It is observed that

a) The controllable factors among other things included want of sugarcane, engineering and cleaning. The hours lost due to controllable factors varied from 45.41 per cent (2001-02) to 93.07 per cent (1998-99). The hours lost for want of sugarcane was as high as 194.55 hours in 1997-98 and was lowest at 79.55 hours in 2000-01. Similarly, in respect of engineering, the hours lost were 129.25 hours in 1997-98, which increased to 229.15 hours in 1999-2000. The hours lost due to cleaning were lowest at 135 hours in 2000-01, whereas the highest recorded was 282.35 hours in 1998-99.

b) The uncontrollable hours lost due to rain, festival, strike etc., varied from 6.93 per cent (1998-99) to 54.59 per cent (2001-02) of total hours lost.

2C.9 Bagasse

2C.9.1 Use of bagasse in Pulp plant

(a) The bagasse pulping plant with an installed capacity of 21,450 tonne per annum (tpa) for utilising bagasse was commissioned in 1988-89 i.e., four crushing seasons after commencement of commercial production of sugar in 1985. The non-synchronisation of the commissioning of the bagasse storage, handling and pulping project with the commencement of commercial production of sugar plant was commented in the Report of the Comptroller and Auditor General (Commercial) for the year 1998-99.

The table below shows the bagasse generated, utilised for manufacture of pulp, used as substitute for coal in boilers and sold.

Year	Generated	Used for pulp	Used for boilers	Sold	Pulp generated	Qty of bagasse used for one MT of pulp	Capacity utilisation (per cent)
	(in MT)						
1996-97	1,70,611	94,730	13,195	10,251	15,264	6.21	71.16
1997-98	1,30,358	91,480	18,731	19,776	14,340	6.38	66.85
1998-99	1,53,785	88,972	23,132	11,841	15,163	5.87	70.69
1999-00	1,57,276	94,725	12,260	5,018	15,085	6.28	70.33
2000-01	1,34,184	77,279	19,422	15,974	16,200	4.77	75.52

As the bagasse pulp plant was not utilised to its full capacity, imported chemical pulp was purchased resulting in extra cost of Rs.12.47 crore.

The quantity of bagasse used for generation of one MT of pulp varied from 4.77 MT to 6.38 MT. The Company had not fixed norms for consumption of bagasse and not analysed the reasons for variations in consumption of bagasse for generation of pulp.

b) The bagasse pulp plant was set up to reduce the consumption of chemical pulp made out of Bamboo/wood. The installed capacity of the bagasse plant could not be fully utilised because except for the digester section, other sections of subsequent operations like washing, screening and bleaching did not have the matching capacity. Due to this the Company used imported chemical pulp in place of bagasse pulp, purchased at higher cost. The additional expenditure incurred compared to the marginal cost of production of bagasse pulp was Rs.12.47 crore for the last four years ending 31 March 2000.

2C.9.2 Sale of bagasse

The Company was not able to utilise in full the bagasse available after consumption in Pulp plant and sold 62,860 MT of bagasse during the last five years ending 2000-01. Considering the calorific value of bagasse at 1,900 K.cal[*] and that of coal at 4,300 K.cal, the excess cost incurred in the consumption of coal due to non-use of 62,860 MT of bagasse and sold in the market worked out to Rs.5.74 crore.

It was replied by the management to the review of Paper Mill included in the Report of Comptroller and Auditor General for the year ending 31 March 1998 (Commercial) that since the Company did not have a proper feeding system for bagasse in boiler for firing, the excess bagasse could not be utilised for generation of steam. It was also stated that the Company had taken up a new Multi Fuel Bed Combustion Boiler (MFBC) with the bagasse firing facility. Even though the captive generation plant with steam generated from multi-fuel boiler had started functioning from April 1999 consumption of bagasse which

[*] Kcal- Kilo calories

was 23,132 MT in 1998-99 came down to 19,422 MT in 2000-01 and the Company had sold 15,974 MT bagasse resulting in the loss due to consumption of coal instead of bagasse.

2C.10 Sale and stock of sugar

The sale of Sugar is regulated by the Government of India as levy sale sugar and free sale sugar. The levy sale sugar price is fixed by the Government from time to time. The ratio of free sale to levy sale sugar, which was 70:30, was changed to 85:15 with effect from 1 February 2001.

