Management's Discussion & Analysis

The management of Larsen & Toubro Limited presents below its analysis covering the segment-wise performance of the Company for the year 2001-2002 and an outlook for the future. The report conveys expectations on future performance based on an assessment of the current business environment. These could vary based on future developments.

The Company has performed well during 2001-02 to maintain its leadership position in the various businesses. The business conditions during the year under review were quite challenging, with domestic industrial sector registering a marginal growth of 2.7%. The industrial downturn has been most visible in the capital goods sector which witnessed a negative growth of 4.0%. A higher agriculture sector growth supported by a good performance by the services sector moderated the impact of low industrial growth.

To overcome the challenging environment, the Company has launched several focussed initiatives such as cost reduction, value chain migration, resource optimization, extensive use of information technology and new HR processes. All these initiatives have contributed to sharpening the competitive strengths of the Company. Well-defined value drivers and benchmarking against the best practices have percolated to all the business segments of the Company. The positive outlook derived from such internal process developments can only be sustained and enhanced in an improved external environment. The Government's thrust on further reforms articulated through the recent Union Budget and the Exim policy reflects an effort to create a more vibrant industrial climate in the country.

The Company's major focus is to strengthen the competitive positioning of its businesses and with the renewed thrust on international business, transform the organization into a successful Indian multinational corporation.

The Company's business is organized around the following major segments :

Name of Segment	% of Segment Revenue
❑ Engineering & Construction (E&C) ●Construction ●E & C Projects ●Heavy Engineering	57
❑ Cement	30
❑ Electrical & Electronics	8
❑ Others	5

In the backdrop of a demanding business environment, given below are the highlights of the performance of the Company during the financial year 2001-2002 along with the near term business perspective. A brief summary of the activities of major subsidiary and associate companies is also included.

CONSTRUCTION

1. AN OVERVIEW

L&T undertakes engineering, design and construction of **infrastructure and industrial projects** covering civil, mechanical, electrical and instrumentation engineering sectors through its **ECC** (Engineering, Construction and Contracts) Division. ECC is India's largest construction organization, having many of the country's prized landmark constructions to its credit.

A. Ramakrishna

Construction, which was recognized as "industry" recently, serves projects worth Rs.240,000 crore and employs over 35 million people. However, construction industry still remains very fragmented with traditional methods and manual skills dominating, with very little mechanization. The strengths of ECC Division are in contrast to this scenario. ECC Division offers complete turnkey solutions including engineering and use of mechanized methods of construction and modern management principles on the lines of construction majors of the developed world. This has helped the Division to establish itself as an undisputed leader in the construction industry. In-house engineering skills available at the Engineering Design and Research Centre enable the Division to undertake complete turnkey projects across sectors. L&T's customers have the advantage of getting the project completed on time – many a time setting world records - to high quality and at competitive prices.

2. BUSINESS ENVIRONMENT

Inadequate investment in industrial and infrastructure projects has resulted in lower business available for construction companies in the large project segment. Increased opportunities in individual house constructions and road projects have helped some smaller contractors to join hands with international companies, especially from Malaysia, for the road sector. Contracts awarded under the National Highway Development Programme showed a decline in prices by nearly 4% over the last year's prices. The inputs from the international companies for road projects, however, being minimal, this could probably affect the quality of the projects.

Consequent to the slowdown in the investment climate with no major industrial projects, the business mix of the Division has tilted more towards social and physical infrastructure projects such as housing, hospitals, IT parks, expressways, bridges, ports, water and effluent treatment projects. In the changed business environment, the Division has positioned itself in the area of application of technologically innovative solutions to deliver quality and in shortest time. For instance, in the Housing sector the Division chose to concentrate only on system housing where application of mechanized forms of construction leads to speedy completion and economy. Similarly, in road & bridge construction the Division is credited with introducing many technological innovations – like segmental construction for the first time in India.

3. SIGNIFICANT INITIATIVES

Given the present business scenario involving international competition and consequent pressure on operating margins, the Division has evolved strategies to exploit its strengths and enhance business prospects and profitability. In addition to the large domestic market, opportunities abroad, especially in the neighbouring countries, are also considered while formulating the strategies. Some of the strategies are detailed below:

a) Operational Improvements

The Division has streamlined many of its operations to become more efficient, productive and profitable.

The Division strives for maintaining a high level of equipment reliability and availability. A subsidiary company, L&T Equipment Leasing Company Ltd., has been formed to lease out surplus equipment to improve Plant & Machinery utilization. Competency Cells are created in specialist areas such as use of system formwork and blended cement. Achieving global standards in safety has given the Division an edge over competition and hence the safety standards are continuously being monitored and maintained. People-centered HR systems is another focus area for the Division.

b) Cost Reduction

The Division is focussed on achieving cost leadership. Prudent benchmarking with international leaders operating under similar circumstances, cross project comparisons, target productivity for resources and close monitoring have been the key aspects of cost reduction exercise. Development of specialist sub-contractors, allocation of project risks and long-term rate contracts for material procurement is expected to aid in achieving cost reduction. As materials constitute a major portion of operating cost, adopting efficient materials procurement methods including e-procurement is being pursued.

c) Use of Information Technology

Operations of the Division are increasingly being conducted using EIP - Enterprise Information Portal. EIP is a web-based end-to-end solution that encompasses both the Design and Construction phases of a project. Annual budgeting, job performance monitoring, e-procurement, asset management and financial accounting, etc. are under integration into this single platform covering a large number of sites.

d) International Operations

To overcome inadequate opportunities in the domestic market, strategic initiative has been taken to expand our business in the neighbouring countries where the Division has already established a fair name. International operations have been organized into four distinct areas viz. Middle East, South East Asia, South Asia, Russia & Central Asia serviced by four Area Offices. Business in Mauritius and Africa will be developed on a selective basis. The Division has earned a good reputation by constructing two international class stadia in Qatar. ECC is currently building four hospitals in Saudi Arabia and a major training centre in Kuwait. Our traditional business like transmission line towers and substations in the Middle East continues to grow. During the year, substantial work has been completed for large irrigation projects in Bhutan and Nepal and for power projects in Oman and Sri Lanka. The Division has commenced work on a Coke Calcination Project on EPC basis in Rotterdam, the Netherlands.

e) Collaborations & Joint Ventures

As a leader in construction business in India, it is necessary to partner with international majors for large and complicated jobs leading to enhancement of ECC's technical and project management skills in addition to sharing of the project risks. A breakwater construction project on the western coast of India, the LNG terminal at Hazira and the Metro Rail project in New Delhi are examples of such a strategy. ECC plans to extend this strategy to Hydropower, Water and effluent treatment and other Heavy Civil Engineering projects. For executing some large road projects in India, the Division has collaborated with major Indian companies in order to synergize the mutual strengths. Such collaborative approaches could be extended to other sectors too on a selective basis.

4. MAJOR ORDERS BOOKED / EXECUTED

Major orders booked by the Division during the year 2001-02 include:

	Rs. crore
• Design, Engineering, Manufacturing & Commissioning of Electrical facilities, Service Water System & Supply Package for Nuclear Power Corpn.of India Ltd.	577
• Construction of Jharkhand Grand Trunk road for National Highways Authority of India	260
• Construction of access road and boundary wall along with V & VI package at Hazira Jetty for Hazira LNG Pvt. Ltd./ Hazira Port Pvt. Ltd.	252
• Construction of bridges over Gowtami & Vasista rivers for National Highways Authority of India	203
• Effluent Disposal System for Gujarat Industrial Development Corporation	175
• RMC Supply and Electrical work for Delhi Metro Rail Corridor project for International Metro Civil Contractors	173
• Widening of National Highway between Tumkur & Sira for National Highways Authority of India	153
• Construction and electrification of fruit market and civil work at Bhuj & Ahmedabad for National Dairy Development Board	126
• Widening of road between Kanchi-Walajapet for National Highways Authority of India	122
• Highway from Satara to Kolhapur (NH 4) for Maharashtra State Road Development Corporation Ltd.	118
• NC–8 Water Supply Project for Gujarat Water Infrastructure Ltd.	105
• 220 KV overhead line connection to Samha Grid and 220/23 KV substation for Abu Dhabi Water & Electricity Authority (UAE)	54

The Division completed the following major projects during the year 2001-02:

- Khandala-Lonavala Bypass – Elevated corridor – part of Mumbai-Pune Expressway
- Coal Handling Plant (4400 MTPA) for Paradip Port Trust
- Jack Welch R&D Center for GE-ITC, Bangalore
- 330 MW power project at Pillaiperumalnallur, Tamil Nadu
- Structures & Equipment erection for Chettinad Cements & Dalmia Cements
- 21 MW power project at Mithapur for Tata Chemicals
- Anode Baking furnace at Angul for Nalco
- Wagon Tipplers for Bakreshwar Power plant and Ambuja Cement
- Reclaimer for Vizag Port Trust
- Water supply schemes in Tamil Nadu
- Offsite piping works and Hydrogen plant at IOCL, Barauni
- Vizag-Secunderabad Pipeline for HPCL

- OFC laying for Bharti Telesonic Ltd. at various places
- Sports stadia in Qatar

In addition, Blast Furnace rebuild at TISCO, Jamshedpur was completed subsequently in a world record time.

