

FUTURE PERFECT

At ETAL, we strongly believe that the future belongs to those who can contribute balanced 'solutions' in a technologically accelerated world... balanced in terms of cost effectiveness, energy conservation, environment protection and moreover, reuse of natural resources.

These concerns guide our innovative spirit. Recognizing the vital link between life sciences and engineering, we have made bio-process technology led systems a mission at PRAJ.

In fact, PRAJ has been involved in shaping some of the most challenging agriprocessing applications. One of them being **Ethanol** from sugar/ starch/biomass raw materials.

We will continue to innovate in pursuit of a

FUTURE PERFECT WORLD.



Think **FUTURE**...Think **INNOVATION**.



Working towards customer delight



Customer delight is what it is all about. And, we work tirelessly to achieve results for our customers. At Tripti Alcobrew we have demonstrated this very conclusively.

With the introduction of **E-comForce** and **E-Comboiler**, the brewery at Tripti Alcobrew has been made very energy efficient.

The results have been equally delightful. Tripti Alcobrew expanded their operation in the very first year and Brewery Technology Initiative once again demonstrated its capabilities by completing the project in record time.





For refrigeration plant energy economy



"Praj has built a world class brewery for TRIPTI ALCOBREW in the shortest time. We are delighted with PRAJ."

- Adil Bapuna, Director, Tripti Alcobrew Ltd., Morena (M.P.)



PRAJ INDUSTRIES LIMITED

Board of Directors

Pramod Chaudhari

Chairman & Managing Director

Joint Managing Director

Shashank Inamdar

Venkatachala Datar

Berjis Desai

Diwakar Nimkar

Sivaramakrishnan lyer

Company Secretary

Deepak Mogal

Auditors

B. K. Khare & Co.

Chartered Accountants, 706/708, Sharda Chambers,

New Marine Lines, Mumbai - 400 020

Internal Auditors

G.D. Apte & Co.

Chartered Accountants,

Dream Presidency, 1202/17E, Shivajinagar,

Off Apteroad Pune - 411 004

Bankers

Bank of Maharashtra

Bank of India Canara Bank

ABN Amro Bank N.V.

Registered Office

"PRAJ HOUSE".

Bavdhan, Pune 411 021.

India

R & D Centre

Matrix - The Innovation Center

"PRAJ HOUSE".

Bavdhan, Pune 411 021.

India

Manufacturing Facility

S. No. 748, Sanswadi, Pune 412 207.

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Directors' Report



To The Members of Praj Industries Limited,

Your Directors are pleased to present the 17th Annual Report and the Audited Statements of Accounts for the year ended 31st March, 2003, together with the notice of Annual General Meeting.

1. PERFORMANCE

In the year under review, your Company has recorded a total income of Rs. 881.558 million (previous year Rs. 582.553 million). This represents more than 50% increase over the previous financial year. Profit Before Tax also increased from Rs. 11.868 million in FY 2001-02 to Rs. 47.426 million in FY 2002-03. The improved performance can be attributed to the success of various strategies adopted by the Company and the efforts put in by the management and staff to seize the opportunities created in the market, through efforts in the past.

Rs. in million

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	2002-2003	2001-2002
Turnover	881.558	582.553
РВТ	47.426	11.868
PAT	24.260	2.253.

2. OPERATIONS

The note on operations of the Company is included in *Management Discussion & Analysis* at Point No. 5 of the Directors' Report.

3. RESEARCH, DEVELOPMENT & INNOVATION

The R&D activities of your Company are guided by programmes outlined by your Management under **Matrix- The Innovation Center**.

Matrix has a strong focus on market driven R & D. Its initiatives have resulted into concepts like 'SMART DISTILLERY' which utilizes multiple feedstocks for production of multiple products from the same distillery plant. Commercialization has already commenced with an alcohol plant in Maharashtra operating on this technology.

