सत्यमेव जयते

Government of India

Ministry of Petroleum & Natural Gas

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The Union Minister for Petroleum and Natural Gas, Shri Murli Deora and the Minister of State for Petroleum and Natural Gas, Shri Dinsha J. Patel releasing a souvenir on the occasion of the International Symposium on Fuels & Lubricants-2006, on March 8, 2006, in New Delhi.



CHAPTER - I

1. INTRODUCTION

1.1 The Ministry of Petroleum & Natural Gas is concerned with exploration & production of oil & natural gas refining, distribution & marketing, import, (including import of Liquefied Natural Gas), export and conservation of petroleum products. The work allocated to the Ministry is given in Appendix - I. The names of the Public Sector Oil Undertakings and other organisations under the ministry are listed in Appendix- II.

1.2 Shri Mani Shankar Aiyar relinquished charge as Minister of Petroleum & Natural Gas on 29.01.2006. Shri Murli Deora assumed charge as Minister of Petroleum & Natural Gas on 29.01.2006.

1.3 Shri Dinsha J. Patel assumed charge as Minister of State in the Ministry of Petroleum & Natural Gas on 29.01.2006.

1.4 Shri M.S. Srinivasan assumed the charge of Secretary, Ministry of Petroleum & Natural Gas on 01.01.2006. Shri S.C. Tripathi, Secretary, Ministry of Petroleum & Natural Gas from 01.07.2004, superannuated on 31.12.2005.

1.5 PRINCIPAL ACHIEVEMENTS

The important statistical data relating to the physical performance of the oil & gas sector is given in Appendix - III.

1.6 INDIA HYDROCARBON VISION – 2025

The India Hydrocarbon Vision – 2025 Report, which encapsulates Government's long-term policy for this sector, was developed by a Group of Ministers constituted for this purpose, consisting of Ministers of Petroleum, Finance, External Affairs and Deputy Chairman, Planning Commission. The Report was presented to the Prime Minister in March, 2000 and also tabled in both Houses of Parliament. The long-term policy enunciated therein covers exploration, refining, marketing infrastructure, gas and other related matters in the hydrocarbon sector.

1.7 CRUDE OIL & NATURAL GAS PRODUCTION

During 2005-06, crude oil production in the country is expected to be about 32.721 Million Metric Tonnes (MMT) and natural gas production 31.023 Billion Cubic Metres (BCM) as against the production of 33.98 MMT of crude oil and 31.761 BCM of natural gas in 2004-05. The main reason of likely shortfall is the fire accident at Mumbai High Process platform on 27th July, 2005.

1.8 In the last four years, the Government has undertaken concerted efforts for enhancing Energy Security. The X Plan represented a paradigm shift over earlier plans in stating that exploration areas would be awarded through international competitive bidding in a deregulated scenario. Appraisal of 35% of the total sedimentary basins is targeted, together with acquisition of acreages abroad and induction of advanced technology. The results of the initiatives taken have begun to unfold.

1.9 New Exploration Licensing Policy (NELP) provides an international class fiscal and contractual framework for Exploration and Production of Hydrocarbons. In the first five rounds of NELP spanning 2000-2005, contracts for 110 exploration blocks have been signed. The exploration investment in the three phases for 110 blocks is about Rs. 21,725 crore, which is expected to substantially increase with discoveries of hydrocarbons. Within five years, investment made on exploration has exceeded Rs. 13,000 crore in NELP blocks. What is more important is that 30 oil & gas discoveries have been made, out of which gas discoveries in Krishna Godavari (KG) basin are the most significant, wherefrom natural gas production of about 40 Million Standard Cubic Metres per Day (MMSCMD) is likely to be produced by 2008-09.

1.10 COAL BED METHANE (CBM)

Coal Bed Methane is an environment friendly clean fuel similar to Natural Gas. To give impetus to its Exploration & Production, Government has formulated a CBM policy. Contracts with PSUs/ Pvt. Companies for 13 blocks under the two rounds of CBM policy and for 3 blocks on nomination basis, have been signed for exploration & production of CBM. The estimated investment in these blocks is about Rs. 560 crores Estimated CBM resources are to the tune of 850 Billion Cubic Meters (BCM). Commercial



The Union Minister for Petroleum and Natural Gas, Shri Murli Deora and Shri M.S. Srinivasan, Secretary briefing the Press on NELP-VI & mCBM-III Road Shows, in New Delhi on April 11, 2006.

production of CBM from some of these blocks is expected to commence in 2007-08.

1.11 IMPORTS AND EXPORTS

The quantities of Crude oil & Petroleum products imported during 2004-05 were 95.861 MMT and 8.828 MMT valued at Rs. 117,003 crore and Rs. 14,887 crore respectively. During the same period, 18.211 MMT of petroleum products valued at Rs. 29,928 crore were exported.

