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## 30TH ANNUAL REPORT 1998-99

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**INDIAN PETROCHEMICALS CORPORATION LIMITED**

**BOARD OF DIRECTORS****WHOLE-TIME FUNCTIONAL DIRECTORS :****Shri K. G. Ramanathan**

Chairman-cum-Managing Director

**Shri N. Chandar**

Director (Finance)

**Shri Chinmay Bhattacharya**

Director (Marketing)

**Shri S. K. Anand**

Director (Operations)

**Dr. C. M. Lamba**

Director (Personnel)

**PART-TIME OFFICIAL DIRECTORS :****Shri Ashok Chawla** w.e.f. 06-08-1998

Director

**Shri Yashwant Bhawe** w.e.f. 29-09-1998

Director

**Shri G. Subba Rao** upto 23-07-1999

Director

**Shri Vijay Ranchan** w.e.f. 30-07-1999

Director

**PART-TIME NON-OFFICIAL DIRECTORS :****Shri S. M. Datta** w.e.f. 23-11-1998

Director

**Shri D. Basu** w.e.f. 23-11-1998

Director

**Dr. J. S. Juneja** w.e.f. 23-11-1998

Director

**Shri Rajinder Gupta** w.e.f. 23-11-1998

Director

**Shri A. Parthasarthy Naidu**

Company Secretary

**REGISTERED OFFICE**P. O. Petrochemicals,  
Dist. Vadodara 391 346  
Gujarat.**REGISTRARS****SHARE TRANSFER AGENT****M/s MCS Limited,**Neelam Apartment,  
88, Sampatrao Colony,  
Alkapuri, Vadodara 390 007.**FIXED DEPOSITS & DEBENTURES****M/s Scrips Financial Services (Pvt.) Limited**5, Nutan Bharat Society,  
Alkapuri,  
Vadodara 390 007.**BANKERS**

State Bank of India

Bank of India

Bank of Baroda

State Bank of Saurashtra

HDFC Bank

Bank of America

Citibank N. A.

American Express Bank

ANZ Grindlays Bank

**AUDITORS****M/s Kantilal Patel & Co.**Chartered Accountants,  
202, "Paritosh",  
Usmanpura, (River Side),  
AHMEDABAD 380 013.**BRANCH AUDITORS****M/s. A. K. Barman & Associates,**Chartered Accountants,  
85, Lenin Sarani, 1st Floor,  
CALCUTTA 700 013.**M/s. Girish Murthy & Kumar**Chartered Accountants,  
4502, High Point IV, 5th Floor,  
Palace Road,  
BANGALORE 560 001.**M/s. Chhotalal H. Shah & Company,**Chartered Accountants,  
Gold Mohur, 1st floor,  
Shamaldas Gandhi Marg,  
MUMBAI 400 002.**M/s. H. K. Chaudhary & Co.**Chartered Accountants,  
1/9-B, Jindal House,  
Asaf Ali Road,  
NEW DELHI 110 002.**MEETING VENUE**

30th Annual General Meeting will be held at 2.00 p.m. on Wednesday, the 29th September, 1999 at Mahatma Gandhi Nagar Gruh, Near Jubilee Garden, Vadodara 390 001.

## NOTICE

NOTICE is hereby given that the Thirtieth Annual General Meeting of the Shareholders of Indian Petrochemicals Corporation Limited will be held at 2.00 p.m. on Wednesday, the 29th September, 1999 at the Mahatma Gandhi Nagar Gruh, near Jubilee Garden, Vadodara 390001 to transact the following business :-

### Ordinary Business

- 1 To receive, consider and adopt the Profit & Loss Account for the corporate financial year ended 31st March, 1999, the Balance-Sheet as at that date and the Reports of the Directors and the Auditors thereon.
- 2 To declare dividend on equity shares.
- 3 To appoint a Director in place of Dr. C. M. Lamba, Director (Personnel), who retires by rotation and being eligible, offers himself for re-appointment.

### Special Business

To consider, and if thought fit, to pass with or without modification(s) the following resolutions:-

#### As an Ordinary Resolution

- 4 "RESOLVED THAT Shri Vijay Ranchan be and is hereby appointed as Director of the Company."
- 5 "RESOLVED THAT Shri Yashwant Bhawe be and is hereby appointed as Director of the Company."
- 6 "RESOLVED THAT Shri Ashok Chawla be and is hereby appointed as Director of the Company."
- 7 "RESOLVED THAT Shri S. M. Datta be and is hereby appointed as Director of the Company."
- 8 "RESOLVED THAT Shri D. Basu be and is hereby appointed as Director of the Company."
- 9 "RESOLVED THAT Dr. J. S. Juneja be and is hereby appointed as Director of the Company."
- 10 "RESOLVED THAT Shri Rajinder Gupta be and is hereby appointed as Director of the Company."

#### As a Special Resolution

- 11 "RESOLVED THAT, pursuant to Section 31 and all other applicable provisions, if any, of the Companies Act, 1956, the Articles of Association of the Company be altered as follows:-

- i) Insert the following Headings & Articles as Articles 32-A, 32-B and 32-C after Article 32 :-

#### 32-A Nominee of share or debenture-holder

- (1) Every holder of shares in, or holder of debentures of, the Company, may, at any time, nominate in the prescribed manner, a person to whom his/her shares in, or debentures of the Company shall vest in the event of his/her death.
- (2) Where the shares in, or debentures of, the Company are held by more than one person jointly, the joint holders may together nominate in the prescribed manner, a person to whom all the rights in the shares or debentures of the Company shall vest in the event of death of all the joint holders.
- (3) Notwithstanding anything contained in any other law for the time being in force or in any disposition, whether testamentary or otherwise, in respect of such shares in, or debentures of, the Company, where a nomination made in the prescribed manner purports to confer on any person the right to vest the shares in or debentures of the Company, the nominee shall, on the death of the shareholder or holder of debentures of the Company or, as the case may be, on the death of the joint holders, become entitled to all the rights in the shares or debentures of the Company or, as the case may be, all the joint holders, in relation to such shares in, or debentures of the Company to the exclusion of all other persons, unless the nomination is varied or cancelled in the prescribed manner.
- (4) Where the nominee is a minor, it shall be lawful for the holder of the shares, or holder of debentures, to make the nomination to appoint in the prescribed manner any person

to become entitled to shares in or debentures of the Company, in the event of his/her death, during the minority.

