

21st Annual Report 2001-2002



नालको  **NALCO**

A Company of global repute in Aluminium Sector

VISION

**To be a company of
global repute
in Aluminium Sector**

MISSION

**To achieve growth in business with
global competitive edge providing
satisfaction to the customers,
employees, shareholders and
community at large.**

National Aluminium Company Limited

BOARD OF DIRECTORS

CHAIRMAN-CUM-MANAGING DIRECTOR

Shri C. Venkataramana (w.e.f. 19.04.2002 A.N)

Shri S. C. Tripathi (upto 19.04.2002 A.N)

DIRECTORS

Smt. Adarsh Misra

Dr. S. Behuria

Shri S. K. Banerjee

Shri G. Upadhyaya

Shri B. N. Jha

Shri G. P. Gupta

Shri P. Mohapatra

EXECUTIVE DIRECTORS

Dr. R. C. Mohanty

Maj. A. Chowdhury

Shri S. K. Misra

Shri N. K. Jain

Shri S. D. Chouharia

Shri K. K. Mallick

Shri C. R. Pradhan

Shri B. S. Singh Deo

COMPANY SECRETARY

Shri K. N. Ravindra

BANKERS

State Bank of India

REGISTERED & CORPORATE OFFICE

NALCO BHAWAN,

Plot No. - P/1, Nayapalli,

Bhubaneswar - 751 013 (Orissa)

Tel : 301988-99

Fax : 0674-300470/300580/300677/300740

Website : www.nalcoindia.com

STATUTORY AUDITORS

Tej Raj & Pal

Chartered Accountants

1, Kalpana Square

Bhubaneswar - 751 014.

COST AUDITORS

M/s. S. S. Sonthalia & Co.

Cost Accountants

20 No. HIG Duplex

Shailashree Vihar

Bhubaneswar

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The Year at a glance - 2001-2002

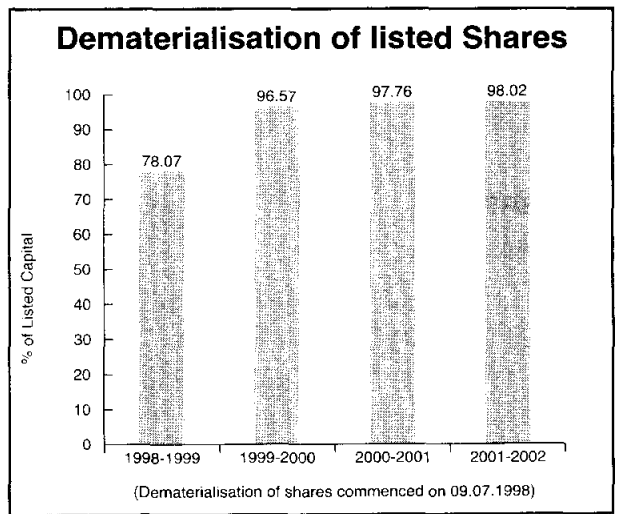
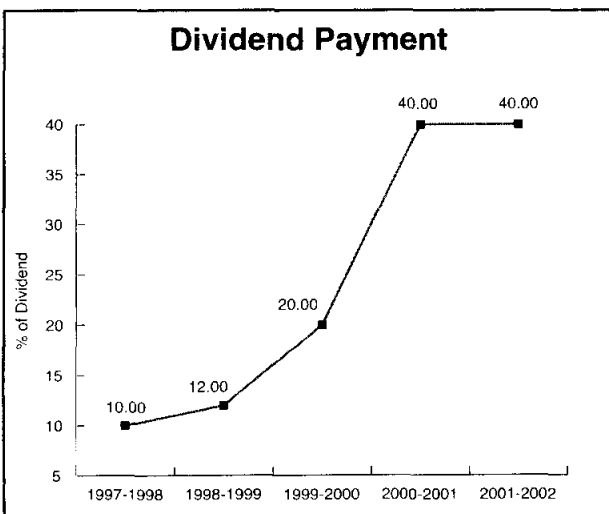
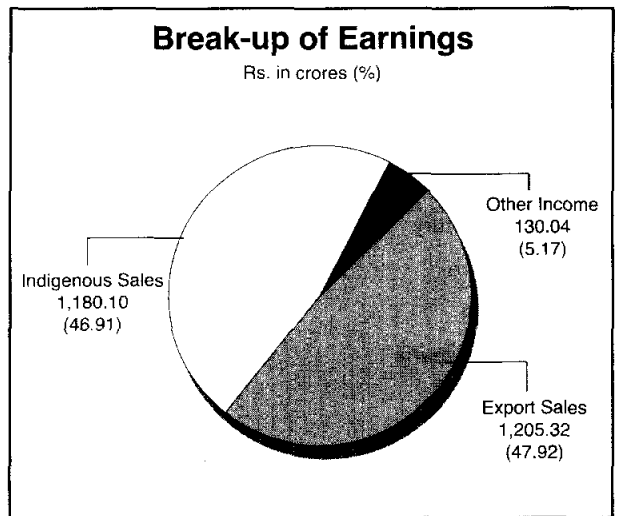
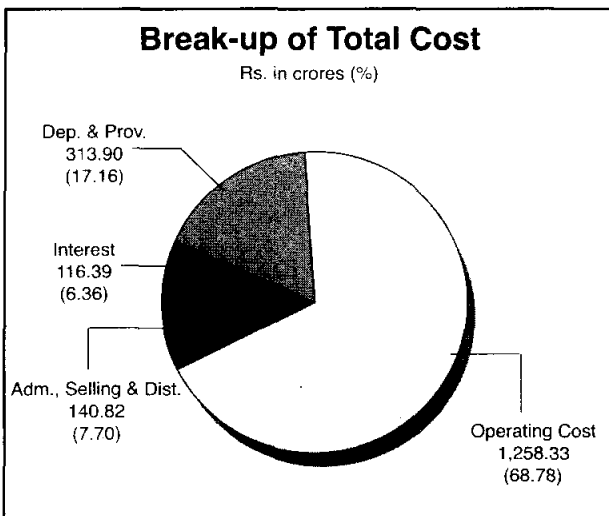
PHYSICAL

	Units	2001-2002	2000-2001
Bauxite mining	MT	35,22,059	28,34,189
Alumina production	MT	11,13,000	9,39,000
Aluminium production	MT	2,31,674	2,30,516
Power generation (net)	MU	3,970	3,833

FINANCIAL

	Units	2001-2002	2000-2001
Export Turnover	Rs. in Crore	1,220.71 *	1,314.20
Gross Sales	Rs. in Crore	2,400.81 *	2,408.60
Profit Before Tax	Rs. in Crore	525.61	843.37
Profit After Tax	Rs. in Crore	409.35	655.83
Earning Per Share	In Rs.	6.35	10.18
Book Value Per Share	In Rs.	50.06	55.44

* Inclusive of sale out of trial operation.



5 years performance at a glance - Physical

Sl. No.	Particulars	Units	2001-2002	2000-01	1999-2000	1998-99	1997-98
1.	Production :						
	Bauxite	MT	35,22,059	28,34,189	28,22,464	28,06,288	26,61,557
	Alumina	MT	11,13,000	9,39,000	8,86,000	8,94,500	8,83,300
	Aluminium	MT	2,31,674	2,30,516	2,12,663	1,46,206	2,00,162
	Power (net)	MU	3,970	3,833	3,985	3,588	3,902
2.	Export Sales :						
	Alumina	MT	6,70,120	4,95,723	4,79,620	6,10,940	4,79,801
	Aluminium	MT	1,06,282	1,18,868	95,185	39,865	55,475
3.	Domestic Sales :						
	Alumina/Hydrate	MT	6,297	4,124	8,027	6,151	5,119
	Aluminium	MT	1,23,095	1,14,082	1,20,171	98,573	1,40,660
	Power	MU	342	225	595	920	658

5 years performance at a glance - Financial

(Rs. in crore)

Sl. No.	Particulars	2001-2002	2000-01	1999-2000	1998-99	1997-98
A.	Income Statement :					
1.	Exports	1,205.32	1,314.20	1,031.64	632.17	679.48
2.	Domestic Sales	1,180.10	1,094.40	1,110.68	874.48	1,174.06
3.	Gross Sales (1+2)	2,385.42	2,408.60	2,142.32	1,506.65	1,853.54
4.	Less : Excise Duty	160.41	147.13	155.00	109.04	148.11
5.	Net Sales (3-4)	2,225.01	2,261.47	1,987.32	1,397.61	1,705.43
6.	Other Income :					
7.	Operating	108.21	126.09	93.62	82.20	10.24
8.	Non-operating	21.83	29.42	31.28	88.57	90.93
9.	Operating expenses	1,399.15	1,181.59	1,048.14	908.97	870.99
10.	Operating Profit (5+7-9)	934.07	1,205.97	1,032.80	570.84	844.68
11.	Interest & Financing charges	116.39	97.61	63.43	38.06	36.92
12.	Gross Margin (10+8-11)	839.51	1,137.78	1,000.65	621.35	898.69
13.	Depreciation and Amortisation	313.07	295.02	283.00	283.10	272.30
14.	Provisions	0.83	(0.61)	36.65	1.03	0.96
15.	Profit before Tax (PBT) (12-13-14)	525.61	843.37	681.00	337.22	625.43
16.	Provision for Tax	116.26	187.54	169.47	88.97	78.46
17.	Net Profit (PAT) (15-16)	409.35	655.83	511.53	248.25	546.97
B.	Balance Sheet :					
18.	Equity Capital	644.31	644.31	644.31	644.31	1,288.62
19.	Reserves & Surplus	2,580.93	2,928.06	2,556.19	2,191.17	2,088.50
20.	Networth (18+19)	3,225.24	3,572.37	3,200.50	2,835.48	3,377.12
21.	Loans Outstanding	1,563.45	801.53	663.54	643.58	594.10
22.	Net Fixed Assets	2,889.62	2,140.06	2,251.99	2,379.45	2,545.35
23.	Net Current Assets	419.25	199.04	517.99	635.01	1,192.65
24.	Capital Employed (22+23)	3,308.87	2,339.10	2,769.98	3,014.46	3,738.00
C.	Ratios :					
25.	Operating Profit Margin (OPM) (%) (10/5*100)	41.98	53.33	51.97	40.84	49.53
26.	Net Profit Margin (%) (17/5*100)	18.40	29.00	25.74	17.76	32.07
27.	Return on Capital Employed (ROCE) (%) (17/24*100)	12.37	28.04	18.47	8.24	14.63
28.	Return on Networth (RONW) (%) (17/20*100)	12.69	18.36	15.98	8.76	16.20
29.	Debt Equity (%) (21/20*100)	48.48	22.44	20.73	22.70	17.59
D.	Others :					
30.	Book value per share of Rs.10/- each (in Rs.)	50.06	55.44	49.67	44.01	26.21
31.	Earnings per share (in Rs.)	6.35	10.18	7.94	3.85	4.24
32.	Dividend declared (%)	40.00	40.00	20.00	12.00	10.00

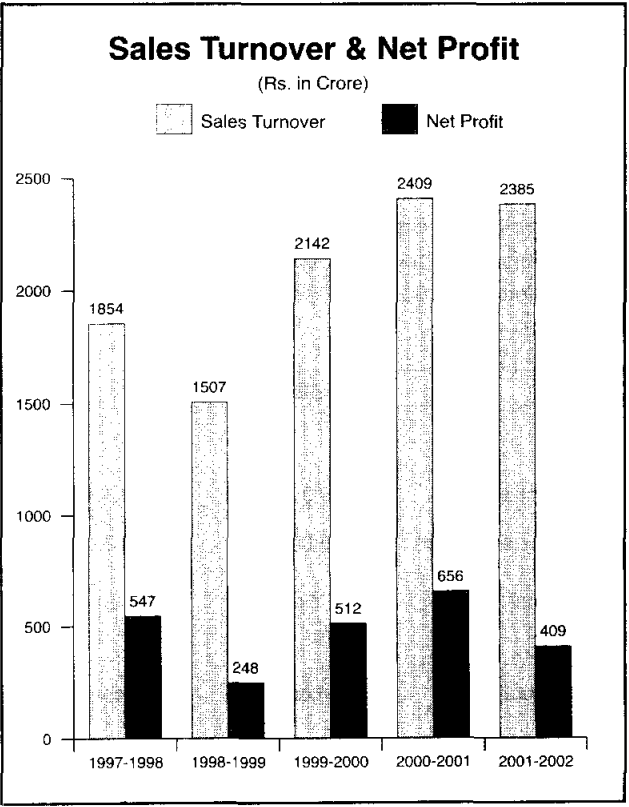
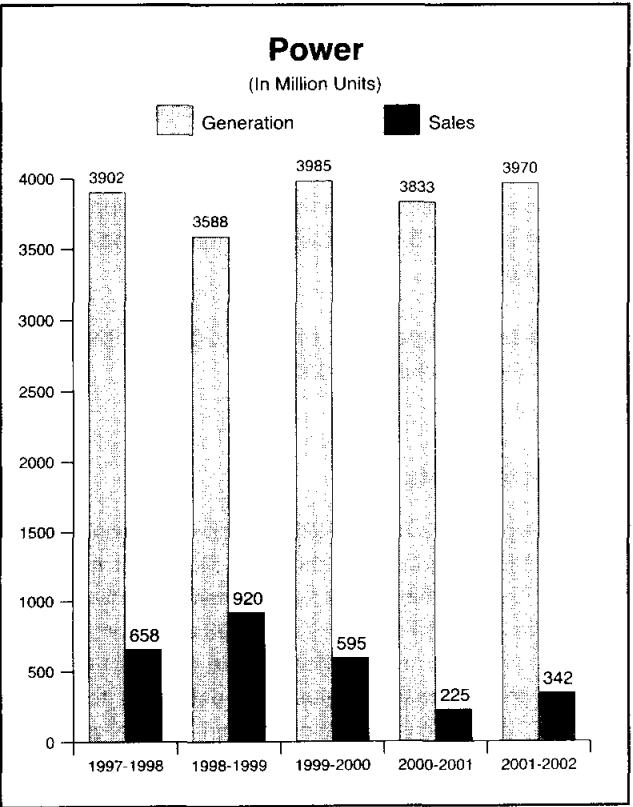
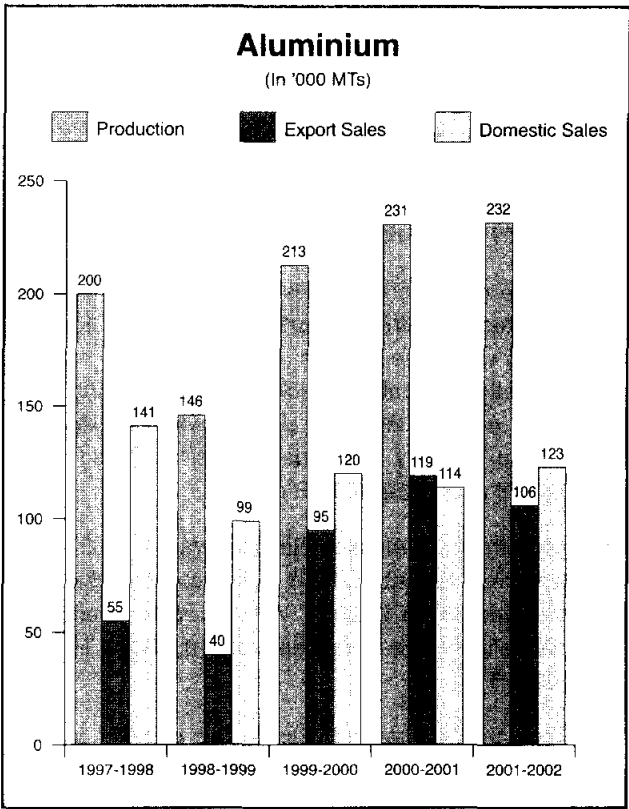
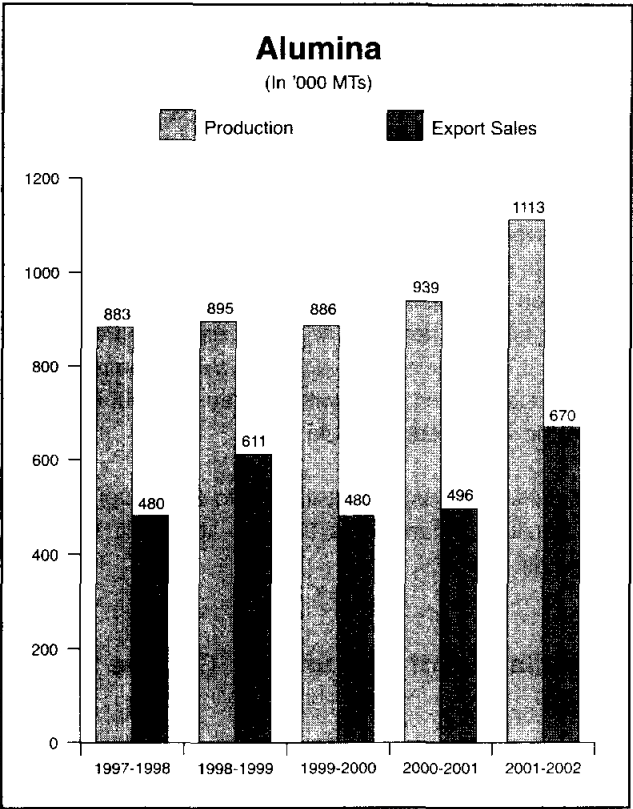
Note : Paid-up Equity Capital was reduced by 50% by conversion into Debentures at face value w.e.f. 26.03.1999.

Reconciliation of Published Quarterly (Unaudited) Financial Results and Annual (Audited) Financial Results for the Year 2001-2002

(Rs. in crore)

Sl. No.	Particulars	1st Quarter (Unaudited)	2nd Quarter (Unaudited)	3rd Quarter (Unaudited)	4th Quarter (Unaudited)	Total of four quarters	Variances	Full Year (Audited)
1	2	3	4	5	6	7	8	9
1.	Sales Turnover	591.99	527.34	593.10	673.24	2,385.67	(0.25)	2,385.42
2.	Other Income	33.92	34.27	35.87	41.20	145.26	5.96	151.22
3.	Total Expenditure	323.09	449.36	377.93	431.33	1,581.71	(0.97)	1,580.74
4.	Interest and Financing charges	24.34	26.33	30.54	32.06	113.27	3.12	116.39
5.	Depreciation & Provisions	74.66	77.43	80.49	78.09	310.67	3.23	313.90
6.	Profit before taxation (PBT)	203.82	8.49	140.01	172.96	525.28	0.33	525.61
7.	Provision for Taxation :							
	– Current Tax	49.22	3.05	30.59	38.18	121.04	1.84	122.88
	– Deferred Tax		(0.14)	(0.77)	(2.28)	(3.19)	(3.43)	(6.62)
	Sub total of 7	49.22	2.91	29.82	35.90	117.85	(1.59)	116.26
8.	Net Profit (PAT)	154.60	5.58	110.19	137.06	407.43	1.92	409.35
9.	Paid up Equity Share Capital	644.31	644.31	644.31	644.31	644.31		644.31
10.	Reserves excluding Revaluation Reserves					2,928.06 *		2,580.93
11.	Basic and diluted Earnings per share (Rs.) (Not annualised)	2.40	0.09	1.71	2.13	6.32		6.35
12.	Book value per share					55.44 *		50.06
13.	Aggregate of non-promoter shareholding :							
	Number of shares					8,28,09,993		8,28,09,993
	Percentage of shareholding					12.85		12.85

Note : *Subject to adjustment of dividend and tax thereon for 2001-2002



Expansion Programmes

EXPANSION OF M&R COMPLEX

The expansion of Bauxite Mines from 24,00,000 TPY to 48,00,000 TPY was completed on 29.12.1999.

The bauxite charging to the first debottlenecked stream was achieved on 26th May, 2000 and the same for the 2nd stream was done on 27th June, 2000. This marked the completion of Debottlenecking of the existing two streams of Alumina Refinery. Under Debottlenecking of the Alumina Refinery, the capacity has increased from 8,00,000 TPY to 10,50,000 TPY.

The third stream of Alumina Refinery was mechanically completed in September, 2001 and the commissioning was achieved on 15.12.2001. With this the capacity of Alumina Refinery has increased from 10,50,000 TPY to 15,75,000 TPY.

The Company has started reaping the benefits of this expansion. The expanded Alumina Refinery was dedicated to the Nation by the then Hon'ble Minister of Coal and Mines, Shri Ram Vilas Paswan on 18th April, 2002.

It is heartening to know that the Company has managed to fund the total expenditure of about Rs.1289.91 crore for this expansion proposal from internal resource only. It is expected that there will be a saving of about Rs. 250 crore in this expansion proposal from the approved cost of Rs.1665 crore after settlement of all account.

EXPANSION OF S&P COMPLEX

The approval for expansion of Aluminium Smelter and CPP at Angul has been conveyed by Government of India vide its letter dtd.03.02.98. The salient features of the expansion are :

	Smelter	CPP
Capacity		
– Existing	2,30,000 TPY	6 X120 MW
– After expansion	3,45,000 TPY	7 X120 MW
Project cost	Rs.1641.98 crore	Rs.420.00 crore
Project Duration	51 months	51 months
Project Completion	May, 2002	May, 2002

Smelter Expansion

The commissioning of Pots have started at site and 10 Pots have been commissioned by 31.08.2002. It is expected that the mechanical completion of the project will be achieved by December, 2002 with a delay of about 7 months from the approved schedule. Based on the present trends, it is expected that 120 Pots will be commissioned by February/March, 2003 with a delay of about 6 months from the approved schedule.

The present physical progress up to 20th August, 2002 for Smelter Expansion is 94.50% against a schedule progress of 100%.

Installation of 7th unit of Captive Power Plant

All the major packages/tenders have been awarded and the construction activities at site are in full swing.

There has been a delay of about 7 months in the ordering of the Main Power House package as one of the unsuccessful bidder went to the Orissa High Court. Considering a delivery period of 30 months the contractual completion of the 7th Unit is 14.07.2002, a delay of two months from the Government approved schedule.

However, the present progress indicates that the project is now going to be completed by September, 2002.

The main reasons of delay is the delay in supply of the equipment by M/s BHEL and some of the civil and structural contractors.

The present progress as of 20.08.2002 is 93.30% as against the schedule of 100%.

Financial Status

A total expenditure of Rs. 1433.64 crore has been incurred for S&P Expansion till 31.08.2002. Most of it has been funded through internal resource generation only. Further, out of the approved cost of Rs. 2061.98 crore commitments for Rs.1778.93 crore has been made as on 31.08.2002. Based on the present status, it is estimated that there will not be any cost variation except for the variations due to foreign exchange and other statutory levies.

Other Areas

The work in Township expansion and Rail Transport System are also progressing satisfactorily and it is expected that the same will be completed along with the Smelter and Power.

Installation of 8th unit of Captive Power Plant

The approval for installation of 8th unit of CPP at Angul was conveyed by Government of India vide its letter dated 14.02.2001 with an implementation schedule of 36 months. The schedule date of commissioning is 14.02.2004.

M/s. Dasturco are the consultant for this project also.

The order for Main Power House package has been placed on M/s. BHEL on repeat order basis with the same price. The time period for this package is 26 months.