During April-December, 2005 of the year 2005-06, 72.227 MMT of crude oil valued at Rs. 121,968 crore and 8.008 MMT of petroleum products valued at Rs. 17,590 crore have been imported and 14.837 MMT of petroleum products valued at Rs. 32,403 crore have been exported.

There was a marginal increase of 0.6% in quantity and steep rise of 42.3% in value of import of crude oil during April to December 2005 over the same period of the preceding year. Crude oil import during April to December 2004 of year 2004-05 was to the tune of 71.818 MMT valued at Rs. 85,695 crore.

The product imports during April to December, 2005 of year 2005-06 were to the tune of 8.008 MMT valued at Rs. 17,590 crore as against 5.61 MMT valued at Rs. 9,164 crore during the corresponding period of year 2004-05. The change in imports of products during April to December 2005 of year 2005-06 vis-à-vis the import during the corresponding period of preceding year was thus 42.7% higher in terms of quantity and 91.9% higher, in terms of value. As far as export of petroleum products is concerned, this exceeded by 13.9% in terms of quantity and 56.5% in terms of value during April to December, 2005 of year 2005-06 in comparison to the corresponding period during preceding year. The export of petroleum products went up to 14.837 MMT valued at Rs. 32,403 crore during April to December, 2005 as compared to 13.025 MMT, valued at Rs 20,705 crore during the same period of the year 2004-05.

Petroleum products have been exported to several countries including USA, UK, Singapore, Malaysia, Sri Lanka, Japan, Hong Kong etc.

During the year 2005-06, the public sector refineries purchased crude oil on term contract and spot basis. The countries from where term contract purchases were made include Saudi Arabia, Kuwait, UAE, Iran etc.

1.12 STRATEGIC STORAGE OF CRUDE OIL

Taking into account the oil security concerns of the Country, the Government has decided to set up 5 million metric tonnes (MMT) strategic crude oil storages at various locations in the country [Mangalore (1.5 MMT), Vizag (1.0 MMT) and Padur near Udipi (2.5 MMT)]. This strategic storage would be in addition to the existing storages of crude oil and petroleum products with the oil companies and would provide an emergency response mechanism in case of short-term supply disruptions. The proposed facilities would be managed by Indian Strategic Petroleum Reserve Limited (ISPRL) a Special Purpose Vehicle, owned by Oil Industry Development Board (OIDB).

The proposed Strategic Crude Oil Storages would be in underground rock caverns/concrete structures and are projected to come up in a period of 54 months. The estimated capital cost of the project is around Rs 2,400 crore. In addition, the cost of crude oil would be around Rs. 9,000 crore @ $ 55/bbl crude price.

Government in January 2006 has approved the financing of capital expenditure, revenue expenditure and cost of crude oil to be stored in strategic petroleum reserve and making ISPRL a subsidiary of OIDB for implementation and management of strategic crude oil storages.

1.13 INTERNATIONAL ENERGY FORUM SECRETARIAT (IEFS)

India is a member of the International Energy Forum (IEF), which provides a platform for biennial meetings of the Ministers from the energy producing and consuming countries. This forum was earlier known as "Producer – Consumer Dialogue" between the oil producing and consuming Countries. The permanent secretariat of the IEF is in Riyadh. The mission of the secretariat is to further strengthen and enhance the process of global dialogue on energy at the political level. The Ministerial dialogue in the IEF has its focus on security of energy supply and demand, as well as on the links between energy, environment and economic development.

At present, India is also a member of the Executive Board (EB) of IEF. The total membership of EB is 15 viz. 13 member countries, OPEC and IEA. Besides India, the other member countries are Saudi Arabia, Iran, China, Norway, Russia, Mexico, Venezuela, Qatar, Japan, The Netherlands, Italy and South Africa.

1.14 REFINING CAPACITY

The domestic refining capacity as on 1.4.2005 was 127.37 Million Metric Tonnes Per Annum (MMTPA). Availability of petroleum products during 2004-05 from domestic refineries and non-refineries was more than the domestic demand on overall basis except for Liquefied Petroleum Gas (LPG). In fact, the country is now net exporter of petroleum products and products like petrol, diesel and Aviation Turbine Fuel (ATF) etc. were also exported during the year. However, MS/HSD of Euro-III grade had to be imported during the year in view of implementation of the Auto Fuel Policy for upgraded fuels.

1.15 NATIONAL AUTO FUEL POLICY

In line with the road map laid down in the Auto Fuel Policy, Euro-III equivalent fuel were introduced in metros/identified cities by 1st April, 2005 and Bharat Stage-II equivalent fuel was introduced in the entire country except seven States i.e. Rajasthan, West UP, Uttaranchal, Madhya Pradesh, Punjab, Himachal Pradesh and Jammu & Kashmir, from 1st April, 2005. However, due to constraints of production at refineries, non-availability of required grade of products for import and inland logistics, PSUs recommended revised schedule of introduction of Bharat Stage-II diesel in the above seven States progressively upto October, 2005 and the same was introduced in these States as per revised schedule. Introduction of Euro IV equivalent norms in identified cities and Euro-III equivalent norms in the entire country from 1-4-2010 is subject to review in the year 2006 after the impact of Bharat Stage-II norms in the country and Euro-III equivalent norms in identified cities is assessed.