#### 32-B Transmission of shares/debentures

Transmission of shares

- (1) Any person, who becomes a nominee by virtue of the provisions of Section 109-A of the Act, upon the production of such evidence, as may be required by the Board and subject as hereinafter provided, elect, either:-
  - (a) to be registered himself / herself as holder of the shares or debentures, as the case may be; or
  - (b) to make such transfer of the shares or debentures, as the case may be, as the deceased shareholder or debenture-holder, as the case may be, could have made.
- (2) The Board shall, in either case, have the same right to decline or suspend registration, as it would have had, if the deceased shareholder or debenture-holder, as the case may be, had transferred the shares or debentures, as the case may be, before his/her death.
- (3) If the person being a nominee, so becoming entitled, elects to be registered as holder of the shares or debentures himself/herself, as the case may be, he/she shall deliver or send to the Company a notice in writing signed by him/her stating that he/she so elects and such notice shall be accompanied with the death certificate of the deceased shareholder or debenture-holder, as the case may be.
- (4) All the limitations, restrictions and provisions of the Act relating to the right to transfer and the registration of transfers of shares or debentures shall be applicable to any such notice or transfer as aforesaid as if the death of the member had not occurred and the notice or transfer were a transfer signed by that shareholder or debenture-holder, as the case may be.
- (5) A person, being a nominee, becoming entitled to a share or debenture by reason of the death of the holder shall be entitled to the same dividends and other advantages to which he/she would be entitled if he/she were the registered holder of the share or debenture except that he/she shall not, before being registered a member in respect of his/her share or debenture, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the Company:

Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself/herself or to transfer the share or debenture, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other moneys payable in respect of the share or debenture, until the requirements of the notice have been complied with.

Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself/herself or to transfer the share or debenture, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other moneys payable in respect of the share or debenture, until the requirements of the notice have been complied with.

#### 32-C Dematerialization of securities

Definition

- (1) For the purpose of this Article:-
 

'Beneficial Owner' means a person or persons whose name is recorded as such with a Depository;

'SEBI' means the Securities & Exchange Board of India;

'Depository' means a Company formed and registered under the Companies Act, 1956, and which has been granted a certificate of registration to act as a Depository under the Securities & Exchange Board of India Act, 1992; and 'Security' means such security as may be specified by SEBI from time to time.

#### Dematerialization of securities

- (2) Notwithstanding anything contained in these Articles, the Company shall be entitled to dematerialize its securities and to offer securities in a dematerialized form pursuant to the Depositories Act, 1996.

**Option of investors**

- (3) Every person subscribing to securities offered by the Company shall have the option to receive security certificates or to hold the securities with a Depository. Such a person who is the beneficial owner of the securities can at any time opt out of a Depository, if permitted by the law, in respect of any security in the manner provided by the Depositories Act, and the Company shall, in the manner and within the time prescribed, issue to the beneficial owner the required Certificate of Securities.

If a person opts to hold his/her security with a Depository, the Company shall intimate such Depository the details of allotment of the security, and on receipt of the information the Depository shall enter in its record the name of the allottee as the beneficial owner of the security.

**Securities in Depositories to be in fungible form**

- (4) All securities held by a Depository shall be dematerialized and be in fungible form. Nothing contained in Sections 153, 153-A, 153-B, 187-B, 187-C and 372 of the Act shall apply to a Depository in respect of the securities held by it on behalf of the beneficial owners.

**Rights of Depositories and beneficial owners**

- (5) (a) Notwithstanding anything to the contrary contained in the Act or these Articles, a Depository shall be deemed to be the registered owner for the purposes of effecting transfer of ownership of security on behalf of the beneficial owner.
- (b) Save as otherwise provided in (a) above, the Depository as the registered owner of the securities shall not have any voting rights or any other rights in respect of the securities held by it.
- (c) Every person holding securities of the Company and whose name is entered as the beneficial owner in the records of the Depository shall be deemed to be a member of the Company. The beneficial owner of securities shall be entitled to all the rights and benefits and be subject to all the liabilities in respect of his/her securities which are held by a Depository.

**Service of documents**

- (6) Notwithstanding anything contained in the Act or these Articles to the contrary, where securities are held in Depository, the records of the beneficial ownership may be served by such Depository on the Company by means of electronic mode or by delivery of floppies or discs.

**Transfer of securities**

- (7) Nothing contained in Section 108 of the Act or these Articles shall apply to a transfer of securities effected by a transferor and transferee both of whom are entered as beneficial owners in the records of a Depository.

**Allotment of securities dealt with in a depository**

- (8) Notwithstanding anything contained in the Act or these Articles, where securities are dealt with by a Depository, the Company shall intimate the details thereof to the Depository immediately on allotment of such securities.

**Distinctive numbers of securities held in a Depository**

- (9) Nothing contained in the Act or these Articles regarding the necessity of having distinctive numbers for securities issued by the Company shall apply to securities held with a Depository.

**Register and Index of beneficial owners**

- (10) The Register and Index of beneficial owners maintained by a Depository under the Depositories Act, 1996, shall be deemed to be the Register and Index of Members and Security holders for the purpose of these Articles.
- ii) Insert the following Heading & Article as Article 39-A after Article 39 :-

**39-A Buyback of shares**

**Buy-back of shares** Notwithstanding anything contained in these Articles, the Board of Directors may, when and if thought fit, purchase shares or other specified securities of the Company (referred to as 'Buy back') as it may think necessary, in the manner prescribed in Sections 77-A, 77-AA and 77-B of the Act."

By Order of the Board of Directors,  
for Indian Petrochemicals Corporation Limited,