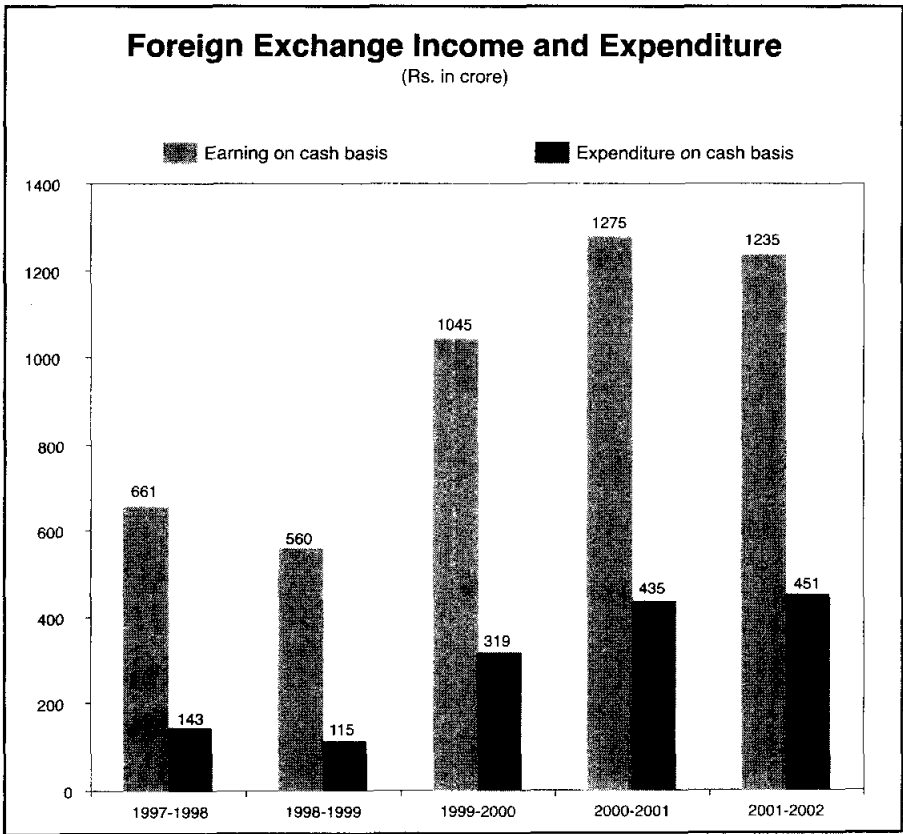
The order for Civil and Structural Works have also been placed and the site work is under progress. The ordering activities for other tenders/equipments are under way.

The approved capital cost for this project is Rs.480.00 crore. Against the same, a commitment of Rs. 287.08 crore and expenditure of Rs. 109.13 crore has been made till 31.08.2002.

JRP WITH MISA FOR ROMELT TECHNOLOGY

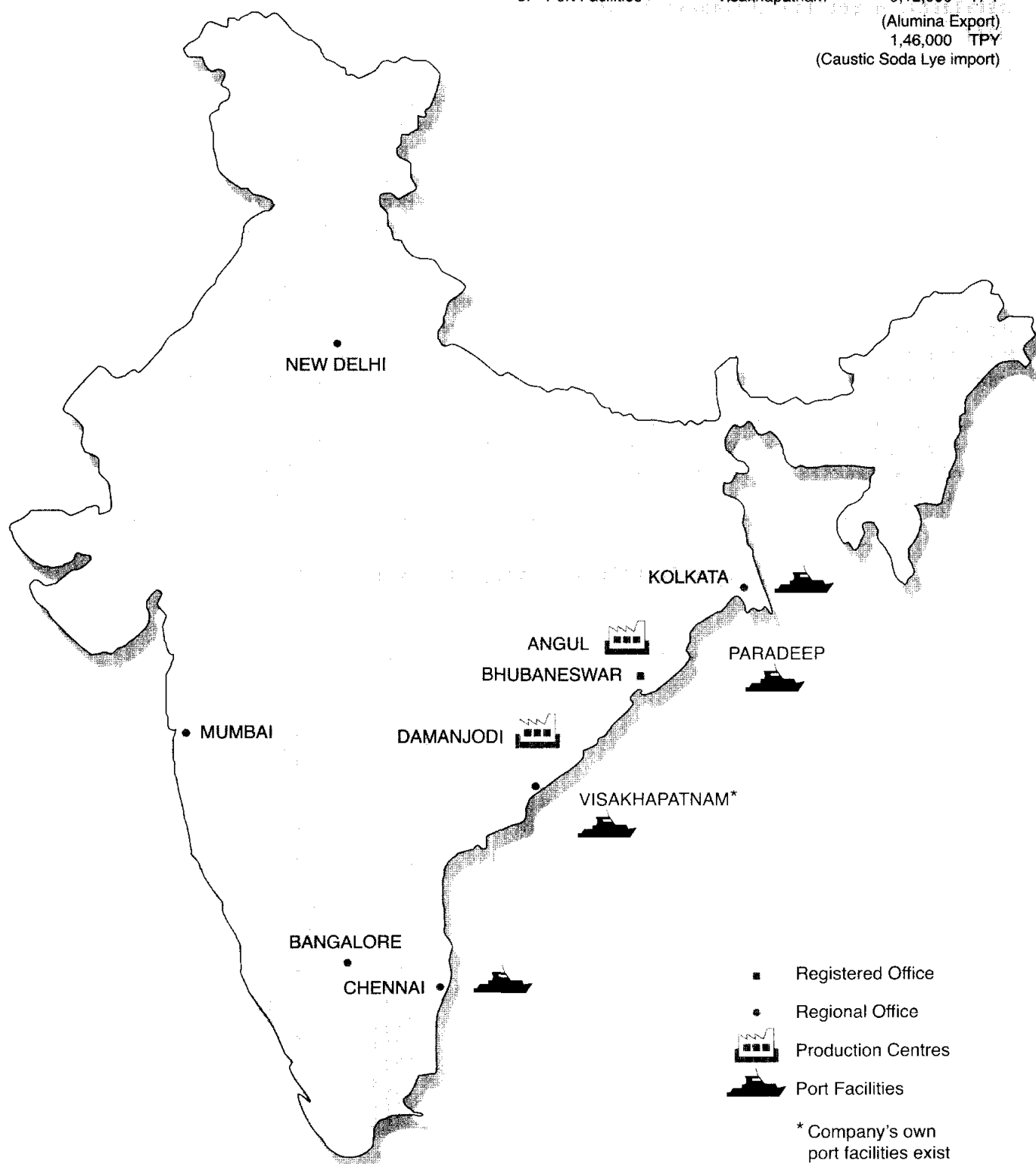
Moscow Institute of Steel and Alloys (MISA), Russia has developed & mastered a new Smelting Reduction Process for making liquid hot metal in association with Novolipetsk Iron & Steel Works (NLSW), Russia. The process is marketed under the name Romelt. From the special features of Romelt Process it is observed that the process has the potential to eliminate the disposal problem associated with Red Mud, boost Company's financial performance and being first in the world can help in earning revenue through technology supply route. In view of these features, an aggrement was signed between NALCO, Moscow Institute of Steel and Alloys (MISA), Russia and Romelt SAIL India Limited (RSIL), New Delhi on 17th May, 2001 for undertaking a Joint Research Project (JRP) to establish suitability of the Romelt Process & to develop optimum technological indices for extraction of Iron from NALCO's Red Mud and preparation of Techno-Economic Feasibility Report (TEFR) for setting up of an optimal size commercial plant at a cost of Rs.123.66 lakhs which includes fees to MISA & RSIL, travel expenses and taxes/duties.

The Project is on schedule from the effective date of September, 2001. The TEFR, being on schedule, is expected to be submitted by MISA in March, 2003.



**NALCO'S VARIOUS PRODUCTION UNITS, THEIR
LOCATION & INSTALLED CAPACITIES**

1. Bauxite Mines	Panchpatmali	48,00,000	TPY
2. Alumina Refinery	Damanjodi	15,75,000	TPY
3. Smelter Plant	Angul	2,30,000	TPY
4. Captive Power Plant	Angul	720	MW
5. Port Facilities	Visakhapatnam	9,12,000	TPY
		(Alumina Export)	
		1,46,000	TPY
		(Caustic Soda Lye import)	



Directors' Report

To

The Members,

Your Directors take pleasure in presenting the 21st Annual Report of your Company together with the Audited Accounts for the year ended the 31st March, 2002.

Performance Highlights

Your Company has come out with excellent production results during the year ended March 31, 2002. New records have been achieved on almost all key areas.

Mines

Annual bauxite excavation at 35,23,182 MT & transportation at 35,22,059 MT have been the highest since inception exceeding the previous best of 29,01,152 MT and 28,34,189 MT respectively achieved during the year 2000-2001. Highest ever annual drilling of 48,585.5 meters surpassed the decade old record of 41,716 meters achieved during 1989-90.

On productivity parameter the annual overall Output per Man Shift (OMS) of 33.39 MT was achieved against previous best of 28.3 MT achieved during 1999-00. For the 4th year in succession, Mines achieved Zero Accident operation.

Alumina Refinery

De-bottlenecking project along with the phased commissioning of a third production line (3rd Stream) has resulted in an all time high production of 11,14,000 MT hydrate and 11,13,000 MT Calcined Alumina. Production of Special Grade Alumina of 386 MT also exceeded the previous best of 124.10 MT achieved in 1999-2000. Special grade hydrate production from R&D pilot plant has been 452 MT. All parameters of Alumina quality have met the international norms.

Similarly, the co-generation of power from the Steam Generation Plant of Alumina Refinery has been the highest ever since inception at 294.958 MU exceeding previous record of 268.95 MU achieved in 1998-99.

Smelter Plant

There was steady progress in both production & productivity norms. For the 2nd year in succession, the Smelter plant achieved the annual target of metal production and exceeded the rated capacity with 2,35,110 MT of hot metal produced. The cast metal production of 2,31,674 MT has exceeded the previous high of 2,30,516 MT achieved in 2000-01. A total shipment of 2,31,323 MT of metal during the year has exceeded the previous record of 2,29,505 MT achieved in 2000-01.

Annual average operation of 479 nos. of pots out of total installed capacity of 480 pots is a significant record. The average pot productivity during the year has improved from 1.33 MT/pot/day to 1.345 MT pot/day. Current efficiency also improved by 1% over previous year. The average metal purity for the year has been 99.71%.

Captive Power Plant

Your Company's 720 MW Power Plant at Angul generated 4,419 MU of gross power & 3,970 MU of net power compared to 4,283 MU & 3,833 MU of previous year. The annual generation was less than target mainly due to restriction on coal supply and higher state grid frequency.

The specific consumption of coal has been reduced during the year from 0.783 Kg/Kwh to 0.778 Kg/Kwh and specific oil consumption reduced to 0.671 ml/Kwh from 0.797 ml/Kwh. The consumption of auxiliary power of 9.678% achieved during the year is the lowest since inception.

Marketing

Your Company achieved the highest ever Alumina exports of 6,70,120 MT during the year against previous best of 6,10,940 MT achieved in 1998-99. Around 10,442 MT of Calcined Alumina, hydrate & special hydrate/Alumina were sold in domestic market during the year. The sale of Zeolite-A commenced on 18.02.2002. The export earning of Rs.496.35 crore for Alumina is an all time high.

Inspite of poor demand for Aluminium metal in both the international and domestic markets, 2,29,377 MT of metal was sold and with 3,508 MT consumed in-house for project works, the year end metal inventory was reduced to around 3,010 MT.

Domestic Aluminium sale from stockyards was resumed after a gap of 3 years. Containerized Aluminium exports was restarted in February, 2002 from Paradip Port after a gap of nearly 10 years.

Finance

Despite improved production in all fronts as compared to previous financial year, net profit after tax for the year decreased from Rs.655.83 crore to Rs.409.35 crore. The summarized financial results as compared to previous year is furnished below :

	For the year ended 31.03.2002	For the year ended 31.03.2001
	(Rs.in crore)	(Rs.in crore)
1. Total Income		
Sales	2385.42	2408.60
Other Income	151.22	159.98
Total	<u>2536.64</u>	<u>2568.58</u>
2. Profit Before Interest, Depreciation & Taxes (PBITD)	955.90	1235.39
3. Less : Interest, Depreciation/ Provision	116.39 313.90	97.61 294.41
4. Profit Before Tax (PBT)	525.61	843.37
5. Provision for Tax		
– Current	122.88	187.54
– Deferred	(-) 6.62	—

	For the year ended 31.03.2002	For the year ended 31.03.2001
	(Rs.in crore)	(Rs.in crore)
6. Profit after Tax (PAT)	409.35	655.83
7. Appropriation		
General Reserve	41.00	375.00
Debenture Redemption Reserve	110.00	—
Proposed Dividend	257.73	257.73
Tax on dividend	—	26.28
	408.73	659.01

The reduction in profits was mainly due to lower LME price. Average LME during the year remained at a level of 1395 \$ per tonne as compared to average rate of 1533 \$ in the previous year, thereby reducing profit margin by 138 \$ per tonne. The low LME rate forced export of Calcined Alumina at an average of 160 \$ per tonne against last year's average of 202 \$ per tonne. Thus, on account of downward price, your Company suffered a net revenue loss of Rs.160 crore from export only. The profit was further reduced due to spiraling price increase of all major raw materials which increased the cost of production by Rs.70 crore.

Another contributing factor was 10 year tripartite wage revision agreement with the unions implemented retrospectively w.e.f 1st January, 1997. As a result, the Company had to bear arrear payment of Rs.106.49 crore, during the year.

Pre-payment of loans and Fresh borrowings

On amalgamation of IAPL with NALCO, foreign currency loan of US \$ 33.831 million taken from EFIBANCA, Italy by erstwhile IAPL was taken over by NALCO. Since rupee is gradually depreciating against US \$, your Company decided to prepay the above foreign currency loan on 30.04.2002 by substituting with a rupee loan viz. redeemable taxable bonds of Rs.140 crore at 8.60% per annum in March, 2002.

During the year, your Company has incurred a total capital expenditure of Rs.1054 crore substantially on account of expansion project. It also includes Rs.28 crore towards addition/modification and replacement on the existing operating plant.

In order to meet the project expenditure of S&P expansion, your Company borrowed Rs.300 crore by issuing secured and redeemable bonds at an interest rate of 8.60% per annum in two phases. Also, in order to meet the working capital requirement, your Company had issued commercial papers and has availed Export Packing Credit (EPC) from SBI as and when required. The balance on account of commercial paper and EPC as of 31.03.2002 were Rs.196.37 crore and Rs.137.87 crore respectively.

Merger of Accounts

Consequent upon amalgamation of 100% subsidiary Company namely M/s. International Aluminium Products Limited (IAPL) with NALCO, vide Government of India's Gazette notification No. 817 dated 9th November, 2001, retrospectively from 01.04.2000, the audited Balance Sheets

of the two Companies as on 31.03.2000 were pooled into a common account in terms of clause 4(2) of above notification. Since accounts of both the Companies for the year 2000-01 were audited and adopted in the Annual General Meetings of the respective Companies, no further audit of the amalgamated accounts for the year 2000-01 was carried out.

Dividend

Your Directors are pleased to recommend a dividend rate of 40% for the year 2001-2002 on the paid up equity capital of Rs.644.31 crore. Proposed dividend is subject to the approval of Central Government under Section 205(1) (c) of the Companies Act, 1956. It is proposed to transfer Rs. 41 crore to General Reserve Account.

Human Resources

The manpower strength of your Company as on 31.03.2002 stands thus:

	As on 31.03.2002	As on 31.03.2001
Executives	1,534	1,539
Supervisors	773	781
Skilled/Highly skilled	3,147	3,064
Unskilled/Semiskilled	1,190	1,131
Total	6,644	6,515

Training and Development

Continuous efforts are made to improve the efficiency and enhance the effectiveness of your Company through training and development of its employees.

The training statistics for the period 2001-2002 is given below :

	No. of employees covered	Mandays
Training In-house	4,540	8,429
Training External(within India)	675	2,171
Training Abroad	79	561
Total	5,294	11,161

Large number of training programmes were conducted in-house in operation and maintenance of plants and equipments. Employees were nominated to attend project related contractual training in India and abroad. Training programmes were also organized in the areas of Quality Management, Environment, Safety, R&D, Vigilance, Finance, Materials Management etc. Your Company also organized training on Safety and Basic First Aid for contract workers.

Several programmes were also conducted in the field of Behavioral Science including training workshops on Transactional Analysis for Improving Effectiveness, Human Process Labs, Emotional Intelligence, Transformational Leadership, Team Building etc.

Presidential Directives

In line with Presidential Directives, measures to improve the representation of the SC/ST communities in employment

of your Company continued. Your Company is also complying with the provisions of Persons with Disability Act, 1995.

As on 31.03.2002 out of 6,644 employees on Company's rolls including the trainees there were 1116 SC, 1197 ST, 510 OBC and 55 Physically Handicapped persons. The total number of lady employees in the organization is 260. Thus, 16.80% of the employees are SC, 18.01% are ST, 7.68% are OBC and 0.82% are physically handicapped. Every third employee of your Company belongs either to SC or ST categories.

Industrial Relations Scenario

In spite of sporadic growth in number of Trade Unions with acute inter and intra-union rivalry, the proactive efforts were continued by the Management to maintain a harmonious atmosphere in the Company. Consequent upon entering into a settlement with the unions on 5th September, 2001 at New Delhi, the revised pay scales, perquisites and benefits of non-executive employees have been implemented with effect from 01.01.1997. The revision is effective for a period of 10 years. The additional financial liability on account of this revision amounts to Rs. 151.90 crore. Upon signing of this wage settlement, there has been remarkable change in the attitude of the unions for the better.

Efforts have been initiated to recognise one Union from each Unit/Office with the help sought from both Central and State Labour Authorities. Ensuring discipline through the measures like gate control, reduction of over time ratio, financial austerity etc. have yielded good results.

However, the apprehensions relating to the proposed privatisation of the Company have gripped the mind of the employees, contract labourers as well as the local public. This has raised the pressure for immediate fulfillment of demands which includes employment opportunity for the local people, social security and also some immediate fiscal benefits for the employees. Continuous interactions and persuasions are being made to contain these developments.

Social Responsiveness

Your Company continued its social sector activities in right earnest with funds provided for development projects in the villages surrounding its plants and facilities.

A new rehabilitation colony is being set up at Damanjodi to provide better quality of life to 75 tribal families affected by the project. Your Company has extended its medical services to local tribal areas of Damanjodi sector by opening a new health center and by providing a mobile health unit to the district authorities.

Your Company provided relief assistance to the flood affected people in Angul district and has placed Rs.49.5 lakhs with Collector, Angul to carry out repair and renovation of schools damaged by a hail storm.

Your Company has also undertaken two public park projects at Bhubaneswar and Puri at an estimated cost of Rs.130 lakhs. The façade lighting of the 11th century Lingaraj Temple at Bhubaneswar funded by your Company has generated a lot of public good will.

Construction of 144 Primary Schools entrusted to the Company by the Government of Orissa and PMO has

been almost completed and work taken up on 53 more such schools assigned to the Company.

Following the year of women's empowerment, your Company felicitated 3 woman activists of the state on the occasion of Company's Foundation Day, each given a shawl, a citation and Rs.15,000/-.

NALCO Foundation Day Lecture

On the eve of the 22nd foundation day of the Company, your Company started a lecture series in which eminent scientists, laureates, artistes, social activists of international fame would be invited to share their visions and missions. Paving the way, for this new plan, was none other than Bharat Ratna Dr. A.P.J. Abdul Kalam, now the President of India. This new programme of the Company has generated a great deal of public interest and appreciation and has helped to enhance the image of your Company.

Visit by Parliamentary Committee

During the year the following Committees of the Parliament & State Legislature visited your Company :

- Parliamentary Standing Committee on Labour & Welfare visited from 15.06.2002 to 27.06.2002.
- Parliamentary Committee on Official Language visited on 27.06.2002.
- A House Committee on Environment of Orissa Legislative Assembly made a two-day visit to Smelter & Power Complex, Angul on June 19th & 20th 2001.

Visit by Hon'ble Minister of Coal and Mines

During the year Shri Ram Vilas Paswan, the then Hon'ble Minister for Coal and Mines visited your M&R Complex, Damanjodi between 18th & 19th April, 2002 for dedication of Alumina Refinery expansion to the Nation. The Hon'ble Minister also visited your S&P Complex, Angul between 25th & 26th April, 2002.

Awards & Recognitions

Your Company has bagged the following awards during the year :

- The highest export award of Chemical & Allied Products Export Promotion Council (CAPEXIL), in the mineral and ore sector, for the year 2000-01. The Company has bagged this prestigious award for a record 14th time in succession.
- The Best Exporter of Orissa Award for the year 2000-2001 for 3rd time in succession along with Certificate of Excellence, instituted by the Directorate of Export Promotion & Marketing, Government of Orissa, for its outstanding exports of metallurgical products.
- The top export award of Engineering Export Promotion Council (EEPC), for the 3rd time in succession.
- The prestigious Rajbhasha shield (2nd prize) by Ministry of Mines, Government of India for achieving the target of using Hindi in important official communications during 1999-2000.

Shri M. M. Seth, ex-General Manager (R&D) and Dr. C. R. Mishra, Chief Manager (R&D) of your Company have won the CSIR Technology Prize for "Development of Process Technology for manufacturing Detergent Grade Zeolite-A."

Expansion of Bauxite Mines & Alumina Refinery

As already informed the expansion of Bauxite Mines was completed on 29.12.1999. Similarly the bauxite charging to the first debottlenecked stream was achieved on 26th May, 2000 and the same for the 2nd stream was done on 27th June, 2000.

Your Directors are happy to inform you that the implementation of third Stream of Alumina Refinery was mechanically completed in September, 2001 and the commissioning was achieved on 15.12.2001.

The expanded Alumina Refinery was dedicated to the Nation by the then Hon'ble Minister of Coal and Mines on 18th April, 2002. Your Company has also started reaping the benefits of this expansion.

It is heartening to know that your Company has managed to fund the total expenditure of about Rs.1298.91 crore for this expansion from internal resource only. It is expected that there will be a saving of about Rs. 250 crore in this expansion from the approved cost of Rs. 1665 crore after settlement of all accounts.

Expansion of Aluminium Smelter & CPP

The approval for expansion of Aluminium Smelter and CPP at Angul has been conveyed vide letter dtd.03.02.98. The salient features of the expansion are:

		Smelter	CPP
Capacity	- Existing	2,30,000 TPY	6 x 120 MW
	- After expansion	3,45,000 TPY	7 x 120 MW
Project cost		Rs.1641.98 crore	Rs.420.00 crore
Project duration		51 months	51 months

SMELTER

The commissioning of Pots have started at site and 10 Pots have been commissioned by 31.08.2002. It is expected that the mechanical completion of the project will be achieved by December, 2002 with a delay of about 7 months from the approved schedule. Based on the present trends, it is expected that 120 Pots will be commissioned by February/March, 2003 with a delay of about 6 months from the approved schedule.

CAPTIVE POWER PLANT

All the major contracts have been awarded and the construction activities are in full swing. From the present level progress on the 7th unit, it is expected that the project will be completed by September, 2002.

8th unit of CPP

The approval for installation of 8th unit of CPP at Angul was conveyed by Government of India vide its letter dated 14.02.2001 with an implementation schedule of 36 months. The schedule date of commissioning is 14.02.2004. However, efforts are being made to commission the same by September, 2003.

The approved capital cost for this project is Rs.480.00 crore. Against the same, a commitment of Rs.287.08

crore and an expenditure of Rs.109.13 crore has been made till 31.08.2002.

Other Areas

The work in Township expansion and Rail Transport System are also progressing satisfactorily and it is expected that the same will be completed along with the Smelter and Power Plants/expansions.

Financial status

A total expenditure of Rs. 1433.64 crore has been incurred for S&P expansion till 31.08.2002. Most of it has been funded through internal resource generation. Further, out of the approved cost of Rs.2061.98 crore, commitments for Rs.1778.93 crore has been made as on 31.08.2002. Based on the present status, it is estimated that there will not be any cost escalation over the Government approved cost.

Phase-II Expansion of M&R and S&P Complexes

You will be happy to note that the Board of Directors of your Company has approved phase-II expansion of Mines & Refinery and Smelter & Power Plant at a cost of Rs. 3835 crore as detailed below :

	After 1st phase expansion	After 2nd phase expansion
Bauxite Mines	48.00 lakh tonnes	63.00 lakh tonnes
Alumina Refinery	15.75 lakh tonnes	21.00 lakh tonnes
Aluminium Smelter	3.45 lakh tonnes	4.60 lakh tonnes
Captive Power Plant	8 x 120 MW	10 x 120 MW

The phase-II expansion is proposed to be completed within 45 months from the date of approval of Government of India.

New Projects

Rolled Products Unit

As you are aware, the International Aluminium Products Limited (IAPL) which was earlier acquired through purchase of shares has since been amalgamated with your Company w.e.f 09.11.2001. The Project cost was assessed by M/s. A. F. Ferguson & Co. at Rs.281.64 crore considering the cost of equipments/facilities ordered/installed and yet to be committed till June 1999. Consequent upon amalgamation of IAPL with your Company, the same is now called as Rolled Products Unit.

Government of India based on the recommendations of the PIB has approved the revised cost of the project as Rs. 330.81 crore vide letter dated 28.03.2002.