1.16 CONSERVATION OF PETROLEUM PRODUCTS

India is at present one of the least energy efficient countries in the world with identified scope of reducing energy consumption by 20% to 30% in all major sectors through conservation measures. As there are millions of consumers in the country any savings achieved by individual consumers will cumulatively amount to large quantities and obviate the need to produce or import equivalent amount of new energy on a recurring basis. Energy conservation and energy efficiency would encompass all measures that would bring about efficient use of energy sources in all areas including production, conversion, transmission/transportation, consumption as well as measures of optimizing the demand itself.

Petroleum consumption is increasing year by year primarily in the transport sector. Increasing use of petroleum products is also responsible for environment pollution. Deteriorating ambient air quality in the urban areas due to polluting emissions from transport vehicles has been a matter of great concern in recent years. Apart from better quality fuels and using non-conventional energy sources through R&D initiatives and bio-fuels, improve combustion efficiency through effective conservation technique would minimize this hazard and protect the environment.

Petroleum Conservation Research Association (PCRA) has been active in energy conservation awareness campaigns and energy services for more than two & half decades in the major economic sectors of transport, industry, agriculture and households. Starting with just petroleum conservation of all energy sources, development, evaluation and commercialization of efficient equipment and additives, popularizing petro-crop cultivation and production of bio-fuels, environment protection and a host of other activities are part of its mandate.

PCRA's sector specific activities include energy audits and institutional training programmes for industries, specially designed driver training programmes for transport including State Transport Undertakings (STUs) and other larger fleet operators, Defence Services, model depot studies for STUs, emission control and good driving habits for motorists. Similarly PCRA helps farmers, both financially and technically, to improve the efficiency of their lift irrigation pump sets. As the results of PCRA's efforts depend largely on voluntary compliance with the conservation techniques and practices, educating and motivating the concerned target groups is a big task. This is achieved through various mass media campaigns, seminars, training programmes, printed literature, essay and quiz competitions etc.

1.17 HYDROGEN AS AN AUTOFUEL

Hydrogen is receiving worldwide attention as a clean fuel and efficient energy storage medium for automobiles. Hydrogen can replace or supplement oil used in road transportation. Hydrogen production technologies can be both fossil fuel based and renewable resource based. However, substantial research and development is needed to establish use of hydrogen as an alternative fuel in a cost effective manner. For

development of hydrogen as a fuel, the Ministry of Petroleum & Natural Gas has set up a Hydrogen Corpus Fund with contribution from five major Oil Companies and OIDB. A roadmap has been set up by IOC (R&D), the nodal agency for the hydrogen research project, for hydrogen production, dispensing, storage application and its utilization in scooters, 3 wheelers and buses. Demonstration projects in pipeline include using 10% hydrogen in CNG at IOC R&D centre at Faridabad and a similar demonstration project later in Delhi.

Presently, in India, Hydrogen is being produced mainly from steam reforming of naphtha and natural gas in fertilizer and petroleum refining industries. Hydrogen as a by-product is also being produced in the chemical industry. Hydrogen is expensive for energy applications in comparison to the existing hydrocarbon fuels. Further, there is no infrastructure available in the country for regular use of Hydrogen as an energy carrier.

Introduction of Hydrogen energy applications in the market would require and integrated system development approach. This will include all aspects of Hydrogen energy technologies such as production, storage, transportation, delivery and end use applications and associated devices. While some progress has been made in the world and in India, considerable R&D and technology development efforts are required to achieve a low cost of production of Hydrogen, its safe storage, transportation and applications including development of devices and systems which operate with Hydrogen fuel. In addition, it is necessary to create an extensive infrastructure for producing, transporting and storing large quantities of Hydrogen before its large-scale use can take place. Hydrogen operated devices/systems/applications will have to be developed for optimal use of Hydrogen. Codes and standards are also required to address safety concerns and speedy commercialization of Hydrogen as a fuel. There are several scientific, technical and engineering challenges, which need to be resolved. Apart from R&D efforts, technology demonstration projects, pre-commercial pilot plants, manpower development etc. are required. Therefore, the Ministry of Non-conventional Energy Sources (MNES) has initiated the process of preparing a National Hydrogen Energy Road Map.