(A. Parthasarthy Naidu)  
Company Secretary

Dated : August 11, 1999

Registered Office:  
P.O. Petrochemicals  
District Vadodara  
PIN 391 346

**NOTES**

1. A MEMBER ENTITLED TO ATTEND AND VOTE IS ENTITLED TO APPOINT A PROXY AND VOTE INSTEAD OF HIMSELF / HERSELF AND THE PROXY NEED NOT BE A MEMBER. PROXIES IN ORDER TO BE EFFECTIVE MUST BE RECEIVED AT THE REGISTERED OFFICE OF THE COMPANY NOT LESS THAN 48 HOURS BEFORE THE ANNUAL GENERAL MEETING.
2. Explanatory Statement, pursuant to Section 173 (2) of the Companies Act, 1956, in respect of special business is annexed.
3. Members / Proxies should bring the attendance slip duly filled in for attending the meeting.
4. Members attending the meeting are requested to bring their copy of the Annual Report.
5. Shareholders seeking any information with regard to Accounts are requested to send their queries to the Company Secretary at least 10 days in advance so as to enable the Management to keep the information ready.
6. Dividend will be paid to those shareholders, whose names appear on the Register of Members of the Company as on 29th September, 1999.
7. The Register of Members and Share Transfer Book of the Company will remain closed from Tuesday, the 14th September, 1999 to Wednesday, the 29th September, 1999 (both days inclusive).
8. While opening a depository account with participants of NSDL, members have given their bank account details, for printing on dividend warrants. This ensures that the dividend warrants, even if lost or stolen, cannot be used for any purpose other than for depositing the money in the account specified on the dividend warrant. However, in case, members wish to receive dividend in an account other than the one specified, while opening the depository account, they may change / correct bank account details with their Depository Participant. Members are requested to give MICR Code of their bank to the Depository Participant.
9. Members are requested to inform changes, if any, in their registered addresses along with their Bank Account Number, Name & Branch of Bank for remittance of dividend etc. to the Company's Registrars & Share Transfer Agents - Messrs MCS Limited, Neelam Apartment, 88, Sampatrao Colony, Alkapuri, Vadodara 390 007, on or before 14.9.1999.
10. Pursuant to Section 205-A of the Companies Act, 1956, all unclaimed dividend upto 31st March, 1995 has been transferred to the General Revenue Account of the Central Government as required by the Companies Unpaid Dividend (Transfer to the General Revenue Account of the Central Government) Rules, 1978. Those shareholders who have so far not claimed or collected their dividend upto the aforesaid financial year, may claim the same from the Registrar of Companies, Gujarat State, CGO Complex, Opp: Rupal Park, Near Ankur Cross Road, Naranpura, Ahmedabad 390 013.

## ANNEXURE TO THE NOTICE

### EXPLANATORY STATEMENT

(Pursuant to Section 173 (2) of the Companies Act, 1956)

#### Item Nos. 4, 5 and 6

S/Shri Vijay Ranchan, Yashwant Bhawe and Ashok Chawla hold office as nominee Directors of the Government of Gujarat, Government of Maharashtra, and Central Government respectively until conclusion of the Annual General Meeting. The Central Government has recommended the above-named Directors as their nominees for another term of one year and as such, they are entitled to hold office until conclusion of the ensuing Annual General Meeting. The Company has received notices together with necessary deposits under Section 257 of the Companies Act, 1956 from the members signifying their intention to propose the appointment of S/Shri Vijay Ranchan, Yashwant Bhawe and Ashok Chawla, as Directors of the Company. The above-named Directors have consented to act as Directors on the Company's Board of Management, if so appointed. The Directors recommend the Resolution for members' approval as the nomination of the above-named Directors is in the interest of the Corporation.

All the above-named Directors may be deemed to be interested in the Resolution as it relates to their appointment. None of the other Directors of the Company is, in any way, concerned or interested in the Resolution.

#### Item Nos. 7, 8, 9 and 10

The Corporation is one amongst the select band of 'navratna' public sector undertakings, identified by the Government of India for support in its drive to become global giants and accordingly, the Company's Board of Management has been restructured by the Government by inducting S/Shri S. M. Datta, D. Basu, J. S. Juneja (Dr.) and Rajinder Gupta, as non-official Directors. Accordingly, they have been appointed as part-time non-official Directors of the Company and hold office as Additional Directors until conclusion of this Annual General Meeting.

Shri S. M. Datta is the Ex.Chairman of a multinational Company - Hindustan Lever Limited and presently holding office as Director & Chairman in a number of reputed companies.

Shri D. Basu is the Ex.Chairman of State Bank of India, Member of the Disinvestment Commission of the Government of India and is presently holding office as Director & Chairman in a number of reputed companies.

Dr. J. S. Juneja is the Ex.Chairman of National Small Scale Industries Development Corporation Limited and is acting as Director on the Board of some companies and is also engaged in the field of management consultancy.

Shri Rajinder Gupta is a Ludhiana-based Industrialist and is the Managing Director of The Varinder Agro Chemicals Limited and holds office of Director in companies associated with Varinder Group.

The Government of India has appointed the above-named individuals on the Company's Board of Management and they hold office as part-time non-official Directors until conclusion of the Annual General Meeting. The Company has received notices together with necessary deposits under Section 257 of the Companies Act, 1956 from the members signifying their intention to propose appointment of the above-named individuals as Directors on the Company's Board of Management. The Directors recommend the Resolution for members' approval as the association of above-named individuals taking into account their experience and reputation in business circle would be in the interest of the Corporation.

All the above-named Directors may be deemed to be interested in the Resolution as it relates to their appointment. None of the other Directors of the Company is, in any way, concerned or interested in the Resolution.

#### Item No. 11

The Articles of Association of the Company are proposed to be altered by inducting new Articles 32-A, 32-B, 32-C and 39-A as set out in the Resolution at Item No. 11.

The new Articles 32-A and 32-B are proposed to be included in the existing Articles to facilitate every holder of shares in or holder of debentures of the Company to nominate at any time a person to whom his/her shares in or debentures of the Company, shall vest, in the event of his/her death, in accordance with the provisions contained in Companies Act, 1956, pursuant to insertion of Sections 109-A and 109-B by the Companies (Amendment) Act, 1999. This Section contemplates that every holder of share/debenture/fixed deposit will have a freedom to nominate, at any time, a person to whom his/her shares/debentures/fixed deposits shall vest, in the event of his/her death. The Section also provides that where shares/ debentures/fixed deposits are held by more than one persons jointly, the joint holders may together make such nominations.

The new Article 32-C is proposed to be included in the existing Articles to spell out the rights of the beneficial owner of the securities, pursuant to Company joining the Depository System, consequent upon the passing of the Depositories Act, 1996 and the introduction of Depository System.

The new Article 39-A is proposed to be included in the existing Articles to facilitate the Company to buy back its own shares or other specified securities. In accordance with the provisions contained in the newly inserted Sections 77-A, 77-AA and 77-B by the Companies (Amendment) Act, 1999, buy back of shares / specified securities can be done out of Company's free reserves, securities premium account or proceeds of any earlier issue specifically made for buy back purpose, subject to compliance of SEBI guidelines governing buy back of shares.

The Directors recommend the Resolution for acceptance by the members. A copy of the Articles of Association of the Company is available for inspection by the members during business hours on any working day, at the Registered Office of the Company, upto the date of the meeting.

