CHAPTER II

2. REVIEWS RELATING TO GOVERNMENT COMPANIES

2.1 THE TRAVANCORE-COCHIN CHEMICALS LIMITED

Highlights

The Company was incorporated in 1951 with the main object of manufacture and sale of caustic soda and allied products. As on 31 March 2003, the total installed capacity was 74,250 MT per annum of caustic soda and 65,785 MT per annum of chlorine products.

(Paragraph 2.1.1)

The Company commissioned a new membrane cell plant in June 1997 at a cost of Rs.70.41 crore. During the first five years of its operation the actual savings in cost was Rs. 8.09 crore only as against the projected savings of Rs. 39.29 crore. Additional commitment towards financing cost was Rs. 8 crore per annum against the contribution of Rs. 1.62 crore.

(Paragraphs 2.1.11, 2.1.12 and 2.1.13)

Investment of Rs. 6.96 crore in enhancement of capacity of membrane cell plant proved to be non-productive and lower efficiency of rectifier resulted in loss of Rs. 1.90 crore.

(Paragraphs 2.1.15 and 2.1.16)

Failure to use available hydrogen as fuel and alternate consumption of furnace oil resulted in loss of Rs. 7.02 crore.

(Paragraph 2.1.19)

Extra cost due to excessive self-consumption of caustic soda amounted to Rs. 8.66 crore.

(Paragraph 2.1.28)

Excess consumption of salt, barium carbonate and hydrochloric acid resulted in extra expenditure of Rs. 7.41 crore.

(Paragraphs 2.1.32, 2.1.34 and 2.1.35)

The extra expenditure due to excess consumption of furnace oil in caustic concentration and fusion plant was Rs. 6.11 crore.

(Paragraph 2.1.39)

The excess consumption of power with reference to the highest per MT consumption in other similar companies aggregated Rs. 19.66 crore.

(Paragraph 2.1.47)

Production of caustic soda lye without adequate market demand necessitated conversion to flakes involving avoidable extra cost of Rs. 7.93 crore.

(Paragraph 2.1.52)

Sale to traders at prices below cost resulted in loss of Rs. 3.98 crore.

(Paragraph 2.1.53)

Introduction

2.1.1 The Travancore-Cochin Chemicals Limited was incorporated in November 1951, with the main object of manufacture and sale of caustic soda, other allied chemicals and by-products. The Company installed (December 1953) a caustic soda plant and commenced commercial production in January 1954. As of March 1997 the Company had two mercury process plants viz. the Krebs* plant and Udhe* plant, of which the Krebs plant was decommissioned in April 1997. After capacity expansion by installing (June 1997) a new membrane cell plant and further enhancement (December 2002) in capacity of the plant by 25 per cent, the total installed capacity as on 31 March 2003 was 74,250 MT per annum of caustic soda and 65,785 MT per annum of chlorine products.

Organisational set up

2.1.2 As on 31 March 2003 the management of the Company was vested in a Board of Directors (Board) comprising four Government nominees (including the Managing Director), a representative from Kerala State Industrial Development Corporation Limited and three independent directors and one additional director under paragraph 77 (b) of Articles of Association of the Company. The Company was having an Executive Director (Technical)

* represents name of the supplier

during October 1996 to April 2001, who also held the charge of Managing Director during June 1998 to May 1999.

The Managing Director is the chief executive of the Company and is assisted by a General Manager, Deputy General Manager (Works), Deputy General Manager (Materials), Secretary cum Internal Auditor and Financial Controller.

Scope of Audit

2.1.3 The working of the Company was last reviewed and included in the Report of the Comptroller and Auditor General of India (Commercial) for the year 1993-94. The review was discussed by Committee on Public Undertakings during July 1998 and recommendations thereto were included in its 29th Report. The present review conducted during the period December 2002 to May 2003 covers the activities of the Company for the period 1997-98 to 2001-02.

The draft review was discussed by Audit Review Committee for State Public Sector Enterprises in its meeting held on 15 September 2003. In the meeting, the State Government was represented by the Additional Secretary, Industries Department, Government of Kerala and the Company by its Managing Director.

Finance and resources

Share capital

2.1.4 As against the authorised share capital of Rs.50 crore comprising 325 lakh equity shares of Rs.10 each and 17.50 lakh preferential shares of Rs.100 each, the paid up capital of the Company as on 31 March 2003 was Rs.21.31 crore contributed by State Government (Rs.16.91 crore), the Fertilizers and Chemicals Travancore Limited (Rs. 0.68 crore), Kerala State Industrial Development Corporation Limited (Rs.3.52 crore) and Sanmar Properties and Investments Limited (Rs.0.20 crore).

Borrowings

2.1.5 The borrowings of the Company as at the end of 31 March 2003 was Rs.48.59 crore comprising term loans from scheduled banks (Rs.0.83 crore) and Kerala Industrial Revitalisation Fund Board (KIRFB) (Rs.47.76 crore), mainly raised for financing the implementation and settlement of loan pertaining to membrane cell project.

The Company had defaulted (October 2002) repayment of principal amount of KIRFB loan due to liquidity problems.

Financial position and working results

2.1.6 Annexures 11 and 12 summarises the financial position and working results of the Company under broad headings as on 31 March for each of the five years up to 2002-03. Analysis of financial position indicated that:

- reserves and surplus were completely wiped off in 1999-2000 on account of heavy losses incurred after commissioning of the membrane cell project in June 1997.

- the Company's net worth was negative since 2000-01 as the investment made in the membrane cell project did not yield the expected returns.

2.1.7 Analysis of working results indicated that ;

- though the sale turnover recorded increase since 1998-99, there was no corresponding reduction in operating loss due to sale of the increased production from excessive capacity utilisation, at prices below cost in view of poor market demand. The increase in cost of power and fuel charges due to excessive consumption also contributed to poor performance.

- the fall in the net loss during 2001-02 was due to write back of Rs.4.29 crore towards interest/surcharge on dues to Kerala State Electricity Board provided during earlier years, on the basis of remission allowed by Government.

Injudicious deployment of borrowed funds

2.1.8 As part of its financial assistance of Rs.49.63 crore, Kerala Industrial Revitalisation Fund Board (KIRFB) released the last two instalments of Rs.2.65 crore during January (Rs.1.32 crore) and April 2002 (Rs.1.33 crore). The Company's bankers, viz., State Bank of Travancore kept the amount in fixed deposits to meet the commitment of letter of credit (LC). The terms of LC stipulated deposit of margin money of 10 *per cent* each equivalent to Rs.60 lakh only. The balance amount of Rs. 2.05 crore could have been transferred to the Company's cash credit account. Unnecessary retention of the amount in fixed deposit caused loss of interest of Rs.15.78 lakh for the period January to December 2002 at the differential rate of 7 to 7.75 *per cent* between cash credit (16.5 *per cent*) and fixed deposit (8.75/9.50 *per cent*).

Capital investment decisions

2.1.9 During the five years ended 31 March 2002, the Company enhanced the production capacity by installing a membrane cell plant and additional electrolysers. The Company also replaced caustic concentration and fusion

plant and set up a secondary brine purification plant and salt upgradation plant as part of modernisation. The capital investment on these modernisation projects amounted to Rs.103.06 crore.

Lack of planning

2.1.10 The old mercury plant was commissioned in 1967 with estimated life of maximum 30 years. Though the need for replacing the mercury plant by 1997 was known, the Company did not plan resource mobilisation in advance. The Company devised a financing pattern of Rs.35 crore by way of public issue of shares, Rs.12.76 crore from internal accruals and Rs.20 crore by way of term loans for the revised (June 1993) project cost of membrane cell plant of Rs.67.76 crore.

Even though equity participation from Government was not envisaged for the project and funds from public issue were not forthcoming, the Company did not make any attempt to minimise the initial investment and carry out modernisation in a phased manner by spreading over the replacement cost. The Company also did not revive the initial proposal to make use of the rectifier and other auxiliary plants of the 'Krebs unit' for the new membrane cell plant which would have saved fresh investment of about Rs. 5 crore. The proposal to prolong the use of the then existing CCF Plant, with certain modifications, so as to defer the investment of about Rs.18 crore on the new CCF Plant, was also not given due consideration. As ultimately realised by the Company, the investment of Rs.3.98 crore on the salt upgradation plant was altogether wasteful as discussed in paragraph 2.1.22 *infra*.

Redefining the capital investment priorities was all the more necessary as the Company became aware of adverse market situation, arising from creation of excess capacity. The avoidable losses and extra expenditure during implementation of the project are discussed in succeeding paragraphs.

Implementation of membrane cell Project

2.1.11 The Company had two mercury cell plants, comprising 'Krebs* plant' with production capacity of 60 tonnes per day (TPD), commissioned in 1967 and 'Uhde* plant' with a capacity of 100 TPD, commissioned in 1975. As the two plants and their technology were relatively old, the Company formulated a technological upgradation cum expansion project during 1993-94, to install a plant using membrane cell technology, with a capacity to produce 100 TPD of caustic soda. The project report highlighted the membrane cell technology as a pollution free modern technology with potential saving of 1200 KWH of power per tonne of caustic soda produced, low maintenance cost, etc.

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* Represents name of the supplier

The Company imported (1996) the plant from Kanemastu Corporation, Japan at a cost of Rs.34 crore and commissioned it in June 1997 against the target of April 1996. The actual expenditure on setting up the new plant amounted to Rs. 70.41 crore against the projected cost of Rs. 67.76 crore.

2.1.12 Audit observed that none of the significant advantages of the technological upgradation projected by the Company were actually forthcoming except for pollution control for which cost implication was negligible. As regards the energy saving of 1200 KWH/MT anticipated by the Company as the major advantage with the new technology, the actual net saving in energy after implementation of the project was only 926.9 KWH/ MT on an average during the five years up to 2001-02 and the total savings on that account amounted to Rs.30.09 crore against the projected savings of Rs.39.29 crore.

Actual net savings in cost of production during five years was only Rs. 8.09 crore against projected savings of Rs. 39.29 crore.

While the project report considered the power efficiency of the plant as stable, the plant recorded declining trends in power efficiency on actual working. Further, there was excess consumption of salt and barium carbonate, as the plant required brine of extra purity level than that for mercury plant. This additional cost was not considered in the project proposal. While working out the cost effectiveness of the project in the DPR, the additional cost of Rs.4 crore for changing the membranes after every three years was not considered and therefore, the presumption made in the DPR about lower maintenance cost, was not based on facts. Total additional cost of operation when compared with mercury plant, for the five years up to 2001-02 worked out to Rs.22 crore. The actual net savings in cost during the first five years of operation of the plant amounted to Rs.8.09 crore only as against Rs.39.29 crore projected.

Additional commitment towards financing cost was Rs. 8 crore per annum against the contribution of Rs. 1.62 crore

2.1.13 After implementation of the membrane cell project the Company could not generate additional revenue as anticipated, which totally upset the financial forecast made in the project. While the additional commitment towards interest on borrowed funds was around Rs.8 crore per annum, the actual additional contribution fetched by the new project was only Rs.1.62 crore per annum.

Management stated (April 2003) that the performance of membrane cell plant was very good for first three years. The financial problems of the Company prohibited it from timely replacement of membranes after three years as required. The membranes were replaced only in the fifth year. The plant also failed in giving best results as the quality of salt fed to it could not be maintained. The reply is not tenable since the Company could have avoided other injudicious capital investment decisions like CCF plant, salt upgradation plant, etc., referred to in paragraphs 2.1.17 and 2.1.20 *infra* and utilised the funds for replacement of membranes. As the quality of salt fed to the plant undergoes primary and secondary purification before input, the quality of brine was always being ensured.

The management also stated that the expansion project was taken up in anticipation of public issue of shares and equity participation from

Government, and that it would not have gone for such a massive investment had it foreseen that the entire funding would ultimately have to be made out of borrowed funds. This indicates that the presumptions in DPR regarding funding for the project were unrealistic in the absence of any assurance/ commitment from the Government towards equity participation.

Capacity enhancement

2.1.14 The membrane cell plant and its supporting systems had a provision for capacity enhancement by 25 *per cent* on adding four more electrolysers to the then existing 16 electrolysers. The Company decided (June 1999) to go for this capacity enhancement on the ground of savings in power consumption inherent in membrane cell technology by shifting the production from mercury plant to expanded membrane plant.

For technical reasons the Company preferred to procure the additional electrolysers from the suppliers of original plant and placed (March 2000) a letter of intent for supply before November 2000. Due to financial constraints the electrolysers were procured only in October 2002 utilising borrowed funds carrying interest @12 *per cent* at a landed cost of Rs.6.96 crore and commissioned in December 2002.

2.1.15 It was noticed in Audit that the enhancement in capacity was not justifiable for the following reasons:

Investment of Rs. 6.96 crore in capacity enhancement proved to be non-productive.

The market situation of caustic soda that existed after commissioning of the membrane cell plant and financial crunch faced by the Company did not justify any addition to the capacity. Further, the then existing capacity was not being utilised fully on account of lower market demand. The only justification advanced for capacity enhancement was the anticipated savings in cost of power. However, no fresh cost-benefit analysis was made by the Company before taking the investment decision although the required data was available from the actual working of the membrane cell plant since June 1997. As discussed in paragraph 2.1.12, there were other items of production cost which were in excess of that for the mercury plant, and therefore the net savings in production cost per MT ranged between Rs.83 and Rs.335 only during 1999-02, which was hardly sufficient to cover the financing cost of Rs. 1018 per MT of production. Thus, the investment of Rs. 6.96 crore on capacity enhancement proved to be non-productive.

Installation of rectifier

2.1.16 As part of the membrane cell project, the Company procured from Asea Brown Bovery Limited (ABB), Bangalore, a rectifier costing Rs. 3.65 crore which was commissioned in June 1997. ABB had guaranteed efficiency of 98.2 *per cent* for the rectifier as against 97.58 *per cent* offered by NGEF, the next lowest tenderer. The Company had estimated a financial gain of Rs.8 lakh per annum on account of the better efficiency of ABB rectifier over NGEF. The agreement with ABB had provided for levy of penalty

Lower efficiency of rectifier resulted in loss of Rs.1.90 crore.

@ Rs.16,000 per kw, if the total loss in the transformer and rectifier exceeded 236.25 kw. Audit observed that the efficiency actually recorded by the new rectifier was in the range of 95.53 to 96 *per cent* only and the loss of energy on this account for the five years ended 31 March 2002 worked out to 87.85 lakh units valued at Rs. 1.90 crore.

Amount of penalty recoverable for lower power efficiency was not ascertainable in the absence of complete details regarding power consumption of different parts of transformer and rectifier equipment. There were no reasons on record for not recovering the penalty for lower efficiency.

Installation of caustic concentration and fusion plant (CCF plant)

2.1.17 The Company decided (August 1995) to replace the then existing caustic concentration and fusion plant at an estimated cost of Rs.18 crore. The new plant was proposed on the ground that the installed capacity of caustic soda lye would go up to 260 TPD against existing 160 TPD on commissioning of the new membrane cell plant. This would consequently necessitate heavy repairs to existing 27 year old plant so as to meet the increased need for flaking.

Out of three offers received (December 1995) against the tender, the Company selected (January 1996) Kanemastu Corporation, the suppliers of membrane plant, who quoted for the CCF plant manufactured by Bertrams Limited, Switzerland, the suppliers of the old CCF plant. The selection was made on ground of technical supremacy. The major shipments of the plant were made by the suppliers during April – May 1997 and the plant with a rated capacity of 33000 MT per annum was commissioned in February 1999 at a total cost of Rs.20.09 crore.

Ever since commissioning, the performance of the plant was not satisfactory and resulted in losses to the Company as discussed below:

2.1.18 The various parts of the plant like burner, stitching machine, belt conveyor, pressure valve, etc., were having inherent defects and these items were accepted (February 1999) by the Company after the guaranteed test run on the condition that the necessary modifications would be carried out to rectify the deficiencies. However, there were no records to confirm the rectification/modifications, if any, carried out by the suppliers. Final acceptance of the plant was also not seen documented.