The production, sale and closing stock of sugar with cost per MT and sales realisation per MT for the last five years up to 2001-02 is given below:

Particulars	1997-98	1998-99	1999-00	2000-01	2001-02
Opening balance (MT)	34,332	19,671	30,607	39,036	41,271
Net production (MT)	36,028	45,739	50,985	45,000	41,489
Sale (MT)	50,689	34,803	42,556	42,765	53,946
Closing stock (MT)	19,671	30,607	39,036	41,271	28,472
Closing stock to no. of months production	6.55	8.03	9.19	11.00	8.24
Cost per MT (Rs.)	11,522	12,524	14,527	13,319	13,522
Sales realisation/MT (Rs.)	11,927	11,966	11,918	12,329	11,898
Profit (+)/Loss (-) per MT	(+) 405	(-) 558	(-) 2,609	(-) 990	(-) 1,624

It is observed that

a) The closing stock of sugar varied from 6.55 months production to 11 months production during the last five years. The closing stock of sugar as on 31 March 2002 was 28,472 MT valued Rs.38.35 crore.

b) The Company increased its storage capacity in June 2000 by commissioning 15,000 MT capacity godown at a cost of Rs.1.37 crore. The construction of godown was delayed by 15 months (10.5 months was attributable to the Company due to delay in supply of rods and structural steel) resulting in extra expenditure of Rs.14.36 lakh in transportation and hire charges of a private godown.

2C.11 Manpower analysis

The table below indicates the manpower in Sugar Mill (excluding common services of the Paper Mill and the Sugar Mill) and its performance during the five years up to 2001-02.

Particulars	1997-98	1998-99	1999-00	2000-01	2001-02
Number of days crushed	171	209	238	189	157
Number of employees in sugar division during the crushing season only	200	194	188	185	180
Employed through out the year	334	332	327	337	317
Total	**534**	**526**	**515**	**522**	**497**
Percentage of non-seasonal employees to total employees	62.55	63.12	63.50	64.56	63.78
Salaries and Wages paid for employees employed through out the year (Rs. in lakh)	272.41	312.93	361.55	357.26	460.33
Overtime wages paid (Rs. in lakh)	6.47	11.33	10.48	10.07	7.46
Overtime wages paid during the season (Rs. in lakh)	4.56	8.91	8.91	7.72	7.37
Overtime wages paid during off season (Rs. in lakh)	1.91	2.42	2.33	2.35	0.09
Excess wages paid due to increase in permanent labour force (Rs. in lakh)	114.18	130.03	147.05	157.25	178.61

It may be seen from the above table that

a) About 63 per cent of the total number of employees in the Sugar Mill was engaged through out the year during the above period as non-seasonal employees. The Company's records did not indicate the particulars regarding break up of the deployment of this manpower with reference to job requirements of preventive maintenance of each machinery and the quantum of surplus labour, if any, that existed during off season. In the absence of these data, whether the manpower on the rolls during the non-seasonal period was need–based, could not be ascertained.

Although the crushing capacity remained at 2,500 tpd the permanent labour which was 194 during 1988-89 has increased to 317 during 2001-02.

b) The crushing capacity of sugar plant has remained at 2,500 tpd since the commencement of commercial production in September 1985. However, the permanent labour, which was 194 during 1988-89, has increased to 317 during 2001-02. Due to increase of permanent labour, the additional wages paid for the five years up to 2001-02 works out to Rs.7.27 crore. Even though there was excess work force, the Company incurred Rs.45.81 lakh towards overtime wages, which included Rs.9.10 lakh paid during the off-season.

c) A Sugar Bin with automatic bagging was commissioned (April 2001) at a cost of Rs.48.63 lakh. There was delay of 24 months (two seasons) in completion of the project, which had resulted in employment of extra labour leading to avoidable expenditure of Rs.19.30 lakh. The Company replied (July 2002) that the sugar bin was commissioned during December 1998. The reply is not correct in as much as the work was completed in April 2001 and capitalised during 2001-02.

Conclusion and Recommendations

There has been continuous decline in the registered cane area even after allotment of additional area to the Company. The Company should make efforts to attract more farmers to register with it. The Company has been making payment of sugarcane price higher than the statutory minimum price (SMP) fixed by the Government. The Company should regulate payment in excess of SMP on the basis of guidelines issued by the Government and profitability. The Company should take effective steps to control working hours lost due to controllable factors to increase efficiency of the sugar plant. Though the Sugar Mill was started with the intention of utilising bagasse as a substitute for pulp making, the capacity of the plant was not fully utilised due to various problems. Even though the unit is a seasonal industry, permanent work force had almost doubled without any increase in the installed capacity.

Capacity utilisation of pulping unit must be improved by installing balancing equipment in washing, screening and bleaching sections to make the unit viable and achieve the objective of utilising bagasse in the manufacture of paper.