None of the Directors of the Company is, in any way, concerned or interested in the said Resolution.

By Order of the Board of Directors,  
for Indian Petrochemicals Corporation Limited,

(A. Parthasarthy Naidu)  
Company Secretary

Dated : August 11, 1999  
Registered Office:  
P.O. Petrochemicals  
District Vadodara  
PIN 391 346.



## Disclosure as per SEBI Directives and Listing Agreement.

Security listed	Name of Stock Exchange	Postal Address	Telephone Number	Fax Number
Equity Shares / Debentures	The Vadodara Stock Exchange Limited	Fortune Tower (Third Floor), Dalal Street, Sayaji Gunj, Vadodara - 390 005.	0265-362913	0265-361452
--Do--	The Ahmedabad Stock Exchange Limited	Kamdhenu Complex, Opp. Sahajanand College, Panjarapole, Ahmedabad - 380 015.	079-6446733 6446576	079-6442222
--Do--	The Mumbai Stock Exchange	Phiroze Jeejeebhoy Towers Dalal Street, Mumbai - 400 023	022-2655581 2655626	022-2658121
--Do--	The National Stock Exchange of India Limited	Trade World, Senapati Bapat Marg, Lower Parel, Mumbai - 400 013	022-4972950 4972959	022-4972985
--Do--	The Delhi Stock Exchange Association Limited	West Plaza, I.G. Stadium Indraprastha Estate, New Delhi - 110 002.	011-3379590 3379653	011-3379953
--Do--	The Calcutta Stock Exchange Association Limited	7, Lyons Range, Calcutta - 700 001	033-2209366 2203741	033-2202514
--Do--	The Bangalore Stock Exchange Limited	Stock Exchange Tower, 51, 1st Cross, J. C. Road, Bangalore - 560 027.	080-2995234 2995235	080-2295242
--Do--	The Madras Stock Exchange Limited	Exchange Building 11, Second Line Beach Chennai - 600 001.	044-5224382	044-5244897
Global Depository Shares / FCC Bonds	The Luxembourg Stock Exchange	Banque International A Luxembourg, 69, Route d' Esch L-2953 Luxembourg	00477936-1	004732-98
<b>NATIONAL DEPOSITORY</b>				
Depository of Shares	National Securities Depository Limited	Trade World, 4th Floor, Kamala Mills Compound, Senapati Bapat Marg, Lower Parel, Mumbai - 400 013	022-4972964-70	022-4972993
--Do--	Central Depository Services (India) Limited.	Phiroze Jeejeebhoy Tower, 26th Floor, Dalal Street, Mumbai - 400 023	022-2673333	022-2673199
<b>INTERNATIONAL DEPOSITORY</b>				
Depository for GDRs/ FCCBs	Citibank, N.A.	111, Wall Street, New York - 10043 U.S.A.	00212/657-4149	00212/825-5398

## DIRECTORS' REPORT

To

The Members

The Directors have pleasure in presenting the Thirtieth Annual Report on the activities of the Company together with the audited statement of accounts and the report of the statutory auditors thereon for the year ended 31st March, 1999.

The year under review was another year of hard work in an extremely challenging scenario for the global petrochemical industry especially in the context of Asian economic crisis. The international market remained highly volatile and prices dropped by 35 per cent in comparison to corresponding period of previous year resulting in squeezing of margins. The year witnessed a steady fall in petrochemical prices throughout the year due to oversupply in domestic as well as international market. Despite these adverse factors, the Company, on the strength of its volume, supply chain management and efficient marketing net work and other appropriate business strategies, posted reasonable performance and could overcome the rough weather prevailing in the petrochemical business worldwide.

### FINANCIAL REVIEW

The highlights of the financial results for the corporate financial year ended 31st March, 1999 are as under:-

	(Rupees in Crores)	
	1998-99	1997-98
Gross turnover	3850	3692
Turnover net of excise	3115	2983
Profit before interest, depreciation and tax	565	770
Interest payment	262	260
Depreciation	270	237
Tax provision	4	29
Net profit	29	244
Proposed dividend	25	99
Corporate dividend tax	2	10
Transfer to general reserves	1	25
Profit & loss account balance carried to	1528	1618
Balance-Sheet		

As earlier pointed out, 1998-99 was a difficult year due to greater competition from cheap imports and supply - demand mismatch in the domestic market resulting in greater stress on margins. Further, the Company absorbed higher depreciation due to Nagothane expansion and interest charges due to increased requirement of funds for working capital and capital expenditure involved in the second phase projects of Gandhar Complex. Operating margin was achieved despite lower international prices, primarily due to enhanced focus on cost reduction and productivity through improved commercial orientation in material management functions, besides well maintained operations, marketing and management of finance.

The Company funds its ongoing long term and project related fund requirements from borrowings on account of lower internal generation. The Company demonstrated its financial flexibility during the year by successfully tapping the domestic debt market when international markets remained closed to most issuers from emerging markets on account of the Asian crisis. During the year, the Company privately placed debentures/bonds/loans aggregating Rs.195 crores to finance ongoing capital expenditure. The Company met its working capital requirement through committed rupee credit lines provided by a consortium of Indian and foreign banks. To provide an alternative source of working capital, the Company has established a rupee commercial paper programme backed by highest credit rating and placement of commercial papers worth Rs.1,275 crores on replenishment basis was well received by all participating banks/financial institutions. The Company is also exposed to increased costs from devaluation of the rupee because of its foreign currency loans as well as imported feed-stocks. The focus of treasury functions, therefore, has been to reduce the cost of capital of Company's operations, develop suitable funding plan for funding the projects at least cost and resorting to hedging transaction for interest rate and currency swaps to reduce the cost of debts.

The Company continued to accept deposits from the public under Section 58A of the Companies Act, 1956. As on 31st March, 1999, public deposits stood at Rs.393 crores, representing 6,149 deposit holders, out of which, deposits to the tune of Rs.57 lakhs remained unclaimed and there were no overdue deposits.

The construction of captive co-generation power plant for II phase Project conceived by the Corporation at Gandhar Complex was financed by an innovative securitisation deal developed by Larsen & Toubro Limited and structured by ICICI. This is the first time that such a large securitisation deal has been executed through capital market. The successful completion of the transaction and investors' response to the issue is a reflection of the Company's credit worthiness and soundness of the transaction structure.