5. FUTURE OUTLOOK

In the near term, the Union Budget 2002 is likely to encourage development of airports, special economic zones, urban infrastructure projects and improvements to the power distribution systems. Higher allocations for various sectors have set in a favourable climate for new investments. This is expected to provide opportunities for ECC for securing large orders during the next financial year, especially in the areas of urban infrastructure, power distribution and rural roads. Further, dismantling of APM in the petroleum sector could possibly open up some opportunities in areas like cross-country product pipelines and retail outlets.

Construction Industry is seeing a visible shift from “Owner funded managed construction projects” to “Non-recourse funded EPC projects”. In the longer term, privately funded infrastructure projects under the Public Private Participation (PPP) format are likely to increase. Enabling legal framework and the concept of user charges gaining acceptance could facilitate more projects in this format. The Division has already made a beginning by promoting roads, bridges, ports, IT parks and Exhibition Centres. In addition, ECC is a partner in the consortium chosen to promote the proposed Bangalore International Airport. The experience of project promotion in PPP format and operation of special purpose vehicles would give the Division a lead over its competitors.

Focus on international operations would continue. ECC’s leadership position in domestic markets, the past record of successful project execution in overseas markets and the global presence through international joint ventures would be leveraged to exploit business opportunities abroad, especially in the neighbouring countries.

Hitherto ECC is acknowledged as “Builders to the Nation” and the Division would like to move on to become “Builders of Nations” by its constructive contribution to the development of infrastructure and industrial growth.

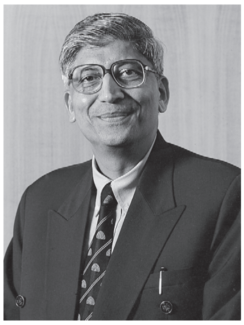
6. AWARDS / RECOGNITION

ECC received the following awards during the year:

- Overseas Construction Council of India (OCCI) award for the outstanding performance during 2000-01 in the following categories:
  - ★ Maximum value of contracts secured
  - ★ Second best in the category of maximum turnover from Overseas Construction Contracts
  - ★ Maximum foreign exchange earned and repatriated from overseas construction contracts
  - ★ Maximum foreign business attempted
- The Indian Institute of Bridge Engineers has conferred five National Awards for Outstanding Bridges on ECC Division and L&T’s JV L&T-Ramboll Consulting Engineers Limited for excelling in bridge construction.
- Construction Company of the Year Award by Accommodation Times, a fortnightly magazine based in Mumbai
- Billimoria Award for Cyber Towers, Phase 1 of HITEC City at Hyderabad received from the Association of Consulting Civil Engineers, Bangalore.
- ICI-McBauchemie Award from Indian Concrete Institute for Most Outstanding Concrete Structures - 2001 to Chaitanya Jyoti at Puttaparthi in Andhra Pradesh.
- ACCE (Association of Consulting Civil Engineers, Bangalore) Billimoria Award – 2002 for high-rise building conferred on South City, Bangalore
- Certificate of Recognition for highest safety standards by American Society for Concrete Contractors in the year 2001

E&C PROJECTS

1. AN OVERVIEW



K. Venkataraman

E&C Projects Division is the only Indian EPC Group pre-qualified for executing large process-intensive projects for oil and gas, refinery, petrochemical and fertilizer sectors. It is also a player in Power Projects with two large international projects under execution. Our vision is to become a world class, technology-driven quality conscious Division with emphasis on value creation through turnkey projects and project management and consultancy services.

2. BUSINESS ENVIRONMENT

The continuation of the slowdown in the economy deferred the investment decisions resulting in postponement of many projects. Private sector power projects continue to be delayed till distribution reforms are in place and payment security concerns are adequately addressed. Slowdown in investments in the process sector industries like fertilisers, refineries and petrochemicals due to unfavourable demand and supply situation, has affected the order prospects in this sector.

Intense competition from local and global players, all competing for limited number of projects lead to very aggressive pricing and pressure on the margins. Reduced opportunities in the domestic sector encouraged us to scout for opportunities abroad. Good track record of the E&C Projects Division in the domestic sector helped in getting pre-qualified for international projects in spite of presence of global players in this area.

3. SIGNIFICANT INITIATIVES

The Division has launched several initiatives for enhancing the operational efficiency and the focus areas of its business. Some of them are as under:

a) India-centric to a Regional Entity

We have a challenge ahead of us to transform ourselves into a world class, operations oriented organization.

We have defined the international boundary limits within which E&C Projects Division will focus and grow outwards from being a largely India-centric organization.

With this backdrop and also to ensure cost effectiveness and profitability, the following thrust areas have been identified for implementation:

- Staffing international organization with key personnel and country managers.
- Aligning individual SBUs with international thrust through appropriate re-positioning of personnel within SBUs.
- Driving integration of IT into business and measuring the cost effectiveness and productivity improvements.
- Risk Management, financial discipline and implementation of Value Drivers.

Initial efforts in this direction have been successful with international business accounting for 27% of the Division's sales.

b) Risk management

A structured process has been evolved for risk analysis, evaluation and mitigation measures encompassing all the project facets like engineering, procurement, fabrication, construction, logistics, contractual & commercial issues and country-specific risks for enabling us to undertake complex projects on diversified geographical basis.

c) Focus on Competitiveness

The year 2001-2002 also witnessed a significant drive in the implementation of strategic initiatives to improve our competitiveness against international competitors with much wider experience.

These initiatives include:

- cost reduction through global sourcing,
- focus on new technology areas to expand business reach and
- strengthening front-end engineering & design capabilities.

We have been enhancing cost effectiveness and building customer relationships through e-enabling of our business operations.

d) Exploiting Information Technology

To compress cost, cycle time and distance, a number of information technology oriented initiatives have been implemented. These include:

- Integrated project management system through ERP,
- Web-enabled speedy procurement through e-commerce & reverse auction and
- Knowledge management system specifically developed to suit E&C requirements based on IBM Lotus K station / Domino Doc Platform.

e) Human Resource Development

The well-established centers of excellence for front-end engineering & design, detailed engineering, technology innovation and research & development are in a position to provide the required leadership in technology engineering fields. Continuous efforts are being made to upgrade the engineering and project management skills through benchmarking with worldwide major EPC players.

We have taken a major step towards capability and competency building with a focus on leadership development through Capability & Leadership Development (CALD) programs and have trained people in various functions like marketing, proposal engineering, engineering, project management, construction and quality. We are also enhancing technical & engineering skills through E&C Project Management Academy.

4. MAJOR ORDERS BOOKED/EXECUTED

In spite of a sluggish market with slowdown in investments and predominance of cyclical projects, E&C Projects Division has been successful in receiving some prestigious large value orders like Hydrogen plant, Sulphur recovery plant, Catalytic reforming unit, water injection-cum-gas compression platforms and combined cycle power plants.

The successful execution of complex & first of its kind projects in the country and medium size projects in Malaysia, Qatar, Dubai and Saudi Arabia, backed by a strategic approach towards becoming a regional leader has paved the way in securing prestigious large orders such as 200 MW Gas Turbine Power Plant for Dhofar Power in the Sultanate of Oman and 168 MW Combined Cycle Power Project for AES Kelanitissa in Sri Lanka.

Some of the major orders booked during the year were:

	Rs. crore
• Bombay High North Water Compression Platform (MNW) for Engineers India Ltd. & ONGC Ltd.	606
• EPC of Naphtha Hydrotreator, Catalytic Reformer unit and Hydrogen Generation Plant for Chennai Petroleum Corporation Limited	445
• Supply of piping, valves, equipment & spares for Nuclear Power Corporation of India Limited	266

Some of the major orders executed during the year were:

- 0.9 MTPA new cement plant for Chettinad Cement Corporation Ltd., Karikalli, Tamil Nadu
- Hydro-Treater Unit and Solvent De-waxing / De-Oiling Unit Packages for IOCL-Digboi
- Hydrogen Unit and Offsite & Utilities including Electrical Substation for IOCL, Barauni
- Additional Process Gas Compressor at HRC Platform in Heera Field of ONGC Ltd.
- Revamp of 3 nos. of Ammonia Reformers and supply and erection of 2 nos. Fired Heaters (startup and auxiliary) package for HFCL, Namrup
- Design, Engineering, Procurement & Installation in 12 platforms - total 1963 MT for EIL-ONGC-Bombay High North-Clamp On.
- 70 nos. Evaporator Exchangers for Desalination Plant, total tonnage 505 MT for Sidem, France – Abu Dhabi

5. FUTURE OUTLOOK

On the Indian scene, E&C Projects Division is geared up to fully exploit emerging opportunities coming up in the immediate future in upstream oil & gas projects, diesel & motor spirit quality upgradation clean fuel projects, LNG/ LPG terminals, petrochemical projects like paraxylene & PTA, revamp jobs in fertilizer and refinery sectors, deep water exploration & offshore re-development, nuclear, captive power & utility power projects.