The plant was warranteed for trouble free performance for 12 months from the date of commissioning or 18 months from the date of last major shipment of machinery whichever was earlier. Guarantee test runs were to be conducted within six months from the date of completion of erection (January 1999) or 20 months from the date of last shipment (May 1997) whichever was earlier. While there was delay in completion of work due to design/drawing changes by the suppliers, the Company did not insist on corresponding extension of

period of performance test run, despite earlier experience (1972) of supply of defective concentrator elements by the same supplier.

Due to delay in completion of work by the supplier, the guarantee test runs were conducted (February 1999) after expiry of the guarantee period (December 1998). As against the expected life of two and a half years, five concentrator elements were rendered defective within 5 to 17 months. These elements should have been replaced free of cost but the suppliers charged 50 *per cent* of the cost since the guarantee period expired. On account of the failure in getting the guarantee period extended, the Company had to incur extra expenditure of Rs. 80 lakh.

Failure to get the guarantee period extended corresponding to delay in commissioning on account of design/drawing defects resulted in loss of Rs. 1.27 crore.

After commissioning of the plant there were several defects leading to technical snags due to which the plant could run only at 80 *per cent* capacity as against the guaranteed 95 *per cent*. As per the contract the supplier was liable to compensate the Company @ 40,000 swiss francs (SFr) for every one *per cent* fall in capacity subject to a maximum of 4.10 lakh SFr. Though the supplier was responsible for the delay arising from design/drawing defects the Company did not insist on extension of the guarantee period. Thus, the failure of the Company to get the guarantee period extended corresponding to the delay in installation arising from design/drawing defects, resulted in loss of Rs. 1.27 crore (@ Rs. 30.94 per Swiss Francs (SFr) prevalent in January 1996). Apart from this, the flaker drum of the plant developed cracks and became unserviceable, within a span of 17 months after installation. This had to be ultimately repaired by the Company at a cost of Rs. 11 lakh. Thus, the plant which was stated to have technical supremacy at the time of vendor selection proved to have several inherent manufacturing defects and also did not provide the guaranteed performance.

Against the installed capacity of 33000 MT per annum, the actual utilisation till 2001-02 ranged between 46 and 59 *per cent* only. Since the sales policy envisages flaking of only surplus quantity of lye, more than 40 *per cent* of the capacity was rendered surplus.

Absence of hydrogen firing system

2.1.19 During production of caustic soda under the mercury as well as the membrane process, hydrogen was being produced as a co-product. The hydrogen so produced could be either bottled and sold or used for production of hydrochloric acid (HCl) and as fuel in the boilers so as to reduce the consumption of furnace oil. For using hydrogen as fuel, necessary modification to the existing boiler had to be made for hydrogen firing system which involved additional capital investment of Rs. 66 lakh. It was noticed in Audit that the Company had not used the hydrogen available as fuel during the three years ended 31 March 2000 and surplus quantity of the co-product available after production of HCl was wasted. The entire heating requirement of boilers was done by using furnace oil and part consumption of hydrogen was started only from 2000-01 onwards, when the new CCF plant was commissioned (February 1999), since one of the boilers had hydrogen firing system. Failure of the Company to use the available hydrogen as fuel and

Failure to use available hydrogen as fuel and alternate consumption of furnace oil resulted in loss of Rs.7.02 crore.

alternate consumption of furnace oil during the five years ended 31 March 2002 resulted in a loss of Rs. 7.02 crore.

Management stated (April 2003) that procurement of new boiler with hydrogen firing system was postponed for want of finance. The reply is not tenable since the procurement and installation of new boiler involved an investment of only Rs.2 crore. Alternatively, the existing (old) boiler could also have been modified for the use of hydrogen firing, at a cost of Rs.66 lakh which was far below the loss incurred (Rs.7.02 crore) in the absence of firing system. No concrete efforts were also made by the Company to raise finance for procurement of a new boiler.

Investment in salt upgradation plant

2.1.20 The Company, decided (March 1995) to install a salt upgradation plant of 40 tonnes per hour (TPH) along with the membrane cell project, foreseeing that the upgraded salt could be used for both the plants thereby effecting considerable savings in brine purification cost. Global tenders were invited (May 1995) for supply of know-how, basic engineering, plant and machinery including erection/ commissioning of a 40 TPH plant. Order was placed (October 1995) on Krebs & Company Limited, Zurich (KCL) for Rs.4.75 crore. KCL supplied the major items of plant costing Rs.1.40 crore in August 1996. The project involved installation of certain other allied items of equipment, procurement of which was arranged by the Company indigenously through the Indian associates of the principal contractor (KCL) who were also solely responsible for the performance of the entire plant as guaranteed.

2.1.21 There was failure on the part of the Company in co-ordinating the various activities of the project. As per the contract, the plant was required to be installed within a period of six months from June 1996 to make it eligible for performance guarantee benefits. However, Company could install it only after two years in July 1998. The contracted performance guarantee period as well as equipment warranty had therefore expired in January 1998. The performance test was conducted in August 1998.

2.1.22 Though the plant was ready for use in August 1998, the Company started operating the plant only from April 2001. The plant was shut down in September 2001 after working for only 61 days, during which 11,650 MT of salt only was upgraded. Reasons for not operating the plant during August 1998 to March 2001 and its subsequent shutdown were not on record.

Since the salt upgradation plant could not be operated on commercial basis, the investment of Rs. 3.98 crore proved wasteful.

It was noticed in Audit that the plant was not giving satisfactory performance ever since its installation. A test check of its operational data for June 2001, disclosed that the centrifuge (the major equipment in the plant) used to stop intermittently and technical defects were reported almost every day of its operation. Calcium removal by the plant was also less efficient, and hence it was not always capable of upgrading the salt to the purity standards required in membrane cell. During trial run (August 1999) of the plant, the process loss was as high as 13.5 *per cent* as against 2 to 3 *per cent* envisaged, due to which

the plant could not be operated on a commercial basis. The Company could not penalise the suppliers of the plant for the defects since the plant was commissioned after expiry of guarantee period. Thus, the investment of Rs. 3.98 crore on setting up the salt upgradation plant proved to be wasteful.

The management stated (May 2003) that the quality of raw salt available was inferior at the time of taking the decision to set up the plant and availability of good quality salt from Gujarat as well as Tamil Nadu since October 2001 was also the reason for non-operation of the plant since October 2001. The reply is not tenable since good quality salt was available in the market ever since the plant was ready for operation (August 1998) and the Company had in fact purchased superior quality salt from Gujarat in August 1999 involving extra expenditure of Rs.34.13 lakh. This indicated that the shut down of the plant (April 2001) was necessitated due to uneconomic operation of the plant arising from inherent technical defects and not due to subsequent availability of good quality salt in the market.

Sodium hypochlorite plant

2.1.23 The waste chlorine disposal plant attached to membrane cell plant was having chlorine load required to produce a maximum of 10,000 MT of sodium hypochlorite per annum. Even then, the new sodium hypochlorite plant installed during 2001-02 was designed at a higher capacity so as to produce 15,000 MT per annum leading to excess capacity of 5000 MT. The maximum capacity utilisation during the working of this plant for the two years up to 2002-03 was 55 *per cent* only. It was also noticed that the installed capacity of the plant projected in the original Project Report was only 12,000 MT per annum at an investment of Rs. 1 crore which was unnecessarily enhanced to 15,000 MT per annum resulting in escalation of cost to Rs. 1.38 crore.

Implementation of synthetic rutile project

2.1.24 Based on a proposal made (September 1991) by Regional Research Laboratory (RRL) for setting up a synthetic rutile project using a non-pollutant and non-corrosive technology, the Company signed (March 1993) with RRL and Department of Scientific and Industrial Research (DSIR), a Memorandum of Understanding for setting up a pilot plant at a cost of Rs.1.93 crore. The pilot plant was commissioned (March 1995) at a total cost of Rs.1.96 crore which was shared by the Company (Rs.1.28 crore) and DSIR (Rs. 68 lakh).

Thereupon, the Company engaged (March 1996) MECON to prepare a project report. The cost of the project as per the preliminary project report was Rs.79.52 crore which was revised (February 1999) to Rs.89.62 crore and to Rs.93.36 crore in January 2001. The Company could not finance the project due to fund constraint and the efforts made by it to implement the project with the participation of Government, Kerala State Industrial Development Corporation Limited, The Kerala Minerals and Metals Limited, Technology Development Board (TDB), etc., did not succeed.

Though the Company informed the Government of their intention to permit National Research Development Corporation (NRDC)/RRL to sell the technology to other interested parties, sanction of Government had not been received so far (September 2003). The investment of Rs.1.28 crore made by the Company in the pilot project had been lying idle from March 1995 leading to interest loss of Rs. 1.27 crore for the period up to July 2003 at the borrowing rate of 12 *per cent* per annum.

The Company, however, maintained (March 2003) that in view of high cost of imported technology, the sale of technology would materialise and the royalty receivable by the Company as per MOU would be adequate to recover cost of setting up the pilot plant. However, the transfer of technology had not materialised so far (September 2003).

Production performance

Product range

2.1.25 As on 31 March 2002, the Company had two process plants of 100 tonnes per day (TPD) each under the mercury and membrane process. While the first process had the disadvantage of mercury pollution, the latter process was comparatively pollution-free.

The main product of the Company was caustic soda in the form of lye and flakes which contributed to about 70 *per cent* of the turnover. The by-products were chlorine, hydrochloric acid, hydrogen and sodium hypochlorite.

Production planning

2.1.26 The Company had been fixing monthly targets for production of each of the main products. Basis of fixation of targets was not on record. It was noticed that the production levels were being fixed without considering market demand and the products were sold in the market at prices fixed on a discriminatory basis with a view to liquidate the production, involving huge losses as discussed in succeeding paragraphs. There was absence of a system of budgetary control on production.

Production of caustic soda

2.1.27 The mercury and membrane plant of the Company had a capacity of 33000 tonnes per annum each during the five years ended 31 March 2002. The actual plant-wise gross production, percentage of utilisation there against, self consumption during this period were as given below:

Year	Gross production (MT)					Self consumption (MT)		
	Mercury plant	Percentage of utilisation	Membrane plant	Percentage of utilisation	Total	Mercury plant (percentage to gross production)	Membrane plant (percentage to gross production)	Total
1997-98	18511	56.10	20804*	75.65	39315	714 (3.86)	1161 (5.58)	1875
1998-99	22802	69.10	32510	98.52	55312	1035 (4.54)	2177 (6.70)	3212
1999-00	20815	63.08	33329	101.00	54144	1005 (4.83)	1943 (5.83)	2948
2000-01	24831	75.25	33801	102.42	58632	1104 (4.45)	1837 (5.43)	2941
2001-02	22333	67.68	31808	96.39	54141	821 (3.68)	1468 (4.61)	2289

Audit scrutiny of the production performance revealed the following:

Self consumption of caustic soda

Extra cost due to excessive self consumption of caustic soda amounted to Rs. 8.66 crore.

2.1.28 There was captive consumption of caustic soda in both the plants, for brine purification as well as effluent treatment. As observed in the periodical report on production for the industry published by Alkali Manufacturers Association of India (AMAI), several units recorded internal consumption around one *per cent* in respect of mercury plant and around 2 to 3 *per cent* for membrane plant. As against this, the percentage of the Company's captive consumption to gross production was very high and varied between 3.68 and 4.83 in respect of mercury plant and 4.61 and 6.70 for membrane plant. The extra cost incurred on self consumption for the five years ended 31 March 2002 worked out to Rs. 8.66 crore.

The Company admitted (March 2003) the above fact and attributed the excess consumption to :

- quality problems with the salt procured from distant places,
- frequent shut down of plants due to unsteady power supply, and
- change in methods of effluent treatment from unit to unit.

It was noticed in Audit that the Company had been procuring high quality salt from Gujarat since 1998-99 and there were no reports on unsteady power supply as per records of the Company.

Production of hydrochloric acid

2.1.29 Hydrochloric acid (HCl) was being produced by using chlorine and hydrogen which were by-products of caustic soda. The commercial grade acid so produced was having concentration (acid content) between 30 and 32 *per cent*. As per the chemical standards, one MT of concentrated

* Plant started functioning from June 1997

HCl (100 *per cent* HCl) contained 972.565 kg of chlorine and 27.435 kg. of hydrogen.

There was short accounting of hydrochloric acid valued at Rs. 1.64 crore due to non-reckoning of output as per chemical standards.

During 1997-2002 the Company utilised 1,29,067 MT of chlorine and accounted the same quantity (1,29,067 MT) as production of HCl (100 *per cent*). As chlorine content alone was taken into account and the weight of hydrogen not reckoned, the actual quantity of acid produced remained short-accounted to the extent of 3,641* MT equivalent to 11,378 MT of commercial grade, resulting in loss of Rs.1.64 crore. The Company could not offer any convincing reason for short accounting of hydrochloric acid.

Avoidable extra cost on enrichment of caustic soda lye

2.1.30 The caustic soda lye produced in mercury plant was having a concentration of 47-50 *per cent* whereas that in membrane plant contained 32 *per cent* only. Due to this the lye produced in membrane plant was being enriched in CCF plant at an average extra cost of Rs.634 per MT on fuel alone.

It was noticed in Audit that Fertilizers and Chemicals Travancore Limited (FACT), a regular customer, who required caustic soda lye of 40 *per cent* concentration, was supplied lye of 48 *per cent* concentration.

Extra cost of production due to avoidable enrichment of caustic soda worked out to Rs.2.48 crore.

Thus, the Company unnecessarily incurred expenditure on enrichment of caustic soda. The cost of enrichment could have been avoided by mixing the caustic soda produced in the mercury plant (of 48 *per cent* concentration) and membrane plant (of 32 *per cent* concentration) at negligible cost. The avoidable extra cost of production @ Rs. 634 per MT on supply of 39,073 MT of enriched caustic soda worked out to Rs.2.48 crore.

The management stated (March 2003) that it had not made arrangements for mixing lye of 32 and 48 *per cent* concentration produced in membrane and mercury plant to get 40 *per cent* lye. Further, it also required continued stirring and also separate storage. The reply is not tenable since the Company should have made arrangements for mixing of lye considering the huge savings in cost.

Non-absorption of new technology

2.1.31 The Company had been using barium carbonate, sodium carbonate, etc., for reduction of calcium and magnesium in brine solution, over and above the captive usage of caustic soda for the same purpose. The cost of barium carbonate and sodium carbonate consumed during the five years up to 2001-02 amounted to Rs. 7.71 crore.

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* 3641 MT = (129067/0.972565) - 129067

Technical opinion existed to the effect that bubbling carbon dioxide through brine was a more efficient and cost effective method of crystallizing out calcium and magnesium solids. In this process the reaction was also more complete as carbon dioxide dissolved in brine controlled PH value. Further, the calcium level would be brought to about 1 ppm by carbon dioxide in place of 15 ppm presently obtained. Since carbon dioxide was easily available from FACT, a central PSU situated nearby, the Company should have adopted the technological upgradation for minimizing the expenditure on barium carbonate, calcium carbonate, etc.

Since R&D wing of the Company had been inactive from 1997-98 it failed to notice and adopt this cost effective technique to reduce the cost of production.

Management stated (September 2003) that to their knowledge the said process was not used in any other caustic soda plants. The reply is not tenable since the process was being successfully used abroad since 1998 and this technical information supplied by AMAI, though available with the Company, was not made use of.

Consumption of raw material and chemicals

Industrial salt

2.1.32 As per norms adopted by AMAI, the standard consumption of salt for production of one MT of caustic soda should be 1.7 MT. The Company had also restricted the rate of consumption of common salt as 1.69 MT during the year 1998-99. However, the Company fixed higher consumption norm of 2 MT up to March 2000 and 1.9 MT from April 2000 onwards. Against this, the actual rate of consumption varied between 1.69 and 1.93 MT during 1997-2002. With reference to the standard consumption rate of 1.7 MT, there was excess consumption of 33909 MT of salt during the five years ended 31 March 2002 involving extra expenditure of Rs. 3.66 crore.