Your Directors are happy to inform you that the Cold Rolling Mill portion of this project has been commissioned on 31.03.2002. The Casters and associated facilities are expected to be commissioned by December, 2002.

You will be happy to know that your Company has prepaid outstanding US\$ 27.861 million on 30.04.2002 out of the loan taken from M/s. EFIBANCA by IAPL amounting to US\$ 33.831 million thereby avoiding future impact of adverse exchange rate variations.

MOU Performance

Your Company's performance was rated "Excellent" in the evaluation of the Memorandum of Understanding signed with the Govt. of India for the year 2001-2002. A target of

production of 15.60 lakhs MT of Alumina and 2.37 lakhs MT of Aluminium has been set in the MOU signed with the Govt. for the year 2002-2003.

Corporate Planning

As envisaged in Corporate Plan 1995-2005, most of the goals/strategies related to production & expansion have been implemented. The strategies concerning Marketing, HRD, Finance, Materials etc. as planned are being implemented on continuing basis through appropriate monitoring & review.

Based on anticipated changes in business environment and performance of the Company, Corporate Plan for next five years and Vision document for next 10 years have been prepared and are under active consideration. As per new plans, advance actions have been initiated for putting up 4th stream of Alumina Refinery of 5.25 lakh TPY capacity and 4th potline of 1.15 lakh TPY capacity alongwith corresponding requirements for power.

Computerisation Activities

Your Company has successfully implemented the following during the year under report :

New Services

- Computerised Maintenance Management System a module of RAMCO e-Applications, implemented at Refinery.
- Lotus Notes E-mail services commissioned at Smelter and Captive Power Plants.

Network-Facilities

- Implementation of Plant wide Local Area Network (LAN) using Gigabit Ethernet Technology at Alumina Refinery was ordered on M/s. CMC Limited, Visakhapatnam.
- 64 kbps Leased data circuits commissioned between Corporate Office, Bhubaneswar, Smelter Plant, Angul, Captive Power Plant, Angul and Alumina Refinery, Damanjodi using dedicated circuits provided by BSNL.

New Technology Absorption

- Automated Backup system HP Omniback III, to back up data from all servers on a digital tape library was implemented at Corporate Office.
- Thin Client devices with Citrix Metaframe software installed at Corporate Office, Smelter and Alumina Refinery to provide leaner resources for transaction processing in client server environment.
- For Internet security, Intrusion Detection Systems e-Trust of M/s.Computer Associates installed and commissioned at Corporate Office to provide internet access control.

Revival/Re-design of existing packages

- Computerised Attendance recording system implemented at Corporate Office, Smelter, Captive Power Plant, Mines & Refinery and Port Facilities.
- NALCO internet website redesigned with rich content and dynamic facilities on Production, MIS, employee information and helpdesk.
- Many applications in the areas of Finance, Marketing,

Sales and Purchase were re-engineered for improved functionalities.

Capacity Augmentation

- RAM and Hard Disk capacity enhancement on Data, Mail and Proxy servers at Corporate Office.
- Internet Bandwidth at Corporate Office, Bhubaneswar was enhanced to 512 kbps on dedicated leased line from M/s.STPI.

Quality Movement

Quality Movement initiatives were pursued with vigour. While the Mines and Captive Power Plant were recertified to ISO 9002 for a further period of three years, Alumina Refinery and Smelter have successfully undergone surveillance audits. Efforts for upgrading the quality system to meet the requirements of Year 2000 version of ISO 9001 are in progress. Thrust on continual improvement in many areas including equipment maintenance, data based analysis, systematic corrective actions to prevent recurrence of failures and Stores management continued during the year.

Training and Development in the field of total quality was continued during the year. While the main thrust is on Training programmes related to ISO 9002, programmes focussing on project by project approach to improvement, Statistical Problem Solving, Facilitation skills and other related topics also continued during the year.

Quality Circle movement has been receiving due attention of the management. Quality Circles have solved several important problems in the work areas and have regularly won laurels at national and international competitions. Four Quality Circles "Hill King", "Black Diamond", "Active" and "Dynamic" were selected at the national competition and participated in the International Convention of QC Circles in Taipei, Taiwan during October, 2001. Quality Circle "Aluminium" of Smelter Plant was adjudged as the best Quality Circle in Support Service category and Quality Circle "Digvijay" of Smelter Plant was awarded one of the two prizes for distinguished performance in the Visual Presentation category at National Convention of Quality Circles (NCQC 2001) conducted by QCFI at Hyderabad.

The all Orissa Quality Circle Convention was organised by NALCO for sixth consecutive year in April 2001. This is the first and possibly the only state level programme of its kind and has significantly contributed to spreading the QC movement in the state.

Environmental Management

During the year under review, the performance of the Company with respect to pollution control and environmental management has been satisfactory and encouraging.

All the units of the Company are meeting the stipulated norms for air and water prescribed by Orissa State Pollution Control Board (OSPCB). The consent orders under Air (PC&P) Act, 1981 and Water (PC&P) Act, 1974 have been obtained for all units except Angul township. Authorisations under Hazardous Waste (Mgt. & Handling) Rules, 2000 have been received for all units. NOC from OSPCB has been obtained for Special Grade Alumina Pilot Plant at Alumina Refinery.

All the four operating units i.e. Mines, Refinery, CPP and Smelter have ISO-14001 environment management system certificate. Process has been initiated for implementation of ISO-14001 at Port Facilities, Vizag. The surveillance audits for EMS at Mines, Refinery & CPP has been conducted successfully.

Rajbhasha

During the year under report efforts were made at different units and offices of the Company for encouraging use of Hindi in day-to-day official work. Hindi workshops were organised at different units and branch offices. At Corporate Office, Hindi workshop was organised for the newly appointed Graduate Engineer Trainees.

A team headed by Deputy Director (OL) of Ministry of Coal & Mines has inspected the Corporate Office on 5th & 6th September, 2001 and the Angul unit on 7th September, 2001 and expressed satisfaction with the status of Official Language implementation.

The third Sub-Committee of Parliament on Official Language headed by the Hon'ble Deputy Chairman, Dr. Y Laxmiparsad inspected the Vizag Office of the Company on 6th September, 2001.

Hindi fortnight and Hindi Day on 14th September, 2001 were observed in all the units and offices of the Company with a number of programmes. Hindi competitions were organised among the employees. On this occasion special issue of Hindi Magazine 'Akshar' was published from Corporate Office.

Hindi monthly 'Parichaya' from Corporate Office, 'Bhavana' from Angul, 'Teen Suman' from Damanjodi and 'Panchpatmali Samachar' from Mines were published regularly.

Under the guidance of Deputy Director (Implementation), Department of Official Language, Kolkata and under the Chairmanship of Executive Director, S&P Complex of your Company, the Angul Town Official Language Implementation Committee meetings were organised regularly.

Vigilance

As a management function Vigilance Department operates at all major units of the Company under Chief Vigilance Officer placed at Corporate Office. While prevention and detection of corruption are the primary function of the Vigilance Department, stress is given for preventive vigilance with a view to aid and assist the management in improving systems, procedures, so as to ensure transparency in decision making. A number of Surprise Checks, Regular Inspections and System Studies were conducted during the year and feed back furnished to the concerned authorities. A campaign for creating awareness was taken up by organizing the vigilance week celebration commencing from 31st October to 6th November, 2001. A special issue of Vigilance Newsletter "SANKALP" was also released.

Sports

Ace athlete Anuradha Biswal has successfully kept your Company's flag flying high in the field of Athletics. Anuradha has broken her own national record and established a new one in 100 meters hurdles run.

National woman footballer Sradhanjali Samantray of your Company had represented India in the Asian Confederation Women's Championship at China, Taipei this year.

For promoting sports, your Company has been sponsoring the All Orissa NALCO Open Ranking Tennis Tournament at Bhubaneswar in which about 400 players participated in this year.

For encouraging sports in the state, your Company felicitated four upcoming sports persons of the state on 1st April on the occasion of Utkal Divas with cash awards.

Particulars of Employees

There are no employees in receipt of remuneration in excess of the limits viz. Rs.2,00,000/-p.m or Rs.24,00,000/- p.a prescribed under the provisions of Section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975, as amended.

Report on Conservation of Energy, Technology Absorption etc.

Information in accordance with provision of Section 217(1)(e) of the Companies Act, 1956, regarding conservation of energy, technology absorption etc. is given in the Annexure-I.

Status of listing in Stock Exchanges

Your Company's shares and debentures are listed in the following Stock Exchanges for which listing fees for 2002-2003 has been paid to all the listed Stock Exchanges for trading of shares and debentures of your Company :

1. Bhubaneswar Stock Exchange, A-22, Falcon House, Jharapada, Cuttack Road, Bhubaneswar-751 006.
2. The Delhi Stock Exchange Association Limited, West Plaza, Indira Gandhi Stadium, Indraprastha Estate, New Delhi-110 002.
3. The Calcutta Stock Exchange Association Limited, 7, Lyons Range, Kolkata-700 001.
4. Madras Stock Exchange, Exchange Building, Post Box No.183, 11, Second Line Beach, Chennai-600 001.
5. The Stock Exchange, Phiroze Jeejeebhoy Towers, 25th floor, Dalal Street, Mumbai-400 001.
6. National Stock Exchange of India Limited, Exchange Plaza, 5th floor, Plot No.C/1, G Block, Bandra Kurla Complex, Bandra(E), Mumbai-400 051.

Foreign Exchange Earnings and Outgo (on Cash Basis)

Foreign Exchange earnings (on cash basis) during the year 2001-02 was Rs.1235.42 crore as against Rs.1274.81 crore during the previous year.

The foreign exchange outgo (on cash basis) during the year was Rs. 451.45 crore as against Rs.435.32 crore during the previous year.

Directors' Responsibility Statement under Section 217 (2AA) of the Companies (Amendment) Act, 2000

Your Directors confirm

1. that in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;
2. that the directors had selected such accounting policies and applied them consistently and made judgements

and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company at the end of the financial year and of the profit or loss of the company for that period;

3. that the directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities;
4. that the directors had prepared the annual accounts on a going concern basis.

Corporate Governance

A report on Corporate Governance is placed at Annexure-II to this report.

Management Discussion & Analysis Report

Management Discussion & Analysis Report is placed at Annexure-III to this report.

C&AG Comments

Review on Accounts for the year ended 31st March, 2002, prepared by the Comptroller and Auditor General of India is placed at Annexure-IV to this report.

Deposits

Your Company has not accepted or renewed any deposits during the year under report.

Auditors

M/s. Tej Raj & Pal, Chartered Accountants, 1, Kalpana Square, Bhubaneswar have been appointed as Statutory Auditors of the Company for the year 2001-2002 by the Central Government on the recommendation of the Comptroller & Auditor General of India.

M/s. S. S. Sonthalia & Co., Cost Accountants, 20-HIG Duplex, Sailashree Vihar, Bhaneswar have been appointed as Cost Auditors of the Company for the year 2001-2002.

Directors

Shri C. Venkataramana was appointed as Chairman-cum-Managing Director of your Company with effect from 19.04.2002 (AN) in place of Shri S. C. Tripathi, Additional Secretary to Government of India, Ministry of Coal and Mines, Department of Mines.

The following were appointed as Directors on the Board of of your Company :

- i) Shri G. Upadhyaya as Director (P&A) with effect from 01.04.2002.
- ii) Dr. Sutanu Behuria, Joint Secretary & FA, Government of India, Ministry of Coal and Mines, Department of Mines as part time Director with effect from 30.04.2002 vice Shri S. P. Gupta.
- iii) Shri G. P. Gupta, former CMD of IDBI and Shri P. Mohapatra, IAS(Retd.) as part time non-official Directors in terms of Government of India, Ministry of Coal and Mines, Department of Mines order dated 11.06.2002.
- iv) Shri B. N. Jha as Director (commercial) with effect from 13.08.2002.

Place : Bhubaneswar
Date : 30.09.2002

- v) Smt. Adarsh Misra, Additional Secretary, Government of India, Ministry of Coal and Mines, Department of Mines as part time Director with effect from 27.08.2002.

Shri S. N. Malik and Shri P. Mohapatra ceased to be Directors w.e.f 05.11.2001 and Shri S. P. Gupta ceased to be a Director w.e.f. 30.04.2002. However, Shri P. Mohapatra was re-appointed in terms of order dated 11.06.2002 of Government of India, Ministry of Coal and Mines, Department of Mines as reported above. Dr. (Smt.) Aruna Bagchee, Joint Secretary, Government of India, Ministry of Coal and Mines, Department of Mines was inducted to the Board on 11.02.2002 and ceased to be Director on 27.08.2002. Shri S. B. Nayak, Director (Production) ceased to be Director w.e.f 31.08.2002.

Your Directors would like to place on record their deep sense of appreciation of the valuable services and guidance received from Shri S. C. Tripathi, CMD, Shri S. N. Malik, Shri S. P. Gupta, Dr. (Smt.) Aruna Bagchee and Shri S. B. Nayak, Directors during their tenure on the Board of your Company.

Composition of the Audit Committee

Pursuant to DPE OM dated 9th October, 1997 on Financial and Operational autonomy for profit making enterprises (Mini Ratna guidelines), the Board had constituted an Audit Committee on 24.06.99. The Audit Committee was re-constituted from time to time. At present the composition of Audit Committee is as follows:

- i) Shri G. P. Gupta
- ii) Shri P. Mohapatra
- iii) Dr. Sutanu Behuria

The Audit Committee met six times during the year.

The Audit Committee also monitors the redressal of Shareholders/Investors Grievances.

Acknowledgement

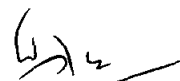
Your Directors wish to thank the Govt. of India in general and Ministry of Coal and Mines in particular, the Government of Orissa, SE Railways, Mahanadi Coal Fields, State Bank of India, GRIDCO and other organisations for their valuable guidance, support, encouragement and co-operation extended from time to time.

Your Directors also express sincere thanks to all the customers, business associates including Professional Consultants, Solicitors for their co-operation and assistance extended by them to the Company.

The zeal and commitment of your Company's employees continues to be instrumental to the success attained by your Company. Your Directors place on record their deep appreciation of your Company's employees.

Finally, your Directors express their gratitude to the shareholders for the confidence reposed by them in the management of the Company.

For and on behalf of the Board of Directors



(C VENKATARAMANA)
Chairman-cum-Managing Director

STATEMENT OF PARTICULARS UNDER THE COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF BOARD OF DIRECTORS) RULES, 1988.

CONSERVATION OF ENERGY :

NALCO, with its continuous thrust on efficient energy management has adhered to the best practice in the field for optimum energy utilisation. Extreme care was taken in selection of modern technology for its expansion projects and energy efficient equipments were installed after meticulous evaluation of these equipments. Energy audits, condition monitoring and system modifications were undertaken for optimal energy consumption. Non-conventional energy systems like solar water heating systems and solar photovoltaic systems were in operation for harnessing renewable energy sources. Periodical review and monitoring of the energy consumption took place at regular intervals in all units of NALCO.

Some of the important energy conservation measures implemented by the company are highlighted below :

A) ENERGY CONSERVATION MEASURES TAKEN :

I. Mines & Refinery

- Specific Coal Consumption w.r.t Hydrate has reduced by 5.41% over last year. This could be achieved due to :
 1. Improvement in the availability in the milling system by efficient proactive maintenance.
 2. Improvement of coal consumption in Boiler achieved by optimum control of excess air thereby achieving efficient and complete combustion inside furnace.
 3. Stringent monitoring of coal leakages carried out and attended on priority basis.
 4. Improved maintenance of milling and pressure parts.
- Total numbers of boiler and TG trip outs reduced by 13.38% compared to last year by improvement in various operational practices, thereby improving the system availability and reduction in oil and water consumption.
- Reduction of specific steam consumption was achieved by 2.56% compared to last year due to reduction of steam and water losses in the system. Insulation of valve body flanges, Man doors, hand doors in evaporators, digestors, disilication tanks was carried out to minimise heat radiation losses which contributed to reduction in steam consumption.
- Energy efficient variable speed drives for pumps in debottlenecking and 3rd phase projects have reduced

the specific electrical energy consumption by 3.07% over last year.

- Over all specific prime energy consumption has reduced from 14.78GJ/Tonne of hydrate for the year 2000-01 to 13.93GJ/Tonne of hydrate in the year 2001-02, a reduction of 5.75% because of the above energy consumption measures taken.

II. Aluminium Smelter

1. Through incremental improvement in various systems, the AC Energy and DC energy per tonne of metal has reduced marginally over the previous years. Similarly, the specific alumina and fuel oil consumption has also reduced compared to previous years.
2. Variable frequency drive installed and commissioned in hopper trolley travel of six PTMs in place of direct online starter.
3. Twenty nos energy efficient and environment friendly Air Conditioning units have been procured and installed in our pot tending machines.
4. Replacement of old motors with energy efficient motors are in progress.
5. Water jacket in furnaces replaced by HRCI liners in all furnaces to avoid heat losses. This has reduced furnace cooling water requirement to NIL. Also frequent unscheduled shutdown and cooling of furnaces for jacket repair is totally avoided.
6. Portable anode beam milling machine has been put to use. The stem brushing machine in Rodding shop upgraded and put in regular use along with the modification in anode raising beam hammering and blowing arrangement have ensured better anode stem beam contact and reduced chance of pitting of anode beams, a major step in reducing stem/beam contact drop and thus saving of DC energy.
7. Furnace firing system modified to cut off combustion air as soon as oil injection is stopped. This has resulted in considerable saving of energy by avoiding unwanted cooling of furnaces.

III. Captive Power Plant

1. Due to various energy conservation measures & process optimisation taken up during the year there is a reduction in auxiliary power consumption from 10.019% (in 2000-01) to 9.678 (in 2001-02).
2. By arresting leakages, monitoring the required quality

of boiler water DM make up has been reduced from 3.369% in 2000-01 to 3.038% in 2001-02.

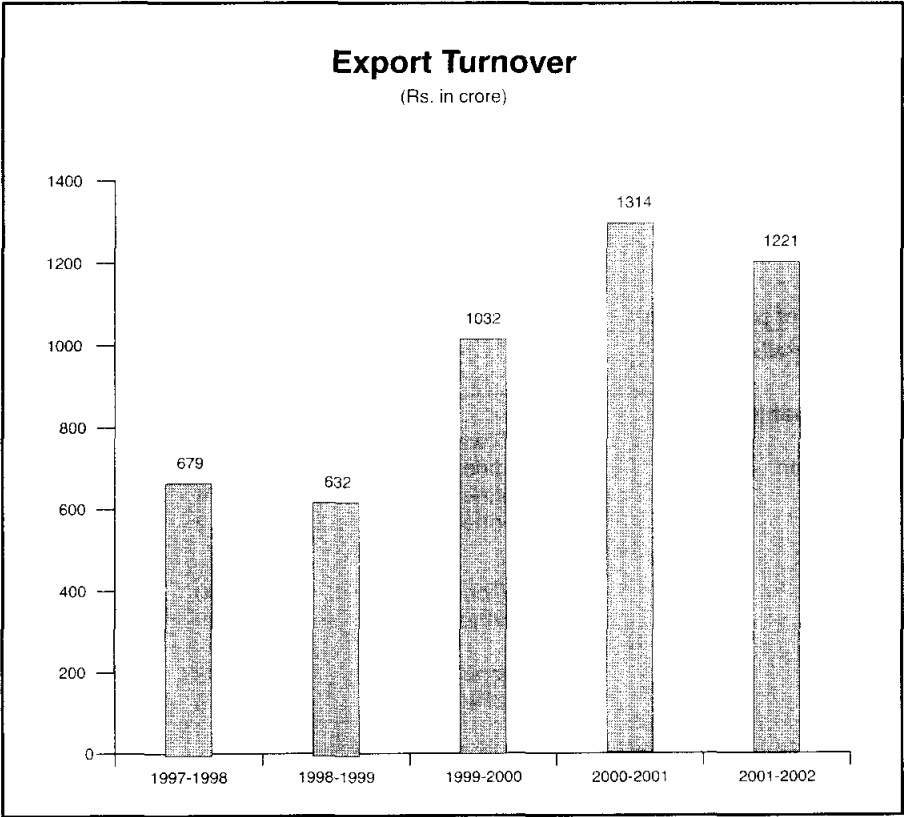
- 3. One no vapour absorption air conditioning machine which is an environmental friendly device has been successfully installed and commissioned. There is a saving in electrical power to the tune of 170 KW. In addition to power saving this is an environment friendly solution to air conditioning system.
- 4. Modifications were carried out in auxiliary air compartment (AA elevation) of fuel firing system of boilers to minimize air erosion in the water wall tubes of burner panel.
- 5. Installation and commissioning of self calibrating oxygen analyser in radiant zone of unit#1 for better monitoring and detection.
- 6. Purification of waste turbine oil: About 5KL of turbine oil is reclaimed per year, during the process of operation. Earlier this oil was sold at the rate of Rs 6.50 per litre as scrap. In an effort to conserve this precious reserve, the oil has been purified and tested at M/s IOC, M/s HPC and M/s. IIP laboratories. They have recommended for reuse of this oil after similar purification. By this NALCO will be saving 5KL of turbinol-46 per year and saving towards this

shall be around Rs. 2.10 lakh per year.

- 7. Auto swiveling type sprinklers are installed in the coal yard to prevent the spontaneous fire in coal yard and also for quenching the fire spots. This will result in less fire in the coal yard and savings due to sprinkler system is about Rs 2.65 lakh per annum.
- 8. Recycling of Ash pond over flow round the year. It has resulted in the reduction of CT make up from 1.883% in 2000-01 to 1.592% in 2001-02.

B) PROPOSALS BEING IMPLEMENTED :

- 1. Procurement action has been initiated for replacement of 80% electric motors in cast house by energy efficient motors as per recommendations of Tata Energy Research Institute (TERI). All procurement of spare motors, hereafter in Smelter, are scheduled to be energy efficient motors.
- 2. It is proposed to replace variable torque drive by inverter drives in cranes, pumps, fans etc. in selected areas for energy conservation.
- 3. It is proposed to carry out more studies on fuel oil additives for reducing specific consumption of HFO in cast house and bake oven.



FORM - A

FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO CONSERVATION OF ENERGY

A. Power and Fuel Consumption

Particulars	CAPTIVE POWER PLANT ANGUL		ALUMINA REFINERY DAMANJODI	
	Current year 2001-2002	Previous year 2000-2001	Current year 2001-2002	Previous year 2000-2001
1. Electricity				
a) Purchased from GRIDCO (Million KWH)	42.588*	7.654	14.508	8.868
Total amount (Rs. in lakhs)	1099.93	224.66	415.81	260.08
Rate / Unit (Rs./KWH)	2.58	2.94	2.87	2.93
b) Own Generation				
i) Through Diesel Generator	NA	NA	NA	NA
Unit				
Unit per Ltr. of Diesel oil				
Cost / Unit				
ii) Through Steam Turbine/Generator				
Unit (Gross)/Million KWH	4418.957	4283.324	294.958	265.146
Units per litre of fuel/gas	1213.92	999.12	—	—
Cost / Unit (Rs./KWH)	1.1836	1.111	—	—
2. Coal (Specify quality & where used)				
(Quality F&G grades)				
(Quantity (Tonnes)	3437376	3354072	683454	637076
Total Cost (Rs. in lakh)	17384.10	16561.92	6900.12	6269.07
Average rate (Rs./Tonne)	506	494	1010	984

*Purchase figures are on the higher side because of ashpond problems in CPP.

3. Fuel Oil & LDO

	Captive Power Plant Angul		Alumina Refinery Damanjodi		Smelter Plant Angul	
	Current year 2001-2002	Previous year 2000-2001	Current year 2001-2002	Previous year 2000-2001	Current year 2001-2002	Previous year 2000-2001
Quantity (KL)	3640	4287	90207	77626	24520	24863
Total amount (Rs. in lakhs)	425.53	435.43	8068.07	7470.79	2315.59	2583.03
Average rate	11690	10155	8944	9624	9444	10389
4. Others/Internal generation						
Quantity	Nil		Nil		Nil	
Total Cost						
Rate/Unit						

B. Consumption per unit of production

Raw materials (with details)	Unit	Standards (if any)	Current year (2001-2002)	Previous year (2000-2001)
1. Alumina Refinery, Damanjodi				
a) Power	(KWH/Tonne)	380	356.32	369.42
b) Fuel oil for calcination	(Kg/Tonne)	85.3	78.68	76.94
c) Coal for steam	(Kg/Tonne)	674	614	678
d) Oil for steam	(Kg/Tonne)	10	2.37	2.56
2. Smelter, Angul				
a) A.C.Power	(KWH/Tonne)	14,600	15,212	15,221
b) Fuel Oil	(Ltr./Tonne)	95	106	108
c) Others				
(i) CP Coke	(Kg/Tonne)	408	391	381
(ii) CT Pitch	(Kg/Tonne)	106.5	108	111

Notes : Reasons for variation in the consumption of power and fuel from standards of previous year are :

1. Increase in fuel oil and electricity at M&R Complex was higher because of the expanded capacity, instability in grid parameters and for construction activities already undertaken during 2001-2002.
2. Power Consumption was more for trial, commissioning runs of debottlenecking equipments.