The Directors, despite depressed profits to enable the Company to live up to its reputation of consistent dividend paying Company, have recommended for members' approval dividend at the rate of Rupee One per equity share of Rs.10 each on the paid up equity share capital. The dividend payout for 1998-99 will be Rs.25 crores and necessary provision for the same has been made in the accounts.

### DISINVESTMENT

In line with Government of India's strategy to move out of non-core activities, the Disinvestment Commission identified petrochemicals as a non-core business and recommended a strategic sale of 25 per cent of its equity to a partner along with management control. Accordingly, the Government of India has initiated steps for the divestment process. The Government now holds a stake of 59.95 per cent in the Company which could be diluted to 51.2 per cent by 2002 if the outstanding foreign currency convertible bonds (FCCBs) are fully converted. The strategic sale, when completed will reduce the Government's stake to 34.95 per cent. The Government, with a view to ensure a smooth and successful transaction, has appointed Warburg Dillon Read, as Global Advisers, to assist disinvestment process.

### REVIEW OF OPERATIONS

The operating performance of the Company's three mega Complexes at Vadodara, Nagothane and Gandhar during the fiscal 1998-99 was as under:-

#### Vadodara Complex

The production of major saleable products at Vadodara Complex during 1998-99 stood at 4.56 lakh metric tonnes compared to 4.18 lakh metric tonnes achieved in the corresponding previous year and registered a growth of 9 per cent. The low density polyethylene, polypropylene copolymer, polyvinyl chloride, polybutadiene rubber-I, linear alkyl benzene and benzene plants operated much above the nameplate capacity, whereas polypropylene, dimethyl terephthalate, acrylic fibre and acrylates plants operated at close to the nameplate capacity. The products like low density polyethylene, polypropylene copolymer, polypropylene, polyvinyl chloride, poly butadiene rubber, monoethylene glycol, linear alkyl benzene, benzene and acrylates recorded the highest ever production and exceeded the target set for the year. The overall capacity utilization of the Complex was around 95 per cent as against 87 per cent achieved in the corresponding previous year.

#### Nagothane Complex

The Gas Cracker Complex at Nagothane in Maharashtra performed well despite fairly long shutdown for maintenance and hooking up expanded capacities. The Complex achieved a record production of 3.63 lakh metric tonnes of MOU products and maintained it at the level of previous year despite 45 days long shutdown taken for expansion of the gas cracker plant from 3 lakh to 4 lakh metric tonnes per annum of ethylene, coupled with expansion of downstream polyethylene swing plant from 1.35 lakh to 2.20 lakh metric tonnes per annum. The low density polyethylene and polypropylene plants operated much above the nameplate capacity, whereas all other downstream plants operated close to the nameplate capacity. The LLDPE, LDPE recorded highest production. LDPE, PP and LLDPE/HDPE plants exceeded the target set for the year. The overall capacity utilization of the Complex was 87 per cent. The Company has entered into an agreement with Gas Authority of India Limited for committed supply of lean gas to Nagothane Complex.

#### Gandhar Complex

The operations at Gandhar Complex has stabilized and the Complex, during fiscal 1998-99, produced 2.52 lakh metric tonnes of saleable products as against 1.76 lakh metric tonnes achieved in the corresponding previous year and registered 43 per cent growth in the production. The saleable products produced by the Complex covered 1.41 lakh metric tonnes of polyvinyl chloride (PVC) and 1.11 lakh metric tonnes of caustic soda. The PVC and caustic soda plants operated at 94 per cent and 86 per cent of their capacities. The overall capacity utilization of the Complex was 89 per cent.

The combined production of all the three Complexes taken together stood at 10.71 lakh metric tonnes as against 9.65 lakh metric tonnes achieved in the corresponding previous year and registered a growth of 11 per cent. The contribution of polymer, fibre & fibre intermediates and chemical group of products in the said production from all the three Complexes, during the year under review, was 68, 10 and 22 per cent respectively, whereas the combined capacity utilization of all operating plants in the three Complexes during 1998-99 was around 91 per cent.

All the three Complexes, during the year gainfully utilized the infrastructure facilities available with the Company at Dahej (Jageshwar) and Pirpauv near Mumbai by importing significant quantity of key feed-stock for running the plants at their peak capacities and registering savings on account of competitive feed-stock costs from imports. The jetty and pipelines between Dahej and Vadodara were used optimally to fulfill the needs of both Vadodara and Gandhar Complexes.

The Company continued to produce quality products and lived up to customers' expectations as one amongst preferred suppliers due to its inherent strength to supply high quality products at competitive prices. Adhering to high quality standards is an integral part of all operations in the Company and the process control and built-in production process ensures that the over-all quality of process operations as well as final products is of global standards.

#### SALES & MARKETING REVIEW

The petrochemical industry witnessed considerable turbulence during the year under review as prices of all petrochemical products were at their lowest ebb. On the supply side, significant capacity additions have taken place for all major petrochemical products in the South-East Asian and Middle East regions. These countries with abundant and cheap feed-stock are formidable competitors.

Despite adverse petrochemical scenario, the fiscal 1998-99 saw achievement of new landmark in sales as the product mix was regularly monitored to serve the changing market requirements. Intensified customer contact, aggressive pricing, innovative sales policy, creating new application areas, thrust on exports, strengthening market infrastructure, value addition and improved market surveillance were the strategies adopted by the Company to preserve and enhance its market position.

During the year under review, the sales volume kept pace with the production volumes from all the three Complexes. A record 11.60 lakh metric tonnes of products produced by the Company's three mega Complexes reached customers spread across the country as against 10.00 lakh metric tonnes sold in the previous year and registered a growth of 16 per cent. The gross sales turnover during the year under review was Rs.3,850 crores as against Rs.3,692 crores achieved in the corresponding previous year and registered increase in sales value by 4 per cent over previous year. This is significant considering the general slow down in industrial production all over and the low international prices for petrochemical products.

The polymer market witnessed major ups and downs during most part of 1998-99. The prices of two major polymer products, polyvinyl chloride and low density polyethylene dropped by nearly 50 per cent whereas the prices of polypropylene remained more or less stable. The prices dropped to a level where it barely covered the cost of production in most of the products like polyvinyl chloride, high density polyethylene and polypropylene. The lack of substantial buying from China, a major player in the Asian market for polymer products, particularly in the second half of fiscal 1998-99 is also seen as a major factor responsible for crash in polymer prices. Despite these hurdles, the polymer sales grew by 26 per cent in domestic volume turnover. The plasticulture business was also a successful contributor to the growth in volume.