Excess consumption of salt above standards amounted to Rs. 3.66 crore.

The management stated (February 2003) that it could not confine to the standards adopted by AMAI because there was wide fluctuation in the content of impurities in the salt available from Tamil Nadu. The reply is not tenable as the Company could maintain a consumption rate of 1.69 MT of salt per MT of caustic soda during 1998-99 when salt was procured from the same sources.

Process chemicals

2.1.33 The Company had been using various process chemicals like barium carbonate, sodium bisulphate, hydrochloric acid, sulphuric acid, etc., during the production process. The industry norms were not being followed by the Company and the norms were being fixed every year to suit the actual consumption. It was noticed in audit that the Company was not effecting adequate control over consumption of these materials with the result the consumption far exceeded the standards and resulted in avoidable expenditure on excess consumption as discussed below:

Barium carbonate

Avoidable extra expenditure due to excess consumption of barium carbonate was Rs. 2.51 crore.

2.1.34 As per the Project Report prepared for membrane cell plant, the standard consumption for barium carbonate was 10 kg per MT of caustic soda for mercury plant and 6 kg for membrane plant, against which actual consumption during the five years ended 31 March 2002 was in the range of 10.23 to 16.42 kg per MT. The overall annual consumption ranged between 134 and 217 *per cent* of the prescribed standards. The avoidable expenditure on excess consumption of an aggregate quantity of 1571.3 MT of barium carbonate during the five years up to 2001-02 worked out to Rs. 2.51 crore.

The management attributed (April 2003) the excess consumption to usage of low quality salt with high rate of impurities. Since the source of supply of salt for all the manufacturers was the same, the Company's abnormal excess consumption cannot be justified on the plea of impurity of salt.

Hydrochloric acid

Hydrochloric acid consumed in excess of requirement amounted to Rs. 1.24 crore.

2.1.35 In respect of hydrochloric acid, there was phenomenal increase in the rate of consumption in membrane plant, which was in the range of 215 to 264 *per cent* of standard requirement of 15 kg per MT of caustic soda as fixed by the Company. The consumption in mercury plant was also in excess to the extent of 105.2 to 193.9 *per cent* of the requirement. The overall extra cost on 3,903 MT of hydrochloric acid consumed in excess of requirements during the five years up to 31 March 2002 worked out to Rs.1.24 crore.

The management stated (April 2003) that consumption norms given in the project report might not hold good for the entire life of the plant and that the norms fixed were for full load operation of the plant, which was not always maintained. The reply is not tenable since it was noticed that the variation in rate of consumption of chemicals was not exactly in line with the advancing age of the plant and was also not related to the capacity utilisation of the plant.

2.1.36 Excess consumption was also noticed in respect of other chemicals viz., sodium bisulphate and sulphuric acid and caustic soda lye internally consumed in the production of sodium hypochlorate as well as caustic soda flakes. The extra expenditure incurred on account of such excessive consumption during the five years ended 2001-02 amounted to Rs.99.94 lakh as indicated in Annexure 13.

Mercury

2.1.37 In the mercury plant, mercury acts as a moving cathode for electrolysis of brine. During electrolysis, sodium combines with mercury to form an amalgum without any chemical change. As such, the mercury could be fully retrieved after the process. However, in actual practice, the sodium hydroxide, hydrogen and effluents used to contain traces of mercury, which constitutes the normal loss during production process. The standard loss of mercury as per AMAI's norms had been fixed as 1.5 to 2 MT per year for a

Abnormal loss due to short accounting of mercury amounted to Rs.56 lakh.

100 TPD plant. Reckoned at the maximum of 2 MT per annum, the loss during the five years under review should have been only 10 MT for production at 100 *per cent* capacity, whereas the actual loss was as high as 43.163 MT irrespective of the fact that the production level maintained was in the range of 50 to 75 TPD only, during the relevant period. The caustic soda produced in mercury plant being of rayon grade, contained only 0.0001 *per cent* of mercury. The value of abnormal loss amounted to Rs. 56 lakh. The reasons for the excess loss of Rs.56 lakh during 1997-2002 has not been investigated till date.

The Company attributed (September 2003) the abnormal loss to frequent power interruptions. The reply is not tenable since audit has reckoned the excess consumption based on maximum consumption prescribed as per world standards as reported by AMAI.

Furnace oil

2.1.38 The caustic soda lye manufactured in membrane plant was having a concentration of only 32 *per cent*, which was required to be enriched to 48 *per cent* for making it marketable and further to 99 *per cent* for production of flakes. The process of enrichment up to 48 *per cent* could be carried out either in mercury or in CCF plant. According to the Company, 70 litres of furnace oil was required for enriching one MT of caustic soda lye from 32 to 48 *per cent* in CCF plant. When enrichment was done along with flaking, this quantity could be reduced to 40 litres, since waste heat generated supplements consumption of fuel oil. However, no such extra cost was involved in enrichment of lye in mercury plant.

Avoidable enrichment of caustic soda lye in CCF plant resulted in extra cost of Rs. 1.36 crore.

The maximum quantity of lye enriched in a year in mercury plant during the five years ended 31 March 2002 was 24,075 MT (recorded during the year 1998-99). During the remaining four years, the enrichment facility in the mercury plant was short utilised to the extent of 48,421.2 MT. Even though equivalent quantity of caustic soda lye could have been enriched in mercury plant itself at no extra cost, this quantity was actually enriched in CCF plant by incurring extra cost of Rs.1.36 crore worked out on the basis of lower fuel consumption rate of 40 litres per MT.

Management stated (September 2003) that enrichment of lye in mercury plant was generally not advisable for various technical reasons. However, audit has estimated the enrichment potential with reference to the quantities actually enriched by the Company in the mercury plant every year after giving allowance for limitations.

Excess consumption of furnace oil

2.1.39 Performance of CCF plant for the five years ended 31 March 2002 revealed the following deficiencies:

The extra expenditure due to excess consumption of furnace oil was Rs. 6.11 crore.

The operational standard prescribed by the manufacturers of the plant specified a consumption of 118 litres of furnace oil for production of one MT of caustic soda flakes. However, the actual consumption (furnace oil and hydrogen equivalent of furnace oil) during the five years ended 31 March 2002 ranged between 188 and 418 litres per MT involving a total excess consumption of 7312 kilo litre, resulting in extra expenditure of Rs. 6.11 crore.

Material management and inventory control

Material management

Material budgeting

2.1.40 As part of its annual revenue budget, the Company prepares raw material budget estimating the quantity requirements and value thereof. An analysis in audit disclosed wide variation between projections in the budgeted figures and actuals. Moreover, the requirements as projected in the budget varied with the consumption norms fixed for major raw materials/consumables like salt and soda ash. As such, there was no effective budgetary control in the area of consumption of raw material/consumables.

Purchase procedure

2.1.41 The Company had been procuring raw materials on the basis of offers received against open tenders issued from time to time to meet the requirements for over a period of time. However, for purchasing materials costing below Rs.5 lakh, limited tender system was being followed. In respect of major raw materials, negotiations were being conducted by a purchase committee consisting of senior officers in purchase/production and finance departments.

Procurement of salt

2.1.42 It was observed in audit that the Company had not been excercising necessary restrictions in the matter of selection of tenderers for negotiations. For the procurement of salt, the major raw material, forming about 80 *per cent* of the total purchases (value-wise), the Company had been conducting negotiations with almost all acceptable tenderers. In the circumstances, the rates quoted by the suppliers could not be deemed to be sufficiently competitive since, almost all the potential suppliers invariably get an opportunity to amend their rates during negotiation irrespective of the rates quoted. This was also in violation of the directions of Central Vigilance Commission to conduct negotiation only with the lowest tenderer. The system of collection of earnest money deposit/security deposit was not in vogue till 2001-02. Further, there was no system of levy of penalty for non-performance of contract or blacklisting the firms which defaulted the entire supplies ordered for.

Deficiencies noticed in the procurement system leading to avoidable expenditure and losses are discussed in the succeeding paragraphs:

2.1.43 The Company's nearest source of supply for industrial salt was Tuticorine and Nagarcoil/Kanyakumari areas of Tamil Nadu. Freight being the determining factor for procurement of salt, the Company should have procured the material from nearest sources so as to avail of the advantage in freight charges. However, it was noticed in audit that during the five years up to 2001-02, the Company purchased 1.14 lakh MT salt from Ramnad and Valinokkom incurring freight charges ranging between Rs. 450 and Rs. 630 per MT when salt of the same quality was available at nearby areas of Nagarcoil and Tuticorin at lower freight rates ranging between Rs. 415 and Rs. 475 per MT. The total avoidable extra expenditure due to injudicious procurement decision worked out to Rs. 1.43 crore.

Avoidable extra expenditure due to injudicious procurement of salt amounted to Rs. 1.43 crore.

The management stated (March 2003) that it preferred to source salt from various production centres without considering the lead time and extra freight since climatic condition in any area can affect salt production and it was a calculated action to see that the plant runs continuously without stoppage due to non-availability of salt. The reply is not tenable as in the following cases it was noticed by audit that the suppliers who charged higher freight rates siphoned off Company's funds by supplying the salt from Tuticorin instead of Ramnad/Valinokkom.

Absence of penalty clause in supply contracts

2.1.44 The Company stipulated allowable limits for moisture, and other impurities as well as the content of sodium chloride, in the supply orders placed for salt. However, there was no provision for recovery for the reduced content of sodium chloride in the salt supplied due to excess moisture and impurities. In 44 out of 102 purchase orders issued during 1997-98 to 2001-02, the supplies did not conform to the specifications prescribed in the purchase orders but the Company accepted the supplies, without making any price adjustment. The total extra expenditure incurred by the Company due to reduced content of sodium chloride in the supplies made against the above purchase orders amounted to Rs. 33 lakh.

The management stated (February 2003) that the orders in question were placed when industrial salt was in sellers' market due to short supply from Gujarat region in the aftermath of cyclone. The reply is not tenable since the scarcity should normally have a direct impact on price of the material and not on its quality. Further, the Deputy Salt Commissioner, Ahmedabad had reported (July 1998) that in spite of the effect of cyclone the salt stocks were still available in adequate quantities in the cyclone affected areas and the stock build up was substantial in the inland salt sources.

2.1.45 Similarly in respect of 33 supply orders issued during 1998-99, the Company failed to include penalty clauses for deviation from the permissible limits of sulphate, calcium, magnesium, insoluble residues and moisture resulting in non-recovery of penalty amounting to Rs.28.07 lakh.

Energy management

Consumption of power

2.1.46 The Company being a power intensive industry had a contract demand of 20,000 KVA from a 110 KV line and 15000 KVA from a 66 KV line prior to August 1998. Thereafter the contract demand was enhanced to 29,000 KVA from 110 KV line alone and the 66 KV line was surrendered. The maximum demand was around 26,000 KVA with an average consumption of about 125 lakh units per month. Nearly 85 *per cent* of electrical energy was consumed for electrolysis of brine for caustic soda production and the balance 15 *per cent* for compressors, pumps, fans, blowers, etc. For direct heating in CCF plant and for steam generation in boilers, furnace oil was being used. The energy cost constituted around 65 *per cent* of production cost and 50 *per cent* of turn over.

Though an energy intensive industry should normally make all efforts to minimise energy consumption through constant monitoring of the consumption by different sub sections, Company was not even having separate meters for measurement of consumption by various auxiliary plants with a view to evaluating the efficiency in power consumption at each stage. Only the gross consumption and electrolyser consumption were metered and auxiliary consumption was allocated on theoretical basis. No energy audit was conducted up to 1997-98. The energy audit covering the period 1997-2000 was conducted by an Electrical Engineer of the Company. The directive of the Government to conduct the energy audit once in three years was not followed by the Company.

The value of excess consumption of power with reference to the highest per MT consumption in other similar companies was Rs.19.66 crore.

2.1.47 An analysis of the consumption of power during the five years ended 31 March 2002 indicated that the actual consumption in the mercury plant varied between 3728 and 3817 Kwh/MT. The power consumption in the membrane plant was between 2516 and 2846 Kwh/MT. The highest consumption recorded in other companies (Annexure 14) using mercury and membrane plant was 3048 and 2557 Kwh/MT respectively. Compared to this, the excess consumption of power by the two plants of the Company during the five years up to 2001-02 worked out to 9.8 million units valued at Rs.19.66 crore.

Avoidable payment of 'time of usage charges'

2.1.48 As part of the power cut imposed, the State Electricity Board, issued (November 1998) a 'differential pricing order' for extra high tension (EHT) consumers implementing a three-tier tariff structure for demand charges effective, from 1 December 1998. The related order stipulated that in case the recorded maximum demand in a month during peak hours (18 hours to 22 hours) exceeded 60 *per cent* of the maximum demand during normal hours (6 hours to 18 hours) in a month, extra 'time of usage charges' at 80 *per cent* of the normal tariff rate was leviable on the excess demand. Likewise, for energy consumed during peak time in excess of 10 percent of total consumption for the month, extra 'time of usage charges' at 80 *per cent*

of normal tariff rate was also leviable on such excess consumption. At the same time, incentive @ 25 *per cent* of ruling tariff was available for maximum demand recorded during off peak time (22 hrs to 6 hrs) in excess of 60 *per cent* of the maximum demand recorded during normal hours in a month subject to the limit of contract demand. Similarly, energy consumed during off peak time in excess of one third of total energy consumed during the month would also be given an incentive @ 25 *per cent* of normal tariff rate on such excess consumption.

Net avoidable payment of excess charges due to non-adherence to 'time of usage' stipulation amounted to Rs. 4.33 crore.

2.1.49 The Company did not restrict the maximum demand and energy consumption during peak hours to the limits prescribed under the above said order with the result that the State Electricity Board levied 'time of usage charges' amounting to Rs.6.69 crore for the period from December 1998 to March 2002 whereas for excess consumption during off peak hours the Company received incentive amounting to Rs.2.36 crore only.

2.1.50 It was noticed in audit that the mercury plant was operated on an average for a maximum of 18 hours/day only and it was possible for the Company either to restrict the operation of the plant to off-peak hours, or to limit the power-factor during peak time operation, thereby avoiding excess consumption liable for penalty.

The management stated (March 2003) that being a continuous process plant, frequent load changing would affect the concentration of lye produced and also lead to wastage of production and low chlorine utilisation, and therefore the Company could not derive full benefit of the scheme of 'time of usage charges' formulated by the Board. The reply is not tenable since the mercury plant could be operated at lower current density to reduce the power consumption, as observed in the 'revival scheme for financial assistance' prepared by the Company.

Sales

Sales policy

2.1.51 The Company, in the Project Report for membrane project, projected an increase of 28 and 26 *per cent* respectively in the sale of caustic soda and chlorine. The projected sales of caustic soda in various sectors of industry and actual average annual sales there against for the five years since implementation of the membrane cell project are given in Annexure 15.

It could be seen from the Annexure that there was heavy shortfall ranging from 40 to 98 *per cent* with reference to projections. Eventhough the annual average sales in various sectors recorded a decline, the Company enhanced (December 2002) the production capacity by 25 *per cent* without any justification. Having created a capacity of 125 TPD (tonne per day) for the membrane plant, the Company could not formulate a better sales strategy to penetrate the market and sell the products at reasonable prices. The average off take by regular customers, after commissioning of the project, was only

around 25,226 MT, as against 52,130 MT projected by the Company, which was even less than the off take that existed prior to implementation of the project (27,100 MT per annum).

The Company, however, made no efforts to curtail production in mercury plant having prohibitive cost of production arising from excessive power consumption and to reduce sales to traders at very low prices. The sale of chlorine products subsequent to implementation of membrane project, were carried out mainly through traders, fetching lower prices. The Company could achieve only 35 to 49 *per cent* of the projected sales among regular bulk customers during the period under review, whereas the sales through traders and small scale buyers gradually increased from 58 *per cent* of the projected sales in 1997-98 to 89 *per cent* during the next four years, with adverse effect in sales realisation.