FORM - B

FORM OF DISCLOSURE OF PARTICULARS WITH RESPECT TO RESEARCH & DEVELOPMENT & TECHNOLOGY ABSORPTION

Efforts made in Research & Development

I. RESEARCH & DEVELOPMENT :

1. Specific areas in which R&D activities carried out by the company are :

(A) In-house R&D activities :

(a) Alumina Plant :

i) Improving the brightness of Alumina Hydrate :

Lab and pilot scale studies were conducted to improve the brightness of hydrate using low caustic solution.

ii) Extraction of Alumina from Red Mud in the form of Aluminium Sulphate :

Studies were conducted to extract the Alumina values of red mud in the form of Aluminium sulphate using sulphuric acid. Preliminary studies showed that liquid alum can be made out of red mud and this can be used as a flocculant for clarification of turbid water.

iii) Decolorisation studies of Aluminate liquor :

Bench scale decolorisation studies of Aluminate liquor were carried out using the additive Magnafloc - 368. Brightness of the hydrate so obtained could be improved by 11%.

iv) Studies undertaken on scale formation at different stages of Bayer process.

(b) Smelter Plant :

i) Baked Anode Properties :

Detailed study was carried out on characterisation of baked anode and its performance in the Potlines which has resulted in better awareness and marginal improvements in anode properties.

ii) Study on Baking Level :

Study was carried out to assess the performance of Bake Oven in respect of baking level by analysing core samples from all 72 anodes in a section and introducing a new criteria i.e. 'Lc'(crystallite size) as a baking level indicator.

iii) C.P.Coke Specification :

By data analysis and correlation with anode properties, the calcined petroleum coke specification was upgraded.

iv) Selection of Raw Material :

Studies are in progress to reduce inconsistency in the calcined petroleum coke supplies from same/different suppliers.

v) Anode Coating :

Studies are in progress for coating of anodes

to reduce air reactivity in anodes while use in pots.

vi) Clad Trial :

Field trials are on for indigenous development of anode clads and cathode clads.

vii) Fuel Oil Additive :

Studies are in progress to develop and standardise suitable testing methods for fuel oil additive.

viii) Busbar Coating :

Studies are in progress to reduce temperature and voltage drop in busbar.

(B) Collaborative R&D Projects in hand :

i) Dispersion pattern and behaviour of Valuable Trace and Rare Earth Elements in Bauxite Profiles at Panchpatmali deposit and scope of their recovery from rejects of Refinery Plant.

ii) Technology Demonstration Studies on effect of Fly Ash on Soil Fertility and Crop Yield at CPP, Angul and Demonstration Trials in the Farmers' fields around CPP for popularisation of bulk use of Fly Ash.

iii) Joint Research Project (JRP) for extraction of Iron from NALCO's Red Mud and Preparation of Techno-economic Feasibility Report (TEFR) for setting up of an Optimal size commercial Plant for production of Iron by ROMELT Process.

iv) Studies on Mechanochemical Activation of Bauxite to improve the performance of Bayer Process for Alumina Production and minimise Environmental impact of Red Mud.

v) Development of Squeeze Cast, Premium Quality Aluminium Alloy Castings.

vi) Studies on suitability of high density and low density Aluminium Fluoride in NALCO Pot Line.

2. Benefits derived :

i) The R&D Centres of NALCO at M&R as well as S&P Complex have been recognized by DSIR, Ministry of Science and Technology, Government of India.

ii) Coated hydrate was developed in the Special Grade Alumina Pilot Plant and the Process is being patented.

iii) International Patent has been filed on Zeolite-A through Patent Co-operation Treaty (PCT) route.

iv) Zeolite-A Plant, set up based on indigenous technology, has been commissioned. Test products have been sold to the user industries for their acceptance.

- v) With the availability of adequate R&D facilities, process related problems have been taken up for productivity and efficiency improvement in the plants.

3. Future Plan of Action :

- To focus Company's Research and Development efforts on Process upgradation and optimisation, Development of new value added products and products of strategic importance, Waste Utilisation, Energy Conservation, Diversification for production of value added items etc.
- Networking with Research Organisations and Academic Institutions through Collaborative R&D Projects.
- Thrust on Patenting Activities.

4. Expenditure on R&D :

(Rs.in lakhs)

	2001-2002	2000-2001
a) Capital	86.37	77.60
b) Recurring	171.93	100.98
Total	258.30	178.58
c) Total R&D expenditure as % of turnover	0.11	0.07

II. TECHNOLOGY ABSORPTION, ADAPTATION AND INNOVATION :

Measures taken by the Company in its different units concerning technology absorption, adaptation and innovations and benefits derived thereof are summarised below :

a) M & R Complex, Damanjodi :

Sl. No.	Details of Modifications	Benefits thereof
1.	A 10,000 tpa Detergent Grade Zeolite-A Plant has been commissioned using technology jointly developed by NALCO and CSMCRI, Bhavnagar.	Production of value added Detergent Grade Zeolite-A.
2.	Auto emergency power normalisation scheme for precipitation and classification area.	To ensure availability of emergency power automatically in the event of power failure.
3.	Auto starting scheme for RMP Pumps and Ash Pond pumps.	Remote operation of unmanned equipment located at long distance to save time.

b) Smelter Plant, Angul :

Sl.No.	Details of Modifications	Benefits thereof
1.	Fire resistant hydraulic oil "Quinto Lubric 840-08" used in place of ordinary hydraulic oil in Cast House Holding furnace.	The incidences of fire in Cast House furnace and consequent production loss has reduced substantially.
2.	Holding furnace cooling system redesigned to use HRCI liners instead of water jackets at the solid metal charging door.	Un-scheduled shutdown of furnace for jacket repair/replacement is totally avoided. Incidence of blasting due to water leakage got avoided.
3.	Continuous in line degassing system (SNIFF system) along with Nitrogen plant commissioned in Billet casting and strip casting facilities.	Degassing with in line SNIFF system is superior to degassing with tablets. Much lower H ₂ level in metal is achieved.
4.	System designed and installed to ensure stem verticality before rodding.	Rejection of rodded anodes and jamming in the entry zone of overhead conveyor reduced wastage of baked anodes.
5.	Superior quality polyester needle felt bag filter identified and installed in ball mill dedusting system of Anode Paste Plant.	The first set of bags have already crossed 14 months compared to 1-2 months life of ordinary bags.
6.	The procedures, jigs and fixtures etc.were developed in-house to repair the pot cells deformed beyond use after 2nd /3rd generation.	A saving of Rs.11 lakhs per pot cell.
7.	The modification in the anode raising beam for hammering and blowing arrangement was conceptualised in-house and developed through ECL.	Better anode stem beam contact and reduced chance of pitting of anode beams.
8.	The microprocessor based Celliar proportionating system was upgraded with Hassler system in Anode Paste Plant.	System has user friendly features and is expected to improve anode quality.

c) Captive Power Plant, Angul :

Sl.No.	Details of Modifications	Benefits thereof
1.	One no. Vapour Absorption Air Conditioning Machine has been successfully installed & commissioned.	There is enormous power saving and reduction of noise . Saving in electrical power is to the tune of 170 KW. In addition to power saving this is an environment friendly solution to air conditioning system.
2.	Purification of waste turbine oil for reuse.	A saving of 5 KL of turbinol-46 per year costing around Rs. 2.10 lakhs is expected.
3.	Auto swivelling type sprinklers are installed in the coal yard to prevent the spontaneous fire in coal yard and also for quenching the fire spots.	This has resulted in less fire in the coal yard thereby savings about Rs. 2.65 lakh per annum.
4.	Suspension magnet installed along the conveyors has been interlocked with the running of conveyor 1A/1B belt.	Coal crusher/mills are prevented from getting damaged.
5.	Modifications were carried out in auxiliary air compartment (AA Elevation) of Fuel Firing System of Boilers to minimize air erosion in the water wall tubes of burner panel.	Boiler tube failure at auxiliary air compartment of fuel firing system has been totally eliminated.
6.	Development of FD fan blades in-house.	There has been a direct saving of approximately Rs.8.95 lakhs in 1 set of blades.
7.	220 KV SF6 breaker magnetic ventile test bench was designed, fabricated and commissioned for testing of overhauled magnetic ventiles.	15 magnet ventiles have been reused after overhauling, 5 magnet ventiles are kept as spare after overhauling and testing in the test bench.
8.	Modification of bus bar protection circuit of 220 KV switchyard was carried out.	For a single fault in single isolator total bus bar protection remains out till the fault is traced. Now, with this modification fault can be traced out immediately.

III. DETAILS OF TECHNOLOGY IMPORTED DURING LAST FIVE YEARS :

a. M&R Complex, Damanjodi :

Sl. No.	Technology Imported	Year of Import	Has technology been fully absorbed	If not fully absorbed, reason thereof and future plan of action
1.	Debottlenecking of alumina plant was carried out by importing improvements made by Aluminium Pechiney(AP) thereby increasing the production of each stream to 5.25 lakh tpy. Some of the improvements are : – Pre-desilication – Interstage cooler – Hydrate Classification	1996	Fully absorbed	—
2.	Plant is being set up for production of 26,400 TPA special grade Alumina and hydrate with technical know-how from M/s. ATA, USA.	1995	Not applicable	Project under implementation.

b. Smelter Plant, Angul :

Sl. No.	Technology Imported	Year of Import	Has technology been fully absorbed	If not fully absorbed, reason thereof and future plan of action
1.	Technology for continuous strip casting (jumbo caster) from M/s. FATA-HUNTER	1998	Fully absorbed	—
2.	Autogenous Mill in the new bath system.	1998	Fully absorbed	—
3.	Import of developments made by AP for use in expansion of smelter (2,30,000 tpy to 3,45,000 tpy)	1998-99	AP technology is being implemented.	AP technology is being implemented.
4.	Manufacture, Testing and supply of Anode Beam milling machine for Potline Mechanical.	1997	Fully absorbed	—
5.	Manufacture, testing and supply of Anode Raising Beam with hammering arrangements.	1998	Fully absorbed	—
6.	Aluminium cold rolling Technology with equipments to roll Aluminium sheet up to 0.12 mm thickness, 1676 mm width and in the form of coils (1800 mm OD X 600 mm ID) commissioned.	2001-2002	In the process of stabilization and absorption.	Commissioning done in March, 2002 and in the process of stabilisation.

REPORT ON CORPORATE GOVERNANCE

As required under Clause 49 of the Listing Agreement executed with different Stock Exchanges the provisions relating to Corporate Governance are to be complied with by NALCO not later than 31.03.2002.

Philosophy

NALCO believes in practising good Corporate Governance, attaining maximum level of transparency, accountability and equity in all facets of its operations and in all its interactions with its stakeholders viz. shareholders, employees, the Government, bankers etc.

NALCO is one of the leading Public Sector Companies in India which is publishing its financial statements prepared in substantial compliance with US GAAP, UK GAAP and French GAAP for better understanding and analysis of its financial results by the foreign investors/customers, though the shares of the Company are not listed in any of the Stock Exchanges abroad.

Board of Directors

In terms of Section 617 of the Companies Act, 1956, NALCO is a Government Company. Presently, 87.1475% of the total paid-up capital of the Company is held by the President of India.

The Board of Directors, as on date, comprises eight directors; Chairman-cum-Managing Director (Executive Chairman), three executive directors and four non-executive directors. Out of four non-executive directors two are independent directors in terms of Clause 49 of Listing Agreement. Matter has been taken with Government for re-constitution of the Board by appointing four more part-time non-official (Independent) directors to bring the composition of the Board in line with the requirements of Clause 49 of the Listing Agreement. The matter is being pursued with the Government regularly. The Board meets regularly and is responsible for the proper direction and management of the Company. All the Directors have access to the advice of the Company Secretary, who is responsible to the Board for ensuring that Board procedures are followed and all the applicable rules and regulations are complied with.

During the financial year ended March 31, 2002, 13 Board Meetings were held on 27.04.2001, 04.06.2001, 05.07.2001, 11.07.2001, 30&31.07.2001, 21.08.2001, 04.09.2001, 21&22.10.2001, 04.11.2001, 04.12.2001, 08.01.2002, 29.01.2002 and 26.03.2002. The composition of the Directors, their attendance at the Board Meetings during the financial year and at the last Annual General Meeting, number of directorships in other companies and membership in other committees etc. are as follows :

Name	Position as on 31.03.2002	Board Meetings		Attendance at last AGM held on 05.11.2001	No. of other directorships
		Held during the tenure	Attended		
Shri P. Parvathisem *1	Chairman-cum-Managing Director	06	06	*1	Nil
Shri S. C. Tripathi *2	Chairman-cum-Managing Director	13	12	Yes	01
Dr.(Smt.) Aruna Bagchee *3	Part-time official Director	01	01	*3	02
Shri S. P. Gupta	Part-time official Director	13	12	Yes	03
Shri C. Venkataramana	Director (Finance)	13	09	Yes	Nil
Shri S. B. Nayak	Director (Production)	13	13	Yes	Nil
Shri S. K. Banerjee	Director (P&T)	13	13	Yes	Nil
Shri P. Mohapatra *4	Part-time Non-official Director	09	05	*4	02
Shri S. N. Malik *5	Part-time Non-official Director	09	09	Yes	01

*1 Ceased to be Chairman-cum-Managing Director w.e.f. 31.08.2001.

*2 Took over additional charge of Chairman-cum-Managing Director w.e.f. 31.08.2001.

*3 Appointed as Director w.e.f. 11.02.2002.

*4 Ceased to be Director w.e.f. 05.11.2001.

*5 Ceased to be Director w.e.f. 05.11.2001.

Current composition of the Board

Name	Designation	Attendance at last AGM on 05.11.2001	No. of other directorships	No. of other Committee's Membership/ Chairmanship
Shri C. Venkataramana *1	Chairman-cum-Managing Director	Yes	Nil	Nil
Smt. Adarsh Misra *2	Part time official Director	—!	01	Nil
Dr. S. Behuria *3	Part time official Director	—!	07	04
Shri S. K. Banerjee	Director (P&T)	Yes	Nil	Nil
Shri G. Upadhyaya *4	Director(P&A)	—!	Nil	Nil
Shri B. N. Jha *5	Director (Commercial)	—!	Nil	Nil
Shri G. P. Gupta *6	Part time non-official Director	—!	04	03
Shri P. Mohapatra *7	Part time non-official Director	—!	01	Nil

*1 Took over additional charge of Chairman-cum-Managing Director w.e.f. 19.04.2002.

*2 Appointed as Director w.e.f. 27.08.2002.

*3 Appointed as Director w.e.f. 30.04.2002.

*4 Appointed as Director w.e.f. 01.04.2002.

*5 Appointed as Director w.e.f. 13.08.2002.

*6 Appointed as Director w.e.f. 11.06.2002.

*7 Appointed as Director w.e.f. 11.06.2002.

! Appointed subsequent to the date of Annual General Meeting.

The Board has reserved certain items of governance for its review, including the approval of annual and interim results, acquisitions, disposals and joint ventures as well as material agreements, major capital expenditure, major sale contracts, employees remuneration and perquisites, incentive schemes, manpower plans, budgets, all statutory compliance and long range plans.

Remuneration of Directors

Functional (Whole time) Directors (as on 31.03.2002)

Name	Relationship with other Directors	Business relationship with the Company, if any	Remuneration paid during 2001-02			
			All elements of remuneration package, i.e. Salary, CPF, Pension, Gratuity, etc. (Rs.)	Other benefits (Rs.)	Service contracts, notice period, severance fee	Stock option details, if any
Shri S. C. Tripathi	Nil	Chairman-cum-Managing Director	—*	—*	—*	—*
Shri C. Venkataramana	Nil	Director(F)	12,10,384	1,42,743	Note 'A'	Note 'B'
Shri S. B. Nayak	Nil	Director(P)	11,32,681	1,48,585	Note 'A'	Note 'B'
Shri S. K. Banerjee	Nil	Director(P&T)	6,52,793	1,60,418	Note 'A'	Note 'B'

—* Shri S. C. Tripathi, Additional Secretary, Ministry of Coal and Mines, Government of India was appointed as Chairman-cum-Managing Director in NALCO with effect from 31.08.2001. He was holding additional charge as Chairman-cum-Managing Director in addition to his duties as Additional Secretary to Government of India in the Ministry of Coal and Mines, Department of Mines. He has not drawn salary from NALCO.

The terms & conditions of all the functional (whole time) directors are decided by the President of India as per article 63 of Articles of Association of the Company. While Chairman-cum-Managing Director is placed at schedule "A" scale of pay i.e. Rs.27750-750-31500, the other whole time directors are placed at schedule "B" scale of pay i.e Rs. 25750-650-30950. All the terms & conditions of the whole time directors other than the scale of pay, entitled leased accommodation, provision of car etc. as mentioned in the respective appointment orders of the whole time directors are same as those of the employees of NALCO. All other terms & conditions not covered in the respective appointment orders are governed by the rules of the Company.

Monthly incentive schemes are based on the performance parameters and the same is applicable to whole time directors like other employees of NALCO. The maximum amount of incentive that can be earned is Rs.2000/- per month and maximum amount that can be earned under Nirantar Utkarsha Utpadana Puraskar (NUUP) is Rs.500/- per month.

Note 'A' – Appointed by the President of India. The appointment may be terminated by either side on 3 months notice or on payment of 3 months salary in lieu thereof. No severance fees are payable to the Executive Directors.

Note 'B' – The Company does not have any scheme of stock options to its Directors or employees as on 31.03.2002.

Sitting Fees to the independent (part time non-official) Directors is the only remuneration paid by NALCO. Since no independent Director was appointed on the Board of NALCO as on 31.03.2002, no separate information regarding their remuneration is furnished.

The following Committees have been formed with specific responsibilities.

Audit Committee

The composition of the Audit Committee as on 31.03.02 was as follows:

Dr. (Smt.) Aruna Bagchee, Chairman
Shri S. P. Gupta, Member
Shri S. B. Nayak, Member

The Board had constituted the Audit Committee in June, 1999, much ahead of the stipulation under the Listing Agreement. At present the following Directors are members of the Audit Committee, viz.

Shri G. P. Gupta, Chairman
Shri P. Mohapatra, Member
Dr. S. Behuria, Member

The present composition consists of one non-executive director and two independent directors.

Audit Committee's functions include the following apart from the areas specified in the amended Clause 49 of the Listing Agreement and Section 292A of the Companies (Amendment) Act, 2000.

- To check whether controls are adequate commensurate with size of the operations.
- To study the areas where income can be increased and the areas where cost can be reduced.
- Management Information System on each of the above areas.

During the year, six Audit Committee Meetings were held. The Chairman of the Audit Committee apprises the Board about the observations of the Audit Committee during the Board Meeting. The minutes of the Audit Committee Meetings are also placed before the Board in their subsequent Meeting.

Audit Committee also monitors the shareholders/investors grievances.

The details of complaints received and the status of resolution are placed before Audit Committee Meetings as well as Board Meetings.

Technology Committee

At present, the following Directors are members of the Technology Committee :

Shri S. K. Banerjee
Shri B. N. Jha
Shri P. Mohapatra

This Committee monitors and pays special attention to the assessment of Company's own technology status, acquiring and assimilating technologies necessary to make NALCO competitive and to its own R&D efforts to maintain a sustained strength in the technological field.

Remuneration Committee

This is a non-mandatory provision in the Listing Agreement. The need for a Remuneration Committee is not felt by the Company in view of the fact that the Company is a Government Company in terms of Section 617 of the Companies Act, 1956. The remuneration of the executive (wholtime) Directors is fixed by the President of India.

Standing Committee

A Standing Committee has been constituted by the Board consisting of Chairman-cum-Managing Director, all executive Directors and co-opted officer(s) of the Marketing Department. The Committee deals with sales contracts of value between Rs.30 crore and Rs.50 crore for export of alumina / aluminium. All sales contracts over Rs.50 crore are decided by the Board. The decision of the Standing Committee is put up in the subsequent Board Meeting for information.

During the year, 2 Standing Committee Meetings were held.

Share/Debenture Transfer Committee

The Share/Debenture Transfer Committees constituted by the Board comprise of three directors. The Share/Debenture Transfer Committee considers and approves all share/debenture related issues in physical mode besides taking note of beneficial owners position under demat mode. During the year 2001-2002, the Share Transfer Committee met 38 times and the Debenture Transfer Committee met 21 times.

Shri K.N.Ravindra, Company Secretary is the Compliance Officer of the Company.

The Company received 238 complaints during the year and has resolved all the investors' grievances/correspondence within a period of around 7-10 days from the date of receipt of same during the year 2001-02. The details of complaints are as under :

Particulars	Letters in the nature of various types of complaints		
	Individuals & Institutions	Stock Exchanges	SEBI
No. of letters received during the period 01.04.2001 to 31.03.2002.	232	1	5
No. of letters attended and redressed to the satisfaction of the shareholders.	232	1	5
Pending letters remained unresolved.	Nil	Nil	Nil

The details of complaints received and the status of resolution are placed before Audit Committee Meeting as well as Board Meeting.

Sub-Committee

In addition, Board also constitutes Sub-Committees with specific assignments. During the year 2001-2002, 3 such Sub-Committees were constituted with specific assignments and 3 Sub-Committee meetings were held accordingly.

General Body Meetings

Particulars of the last 3 years Annual General Meetings :

Year	Date	Time	Location
1999	30.09.1999	11.00 A.M.	NALCO BHAWAN, P/1, Nayapalli, Bhubaneswar
2000	30.09.2000	11.00 A.M.	NALCO BHAWAN, P/1, Nayapalli, Bhubaneswar
2001	05.11.2001	11.00 A.M.	NALCO BHAWAN, P/1, Nayapalli, Bhubaneswar

No special resolution was passed through postal ballot at any of the Annual General Meetings of the Members held during the financial years under report nor any special resolution is likely to be passed through postal ballot in this year.

Disclosures

As per the disclosures given by the directors of the Company, there were no materially related party transactions attracting the provisions of Section 297 of the Companies Act, 1956. There is no case of non-compliance of statutory provisions of the Companies Act, 1956 or SEBI Regulations or provisions of Listing Agreement except regarding composition of Board and Audit Committee as mentioned above and these authorities have not passed any strictures or imposed any penalty on the Company on any matter related to capital markets during last three years.

Means of Communication

Quarterly Unaudited Financial Results are published in The Economic Times and all other leading newspapers. The same are also posted in the Company's website www.nalcoindia.com. The Company's website also displays official news, releases etc. Management's Discussion and Analysis Report forms part of this Annual Report which is posted to the shareholders of the Company.

General Shareholder information

The Annual General Meeting is proposed to be held on Wednesday, 30th October, 2002 at 10.00 A.M at NALCO BHAWAN, P/1, Nayapalli, Bhubaneswar.

Financial Calendar (tentative and subject to change) :

Events	Tentative Date
Annual General Meeting for the year ending March 31, 2002	October, 2002
Unaudited Financial results for the first quarter ending 30th June, 2002	July, 2002
Unaudited Financial results for the second quarter ending 30th September, 2002	October, 2002
Unaudited Financial results for the third quarter ending 31st December, 2002	January, 2003
Unaudited Financial results for the year ending 31st March, 2003	April, 2003

Book Closure Dates

Tuesday, 24th September, 2002 to Monday, 30th September, 2002 (both days inclusive) for determining the entitlements of dividends for the year 2001-2002.

Dividend payment date

Before 29th November, 2002.

Listing on Stock Exchanges

The Company's shares and debentures are listed in Bhubaneswar(Regional), Mumbai, National, Calcutta, Delhi and Madras Stock Exchanges.