1.18 BIO-DIESEL PURCHASE POLICY

The Ministry of Petroleum and Natural Gas has formulated a Bio-diesel purchase policy on October 9, 2005. The Bio-diesel purchase policy is a statement of intent towards purchase of bio-diesel by the oil marketing companies. This policy, inter alia, identifies 20 purchase centres to be set up by public sector oil marketing companies at which the companies would purchase bio-diesel, which satisfies the prescribed specifications under the Bureau of Indian Standards (BIS). The initial price at which the oil marketing companies would purchase bio-diesel is Rs. 25 per litre which may be reviewed by them every six months. Depending upon the felt need and preparedness, the oil companies could open more purchase centres. The policy came into force on 1.1.2006.

With a view to bring convergence and synergy in the efforts to develop bio-fuels through Panchayati Raj Institutions and coordinate the efforts of various stakeholders to required directions, a Joint Committee of Ministry of Panchayati Raj, Ministry of Petroleum & Natural Gas and various stakeholders to develop bio-fuels through Panchayats have also been set up by the Government.

1.19 ETHANOL-BLENDED PETROL PROGRAMME

To reduce dependence on imported oil by way of encouraging use of indigenous sources of energy, Ministry of Petroleum & Natural Gas had notified vide GSR 705(E) dated 27.10.2004, the scheme of 5% ethanol blended petrol, in accordance with Bureau of Indian Standards specifications, to be sold in notified areas if the price of sourcing indigenous ethanol for supply of ethanol blended petrol is comparable to the price of indigenous ethanol for alternative uses, and if the delivery price of ethanol at the location is comparable to the import parity price of petrol at that location, and the indigenous ethanol industry is able to maintain the availability of ethanol for ethanol- blended petrol programme at such prices. The areas which have been notified are the States of Goa, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Uttar Pradesh, Uttaranchal, Andhra Pradesh (all districts except Chittor and Nellore), Tamil Nadu (only in districts of Coimbatore, Dindigul, Erode, Kanyakumari, Nilgiris, Ramanathapuram, Tirunelveli, Tuticorin, and Virudhnagar), and the Union Territories of Chandigarh, Dadra & Nagar Haveli and Daman & Diu.

The oil companies floated tenders under the provisions of Gazette Notification dated 27.10.2004 for sourcing indigenous ethanol, and on successful completion of tender negotiations, have placed purchase orders/ letters of intent for purchase of ethanol for the identified States/areas as notified under the scheme.

A Memorandum of Understanding (MoU) has been signed between M/s. Indian Oil Corporation Limited, representing the oil marketing companies and the Indian Sugar Mills Association (ISMA) representing the ethanol industry on the other, for supply of ethanol in August 2005.

1.20 REVISED MOTOR SPIRIT/HIGH SPEED DIESEL CONTROL ORDER, 2005

Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Order, 1998 came into force on 28th December, 1998. This Control Order has been amended a number of times. A revised Motor Spirit/High Speed Diesel Control Order, 2005 has been issued to serve the following objectives:

1. The revised Control Order incorporates all the amendments made so far in the Order of 1998.
2. A number of new laboratories for testing of MS & HSD samples have been incorporated.
3. Malpractice of short-delivery which was not provided for in the earlier Order of 1998, has now been incorporated in the revised Order.
4. The proposal of Oil Companies for marketing MS/HSD through mobile dispensers has been suitably incorporated in the revised Order.
5. The specifications of MS/HSD have been suitably amended to provide for Euro III/IV norms.
6. It has been incorporated in the Order that the Central Government may by an order, make it mandatory to supply MS and HSD blended with a specified quantity of anhydrous ethanol and/or bio-diesel in the whole or any part of the territory of a State or whole of the territory of the Indian Union.

1.21 MARKETING DISCIPLINE GUIDELINES (MDG), 2005

Marketing Discipline Guidelines (MDG) are administrative guidelines to be followed uniformly by the Public Sector Oil Marketing Companies (OMCs) through-out the country. MDG are aimed at curbing adulteration in auto fuels and other malpractices/irregularities at the Retail Outlets (ROs) of the OMCs so as to ensure that the customers are assured of both quality & quantity at these outlets. These guidelines have been revised/amended from time to time. The revised MDG, 2005 effective 01.08.2005 provide for more stringent penal provisions for adulteration and other malpractices/ irregularities. The MDG, 2005 also provide for accountability of the staff of the OMCs for any malpractice/irregularity at their ROs.

1.22 PLAN OUTLAY

The revised Plan Outlay of PSUs of Ministry of Petroleum & Natural Gas for the year 2005-06 is Rs. 29,403.08 crore and Budget Estimate for the year 2006-07 is Rs. 36,003.33 crore. These outlays will be met from the internal and extra budgetary resources of the Public Sector Undertakings.

1.23 EARNINGS OF OIL PUBLIC SECTOR UNDERTAKINGS

The Profit Before Tax (PBT) and the Profit After Tax (PAT) earned by the Public Sector Undertakings in the Oil Sector during 2004-05 were Rs. 39,671.52 crore and Rs. 27,302.85 crore respectively. The PBT and PAT for 2005-06 are expected to be about Rs. 27,329.17 crore and Rs. 17,377.14 crore respectively.