Matrix has also developed process packages for production of ethanol from tropical sugar beet and sweet sorghum. These innovations are expected to contribute significantly towards enhanced performance of the Company in the coming years.

4. HUMAN RESOURCES

4.1 In line with the strategic plans, your Company's business is rapidly getting transformed into 'domain knowledge' functions with technology being the main driver. Also, your Company is increasingly addressing clients from different continents and cultures. Having realized the importance of sensitizing employees to the cultural and technological nuances of various countries, your Company has initiated training, development and upgradation programmes.

Directors' Report (Contd/-)



- **4.2** Your Company has undertaken job evaluation of major activities in order to achieve higher productivity, job enrichment, broad banding and commensurate reward system.
- **4.3** In order to fulfil its responsibilities towards the society, your Company has initiated steps to set up Praj Foundation which will spearhead various 'humanitarian' programmes as identified by the management.
- **4.4** Your Company, in association with Jnana Prabodhini, Pune (a social organization), has contributed to the educational requirements of children of migrant workers of sugar cane farm labours, who form the backbone of sugar industry. Under this scheme, 8000 children were enrolled in the year under review. Praj will continue to promote such endeavours which will build a stronger community.

5. MANAGEMENT DISCUSSION & ANALYSIS

5.1 Operations

The financial year 2002-03 is a milestone year for your Company. The year marked over 50% growth in turnover combined with a profitability ratio of over 5%. The operating margin grew 100% over the previous year. The export turnover forms 40% of the total turnover.

Your Company bagged several noteworthy orders from major groups in the export regions of South East Asia, Africa and South America. Amongst them is an order for its patented 'flubex' based evaporation system.

Your Company has improved its fixed asset utilization. Subsequent to the year under review, your Company has foreclosed the corporate loan for PRAJ HOUSE. Thus, your Company has become 'long term debt-free' Company.

Praj continues to build in efficiencies. Per Capita productivity is being vigorously tracked in order to enhance levels of services.

Value engineering is being pursued in various activities by the Company. This will enable the Company to protect its margins in the likelihood of adverse market conditions.

Customer care forms an important part of Business Orientation, wherein your Company has identified separate resources which will address customer care and after sales service.

Your Company is reckoned as a major force in the ethanol technology business. The brand value of your Company is well established. Your Company is active on several forums, both domestic and international, for promotion of fuel ethanol. Your Company is working towards increasing its reach in high growth markets of the world.

Your Company plans to stay ahead in futuristic technologies with a new agenda for Matrix - The Innovation Center, already underway. This agenda will catapult Praj into a league along with other Biotechnology Companies working in the field of renewable fuels.

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Directors' Report (Contd/-)



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Your Company's manufacturing division has received an ISO 9001-2000 certification which demonstrates customer orientation of your Company. Further, the ASME H & U stamp certification have been recertified which implies the consistency in performance of the Company's quality systems.

Praj is also increasing its geographical reach. It has opened a representative office in Thailand and very soon an office in South Africa is also expected to go on stream.

5.2 Economic Scenario

The Year ended March 2003 saw the world challenged by numerous events like the SAARS epidemic and a continuous threat of terrorism and war.

However, business sentiments remained high in India (125.7 Point on the ET-NCAER Business Confidence Index), combined with a robust industrial growth of 5.7% with manufacturing notching a growth of 6%. As the Indian economy gets more and more aligned with the global economy, we will see a greater dynamism in the market. Significantly lower interest rates are also encouraging investments in certain sectors. Capacity utilization is on the rise and a strong rupee notwithstanding, exports continue to be buoyant.

Although Agriculture GDP is recorded at 5.7%, sugar industry is one sector, which has probably seen its worst year. A draught in large part of the country has put the sugar industry under pressure. Burgeoning stocks of sugar added to the concern of sugar mills.

5.3 Industry Overview

Ethanol Plants

In spite of such challenges, the distillery segment, which is closely related to the performance of sugar industry, experienced positive momentum.