Stock Code

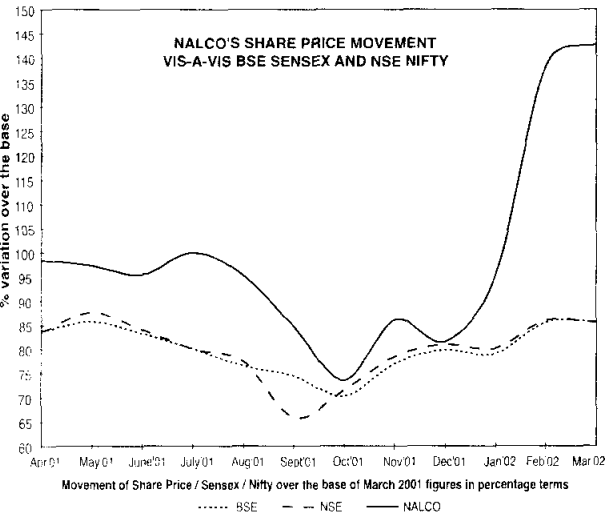
Stock Exchange Code	Reuters Code
BSE : 532234	NALU.BO (Mumbai Stock Exchange)
NSE : NATIONALUM	NALU.NS (National Stock Exchange)

Market Price Data in last Financial Year

Month	BSE		NSE	
	High	Low	High	Low
April-2001	64.00	51.10	63.10	50.00
May-2001	63.25	57.50	62.35	57.00
June-2001	62.15	55.00	66.40	57.05
July-2001	65.00	50.00	62.45	51.00
Aug.-2001	58.50	53.10	57.50	52.00
Sept-2001	55.00	41.00	55.00	40.55
Oct.-2001	47.85	37.00	47.55	37.00
Nov.-2001	55.00	44.00	47.70	44.50
Dec.-2001	52.00	47.20	53.05	48.00
Jan.-2002	62.00	48.05	60.70	40.00
Feb.-2002	82.00	55.00	90.00	54.60
March-2002	91.30	69.00	92.80	72.00

NALCO's shares are regularly traded in BSE and NSE.

Performance in comparison to broad – based Indices



Registrar and Transfer Agents

The share/debenture transfer activities of the Company are being handled in its in-house Share Registry located at NALCO BHAWAN, P/1, Nayapalli, Bhubaneswar-751 013 (Orissa).

Share Transfer System

All share transfers and debenture transfers are effected in time and certificates after necessary transfer endorsements are despatched within the time schedule prescribed under the Listing Agreement of the Stock Exchanges. Transfer-cum-Dematerialisation Option letters are sent regularly after each Share Transfer Committee Meeting and Debenture Transfer Committee Meeting to all the transferees and dematerialisation of shares/debentures is effected, wherever valid requests are received or else the physical certificates are despatched to the transferees within the time schedule.

A GUIDE TO THE INVESTORS containing the methodology of share transfers, issue of duplicate share certificates etc.

Annual Accounts 2001-2002

Balance Sheet as at March 31, 2002

(Rupees in crores)

	Schedule	As at March 31, 2002	As at March 31, 2001
SOURCES OF FUNDS			
Shareholders' Funds :			
Share Capital	A	644.31	644.31
Reserves and Surplus	B	2,580.93	2,928.06
Loan Funds :	C		
Secured Loans		1,563.45	801.28
Unsecured Loans		—	0.25
TOTAL		4,788.69	4,373.90
APPLICATION OF FUNDS			
Fixed Assets :	D		
Gross Block		6,277.75	5,219.72
Less : Depreciation		3,388.13	3,079.66
Net Block		2,889.62	2,140.06
Capital Work-in-Progress	E	1,920.81	1,984.09
		4,810.43	4,124.15
Investments	F	50.00	50.00
Current Assets, Loans & Advances :	G		
Inventories		484.32	407.20
Sundry Debtors		257.83	263.07
Cash and Bank Balances		114.23	66.19
Other Current Assets		41.54	49.88
Loans and Advances		240.53	226.73
		1,138.45	1,013.07
Less : Current Liabilities & Provisions :	H		
Liabilities		444.24	516.68
Provisions		274.96	297.35
		719.20	814.03
Net Current Assets		419.25	199.04
Deferred Tax Liability (Net)		(492.13)	—
Miscellaneous Expenditure (to the extent not written off)		1.14	0.71
TOTAL		4,788.69	4,373.90
Significant Accounting Policies	W		
Notes on Accounts	X		
Additional information (Schedules A to Y form part of Accounts)	Y		

In terms of our report of even date attached.

For and on behalf of

Tej Raj & Pal

Chartered Accountants

For and on behalf of Board of Directors

B. Gangaraju

Partner

12th July, 2002

Bhubaneswar

11th July, 2002

K. N. Ravindra

Company Secretary

S. K. Banerjee

Director
(Projects & Technical)

C. Venkataramana

Chairman-cum-
Managing Director

Profit and Loss Account for the year ended March 31, 2002

(Rupees in crores)

	Schedule	Year ended March 31, 2002	Year ended March 31, 2001
INCOME :			
Sales	I	2,385.74	2,406.32
Finished goods internally consumed/capitalised		21.18	4.47
Accretion / (Decretion) to stock of finished / intermediary products / work-in-process	J	4.59	(11.00)
Other Income	K	130.04	155.51
		2,541.55	2,555.30
EXPENDITURE :			
Raw Materials consumed	L	315.90	244.77
Power & Fuel	M	444.71	399.57
Repairs & Maintenance	N	111.99	121.90
Other Manufacturing Expenses	O	67.69	66.11
Excise Duty		160.41	147.13
Employees' Remuneration & Benefits	P	346.04	194.14
Administrative Expenses	Q	60.48	55.83
Other Expenses	R	26.23	37.85
Selling and Distribution Expenses	S	53.80	55.97
Interest & Financing Charges	T	116.39	97.61
Provisions	U	0.83	(0.61)
Depreciation		312.37	293.99
		2,016.84	1,714.26
PROFIT FOR THE YEAR		524.71	841.04
Add : Prior Period Adjustments (Net)	V	0.90	2.33
PROFIT BEFORE TAX		525.61	843.37
Less : Provision for taxation - Current		124.77	211.57
Add : Provision for taxation - Deferred		6.62	—
Add : Provision for taxation for earlier years written back		1.89	24.03
PROFIT AFTER TAX		409.35	655.83
Balance of Profit brought forward from previous year		5.02	8.15
Transfer from Capital Reserve		0.05	0.05
Transfer from General Reserve		498.75	—
Less : Provision for opening deferred tax liabilities		(498.75)	—
Amount available for appropriation		414.42	664.03
APPROPRIATIONS :			
Proposed dividend		257.73	257.73
Tax on dividend		—	26.28
Transfer to Debenture Redemption Reserve		110.00	—
Transfer to General Reserve		41.00	375.00
		408.73	659.01
Balance of Profit carried to Balance Sheet		5.69	5.02
Significant Accounting Policies	W		
Notes on Accounts	X		
Additional Information	Y		
<i>(Schedules A to Y form part of Accounts)</i>			

In terms of our report of even date attached.

For and on behalf of

Tej Raj & Pal

Chartered Accountants

For and on behalf of Board of Directors

B. Gangaraju
Partner
12th July, 2002

Bhubaneswar
11th July, 2002

K. N. Ravindra
Company Secretary

S. K. Banerjee
Director
(Projects & Technical)

C. Venkataramana
Chairman-cum-
Managing Director

Schedules forming part of the Balance Sheet

(Rupees in crores)

	As at March 31, 2002	As at March 31, 2001
Schedule A		
SHARE CAPITAL		
Authorised :		
130,00,00,000 Equity Shares of Rs. 10/- each	1,300.00	1,300.00
Issued, Subscribed and Paid-up :		
64,43,09,628 Equity Shares (Previous year 64,43,09,628 shares) of Rs. 10/- each fully paid up. Out of these shares, Government of India holds 56,14,99,635 shares (Previous year 56,14,99,635 shares).	644.31	644.31
Schedule B		
RESERVES & SURPLUS		
Capital Reserve :		
Grants-in-aid received from Government of India :		
As per last Balance Sheet	1.27	1.27
Add : Received during the year	—	0.05
	1.27	1.32
Less : Transfer to Profit & Loss Account	0.05	0.05
	1.22	1.27
General Reserve :		
As per Last Balance Sheet	2,600.00	2,225.00
Less : Transfer to Profit & Loss Account	498.75	—
Add : Transfer from Profit & Loss Account	41.00	375.00
	2,142.25	2,600.00
Debenture Redemption Reserve :		
As per Last Balance Sheet	321.77	321.77
Add : Transfer from Profit & Loss Account	110.00	—
	431.77	321.77
Balance in Profit & Loss Account	5.69	5.02
Total :	2,580.93	2,928.06
Schedule C		
LOAN FUNDS		
Secured Loans :		
14.5% Non-convertible Redeemable Debentures of Rs. 1000 each	643.54	643.54
64,35,348 Nos (Previous year 64,35,357). Redeemable at par in three equal annual instalments, commencing from the end of 4th year from the date of allotment, being 26th March 2003 and secured by hypothecation of plant & machinery and other assets (excluding book debts) of captive power plant at Angul.		
Long term foreign currency loan from EFIBANCA, Italy	145.67	157.74
(US \$ 29.851 million previous year 33.831 million. Repayable in full on 30.4.2002, repaid during the year US \$3.980 million, Rs. 18.89 crores. Secured by hypothecation of movable and immovable properties of Rolled products unit at Angul)		
8.60% Non-convertible Secured Redeemable Taxable Bonds	300.00	—
Rs. 210.00 crores redeemable on 15.11.2004 and Rs. 90.00 crores redeemable on 15.2.2005 Secured by hypothecation of part of plant & machinery of Smelter plant at Angul.		
8.60% Non-convertible Secured Redeemable Taxable Bonds	140.00	—
Redeemable on 21.3.2007 with put and call option at the end of three years. Secured by hypothecation of part of plant & machinery of Alumina Refinery plant at Damanjodi.		
Export Packing Credit from State Bank of India	137.87	—
(Secured by hypothecation of raw materials, finished/intermediary products, stores and book debts etc.)		
Commercial paper	196.37	—
(Lien on working capital demand loan from SBI which is secured by hypothecation of raw materials, finished/intermediary products, stores and book debts etc.)		
Sub total :	1,563.45	801.28
Unsecured Loans :		
Inter corporate loan from Mukand Ltd.	—	0.25
Total :	1,563.45	801.53

Schedule D
FIXED ASSETS

(Rupees in crores)

Particulars of Assets	Gross Block				Depreciation				Net Block	
	As on 1.4.2001	Additions	Sales/ Adjust- ments	As on 31.3.2002	As on 1.4.2001	For the Year	On Sales/ Adjust- ments	Upto 31.3.2002	As on 31.3.2002	As on 31.3.2001
A. PLANT, MINES AND OTHERS :										
Freehold land including development costs	29.90	7.30		37.20	—	—	—	—	37.20	29.90
Leasehold land including development costs	4.57	0.00	—	4.57	1.38	0.10	—	1.48	3.09	3.19
Buildings	189.99	30.27	(0.13)	220.13	93.06	9.42	(0.09)	102.39	117.74	96.93
Roads , bridges and culverts	28.33	6.68		35.01	8.34	0.44	—	8.78	26.23	19.99
Railway sidings	51.62	14.71	—	66.33	39.74	2.77	—	42.51	23.82	11.88
Water supply , drainage and sewerage	49.01	9.04		58.05	28.91	2.47	—	31.38	26.67	20.10
Power supply , distribution and lighting	187.25	74.80	(0.50)	261.55	114.79	11.32	(0.50)	125.61	135.94	72.46
Plant and machinery	4,406.13	877.77	(3.79)	5,280.11	2,704.05	275.79	(3.40)	2,976.44	2,303.67	1,702.08
Office equipments	17.78	3.61	(0.05)	21.34	9.02	2.45	(0.03)	11.44	9.90	8.76
Furniture and fittings	12.97	0.68	(0.02)	13.63	8.08	0.94	(0.02)	9.00	4.63	4.89
Vehicles	23.64	0.96	(0.21)	24.39	17.35	0.98	(0.18)	18.15	6.24	6.29
Miscellaneous equipments	39.13	2.73	(0.56)	41.30	14.19	2.01	(0.49)	15.71	25.59	24.94
Total	5,040.32	1,028.55	(5.26)	6,063.61	3,038.91	308.69	(4.71)	3,342.89	2,720.72	2,001.41
B. SOCIAL FACILITIES :										
Freehold land including development costs	2.92	—	—	2.92	—	—	—	—	2.92	2.92
Leasehold land including development costs	0.35	—	—	0.35	0.23	0.02	—	0.25	0.10	0.12
Buildings	122.05	26.56		148.61	21.14	2.25	—	23.39	125.22	100.91
Roads , bridges and culverts	14.93	2.10		17.03	3.00	0.25	—	3.25	13.78	11.93
Water supply , drainage and sewerage	17.58	4.36		21.94	6.24	0.89	—	7.13	14.81	11.34
Power supply , distribution and lighting	13.76	1.24		15.00	6.05	0.67	—	6.72	8.28	7.71
Office equipments	0.09	—	—	0.09	0.08	—	—	0.08	0.01	0.01
Furniture and fittings	1.74	0.24	(0.01)	1.97	1.44	0.21	(0.01)	1.64	0.33	0.30
Vehicles	0.78	0.10	(0.10)	0.78	0.61	0.02	(0.09)	0.54	0.24	0.17
Miscellaneous equipments	5.20	0.24	0.01	5.45	1.96	0.28	—	2.24	3.21	3.24
Total	179.40	34.84	(0.10)	214.14	40.75	4.59	(0.10)	45.24	168.90	138.65
Total for current year	5,219.72	1,063.39	(5.36)	6,277.75	3,079.66	313.28	(4.81)	3,388.13	2,889.62	2,140.06
Total for previous year	5,039.26	183.41	(2.95)	5,219.72	2,786.08	295.18	(1.60)	3,079.66	2,140.06	2,253.18

Notes :

- Plant and machinery includes capitalisation of Rs.1,759.73 (Previous year Rs.1,759.73) towards net exchange variation loss in accordance with Accounting Policy No. B 5.4 of Schedule W.
- Depreciation for the year includes Rs.0.21 transferred to expenditure during construction period, pending capitalisation to Fixed Assets (Previous year Rs.0.16) and Rs.0.70 charged to prior period adjustment (Previous year Rs.1.03).
- Included in Gross Block above are the following assets laid on land not belonging to the Company :
 - Buildings – Rs.1.10 (Previous year Rs. 0.97)
 - Roads, bridges and culverts – Rs. 2.95 (Previous year Rs. 2.95)
 - Water supply, drainage and sewerage – Rs.1.02 (Previous year Rs. 1.02)
 - Power supply, distribution and lighting – Rs.6.87 (Previous year Rs. 4.83)
 - Railway sidings – Rs. 6.53 (Previous year Rs. 6.53)

(Rupees in crores)

	As at March 31, 2002	As at March 31, 2001
Schedule E		
CAPITAL WORK-IN-PROGRESS		
Construction and other work-in-progress at cost	1,507.18	1,236.30
Advances to contractors and suppliers for capital goods (Unsecured, considered good)	22.79	113.04
Stock of construction materials (at cost) (Including materials with contractors Rs.41.64, Previous year Rs.22.99)	194.94	175.30
Construction materials and Plant & Machinery-in-transit (at cost)	35.80	259.07
Exchange variation pending capitalisation	39.08	32.25
Expenditure during construction pending allocation (Schedule E.1)	121.02	168.13
Total :	<u>1,920.81</u>	<u>1,984.09</u>

Schedule E.1**EXPENDITURE DURING CONSTRUCTION**

(Pending allocation)

Opening Balance	168.13	127.38
Expenditure / Adjustments during the year :		
Technical Knowhow	1.48	1.85
Technical Consultancy	27.03	59.45
Other Expenses	21.01	8.39
Interest & financing charges	8.70	—
Startup and commissioning expenses	57.58	—
Selling & Distribution expenses	0.57	—
Depreciation	0.21	0.16
	<u>116.58</u>	<u>69.85</u>
Less : Income/Adjustments during the year :		
Sale out of trial production	15.39	—
Export incentives	2.00	—
Finished goods transferred to commercial production	18.30	—
Interest	0.01	0.10
Other Income	0.20	0.25
	<u>35.90</u>	<u>0.35</u>
Net Expenditure during the year	<u>80.68</u>	<u>69.50</u>
Total Expenditure	248.81	196.88
Less : Transfer to other heads	2.88	20.10
Less : Amount allocated to Fixed Assets	124.91	8.65
Balance carried forward	<u>121.02</u>	<u>168.13</u>

Schedule F**INVESTMENTS :**

	Face value per unit (Rs.)	March 31, 2002 Number	March 31, 2002 Book Value	March 31, 2001 Number	March 31, 2001 Book Value
Non-Trade :					
10 year 15% GRIDCO Bonds, 1999	1,000	500,000	50.00	500,000	50.00
Total :			<u>50.00</u>		<u>50.00</u>

(Rupees in crores)

	As at		As at	
	March 31, 2002		March 31, 2001	
Schedule G				
CURRENT ASSETS, LOANS & ADVANCES				
Current Assets :				
Inventories :				
(As Certified by the Management)				
Raw Materials (Including in transit Rs. 10.45, Previous year Rs. 7.03)	57.52		48.25	
Stock of Finished/intermediary products/ work-in-process	164.33		144.88	
Coal and fuel oil (Including in transit Rs. 1.99 Previous year Rs. 1.86)	21.68		17.16	
Stores, spares and others (Including in transit Rs. 54.55, Previous year Rs. 27.75)	239.87		196.36	
Fixed Assets retired from active use and unserviceable materials	1.67		1.46	
Less : Provision	<u>0.75</u>		<u>0.91</u>	
	0.92		0.55	
	484.32		407.20	
Sundry Debtors :				
(Unsecured)				
Debts over six months				
Considered good	144.11		155.89	
Considered doubtful	<u>42.30</u>		<u>42.29</u>	
	186.41		198.18	
Less : Provision for doubtful debts	<u>42.30</u>		<u>42.29</u>	
	144.11		155.89	
Other debts, considered good	<u>113.72</u>		<u>107.18</u>	
	257.83		263.07	
Cash and Bank Balances :				
Cash on hand including imprest & stamps	0.14		0.17	
Cheques and postal orders on hand	2.38		0.10	
Balances with Scheduled Banks :				
In Current Accounts	1.02		0.69	
In Exchange Earner's Foreign Currency Account	110.29		64.87	
In Unpaid dividend Accounts	0.40		0.16	
In Term Deposits	<u>—</u>		<u>0.20</u>	
	114.23		66.19	
Other Current Assets :				
Interest accrued :				
Investments	1.46		1.46	
Bank Deposits and others	1.20		2.71	
Loans to Employees	<u>16.31</u>	18.97	<u>13.83</u>	18.00
Accrued Export Incentives	<u>22.57</u>		<u>31.88</u>	
	41.54		49.88	
Sub-total of Current Assets :	897.92		786.34	

(Rupees in crores)

	As at March 31, 2002	As at March 31, 2001
Schedule G		
CURRENT ASSETS, LOANS & ADVANCES (Contd.)		
Loans and Advances :		
(Unsecured, considered good unless otherwise stated)		
Loans to Employees (Secured Rs. 44.27, Previous Year Rs. 41.00)	48.27	45.13
Stores on loan basis		
Considered good	0.27	0.47
Considered doubtful	0.06	—
	0.33	0.47
Less : Provision for doubtful recovery	0.06	—
	0.27	0.47
Advances to Employees	5.42	2.23
Income Tax refund receivable	21.88	23.17
Payments made towards disputed Sales Tax, Customs and Excise demands	18.81	27.75
Advances to Suppliers and others :		
Considered good	5.72	8.75
Considered doubtful	3.18	2.41
	8.90	11.16
Less : Provision for doubtful advances	3.18	2.41
	5.72	8.75
Prepaid Expenses	2.47	3.57
Claims Recoverable (Considered good) :		
CENVAT credit claims	87.19	74.74
DEPB claims	30.85	21.03
Other claims	11.23	12.79
	129.27	108.56
Claims Considered doubtful	4.24	4.09
	133.51	112.65
Less : Provision for doubtful claims	4.24	4.09
	129.27	108.56
Deposits with :		
Customs Authorities	1.69	0.66
Port Authorities	0.24	0.40
Excise Authorities	0.01	1.81
Other Government Departments	4.54	3.05
Others	1.94	1.18
	8.42	7.10
Sub-total of Loans, advances, claims and deposits :	240.53	226.73
Total :	1,138.45	1,013.07

Note : Loans due from Directors as on 31.3.2002 – Rs. 4.07 lakhs, Maximum amount due during the year Rs. 6.12 lakhs) (Previous year – Rs. 2.93 lakhs, Maximum amount due Rs. 4.41 lakhs)

(Rupees in crores)

	As at March 31, 2002	As at March 31, 2001
Schedule H		
CURRENT LIABILITIES & PROVISIONS		
Current Liabilities :		
Sundry creditors :		
on capital account	103.40	169.05
others	111.36	87.91
Other liabilities (Including advances from customers of Rs. 19.53, previous year Rs. 26.97)	86.14	148.65
Security deposits :		
on capital account	51.33	39.88
others	34.86	30.21
Book Overdraft	41.73	39.45
Interest accrued but not due on :		
Redeemable debentures	1.53	1.53
Foreign currency loan	3.61	—
Redeemable bonds	8.10	—
Short term loans	2.18	—
	444.24	516.68
Provisions :		
For taxation (net of advance payment of tax)	6.95	4.71
For proposed dividend	257.72	257.72
For tax on dividend	—	26.29
For leave encashment and post- retirement medical benefits	10.29	8.63
	274.96	297.35
Total :	719.20	814.03

Schedules forming part of the Profit & Loss Account

(Rupees in crores)

	Year ended March 31, 2002	Year ended March 31, 2001
Schedule I		
SALES		
Export :		
Calcined Alumina	496.35	457.02
Aluminium Standard and Sow Ingots	708.97	786.10
Aluminium Billets	—	71.08
	<u>1,205.32</u>	<u>1,314.20</u>
Domestic :		
Bauxite	—	2.29
Alumina Hydrate	6.58	4.28
Calcined Alumina	0.69	0.41
Aluminium Standard and Sow Ingots	624.90	598.29
Aluminium Wire Rods	384.90	401.56
Aluminium Billets	70.47	25.53
Aluminium Strips	59.82	38.71
Electricity	33.06	21.05
	<u>1,180.42</u>	<u>1,092.12</u>
Total :	<u>2,385.74</u>	<u>2,406.32</u>

Schedule J

ACCRETION/DECRETION TO FINISHED/WORK-IN-PROCESS/INTERMEDIARY PRODUCTS

	Opening Stock	Transfer from trial operation	Adjusted Opening Stock	Closing Stock	Accretion/ Decretion
Finished Products :					
Bauxite	5.85	—	5.85	6.57	0.72
	(5.79)	—	(5.79)	(5.85)	(0.06)
Alumina Hydrate	0.39	—	0.39	1.54	1.15
	(4.51)	—	(4.51)	(0.39)	(-4.12)
Calcined Alumina	30.98	3.38	34.36	38.74	4.38
	(26.97)	—	(26.97)	(30.98)	(4.01)
Aluminium Standard and Sow Ingots	9.22	—	9.22	12.80	3.58
	(17.95)	—	(17.95)	(9.22)	(-8.73)
Aluminium Wire Rods	0.53	—	0.53	1.87	1.34
	(0.45)	—	(0.45)	(0.53)	(0.08)
Aluminium Billets	13.30	—	13.30	0.79	-12.51
	(17.89)	—	(17.89)	(13.30)	(-4.59)
Aluminium Strips	0.43	—	0.43	2.16	1.73
	(0.06)	—	(0.06)	(0.43)	(0.37)
Intermediary products:					
Anodes	16.74	—	16.74	13.59	-3.15
	(14.11)	—	(14.11)	(16.74)	(2.63)
Anode butts	27.85	—	27.85	27.47	-0.38
	(27.34)	—	(27.34)	(27.85)	(0.51)
Aluminium scraps	2.78	—	2.78	6.55	3.77
	(7.32)	—	(7.32)	(2.78)	(-4.54)
Work-in-process					
	36.81	11.48	48.29	52.25	3.96
	(33.49)	—	(33.49)	(36.81)	(3.32)
Total :	144.88	14.86	159.74	164.33	4.59
	(155.88)	—	(155.88)	(144.88)	(-11.00)

Figures in brackets represent those of previous year.