The chemical business registered 14 per cent increase in volumes. This increase was mainly driven by caustic soda which was successfully placed in a highly competitive market. The Company established its presence in polyisobutylene market by arranging for conversion of C4 to polyisobutylene. During the year, caustic soda flakes were successfully introduced in the domestic and international markets and the Company established its image as a major supplier of this product. The fibre & fibre intermediates business group was the worst-hit by the recession and had to face stiff competition.

The international business group performed reasonably well despite poor export market conditions. The group successfully launched its maiden export of caustic soda flakes and took advantage of licensing benefits under various Government schemes. The contribution of exports in the

entire value and volume of sales turnover was 3 per cent and 4 per cent respectively. The strategic marketing group continued to provide focus and timely information support to all marketing groups for strategy formulation. The key links in marketing performance is the logistics and the marketing operations and planning group successfully rationalized and effectively handled the movement of products made available from all the three Complexes. The marketing costs associated with product transfer and warehousing were constantly maintained during the year to ensure timely supply of products with optimal cost. Effective management of inventory and receivables ensured that year end status of finished goods were just around 19 sales days and restricted receivables to 36 sales days, which, in terms of value was Rs.385 crores.

#### MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding for 1998-99 signed by the Company with Government of India, conceived detailed activities and milestones leading to fast completion of the second phase plants at Dahej and projects envisaged at Nagothane Complex with thrust on new and ongoing research and development activities, development of key catalyst, environment protection etc. The Company has performed well in all areas covered under the Memorandum of Understanding and the overall rating taking into account prevailing petrochemical business scenario is commendable.

#### HUMAN RESOURCE MANAGEMENT REVIEW

The Company regards the human resource as its prime resource and the contribution from the employees has continuously been harnessed for attainment of organizational goals. During the year, a conducive and congenial work environment was maintained and some of the contentious issues were successfully resolved. The manpower strength as on 31st March, 1999 was 13904 inclusive of supervisory /non-supervisory employees and trainees. In order to optimize manpower strength, the Company introduced a voluntary retirement scheme on medical grounds. During the year, 7216 employees were trained and the services of Company's trained manpower are being availed by leading companies both within the country and abroad for operations and maintenance of plants.

The directions given by the Government, from time to time, regarding reservation of posts for Scheduled Caste/Scheduled Tribe/Other Backward Classes and physically handicapped persons are adhered to. The Company continues to maintain excellent civic services for the convenience of employees. The Company continues to encourage and develop sports activities among the employees and wards by providing facilities, training and conducting tournaments in various sports events.

The Company, as a matter of policy, continues to meet some of the basic needs of the villages surrounding its Complexes and developmental work is prioritized, according to the needs of the people in the peripheral village. As a part of good community relations and to encourage developmental efforts, the Company took up several projects in the vicinity of its Complexes to improve the quality of life of the people through recognized Trusts and welfare bodies promoted by the Corporation. During the year, efforts were intensified for progressive use of Hindi in official work in accordance with the provisions of the Official Language Act, 1963 and the Official Language Rules, 1976.

#### RESEARCH & DEVELOPMENT

The year 1998 has been eventful for R&D Centre as it celebrated its silver jubilee by organising seminars on the theme 'Business and Technology' and 'Research and Industry Partnership'. A new manufacturing capacity was created at Catalysts and Adsorbents Division at Thane for the production of dehydrogenation catalysts used in linear alkyl benzene manufacturing. Several important grades of molecular sieves and alumina were also commercialized during the year. A new grade of molecular sieve for removing carbon dioxide and moisture from air was successfully commercialized. This molecular sieve is used as adsorbent for manufacture of high purity nitrogen and oxygen used extensively in chemical and petrochemical plants and will reduce dependence on imports. The operations from CATAD unit during the year under review established sales of catalyst valued at Rs.13.70 crores as against Rs. 5.42 crores achieved in the corresponding previous year and registered significant growth both in production and sales volume of catalyst.

The Centre bagged two awards from DSIR and Indian Institute of Chemical Engineers and the Centre's output in terms of presentation of scientific papers and filing of patents was commendable. The Centre was granted US Patent for development of a process for the production of para-diethyl benzene, a high value chemical used for separation of paraxylene from other similar compounds.



## ENVIRONMENT, SAFETY AND ENERGY CONSERVATION

Safety, occupational health and environmental protection has always been of prime concern to your Company and are integrated with the management of entire supply chain. The Company's constant endeavour to improve the standards of safety and environment is reflected in the practice of setting annual targets for all round improvement at all its manufacturing locations. Performance is monitored through regular safety and environmental audits, using internationally accepted methodologies. Safety training is imparted to employees at all levels. The British Safety Council Award was conferred for the second time in succession for excellence in safe operation of the plant. The Company's safety performance got further recognition with awards from the National Safety Council of the United States of America for continuous operation without occupational injury or illness.

The Company is committed to environment protection and maintaining the ecological balance. Sustained efforts are being made by incorporating cleaner state-of-the-art technologies. Full-fledged effluent treatment plants which comply with the statutory standards are in operation at the respective Complexes. Green belts and parks have been developed around all the Complexes to serve as pollution sinks. The Nagothane Complex was conferred Dr. R.J. Rath Award - 1998 for compliance of pollution control standards in the category of chemical in estuaries and developmental activities undertaken for the society around the Complex.

ISO 14000 for environment management systems was launched at Nagothane Complex and a core team has been identified for working out the details in association with the National Productivity Council. As a part of World Environment day celebrations, the Company has taken a pledge to adopt environment policy aimed at maintaining environmental norms as per prevailing statutory standards. On this occasion, the corporate environment policy towards obtaining ISO 14000 certification was unveiled and a multi-purpose hazardous waste incinerator was put into operation to control air pollution and conserve energy.

Energy conservation is a key element of corporate strategy for competitive advantage. The Company's performance in the field of energy conservation has been receiving due recognition and appreciation by the Government of India through Energy Conservation Awards. The specific energy index during the year under review for three Production Complexes of the Corporation in its totality stood at 4.95 MMKCal. per metric tonne. This is indicative of Company's commitment towards energy conservation at every stage of its operations and maintaining the index well within the annually targeted figure of 5.50 MMKCal per metric tonne.