Thus, the absence of proper sales strategy was one of the main reasons for the poor performance of the Company.

Conversion and sale of caustic soda as flakes

2.1.52 The excess quantities of caustic soda that could not be marketed as lye were being converted as flakes and sold mainly in upcountry markets. Details of quantity marketed, additional cost of conversion, additional sales realisation on flakes and net short realisation during the five years ended 31 March 2002 were as given below :

Year	Quantity marketed as flakes (MT)	Additional conversion cost per MT (Rs.)	Additional sales realisation for flakes per MT (Rs.)	Net short realisation per MT (Rs.)	Value of short realisation on flaking (Rs. in lakh)	Average sales realisation		
						Rs/MT		Percentage of flakes to lye
						Flake	Lye	
1997-98	3551.85	1986.27	(-) 344.87	2331.14	82.80	9947.78	10292.17	96.65
1998-99	10859.20	1559.42	949.81	609.61	66.20	10289.47	9339.66	110.17
1999-00	15440.05	2031.43	467.46	1563.97	241.48	983.90	9346.44	105.00
2000-01	19462.65	2037.99	1262.40	775.59	150.95	11694.83	10432.43	112.50
2001-02	15151.45	2179.19	515.72	1663.47	252.04	14024.19	13508.47	103.82
Total	**64465.20**				**793.46**	**11458.81**	**10520.92**	**108.91**

Production of caustic soda lye without adequate market demand necessitated conversion to flakes involving extra cost of Rs. 7.93 crore.

The details in the table showed that the sale of caustic soda flakes registered huge increase since 1997-98 even though there was short realisation on conversion, indicating that the Company had been resorting to indiscriminate production of caustic soda lye, though the market demand was very low, necessitating avoidable conversion into caustic soda flakes and resultant extra cost of Rs.7.93 crore.

Further, the price realisation for flakes did not have any relation with the trend in lye prices. It varied between 96.65 and 112.50 *per cent* of price of lye during the above period, indicating that the prices of flakes were not fixed on a rational basis.

Lower price realisation from traders

2.1.53 Bulk of the production of caustic soda flakes was being marketed through traders for want of adequate demand from actual users and such sales ranged between 59.5 and 83 *per cent* of total sales during the five years ended 31 March 2002.

Sale to traders at prices below cost resulted in loss of Rs. 3.98 crore.

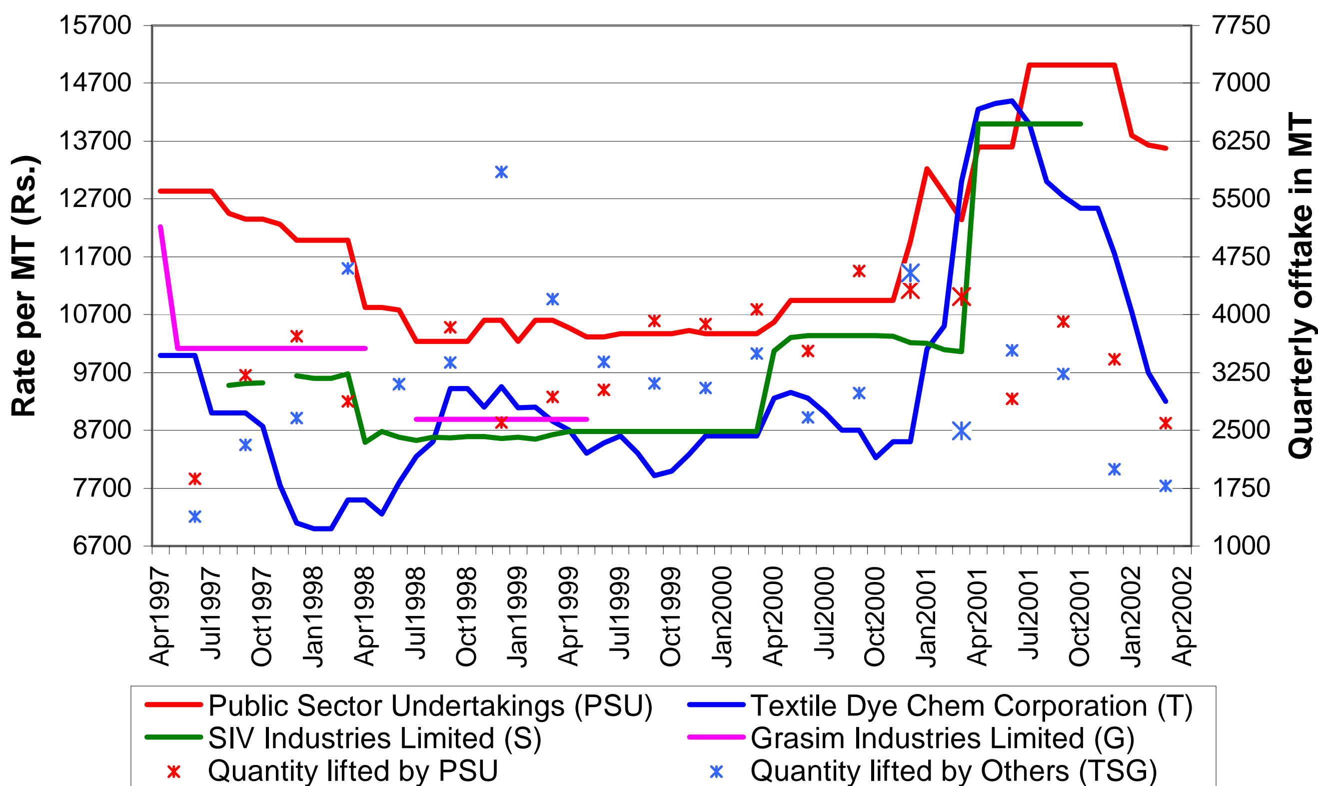
Out of 50,180 MT flakes sold to dealers during the five years up to 2001-02, 18,024 MT (35.92 *per cent*) flakes were sold at prices below the cost of production. The loss sustained by the Company on account of such sales amounted to Rs. 3.98 crore.

The management stated (March 2003) that irrespective of the poor sales realisation it continued with the production of caustic soda flakes, at certain pre-determined levels in order to cater to the demand for by-products viz., chlorine and HCl for which the market prices were attractive and hence the overall sales realisation would make good the cash loss sustained as above. The reply is not convincing as the contribution from the by-products also did not make good the short realisation from the main products as discussed in paragraph 2.1.63 *infra*.

Pricing policy

2.1.54 The Company had been fixing list price from time to time within the price recommended by AMAI in 1994. There was no scientific basis for price fixation. Only 4 to 7 *per cent* of gross production was sold at list prices. The remaining quantities were sold at varying prices, directly to regular customers as well as traders. The Company had not been following any norm or formula for determining the prices applicable to traders and other regular customers. The actual sale prices were not linked to list prices. The Company had sold its products at varying prices even among traders operating at the same station, during the same period. No specific yardsticks were applied by the Company while fixing price of its products, and the only basis was the market report furnished by its marketing department which was not based on any authentic data on market situation.

There was wide variation between the selling price fixed for public sector and private sector consumers. The price of caustic soda lye fixed for private sector consumers was always on the lower side and the difference ranged between Rs.896 per MT (2001-02) and Rs.2104 per MT (2000-01). The following graph shows the variation in the quarterly average price per MT allowed to private sector consumers with reference to the average price of public sector consumers of the Company vis-a-vis quantity lifted, for the 5 years up to 2001-02:



The management stated (March 2003) that as long as the product was in buyer's market, it was not in a position to work out a pricing formula to determine the price for traders in each deal, and that prices for supplies to regular customers were not comparable with the ad hoc prices levied for traders. The reply is not tenable since the middlemen, acting as dealers had taken advantage of ad hoc prices by buying the Company's product at lower rates and selling the same to customers at higher rates.

Price concessions on hydrochloric acid

2.1.55 Cochin Minerals and Rutiles Limited (CMRL) had been a major customer of the Company in the local market, having annual off take of hydrochloric acid (HCl) in the range of 28 to 44 *per cent* of the production. The Company sold 1,48,105 MT acid to CMRL during 1997-2002. Based on the contract with CMRL effective till March 2003, the price of HCl had to be refixed with reference to landed cost of salt and effective electricity charges. The price so fixed for the year 1998-99 was Rs. 1500 per MT. 25,349.72 MT acid was sold to CMRL at the above price. Even though, as per agreement, the prices were to be refixed at Rs. 1492, Rs. 1880 and Rs.1928 per MT respectively, during the three years up to 2001-02, the Company did not revise the prices resulting in avoidable loss of Rs. 3.71 crore. There were no reasons on record for extending the concessions by not revising the price as per agreement.

Failure to refix the prices in time resulted in avoidable loss of Rs. 3.71 crore.

The management stated (May 2003) that the price concession was initially extended during 1998-99 to liquidate the excess stock and the concessions were extended for reasons such as supply of the product by other southern manufacturers at drastically reduced prices, unilateral withdrawal of CMRL from the long term agreement with effect from 1999-2000. The reduced off take by CMRL during 2001-02 was attributed by the Company to technical problem with plant at CMRL end, considering which no revised rates were demanded for the lower off take.

None of the above contentions of the Company were supported by documentary evidence and cannot be accepted since the price concessions were outside the scope of the contract without obtaining the specific approval of the Board. It was also noticed that similar price concessions for HCl were not extended to Kerala Minerals and Metals Limited (KMML) another major PSU in local market.

Marketing hydrochloric acid with excessive concentration

2.1.56 The Company had been producing and selling hydrochloric acid of commercial grade having a concentration range of 30-32 *per cent*. The Company could maintain the acid concentration at the specified level during 1997-98, 2000-01 and 2001-02. But in the intervening two years 1998-99 and 1999-2000, the level of concentration, on an average was between 32.5 and 32.6 *per cent* resulting in delivery of excess quantity of 2,591 MT of acid valued at Rs. 34.96 lakh imparting undue benefit to the buyers.

Sale of products

2.1.57 The table below indicates the comparative position of sale of Company's products during the five years from 1997-98 to 2001-02:

Products	Sales in Kerala (per cent)	Sales outside Kerala (in MT)			
		Direct (per cent)	Traders (per cent)	Total (per cent)	Total sales (per cent)
Lye	1,09,276 (60.6)	34,098 (18.9)	36,962 (20.5)	71,060 (39.4)	1,80,336 (100)
Flakes	522 (0.8)	13,762 (21.4)	50,181 (77.8)	63,943 (99.2)	64,465 (100)
Total caustic soda (lye & flakes)	1,09,798 (44.8)	47,860 (19.6)	87,143 (35.6)	1,35,003 (55.2)	2,44,801 (100)
Chlorine	45,637 (47.4)	30,685 (31.8)	20,045 (20.8)	50,731 (52.6)	96,363 (100)
Hydrochloric acid	3,37,513 (88.3)	11,156 (2.9)	33,609 (8.8)	44,765 (11.7)	3,82,278 (100)

2.1.58 Mention was made in paragraph 2B.7.1 of the Report of the Comptroller and Auditor General of India for the year ended 31 March 1994 that 35.8 *per cent* of caustic soda (lye and flakes), 26.5 *per cent* of chlorine and 34.5 *per cent* of hydrochloric acid were being marketed through traders outside Kerala, at substantially lower sales realisation. The sale to traders outside Kerala during the five years ended 31 March 2002 represented

35.66 *per cent* for caustic soda, 20.80 *per cent* for chlorine and 8.8 *per cent* for HCl, indicating that the dependence on traders for the main product (i.e. caustic soda) did not reduce. The need for augmenting direct sales, pointed out in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1994 and the related recommendation of COPU to revamp the sales policy to make the operations more profitable, did not receive adequate attention of the Company and sales through the traders continued to increase over the years.

It was also noticed that;

- while the Company had been making direct sale of caustic soda lye to South India Viscose Limited, Coimbatore, it was routing the sale of chlorine to the same party, through the agents.
- the ultimate consignees of the traders included public sector undertakings such as Madras Fertilizers, Mangalore Refineries and Petro Chemicals Limited, Karnataka Soaps, etc., with whom the Company could have established direct dealings.
- Kerala based companies like HLL get their supplies directly from the Company whereas their units located outside Kerala were being serviced through trader.

Sale of caustic soda lye

2.1.59 The Company had been selling part of its production of caustic soda lye, on a regular basis, through Textile Dye-Chem, Madras (TDC). The trader had been buying on an average 20 *per cent* of annual production of the Company for resale mainly in the neighbouring states of Tamil Nadu and Karnataka. The prices were fixed on the basis of negotiations at the level of Marketing Manager/Financial Controller and Managing Director, almost on month to month basis. The prices realised were considerably lower than that for direct sales within Kerala, because the Company had to absorb the extra cost incurred by the trader towards marketing of product, freight and trader`s margin, etc. The following irregularities were noticed in the trading arrangement:

2.1.60 TDC had been acting as a sole selling agent of the Company's product for outside states for the past two and a half decades. The Company had not tried with the more prudent system of engaging different traders/ selling agents with a view to bring in competition and maximisation of sales as well as realisation. The Company, however, maintained (March 2003) that operation through multiple traders might lead to unhealthy competition and undercutting of prices. Since the Company had not tried to obtain competitive prices, the reply is not tenable.

2.1.61 While the quantum of annual sale of caustic soda lye since 1997-98 had been fluctuating, the share of TDC increased from 18.17 *per cent* in 1997-98 to 30.63 *per cent* in 2002-03, mainly as a result of closure of certain consumer units within the state. The percentage of average price realised from

TDC to that from the direct sale came down from the level of 92.31 during 1998-99 to 69.36 in 2002-03 indicating the heavy concession in price allowed to TDC. Though the trading arrangement was in existence for over 25 years the Company had not evolved a suitable price fixation formula linking the prices fixed for trader to the prices realised from regular buyers.

The management stated (March 2003) that their sources of market information confined to price-quotations made by competitors in tenders participated by the Company and information passed on during meetings of Alkali Manufacturers Association. Audit observed that there was no system of documenting even the available information and the management had been depending on the information furnished by Marketing department, which were not authentic.

Failure to effect direct sales necessitated avoidable absorption of entry tax amounting to Rs. 1.48 crore.

2.1.62 Government of Tamil Nadu had imposed entry tax for caustic soda since April 2002. The Company effected reduction in the sale price to TDC so as to offset this extra charge which otherwise would have reduced traders' margin. It was noticed that the entry tax was available for set off to actual users against sales tax liability, and hence the Company need not have absorbed it as an extra cost had it been documented as direct sales to ultimate customers, instead of sales to trader for eventual resale, especially in view of the fact that the consignments were directly transported and delivered by the Company to such consumers. Instead of utilising this option, the Company continued with the trading arrangement, ignoring the substantial reduction in sales realisation, resulting in loss of Rs. 1.48 crore during April to December 2002.

Cash loss due to imprudent sales strategy

2.1.63 The Company had been following the strategy of maintaining the production of caustic soda at optimum levels, irrespective of the cost of production and fluctuation in demand in the State. Quantities in excess of that required within the State of Kerala were disposed of outside the State at very low prices, which were at times even below the variable cost, on the ground that the short realisation for caustic soda was being compensated with the higher price realisation from by-products viz. chlorine and hydrochloric acid. However, it was noticed that the Company had, in fact marketed its chlorine products outside the State also at reduced prices which were not adequate to compensate the short realisation from main product. Thus, the extra production of 11824 MT during 2001-02 in the mercury plant had resulted in cash loss of Rs. 1.85 crore even after reckoning the contribution from the sale of matching quantity (10476 MT)* of by-products which was avoidable if the Company had judiciously conducted a cost benefit analysis on the above basis, before resorting to such extra production.

* As per the standard ratio, 1 MT of caustic soda gives 886 kg of by-product (chlorine products)

The management stated (April 2003) that it had to run the mercury plant at a minimum capacity of 40 TPD and it was practically not possible to restrict the production load in view of higher rate of power consumption at lower load. The reply cannot be accepted since the Company did not restrict production even to 40 TPD and the actual operation during 2001-02 ranged between 45 and 80 TPD. Higher rate of consumption of power was noticed only when the load was below 25 TPD.