(Rupees in crores)

	Year ended March 31, 2002	Year ended March 31, 2001
Schedule K		
OTHER INCOME		
Operating :		
Export incentives	102.15	117.14
Exchange variation gain	6.06	8.95
	<u>108.21</u>	<u>126.09</u>
Non-Operating :		
Interest on/from :		
Investments	7.50	7.98
Debtors	0.07	2.63
Bank Deposits and others	0.02	3.36
Deposits with Financial Institutions	—	0.88
Loans to Employees	3.14	2.99
Exchange variation gain on bank balance	0.49	1.10
Profit on sale of fixed assets	0.01	0.07
Sale of scrap	1.88	3.36
Sale of Bath	2.84	0.26
Receipt for rent, electricity & water charges	3.07	2.21
Miscellaneous Income	2.81	4.58
	<u>21.83</u>	<u>29.42</u>
Total :	<u>130.04</u>	<u>155.51</u>

Tax deducted at source from interest income from debtors, investments deposits with banks and financial institutions Rs.1.53 (previous year Rs.1.86).

Schedule L**RAW MATERIALS CONSUMED**

	Year ended March 31, 2002		Year ended March 31, 2001	
	Quantity (MT)	Value	Quantity (MT)	Value
Caustic soda	75,518	122.44	67,185	66.27
C. P. Coke	90,614	69.56	87,822	55.28
C. T. Pitch	24,945	43.47	25,687	43.54
Aluminium fluoride	6,309	25.35	6,341	23.43
Lime	24,726	6.72	21,158	5.58
Crystal growth modifier	242	3.41	230	3.08
Purchased anodes	7,022 Nos.	31.45	8,340 Nos.	37.32
Others (Includes calcined alumina of Rs. 3.43 crores transferred from trial operation)		13.50		10.27
Total :		<u>315.90</u>		<u>244.77</u>

(Rupees in crores)

	Year ended March 31, 2002	Year ended March 31, 2001
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Schedule M**POWER & FUEL**

Coal	242.84	228.31
Fuel oil	114.54	110.13
Duty on self generation	68.90	53.91
Power transmission charges	3.15	2.26
Purchased power	15.28	4.96
Total :	<u>444.71</u>	<u>399.57</u>

Schedule N**REPAIRS & MAINTENANCE**

Buildings	5.87	5.98
Ash Pond damage	1.51	4.79
Machinery	99.59	105.60
Others	5.02	5.53
Total :	<u>111.99</u>	<u>121.90</u>

Schedule O**OTHER MANUFACTURING EXPENSES**

Royalty & Cess	17.19	13.83
Freight inwards	21.45	23.07
Consumption of stores	22.55	24.33
Water charges	1.63	1.71
Technical assistance fee & expenses	4.87	3.17
Total :	<u>67.69</u>	<u>66.11</u>

Schedule P**EMPLOYEES' REMUNERATION AND BENEFITS**

Salaries, wages, bonus & exgratia	287.93	159.96
Contribution to Provident & Pension funds	29.20	8.94
Provision for leave encashment and post-retirement medical benefits	1.66	1.10
Staff welfare expenses	21.13	20.41
Gratuity	6.12	3.73
Total :	<u>346.04</u>	<u>194.14</u>

(Rupees in crores)

	Year ended March 31, 2002	Year ended March 31, 2001
Schedule Q		
ADMINISTRATIVE EXPENSES		
Rent	2.19	1.78
Rates and taxes	0.63	0.70
Insurance	2.48	2.29
Repairs & Maintenance :		
Buildings	1.41	1.35
Others	3.17	2.89
Vehicle operating expenses	0.81	1.02
Consumption of stores	0.44	0.68
Recruitment expenses	0.68	0.07
Bank charges	1.45	1.40
Legal expenses	0.57	0.32
Printing & Stationery	1.66	1.37
Electronic data processing expenses	1.67	1.57
Communication expenses	3.51	3.62
Advertisement & publicity	2.41	2.18
Electricity & water charges	2.74	2.23
Travelling expenses	6.84	7.22
Director's sitting fees	0.01	0.02
Hire charges for machinery and vehicles	3.45	3.18
Management development & training	2.34	2.49
Consultancy charges	1.27	1.06
CISF and other security expenses	14.17	13.16
Fire fighting services	2.13	1.71
Miscellaneous expenses	4.45	3.52
Total :	60.48	55.83

Schedule R**OTHER EXPENSES**

Research & development expenses	1.24	0.49
Plantation and horticulture	1.20	1.29
Environment and pollution control	1.53	0.72
Peripheral development expenses	2.79	2.69
Expenditure relating to ash pond damage	1.96	5.90
Auditors' remuneration :		
Statutory audit fee	0.05	0.03
Statutory audit expenses	0.08	0.06
Tax audit, other certification fee and expenses	0.03	0.02
Cost audit fee & expenses	0.02	0.01
Donations	—	1.56
Demurrage	0.37	0.35
Loss on sale of assets	0.06	1.75
Shortages and losses	1.03	0.01
Stores & spares written off	15.85	22.81
Claims, receivables and debts etc written off	0.02	0.16
Total :	26.23	37.85

(Rupees in crores)

	Year ended March 31, 2002	Year ended March 31, 2001
Schedule S		
SELLING AND DISTRIBUTION EXPENSES		
Packing and forwarding	1.46	2.14
Freight outwards and handling (net of recoveries)	34.20	34.23
Cash discount	11.04	13.60
Demurrage	0.08	0.65
Bank charges	0.81	0.99
Others	6.21	4.36
Total :	<u>53.80</u>	<u>55.97</u>
Schedule T		
INTEREST AND FINANCING CHARGES		
Interest on :		
Redeemable debentures	93.32	93.32
Short term loans	14.28	1.08
Others	8.18	3.16
Issue expenses on bonds, debentures etc.	0.61	0.05
Total :	<u>116.39</u>	<u>97.61</u>
Schedule U		
PROVISIONS		
Unserviceable materials	(0.16)	(0.13)
Doubtful Debts	0.01	—
Doubtful advances	0.83	(0.21)
Doubtful insurance claims	0.07	(0.04)
Sundry claims	0.08	(0.23)
Total :	<u>0.83</u>	<u>(0.61)</u>
Schedule V		
PRIOR PERIOD ADJUSTMENTS (NET)		
Sales	0.32	(2.28)
Raw materials consumed	(0.02)	(0.22)
Power and fuel	(2.27)	(0.37)
Repairs and maintenance	0.24	(0.30)
Other manufacturing expenses	(0.18)	—
Administrative expenses	0.31	(0.19)
Depreciation	0.70	1.03
Total :	<u>(0.90)</u>	<u>(2.33)</u>

Figures in brackets represent credits

Schedule W

SIGNIFICANT ACCOUNTING POLICIES

A. BASIS OF ACCOUNTING :

The Company prepares its accounts on accrual basis under historical cost convention in accordance with mandatory accounting standards.

B. BALANCE SHEET :

1. FIXED ASSETS :

- 1.1 All fixed assets are stated at historical cost less depreciation. Cost of acquisition is inclusive of freight, duties, taxes and net of CENVAT credit wherever applicable.
- 1.2 Financing cost directly identifiable to a particular asset is added to the cost of such asset. Financing cost other than above and direct revenue expenditure incurred during construction period on New / Expansion projects is treated as expenditure during construction and is allocated to relevant fixed assets at the time of capitalisation.
- 1.3 Expenses on development of land including leasehold land are capitalised as part of cost of land.
- 1.4 Expenses of capital nature incurred on assets laid on land not belonging to the Company are capitalised under appropriate asset heads.
- 1.5 Where final bills/statements of account are not received, capitalisation of assets has been made provisionally on the basis of technical assessments which may undergo change on settlement of final bills / receipt of statements of account.
- 1.6 Fixed assets acquired out of financial grant from Government are shown at gross cost by crediting the grant-in-aid received to Capital Reserve. Equivalent amount of depreciation written off on such assets in each year is transferred from Capital Reserve to Profit & Loss Account.

2. INVESTMENTS :

Investments are stated at cost.

3. INVENTORIES :

- 3.1 Raw materials, stores, spare parts and tools are valued at weighted average cost and net of CENVAT credit wherever applicable.
- 3.2 Finished goods are valued at lower of cost or net realisable value. Cost is determined on the basis of current year's average cost of production and excludes selling and distribution overheads, interest, exchange variation, depreciation on capitalised exchange variation. Cost of Finished goods inside the plant includes excise duty payable.
- 3.3 Intermediary product, viz. Anodes are valued at direct material cost. Anode butts and anode rejects are valued at lower of realizable value or 45% of direct material cost (being 50% of direct material cost less 10% thereof towards reprocessing cost).
- 3.4 Aluminium scrap is valued at cost. Scrap arising out of replacement of major machinery components is valued on the basis of technical estimation. Other scrap and bath tapped from pot shells are accounted for on disposal.

- 3.5 Stock of work-in-process is ascertained on the basis of technical estimates and is valued at annual average direct material, power & fuel and proportionate conversion cost.

- 3.6 Inventory of stores and spares, other than insurance spares, not moved for more than 5 years is valued at 5% of cost. Inventory of insurance spares is valued after making appropriate adjustments in line with Accounting Standard - 2 read with Accounting Standard - 10.

4. DEFERRED REVENUE EXPENDITURE :

- 4.1 Expenditure on feasibility studies, preparation of project reports, documentations and other related matters on new/expansion projects and unsuccessful projects and capital contribution to external Research & Development Institutions to the extent not adjusted, are grouped under this head pending capitalisation / write off. Expenditure on unsuccessful projects and capital contribution to external Research & Development Institutions is written off over a period of three years.
- 4.2 Preliminary and training expenses will be amortised over a period of five years from the year of commencement of commercial production.

5. FOREIGN CURRENCY TRANSACTIONS :

- 5.1 Exports and imports during the year in foreign currency are recorded in Indian rupees by applying average Bill Buying and Bill Selling rates of the respective months.
- 5.2 Other transactions in foreign currency are accounted for at the exchange rates prevailing on the date of the transactions.
- 5.3 All foreign currency assets and liabilities are stated at the rates prevailing as on the date of the Balance Sheet.
- 5.4 Exchange differences relating to acquisition of fixed assets are adjusted against relevant nature of fixed assets. Other exchange differences arising out of their settlement and restatement are dealt with in the Profit & Loss Account.

C. PROFIT AND LOSS ACCOUNT :

1. DEPRECIATION :

- 1.1 Depreciation is provided under straight-line method.
- 1.2 Depreciation was charged in respect of main Plant and Machinery and related Factory Buildings and Storage godowns etc., at the rate of 5 percent up to 31st March, 1994, based on estimated useful life of assets being 20 years without retention of 5 percent residual value. The useful life of these assets has been revised to 18 years to bring it at par with the life of "Continuous process plant" as envisaged in Schedule XIV of Companies Act, 1956. Such change in life of assets has been considered from 1.4.93 i.e. from the year of introduction of "Continuous process plant" concept in Schedule XIV of Companies Act, 1956. Depreciation rates on such assets have been recomputed based on guidelines issued under Circular No. 14/93 dated, 20.12.93 by Department of Company Affairs, by allocating the unamortized value over the remaining life after retention of 5 percent residual value except for assets already written off fully.

- 1.3 Depreciation on the following assets is provided based on their estimated useful life at the rates which are higher than the respective rates prescribed in Schedule XIV of Companies Act 1956.

Assets	Rate of Depreciation
Red mud pond (Earth work portion)	14.29%
Ash pond at Alumina Refinery (Earth work portion)	13.34%
Ash ponds at Captive Power Plant	18.08% to 26.51%

- 1.4 Depreciation on all other assets is provided as per rates prescribed in Schedule XIV of the Companies Act, 1956.
- 1.5 Assets costing Rs.5,000/- or less individually are depreciated fully in the year in which they are put to use.
- 1.6 Exchange variation loss/gain adjusted to cost of Plant and Machinery is fully depreciated prospectively over the residual life of assets.
- 1.7 Assets laid on land not belonging to the Company are depreciated over a period of five years.
- 1.8 Cost of leasehold land including development expenses thereon is amortised over a period of 25 years in the case of Mines and 20 years or the period of lease whichever is less in other cases commencing from the year of commercial operation.

2. PRIOR PERIOD INCOME /EXPENDITURE & PRE-PAID EXPENSES:

Income / Expenditure relating to prior period and pre-paid expenses not exceeding Rs. 1 lakh in each case is treated as income / expenditure of the current year.

3. RECOGNITION OF REVENUE :

- 3.1 Export sales are recognised based on the date of Bill of Lading irrespective of terms of sale viz. FOB, C&F, CIF etc. Indigenous sales are recognised based on the date of Railway Receipt, Lorry Receipt or Delivery Challan.
- 3.2 Claims are accounted for in the Profit and Loss Account based on certainty of their realisation.
- 3.3 Interest receivable is accounted for based on certainty of realisation from past experience.
- 3.4 Export incentives in the form of credit earned on exports made during the year, under Duty Entitlement Pass Book (DEPB) and Special/ Advance Licences, are treated as income at actual credit and estimated realisable value respectively.
- 3.5 Consumption of raw materials and stores & spares is accounted for at net of CENVAT credit wherever applicable.

4. EXCISE DUTY :

Excise Duty is accounted for on despatch of products from the factory and on closing stock inside the plant as stated in Para No.B 3.2.

5. REPAIRS AND REPLACEMENTS :

- 5.1 Replacements of major machinery components of high value items of gear boxes, transformers, conveyor

belts, wire ropes etc are charged to Profit & Loss Account in the year of replacement after adjustment of estimated realisable value of the scrap arising therefrom.

- 5.2 Pot relining expenses are charged to Profit & Loss Account in the year of occurrence.

6. RETIREMENT BENEFITS :

- 6.1 Contribution to Provident Fund is provided on the basis of actual liability.
- 6.2 Liability on account of service gratuity is covered under Group Gratuity Life Assurance Scheme of Life Insurance Corporation of India. Contributions to the scheme are charged to Profit and Loss Account.
- 6.3 Liabilities towards other retirement benefits such as leave encashment and post retirement medical facilities to employees as at the end of the year are provided for on the basis of actuarial valuation.

7. RESEARCH & DEVELOPMENT EXPENDITURE :

Research and development expenditure except of capital nature, is charged to Profit & Loss Account in the year of incurring after setting off of incidental income, if any.

8. DEFERRED TAXATION :

Deferred Tax resulting from timing difference between book and tax profit is accounted for under the liability method, at the current rate of tax, to the extent that the timing differences are expected to crystallise.

9. DIVIDEND :

Proposed dividend, subject to approval of Central Government under Section 205(1)(c) of the Companies Act, 1956 and awaiting approval of shareholders, is provided in the accounts.

D. SEGMENT REPORTING :

1. The accounting policies adopted for segment reporting are in line with the accounting policies of the Company with the following additional policies for segment reporting.
2. The Company has considered Chemicals and aluminium as the two primary business segments. Chemicals include calcined alumina, alumina hydrate and other related products. Aluminium includes aluminium ingots, wire rods, billets, strips and other related products. Bauxite and power, produced for captive consumption, are included under chemicals and aluminium respectively.
3. India and Outside India are the two geographical segments. Since all production and other facilities are located in India, segment assets except export debtors are shown under one geographic segment i.e, India.
4. Inter-Segment transfer of alumina is valued at annual weighted average export sales realisation reduced by railway freight. Inter-segment transfer of power is valued at annual weighted average sales price to state grid.
5. Revenue and expenses have been identified to segments on the basis of their relationship to the operating activities. Revenue, expenses, assets and liabilities which relate to the enterprise as a whole and are not allocable on a reasonable basis, have been included under "Unallocated Corporate" segment.

Schedule X

(Rupees in crores)

Notes forming part of the Accounts :

1. Balance Sheet :

1.1 Amalgamation of IAPL :

Consequent upon amalgamation of International Aluminium Products Limited (IAPL) (a wholly owned subsidiary of NALCO and a hundred percent export oriented unit being set-up to manufacture aluminium strips, coils and sheets) with NALCO, vide Government of India's Gazette notification No. 817 dated 9th November 2001, retrospectively from 1.4.2000, the audited Balance Sheets of the two companies as on 31.3.2000 were pooled into a common account in terms of clause 4(2) of above notification. Since accounts of both the companies for the year 2000-01 were audited and adopted in the Annual General Meeting of the respective company, no further audit of the amalgamated accounts for the year 2000-01 was carried out. The balances of the amalgamated accounts are pooled as previous year's balances of current year.

1.2 Debentures :

The number of 14.5% Non-convertible Redeemable Secured Debentures of Rs.1000/- each was reduced from 64,35,357 to 64,35,348 on liquidation of fractional debentures because of holding of fractional original shares.

1.3 Land :

- a) Value of freehold land includes advance payments made for acquisition through State Government. Land acquisition proceedings are still in progress and it is possible that further claims may arise on the Company. Relevant title deeds for the acquired land, except a few have been executed.
- b) Land acquired by the Company includes Government land on lease basis. Though the Company has been permitted by the Government to use such land, formalities for legal transfer are yet to be completed. It is possible that further claims may arise on the Company. Value of leasehold land represents amount deposited with the State Government and estimated liabilities provided for.

1.4 Contingent Liabilities :

(Rupees in crores)

	As at 31st March, 2002	As at 31st March, 2001
a) Estimated amount of contracts to be executed on capital account (net of advances and Lcs opened)	615.83	1308.36
b) Outstanding letters of credit, guarantees and counter guarantees	75.01	331.37

	As at 31st March, 2002	As at 31st March, 2001
c) Claims against the Company not acknowledged as debts :		
i) Sales Tax on :		
Works contracts	6.05	6.05
Sale of products	46.66	35.92
ii) Excise Duty on fabrication works	6.12	6.12
iii) Customs Duty on design/engineering charges, steel billets & other claims	13.80	13.80
iv) Claims of contractors, suppliers & others	13.60	24.50
v) Land acquisition & interest thereon	24.30	22.44
vi) Claims made by GRIDCO not covered by contractual terms	7.08	10.32
vii) Excise Duty for non submission of :		
a) Proof of export	30.48	6.75
b) Other documents	31.98	15.53
c) Shortage of Calcined Alumina	0.59	0.59
viii) Unrealised bank guarantees due to court injunctions	0.57	0.57
ix) Income Tax & Wealth Tax *	165.10	682.05
x) Bauxite cess	—	8.34
xi) Road Tax	0.01	0.01
xii) State Entry Tax	4.80	9.33
xiii) Case u/s.7A of EPF Act	0.03	0.03
xiv) Interest on Electricity Duty	0.61	—
Total :	351.78	842.35

* Includes demands raised by the Income Tax Department amounting to Rs.165.10 crores inclusive of interest (Previous year Rs.682.05 crores) for assessment years 1996-97, 1997-98 and 1998-99. Against the orders of IT department, the Company had moved to Hon'ble High Court of Orissa who has stayed the demand and has passed an order directing the Appellate authority to re-compute taxable income/loss in accordance with the provisions of Section 43A of the Act as interpreted by the Department of Legal Affairs and as decided by the Supreme Court in Arvind Mill's case. Hearing for these years on application of 43A and other issues including the

disallowance of export benefits u/s 80HHC for AY 1998-99 is in progress. In view of above, the Company has not acknowledged above demands as debts.

- d) An amount of Rs.18.81 crores (Previous year Rs.27.75 crores) paid under protest against some of the above demands is shown under Loans and Advances. Besides the above claims, few more cases in respect of escalation and extra claims for works contracts have been referred to arbitration, the monetary value of such claims is not ascertainable.
 - e) State Entry tax levied on capital goods, raw materials and stores & spares is challenged by the Company in the Hon'ble High Court of Orissa. In view of stay granted by Hon'ble High Court of Orissa, the demands for entry tax on coal and bauxite are shown under contingent liability.
- 1.4 Dues to various Small Scale Industrial Units amounting to Rs.1.05 crores (Previous year Rs.0.86 crores) have been grouped under Current Liabilities. There are no dues to Small Scale Industrial Units for more than thirty days in excess of rupees one lakh in each case.

2. Profit and Loss Account :

- 2.1 The depreciation rates followed by the Company in respect of certain assets are at variance with the rates specified in Schedule XIV as explained in Accounting Policy No.C.1.2, 1.3 and 1.6. Had the depreciation been calculated in respect of those assets by applying the rates specified in Schedule XIV of Companies Act, 1956, the charge for the year would have been lower by Rs.152.11 crores (previous year lower by Rs.133.07 crores). However the cumulative shortfall in depreciation under Section 205(2) of the Companies Act upto 31.3.2002 is Rs.58.14 crores (previous year Rs.210.25 crores). Such shortfall of depreciation is being provided through higher rates adopted as stated above than those required under Schedule XIV of Companies Act, and will be recouped in the next year.
- 2.2 Consequent to revision of pay scales of non-executive employees with effect from 01.01.1997, (arrear salary after adjustment of provisions made upto 31.3.2001) amounting to Rs.106.49 crores is charged to current years profit and loss account.
- 2.3 Employees of erstwhile IAPL were absorbed in the rolls of Nalco from the appointed date i.e. from 7th November 2001 as per clause 9 of Government of India's Gazette notification No. 817 dated 9th November 2001. Salaries and other benefits of these employees are accounted for as per their terms of appointment existing on the date of amalgamation.
- 2.4 The Company has introduced its own "Employees Pension Scheme" with effect from 1.4.95, which has been recognised by Income Tax Department. In terms of para 39 of Employees Pension Scheme'95 (EPS'95), the Company has sought exemption from operation of EPS'95, which is awaited. Pending grant of recognition to Company's Pension scheme, the amounts otherwise payable to RPFC under EPS'95, amounting to Rs.17.81 crores from 16.11.95 to 31.3.2002 has been retained with the Nalco Employees Provident Fund Trust. Various unions and associations of NALCO have filed writ petition with the Hon'ble Supreme Court of India praying for exemption from operation of EPS'95. The Hon'ble Supreme Court in their interim order dated 30th April 2001 has directed

Union of India, RPFC Bhubaneswar and NALCO to maintain status quo till final disposal.

- 2.5 In respect of self-generation of power, the cost under "Power and Fuel" consists of consumption of coal and fuel oil but does not include other expenses of generation and consumption of certain other materials, which have been included under the primary heads of account.
- 2.6 The dues against GRIDCO amounting to Rs.173.52 crores, as of 31st March 2002, is based on billing made in accordance with agreement with them (erstwhile OSEB). GRIDCO has confirmed the balance as Rs.167.69 crores. The difference is under reconciliation.
- 2.7 On filing of Income Tax Return for the Assessment year 2001-02, excess provision of Rs.1.89 crores made for taxation in previous year has been written back.
- 3.1 In compliance with the Accounting Standard - AS 22 relating to "Accounting for Taxes on Income" issued by Institute of Chartered Accountants of India, the Company for the first time accounted for deferred tax liability (net) of Rs.498.75 crores arising out of timing differences for the period upto 31st March 2001 in the Profit & Loss Account and drawn equal amount from General Reserve. As a result of adoption of this accounting policy, deferred tax accrued during the year aggregating to Rs.6.62 crores is credited to Profit and Loss Account.
- 3.2 Major components of deferred tax assets and liabilities arising on account of timing differences are :

	Up to 31.3.2002	Up to 31.3.2001
	(Rs. in crores)	
Deferred tax liabilities :		
Depreciation differences	514.23	519.07
Others	5.18	4.44
	519.41	523.51
Less: Deferred tax assets :		
Taxes duties, etc.	9.30	7.35
Provision for doubtful debts, claims, etc.	17.75	17.41
Employee separation and retirement	0.23	—
	27.28	24.76
Net deferred tax liability	492.13	498.75

- 3.3 Consequent to change in Accounting Policy on valuation of anode butts and anode rejects (Policy No. B3.3), value of inventory of intermediary products and profit for the year is reduced by Rs.9.16 crores.
- 4.1 Figures have been rounded off to Rupees in crores with two decimal points as approved by Department of Company Affairs.
- 4.2 Previous year's figures have been regrouped / rearranged wherever necessary to make them more comparable.