On the international front the main focus is on the Middle East countries and a few select opportunities in other countries. Opportunities exist in Refinery revamp, Co-generation, clean fuel and oil & gas sectors. Many gas-based open cycle projects are coming up in the Middle East due to better gas availability and lower complexities in implementation and operation.

Initiatives like the setting up of the International Business Development Group, finalization of agents and posting of country representatives in target countries, would enhance the abilities to capture international business opportunities.

6. AWARDS/RECOGNITION

L&T's design and development centers such as Front End Engineering & Design, Research & Development and Technology & Innovation Centre are certified to ISO 14001 and have won awards from ICMA and NACE during the year 2001-02.

E&C Projects Division and Ministry of Information Technology, Government of India together launched the Information Security Management System, which was a project of national significance.

HEAVY ENGINEERING DIVISION

1. AN OVERVIEW

Heavy Engineering Division with its strong engineering capabilities and state-of-the-art manufacturing facilities has established a leadership position in manufacture and supply of highly critical Process Plant & Industrial Equipment to the core sector industries as well as Rubber Processing machinery for the Tyre Industry.

P.M. Mehta

The business units and the associated manufacturing facilities located at Powai in Mumbai and Hazira & Baroda in Gujarat together specialise in supply of critical pressure vessels, heat exchangers, reactors, etc. to industries such as Fertilizer, Refinery, Petrochemical, Chemical, Oil & Gas, Nuclear Power, Aerospace & Defence. A manufacturing centre is also opened recently at Visakhapatnam in Andhra Pradesh.

The Kansbahal unit of the Division in Orissa supplies Industrial Machinery for Mines & Ports, Steel and Paper & Pulp sector. The Chennai unit is dedicated to manufacture & supply of Rubber Processing Machinery for the Tyre Industry. The Division also markets in India, Industrial Valves and Plastic Processing Machinery manufactured by L&T's Joint Venture companies located at Chennai.

2. BUSINESS ENVIRONMENT

The business potential for Process Plant Equipment in India has declined due to reduced investments during the last few years and delayed project clearances.

The refinery sector was awaiting major Government policy on dismantling of Administrative Pricing Mechanism and this delayed the investment in this sector during the year. In the case of Rubber Processing Machinery, competition is faced from low-cost Chinese manufacturers. Though the market for traditional products - Mechanical Tyre Curing Presses - is stagnating, the Division has developed Hydraulic Presses which are in the process of being tested and evaluated by the customers.

With the current thrust on road building projects, the business unit at Kansbahal, Orissa envisages increased domestic demand for Aggregate Crushing Systems. Steps have been initiated to meet the emerging demands of the customers for complete systems including feeding devices, screens, conveyors, etc. Efforts are also on for export of impactors in CKD/SKD form. The Division has enlarged its product range by developing wind mill components both in cast & fabricated form which have good potential for exports.

3. SIGNIFICANT INITIATIVES

The Division had anticipated the shrinking business potential in domestic process plant equipment market and has developed a long term plan with the following strategic directions to counter the situation :

- Reduce dependence on domestic market for the conventional product lines such as the process plant equipment
- Significantly enhance export of such equipment
- Focus on the emerging businesses like hi-tech equipment & systems for Defence, Aerospace & Nuclear Power.

Several steps have already been initiated by the Division towards implementation of the above strategies with fairly good success.

a) Thrust on Exports

The Division has fine-tuned its manufacturing operations to meet the stringent global standards of short cycle times, on-time delivery, cost, quality and aesthetics. This has resulted in steadily improving order booking and sales from the international markets.

During the year, the manufacturing centres of the Division have successfully gone through several stringent quality audits conducted by various international customers / their Process Licensors who have subsequently placed export orders for critical equipment. Major global hydrocarbon players have also given contracts for their requirements of critical equipment.

The Division's exports which have been mainly to Middle-East & Far-East, are now reaching USA, Canada, Norway, UK, South Africa, Brazil and Australia. Initiatives are under way for entering China and Australia for various petrochemical projects.

The manufacturing Unit at Chennai has significantly increased the export of Rubber Processing Machinery. This product is exported to many countries including Europe, South America, Africa, Middle-East and South-East Asia. Through continuous R&D the Chennai Unit has added new products like Tyre Building Machines and Hydraulic Presses for manufacture of Radial Tyres to the product range.

Over the last few years, the Division's domestic-export mix for all products including Process Plant Equipment and Rubber Machinery has steadily tilted in favour of export market. Export orders account for nearly 35% of the total orders booked by the Division during 2001-02.

Products are exported to more than 45 countries around the world. This is representative of the higher acceptability in the global markets.

b) Hi-Tech Products

Concrete steps have been initiated in the new liberalized environment to establish a dominant position for the Division in the hi-tech sector.

The initiatives taken include setting up of a large state-of-the-art Computer aided Design & Engineering Center as well as Product Life management setup.

Steps have been initiated to partner with some of the best technology leaders in the world. These include initiatives with firms in South Africa, Russia, Germany, Great Britain, Italy, Sweden and Israel.

A number of new products have been developed during the year and discussions are on with the authorities for finalisation of contracts for select hi-tech equipment & systems of national importance. Some prestigious orders which include revamping part of Nuclear Power Plants have been received by the Division.

c) Exploitation of Information Technology

The Division has stabilised its operations on ERP backbone in its major locations and has further enhanced the operational benefits through the implementation of e-Procurement and Customer Relationship Management functionality integrated with the back-end ERP.

4. MAJOR ORDERS BOOKED / EXECUTED

Despite sluggish domestic markets, the Division bagged major domestic orders from customers like RCF, RDEE, ENERCON, CPCL, NPCIL, DRDL and others.

The Division received export orders from leading international companies such as Kellog JV, QAFCO, Exxon Mobil, Danang - Vietnam, Krupp Uhde, Fluor Daniel.

During the year, the Division exported for the first time from India, Reaction Column and Switch Coolers for BASF Petronas BPC-BDO project in Malaysia through Kvaerner Petrominco Engineering Sdn Bhd. This is the first time such equipment are manufactured outside Europe. The Division also supplied 3 Separators for BP Nam Con son Gas project in Vietnam. The Separators are exported for the first time to the design of BS 5500.

The Division's achievements include successful completion of 2000 tons of equipment for Saudi Arabia's new petrochemical complex. The supply included the largest tower, 250 feet long, 30 feet diameter, 800 tons and 8 reactors.

Major domestic orders executed during the year include orders for customers like IFFCO, Samsung, Hindalco, HFCL, NPCIL & Ministry of Defence.

5. FUTURE OUTLOOK

The outlook for Process Plant Equipment business is encouraging as the Division is focussing on exports where significant business potential is envisaged. Keeping in view the major business potential in USA, Brazil & Middle-East and the raw material sourcing potential from Europe, we are in the process of deputing personnel, appointing agents and opening offices overseas.

Indian Defence Sector is being opened up for involvement of Indian private enterprise as also in Joint Sector with Foreign Partners with up to 26% FDI through licence route. It is expected that the necessary licences will be granted to facilitate indigenous sourcing of Defence requirements as well as export of Defence Goods. Liberalisation in the Defence Sector is expected to open up major opportunities for the Division.

Although the liberalization would bring in competition from overseas as well as within the country, the business outlook in this sector looks optimistic in the medium and long term due to the early investments made by the Division and the leadership it has in this sector.

6. RECOGNITION / AWARDS

- Hazira Works won the National Safety Award 2000 from the British Safety Council for demonstrating commitment to best practices at the work place, health and safety and the organization's skill and efforts in maintaining a good record, which is significantly above average.
- The Division's Chennai manufacturing unit has been recertified under ISO 9001:2000 Quality Assurance System in April 2001 by BVQI
- It has also been awarded the prestigious Commendation Certificate - Rajiv Gandhi National Quality Award 2000.

CEMENT

1. AN OVERVIEW

The Company's cement capacity stood at 16 million tonnes including that of Narmada Cement Company Limited. The Company's Cement Division continued to enjoy leadership position due to its large distribution network, proactive response to the market requirements and consistent high quality cement produced.

2. BUSINESS ENVIRONMENT

Cement industry grew by a healthy 10% in 2001-02 compared to a negative growth of 2% in the previous year, despite low overall industrial growth. Cement demand in Northern, Central & Eastern regions went up by about 11%, whereas in the Southern & Western regions it was around 8%. Increase in cement consumption was mainly driven by the demand from housing sector and reconstruction activities in Gujarat. Government's thrust on housing with substantial fiscal incentives coupled with easy financing options at low interest rates provided a fillip to this sector.

J.P. Nayak

Demand for cement has been growing at a compounded growth rate of 8% during the last decade. However, the growth in capacity outpaced the demand, leading to a supply overhang in the market and low capacity utilization levels. Even during the fiscal 2002, the capacity accretion was around 16 million tonnes, of which almost 50% came around through "Sweating of Assets" and increased thrust towards blended cement. Having gained acceptability in most of the markets which were hitherto alien, the production of blended categories increased from 37% to 43% of the total cement sold. India, thus, has a resultant cement capacity of about 137 million tonnes and continues to be the second largest producer in the world.