1.24 IMPORT OF NATURAL GAS TO INDIA THROUGH TRANSNATIONAL GAS PIPELINES

The Cabinet in the meeting held on 9.2.2005, approved this Ministry's proposal to pursue natural gas imports from Iran, Myanmar and Central Asian countries through onland transnational pipelines.

(a) Iran-Pakistan-India (IPI) Pipeline Project

Consequent upon Cabinet decision, Minister (P&NG) led a delegation to Pakistan during 4-8 June 2005. During the talks, the two Ministers reviewed the Iran-Pakistan-India gas pipeline proposal. They agreed that the project, which envisaged supply of gas to Pakistan and India through a transnational pipeline, would go a

long way in meeting the energy security requirements of the two countries, and thus should be seen as a significant project for the benefit of the people of these countries. The Indian and Pakistani delegations agreed to exchange information in regard to the financial structuring, technical, commercial, legal and related issues to realize a safe and secure world class project. To this end, it was agreed that the momentum pertaining to the project should be accelerated by constituting a Joint Working Group at the Secretary level at the earliest, which will meet regularly and report the progress to the Ministers to facilitate definitive decisions by them.

An Indian delegation also visited Iran from 11-14 June 2005 and discussed the issue of import of natural gas from Iran through onland pipeline transiting via Pakistan. Both sides noted with satisfaction that as a result of regular discussions on technical issues pertaining to the project, a Heads of Agreement between NIGEC and the Indian companies concerned had been finalised. With a view to undertaking further studies and discussions in regard to relevant issues, it was agreed to establish a special JWG on the Iran-Pakistan-India gas pipeline project.

The Government is discussing the details of the Iran – Pakistan – India (IPI) Gas Pipeline Project with the Governments of Iran and Pakistan. Two separate, Secretary-level Joint Working Groups (JWGs), viz., India – Pakistan JWG and India – Iran Special JWG (SJWG) have been constituted for this purpose. So far, three meetings each of the India – Pakistan JWG and the India – Iran SJWG have been held. Various technical, commercial, financial, legal and related issues were discussed in these meetings and reviewed by the Indian and Iranian Ministers at their meeting in Riyadh on 19th November, 2005 in the sidelines of the International Energy Forum Round Table Conference. The progress was also reviewed during the visit of Pakistan Petroleum Minister to New Delhi during 17-18th February, 2006. It is envisaged that the project structure and framework agreement for the project could be finalized by second quarter of 2006.

(b) Myanmar-Bangladesh-India Gas Pipeline Project.

To pursue the matter at the Government level, for bilateral and trilateral discussions with Myanmar and Bangladesh, the Minister (P&NG) visited Yangon during 11-13th January 2005. A Memorandum of Understanding (MOU) for cooperation in the petroleum sector between the two Governments was signed. The MOU provides for furthering cooperation in the hydrocarbon sector and for establishing a cooperative institutional relationship in the field of petroleum industry on the basis of equality and mutual advantage, taking into account the possibilities for cooperation available in each country. The two Governments will designate a body of experts comprising three representatives of each party to identify and implement the projects in the hydrocarbon sector.

A trilateral meeting between the Petroleum Ministers of India, Myanmar and Bangladesh held on 12.1.2005. After the meeting a Joint Press Statement was issued by the three Ministers. The three sides agreed to transport of natural gas from Myanmar to India by pipeline transiting through Bangladesh. The route of the pipeline will be determined by mutual agreements of the three Governments. It was also decided to establish a Techno-Commercial Working Committee (TCWC) comprising duly designated representatives of the three Governments to prepare a draft MOU prescribing the framework of cooperation among the three Governments, including the Myanmar-Bangladesh-India gas pipeline project.

In pursuance of the MoU, a Techno-Commercial Working Committee has been constituted by the three Governments. The First Meeting of the TCWC was held on 24-25 February, 2005. The TCWC has finalized draft MoU proposed to be signed by the three oil Ministers.

However, there are certain bilateral issues which have to be sorted out with Bangladesh. Simultaneously, India is also exploring the other option of import of natural gas from Myanmar. GAIL is conducting a detailed feasibility study of the onland pipeline route from Myanmar to India through North-Eastern Indian States, bypassing Bangladesh territory. The option of getting Bangladesh on board is also being simultaneously pursued. The matter is being pursued with the Myanmar side.

(c) Turkmenistan-Afghanistan-Pakistan (TAP) pipeline

Daulatabad area of Turkmenistan has reported to have sufficient gas reserves. The Governments

of Turkmenistan-Afghanistan-Pakistan (TAP) proposed the transnational gas pipeline to exploit the available gas reserves in Turkmenistan. They designated ADB as the lead development partner. ADB has carried out the study and approached India for participating in the project. An Indian delegation led by Shri Dinsha Patel, Minister of State for Petroleum & Natural Gas visited Ashgabat, Turkmenistan to participate in the 9th Steering Committee Meeting of the countries participating in the Turkmenistan-Afghanistan-Pakistan Gas Pipeline held on 14-15th February, 2006, as an 'Observer'. The Steering Committee has invited India to become an official member of the project. India has now to take a view on joining the project.