Book debts and credit control

2.1.64 The Company's sales were on credit basis with the credit period being 15 to 30 days. However, the customers actually availed of about two months' credit on an average, and in certain cases the settlement of debt was prolonged up to nine months. Though the terms of sale provided for levy of overdue interest @ 20 *per cent*, the Company had not been enforcing this stipulation and instead granted extra credit facility to a group of traders and consumers as discussed below:

2.1.65 The Company extended additional credit facility of 30 days to the trader (TDC) for caustic soda lye even though the prices fixed were lesser. The interest cost absorbed by the Company for the extended credit period allowed to TDC during 1999-2002 amounted to Rs.46.26 lakh calculated at the borrowing rate of 18.16 *per cent* per annum.

The management stated (March 2003) that the credit facility provided to industrial customers and traders cannot be equated and that the extra credit periods were allowed in view of recessional trend in market. The views of the Company are not acceptable since the Company had been allowing periodical adjustments in price of such customers taking into account the market trend.

2.1.66 The Company had been selling about 8 to 15 *per cent* of its annual production of caustic soda lye to South India Viscose Limited, Coimbatore, (SIV) through the del credre agent Sree Balaha Chemical Agencies (SBCA). The agent was a sister concern of the Company's trader TDC for sale of lye outside Kerala. Against the stipulated credit period of 30 days, TDC was being allowed credit period ranging from 9 to 10 months and the balance outstanding from SIV at the end of 2001-02 amounted to Rs.2.56 crore when their transactions stopped. The Company received only Rs. 42 lakh up to March 2003 @ Rs. 4 lakh per month that too by way of adjustment from another sister concern of the same group (GEM) to whom credit facility had been extended by the Company and was also a defaulter in repayment of dues. The net amount realisable from SIV as of March 2003 was Rs.2.14 crore.

2.1.67 The Company commenced sale of lye to SIV, since 1981 and the materials were being despatched and invoices raised on the firm directly. However, no efforts were made to eliminate the agent and make direct sale to SIV, but agency commission was being paid to SBCA. The total amount of commission paid for the period 1997-2002 was Rs.0.51 crore. The Company had not initiated any legal action against SBCA for realisation of dues despite clear provision in the agreement.

It was also noticed that overdue interest of Rs.47.82 lakh charged and accounted for in the books in four cases was written off during 1998-2001.

2.1.68 The Company had also been selling materials against post-dated cheques. Excluding the case of Trayons, cheques received from customers for Rs.33.50 lakh (14 cheques) were dishonoured during 1999-2000, Rs.24.43 lakh (41 cheques) during 2000-01 and Rs.85.92 lakh (57 cheques) during 2001-02. The Company, however, did not take any legal action.

The management stated (April 2003) that it followed a liberal credit policy due to competition in the market, and contended that it would have lost the market share in case a rigid credit policy was adopted. However, the fact remained that the Company did not consider that additional financing cost due to delayed realisation would offset the meagre contribution from sale of the products.

2.1.69 Mention was made in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1994 about the impropriety in extending credit facility for an amount of Rs. 54.18 lakh to Travancore Rayons Limited (Trayons) and the COPU had also recommended against such credit facility in their report number 29 of 1996-1998.

It was noticed that the Company continued with the credit sales to this customer and the dues amounting to Rs. 1.04 crore had accumulated up to July 2001 when Trayons was shutdown. Though 124 cheques aggregating Rs.1.46 crore issued by Trayons in settlement of dues were also dishonoured (2000-01), credit facility was continued by the Company, ignoring the objections of the Finance Wing (November 2000) and no legal action was initiated. Though Trayons had assured to clear the dues on receipt of financial assistance from KSIDC, the commitment was not honoured despite receipt (June 2001) of Rs. 2.75 crore from KSIDC and the Company did not follow up the matter but treated (2001-02) the debt as doubtful of realisation.

The management stated (March 2003) that the supply to the defaulter was not discontinued in the interest of maintaining production and sales at existing levels. The reply cannot be accepted since the excessive credit facility granted to Trayons resulted in non-realisation of dues.

Manpower analysis

2.1.70 The manpower available with the Company was not downsized even though many of the plants were scrapped in course of time. As estimated (September 2001) by the Company, its employees cost was about 17 *per cent* of cost of production, as against 6 to 7 *per cent* in similar units. However, the Company had not taken any action either to gainfully deploy the surplus manpower or to downsize it.

A committee constituted to finalise proposals for restructuring manpower reported 361 (33 *per cent*) out of the total 1095 employees as surplus. Based

Extra cost on surplus manpower during the five years amounted to Rs. 5.18 crore.

on the average emoluments of employees, the extra cost on surplus manpower for the five years up to 2001-02 amounted to Rs.5.18 crore. Pending formal settlement with the unions and final orders from Government, the Company had accommodated (January 2003) the surplus manpower in a common pool.

2.1.71 Even after identifying surplus employees there was injudicious deployment of manpower leading to avoidable expenditure, as discussed below:

- When the Company was having surplus manpower, 33 workers were engaged on contract/casual basis on sundry jobs. The extra expenditure on contract workers from July 1995 to February 2003, amounted to Rs 65 lakh. Further, contract workers were being continuously engaged from July 1995, without Government's approval.

- In spite of availability of surplus strength, the Company paid overtime wages to the extent of Rs.3.10 crore during the five years up to 2001-02.

The management stated (May 2003) that it undertook a comprehensive restructuring of its workforce during 2003 only, as per directive from Government. The restructuring in respect of managerial personnel was in progress (May 2003).

Non-recovery of staff advance

2.1.72 The Company had been paying advances to all its employees including contract employees during festivals and re-opening of schools. As per memorandum of settlement, signed (March 1997) with trade unions, school and festival advances were recoverable in ten and five instalments, respectively. It was, however, noticed in Audit that the school and Onam advances paid from 1998 onwards had been pending recovery except in respect of contract employees and retired employees. The amount recoverable increased from Rs.61 lakh in 1998-99 to Rs.1.78 crore in 2001-02.

2.1.73 Without assigning any reason the Company had written-off Rs.63 lakh paid as Onam and school advances during 1999. This was done on the basis of the minutes of a discussion held with trade unions in the presence of the Minister of Industries and Social Welfare, without any formal sanction from Government. The write-off was also not separately reported to the Board of Directors. The Company stated (September 2003) that they intend to recover the advance in 10 equal instalments from the employees.

Pollution control

2.1.74 The Company being a manufacturer of hazardous chemicals, required the consent of State Pollution Control Board under the Water/Air (Prevention and Control of Pollution) Act, to carry on with its manufacturing operations. The operation of any industrial plant without the said consent was

a culpable offence, punishable as per provisions of the concerned Acts. Though the validity of the consent under the Water Act expired (December 2001), the Company had been carrying on operations since January 2002, without having the statutory consent.

The consent under Air (Prevention and Control of Pollution) Act, 1981 also expired in December 1996. The Company had been working for all the seven years from January 1997 to 13 February 2003 without possessing the statutory consent. Conditional consent was granted in February 2003 only.

The consent letter prescribed compliance of 13 conditions including raising of the height of all the 14 chimneys from 18-21 metres to 30 metres before end of June 2003 and phasing out of the mercury plant by December 2004. No effective action was taken by the Company (May 2003) to comply with these directives.

Internal audit and internal control

2.1.75 The Company had an internal audit wing of its own, headed by Secretary cum Internal Audit Officer and consisting of other two officers, two assistants and a stock verifier.

The Company was having an Internal Audit Manual prepared by a firm of Chartered Accountants. As per the manual, the areas essentially to be covered in internal audit were ensuring timely realisation of accounts receivable, stores control, prompt repayment of staff advances, scrap valuation, etc. There was lack of adequate internal control in all the above areas, as discussed in paragraphs 2.1.64, 2.1.72 and 2.1.73 *supra*. The Statutory Auditors also reported in their Report for 2000-01, that the internal audit of the Company was confined to stereo-typed checking of transactions and that no attempts were made to scrutinise the credit policy, debt recovery, pricing policy, marketing strategy, etc. In view of the deficiencies in the existing system, Company had engaged (June 2003) a firm of Chartered Accountants to undertake the internal audit functions for a fee of Rs.50,000 per annum.

The above matters were reported to Government in August 2003; their reply is awaited (September 2003).

Conclusion

The Company, incorporated in November 1951, had been producing and marketing caustic soda in the form of lye and flakes as well as other by-products. The Company replaced its old mercury plant of 60 tonne per day with a new membrane cell plant having capacity of 100 tonne per day which was further enhanced to 125 tonne per day. The excess capacity was created when the market demand was low and substantial portion of products were being sold in the buyers' market at low prices.

The Company could not achieve efficiency of fuel and power anticipated while implementing the membrane cell plant. The projected overall cost effectiveness also could not be achieved since the increase in cost due to higher consumption of raw materials, replacement cost of membranes and financing cost were not considered at the time of projecting the viability. The Company unnecessarily invested funds in allied plants like caustic concentration and fusion plant and salt upgradation plant which could have been avoided considering the critical financial position of the Company. The by-product hydrogen which could be used as fuel in place of high cost furnace oil was not properly used. There was excessive consumption of raw materials and process chemicals when compared to industry norms leading to avoidable loss. Company had no definite pricing policy. The prices fixed for public and private sector customers and traders indicated wide variations often leading to sales below cost and resultant loss. Even though the Company held surplus manpower which was a major factor contributing to losses, no efforts were made to downsize the manpower.

Since the Company's products were in buyers' market, effective measures have to be initiated to regulate indiscriminate production and to reduce sales to traders and private sector at very low negotiated prices. A definite and uniform policy has to be enunciated for fixation of selling price. Direct sale of products in secondary market should be undertaken to prevent the intermediaries from bagging substantial portion of sales realisation. Having invested huge funds in replacement of main and allied plants, effective measures need to be initiated for their efficient and profitable utilisation.

2.2 KERALA STATE INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

Highlights

The Company was incorporated in July 1961 with the objective of promoting industries in the state and financing the industrial units by way of equity and loans.

(Paragraph 2.2.1)

The provision for bad debts registered an increase of 66 *per cent* during the five-year period of 1998-2003 due to heavy increase in volume of non-performing assets.

(Paragraph 2.2.5)

Out of Rs.37.76 crore invested in unquoted shares, Rs.6.38 crore was written- off due to winding up, non-working or negative net worth of the assisted units.

(Paragraph2.2.8)

Investments of Rs.26 crore in 69 instances were written off during the five years up to 31 March 2003.

(Paragraph 2.2.13)

Non-recovery of investment subsidy from non-working units resulted in loss of Rs.6.79 crore.

(Paragraph 2.2.19)

Amount remaining unrecovered even after the scheduled date of closure of loan in respect of 81 units was Rs.219.12 crore .

(Paragraph 2.2.25)

Absence of collateral security from export processing units necessitated write off of loans amounting to Rs.15.66 crore and equity investment of Rs.2.27 crore.

(Paragraph 2.2.29)

Non-performing assets of Rs.161.36 crore represented 66 *per cent* of the total principal amount outstanding and recorded 45 *per cent* increase during the five years ended 31 March 2003.

(Paragraph 2.2.50)

Chances of recovery of dues of Rs.163.98 crore from 47 units were remote since these units were being wound up or already closed.

(Paragraph 2.2.52)

Revenue recovery action was pending against 129 units for recovery of Rs.299.10 crore and the default ranged from six to 121 months.

(Paragraph 2.2.60)

Introduction

2.2.1 Kerala State Industrial Development Corporation Limited (KSIDC) was incorporated in July 1961 as a wholly owned Government company for promoting and financing industries in the state. The main objects of the Company are to promote, establish, aid and assist, and finance schemes, projects or enterprises with a view to further the overall economic development of the state. Present activities of the Company are mainly confined to providing financial assistance to industrial units by way of equity and loans.

Organisational set up

2.2.2 The Company is being managed by a Board of Directors (Board) consisting of 15 directors including the Chairman and a Managing Director. There was no technical director on the Board. All the directors excluding the nominee of the Industrial Development Bank of India (IDBI) were appointed by the Government. An Executive Committee had been delegated with powers to sanction financial assistance and allow reliefs and concessions and for waiver of interest under the One Time Settlement scheme (OTS), which required ratification by the Board. Day to day administration was being carried out by the Managing Director assisted by two Executive Directors (at Thiruvananthapuram and Kochi) and General Manager in charge of finance.

Scope of Audit

2.2.3 The efficiency in recovery of loans by the Company was reviewed and included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1989 (Commercial), Government of Kerala. The review was not discussed by the Committee on Public Undertakings. The present review covering the activities of the Company for the five years from 1998-99

to 2002-03 was conducted during December 2002 to May 2003 and the points emanating there from are discussed in the succeeding paragraphs.

The review was discussed by the Audit Review Committee for State Public Sector Enterprises (ARCPSE) in its meeting held on 4 September 2003. In the meeting, the State Government was represented by the Additional Secretary, Industries Department, Government of Kerala and the Company by its Managing Director.

Share capital and borrowings

2.2.4 Against the authorised share capital of Rs.275 crore, the paid up share capital of the Company as on 31 March 2003 was Rs.270.74 crore held by Government of Kerala, including advance towards share capital of Rs.15 crore received in 2002-03.

The total borrowings as on 31 March 2003 were Rs.88.42 crore comprising loans from IDBI/SIDBI[*] (Rs.74.52 crore), State Government (Rs.3.20 crore) and bonds (Rs.10.70 crore).

Financial position and working results

2.2.5 The Company has finalised its accounts up to the year 2002-03. The financial position and working results of the Company for the five years up to 2002-03 are given in Annexures 16 and 17 respectively. Analysis of the financial position and working results of the Company revealed that :

Provision for bad debts increased by 66 *per cent* during the five-year period.

- The total bad debts provisions for loans and investments increased from Rs.49.09 crore in 1998-99 to Rs.76.55 crore in 2002-03 registering an increase of 56 *per cent* primarily due to 66 *per* cent increase in the provision for bad debts from Rs.40.56 crore in 1998-99 to Rs.67.27 crore in 2002-03. When compared to this, the increase in loan assistance during the same period was 26 *per cent* only (Rs.194.11 crore in 1998-99 to Rs.244.07 crore in 2002-03).

- While disbursing instalments of loan, the interest due on loan already disbursed was being adjusted from the amount paid. The interest (income) so adjusted and accounted for was Rs.14.43 crore during the five years ending 31 March 2003.

- The Corporation incurred net losses during 1998-2003 except in 1999-2000 due to considerable increase in provision for non - performing assets (NPA).

[*] Small Industries Development Bank of India

Retention of loan amount received from Government in treasury accounts at lower rate of interest resulted in loss of Rs.2.75 crore.

2.2.6 The funds received from Government of Kerala at interest rates ranging from 11.5 to 17 *per cent* per annum, for the activities of the Company, were being kept in the treasury, at the instance of Government, which fetched lower rate of interest. A review of the balances held by the Company in treasury savings bank account and treasury personal account during 1997-2002 revealed that the balances retained in these accounts ranged between Rs.20.60 crore and Rs.62.09 crore fetching interest at the rate of 6 *per cent* per annum. Retention of these funds in treasury accounts therefore resulted in loss of Rs.2.75 crore representing the difference between the interest paid at higher rates to Government and that received on deposits in treasury accounts.

Investments in joint/assisted sectors

2.2.7 According to the policy enunciated by the Company, the investment in equity/preference share capital of private/public enterprises varied between 26 and 40 *per cent* in joint sector and 11 and 26 *per cent* in sponsored sector. Based on the promotional agreements, the units were bound to buy back the shares at the option of the Company after three years from the commencement of commercial production or after five years from the first allotment of shares, whichever was earlier. The amount receivable for such buy back was paid-up value plus compound interest at IDBI term loan/refinance rate less dividend or book value or market value, whichever was higher. Failure to buy back the shares entails the right to sell the shares and recover the balance amount, if any, from the unit.