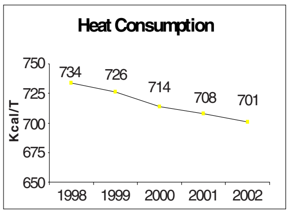
Given the capacity build-up, the prices of cement have been volatile in the last few years and were generally at low levels. Inability to generate adequate returns rendered many manufacturers financially sick. Driven by the demand growth, the prices started indicating an upward trend in the last quarter of Fiscal 2001, but continuously dropped during fiscal 2002. The positive aspect is that despite the drop, the average realization for Fiscal 2002 in most of the markets was still higher than that of the previous year.

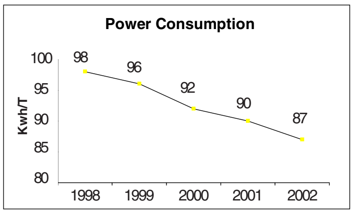
3. SIGNIFICANT INITIATIVES

The Cement Division undertook several initiatives to improve the operating efficiency. These include:

a) Cost Leadership

The Division continued with its efforts on improvement in operating efficiencies (see charts below) and productivity levels, which resulted in maintaining the variable costs at the previous fiscal's levels, despite the increase in costs of various inputs. Further, substantial reduction was also achieved in fixed costs. Change in product mix with thrust on blended cement resulted in reduction in average operating cost per tonne. The Company believes that it is one of the lowest cost producers of cement in the country.





b) Supply Chain Management

Distribution cost is one of the major elements of cost of cement. Considerable emphasis has been laid on optimized distribution through direct despatches, better mode of transportation and reduction in total delivered cost of cement.

c) Information Technology

Significant improvement in business processes have been achieved with Enterprise Resource Planning (ERP) backbone in place. With full implementation of ERP, the Division has established total connectivity between all plants, dumps and marketing operations leading to better serviceability of customers.

d) TPM with Six Sigma

"Total Productive Maintenance" practised for "Comprehensive Asset Care Regime" launched in certain plants of the Division will be implemented in all the plants, leading to improved employee ownership, process improvement and cost reduction.

e) Exports

The Company continued to be the largest exporter of cement and clinker from India and exported 2.41 million tonnes of cement and clinker *(previous year 2.36 million tonnes)*. The Company's cement and clinker have been well received and command a good market in Western Europe, Middle East and neighbouring countries.

L&T has become the first Indian cement company to obtain accreditation from Bureau Veritas Quality International Espana Sa, Spain, which is a prerequisite for supply of cement to Europe. L&T is one of the few Asian cement companies to receive this recognition.

4. FUTURE OUTLOOK

The outlook for the cement industry in 2002-03 continues to be encouraging. The proactive steps announced by the Government in their recent budget would boost investments in the housing and infrastructure sectors, including focus on construction of roads, ports, airports etc. With GDP growth of 6 – 7% and a reasonably good monsoon, there would be good demand growth for cement in the near future. Prices, however, would continue to be under pressure due to supply overhang which is expected to continue and pose a major challenge to the cement companies.

The Company has undertaken major initiatives in supply chain management through optimization of distribution, improving customer reach and reduction in total delivered cost. Further thrust would be to increase sale of blended cement, especially in Western India, and to continue efforts to reduce operating costs. All these initiatives are expected to improve the cost competitiveness and the profitability of the Division. The behavioural pattern of the prices of oil products with the dismantling of Administered Pricing Mechanism and railway freight will influence the profitability of the Division and efforts will be made towards minimizing the adverse impact of such changes, if any.

In relation to the global levels, India's per capita consumption of cement is low and indicates good prospects for long-term growth, given the objectives of the country in terms of economic growth. The Company believes that further accretion to the industry capacity will be rational and driven by the demand growth alone. The consolidation in the cement industry is also expected to gain momentum and result in more stable market conditions.

5. AWARDS/RECOGNITION

The Company was awarded the "Highest Export Award" for 2000-01 by CAPEXIL for the 5th consecutive year for export of cement & clinker. Further, some of the cement plants of the Company have received various awards for environment protection, social awareness, safety and management of better industrial relations.

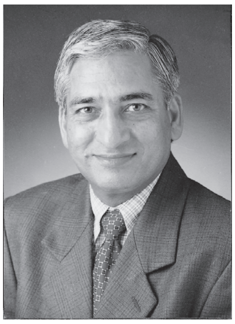
ELECTRICAL & ELECTRONICS SEGMENT

1. AN OVERVIEW

The Electrical Business comprises Strategic Business Units (SBUs) of Electrical Standard Products, Electrical Systems & Equipment and Petrol Dispensing Pumps & Systems. The Electronics Business covers Metering & Protection Systems, Control & Automation and Medical Equipment & Systems. Embedded Software & Systems and Telecom Projects are knowledge-based, asset-light businesses, which are the new growth areas.

2. BUSINESS ENVIRONMENT

While the GDP growth has been 5.7% and the industrial growth was 2.7%, the electrical industry has grown by 1.7% and the low voltage switchgear sector of electrical industry has shown a negative growth of 5%. In such an environment the segment has ensured to maintain the sales at the same level as in the previous fiscal, which is a significant achievement.



R.N. Mukhija

The margins in this business segment have been impacted due to predatory prices by the competition, holding on to market share, increased exports which were at lower margins as an entry strategy for new markets and new products, increased investments in new product development. Restructuring and seeding initiatives for the potentially growth areas like Embedded Software & Systems and Telecom Projects have also impacted profitability.

Overcapacities being built up in the industry coupled with MNCs' attempt to increase their presence have not affected leadership position and the segment maintained the number one position in the country in Electrical Standard Products and Electrical Systems & Equipment Business.

On the export front, prospects in the Middle East, Sri Lanka and Bangladesh were encouraging. China promises an attractive market for selected products of this segment.

3. SIGNIFICANT INITIATIVES

The Electrical & Electronics segment has taken several significant initiatives during the year. Some of these include:

a) Development of New Products:

The Electrical & Electronics Segment has always been tuning itself to the changes in technology through introduction of new products & product variants. High New Product Intensity (NPI) has become an obsession.

b) Cost Leadership & Asset Productivity:

The cost competitiveness is continuously enhanced through improvements in processes using tools like Value Engineering, Six Sigma, JIT, e-Procurement, Reverse Auctioning, and e-Enablement of sales processes. Continuous efforts to enhance asset productivity and optimize the financial resources locked in the business have helped the Division to enhance its free cash flow and improve internal efficiencies.

c) Human Resources Development:

The segment has placed a lot of emphasis on developing the skill sets of its people. On-the-job training, specific need-based programmes and job rotation have been continuing to nurture intellectual capital. Computerization of performance planning and appraisal process has been completed in order to enable better monitoring of performance management.

d) **Exploiting Information Technology**:

IT and e-initiatives continue to remain a focus area in the segment, for improving business processes and systems effectiveness. The segment was one of the early implementers of ERP system which is being constantly upgraded to latest versions. Collaboration with customers and suppliers has been further strengthened by value addition due to the Internet based connectivity with them. A major initiative of integrating product design & CAD (Pro-E) with ERP has been launched; this will enhance level of concurrent engineering in product design resulting in faster introduction of new products. The Segment has started implementing Product Life Cycle Management (PLM) and Sales Force Automation as a step towards putting in place solutions offered by mySAP.com suite of products.

e) Thrust to Exports:

The segment has stepped up its focus on developing international markets for its products. A select few potential markets have been focussed and efforts to penetrate these markets have been enhanced. Suitable product variants have been designed and certificates / approvals obtained as required. Pre-tendering activity has also been stepped up. Consequent to the several initiatives that have been taken, the exports have increased five times in the last two years. Exports during fiscal 2002 increased by more than 70% as compared to the previous fiscal.

The Segment presently exports its electrical products to Middle East, South East Asia and Africa. The Medical Equipment are exported to Europe, China and Iran.

4. FUTURE OUTLOOK

Improvement in overall economic scenario is expected to provide stimulus to this business. Government policies are generally favourable with particular emphasis on Power Sector Reforms, Housing Sector, Infrastructure Development, Health-care and Petroleum.

Pressure on margins would be arrested by introduction of new variants, new products apart from continuous efforts in cost reduction. Restructuring is being implemented through de-layering and activity mapping to improve response to customer. The lean and agile organization structure would help to attract and retain talent.

Convergence of Electricity, Communication and Automation would become a way of life. All businesses of the Segment are synergized towards this.

It is expected that the year 2002 would be a transitional year, during which business may show signs of revival in the first half, with the prospect of a recovery at the end of the year. The Segment has significantly improved the competitive position and has learnt and aligned to maximize utilization of the resources and enhance productivity.

5. AWARDS/RECOGNITION

- U-POWER Air Circuit Breaker won the Overall Best Product award at ELECRAMA 2002, held in January 2002. Certificate of Appreciation was awarded to our d-sine Moulded Case Circuit Breakers at the same event.