1.25 GAS PRICING

The consumer price of APM gas has been revised by the Government w.e.f. 1.7.2005. The salient points of the Government Order are as follows:-

(i) Till the Tariff Commission submit its recommendation and decision is taken thereon, the consumer price of APM gas has been increased from Rs.2,850/MSCM to Rs.3,200/MSCM on an ad-hoc basis.

(ii) The price of gas for the North-Eastern region will be pegged at 60% of the revised price for general consumers. Thus, the consumer price for the North-East region will increase from the existing price of Rs.1700 to Rs.1,920/MCM.

1.26 RETAIL OUTLET DEALERSHIPS COMMISSIONED

The number of retail outlet (RO) dealerships (petrol pumps) set up by OMCs during the year 2005-06 (April-December, 2005) were 1,949. 1,142 ROs are likely to be set up during January-March, 2006.

1.27 LPG MARKETING BY PUBLIC SECTOR OIL MARKETING COMPANIES (OMCs)

Four Public Sector Oil Marketing Companies (OMCs) viz., Indian Oil Corporation Limited, Bharat Petroleum Corporation Limited, Hindustan Petroleum Corporation Limited and IBP Co. Limited are engaged in marketing of subsidized LPG in the country. With increased availability of LPG, the number of LPG customers enrolled by them has also been increasing over the years. The number of LPG customers served by OMCs as on 1.1.2006, was about 876 lakhs.

OMCs had set the target for release of about 50 lakhs new LPG connections during financial year 2005-06 out of which about 31 lakhs connections have been released during April-December, 2005. Similarly, OMCs had set the target for setting up of about 317 new LPG distributorships during financial year 2005-06, out of which about 231 distributorships have been commissioned during April-December, 2005. Total number of distributorships of OMCs in the country as on 1.1.2006 is 9,213.

1.28 MARKETING OF 5 KG LPG CYLINDERS BY OMCs.

OMCs had launched sale of 5 Kg cylinders on 16th August 2002 at Shimla, Himachal Pradesh. Since then, it has spread across the country.

Basic purpose for launching 5 Kg cylinder was that the small size LPG cylinder in the domestic sector will help in fulfilling the demand of low income groups in urban, semi-urban and rural pockets and also extend LPG reach to hilly terrain and interior areas on account of convenience in transportation. The LPG connection with 5 Kg domestic cylinder in terms of deposit of Rs. 350/- per cylinder and low cost of refills of approximately Rs. 109/- is affordable for the low income groups. This will also help in meeting the requirement of economically weaker sections of the society for LPG refills and help in restricting deforestation thereby ensuring a pollution free, happy and healthy environment.

During April-December, 2005, OMCs have released approximately 39,000 number of 5 Kg connections in 28 States and 2 UTs.

1.29 LPG AS AUTO FUEL

Government has permitted use of LPG, being a clean and environmentally friendly fuel, as an auto fuel. For this purpose, Ministry of Petroleum & Natural Gas along with the other concerned Ministries/Departments has formulated necessary legislative and regulatory framework for safe usage of LPG as an automotive fuel. Auto LPG pricing is market determined and there is no subsidy on Auto LPG.

Hon'ble Supreme Court has mandated conversion of old vehicles to LPG/CNG in cities which are equally or more polluted than Delhi and as per the Hon'ble Court critically polluted cities are Ahmedabad, Agra, Bangalore,

Chennai, Hyderabad, Kanpur, Kolkata, Lucknow, Mumbai, Surat, Sholapur and Pune.

OMCs had initially identified 228 Locations for setting up of Auto LPG Dispensing Stations (ALDS) in various Metros and some other major cities. However, in view of directive of the Hon'ble Supreme Court classifying the cities into three categories, oil marketing companies are at present primarily concentrating on category-I and category-II cities and have commissioned 140 ALDS in 24 cities as on 31.12.2005.

1.30 PARALLEL MARKETING SCHEMES (PMS) OF LPG

In order to increase the availability of LPG and to foster competition, the private sector was allowed to participate in the Parallel Marketing Scheme (PMS) of LPG in April 1993 by decanalising imports of LPG. Under the scheme, a private party can undertake import of LPG after obtaining a rating certificate from one of the approved rating agencies given in the LPG (Regulation of Supply and Distribution) Order, 2000. LPG under PMS is sold at market-determined prices by the private parties. Parallel marketers have imported about 262 TMT of LPG under PMS during April-December, 2005. Cumulatively, parallel marketers have imported about 2,045 TMT of LPG upto December 2005 since 1993.