Nature of investment

Out of Rs.37.76 crore invested in un-quoted shares, Rs.6.38 crore was written off.

2.2.8 The total investment of the Company as on 31 March 2003 in 68 units was Rs.76.16 crore consisting of equity shares worth Rs.60.80 crore in 61 units, preference shares worth Rs.13.86 crore in eight units and bonds of Rs.1.50 crore in one unit. The Company decided (May 1995) to invest in listed quoted shares only, as far as possible, to ensure quick disposal of shares in the event of default so as to avoid loss of investment. During June 1995 to March 2003 the Company invested Rs.37.76 crore in unquoted shares, of which Rs.6.38 crore (17 *per cent)* was written off due to winding up, non-working or negative net worth of such assisted units. The Company could earn a dividend income of Rs.35.39 lakh only on this investment during the said period. Since there was low return by way of dividend on investment in equity shares, the Company decided (May 1999) to go for either equity or preference share capital investment based on the merit of each case.

Investment in unviable units

2.2.9 The details of investment in 134 units (including 63 units in which investment was written off during the five years ended 31 March 2003) are given below :

Sl. No	Age of investment	No. of units	Amount invested (Rs. in crore)
1	More than 20 years old	21	3.37
2	10 years or more but less than 20 years	55	14.24
3	5 years or more but less than 10 years	43	71.31
4	5 years or less	15	11.65
Total		**134**	**100.57**

Based on the terms of promotional agreement, the Company should have disposed of shares worth Rs.88.92 crore in 119 units where age of the investment was 5 years and more and invested the funds profitably elsewhere. However, the buy back clause in the agreement was not invoked by the Company during the last 23 years.

Monitoring of assisted units

2.2.10 It was noticed that the Company had not been monitoring the implementation and working of the units in which substantial amounts were invested as discussed below:

Furnishing of annual reports

2.2.11 The assisted units were not prompt in furnishing of annual accounts, to evaluate their performance with a view to take remedial measures to improve the working or to invoke the buy back clause. A test check revealed that 47 out of 72 units did not forward their accounts for the year 2001-02 so far (March 2003).

Nominee directors

2.2.12 The Company was entitled to appoint up to three directors (including Chairman) in joint sector units and one or more directors in proportion to the shareholding in sponsored sector units. However, as on 31 March 2003, 38 out of 70 units only had nominee directors and 32 units with an aggregate investment of Rs.15.11 crore did not have nominee directors. The Company as such did not have any control over the management nor any mechanism to watch the units' performance. Further, there was no system to ensure the attendance of nominee directors in the Board meetings of the units and to obtain reports about performance and soundness of investment to the management.

Write off of investment

The Company had written off investments aggregating Rs 26 crore in 69 instances.

2.2.13 During the five years up to 31 March 2003 the Company had written off investments worth Rs.26 crore in 69 instances involving 63 units (preference shares three instances – Rs.5.03 crore and equity shares 66 instances–Rs.20.97 crore) out of which Rs.11.73 crore pertained to 31 units already wound up or closed. The Company suffered losses due to injudicious investment decisions as discussed below:

Hasty decision to write off the investment

2.2.14 The Company sanctioned (December 1996) and paid (March 1997) assistance of Rs.1.50 crore in the form of equity share capital to Muthoot Apt Ceramics Limited (unit), incorporated in June 1994 to set up a 100 *per cent* export oriented unit (EOU) for the manufacture of vitrious china sanitary ware at Cochin Export Processing Zone (CEPZ), at a cost of Rs.36 crore.

The unit commenced production in April 1998, but could not generate the anticipated sales initially, which according to the Company was due to non-co-operation by its technical collaborators (APT Limited, UK).

Hasty decision to write off the investment without waiting for buy back resulted in a loss of Rs.1.50 crore.

The unit made (November 1999) alternate marketing arrangements with Spring Ram, UK and started exporting the product and arrangements were also made for sale of products in Indian market. Even though the unit suffered losses during 1998-2001, it overcame the marketing problem from 2001-02. In the meantime, without watching the operation of the unit, the Company had written off (2000-01) the investment of Rs.1.50 crore.

The management stated (August 2003) that they took a policy decision to write down the investment since accumulated loss of the unit exceeded its paid up capital. The reply is not tenable since the write off decision was taken within a period of three years of the investment decision without waiting for the firm to improve its working and profitability. It was also noticed in audit that in other cases where the accumulated loss of units exceeded their paid up capital for very long periods, the Company had not written off investment.

Failure to make independent appraisal about marketability

2.2.15 The Company invested (November 1994) Rs.66 lakh by way of share capital in Chaya Industries Limited (unit). The investment was enhanced to Rs. 97 lakh on revision of project cost.

In April 1997 the unit requested for additional investment of Rs 1.00 crore in share capital either by way of equity or preference share contribution. Even though the Project Manager did not recommend (May 1997) the increased investment, the Assistant General Manager (Projects) recommended (October 1997) additional investment of Rs.50 lakh. The Company sanctioned and disbursed (March 1998) Rs.50 lakh by way of redeemable cumulative

preference shares. However, the entire investment of Rs.1.47 crore was written off during 2000-01. It was ascertained (December 2002) that the unit was under BIFR* and no amount would be realisable from it. The loss of interest at the borrowing rate of 12 *per cent* worked out to Rs.0.77 crore. Though the Company was aware of the decline in the export market for cotton knitted fabrics, an independent appraisal about marketability of the products of the unit was not conducted. The Company rather depended on the feasibility report prepared by the promoters and made additional investment in March 1998 ignoring the poor financial position and working results of the unit.

Investment in project having negative net worth

2.2.16 Meenachil Rubberwood (P) Limited (unit) - a joint venture project of Rubber Board and Rubber Producers Societies, engaged in manufacture of chemically treated and kiln dried sawn rubber wood, approached (June 1998) the Company for financial assistance for expansion of their project commissioned in December 1996. Despite negative net worth of the unit, the Company decided (September 1998) to sanction assistance of Rs.37.18 lakh which was enhanced to Rs.39 lakh in May 1999. The Company had written-off the investment in 2000-01, treating the same as bad without insisting the unit to buy back the shares. Audit observed that even at the time of sanctioning assistance, the accumulated losses of the unit at Rs.0.64 crore had exceeded its paid up capital (Rs.0.48 crore). Further, the capacity utilisation of the unit was only 65 *per cent* of which 40 *per cent* production could be sold. Thus, the decision of the Company to invest in a project having negative net worth resulted in undue benefit of Rs.39 lakh to the firm.

Management stated (April 2003) that since 74 *per cent* of the shares were held by Rubber Board and Rubber Producers Societies, the unit expected export orders. The reply is not tenable since the other seven rubber wood processing units assisted by the Company were not performing well and the unit had negative net worth even at the time of investment decision.

Failure to exercise managerial control

The Company made an additional investment of Rs.1.68 crore in a unit under lock out. The additional investment was written off immediately thereafter.

2.2.17 On the basis of the Memorandum of Understanding (MOU) signed (January 1993) between the Company and Tirupur Export Associates (TEA), Teaktex Processing Complex Limited (unit) was incorporated (May 1993) for implementation of a garment and yarn project at a cost of Rs.30 crore. The project was set up (September 1995) at a cost of Rs.48.27 crore and the Company held shares worth Rs.5 crore i.e., 25.51 *per cent* of the issued share capital of the unit. The Company also disbursed (March 1997) an unsecured loan of Rs.70.66 lakh. The performance of the unit was not satisfactory since beginning and was under lock out from December 1997 to September 1998. The Company took over the management of the unit in October 1998 and re-started (January 1999) the unit after investing Rs.1.68 crore in 14 *per cent* cumulative redeemable preference shares.

* Board for Industrial and Financial Reconstruction

In view of the negative net worth, the Company had written off (1999-2000) its investment of Rs.6.68 crore in the unit. Besides, the loan of Rs.1.05 crore (principal : Rs.70.66 lakh and interest : Rs.34.75 lakh up to 1998-99) became non-performing asset since March 1998. The Company decided (March 1999) to write off the interest of Rs.34.75 lakh outstanding as on 31 March 1999.

The management stated (August 2003) that delay in implementation of the project and resultant cost overrun, labour unrest and lack of interest on the part of promoters were the reasons for closing down the unit and the Company had in mind the overall development objective while making additional investment in this unit. However, the fact remained that the Company did not exercise proper managerial control and unnecessarily invested Rs.1.68 crore, the loss of which was avoidable.

Failure to ascertain financial soundness of existing unit

The decision to make investment in an existing unit without ensuring financial soundness resulted in loss of Rs.1.02 crore.

2.2.18 At the instance of the Company (December 1994), Eastern Treads Limited (unit) signed (March 1995) an MOU for equity participation in its expansion project at Ernakulam. The Company had not given assistance to this unit earlier as the financial indicators of the group's other companies showed negative net worth. In spite of this, without making an independent study about the financial soundness of the unit, the Company sanctioned and disbursed (September 1995) share capital assistance of Rs.62 lakh against the unit's request for a loan assistance of Rs.54 lakh. After five years, in 2000-01, the entire investment was written off treating the same as bad. Since the Company did not get any return on the investment, the loss incurred by the Company by way of interest on the blocked funds up to 2000-01 worked out to Rs.40.60 lakh. Thus, the investment by the Company in an existing unit without ensuring its financial soundness resulted in loss of Rs.1.02 crore.

Investment subsidy

The Company incurred a loss of Rs.6.79 crore due to non-recovery of subsidy amount from non-working units.

2.2.19 As of March 2003, the Company received Rs.12.46 crore from Government as subsidy out of which Rs.11.30 crore was disbursed to 116 industrial units set up in the state, based on provisions contained in the orders issued (November 1993 and January 1994) by Government and the Manual of State Investment Subsidy. According to provisions 24 and 25 of the Manual, if the assisted unit did not work for five years from the date of receipt of subsidy, the entire amount along with interest at 14 *per* cent per annum was to be refunded to the Company on demand. The Company did not take any action for realisation of the subsidy amount disbursed to 23 units which were closed down within five years and thereby incurred loss of Rs.6.79 crore comprising subsidy of Rs.3.64 crore and interest of Rs.3.15 crore.

2.2.20 Government ordered (November 1998) inclusion of six more categories of industries such as metal crushers including granite manufacturing units and all types of steel rolling mills, units manufacturing

iron ingots, etc., in the negative list rendering them ineligible for State Investment Subsidy. Despite this order, the Company disbursed (January and June 1999) Rs.17.04 lakh as subsidy to such units included in the negative list.

2.2.21 Government enhanced (September 1997 and January 1998) the rate of subsidy from 15 to 50 *per cent* for units installing generator sets having Kerala Electrical and Allied Engineering Company's (KEL) alternator, subject to a maximum of Rs.7.50 lakh, for a period of two years from 1 June 1997 to 31 May 1999. However, even after expiry of the specified period, the Company sanctioned and disbursed (January/June 2000) investment subsidy of Rs.18.77 lakh to four units at the rate of 50 *per cent* instead of 15 *per cent* resulting in excess payment of Rs.10.58 lakh.

2.2.22 The Company disbursed (March 2003) subsidy of Rs.20 lakh to Filco Dipped Products and Rs.22.74 lakh to Nenmani Agro Mills, even though Government reduced (July 2000) the maximum ceiling of subsidy amount to thrust industries from Rs.20 lakh to Rs.15 lakh.

Loan operations

Sanction and disbursement

2.2.23 The Company had been granting financial assistance by way of loan to existing as well as new industrial undertakings, projects or enterprises in the state, whether owned by Government, statutory bodies, private companies, firms or individuals for activities which were commercially viable and subject to techno-economic feasibility.

During the Ninth plan period 1997-2002, the Company proposed to provide financial assistance of Rs.671 crore to 316 industrial units and Rs.266 crore for the implementation of nine specific projects identified by the Company, for which a sum of Rs.125 crore was provided in the State budget. Even though the Company received the budgetary support of Rs.125.21 crore (Rs.113.46 crore as share capital contribution and Rs.11.75 crore as loan) during the plan period, the Company did not spend any amount for implementation of these nine specified projects but diverted the funds for assistance to other industrial units.

Recovery performance

2.2.24 Details of the loan sanctioned, disbursed, collected and outstanding at the end of each year during 1998-2003 are given in Annexure 18. The details in the Annexure indicate that the percentage of overdues to total demand increased from 79 in 1998-99 to 86 in 2002-03. The high percentage of overdue to total demand indicate the inefficiency of the management in the recovery of loan disbursed. Percentage of overdue interest to interest demand increased from 84 in 1998-99 to 92 in 2002-03.

An amount of Rs.219.12 crore remained to be recovered against 81 units, after scheduled date of closure of loans.

2.2.25 In the case of 81 units, where the scheduled date of closure of loan was over, the Company was to recover Rs.219.12 crore including interest of Rs.178.89 crore as on 31 March 2003. Age-wise break up of the outstanding amounts where scheduled date of closure of loans were over, are as follows:

Period	No. of units	Amount outstanding (Rs in crore)		
		Principal	Interest	Total
Less than 5 years	40	25.77	80.20	105.97
5-10 years	34	12.81	67.73	80.54
10-15 years	7	1.65	30.96	32.61
Total	**81**	**40.23**	**178.89**	**219.12**

Dues from 54 closed down units amounted to Rs.174.61 crore.

Out of these 81 units, 54 units were closed and the total dues from these units amounted to Rs.174.61 crore (including interest of Rs.144.09 crore). In addition to the above, an amount of Rs.49.35 crore including interest of Rs.32.05 crore, had to be recovered from 22 units which were closed down/wound up though the scheduled date of closure of loan was not yet over. As these units were already closed and had negative net worth, the Company would not be able to realise the amount of Rs.223.96 crore.

2.2.26 The detailed analysis of various types of loan revealed the following:

Bridge loan/short term loan

2.2.27 A review of position of the bridge/short term loans revealed that Rs.4.69 crore towards principal and Rs.14.07 crore towards interest, were due in respect of 28 cases as on 31 March 2003 and the default period ranged between six months and twenty years. In the case of 22 units the Company could not collect the entire amount of Rs.3.44 crore towards principal. Further 19 units, from which the bridge/short term loans of Rs.9.72 crore including interest, were to be recovered in one instalment, had been either closed down or referred to BIFR. In two cases (Venad Pharmaceuticals & Chemicals Limited and Formalin Products Limited) the Company had written off the loan amounts resulting in loss of Rs.1.33 crore, including interest.

Assistance to various sectors

2.2.28 Industry-wise details of loan assistance made by the Company during the five years ended 31 March 2003 are given in Annexure 19. Analysis in audit of investment /loan assistance to selected sectors revealed the following:

Export processing

2.2.29 During September 1989 to June 2000, the Company assisted 27 units in Cochin Export Processing Zone (CEPZ) by way of investment of

Rs.3.47 crore (seven nos[*]) in share capital and loan assistance of Rs.23.69 crore (25 nos). The loans granted to such units were stipulated (May 1996) by the Company to have collateral security of 25, 40, 50 *per cent* of the loan amount against debt equity ratio of 1:1.25, 1:1, 1.25:1, respectively. However, the Company deviated from this stipulation and granted term loans to these units in CEPZ without insisting on collateral security even though the Customs authorities held first charge on the machines imported by the units, which were under bond.

Out of the 27 units assisted by the Company, 15 units were evicted (June 1998 to July 2002) by the Development Commissioner, CEPZ due to non-payment of lease rent and the assets were confiscated by Customs Department towards duty on imported machines and penalty for non-fulfilment of export obligation. Since the amount realised by the Customs authorities was not sufficient to meet their dues, the Company could not realise any amount against loans disbursed, in the absence of collateral security.

Failure to obtain collateral security necessitated write off of loans of Rs 15.66 crore and investment of Rs 2.27 crore.