Schedule Y

Additional information forming part of accounts for the year ended March 31, 2002

	Current year (Rs. in crores)	Previous year (Rs. in crores)
1. Whole-time Directors' Remuneration :		
Salaries	0.26	0.19
Leave salary on retirement	—	0.03
Provision for pay revision liability	—	0.03
Company's contribution to Provident Funds & Gratuity scheme	0.03	0.02
Leave travel concession	—	0.01
Medical benefits	0.01	0.01
Other benefits	0.05	0.08
Total	<u>0.35</u>	<u>0.37</u>

(In addition, each whole time director is allowed the use of Company's car for private purposes up to 750 kms per month on payment of Rs. 4,800/- to Rs. 7,200/- per annum as applicable. Sitting fees paid to non-functional Directors during the year is Rs. 1,30,000 (previous year Rs. 1,75,000).

2. Expenditure incurred in Foreign Currency on cash basis :		
Continued technical assistance to Aluminium Pechiney	3.34	3.70
Payments to consultants/supervision charges	15.19	5.37
Travelling expenses	0.73	0.62
Interest on foreign currency loan	7.45	9.24
Books, periodicals, advertisement, bank charges etc.	0.32	0.37
Total	<u>27.03</u>	<u>19.30</u>

3. Earnings in Foreign Currency on cash basis :		
Export of goods	1,234.78	1,271.32
Interest on bank deposits	—	1.89
Despatch money	0.64	1.60
Total	<u>1,235.42</u>	<u>1,274.81</u>

4. Value of Imports calculated on CIF basis :		
Raw materials	105.79	50.34
Components, spare parts and construction materials	20.26	30.49
Capital goods	298.37	335.19
Total	<u>424.42</u>	<u>416.02</u>

5. Value of Raw materials, stores, spares & components consumed during the year :

	Current Year		Previous Year	
	Value	%	Value	%
a) Raw materials :				
Imported	98.51	31.18	92.40	37.75
Indigenous	217.39	68.82	152.37	62.25
Total	<u>315.90</u>	<u>100.00</u>	<u>244.77</u>	<u>100.00</u>
b) Stores, spares and components :				
Imported	39.24	37.00	42.42	34.28
Indigenous	66.81	63.00	81.32	65.72
Total	<u>106.05</u>	<u>100.00</u>	<u>123.74</u>	<u>100.00</u>

6. Licenced Capacity, Installed Capacity and Actual Production/Generation :

Products	Licenced Capacity	Installed Capacity		Actual Production/Generation	
		Current year (In Tonnes)	Previous year (In Tonnes)	Current year (In Tonnes)	Previous year (In Tonnes)
i) Bauxite	Not Applicable	48,00,000	24,00,000	35,22,059	28,34,189
ii) Aluminium Hydrate	Not Applicable	15,75,000	8,00,000	11,14,000	9,31,000
iii) Calcined Alumina	Not Applicable	15,75,000	8,00,000	11,13,000	9,39,000
iv) Aluminium Metal	Not Applicable	2,30,000	2,30,000	2,31,674	2,30,516
a) Aluminium Standard Ingots	Not Applicable			81,704	93,219
b) Aluminium Sow Ingots	Not Applicable			95,372	78,580
c) Aluminium Wire rods	Not Applicable			40,808	42,559
d) Aluminium Billets	Not Applicable			5,446	10,906
e) Aluminium Strips	Not Applicable			6,503	4,097
v) Electricity	Not Applicable	720 MW	720 MW	3970 MU	3833 MU

Note : 1. Installed capacities are as per project report.

2. Installed capacity of Alumina Hydrate and Calcined Alumina is increased from 8,00,000 MT to 10,50,000 MT in July 2001 and further to 15,75,000 MT in March 2002.

3. Production of Alumina Hydrate and Calcined Alumina includes 38,047 MT each (Previous year Nil) out of trial operation.

4. Bauxite of 35,16,727 MT (previous year 28,76,765 MT), Alumina Hydrate of 11,13,452 MT (previous year 9,39,248 MT), Calcined Alumina of 4,40,065 MT (previous year 4,41,366 MT) and Electricity of 3664 MU (previous year 3,615 MU) have been consumed internally during the year.

5. The Aluminium production at column iv) includes production of 916 MT (previous year 1155 MT) of bus bar, 607 MT (previous year Nil) of Anode stem and wedges and 318 MT of strip coil (previous year Nil) produced for internal consumption.

7. Stocks and Sales :

Products	Opening Stock		Sales		Closing Stock	
	Quantity In Tonnes	Value Rs. in crores	Quantity In Tonnes	Value Rs. in crores	Quantity In Tonnes	Value Rs. in crores
Bauxite	3,63,819 (4,56,393)	5.85 (5.79)	— (50,003)	— (2.29)	368,959 (363,819)	6.57 (5.85)
Alumina Hydrate	923 (11,985)	0.39 (4.51)	5,760 (3,805)	6.58 (4.28)	3,035 (923)	1.54 (0.39)
Calcined Alumina	67,284 (65,068)	30.98 (26.97)	670,657 (496,042)	497.04 (457.43)	75,507 (67,284)	38.74 (30.98)
Aluminium St. & Sow ingots	1,792 (4,574)	9.22 (17.95)	174,911 (174,547)	1,333.87 (1,384.39)	2,249 (1,792)	12.80 (9.22)
Aluminium Wire rods	98 (87)	0.53 (0.45)	40,597 (42,548)	384.90 (401.56)	309 (98)	1.87 (0.53)
Aluminium Billets	2,300 (3,217)	13.30 (17.89)	7,625 (11,823)	70.47 (96.61)	121 (2,300)	0.79 (13.30)
Aluminium Strips	72 (7)	0.43 (0.06)	6,244 (4,032)	59.82 (38.71)	331 (72)	2.16 (0.43)
Electricity (in MU net)	— —	— —	342 (225)	33.06 (21.05)	— —	— —

Note : 1. Figures in brackets pertain to those of previous year.

2. The closing stock of Aluminium ingots includes 771 MT of Sow ingots (previous year 490 MT).

3. Stock of Bauxite, Alumina hydrate and Calcined alumina are valued and disclosed as finished products.

4. Sales excludes sale of calcined alumina of 20,534 MT (Rs. 15.39 crores) out of trial production.

5. Figures of closing stock are after adjustment of shortage of Bauxite 192 MT (Previous year excess of 5 MT), Alumina hydrate excess of 7324 MT (previous year Nil) Calcined alumina excess of 5945 MT (previous year 624 MT), Aluminium Standard & Sow ingots shortage of 47 MT (previous year 34 MT). Corresponding insurance claims are lodged in respect of transit shortages of standard and sow ingots.

8. Social Amenities :

(Rs. in crores)

Expenses	Township	Education	Medical	Social/Cultural	Canteen	Total
Payments to employees	3.35	0.31	9.25	—	2.70	15.61
Welfare expenses	—	5.99	4.43	1.50	5.84	17.76
Materials consumed	0.82	—	2.07	—	0.09	2.98
Repairs & maintenance	4.51	0.02	0.01	—	0.10	4.64
Power, fuel & water charges	3.28	—	0.01	—	—	3.29
Depreciation	4.02	0.18	0.11	0.23	0.03	4.57
Total	15.98	6.50	15.88	1.73	8.76	48.85
Less : Recoveries	2.72	—	0.08	—	—	2.80
Net Expenditure	13.26	6.50	15.80	1.73	8.76	46.05
For previous year	10.38	5.55	11.02	1.87	7.24	36.06

9. Balance Sheet Abstract and Company's General Profile

i) Registration Details :

Registration No	1500920
State Code	15
Balance Sheet Date	31st March 2002

ii) Capital raised during the year :

	Current Year	Previous Year
	(Rupees in crores)	
Public Issue	Nil	Nil
Rights Issue	Nil	Nil
Bonus Issue	Nil	Nil
Private Placement	Nil	Nil

iii) Position of mobilisation and deployment of Funds :

Total Liabilities	4,788.69	4,373.90
Total Assets	4,788.69	4,373.90
Sources of Funds :		
Paid-up Capital	644.31	644.31
Reserves & Surplus	2,580.93	2,928.06
Secured Loans	1,563.45	801.28
Unsecured Loans	Nil	0.25
Application of Funds :		
Net Fixed Assets	4,810.43	4,124.15
Investments	50.00	50.00
Net Current Assets	419.25	199.04
Misc. Expenditure	1.14	0.71
Accumulated losses	Nil	Nil

iv) Performance of the Company :

Turnover	2,385.74	2,406.32
Total Expenditure	2,015.94	1,711.93
Profit/Loss before Tax	525.61	843.37
Profit/Loss after Tax	409.35	655.83
Earning per Share (In Rupees)	6.35	10.18
Dividend rate (%) (Including Interim Dividend)	40.00	40.00

v) Generic Name of Principal products/services : (Disclosed as per Licence)

Item Code No.	335000000 and 76.06
Product	Aluminium Ingots and cold rolled aluminium strips/coils/sheets

10. Segmentwise Information

BUSINESS SEGMENTS

(Rs. in crores)								
	Chemicals		Aluminium		Unallocated Corporate		Consolidated Total	
	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
A. Revenue								
External sales	503.62	464.00	1,882.12	1,942.32	—	—	2,385.74	2,406.32
Inter-segment transfer	302.63	414.94	10.88	7.44	—	—	313.51	422.38
Total Revenue	806.25	878.94	1,893.00	1,949.76	—	—	2,699.25	2,828.70
Less : Elimination							(313.51)	(422.38)
Net Revenue							2,385.74	2,406.32
B. Result								
Segment result	254.88	455.28	422.77	501.59	(54.56)	(36.89)	623.09	919.98
Interest expense							108.21	94.45
Interest income							10.73	17.84
Income taxes							116.26	187.54
Profit from ordinary activities							409.35	655.83
Extraordinary items							—	—
Net Profit							409.35	655.83
C. Other Information								
Segment assets	2,166.93	2,022.82	3,603.30	2,982.44	228.65	181.96	5,998.88	5,187.22
Segment liabilities	153.19	166.70	279.57	340.46	286.44	306.87	719.20	814.03
Capital expenditure	154.93	376.10	903.72	508.14	0.51	1.16	1,059.16	885.40
Depreciation	126.39	109.46	185.01	183.93	1.67	1.63	313.07	295.02
Non-cash expenses (other than depreciation)	4.18	15.88	13.97	7.73	0.21	(0.15)	18.36	23.46

GEOGRAPHIC SEGMENTS

	India		Outside India		Consolidated Total	
	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
A. Revenue						
External sales	1,180.42	1,092.12	1,205.32	1,314.20	2,385.74	2,406.32
B. Other Information						
Segment assets	5,920.77	5,095.02	78.11	92.20	5,998.88	5,187.22
Capital expenditure	1,059.16	885.40	—	—	1,059.16	885.40

In terms of our report of even date attached.

For and on behalf of
Tej Raj & Pal
Chartered Accountants

For and on behalf of Board of Directors

B. Gangaraju
Partner
12th July, 2002

Bhubaneswar
11th July, 2002

K. N. Ravindra
Company Secretary

S. K. Banerjee
Director
(Projects & Technical)

C. Venkataramana
Chairman-cum-
Managing Director

Cash Flow Statement for the Year ended March 31st, 2002

(Rupees in crores)

	Year ended March 31st, 2002	Year ended March 31st, 2001
A. Cash Flow from Operating Activities :		
Net Profit before tax and Extraordinary Income	525.61	843.37
Adjustments for :		
Depreciation	313.07	295.02
Interest & Financing charges	107.60	94.40
Provisions (Net)	2.49	0.49
Claims/Recoverables written off	0.02	0.35
Stores and spares written off	15.85	22.81
Interest income	(10.73)	(17.84)
Debenture issue expenses	0.61	0.05
Loss/(Profit) on sale of assets (net)	0.05	1.68
	<u>428.96</u>	<u>396.96</u>
Operating Profit before working capital changes	954.57	1,240.33
Adjustments for :		
Inventories	(92.81)	10.35
Trade & other receivables	(1.55)	23.58
Trade payables	(20.68)	100.66
	<u>(115.04)</u>	<u>134.59</u>
Cash generated from Operations	839.53	1,374.92
Adjustments for :		
Interest & financing charges paid	(93.71)	(94.40)
Direct taxes paid	(119.35)	(195.30)
	<u>(213.06)</u>	<u>(289.70)</u>
Cash flow before Extraordinary Items	626.47	1,085.22
Extraordinary Items	—	—
Net cash from operating activities	626.47	1,085.22
B. Cash Flow from Investing Activities :		
Purchase of Fixed Assets	(1,059.16)	(885.40)
Sale/write off of Fixed Assets	0.49	0.11
Sale of Investments*	—	14.00
Interest received	9.76	14.91
Net cash used in investing activities	(1,048.91)	(856.38)
* at face value		
C. Cash Flow from Financing Activities :		
Foreign currency loan	(18.89)	—
Medium term borrowings	440.00	—
Short term borrowings	333.99	(20.24)
Grants-in-aid received from Government of India	—	0.05
Debenture issue expenses	(0.61)	(0.05)
Dividends including dividend tax paid	(284.01)	(146.59)
Net cash used in Financing activities	470.48	(166.83)

	(Rupees in crores)	
	Year ended March 31st, 2002	Year ended March 31st, 2001
D. Net changes in Cash & Cash equivalents (A+B+C)	48.04	62.01
E. Cash & Cash equivalents — Opening balance	66.19	4.18
F. Cash & Cash equivalents — Closing balance	114.23	66.19

- Note : a) Figures in brackets are cash outflows/incomes as the case may be.
- b) Against working capital borrowing facility of Rs. 400.00 crores (Previous year Rs. 350.00 crores), the Company has been availing Export Packing Credit during the year as and when required and its balance as at end of the year is Rs. 137.86 crores (Previous year Nil). The Company also issued commercial paper of face value of Rs. 200.00 crores (discounted value Rs. 196.37 crores) (previous year Nil) against lien on cash credit limit.
- c) Amalgamation of erstwhile International Aluminium Products Ltd. (IAPL) with the Company during the year is non-cash transaction. Previous year's figures are redrawn considering pooling of transaction.

For and on behalf of Board of Directors

Bhubaneswar
11th July, 2002

K. N. Ravindra
Company Secretary

S. K. Banerjee
Director
(Projects & Technical)

C. Venkataramana
Chairman-cum-
Managing Director

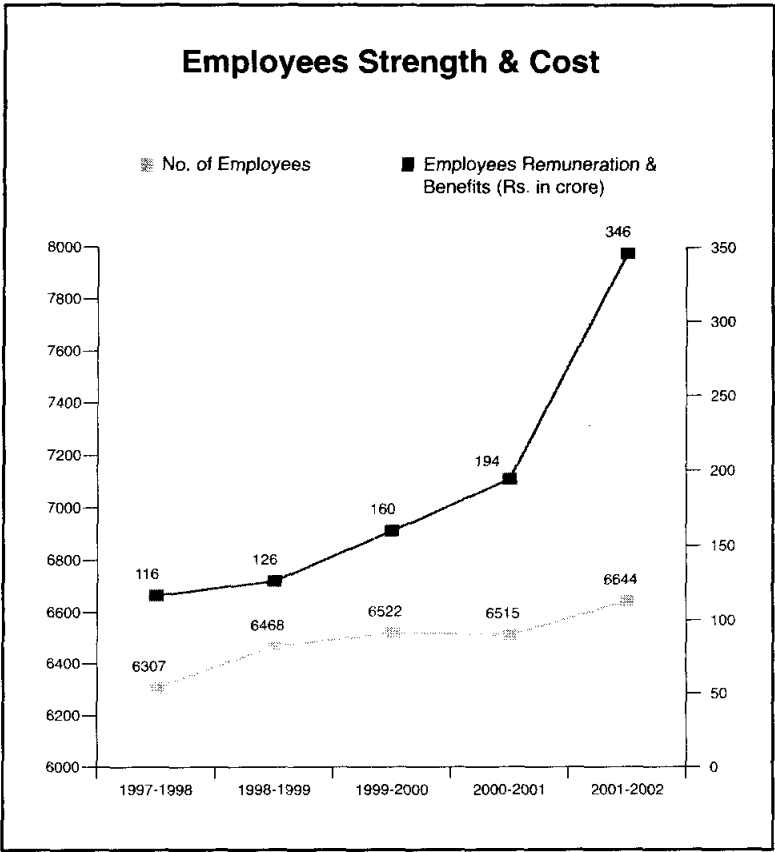
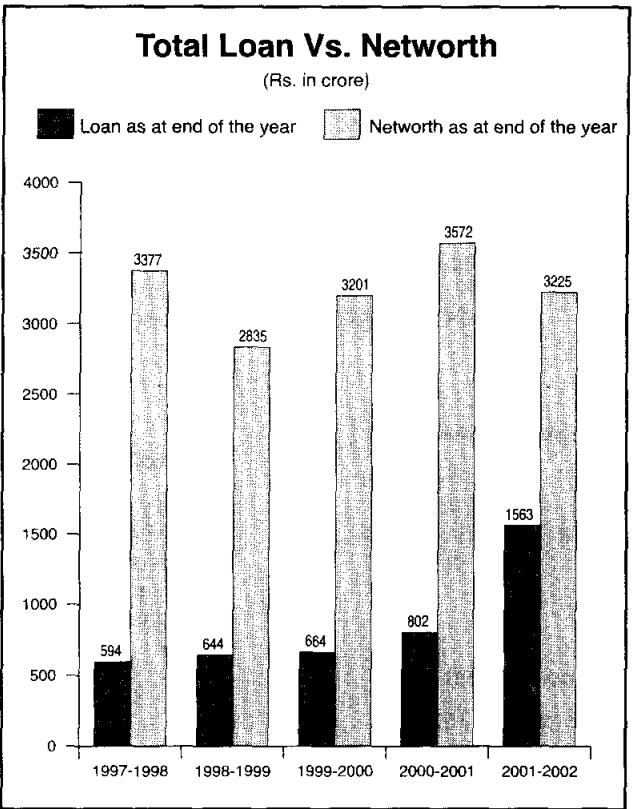
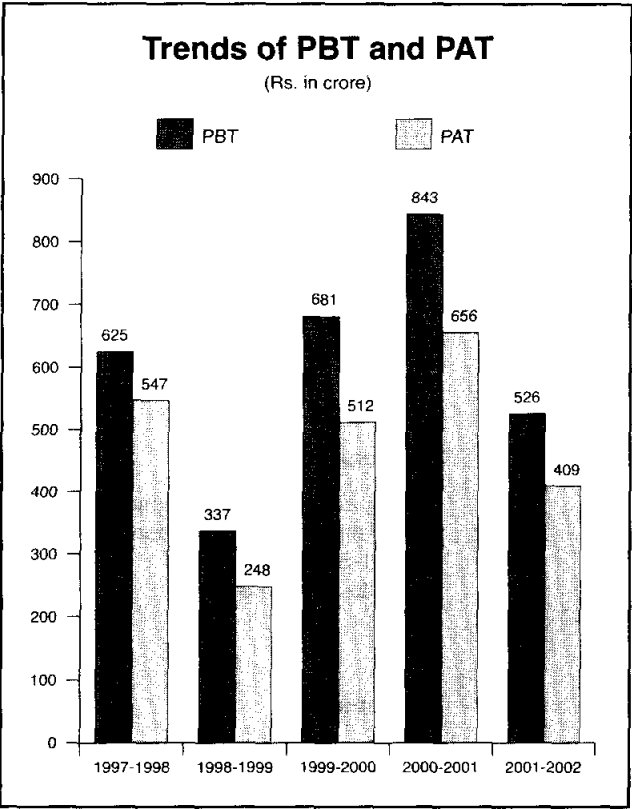
Auditors' Certificate

We have audited the above cash flow statement of National Aluminium Company Limited from the audited financial statements for the year ended March 31, 2002 and found the same to be drawn in accordance therewith and also with the requirements of Clause 32 of the listing agreements with stock exchanges.

For and on behalf of
Tej Raj & Pal
Chartered Accountants

Bhubaneswar
12th July, 2002

B. Gangaraju
Partner



Offices and Customer Contact Centres

UNITS

1. Mines & Refinery

Damanjodi - 763 008
Dist : Koraput (Orissa)
Phone : 06853-32201
Fax : 06853-32214/32288

2. Captive Power Plant

Dist : Angul (Orissa)
Pin : 759 122
Phone : 06764-20360
Fax : 06764-20646

3. Smelter Plant

Nalco Nagar - 759 145
Dist : Angul (Orissa)
Phone : 06764-20169
Fax : 06764-20132

PORT FACILITIES

Visakhapatnam

Opp. Ore Handling Complex
Visakhapatnam - 530035
Andhra Pradesh
Phone : 0891-561433/561435
Fax : 0891-561598

MARKETING OFFICES

1. Mumbai

215, T.V. Industrial Estate
S. K. Ahire Marg, Worli
Mumbai-400 025
Phone : 022-4939288/4939289
Fax : 022-4950500

2. Kolkata

Binoy Bhawan,
6th Floor, 27-B,
Camac Street
Kolkata - 700 016
Phone : 033-2470115/2477360
Fax : 033-2478936

3. New Delhi

303, Mercantile House
15, Kasturba Gandhi Marg
New Delhi - 101 001
Phone : 011-3706080/81
Fax : 011-3721195/3706090

4. Chennai

3E, Century Plaza
560, Anna Salai
Teynampet, Chennai-600 018
Phone : 044-4344162
Fax : 044-4343495

5. Bangalore

Reshma Complex
3rd Floor, Reshma Complex
50, M.G. Road,
Bangalore-560 001
Phone : 080-5587298/5587086
Fax : 080-5586151

STOCK YARDS

1. Bhiwandi

Gupta Warehousing Complex
Mhatre Compound
Dapoda Village
Taluka, Bhiwandi
Dist. Thane

2. Kolkata

National Aluminium Company Limited
C/o Balmer Lawrie & Company Limited
WH, 1-Sonapur Road
Kolkata - 700 088

3. Jaipur

C/o Central Warehousing Corporation
"Central Warehouse"
SP - 1296, Sitapura Industrial Area
Jaipur - 302022

4. Bangalore

National Aluminium Company Limited
C/o M/s. Container Corporation of India
Bonded Warehouse No. 3
Inland Container Depot
White Field
Bangalore - 560 006



National Aluminium Company Limited

(A Government of India Enterprise)

Regd. Office : NALCO BHAWAN, Plot No. P/1,
Nayapalli, Bhubaneswar - 751 013 (Orissa)

NOTICE

Notice is hereby given that the 21st Annual General Meeting of the Company will be held on Wednesday, the 30th October, 2002 at 10.00 A.M at NALCO BHAWAN, Plot No. P/1, Nayapalli, Bhubaneswar – 751 013 to transact the following business :

ORDINARY BUSINESS :

1. To receive, consider and adopt the Directors' Report, audited Balance Sheet as on 31st March, 2002 and the Profit & Loss Account for the year ended 31st March, 2002 together with the reports of the Auditors thereon.
2. To declare dividend.
3. To appoint a Director in place of Shri S. K. Banerjee, who retires by rotation and being eligible, offers himself for re-appointment.

SPECIAL BUSINESS :

4. Appointment of Shri G.Upadhyaya as Director, whose period of office is liable to be determined by rotation.
To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :
"Resolved that Shri G.Upadhyaya be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No. 2(1)/2001-Met.I dtd.22.03.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."
5. Appointment of Dr. Sutanu Behuria as Director, whose period of office is liable to be determined by rotation.
To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :
"Resolved that Dr. Sutanu Behuria be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No. 6(7)/2001-Met.I dtd.30.04.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."
6. Appointment of Shri P. Mohapatra as Director, whose period of office is liable to be determined by rotation.
To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :
"Resolved that Shri Pyarimohan Mohapatra be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No. 2(2)/97-Met.I(pt) dtd.11.06.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."
7. Appointment of Shri G.P.Gupta as Director, whose period of office is liable to be determined by rotation.
To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :
"Resolved that Shri G.P.Gupta be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No. 2(2)/97-Met.I(pt) dtd.11.06.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."
8. Appointment of Shri B. N. Jha as Director, whose period of office is liable to be determined by rotation.
To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :
"Resolved that Shri B. N. Jha be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No.2(1)/95-Met.I dtd.07.08.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."