1.31 Dr. RANGARAJAN COMMITTE REPORT

The Government on 26th October 2005 had set up a committee to look into various aspects of pricing and taxation of petroleum products with a view to stabilizing/rationalizing their prices, keeping in view the financial position of the oil companies, conserving petroleum products and establishing a transparent mechanism for autonomous adjustment of prices by the oil companies. The composition of the expert committee was as follows:

1.	Dr. C. Rangarajan, Chairman, PM's Economic Advisory Council	Chairman
2.	Dr. Kirit S. Parikh, Member, Planning Commission	Member
3.	Shri Saumitra Chaudhuri, Chief Economist, ICRA	Member
4.	Dr. Ashok Lahiri, Chief Economic Adviser, Ministry of Finance	Member
5.	Prof. Bakul H. Dholakia, Director, IIM, Ahmedabad	Member
6.	Secretary, Ministry of Petroleum & Natural Gas Shri S.C. Tripathi (till 31st December, 2005) Shri M.S. Srinivasan (from 1st January, 2006)	Member

The recommendations, made in the report, which has been submitted on 17th February, 2006, can be divided broadly into three groups:

1. On pricing of petrol and diesel:

(i) Shift to a trade parity pricing formula for determining refinery gate as well as retail prices; (ii) Government to keep at arms length from price determination and to allow flexibility to oil companies to fix the retail price under the proposed formula; and (iii) Reduce effective protection by lowering the customs duty on petrol and diesel to 7.5%.

2. On pricing of domestic LPG and PDS kerosene:

(i) restrict subsidized kerosene to BPL families only; (ii) Raise the price of domestic LPG by Rs. 75/cylinder; (iii) discontinue the practice of asking upstream companies to provide upstream assistance, but instead collect their contribution by raising the OIDB cess from the present level of Rs. 1,800/MT to Rs. 4,800/MT; and (iv) Government meeting the balance cost of subsidy from the budget.

3. On restructuring excise duties:

Shift from the present mix of specific and *ad-valorem* to a pure specific levy and calibrating the levies at Rs. 5.00/litre of diesel and Rs. 14.75/ litre of petrol.

The Committee has recommended that each of the first two sets of recommendations should be implemented as integrated packages.

1.32 PDS KEROSENE & DOMESTIC LPG SUBSIDY SCHEME, 2002

Ministry of Petroleum & Natural Gas is administering the scheme through which the public sector oil marketing companies (OMCs)

are being paid subsidy currently at 1/3rd level of 2002-03 at a flat rate from the Union Budget. This translates to subsidy at the rate of Rs.22.58 per 14.2 kg domestic LPG cylinder and Rs.0.82 per litre on PDS Kerosene. The Government has decided that this subsidy will be allowed till 31.3.2007.

1.33 FREIGHT SUBSIDY (FOR FAR FLUNG AREAS) SCHEME, 2002

Under the freight Subsidy Scheme, the public sector oil marketing companies (OMCs) are being compensated on the freight being incurred to distribute the subsidized products in the far flung/remote areas.

1.34 RIGHT TO INFORMATION ACT - 2005

Right to Information (RTI) Act-2005 has been implemented in the Ministry of Petroleum & Natural Gas as per Gazette Notification of Government of India dated 15th June, 2005. RTI Act is inter-alia designed to promote transparency and accountability in the functioning of public authorities.

As per provisions of Section 5(1) of the RTI Act, Shri Prabh Das, Joint Secretary and Shri V.K.Dewangan, Deputy Secretary have been nominated as Central Public Information Officer (PIO) and Assistant Public Information Officer (APIO) respectively in respect of the Ministry. Shri Anil Razdan, Additional Secretary has been designated as the Appellate Authority in the Ministry under the provision of Section 19(1) of the RTI Act. All the PSUs under the administrative control of the Ministry of Petroleum & Natural Gas have also implemented RTI Act, 2005 and PIOs/APIOs and Appellate Authorities have been designated by them. Basic information in respect of the Ministry of Petroleum & Natural Gas and all its PSUs along with details of Appellate Authorities, PIOs & APIOs has been hosted on the websites of the Ministry and all Oil PSUs.

From the date of implementation to 28th February, 2006, a total of 202 receipts/ applications including 11 appeals have been received under RTI Act, 2005 in the Ministry. Out of 202 receipts, 194 receipts including 10 appeals have been disposed of. The remaining applications and appeals would be disposed of within the time limit prescribed in the RTI Act.



CHAPTER - II

2. EXPLORATION AND PRODUCTION

2.1 CRUDE OIL & GAS PRODUCTION

2.1.1 Oil and Natural Gas Corporation Limited (ONGC) and Oil India Ltd. (OIL), the two National Oil Companies (NOCs)and private and joint-venture companies are engaged in the exploration and production (E&P) of oil and natural gas in the country. Crude oil production by the NOCs during 2005-06 is expected to be about 28.421 MMT as against the production of 29.25 MMT of crude oil during 2004-05. The main reason of shortfall in 2005-06 is due to fire at Mumbai High Process platform on 27th July, 2005.