- Golden Peacock Award 2002

  At 12th world congress on Total Quality 2002 held in January 2002 for contribution to the health-care field for medical equipment
- Safety Awards (given in September 2001)
  - Longest accident-free period, - for 1999 - given by GOI, Ministry of Labour
  - Longest Accident free period; and
  - Lowest accident frequency rate - for 2000 - by National Safety Council- Maharashtra Chapter

The Segment has received ISO 14000 certificate for Electrical Business which expresses the concern for Environment. The Occupational Health and Safety Assessment Series certificate (OHSAS-18001) granted to Electrical Business places in perspective the care for employees' safety and health.

FINANCIAL REVIEW

Y.M. Deosthalee

The year 2001-02 witnessed an almost complete lack of investment activity in capital goods sector and sporadic investment in infrastructure - primarily roads and a few refinery projects. This was exacerbated by the increasing competition both from multinationals and PSUs putting intense pressure on margins. The Company intensified its efforts to increase its international business during fiscal 2002 and had to accept lower margins as an entry strategy. The financial performance of the Company for the year ended 31st March 2002 has to be viewed in the light of extremely challenging business conditions.

REVENUES

Sales & Service income at Rs. 8,359 crore showed an increase of 6.8% over Rs. 7,825 crore for the previous year. The increase is largely attributable to growth in the E&C and Cement segments. While Cement sales grew by 8.1%, E&C sales increased by 5.4% during the year. Other income of Rs.220 crore, which grew by 6%, comprises mainly dividends from subsidiaries (Rs. 52 crore), gain on extinguishment of debt (Rs. 40 crore), income from trade investments (Rs. 15 crore) and other business related income (Rs. 113 crore).

MANUFACTURING & OTHER COSTS

Manufacturing, Construction & Operating expenses incurred during the year were Rs. 5126 crore, which are 7.7% higher as compared to the previous year. While there was increase in expenditure on raw materials and construction subcontracts, expenditure on account of consumption of stores & spares and packing & forwarding was lower as compared to the previous year. A large part of the Company's business being Engineering & Construction, the expenditure on account of raw materials, sub-contracts, construction materials, etc. would depend on the nature of contracts under execution. It is therefore necessary to compare these expenses in totality. Despite increases in power tariff and higher activity, the power & fuel costs were contained by the Company through appropriate energy management initiatives. Expenditure on royalty and technical knowhow fees were also lower during the year as compared to the previous year.

Staff expenses at Rs. 619 crore reflected a moderate increase of 5.1 % over the earlier year. The increase was mainly due to annual salary & wage increments, higher contribution to Gratuity and Pension Funds triggered by reducing interest rate scenario and the impact of payouts on account of the voluntary retirement schemes. The Company reduced its manpower by over 1000 employees during the year. The positive fallout of the reduction in workforce is expected to accrue in the coming years.

Sales, Administration and Other Expenses increased by 7.1% from Rs. 1262 crore in 2000-01 to Rs. 1351 crore in 2001-02. Major items contributing to the increase were packing & forwarding, discount on sales, professional fees, travel & communication. The impact of these increases was moderated by the savings achieved in expenses such as rent, publicity & sales promotion, repairs & maintenance, etc. Efforts are being made to optimize logistics and distribution cost in the Company's cement business which are expected to result in savings in overall selling and distribution cost. Thrust on exports has resulted in the Company incurring developmental costs particularly towards international sales promotion and marketing. The Indian Rupee depreciation of 4.6% vis-à-vis the USD resulted in a higher exchange loss in respect of the company's foreign exchange exposures. The prolonged delay in revival of the core sector industries, to which the Company has exposure in the form of receivables, has necessitated increase in precautionary provisions towards non-recovery of dues with respect to some of these receivables. Although all requisite efforts have been initiated for recovery of these dues, delays are foreseen in collection of dues from certain customers.

The gross interest expense for the year was Rs. 376 crore, a decrease of Rs. 88 crore as compared to the previous year. The savings were achieved through better working capital management, strict control over capital expenditure and prepayment of loans. The overall softer interest rate scenario in the market also helped in managing the interest cost. During the year, the Company reduced significant interest costs by re-financing high cost borrowings with lower cost options and managing liquidity through a mix of currency and interest rate structures. The interest income for the year was lower at Rs.60 crore as compared to Rs.103 crore for the year 2000-01 largely due to reduced interest income from the customers, lower interest earnings on treasury activities, etc. The average cost of borrowing for the year was 9.5% for long-term loans and 8.8% for short-term borrowings.

Depreciation and obsolescence charge increased by Rs. 23 crore mainly on account of capitalization of the grinding unit at Durgapur, West Bengal during the year. Higher charge was also due to the impact of full year depreciation for the grinding unit at Arakkonam, Tamil Nadu and higher charge on assets bought for specific, long tenor customer related jobs.

PROFITABILITY

The operating profit for 2001-02 was higher at Rs.1053 crore, an increase of Rs.40 crore, over the previous year. With business conditions remaining highly competitive, the increase in operating profit was largely due to the various cost reduction measures undertaken by the Company.

Profit before Tax at Rs. 401 crore for 2001-02 was higher by Rs. 62 crore as compared to the previous year largely due to savings in interest cost. After considering the tax credits available under section 115 JAA of Income Tax Act, 1961, the

Company was liable for Minimum Alternate Tax. In line with the newly introduced Accounting Standard 22, 'Accounting for Taxes on Income', provision has been made for deferred tax for the year 2001-02. Despite higher tax provisions, the Company's Profit after Tax for 2001-02 was 10% higher at Rs.347 crore as compared to Rs.315 crore for the previous year.

As stipulated by the above referred Accounting Standard on Deferred Tax, the Company has adjusted Rs. 823 crore from General Reserves on account of the opening balance for net deferred tax liability as of April 1, 2001.

SEGMENT-WISE PERFORMANCE

Engineering and Construction (E&C)

This segment was adversely affected by the general slowdown in investment activities; however, it was successful in registering its presence in the international markets. The export revenues of the segment clocked a handsome 75% growth during the year. Also, the segment had contained costs through a series of measures such as improved asset utilization, cross project comparisons, effective integration of information technology with traditional engineering strengths and superior project management capabilities.

The brief financials for this segment are:

Figures in Rs. crore	**2001-2002**	***2000-2001***
Order Booking	7227	*7093*
Order Backlog	11621	*9222*
Gross Revenue *	4907	*4656*
*EBITDA / Revenue (%) **	*9.8*	*11.2*
Export Earnings	848	*484*

* Including inter-segment revenue

Cement

Total sales of cement and clinker increased by 6% to touch 11.9 million tonnes. Average sales realization during 2001-02 improved by 4% to Rs. 1303 per tonne. In spite of increasing input costs (fuel and power), the continuous cost reduction initiatives enabled the Division to improve its operating margin.

The segment was the single largest exporter of bulk cement and clinker from India with shipments touching 2.41 million tonnes, valued around USD 49 million.

The brief financials for this segment are:

Figures in Rs. crore	**2001-2002**	***2000-2001***
Gross Revenue *	2611	*2415*
*EBITDA / Revenue (%) **	*18.1*	*15.9*
Exports	236	*212*

* Including inter-segment revenue

Electrical and Electronics

Notwithstanding intense competition, the Company maintained its market leadership in its switchgear business. The other product groups had more or less flat top-line growth with low margins. The segment has identified exports as a major growth initiative in the years to come. Export sales nearly doubled during 2001-02 and are expected to show a steady growth in the future.

The brief financials for this segment are:

Figures in Rs. Crore	**2001-2002**	***2000-2001***
Order Booking	711	*693*
Gross Revenue *	736	*740*
*EBITDA / Revenue (%) **	*12.3*	*15.5*
Exports	37	*21*

* Including inter-segment revenue

Diversified Businesses

Competition from well entrenched domestic players, inequitable local tax structure vis-a-vis imports in certain product groups and a slump in the overall domestic demand have all contributed to low sales growth and under-recovery on capital employed. Sales of construction equipment declined during the year, mainly on account of low industrial activity.

Whereas certain product segments like welding systems do indicate reasonably good growth potential, value creation is dependent on cost reduction measures, launch of new products and specific focus on sectors like defence, oil & gas, railways and the automobile sector.

The brief financials for this segment are:

Figures in Rs. Crore	**2001-2002**	***2000-2001***
Gross Revenue *	425	*358*
*EBITDA / Revenue (%) **	*2.8*	*7.3*
Exports	3	*12*

* Including inter-segment revenue

FIXED ASSETS

The gross fixed assets as at March 31, 2002 were at Rs. 6294 crore as compared to Rs 6441 crore in the previous year. The reduction was mainly due to transfer of certain construction equipment and technology-based assets of the Company under a structured operating lease-back scheme. Also, the capital expenditure incurred by the Company during 2001-02 was lower than the previous year by Rs. 118 crore. Asset capitalization during 2001-02 was largely due to the commissioning of the cement grinding unit at Durgapur, West Bengal.