9. Appointment of Smt. Adarsh Misra as Director, whose period of office is liable to be determined by rotation.

To consider and if thought fit, to pass with or without modifications, the following resolution as an ordinary resolution :

"Resolved that Smt. Adarsh Misra be and is hereby appointed as a Director of the Company, whose period of office is liable to be determined by rotation in terms of Order No. 3(1)/2002-Met.I(Pt.I) dtd. 27.08.2002 of Government of India, Ministry of Coal and Mines, Department of Mines."

10. Fixation of remuneration of Statutory Auditors.

To consider and if thought fit, to pass the following resolution as an ordinary resolution with or without modifications.

"Resolved that pursuant to sub-clause (aa) of Section 224(8) of Companies Act, 1956 as amended, the Board of Directors of the Company be and is hereby authorised to fix a suitable remuneration to the Statutory Auditors of the Company for the financial year 2002-2003 as may be mutually agreed upon between the Board of Directors and the Statutory Auditors of the Company, on appointment by the C&AG."

By order of the Board



(K. N. RAVINDRA)
COMPANY SECRETARY

Place : Bhubaneswar

Date : 30.09.2002

Notes:

- (a) Explanatory Statements pursuant to Section 173(2) of the Companies Act, 1956, in respect of item Nos. 4 to 10 set out above are annexed hereto.
- (b) In view of the anticipated delay in receipt of the comments of the Comptroller and Auditor General of India, Company had applied for extension of time for holding the Annual General Meeting, which has been given by Department of Company Affairs vide letter No. N-038/1500920/94-IGC dtd. 10.09.2002.
- (c) A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE INSTEAD OF HIMSELF. SUCH PROXY NEED NOT BE A MEMBER OF THE COMPANY. PROXIES IN ORDER TO BE EFFECTIVE MUST BE RECEIVED BY THE COMPANY NOT LESS THAN FORTY-EIGHT HOURS BEFORE THE COMMENCEMENT OF THE MEETING. A BLANK PROXY FORM IS ENCLOSED.
- (d) The Register of Members and Share Transfer Books of the Company were closed from 24th September, 2002 to 30th September, 2002 (both days inclusive) as notified in the press.
- (e) If dividend on shares as recommended by the Directors is approved at the Meeting, payment of such dividend will be made within 30 days of its declaration as per the provisions of Section 205A of the Companies Act, 1956 to those shareholders, whose names appear:-
 - i) as Beneficial Owners as at the end of the business on 23rd September, 2002 as per the beneficial owners position downloaded by NSDL & CDSL in respect of the shares held in the electronic form and
 - ii) as members in the Register of Members of the Company, after giving effect to all valid share transfers in physical form lodged with the Company on or before 23rd September, 2002.
- (f) Details of Director seeking re-appointment/appointment of new Directors in this Annual General Meeting are attached separately to the Notice.
- (g) Members are requested to notify immediately change in their address, if any, specifying full address in block letters with PIN CODE of their Post Offices, to the Registered Office of the Company, quoting their Folio Number. They are also requested to notify to the Company their Bank particulars/change in their Bank particulars, if any, so that the same can be printed on the dividend warrants to protect the Members from any loss by way of fraud/forgery.

- (h) Members attending the meeting are requested to bring copies of their Annual Reports since it may not be possible on the part of the Company to supply additional copies at the meeting.
- (i) Members holding shares and debentures (in case the member is also holding debentures of the Company), in physical mode, in identical order of names in more than one folio are requested to write to the Company's Registered Office enclosing their share/debenture certificates to enable the Company to consolidate their holdings in one folio, so that multiple correspondence/despatch of multiple dividend/ interest warrants can be avoided.
- (j) As per the provisions of the amended Companies Act, 1956, facility for making nominations is now available for shareholders and debenture holders in respect of the shares and debentures held by them. In case, shares/debentures are held in electronic form registration of nomination has to be done with the respective Depository Participants only without referring the matter to the Company. However, where shares/debentures are held in physical mode, requests for registration of nomination are to be made to the Company. Nomination forms (Form 2B) if needed, can be obtained from the Share Registry of the Company.
- (k) In terms of directives of Securities and Exchange Board of India (SEBI) vide letter No. DCC/FITTCIR-3/2001 dtd. 15.11.2001, action has been taken for use of Electronic Clearing Service (ECS) facility for distribution of dividends or other cash benefits to the share holders, depending on the number of requests received from the share holders in this respect. As per the Notification No. F.No.5/99-CL.V; General Circular No. 5/2002, dtd. 01.03.2002 of Department of Company Affairs, Ministry of Law, Justice & Company Affairs centralised ECS (Credit Clearing) is presently available at 15 designated centres of Reserve Bank of India, viz. Ahmedabad, Bangalore, Bhubaneswar, Kolkata, Chandigarh, Chennai, Guwahati, Hyderabad, Jaipur, Kanpur, Mumbai, Nagpur, New Delhi, Patna and Thiruvananthapuram. Share holders are requested to provide their ECS Bank Mandates for availing this facility. Further, ECS facility is also available to the beneficial owners of shares held in demat form. Those desirous of availing the facility may provide their ECS Bank Mandates to the Company in writing under copy to their respective DPs with 9 digit MICR code. ECS Bank Mandate form is attached for use by the shareholders.
- (l) Income tax will be deducted at source from dividend payable to shareholders except in case of shareholders who are resident individuals and whose dividend amount payable during a financial year does not exceed Rs.2,500/-. Therefore, other resident individual shareholders, who intend to seek exemption from deduction of Income-tax at source, are requested to submit a declaration in Form 15G in DUPLICATE duly completed in all respects or Tax Exemption Certificate issued by Income-tax Officer, at the Registered Office or Share Registry of the Company on or before 23rd October, 2002.
- (m) Members other than those who claim exemption from deduction of tax at source as indicated at 'Note-I' above are requested to intimate their Permanent Account Number (PAN) allotted by Income- tax authorities, to enable the Company to quote the same on Tax Deduction Certificate for tax deducted on dividend. Those Members who have not been allotted PAN should furnish General Index Register (GIR) Number along with a declaration that PAN has not been allotted. This has become mandatory now as per Sub-section (5A) of Section 139A of Income Tax Act, 1961.
- (n) Members holding shares in electronic form may please note that their bank details as furnished by the respective Depositories to the Company will be printed on their dividend warrants as per the applicable regulations of the Depositories and the Company will not entertain any direct request from such Members for change/deletion of such bank details. Further, instructions, if any, already given to the Company by them in respect of shares held in physical form will not be automatically applicable to the dividend paid on shares held in electronic form. Members may therefore give instructions regarding particulars of their bank accounts and address in which they wish to receive dividend, to their respective Depository Participants only.
- (o) Members who have not encashed their dividend warrant(s) or whose dividend warrants sent by Regd. Post have been returned to the Company as undelivered by the Postal Authorities from the financial year 1995-96 (including unencashed/returned undelivered debenture interest warrants since September, 1999) are requested to make their claims to the Company immediately, since the unpaid or unclaimed dividend/interest will be transferred to the "Investor Education and Protection Fund", as per the provisions of Section 205A & 205C of the Companies Act, 1956, after expiry of 7 years from the date they became due for payment. Members may please note that no claim can be made once the dividends/interests have been transferred to the credit of the Investor Education & Protection Fund of the Central Government as per Section 205B of the Companies Act, 1956.

ANNEXURE TO NOTICE

Explanatory Statements pursuant to Section 173(2) of the Companies Act, 1956.

Item No. 4 :

Shri G.Upadhyaya was inducted to the Board as an Additional Director of the Company w.e.f. 01.04.2002. In terms of Section 260 of the Companies Act, 1956, Shri Upadhyaya holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Shri Upadhyaya as a Director of the Company, whose period of office is liable to be determined by rotation.

Shri Upadhyaya is presently serving as Director (Personnel & Administration) in NALCO. Before joining NALCO he was working as Executive Director (P&A) in Steel Authority of India Limited, New Delhi. He does not have directorship in any other Company. Your Directors feel that his association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of his services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Shri Upadhyaya, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 5 :

Dr. Sutanu Behuria was inducted to the Board as an Additional Director of the Company w.e.f. 30.04.2002. In terms of Section 260 of the Companies Act, 1956, Dr. Behuria holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a Member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Dr. Behuria as a Director of the Company, whose period of office is liable to be determined by rotation.

Dr. Behuria is an IAS officer and at present is serving as Joint Secretary and Financial Advisor in the Department of Mines, Ministry of Coal and Mines, Government of India. He is also holding Directorship in Coal India Limited, Neyveli Lignite Corporation Limited, Singareni Collieries Company Limited, Eastern Coalfields Limited, Hindustan Zinc Limited, Hindustan Copper Limited and Bharat Aluminium Company Limited. Your Directors feel that his association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of his services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Dr. Behuria, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 6 :

Shri P. Mohapatra was inducted to the Board as an Additional Director of the Company w.e.f. 11.06.2002. In terms of Section 260 of the Companies Act, 1956, Shri Mohapatra holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a Member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Shri Mohapatra as a Director of the Company, whose period of office is liable to be determined by rotation.

Shri Mohapatra is a retired IAS officer with varied and rich experience in various senior positions in the Government. He is also holding Directorship in Steel Authority of India Limited. Your Directors feel that his association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of his services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Shri Mohapatra, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 7 :

Shri G.P.Gupta was inducted to the Board as an Additional Director of the Company w.e.f. 11.06.2002. In terms of Section 260 of the Companies Act, 1956, Shri Gupta holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a Member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Shri Gupta as a Director of the Company, whose period of office is liable to be determined by rotation.

Shri Gupta was former Chairman-cum-Managing Director of Industrial Development Bank of India. He is also holding Directorship in Jammu & Kashmir Bank Limited, Bharat Heavy Electricals Limited, Swaraj Engines Limited and Hindustan Aeronautics Limited. Your Directors feel that his association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of his services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Shri Gupta, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 8 :

Shri B. N. Jha was inducted to the Board as an Additional Director of the Company w.e.f. 13.08.2002. In terms of Section 260 of the Companies Act, 1956, Shri Jha holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a Member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Shri Jha as a Director of the Company, whose period of office is liable to be determined by rotation.

Shri Jha is presently serving as Director (Commercial) in NALCO. Before joining NALCO he was working as Executive Director (Commercial) in Steel Authority of India Limited, New Delhi. He does not have directorship in any other Company. Your Directors feel that his association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of her services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Shri Jha, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 9 :

Smt. Adarsh Misra was inducted to the Board as an Additional Director of the Company w.e.f. 27.08.2002. In terms of Section 260 of the Companies Act, 1956, Smt. Misra holds office only up to the date of the ensuing Annual General Meeting. The Company has received a notice in writing along with the prescribed deposit from a Member of the Company under Section 257 of the Companies Act, 1956, signifying his intention to propose the candidature of Smt. Misra as a Director of the Company, whose period of office is liable to be determined by rotation.

Smt. Misra is an IAS officer and at present is serving as Additional Secretary in the Department of Mines, Ministry of Coal and Mines, Government of India. She is also holding Directorship in Hindustan Copper Limited. Your Directors feel that her association with the Board will be in the interest of the Company. It is considered desirable that the Company should continue to avail itself of her services as a Director and recommend this resolution for approval of the shareholders.

None of your directors except Smt. Misra, whose appointment is proposed herein, is interested in the proposed resolution.

Item No. 10 :

The Companies (Amendment) Act, 2000 has amended Section 619(2) by providing that the Auditors of a Government Company shall be appointed or re-appointed by the Comptroller and Auditor General of India.

Sub-clause (aa) of Section 224(8) which has been inserted by the said Amendment Act, further provides that the remuneration of an auditor appointed under Section 619 of the Companies Act, 1956 by the C&AG, shall be fixed by the Company in General Meeting or in such manner as the Company in General Meeting may determine.

Statutory auditors have not been appointed for the Financial Year 2002-2003 so far. Shareholders may authorise the Board of Directors to fix a suitable remuneration to be paid to the Statutory Auditors of the Company as may be mutually agreed upon between the Board of Directors and Statutory Auditors of the Company on their appointment by the C&AG for 2002-2003.

The Directors, therefore, recommend this Ordinary Resolution for fixation of the remuneration of the Statutory Auditors of the Company.

None of your directors is interested in the proposal.

By order of the Board



(K. N. RAVINDRA)
COMPANY SECRETARY

Place : Bhubaneswar
Date : 30.09.2002

**Details of Director seeking re-appointment/appointment of new Directors in
Annual General Meeting fixed on 30th October, 2002.
(In terms of Clause – 49 of the Listing Agreement)**

1.	Shri S. K. Banerjee Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Late Shri Amiyanath Banerjee 12.08.1941 30.09.1999 Varied experience in Project Management from concept to commissioning B.Sc. Engg. (Civil) Nil Technology Committee Nil
2.	Shri G. Upadhyaya Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Late Shri B. Upadhyaya 25.01.1945 01.04.2002 Varied experience in Human Resources Development and Industrial Relations P.G.Diploma in IR & W, Master of Management Studies Nil Nil Nil
3.	Dr. Sutanu Behuria Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Shri N. C. Behuria 02.07.1954 30.04.2002 IAS officer with varied experience in Administration M.A., Ph. D, IAS. a. Coal India Limited b. Neyveli Lignite Corporation Limited c. Singareni Collieries Company Limited d. Eastern Coalfields Limited e. Hindustan Zinc Limited f. Hindustan Copper Limited g. Bharat Aluminium Company Limited Audit Committee Audit Committee : a. Coal India Limited b. Singareni Collieries Company Limited c. Eastern Coalfields Limited d. Hindustan Copper Limited
4.	Shri P. Mohapatra Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Late Shri Kalicharan Mohapatra 25.01.1940 11.06.2002 Retd. IAS officer with varied experience in Administration IAS Steel Authority of India Limited Audit Committee and Technology Committee Nil

5.	Shri G. P. Gupta Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Late Shri Dharam Prakash 11.01.1941 11.06.2002 Varied experience in Banking industry (Former Chairman and Managing Director of IDBI) M.Com a. Jammu & Kashmir Bank Limited b. Bharat Heavy Electricals Limited c. Swaraj Engines Limited d. Hindustan Aeronautics Limited Audit Committee Audit Committee : a. Bharat Heavy Electricals Limited b. Swaraj Engines Limited c. Hindustan Aeronautics Limited
6.	Shri B. N. Jha Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Shri Bishwambhar Jha 02.10.1944 13.08.2002 Varied experience in domestic and international trade B.Sc. (Engg.) Metallurgy Nil Technology Committee Nil
7.	Smt. Adarsh Misra Father's Name Date of Birth Date of Appointment Expertise in specific functional areas Qualifications List of outside Directorships held Members of Committees of the Board Members of Committees in other companies	Chander Manipuri 01.11.1946 27.08.2002 IAS officer with varied experience in Administration IAS Hindustan Copper Limited Nil Nil

Note : Audit Committee in NALCO has been assigned with the job of looking into the redressal of Shareholders/Investors' Grievances. This is in line with clarifications given by Bombay Stock Exchange.



National Aluminium Company Limited
Regd. Office : NALCO BHAWAN, Plot No. P/1, Nayapalli,
Bhubaneswar - 751 013 (Orissa)

Dear Shareholder(s),

Payment of dividend through Electronic Clearing Service (ECS)

A new method of payment has been introduced by Reserve Bank of India which provides you an option to collect your dividend directly through your bank account. Your bank account would be credited through the new payment mechanism right on the due date. No payment instruments would be issued as at present. Payment instruction would be issued by us electronically through our banker to the Clearing Authority and the Clearing Authority would supply credit reports to the bank with which you maintain the specified account. The branch will credit your account and indicate the credit entry as "ECS" in your pass book/statement of account. We would be issuing an advice to you directly after the transaction is effected.

Only the individual transactions upto Rs.1,00,000/- would be covered under the Scheme. If you maintain more than one bank account, payment can be received at any of the accounts. You do not have to open any new bank account for the purpose.

This would be only an additional mode of payment and would be optional. You would have the right to withdraw from this mode of payment by giving an advance notice of 6 weeks. Your complaint, if any, (the scope of which is very limited), would be immediately dealt with and we assure you to give a reply within 15 days.

In order to avail the ECS facility, the shareholders are requested to fill and sign the attached ECS Mandate Form. The information to be supplied should be accurate, complete in all respects and duly certified by your bank. The Form thereafter be sent to :

National Aluminium Company Limited

Regd. Office : NALCO BHAWAN, Plot No. P/1, Nayapalli, Bhubaneswar - 751 013

In case of shareholder holding shares in Electronic Mode/Dematerialised form a copy of the same may please be sent to the **Depository Participant with whom his/her account is maintained**, to update the bank details including MICR codes in case they had not provided the same earlier or if there is any change.

The information provided by you will be kept confidential and would be utilized only for the purpose of effecting the payments meant for you.

**ECS MANDATE FORMS ONCE RECEIVED BY THE COMPANY WILL BE USED FOR SUBSEQUENT PAYMENTS
UNLESS AMENDED/WITHDRAWN.**

Yours faithfully,
for National Aluminium Company Limited,

(K. N. RAVINDRA)
COMPANY SECRETARY



ELECTRONIC CLEARING SERVICE MANDATE FORM

To
National Aluminium Company Limited
NALCO BHAWAN,
Plot No. P/1, Nayapalli, Bhubaneswar-751 013

Dear Sir,

Form for Electronic Clearing Service for payment of dividend
Please fill in the information in CAPITAL LETTERS. Please TICK wherever it is applicable.

1. For shares held in physical form

Registered Folio No. :-

2. For shares held in electronic form :-

(Shareholders holding shares in electronic form should forward a copy of this form to their respective Depository Participants to update the bank details including MICR Codes in case they had not provided the same earlier or if there is any change.)

If Shares held through NSDL

DP ID

I	N								
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Client ID

--	--	--	--	--	--	--	--	--	--

If Shares held through CDSL

Beneficiary Account Number :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3. First Shareholder's Name: Shri/Smt./Kum./Ms.

4. First Shareholder's Address :

Pin Code

5. Particulars of Bank :

Bank Name																						
Branch Name & Address																						
Branch Code																						
(9 Digits code number appearing on the MICR Band of the cheque supplied by the Bank. Please attach a Xerox copy of a cheque or a blank cheque of your bank duly cancelled for ensuring accuracy of the bank name, branch name and code number)																						
Account Type		Savings			Current			Cash Credit														
Account Number (as appearing in the Cheque Book)																						

6. Date from which the mandate should be effective :

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I shall not hold National Aluminium Company Limited responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of dividend amount through ECS.

Place :

Date :

(Signature of shareholder)

PAN

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Certified that the particulars furnished above are correct as per our records

Bank's Stamp :

Date :

Signature of the Authorised Official from the Bank

Note: Mandate once given will be used for all future payments unless amended/withdrawn by the shareholder.





National Aluminium Company Limited

(A Government of India Enterprise)

Regd. Office : NALCO BHAWAN, Plot No. P/1,
Nayapalli, Bhubaneswar - 751 013 (Orissa)

ATTENDANCE SLIP

21st Annual General Meeting – 30th October, 2002 at 10.00 A.M

Reg. Folio No. / Client Id DP Id

I certify that I am a registered shareholder/proxy for the registered shareholder of the Company and hereby record my presence at the TWENTY-FIRST ANNUAL GENERAL MEETING of the Company at NALCO BHAWAN, Plot No. P/1, Nayapalli, Bhubaneswar – 751 013, on Wednesday, the 30th October, 2002.

Member's/Proxy's name in Block letters

Member's/Proxy's Signature

Note : Please fill this attendance slip and hand it over at the entrance of the hall.

—TEAR HERE—



National Aluminium Company Limited

(A Government of India Enterprise)

Regd. Office : NALCO BHAWAN, Plot No. P/1,
Nayapalli, Bhubaneswar - 751 013 (Orissa)

FORM OF PROXY

Reg. Folio No. / Client Id DP Id

I/We of in the district of

being a member/members of the above named company hereby appoint

of in the district of or failing him/her

of in the district of as my/our proxy to vote for me/us on my/our behalf

at the TWENTY-FIRST ANNUAL GENERAL MEETING of the Company to be held on 30th October, 2002 and at any adjournment thereof.

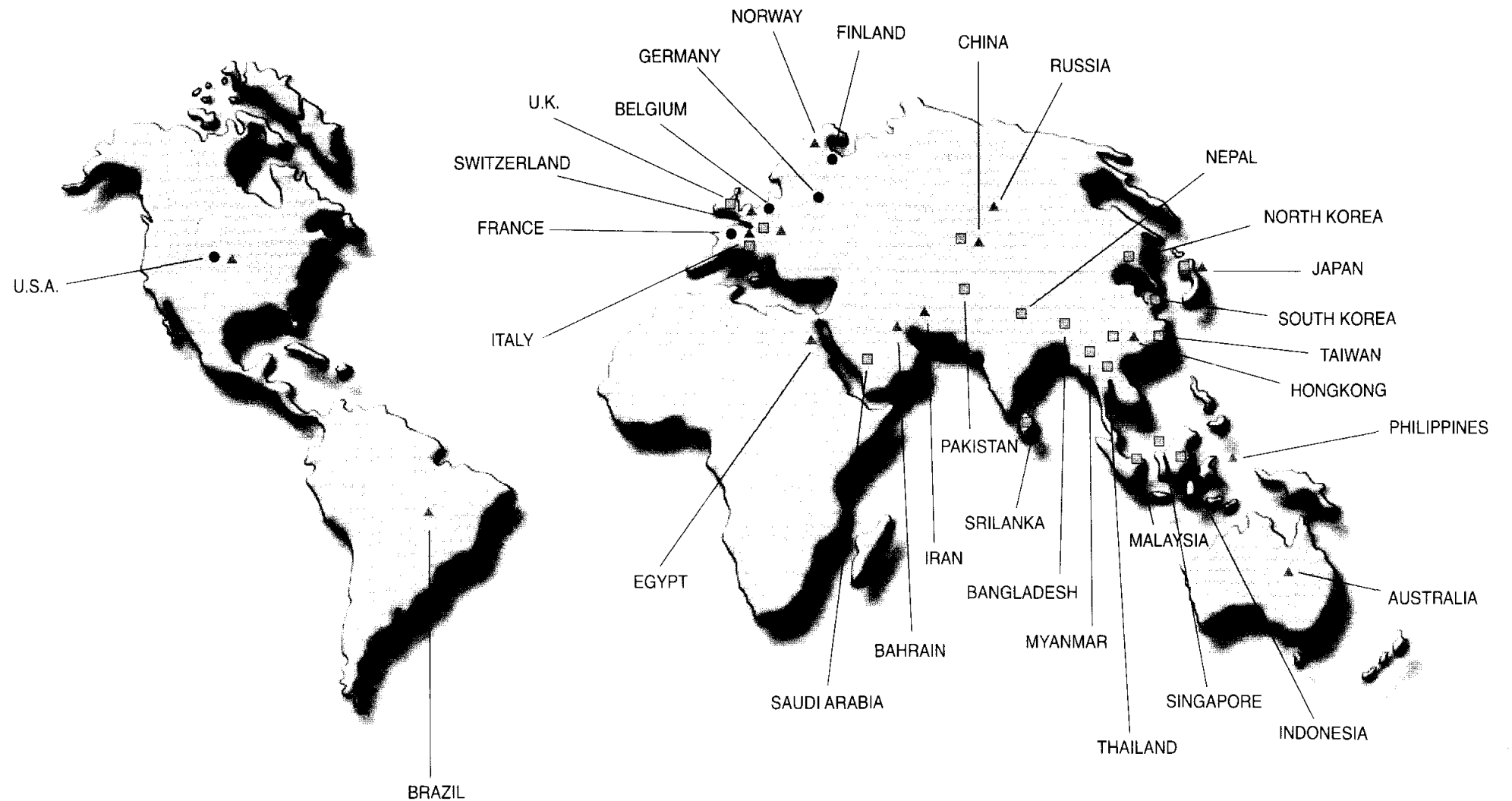
Signed this day of 2002

Signature

Affix a
Revenue
Stamp of
Re 1/-

Note : This form in order to be effective should be duly stamped, completed and signed and must be deposited at the Registered Office of the Company, not less than 48 hours before the commencement of the Meeting.

GLOBAL PRESENCE



● Technology associates

■ Aluminium export

▲ Alumina export

BOOK POST

[illegible]

If undelivered please return to :



Company Secretary
National Aluminium Company Limited
NALCO BHAWAN
Plot No. P/1, Nayapalli
Bhubaneswar - 751 013