Thus, failure to obtain necessary collateral security necessitated write off of Rs.15.66 crore (including interest) towards loans given to seven out of the 15 units evicted during the last five years. The equity investment of Rs.2.27 crore in these units had also been written off.

Tourist resorts

2.2.30 During the six years ended 31 March 2003, the Company sanctioned term loans of Rs.39.87 crore against project cost of Rs.87.52 crore to 19 tourist resorts (six beach resorts, five lake resorts and eight hill resorts). Outstanding amounts from 10 of these units became doubtful and from three units became substandard as on 31 March 2003 as per NPA classification. One unit foreclosed the loan account and dues of five units only were standard. The total amount outstanding against the units was Rs.39.75 crore (March 2003). There was delay in completion of the projects ranging from 4 to 34 months and consequent cost overrun of 30 to 67 *per cent*. Even after cost overrun, there was shortfall in facilities envisaged and eight projects were not completed.

2.2.31 It was noticed in audit that;

- the Company had not evolved a system for post disbursement valuation of the assets created in spite of cost overrun and deviation in proposed implementation, and
- the Company did not have a system of collecting and evaluating progress reports on the implementation of the projects or performance reports of the commissioned units for further remedial action by the management.

[*] Includes five units provided with equity assistance (Rs.0.77 crore) as well as loan assistance (Rs.3.40 crore)

Improper appraisal of projects

2.2.32 A test check of the appraisal of projects revealed that the Company did not have any data bank of the projects approved/ proposed to be financed and did not evolve parameters for evaluation of projects with reference to size and category of the industry. In the absence of the above, the Company relied on the reports submitted by the promoters for appraisal of the viability and marketability of the projects financed. Further, the Company did not ensure the financial capability of the promoters and their credit-worthiness at the time of appraisal of the projects. Since the Company depended on the data provided by promoters, all the project reports received by the Company were invariably approved and loans sanctioned and most of these units failed leading to default in repayment. A few cases where the projects failed due to improper appraisal are discussed below:

Grant of additional loan to a defaulter

2.2.33 The Company sanctioned two loans of Rs.1.15 crore and Rs.3 crore to Delta Fintser Limited (DF) and Cheramann Resorts (P) Limited (CR) in March and November 1998 respectively for setting up tourist projects in Wynad and Kozhikode districts. The projects were promoted by the same promoter (Mr Abdul Kareem). The disbursements made (April 1998 to October 1999) to DF and CR were Rs.1.15 crore and Rs.3 crore respectively. CR did not implement the project and revenue recovery action was initiated (August 2000) for recovery of dues.

The Company granted additional loan of Rs.41.50 lakh to a defaulter after initiating RR proceedings.

However, ignoring the fact that revenue recovery proceedings were pending against the promoter of CR, the Company sanctioned (January 2001) and disbursed (September 2001 to January 2002) additional loan of Rs.41.50 lakh to DF which was also promoted by the same promoter. Thus, the Company failed to protect the financial interest by disbursing additional loan of Rs.41.50 lakh to a defaulter even after initiating revenue recovery proceedings against the promoter. In the absence of adequate security the Company could not also recover the outstanding amount of Rs.5.31 crore (principal : Rs.3 crore plus interest : Rs.2.31 crore) from CR and Rs.2.30 crore (principal : Rs.1.57 crore plus interest : Rs.0.75 crore) from DF as on 31 March 2003.

Sanction of loan without tangible security

2.2.34 The Company sanctioned (November 1995) and disbursed (December 1995) a short term loan of Rs.40 lakh to Victory Aqua Farm Limited for setting up a prawn farming project at Tuticorin in Tamil Nadu. The loan was disbursed after obtaining indemnity bond and promissory note as well as personal guarantee of the directors without obtaining any tangible security. Though the loan was to be repaid by June 1996 no amount was received even after a lapse of about seven years from the date of closure of loan. The unit was closed down (August 1997); but only after four years from the scheduled date of closure of loan, the Company addressed (June 2000) the Revenue

authorities for initiating recovery proceedings. No recovery action had been initiated so far (August 2003). The sanction for short term loan to a unit functioning in Tamil Nadu without obtaining any tangible security, resulted in loss of Rs.1.25 crore (principal : Rs.40 lakh and interest:Rs.85 lakh).

Incorrect appraisal of the capability of promoters

2.2.35 The Company entered into (October 1998) a promotional agreement with Indsoft Infotek and Services Limited for setting up a project for software development at Technopark, Thiruvananthapuram at a cost of Rs.4.36 crore. The Company's contribution was Rs.2.76 crore consisting of equity of Rs.40 lakh, investment subsidy of Rs.18 lakh and term loan of Rs.2.18 crore. The project was approved (December 1998) on the ground that the promoters were well experienced in the line of business and they had tie up with an established US firm. The entire financial assistance was disbursed to the unit during April to December 1999 as per usual terms and conditions.

Incorrect appraisal of the capability of promoters resulted in non-realisation of dues amounting to Rs 3.83 crore.

After commissioning of the unit (December 1999) the Company noticed that the core promoters had very little knowledge and experience in IT industry and their association with the US based NRI did not materialize and the unit could not canvass any order. The unit defaulted in repayments and dues of Rs.3.83 crore (term loan: Rs.2.18 crore, subsidy: Rs.0.18 crore and interest: Rs.1.47 crore) were outstanding as on 31 March 2003. The Company's investment of Rs.40 lakh in the equity capital of the unit did not yield any dividend. Incorrect appraisal of the capability of promoters resulted in non-realisation of the entire dues amounting to Rs.3.83 crore (March 2003).

The management stated (April 2003) that the unit failed since it depended on the foreign collaboration of the promoter. The Company had not initiated any action for the realisation of dues.

Improper appraisal about viability of the unit

2.2.36 The Company received (March 1996) a project proposal from AMA Food Products (P) Limited (unit) for setting up a wheat flour mill at Edayar in Ernakulam district at a cost of Rs.1.62 crore. At that time the promoters of the unit were already running a wheat flour mill at the same location with an installed capacity of 100 TPD and it was incurring loss during 1993-94 and 1994-95 with very low capacity utilization of 8 and 36 TPD respectively.

However, ignoring these facts the Company appraised the project as profitable and granted (July 1996 to July 1997) a term loan of Rs.1.05 crore. Though the unit commenced (December 1996) commercial production it failed due to low capacity utilization of 8 *per cent* and became a defaulter of principal and interest from July 1997 onwards. The Company took over (July 2001) the unit under section 29 of the SFC Act but could not dispose it of in view of stay orders from Debt Recovery Tribunal received by the unit's Bank.

Improper appraisal of the project resulted in financial assistance to an unviable unit and loss of Rs 2.68 crore.

Thus, improper appraisal of the project resulted in financial assistance to an unviable unit and loss of Rs.2.68 crore (principal : Rs.1.05 crore, interest : Rs.1.63 crore) as on 31 March 2003.

Financing of unit in industry having no prospect

2.2.37 The Company approved (March 1997) a project report submitted by Hyrange Wood Treats Private Limited to set up a unit for the manufacture of chemically treated kiln dried rubber wood at a cost of Rs.1.65 crore. At the time of approval the Company had evaluated four similar units financed by it and found that all these units were running in losses due to low capacity utilisation and had defaulted in repayment of loans.

Despite this, the Company sanctioned (March 1997) a term loan of Rs.90 lakh and disbursed (October 1997) Rs.88 lakh to the unit. The unit which commenced commercial production in May 1998 incurred losses of Rs.14.88 lakh and Rs.16.17 lakh during the first two years ended 31 March 2000 and defaulted repayment of instalments of principal and interest on due dates. The amount outstanding against the unit as on 31 March 2003 was Rs.1.56 crore (principal : Rs.81 lakh, interest : Rs.75 lakh).

Thus, financing a unit in the industry in which other units financed by the Company were already running in losses, resulted in investment in an unviable unit.

Failure to conduct proper feasibility study

2.2.38 The Company, relying on the project report furnished by the loanee and without conducting any independent appraisal, sanctioned (December 1997) a term loan of Rs.1.50 crore to set up an export oriented unit to extract oleoresins and essential oil at a total project cost of Rs.3.46 crore. The scheduled date of completion of the project was December 1998. The Company disbursed (January/October 1999) Rs.47.73 lakh after obtaining the required deed of hypothecation and personal guarantee of promoters. The project was not implemented within the scheduled date of its completion.

A viability study conducted (September 2000/May 2001) by the Regional Research Laboratory, Thiruvananthapuram and the Central Food Technological Institute, Mysore, at the instance of the Company, reported that the system installed by the unit was not suitable for spice oil and oleoresins and recommended additional investment of Rs.1.95 crore to make the unit viable. Declaring the intention of the promoters as not in the best interest of the project, the Company called back the loan.

Though the Company took over (August 2001) the unit under SFC Act and initiated (February 2002) revenue recovery action against the guarantors, the promoters obtained (January 2002) stay order on the take over and the revenue

authorities reported that the guarantors possessed landed property worth Rs.11 lakh only. The failure of the Company to conduct proper feasibility study and disbursement (January 1999) of the loan despite knowing the incapability of the unit to complete the project within the scheduled period resulted in non-realisation of Rs.86.59 lakh (principal : Rs.47.73 lakh plus interest: Rs.38.86 lakh).

Non-adherence to debt equity norms

2.2.39 A test check of 32 out of 294 assisted units revealed that the promoters' contribution to the cost of the project ranged between 8.5 and 46 *per cent*. The Company had been extending financial assistance to units without strictly adhering to the prescribed debt equity norms of 1.5:1. In addition to the contribution brought in by the promoters, unsecured loan from the promoters, investment of the Company in the share capital of the unit and investment subsidy were being treated as equity to arrive at the debt-equity ratio. In respect of 16 out of 32 assisted units test checked, the debt equity norms of 1.5:1 had been exceeded. As the promoters' contribution was meagre compared to the cost of the project, the risk to the promoters in case of failure of the unit was less. A few such cases noticed in audit are indicated in Annexure 20.

Monitoring and follow up

2.2.40 As a financial institution, the Company should ensure proper utilisation of the funds invested by monitoring the implementation of the project as per the schedule. The Company should inspect the site before sanction of loan and ascertain the physical and financial progress of the project to ensure that the amount disbursed was properly utilised. The Company did not have a separate wing to monitor and evaluate the progress.

Further, the Company was to ensure that the funds disbursed were adequately secured and properly utilised. Necessary collateral security should have been obtained in addition to hypothecation deed of the property and personal guarantee of promoters, in the financial interests of the Company. The Company, however, failed in ensuring security of the funds disbursed and insisted on collateral security from 1996 onwards only.

2.2.41 A few cases where the Company failed in monitoring the specific schedule of implementation of project which resulted in delay in completion, cost overrun, etc., are discussed below:

Failure to monitor implementation of project

2.2.42 The Company sanctioned and disbursed (August 1995 to March 1999) assistance by way of a term loan of Rs.1.95 crore and share capital assistance of Rs.10 lakh to Ramraj Paper Mills Limited, Kollam for setting up a project for the manufacture of machine glazed poster paper. The

commissioning of the unit was unduly delayed till December 1999 and the actual project cost increased from Rs.1.72 crore to Rs.4.52 crore. The operation of the unit during the first three years up to 2001-02 resulted in loss. The accumulated losses amounted to Rs.2.45 crore.

The unit did not make any payment towards instalments of principal/interest and Rs.4.25 crore (principal : Rs.1.95 crore, interest : Rs.2.30 crore) was outstanding (March 2003).

The reasons for the poor performance of the unit as assessed (October 2002) by the Company were non-availability of technical, marketing and financial personnel and lack of prudent management. These aspects should have been judged even before sanctioning the project by a proper study/appraisal. In addition to this, even though the implementation was unduly delayed without proper justification, the cost was revised thrice and the Company extended financial assistance by enhancing share capital and term loan assistance. The deviations in the implementation viz. procurement of second hand machinery instead of new one, enhancement of installed capacity, also were not considered by the Company while approving the revised cost and sanctioning financial assistance.

Thus, failure to monitor the implementation of the project properly resulted in accumulation of arrears of principal and interest of Rs.4.25 crore in addition to Rs.10 lakh invested in the share capital of the unit.

Disbursement of loan without ensuring promoter's contribution

2.2.43 The Company sanctioned (September 1997) a term loan assistance of Rs.81 lakh to Simons India (P) Limited (unit) for the establishment of a steel furniture manufacturing unit at a project cost of Rs.1.62 crore. The Company disbursed (April to June 1998) Rs.67 lakh without ensuring the contribution brought in by promoters and inspecting creation of asset at each stage of disbursement of the loan. A belated inspection conducted (July 1999) by the Company after completion of disbursement indicated that the assets created were for Rs.34.64 lakh only and the promoter had diverted the loan disbursed by the Company to the extent of Rs.32.51 lakh.

Revenue recovery action was initiated (September 1999) to recover the dues, but the sale proceeds of the landed property of the chief promoter realised (October 2002) by the revenue authorities was Rs.5 lakh only. Thus, disbursement of loan without ensuring the promoters' contribution and verifying the creation of asset at each stage of disbursement resulted in diversion of Rs.32.51 lakh by the promoters and non-realisation of the entire amount of Rs.1.59 crore (principal : Rs.0.67 crore, interest : Rs.0.92 crore) due as on 31 March 2003.

Absence of collateral security

2.2.44 The Company sanctioned (August 2000) a term loan of Rs.1.93 crore and disbursed Rs.88.21 lakh (Rs 44.21 lakh in September 2000 and Rs 44 lakh in January 2001) to M/s. Diode Information Technologies Limited to set up a medical transcription unit at an estimated cost of Rs.4.03 crore on leased land at Kochi on usual terms and conditions of loan. The unit not only failed to implement the second phase of the project but the loan of Rs.44 lakh disbursed was also diverted by the promoter for other purposes. Hence the Company cancelled (June 2001) the balance term loan and initiated RR action against the unit and the guarantors.

It was noticed in Audit that the loan was sanctioned ignoring the fact that an earlier loan granted (November 1999) to a unit promoted by the same chief promoter had failed. Further, all the properties of the chief promoter (Mr. Santhosh) at Bangalore worth Rs.6.50 crore and Rs.10 lakh at Kottayam and a building worth Rs.6.70 lakh of the co-promoter (Mr.G Asok) which were pledged as security as per their affidavits, had already been encumbered to SIDBI and Canfin Homes respectively. As such the deed of guarantee executed by the promoters could not be considered as security.

The absence of collateral security and monitoring of implementation resulted in loss of Rs.1.17 crore due to diversion of funds.

The Company did not also insist for any collateral security at the time of sanctioning of the loan, since the promoter did not have any property in his name. There is little likelihood of realising Rs.1.17 crore (principal: Rs.0.88 crore, interest: Rs.0.29 crore) outstanding as on 31 March 2003. The management stated (April 2003) that the directors and officials of the unit cheated the Company by not utilising the amount for creating assets. The reply indicates system failure of the Company in regard to post-disbursement verification.

Absence of periodical verification before disbursement of loan

2.2.45 During 1994-95, the Company invested Rs.12 lakh in the equity capital and granted Rs.60 lakh as loan assistance to Manito Electronics (P) Limited (unit), Beypore, on the security of 17.35 cents of land (value: Rs.35,000) along with the proposed building and plant and machinery of the unit as well as the personal guarantee of the promoters, for implementation of a project for computer stationery forms at a cost of Rs.1.08 crore.

In the absence of periodical verification before disbursement of loan, the Company was cheated by the loanee by setting up the project on an adjacent site.

Instead of setting up the project on the proposed land (the original title deed of which was surrendered to the Company) the unit cheated the Company by setting up the project on an adjacent land and at the same time obtaining the loan from banks by pledging the duplicate of the title deed which was already pledged for the Company's loan.

Thus, disbursement of the loan without obtaining adequate security and effectively monitoring the execution of the project led to non-recovery of outstanding dues of Rs.1.01 crore (principal : Rs.0.50 crore and interest :

Rs.0.51 crore). Since the total value of the land was Rs.35,000 only and the unit was set up at another site, the Company would not be able to realise the entire amount of Rs.1.01 crore due from the unit.