Government of India announced its renewable biofuels policy with the introduction of 5% ethanol to petrol beginning January 2003 in 9 states and 5 Union Territories with plans to extend the mandate to every state in India in the second phase. Subsequently, additional blending of 5% is envisaged in the third phase. The first phase itself translates into a demand of 400 million litres of Ethanol in India.

There has been a worldwide interest in renewable fuels. Countries which have declared their interest in renewable fuels programme include South America, Australia, ASEAN and SAARC countries. USA is intensifying its Fuel Ethanol programme with the passing of the Energy Bill in the Congress. Colombia very recently passed a presidential decree for addition of fuel ethanol to petrol.

World ethanol production is expected to go up from 33 billion litres to over 50 billion litres in the Year 2012. This amounts to more than 50% growth in capacity over a decade. Most of the growth is expected on account of fuel ethanol mandates being introduced in several countries.

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Increased demand for fuel ethanol is likely to create a pressure on cane molasses, the predominant raw material in tropical countries. In anticipation, Praj has introduced and commercialized futuristic technologies which will utilize alternate feed stocks – these include various sugar and starch bearing substrates. Praj has not only developed the technologies, but has also spearheaded the introduction of new energy crop types like sweet sorghum and tropical sugar beet which will expand the production of ethanol.

For Praj, avenues of growth will keep coming from challenges and paradoxes present in the existing business and technologies. Some of the opportunities or 'growth drivers' which have already been identified are:

- a) Broad banding of technologies for utilization of alternate raw materials.
- b) Stringent pollution control norms.
- c) Increasing geographical reach which encompasses varied climatic conditions and raw materials.

Brewery Plants

Beer consumption in India and some parts of the world is on the rise. In addition to favourable state policies (in India) for distribution of beer, the entry of international players into India is acting as a turning point for the brewery industry. Modernization and Upgradation of existing facilities coupled with new facilities of beer production will see an upswing. Your Company's brand as a 'value-added engineering service provider' will stand in good stead for enhancing business potential.

Biocycles - Wastewater Management

Distillery and Brewery wastewater has always posed a challenge for technologists. Praj has been offering responsible technologies and services which take care of wastewater issues. Praj has formed a separate division which offers a basket of solutions for wastewater treatment and utilization. Efforts are ongoing for further improvement in current technologies.

The introduction of a separate focus on wastewater systems has been with a view that pollution control norms will be further tightened. Distilleries will look for technologies, both process as well as wastewater treatment, which are integrated, in order to derive better project viability. Praj has been working in this direction. One of the important fall outs of its 'multi-feed distillery complex' is the reduction in wastewater volumes. Several options have been introduced including the patented 'flubex' based evaporation system which reduces vinasse volumes to manageable levels before secondary treatment. The technology is finding increased acceptance in the global market. The first plant has been installed in India, whilst the first plant abroad is being installed in Colombia which is expected to go on stream soon.

5.4 Future Outlook

The outlook for ethanol and brewery business seems buoyant. Ethanol will continue to be the main growth driver. In addition, modernization and upgradation of alcohol and beer plants will also present growth avenues. With utility costs rising in practically every sphere, the need to make plants more energy efficient and eco-friendly will be the order of the day. With innovative technologies from its stable, Praj is well placed to convert these challenges into opportunities.

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Directors' Report (Contd/-)



The Company has commenced its Engineering Software Division (ESD). This division will enable export assignments through parameterized software for responding to customer requirement.

Praj is working on different revenue models which will provide consistency in operations and cash flows.

Another sector which is showing signs of recovery is the engineering sector. With India becoming the hub of the outsourced economy, engineering and manufacturing sector are experiencing a new found business model. With inherent engineering strengths, Praj expects to build a business model wherein it can leverage these strengths into a business proposition to address this market also.

5.5 Concerns & Threats

Your Company cautions that Government Policies will dictate the progress in its primary sector.