## INFORMATION TECHNOLOGY & Y2K PREPAREDNESS

In today's competitive world, information technology plays an important role in improving efficiency and productivity. The Company has its own communication net work with a number of locations connected through dedicated VSATs. This net work is being further strengthened and upgraded. The Company has made major efforts to examine all the information technology systems in use for year 2000 compliance and is fully geared to achieve compliance well before dawn of the new millennium. The operations, processes and functions which could be adversely affected due to the year 2000 problem are business application systems, production, material, finance, personnel, despatch, payroll, PC/ESD applications and corporate information. Inspection of operating plants in all the three Complexes has been carried out for Y2K compliance and plants having date related hardware and software problems have been upgraded. The process control systems critical for safety and operations have been made Y2K compliant. The Company is also in touch with hardware/software vendors to make personal computers Y2K compliant. A contingency plan has also been developed to deal with minor problems that may arise in the areas of Operation and Business Applications.

## TECHNOLOGY/ENGINEERING SERVICES

The Company's Technology and Engineering Services Department, in pursuit of excellence in their area of operation, contributed significantly in maintaining higher level of capacity utilization, quality improvement of products for value addition, strategic collaboration for forward and backward integration, construction of several landfill sites for safe disposal of solid waste, proper upkeep of equipment and maintenance to avoid downtime. Continued efforts are made by the Department to improve upon the adopted technology in close association with Research & Development Centre and Process Licensors, laying emphasis on consumption of raw materials and chemicals to optimize the cost of production and improve the value added grades for higher returns.

## ISO CERTIFICATION & TOTAL QUALITY MANAGEMENT

Low density polyethylene & polypropylene copolymer plants of Vadodara Complex; low density polyethylene & polypropylene plants of Nagothane Complex have the distinction of ISO 9002 certification and several improvements have been made in the quality management systems of these plants as a result of continued internal and surveillance audits. Similar quality management systems have been implemented for linear alkyl benzene, polyvinyl chloride and polybutadiene rubber plants at Vadodara Complex. Substantial progress has been made in the area of ISO 14000 certification. An environmental management system has been evolved and implemented along with an environmental policy with special reference to acrylonitrile, ethylene oxide, ethylene glycol, central waste water treatment plants, solid waste incinerators etc. which are more environmental sensitive compared to other plants. The policy and system have been evolved to take care of meeting the statutory standards, ensuring continuous improvement in prevention of pollution, development for minimising environmental impacts and conservation of natural resources. Necessary steps have also been initiated in the direction to obtain ISO 14001 certification. The total quality management has taken deep roots and is helping the Company face the challenges of competition. The Company through a dedicated group is continuously working on various improvement projects, resulting in substantial cost savings, cycle time reduction, building team culture and structured problem solving methods.

## INVESTOR RELATIONS

The Investors' Service Department operates from Vadodara to provide assistance to shareholders in dealing with the securities of the Company in close coordination with the appointed Registrars and Share Transfer Agents. The Company has already set up the requisite facilities for dematerialization of its shares in accordance with the provisions of the Depositories Act, 1996 and the Company's shares can now be held and traded in electronic form. Members are requested to avail of the facility. As on 31st March, 1999, 6,46,23,690 ordinary shares of Rs.10 each (26.03 per cent) have been dematerialized and as per SEBI directive, settlement of Company's shares, effective 5th April, 1999, is permitted only in dematerialized form for all segments of investors for all Stock Exchanges connected to the National Securities Depository Limited (NSDL). Members can visit the Company at "www.ipcl.co.in" for financial and other information about the Company on the worldwide website. The Company's shares are listed and traded in Ahmedabad, Bangalore, Calcutta, Delhi, Madras, Mumbai, Vadodara and National Stock Exchanges whereas the Global Depository Receipts (GDRs) and Foreign Currency Convertible Bonds (FCCBs) are listed in Luxembourg Stock Exchange and the annual listing fees have been paid to each of the above Stock Exchanges. The Mumbai (BSE), Calcutta (CSE), Vadodara (VSE), Delhi (DSE) and Bangalore (BgSE), Madras (MSE) Stock Exchanges and National Stock Exchange have linked up with NSDL to facilitate trading and settlement of all dematerialized securities, which include shares of your Company. Due importance is given to redressal of investors' grievances on priority by deputing representatives of the Registrars to the Stock Exchanges to ensure personal attention and quick redressal of investors' complaints/ grievances. The shares of the Company are included in the list of securities specified by Securities & Exchange Board of India for trading only in dematerialized form. Those who have not dematerialized the shares are requested to dematerialize the shares and reap the benefits of holding shares of the Company in electronic mode. The Company has also entered into a tripartite agreement with Central Depository Services (India) Limited and the Registrars & Share Transfer Agents, pursuant to introduction of a multi-depository frame work for accelerating the pace of shift to scripless settlement, improved investor protection, reduced risks and transparency of transactions in the securities market.

## JOINT VENTURES

### GE Plastics India Limited

The Company's joint venture GE Plastics India Limited, is in the midst of several restructuring/redesign actions and is, therefore, in the process of extending its financial year upto September 30, 1999, to reflect the impact on its balance sheet and performance.

The joint venture Company, upto 31st March, 1999, achieved a turnover of Rs. 248 crores as against Rs. 200 crores achieved in corresponding period of previous year and registered a growth of 24 per cent. The growth in sales was achieved despite weak demand from major end use industry segment. Despite growth in sales volume, the Company, upto 31st March, 1999, suffered a net loss of Rs. 9.10 crores. The Company's contribution

margin remained under pressure due to aggressive pricing by South-East Asian competitors and shift in product mix with higher volume of Cycloac (ABS) and Gelon (Nylon 6) which gave negative contribution to the business.

#### Gujarat Chemical Port Terminal Company Limited

Gujarat Chemical Port Terminal Company Limited (GCPTCL), a joint venture of IPCL, GSFC, GACL, GNFC, GMB, GIC and GIDC will be commissioned by end of 1999. The facility has a total project outlay of Rs. 725 crores and will cater to both import and export and would attract investment of Rs. 17,000 crores in the region. The port would provide facilities at a single berth for ships ranging from 6,000 DWT to 40,000 DWT and upto 215 Meters in length. The port would be equipped with 7 loaded arms ranging in diameter from 8 inches to 20 inches. The jetty would be located at 2.4 kilometers from the shore and would have full-fledged chemical handling facilities backed up by an effective storage capacity of 3.11 lakh cubic meters. Two double-walled cryogenic tanks of 50,000 and 30,000 cubic meters capacity would also be available for use. Storage tanks are arranged on the basis of product classification and compatibility in dyked enclosures.