Though revenue recovery proceedings had been initiated (September 2001), the Company could not realise any amount so far (March 2003).

Waiver of norms of disbursement

2.2.46 The Company sanctioned (June 1999) term loan assistance of Rs.96 lakh to Star Clothings (P) Limited (unit) incorporated in July 1996 to set up a readymade garment unit at Apparel Park, Trivandrum. The unit requested the Company to release Rs.63 lakh during November 1999 waiving normal norms of disbursement, viz., creation of assets, execution of deed, collateral security, etc. The Company disbursed (November 1999) Rs.32.45 lakh without insisting on asset creation, ignoring the recommendation (November 1999) of the Manager (projects). The unit neither implemented the project nor created any fixed assets.

Waiver of norms of disbursement resulted in loss of Rs.58 lakh.

The Company, thus, failed in monitoring the implementation of the project. The outstanding amount as on 31 March 2003 stood at Rs.58 lakh (principal: Rs.33 lakh, interest: Rs.25 lakh). Disbursement of loan amount without evaluating the progress of implementation and obtaining collateral security resulted in loss of Rs.58 lakh. The Company initiated (June 2001) revenue recovery action against the loanee. However, no amount has been recovered so far (September 2003).

Inaction/delay in taking action

2.2.47 For ensuring prompt recovery, the Company had not prescribed follow-up action with definite time schedule. Instead the action against defaulters was being initiated on case to case basis after protracted default review meetings instead of having a uniform pattern for action against loanees. The recovery action was being delayed even up to ten years in certain cases. The delay in taking action or inaction on the part of the Company had resulted in delay in realisation as well as non-recovery of amounts due, as discussed below:

Failure to take coercive action for recovery of dues

2.2.48 A term loan assistance of Rs.79 lakh and share capital assistance of Rs.3.40 lakh was extended (March 1992) to Triglob Pharmaceuticals (P) Limited (unit), Kozhikode for the formulation of tablets and liquid preparation covering a broad spectrum from antibiotics to anti-psychiatric drugs. The promoter's contribution was only Rs.30.60 lakh.

The loanee defaulted payment of principal and interest dues from the date of commercial production in 1994. No coercive action was taken for recovery of

dues and the Company rescheduled the principal and funded the interest accrued up to 1994 to be repaid in eight and six half-yearly instalments respectively, with moratorium period of 24 months up to June 1998. In spite of this concession, the party did not remit any amount towards dues. The Company initiated (June 1999) RR action against the chief promoter but could not realise the dues due to stay orders from Court. The unit was not able to produce drugs as per market demand and declared lay off (December 1999).

Thus, the inaction on the part of the Company in taking timely action resulted in mounting up of dues to Rs 4.10 crore (principal: Rs.0.79 crore, interest: Rs.3.31 crore). Management stated (August 2003) that further proceedings were being initiated with the official liquidator of the unit.

Failure to take proper recovery action

2.2.49 The Company disbursed (February 1993) an equipment refinance loan of Rs.89 lakh to KMH Memorial Hospital, Manjeri (unit) which was to be repaid by April 1997 after availing initial moratorium period of one year. The Company converted (February 1994) the loan into term loan with further moratorium of two years up to March 1996. Even though the loan repayment was rescheduled at the request of the unit with completion of repayment by March 2002, no amount was repaid.

Total amount outstanding as on 31 March 2003 was Rs.2.24 crore including the principal amount of Rs.89 lakh. In spite of the failure of the unit to repay the loan even after availing the undue benefit of three years of moratorium, the Company did not take any coercive action against the unit so far (March 2003).

Management stated (August 2003) that since the loan was for a hospital unit, invoking of section 29 for take over was not practical. The reply is not tenable since the Company was aware of the nature of activities of the unit at the time of sanctioning the equipment loan and thus, there was failure in taking proper recovery action.

Non-performing assets

Non-performing assets of Rs.161.36 crore represented 66 *per cent* of the principal amount outstanding.

2.2.50 The Company had been following the asset classification of loan assistance as per guidelines issued by IDBI, and accordingly loans in respect of which instalments of interest and principal were promptly received were classified as standard assets and loans on which instalments of principal or interest were overdue for periods exceeding 180 days were classified as non-performing assets (NPA). As on 31 March 2003, an amount of Rs.245.77 crore (principal alone) was outstanding from 293 units, of which Rs.84.41 crore (34 *per cent*) only represented 'Standard Assets' and Rs.161.36 crore constituting 66 *per cent* was treated as 'Non-Performing Assets' (NPAs).

2.2.51 The following table shows the classification of loans outstanding as at the end of each of the five years from 1998-99 to 2002-03:

(Rs. in crore)

Classification of loans	Position as on 31 March				
	1999	2000	2001	2002	2003
I Standard	79.88	114.60	103.38	100.58	84.41
II Non-performing assets:					
(i) Sub-standard	40.75	42.25	57.30	43.02	28.40
(ii) Doubtful	55.57	62.27	71.12	95.27	113.36
(iii) Loss assets	15.04	19.13	18.65	20.72	19.60
Total NPA	111.36	123.65	147.07	159.01	161.36
Total loan	191.24	238.25	250.45	259.59	245.77
Percentage of NPA to total loans	**58**	**52**	**58**	**61**	**66**

Non-performing assets recorded 45 *per cent* increase during the five year period of 1998-2003.

The details in the table indicated that the non-performing assets increased from Rs.111.36 crore in 1998-99 to Rs.161.36 crore in 2002-03 recording an increase of 45 *per cent*. During the five years ended 31 March 2003, loan assistance was granted to 120 new units including 13 units which foreclosed their loan account. The NPA classification of assistance to the new units as at 31 March 2003 revealed that 50, 55 and 62 *per cent* of loans disbursed became NPAs within two, three and four years from the date of disbursement.

Cases where entire loan assistance outstanding

2.2.52 The following table summarises the status of the assisted units as on 31 March 2003 in respect of which there were no repayments since disbursement of the loans and even after scheduled date of closure:

Status of units	Number of units	Arrears (Rupees in crore)		
		Principal	Interest	Total
Closed	20	12.63	75.55	88.18
Wound up	21	9.43	32.33	41.76
Under BIFR	6	6.44	27.60	34.04
Total	**47**	**28.50**	**135.48**	**163.98**

Chances of recovery of Rs 163.98 crore were remote since 47 units were under winding up or already closed.

The amount released to 47 units involving Rs.28.50 crore and interest thereon amounting to Rs.135.48 crore was outstanding for periods up to 14 years from the scheduled date of closure of loan. Since the units were already closed, wound up or sick, the chances of recovery of the dues amounting to Rs.163.98 crore were remote.

Rescheduling of loans

2.2.53 During the five years ended 31 March 2002, the Company rescheduled the repayment of loans of 50 units involving Rs.49.20 crore with the intention of revival of the units and recovery of loan. Out of the above, the Company could realise Rs.8.20 crore only towards principal and the balance amount pending realisation was Rs.41 crore (March 2003). Further, in respect of loans of 31 units aggregating Rs.29.01 crore the Company could not recover even a single instalment even after rescheduling of loans. Thus, the rescheduling of loans did not help in recovery of dues as expected.

Non-recovery of equipment loans

2.2.54 The Company had been sanctioning loans to units for purchase of equipment and during the five years ended 31 March 2003 disbursed Rs.11.65 crore. The amount pending recovery against 14 such units as on 31 March 2003 was Rs.4.95 crore (principal : Rs.4.39 crore, interest: Rs.0.56 crore). A review of equipment loans sanctioned revealed that the Company was releasing the loan amount to the assisted units directly and there was no system to ensure that the amount was actually utilised for the intended purpose. As on 31 March 2003, the total amount outstanding on this account (32 nos.) was Rs.14.16 crore (principal: Rs.9.04 crore, interest: Rs.5.12 crore). Further, it was also noticed that there were 14 cases where the Company could not collect any instalment towards principal. Of the 32 units assisted, 12 units were closed/wound up indicating that chances of recovery of dues of Rs 6.89 crore were remote (principal: Rs.2.92 crore, interest: Rs.3.97 crore).

Undue benefit of moratorium

2.2.55 According to the policy followed by the Company, the assisted units had to commence repayment of instalments of principal amount after one year from the date of disbursement or one year from the date of commencement of commercial production whichever was earlier. In violation of this policy the Company granted moratorium for periods exceeding the prescribed one-year period resulting in undue benefit of holiday for recovery of principal amounts besides prolonging recovery and plough back of collection.

In respect of 293 units, period of moratorium was extended for three to sixty months.

In the case of 294 units test checked, the period of moratorium allowed ranged between three and sixty months, except in one case where the period was 93 months. Management stated (August 2003) that the period of moratorium varied from case to case and it was not possible to fix uniform moratorium period for all projects. The reply indicates absence of a uniform policy/procedure in this respect.

One time settlement scheme

2.2.56 The Company introduced (May 1999) a one time settlement scheme (OTS) to reduce the level of non-performing assets. The scheme was applicable to cases where the repayment period was over and the minimum amount to be remitted was 100 *per cent* of the principal, 50 *per cent* of the interest worked out on simple interest basis at documented rate and 25 *per cent* of other charges. Fifty *per cent* of OTS amount was to be remitted immediately and the balance within one year with interest calculated at the then prevailing rate. The existing or the new promoters who came to take over existing units were also eligible for OTS. The scheme was proposed to be reviewed in June 2000 by the Board on completion of one year period.

2.2.57 On a review of the OTS cases approved since May 1999, it was noticed that, out of 32 assisted units having recoverable amount of Rs.52.05 crore which opted for OTS, the status of settlement of dues was as detailed below:

Sl.No	Status of settlement	No. of units	Total outstanding amount	Amount of OTS approved	Amount realised so far	Loss on OTS
			(Rupees in crore)			
1	Fully settled	8	16.10	11.75	11.75	4.35
2	Partly settled	14	18.55	10.83	3.36	7.72
3	Backed out	10	17.40	11.89	-	-
	Total	**32**	**52.05**	**34.47**	**15.11**	**12.07**

Loss due to extension of OTS to 14 units was Rs.7.72 crore.

2.2.58 The loss incurred in respect of eight units which settled their accounts under the OTS was Rs.4.35 crore and the loss that would result from settlement of dues of 14 units under OTS worked out to Rs.7.72 crore. The Company extended undue benefit of Rs.1.10 crore to five units by settling their accounts for an amount lesser than that admissible as per OTS guidelines and this included two units (Rs.19.89 lakh) which were not eligible for OTS since their scheduled date of repayment was not yet over.

In spite of loss of Rs.17.58 crore in OTS cases, the NPA level increased from 52 to 66 per cent in five years.

2.2.59 The scheme was reviewed only after two years when the Company decided (June 2001) to reduce the upfront amount from 50 to 25 *per cent* of OTS amount and payment of balance within one year thereafter with interest. The scheme remained (March 2003) in force even after a period of four years. The OTS was introduced with a view to reduce the NPA level and make available the funds for investment in more profitable ventures. In spite of the huge loss of Rs.17.58 crore suffered in respect of the settled cases, the NPA level, did not improve and it increased from 52 *per cent* in 1999-2000 to the all time high level of 66 *per cent* in 2002-03.

Revenue recovery action

RR action was pending against 129 units involving Rs.299.10 crore and period of default ranged between 6 and 121 months.

2.2.60 The Company has been resorting to revenue recovery action invoking provisions under Kerala Revenue Recovery Act, 1968 which was made applicable (November 1983) to the Company by the State Government and also by take over of assets mortgaged to the Company under Section 29 of the SFC Act. The revenue recovery action initiated during 1988 to 2001 against 129 assisted units for realisation of Rs.299.10 crore including interest of Rs.220.65 crore was pending (April 2003). This included Rs.216.99 crore (principal: Rs.46.33 crore and interest: Rs.170.66 crore) recoverable from 90 units, which were either closed/taken over (57 units : Rs.153.19 crore), wound up/ sold (27 units : Rs.55.53 crore) or referred to BIFR (6 units: Rs.21.99 crore). The period of delay in initiating revenue recovery action ranged between six and 121 months and there was no proper follow-up action, resulting in accumulation of arrears as shown below:

Period	No. of units	Amount outstanding		
		Principal	Interest	Total
		(Rs in crore)		
Less than 3 years	76	50.06	104.99	155.05
3 to 6 years	26	15.90	45.08	60.98
More than 6 years	27	12.49	70.58	83.07
Total	**129**	**78.45**	**220.65**	**299.10**

2.2.61 Till 1996 the Company had not insisted on any collateral security for the loans. The Company introduced (1996) the stipulation that the promoters should provide collateral security equal to 50 *per cent* of the loan amount. Since this stipulation was also not insisted, the Company had lost the benefit of collateral security and had to take RR action against the units and guarantors. Besides, in six cases the Company disbursed loans (Rs.13.89 crore) to units after obtaining personal guarantee of the promoters who had already guaranteed loans to other assisted units.

2.2.62 In the case of 15 units taken over by other financial institutions/ authorities, the amount due to the Company aggregated Rs.44.27 crore; the chances of recovery therefore appeared bleak. Further in the case of eleven units where the dues amounted to Rs.32.97 crore, the Company did not conduct valuation either due to inaction (seven units), or stay orders from the Court (four units).

Internal audit and internal control

2.2.63 The Company did not have an internal audit wing as part of its organisation. The internal audit work was entrusted to a firm of chartered accountants. The internal audit reports were being submitted quarterly/half-yearly as per the terms of appointment. It was observed in audit that:

- the internal audit was generally confined to scrutiny of accounting records including cash book and establishment payments. The system lapses in the sanction, disbursement, monitoring of recovery of loans and review of financial soundness of investments were not subject to scrutiny.

- there were many observations of repetitive nature indicating absence of corrective steps based on internal audit observations, and

- the reports were not placed before the Board/Executive Committee of the Company and there was no follow-up action on the reports given to the management.

2.2.64 According to paragraph 9A of the Non Banking Financial Companies Prudential Norms (Reserve Bank) Directions 1998, the Company had to constitute an audit committee, having the same powers and duties as laid down in section 292 A of the Companies Act 1956. The committee is required to:

- discuss with the auditors periodically about internal control and the scope of audit including observations of auditors;
- review half yearly and annual financial statements before submission to the Board;
- ensure compliance of internal control system ; and
- investigate into the aforesaid matters.

2.2.65 Though an effective audit committee was necessary to ensure quality of financial accounting and control as also to ensure close vigil on the working, the Company has not constituted an audit committee so far (September 2003), even though the directions to this effect was issued by the Reserve Bank of India as early as January 1998.

The above matters were reported to Government in July 2003. Their reply is awaited (September 2003).

Conclusion

The Company had been investing funds and providing financial assistance to industries in the State. Company's high interest bearing borrowed funds yielded very nominal return only since substantial investment was made in unviable units. Monitoring of implementation of projects of assisted units was not effective and injudicious investment decisions without ensuring viability, financial soundness, marketability of products, etc., resulted in losses. The Company had been providing loans to projects in excess of limits prescribed and loan assistance was being provided without proper appraisal, study of marketability of products and adequate security. There was huge default in repayment leading to heavy increase in non-performing assets and ultimate write-off as doubtful and loss assets. The recovery performance was also poor in the absence of proper follow-up and monitoring. One-time settlements were

being allowed in deviation from the existing procedure to ineligible units resulting in losses. Delay in taking coercive measures like take over of units and revenue recovery action, rendered the arrears irrecoverable.

Since the Company had been formed with the objective of development of industries in the State, it has to improve the quality of appraisal of projects before deciding to invest funds or provide loan assistance so that the assisted units perform well and contribute to overall economic development of the State. The assisted units have to be closely monitored through better follow-up and managerial control. The system of obtaining security for financial assistance has to be toned up to avoid very heavy losses arising from non-realisation of dues. Take over and disposal of unviable units and revenue recovery action has to be made purposeful rather than being a formality.