Although your Company has developed 'cutting edge' technologies, there is likely to be competitive pressure on account of lower entry barriers.

Further, the main raw material in your Company's equipment is Steel. Price of Steel is volatile and this may impact the gross margin.

5.6 Cautionary Statement

Statements in this report, particularly those which relate to Management Discussion and Analysis, describing the Company's future plans, projections, estimate and expectations may constitute" forward looking statements" within the meaning of applicable laws and regulations. Actual results might differ materially from those either expressed or implied.

5.7 Internal Controls Systems and their adequacy

Your Company's internal control systems are adequate and are routinely tested and certified by our statutory as well as internal auditors. Moreover, Your Company continuously upgrades these systems.

6. CORPORATE BUSINESS

6.1 Amalgamation

Under the Scheme of Amalgamation, Praj Engineering Limited has been amalgamated with your Company w.e.f. 1st April, 2002 vide order of High Court of Judicature at Mumbai dated 1st September, 2003. Consequently, the results for the year under review are declared after consolidating the results of erstwhile Praj Engineering Limited. Therefore the previous financial year's figures in some cases may not be comparable.

6.2 Listing Fees

Since SEBI has stipulated electronic filing of Annual Report, Corporate Governance Report, Financial Results, Shareholding Pattern etc. on its website www.sebiedifar.nic.in, statements of your Company can be accessed at this website.

Directors' Report (Contd/-)



The Company's shares are listed on National Stock Exchange of India Ltd., The Stock Exchange Mumbai, The Pune Stock Exchange Ltd. and The Stock Exchange, Ahmedabad. The Annual Listing Fees for 2003-2004 has been paid to all the Stock Exchanges.

6.3 Registrar & Transfer Agents

Complying with SEBI guidelines directing Companies to have common R & T Agent for electronic as well as physical mode of share transfer, your Company has appointed Intime Spectrum Registry Ltd., C - 13, Pannalal Silk Mills Compound, L. B. S. Marg, Bhandup (West), Mumbai 400 078 as Registrar & Transfer Agents from June 2003 onwards for physical mode of share transfer also.

6.4 Electronic Shareholding & Trading

As on 31st August, 2003, 97.66% of the Company's equity was in electronic mode. SEBI has directed the trading of the Company's script in electronic mode only w.e.f. 15th March, 2000.

6.5 Subsidiary Company

Pacecon Engineering Projects Ltd. (PEPL) and Praj Far East Pte. Ltd. (PFE) are subsidiaries of your Company. As required under section 212 of the Companies Act, 1956, the accounts for the year ended 31st March, 2003 of the subsidiary companies are attached herewith together with statement under that section. Pursuant to Accounting Standard No. 21 the consolidated results of your Company after incorporating the results of its subsidiaries viz.. PEPL and PFE are enclosed.

7. ACCOUNTS

In conformity with the mandatory accounting standards, the significant accounting policies have been included in Schedule 18 (Item 1) of the accounts.

8. PARTICULARS OF EMPLOYEES

The information required under Section 217 (2A) of the Companies Act, 1956 read with Companies (Particulars of Employees) Rules, 1975 for the year ended 31st March, 2003 is given below:

Sr. No.	Name & Age	Qualification	Date of Commencement of employment	Designation	Gross Remuneration (Rs.)	Last Employment & the period	Experience in years
1	Mr. Pramod Chaudhari (54 yrs.)	B. Tech (Mech.)	08/11/1985	Chairman & Managing Director	3,305,000/-	Rapicut Carbides Ltd. (2 Yrs.)	31

CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION, ADAPTATION, INNOVATION

9.1 Conservation of Energy:

The operations of your Company are not energy intensive as the operations are limited to machining, metal working and finishing of a variety of equipment.

9.2 Technology Absorption, Adaptation, Innovation:
Your Company continuously innovates and enhances its technological offerings. Your Company has