WORKING CAPITAL

The net working capital at Rs. 2485 crore as of March 31, 2002, registered a reduction of Rs.250 crore as compared to the previous year. Considerable emphasis was placed on improving the working capital management within the Company. Stringent monitoring of resources deployment, focus on cash flow optimization, timely collection of customer outstandings and monitoring of the procurement and stocking policies have contributed to the reduction in the working capital. The Company plans to pursue further optimization of working capital requirements to unlock value.

FINANCIAL CONDITION & LIQUIDITY

The Fixed Deposit Schemes and the Commercial Papers issued by the Company are rated 'AAA' and 'P1+' respectively, the highest credit rating in that category. In November 2001, the Company's long term debt rating was revised to 'AA+' by CRISIL. The rating revision was mainly on account of the adverse impact of the unfavourable business conditions on the Company's financial risk profile.

In its efforts to regain the 'AAA' rating for long term debt, the Company has placed considerable emphasis on increased value addition from the operations, reduction in the overall funds employed through better working capital management, lower capital expenditure and sale/disposal of unproductive assets/businesses.

As in the past, the Company retained the confidence of its bankers and other financial sector participants and was able to access funds at the most competitive rates. The Company concluded many transactions at benchmark rates from time to time when it accessed the market.

The Company's principal sources of liquidity were:

a) Existing cash and cash equivalents

b) Cash generated from operations

c) Unutilized funded limits with banks

d) Fresh borrowings

During the year under review, the Company reduced its debt by a significant amount of Rs.719 crore through various measures. These included reduction of working capital and capital expenditure, release of funds locked in fixed assets, and securitisation of receivables.

The cash flow summary for the year was as follows:

Figures in Rs. crore

Liquidity & Capital Resources	2001-2002	*2000-2001*
Cash and Cash equivalents		
- Beginning of the period	138.90	*220.83*
- End of the period	237.14	*138.90*
Net Cash provided /(used) by		
- Operating Activities	1311.19	*561.57*
- Investing Activities	92.03	*(299.38)*
- Financing Activities	(1304.98)	*(344.12)*

The liquidity of the Company improved during the year as can be seen from the increase in cash generated by the operating activity. Strict monitoring of segment-wise working capital ensured adequate liquidity. Also, lower level of capital expenditure together with release of funds locked in the assets of the Company further augmented the liquidity which was utilized to reduce debt, apart from servicing interest and dividend commitments. Funds were managed through an optimum blend of borrowings and short term investments with an appropriate mix of tenor, currency and interest rates. The Company's working capital limits were Rs. 1400 crore raised from its consortium of banks.

The Company has an integrated financial risk management policy to monitor and manage liquidity, interest rate and foreign currency exposures. The procedures, practices and limits with respect to this function were subject to periodic review by senior management during the year under review.

INTERNAL CONTROL SYSTEM

The Company has an internal control system commensurate with its size and nature of business and meeting with the following objectives:

- Efficient use and safeguarding of resources
- Compliance with statutes, policies and procedures
- Transactions being accurately recorded and promptly reported

The internal control system provides for well-documented policies, guidelines, authorizations and approval procedures. The Corporate Audit Services Department conducts periodic audits across all locations and of all functions throughout the year. The observations arising out of the audit are subject to periodic review and compliance monitoring. The internal audit reports along with the report of the status of implementation of recommendations contained there in are reviewed by the Audit Committee of the Board on a regular basis. The Company's authorization procedures for revenue and capital expenditure was reviewed and redefined during the year 2001-02.

PEOPLE INITIATIVES

The Company believes that the quality of its employees is the key to its success in the long run. Accordingly, several new HR processes have been launched by the Company with the objective of supporting its business plans. The Management Leadership Program and Technology Leadership Program endeavour to identify management and technical leadership talent by taking targeted employees through assessment centers and tests. Training programs also emphasize the need for a general management perspective to business. The Company continues to empower its people and provide a stimulating professional environment to its staff to excel in their respective functional disciplines. Campus Ambassadors have been nominated from internal resources, to promote the brand image of the Company at leading campuses.

Process initiatives such as Enterprise Resource Planning (implementation of SAP-HR module) and rationalization of manpower are aimed to make the businesses more efficient and agile.

It is expected that the above initiatives together with business objectives will steer the Company towards its vision of becoming a leading Indian multinational.

PERFORMANCE OF SUBSIDIARY AND ASSOCIATE COMPANIES

SUBSIDIARY COMPANIES

Larsen & Toubro Infotech Limited
(Formerly L&T Information Technology Limited)

The Company, a wholly-owned subsidiary, is in the business of providing software solutions tailored for varied applications and industries. During the year, the name of the Company was changed to reflect and leverage the brand equity of L&T.

The Company focuses on four broad verticals, viz. Manufacturing, Utilities, Financial Services and Telecom Services. As a de-risking strategy, efforts are being made to increase the domestic business, particularly in defence, banking and government sectors.

The Company operates in a highly competitive environment and expects to benefit from the shift in the customer preference for fewer and more reliable vendors who can provide a more comprehensive range of IT services.

The total income of the Company, including its wholly-owned subsidiary, Larsen &Toubro Infotech GmbH, for 2001-2002 at Rs. 281 crore has registered a 11% growth over the previous year. Nearly 93% of the Company's revenue is from overseas markets. The Company has earned a profit after tax of Rs. 36 crore for 2001-2002.

The US market continues to be the leading destination contributing 57% to the total software exports while Europe and Japan contributed 23% and 8% respectively.

The Company presently has more than 121 active clients, with 56 new clients added during the year. Repeat business from existing customers remained strong at 88%.

The Company continued to successfully nurture long-term relationships with several of its large customers. The Company's focus on its verticals and the thrust on quality with SEI CMM Level 5 certification of its European operations are expected to position the Company as a premier IT solutions provider.

L&T Finance Limited

The Company, a wholly-owned subsidiary of L&T, is engaged in the business of providing lease, hire purchase and other financing facilities. The Company focuses on financing of construction equipment and aids the sale of L&T's construction equipment in a significant way. Apart from L&T, the client profile of the Company's lease portfolio includes many reputed multinational companies. During the year, the Company commenced financing of dealers of tractors manufactured by L&T-John Deere Private Limited.

The total income of the company for 2001-2002 was Rs. 75 crore (Rs. 97 crore for the 15 months period ending March 31,2001). The Company's post tax profit at Rs. 11 crore for the year is higher by about 25% than the post tax profit reported for the previous 15 month period.

HPL Cogeneration Limited

The Company, which is a subsidiary of L&T, runs a 116 MW cogeneration power plant on BOO basis to supply power and steam to Haldia Petrochemicals Limited, the other stakeholder in the Company.

The total income of the Company for the year 2001-2002 at Rs. 152 crore is at the same level as in the previous year. The Company has earned a lower profit of Rs. 37 crore for the year as compared to Rs. 58 crore in the previous year, due to provisioning of Rs. 25 crore for deferred tax liability.

L&T Infocity Limited

The Company is a joint venture between L&T and Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC). The Company is engaged in the business of development and maintenance of information technology parks in Andhra Pradesh. The Company is developing the HITEC City (Hyderabad Information Technology Engineering Consultancy City) in Hyderabad, over 151 acres of land in phases with an overall outlay of Rs.1500 crore.

The first phase of development at Hitec City is the Cyber Towers building with 5.25 lakh square feet of office space, constructed and marketed successfully to various IT companies. The second phase is the Cyber Gateway, which will offer 7.8 lakh square feet of office space.

The Company has also promoted a subsidiary, Hyderabad International Trade Expositions Ltd. (HITEX), for development of an exhibition center of international standards, in Hyderabad.

The total income of the Company for 2001-2002 at Rs. 71 crore has more than doubled over that of the previous year. The company has earned a post tax profit of Rs. 13 crore for the year.

The Company's plans include development of a residential complex on 87 acres of land, adjacent to HITEC City. The Company also proposes to undertake consulting services for setting up IT Parks by other developers in other States.

L&T Equipment Leasing Company Limited

The Company, a wholly-owned subsidiary of L&T, has been formed to provide construction equipment on operating lease to L&T and other established entities in India. Currently, the Company is predominantly catering to the equipment requirements of L&T.

The total income of the Company for 2001-2002 was Rs. 3.9 crore (Rs. 1.0 crore in the previous year). The Company earned a post tax profit of Rs. 0.5 crore during the year.

The National Highways Authority of India (NHAI)'s initiative to accelerate the integrated national road network provides opportunities in construction equipment leasing. The Company's plans include leasing out sophisticated road building equipment like hot mix plants, sensor pavers etc. to leading construction contractors. Through the Company's operations, L&T proposes to improve the utilization and maintenance of its construction equipment.

India Infrastructure Developers Limited

The Company, a wholly owned subsidiary of L&T, was formed as a special purpose vehicle to provide a 2x45 MW captive cogeneration plant on lease to Indian Petrochemicals Corporation Limited ("IPCL") at their Gandhar petrochemical facility (Gujarat). The Company is receiving the lease rentals from IPCL as per agreed schedule.