The chemical handling port project taken by GCPTCL has made considerable progress. The construction work on the 2.4 kilometer long jetty has already commenced and considerable progress has been made. The construction of onshore storage facilities is also progressing satisfactorily. The port is expected to become operational by end of 1999 and would facilitate your Company in handling export consignments and augment feed-stock requirements for its production Complexes. The facilities for storage of polypropylene and propane is expected to be made available by the joint venture early in the year 2000.

#### Other Joint Ventures

The other joint venture companies envisaged by the Corporation for the manufacture of acrylic fibre, methyl methacrylate and polymethyl methacrylate will take shape immediately after the activities related to setting up of acrylonitrile plant at Gandhar Complex are geared up and the project work set in motion.

#### PROJECTS

Project implementation is accorded high priority by your Corporation. Some of the major projects completed during the financial year are as under:-

##### Nagothane-based Projects

###### Air Separation Plant

Your Company successfully commissioned the third chain of air separation plant at Nagothane Complex. With the third chain coming into existence, Nagothane Complex has an additional capacity of 4,000 Nm<sup>3</sup>/hr of gaseous nitrogen (99.99 per cent purity), 100 Nm<sup>3</sup>/hr of liquid nitrogen (99.99 per cent purity) to meet the additional demand of nitrogen and oxygen for the units proposed under Nagothane-based expansion projects as well as to ensure uninterrupted supply of nitrogen and oxygen to the production units when one of the air separation plants is under shutdown maintenance.

###### Cryogenic storage facility at Pirpau

Cryogenic terminal facility for unloading, storage and transfer of additional imported feed-stock at Nagothane has been successfully commissioned at Pirpau jetty, Mumbai, as part of Company's gas cracker expansion project at Nagothane. The completion of gas cracker expansion project gives your Company an advantage of reduced ethylene production cost and flexibility to import cheaper feed-stocks. The entire project was executed on fast track basis and was put into commercial production without any difficulty. The gas cracker expansion has pushed ethylene capacity from three lakh tonnes to four lakh tonnes at Nagothane. The World Bank has appreciated the Company's efforts in maintaining the tight schedule in completing and commissioning the project.

###### Gas Cracker Plant Expansion

Your Company has successfully connected and commissioned an additional furnace and increased the ethylene capacity from 3 lakh tonnes per annum of its gas cracker plant at Nagothane to 4 lakh tonnes per annum. The expansion project has been completed on a fast track basis and commissioned for commercial production.

Your Company is building its ethylene base at all the three Complexes. With the existing naphtha cracker at Vadodara having 1.30 lakh tonnes per annum capacity, 4.0 lakh tonnes per annum at Nagothane and another 3.0 lakh tonnes per annum at Gandhar, your company will consolidate

its ethylene base to about 8.3 lakh tonnes per annum. Further, there are plans to expand gas cracker at Gandhar to 4.0 lakh tonnes per annum and create a new cracker of 3.0 lakh tonnes per annum at Vadodara. All these capacities once implemented will position your Company in the select bracket of the petrochemical companies having more than one million tonnes ethylene capacity.

#### Expansion of polyethylene plant

The linear low density polyethylene and high density polyethylene plants at Nagothane Complex originally with a capacity of 1.6 lakh tonnes per annum have been successfully expanded by 40 per cent by adopting B.P. Chemicals Limited's Innovene technology. The plant has been upgraded to be advantageous of the latest process and product development. The quick start up of the plant has opened up further avenues of low cost expansion of the existing reactors in line with fast growing market requirements.

#### Gandhar-based projects

The Company is implementing the Gandhar Complex in two phases. Phase-I plants comprising of chlor-alkali, vinyl chloride monomer, polyvinyl chloride, utilities and power plant have already been commissioned and are operational. The Phase-II plants comprising of C2/C3 separation, gas cracker, ethylene oxide/ethylene glycol, high density polyethylene, utilities and power plant-II are in advanced stage of implementation and expected to be commissioned shortly. During the year, Gandhar Complex successfully commissioned the HDPE plant of 1.60 lakh metric tonnes based on process licence from Hoechst AG of Germany.

Pursuant to commissioning of HDPE plant at Gandhar Complex and Nagothane gas cracker plant expansion coupled with expansion of downstream polyethylene swing plant, the Company has become the largest producer of polyethylene in the country covering the entire range of polyethylene family with the combined capacity of 5.40 lakh metric tonnes per annum.

The 90 MW gas turbine-based cogeneration captive power plant for second phase project at Gandhar Complex is being executed through Larsen & Toubro Ltd. and India Infrastructure Development Limited (IIDL), wherein Larsen & Toubro Ltd. is the EPC (Engineering, Procurement & Construction) contractor and IIDL would own and lease the power plant to the Company. The project risks are mitigated by a completion guarantee from Larsen & Toubro Ltd. to cover EPC delays. The fluctuation in lease rentals due to variation in Foreign Exchange rates, base interest rates, depreciation and tax rates are mitigated through hedging agreement and make up guarantee from Larsen & Toubro Ltd..

The projects in pipeline are as under:-

##### Hazira Gandhar gas pipeline

Your Company has initiated a survey for laying a 150 kilometre pipeline between Hazira and Gandhar to carry gas for the second phase of Rs. 3,500 crore Gandhar Petrochemicals Complex, about 140 kilometres away from Vadodara. This was being done following the reduced availability of gas from Gandhar oil fields against committed supply of 8 MMSCMD of semi rich gas. Based on the commitment by Government to supply upto 6 MMSCMD of semi rich gas from Hazira to meet the shortfall, laying of new pipeline to bring feedstock to Gandhar has become necessary.

It is expected to complete the pipeline project in about 24 months on BOOT basis.

#### Projects planned for ninth five-year plan period

The major expansion plans contemplated during the Ninth Five-Year Plan-period are as under:-

##### Vadodara Complex

- Revamp naphtha cracker plant by setting up a state-of-the-art plant with 3,00,000 TPA ethylene capacity to make operation of the Vadodara-based plants competitive with world-scale units both domestic and international.
- Set up a 2,00,000 TPA LDPE Plant with modern state-of-the-art technology to utilize the additional ethylene available from the increased capacity of the gas cracker plant.
- Set up a plant for production of 20,000 TPA high rubber graft considering the demand supply situation.
- Optimize the utilization and value addition to C4 stream available from various Complexes, by setting up a plant having facilities to produce Butene-I and Butene-II (1,30,000 TPA).