The Company earned a total income of Rs. 74 crore during 2001-2002 as compared to Rs.77 crore in the previous year. The Company incurred a total loss of Rs.30 crore including deferred tax provision of Rs.25 crore.

Tractor Engineers Limited

The Company manufactures and sells

a) undercarriage systems for excavators, crawler tractors, and bulldozers

b) material handling equipment like apron conveyors

c) spares for oil field equipment, etc.

Pursuant to the sale of 50% stake by Caterpillar Overseas S.A. to L&T in January 2002, the Company is now a wholly-owned subsidiary of L&T.

The total income of the Company for 2001-2002 was lower at Rs. 32 crore (Rs. 39 crore in the previous year). The Company incurred a loss of Rs. 1.5 crore during the year.

Competition from imported undercarriage systems at lower prices have eroded the Company's market share and margins over the years. The decline in sales during 2001-2002 is also attributable to a lower off-take by L&T-Komatsu – an associate company whose operations were affected by labour unrest. Loss for the year 2001-2002 includes a provision of Rs. 2.96 crore on account of impairment of assets located at the Navi Mumbai plant. The Company is exploring possibilities of expanding the product range to improve profitability.

Narmada Cement Company Limited

The Company, a subsidiary of L&T, manufactures and sells grey portland cement. The Company's plants, having a combined capacity of 1.50 million tonnes, are located at Jafrabad & Magdalla in Gujarat and Ratnagiri in Maharashtra.

During the year 2001-2002, the clinker despatches increased by 4% to 12.43 lakh mt. The Company achieved a turnover of Rs. 258 crore as against Rs. 247 crore in the previous year. The improvement in prices witnessed in the first quarter of the year could not be sustained and the prices remained weak during the balance period of the year. The loss during the year was lower at Rs. 17 crore (excluding deferred tax assets of Rs. 1.3 crore) as against Rs. 20 crore in the previous year, mainly due to improvements in operational efficiencies and cost reduction initiatives.

The Company continues to be a potentially sick company within the meaning of the Sick Industrial Companies (Special Provisions) Act, 1985. However, continuous efforts are being made to improve the performance of the Company.

Larsen and Toubro Ceylinco (Private) Limited

The Company is a joint venture between L&T and the Ceylinco Group, Sri Lanka. The Company is a major player in the Sri

Lankan cement market, importing bulk cement from L&T and marketing the same locally, in bags and in bulk. The Company achieved a 13% market share in its second year of operations.

The total income of the Company for the financial year January – December 2001 was Rs. 93 crore (Rs. 54 crore in the previous year). The Company incurred a loss of Rs. 3 crore (loss of Rs.13 crore in the previous year). The Company plans to re-capitalize its balance sheet to strengthen the networth .

The supply overhang and competition from global majors has reduced the realization, thus affecting profitability. Recent reduction in Sri Lankan customs duty for bulk cement imports from India should augur well for the Company as landed costs reduce. The introduction of Value Added Tax should stabilize cement prices across the country.

Narmada Infrastructure Construction Enterprise Limited

The Company is a special purpose vehicle with a 15-year ownership/tolling rights in respect of 2 bridges at Zadeshwar across the river Narmada in Gujarat on National Highway 8.

Traffic during the first full year of operations of the Company has been lower than expected. The total income of the Company for 2001-2002 is higher at Rs. 20 crore as compared to the previous year (Rs. 8 crore). The company has incurred a loss of Rs. 7 crore for the year.

A proposal for tariff rationalization has been submitted to the appropriate authorities, which, if approved, should increase revenues and improve the profitability of the Company.

L&T Western India Tollbridge Limited

The Company enjoys a 10 year ownership and tolling rights in respect of the bridge across the river Watrak and its approach roads on National Highway 8. The bridge was opened to commercial traffic in March 2001.

The Company has earned a total income of Rs.12 crore during 2001-2002 (Rs.1 crore during the previous year) and has posted profits of Rs.1.2 crore in its first full year of commercial operations.

L&T Transportation Infrastructure Limited

The Company is a special purpose entity owning the property and tolling rights of the 28 kilometer Coimbatore Bypass Road and a 2 lane Bridge across river Noyyal (Athupalam) on National Highway 47. The tolling rights cover the concession period (including construction period) of 31 years for the bypass and 21 years for the Bridge. The performance of the Company is dependent on the volume of road traffic.

The Company earned a total income of Rs. 9 crore during 2001-2002 (Rs. 8 crore in the previous year) and incurred a loss of Rs. 6 crore mainly due to the loss of toll revenue, caused by toll collection problem for the Bridge at Athupalam. The Company has taken up the issue with the Central/State Governments and is hopeful of a solution during the next year.

L&T Capital Company Limited

The Company, a wholly-owned subsidiary of L&T Finance Limited, is a SEBI-registered merchant banker and is engaged in fee-based intermediation in project advisory, money market and capital market segments. The Company earned a higher income of Rs.1.9 crore for the year 2001-2002 and a profit of Rs.0.23 crore.

L&T Netcom Limited

L&T Netcom Limited, a fully owned subsidiary of L&T, is engaged in the business of providing internet services. The Company has an ‘A’ Category (all India level) ISP licence and presently exclusively caters to the in-house connectivity requirements of the L&T Group. Mission critical applications such as SAP, instant messaging, e-business are deployed using the infrastructure provided by the company.

The year 2001-02 has been the first year of commercial operations for the Company. The Company earned a total income of Rs. 3 crore and incurred a loss of Rs. 1 crore during the year.

L&T Trade.com Limited

The Company, a wholly-owned subsidiary of L&T Finance Limited, was engaged in providing software solutions in internet-based trading platforms for financial products such as securities, mutual funds etc. Following a change in the business profile, the Company’s domain expertise has been relocated to Larsen &Toubro Infotech Ltd. for its Financial Services Practice and the operations of L&T Trade.com have been fully integrated with Larsen & Toubro Infotech Limited. The Company has incurred a loss of Rs. 3 crore for the year 2001-2002.

ASSOCIATE COMPANIES

Audco India Limited

The Company, a joint venture between L&T and the Flowserve Group (US), is engaged in the manufacture and sale of industrial valves, safety relief valves and pneumatic actuators.

The quality of the Company’s products have been certified by internationally accredited agencies. Currently, around 50% of the Company’s revenues accrue out of exports. Technical skills, leading to product innovations, a strong distribution set-up and an optimal cost structure are key strengths of the Company. Aided by a 56% increase in export turnover, the Company achieved sales of Rs.214 crore (Rs.176 crore in the previous year) and a profit after tax of Rs. 21.6 crore (Rs. 17.1 crore in the previous year) during 2001-2002.

The scenario for the year 2002-2003 appears promising, with healthy order backlog of Rs.93 crore. While domestic business growth may continue to be sluggish, export opportunities in the refinery sector and increased offtake by Flowserve will provide growth impetus.

Ewac Alloys Limited

The Company, a joint venture between L&T and Eutectic+Castolin Group, Switzerland, is a market leader in the business of maintenance & repair welding and welding solutions for conservation of global metal resources. The principal products and services comprise maintenance & repair electrode consumables, specification grade electrodes, flux-cored welding wires, wear plates/parts, welding equipment etc., The marketing of the Company’s products in India is done by L&T.

The industrial downturn in the economy has had a negative impact on the demand for welding consumables. Sluggish market conditions coupled with cheap imports and low priced products from small scale industries have affected the Company’s performance in the year under review.

The total income of the Company during 2001-2002 was Rs.55 crore (Rs. 63 crore in the previous year) and the profit after tax Rs.9.3 crore (Rs.10.4 crore in the previous year).

The Company is considering production of continuous wire electrodes, with necessary investments. An improved business environment in 2002-2003 along with introduction of newer products and positive impact of various cost control initiatives is expected to contribute to a better performance of the Company.

L&T-Sargent & Lundy Limited

The Company is a joint venture between L&T and Sargent & Lundy LLC, USA, established for providing the entire spectrum of engineering services and solutions to projects in the power sector.

The Company caters to the captive requirements of its parent entities and a few niche clients in India and abroad. The Company recently completed the engineering services related to a 500 MW combined cycle power plant of General Electric, USA. Work on three more plants of similar size and configuration is in progress.

The total income of the Company for 2001-2002 at Rs. 26 crore has registered a 78% growth over the previous year. Profit after tax more than trebled during 2001-2002 to touch Rs.9.3 crore.

The Company has good potential of enhancing its business from the US and other countries.

L&T-Chiyoda Limited

The Company, a joint venture between L&T and Chiyoda Corporation, Japan, is an engineering consulting firm that offers complete range of design and engineering services to the hydrocarbon sector.

The services offered include technology/licensor selection, preparation of techno-economic feasibility reports, development of process design package, front-end engineering and design, project management consulting, etc.

There were no major fresh investments in 2001-2002 in the Indian hydrocarbon industry other than the revamping of the existing production facilities in the refinery sector to produce cleaner fuel. The Company is continuously working on application of information technology to simplify and automate the process engineering discipline.

The total income of the Company for 2001-2002 at Rs.14.3 crore was higher by 16% over the previous year. The company earned a profit after tax of Rs.1.2 crore (Rs.1.0 crore in the previous year).

In line with L&T's strategy of tapping business opportunities in Middle East and South-East Asia, the Company looks forward to growth prospects in these markets in the coming years.

L&T-Ramboll Consulting Engineers Limited

The Company, a joint venture between L&T, Ramboll A/S, Denmark and IFU (the Danish Industrialization Fund for Developing Countries), offers international quality engineering and project consulting services in the transportation sector, especially for projects relating to ports and harbours, roads and bridges, railways, tunnels and airports.

The total income of the Company at Rs. 7.8 Crore for 2001-2002 has registered an increase of over 16% over the previous year. Notwithstanding the thrust on infrastructure projects, financial closure has been a challenge for many BOT projects in the roads and ports sector. Delays in project implementation have restricted the growth opportunities for the Company. Measures announced to promote foreign direct investments in the infrastructure sector are expected to favour the industry in the years to come.

L&T-Demag Plastics Machinery Private Limited

The Company, a joint venture between LTM Limited and Demag Ergotech GmbH, Germany, manufactures and sells Injection Moulding Machines for the plastics industry. The Company commenced operations in January, 2001.

The Company enjoys a leadership position in the organized sector. However, the Company faces strong competition from imports.

The Company secured good orders from major players in various segments of the Indian plastics industry like packaging, writing instruments and automobiles. The exports of the Company's products is channelled through Ergotech's global marketing network. In 2001-2002, the Company's products were exported to Israel, Australia and Sudan.

The Company's total income for 2001-2002 was Rs.37 crore (Rs.9.4 crore for 3 months during the previous year) and the profit after tax was Rs.0.8 crore (Rs.0.4 crore in the previous year). The Company expects the order booking to increase by 20% during 2002-2003.

L&T-Niro Limited

The Company is a joint venture between L&T and Niro A/S, Denmark, and is engaged in EPC business specific to dairy, chemical and pharmaceutical sectors.

The slowdown in the domestic economy had its impact on the Company's performance, as order booking during 2001-2002 at Rs.14.42 crore was lower by 20%. However, the Company managed to bag a few contracts in polyester chips, a relatively new line of business, with Barr-Rosin technology from UK.

The total income of the Company for 2001-2002 was lower at Rs.24 crore (Rs. 31.9 crore in the previous year) and the net loss for the year was Rs.3.1 crore (Rs.3.4 crore profit after tax in the previous year).

The Company expects growth from automated powder plants in the dairy industry and polymer chip production units.

L&T-John Deere Private Limited

The Company is a joint venture between L&T and Deere & Company, USA, and is engaged in the manufacture and sale of agricultural tractors. The manufacturing facilities located at Sanaswadi, Pune are capable of producing 30,000 tractors per annum.

The Company has achieved the highest market share in the 55 HP segment within a short span of 18 months, although volumes in this segment are low. The company aims to increase capacity utilization and sales by introducing models in other segments. The 40 HP model was launched in October 2001 while a 47 HP model, with a new heavy duty drive train was launched in May 2002.

The Company continued to expand its distribution network and has appointed 110 dealers covering 16 States and Nepal.

The total income of the Company was Rs.91.25 crore for the year 2001-02, as against Rs.29.77 crore in the previous period (5 months). Cost reduction efforts like indigenisation by local purchase of key component parts continue and the favourable impact is likely to be felt in the coming years. The Company expects to break even in the next couple of years on reaching sales of around 16,000 tractors per annum.

L&T-Komatsu Limited

The Company, a joint venture between L&T and Komatsu Limited, Japan is a leading manufacturer of hydraulic excavators and high pressure hydraulic components in the country.

The market for earthmoving/construction equipment declined during the year, primarily due to the recession in industrial and construction activities in the country. However, substantial investments in the road sector compensated the demand shortfall from other sectors. The Company's products face stiff competition from other local manufacturers and imports.

New products launched by the Company included a 7 Ton class excavator model PC 71 along with an upgraded version of 35T 180CK excavator. The initial response for these new models has been encouraging.

The performance of the Company during the year under review was affected by a strike at its plant. The strike was called off and normalcy restored in January 2002. The Company's sales were lower at Rs. 172 crore (Rs. 227 crore in the previous year) and so was the net loss at Rs.1.5 crore (Rs.1.7 crore in the previous year). The Company expects to post an improved performance during the year 2002-2003 and beyond, due to the anticipated recovery in the domestic economy.

L&T-Case Equipment Private Limited

The Company is a 50:50 joint venture of L&T and Case Corporation, USA engaged in the manufacture and sale of earthmoving machinery. The marketing of the Company's products is done by L&T. The main product lines comprise Loader Backhoes (with market share of around 15%) and Vibratory Compactors (with market share of around 30%).

The government's recent initiative to encourage investment in the infrastructure sector, particularly in roads, is expected to spur demand for the Company's products. The Company has launched initiatives for improving the product design through technology upgradation and for enhancing productivity.

The total income of the Company grew by 14% to reach Rs.105 crore (Rs.92 crore in the previous year) and the profit after tax at Rs.4.1 crore (Rs.3.4 crore in the previous year) increased by over 21% during 2001-2002.

With the introduction of a new model of Loader Backhoe using CNH technology and improved in-house models of Vibratory Compactors, the Company aims to improve domestic market share and consequently, the financial performance during the year 2002-2003.

Larsen & Toubro (Oman) LLC

The Company is a joint venture between L&T and Zubair Enterprises LLC, a leading business group in Oman. It offers comprehensive services in the construction field, with specialization in turnkey projects. Major orders currently under execution include the onshore component of the Salalah Power Project. The Company has earned a total income of Omani Riyal 4.95 million during the calendar year 2001. The Company plays a significant role in furthering the L&T Group's business interests in Oman and the neighbouring regions.

Larsen & Toubro (Saudi Arabia) LLC

The Company, a joint venture between L&T and a local partner in Saudi Arabia, was formed to take advantage of the construction project opportunities in Saudi Arabia. The Company offers turnkey solutions in specialized fields of oil & gas, petrochemicals, fertilizers & chemicals, infrastructure, buildings, factories, power transmission & distribution and telecommunication projects. The Company earned a total income of Saudi Riyal 34.07 million and a profit of Saudi Riyal 1.73 million during the calendar year 2001.

International Seaports Pte. Limited

The Company, a joint venture between L&T, Precious Shipping Public Company Limited, Bangkok and SSA Inc., USA, was formed to provide integrated services with respect to design, development, building and operating seaport terminals in South and South East Asia.

The company, through its project management subsidiary in India, International Seaports (India) Pvt. Ltd., has successfully bid for port projects in Orissa, Andhra Pradesh and West Bengal. The projects which are being developed through separate project companies, are not yet financially closed.

L&T as a Corporate Citizen

Good corporate citizenship has been the philosophy underpinning the operations of the Company since its inception in 1938. Over the last six decades and more, the Company has endeavoured to discharge its social responsibilities through various initiatives.

Community Welfare

Rural and Tribal Welfare

The Company has undertaken rural and tribal welfare schemes in the villages surrounding many of its factories. L&T's community initiative VIKAS (Village Improvement Know-how and Skills) is a multi-pronged development scheme which begins with improving health and increasing awareness about health issues. The services include family planning operations, immunization, post and ante natal care and tuberculosis eradication.

Support to Health Delivery systems

The Company runs a full-fledged Health Centre at Andheri, a Western suburb of Mumbai. This centre provides free diagnostic and medical facilities to the neighbouring community and has done award-winning work in the areas of family planning, leprosy and T.B. Widespread health facilities to the community are provided at L&T's various cement plants.

Environment Conservation

The Company is committed to environment conservation and deploys state-of-the-art pollution control equipment at all its cement manufacturing facilities. Afforestation programmes to develop greenery are undertaken in the surroundings of all L&T units.

Encouraging Education

In the area of strengthening education, the Company encourages the children of its employees to seek educational excellence by recognising their academic achievements through award of cash incentives. The Company has established its own L&T Institute of Technology, Mumbai providing engineering diploma courses to the children of its employees.

The Company has set up 'Balwadis', schools for village children in the vicinity of its manufacturing facilities. The children's progress is constantly monitored to spur them towards better performance.

L&T has instituted chairs and lectures in professional institutions to promote advancement of knowledge in premier institutions like IIM-Ahmedabad, XLRI-Jamshedpur, IIT-Mumbai etc.

Disaster Relief

The Company has been prompt in responding to the needs of the nation in disaster situations, the latest being the Gujarat earthquake. It adopted two villages in Kutch - Kirai and Nilpar in the Rapar taluka, for rehabilitation. The Company deployed its earth moving equipment and medical equipment in rescue and relief operations in the earthquake affected parts of Gujarat. In addition, it offered support for the maintenance and upkeep of the equipment used by other relief agencies.

Beyond growth and profitability, the Company's mission involves pursuit of business ethics and social responsibility. The Company will continue in its initiatives to reinforce its credentials as a good corporate citizen.