In addition, there will be production of 4.30 MMT from the private and JV companies during 2005-06. Thus, total crude oil production in 2005-06 is expected to be about 32.721 MMT.

Gas production during the year 2005-06 is expected to be about 31.023 BCM from ONGC, OIL and private/JV companies. The contribution of private/JV companies in gas production will be about 6.782 BCM in 2005-06.

2.1.2 Measures taken to enhance hydrocarbon reserves and increase production are :

i) Major thrust on exploration in the new frontier areas like deep water and other geologically and logistically difficult areas and also ensuring continuation of exploration in the existing and unexplored areas.

ii) Development of new fields and additional development of the existing fields through implementation of Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR) projects in major fields and medium size fields. These projects are being implemented by ONGC & OIL.

iii) Implementation of specialized technologies like extended reach drilling, horizontal drilling and drain hole drilling.

iv) Obtaining the services of international experts whenever considered necessary.

v) Maintenance of reservoir health through work-over operations and pressure maintenance methods.

vi) Better reservoir delineation through three dimensional (3D) seismic survey of old fields.

vii) Optimization and redistribution of water injection.

viii) Infill drilling in the unswept areas of the reservoirs.

2.1.3 Consequent upon liberalization in petroleum sector, Govt. of India is encouraging participation of foreign and Indian companies in the exploration and development activities to supplement the efforts of national oil companies to narrow the gap between supply and demand. A number of contracts have been awarded to both foreign and Indian companies for exploration and development of fields on production sharing basis.

2.1.4 Since 1991, Government of India has been inviting bids on regular basis with several rounds of bidding carried out till operationalisation of New Exploration Licensing Policy (NELP) in 1997.

After the operationalisation of NELP under the first five rounds, Production Sharing Contracts (PSCs) for 110 blocks had been signed. Further, under the Sixth round of NELP-IV, 55 exploration blocks were offered on 23rd February, 2006.

2.2. IMPLEMENTATION OF X PLAN (2002-2007)

During the X Plan, various E&P activities being implemented are:

1. Optimisation of production of crude oil and natural gas from domestic basins and existing fields especially the Mumbai High field by ONGC.
2. An optimal mix of intensive exploration with main thrust in producing areas and extensive exploration in other areas including frontier areas and deep waters for increasing the reserve base.
3. Improvement of recovery factor by 3-4% in major fields.
4. Emphasis on quality of exploration for enhanced success.
5. Laboratory studies and undertaking of EOR pilots in producing fields for further augmentation of recovery.
6. Acquisition of equity oil abroad.
7. Exploration of Coal Bed Methane (CBM).
8. Efforts to exploit the potential of Gas Hydrates and Underground Coal Gasification (UCG).

2.3 ACQUISITION OF EQUITY OIL ABROAD

In view of unfavorable demand – supply balance of hydrocarbons in the country, acquiring equity oil and gas assets overseas is one of the important components of enhancing energy security. The Government is encouraging Oil PSUs to aggressively pursue equity oil and gas opportunities overseas. OVL has made an investment commitment of over US$ 5 Billion

and has a oil and gas production of 5 MMT (Oil and equivalent gas) in the year 2004-05. OVL has a target to acquire 20 MMT per annum of O+OEG by 2010 (earlier target was to achieve this production rate by 2020). OIL, IOC and GAIL are also engaged in acquiring overseas E&P assets. OIL – IOC has an exploration block in Libya apart from being OVL partners. GAIL has interest in one Myanmar offshore block. Recently, OVL has signed an MOU with the Mittal Group for leveraging their presence in some hydrocarbon rich countries such as Kazakhstan. Some of the major E&P opportunities being pursued by OVL at present are in Brazil, Thailand and Venezuela.

In addition, private Indian companies like RIL, Essar and Videocon Industries are also in the process of acquiring E&P assets abroad.

2.4 NEW EXPLORATION LICENSING POLICY

Government has formulated the New Exploration Licensing Policy (NELP) to accelerate and expand exploration of oil and gas in the country. So far, Government has invited five rounds of bidding under NELP. A total of 110 blocks have been awarded in these rounds. NELP has been able to achieve its objective of expanding and accelerating exploration specially in deepwater areas. Exploration under NELP has also started showing positive results with discoveries made in the Krishna-Godavari deepwater and in Cambay onland. In order to give a further push to its exploration efforts, Government have offered 55 exploration blocks on 23rd February, 2006.

2.5 COAL BED METHANE (CBM) POLICY

In order to explore and produce new sources of natural gas from coal bearing areas, Government had formulated a CBM Policy providing attractive fiscal and contractual framework for exploration and production of CBM in the country. Government has awarded 16 blocks in the States of Jharkhand, Madhya Pradesh, Chhattisgarh, Maharashtra, Rajasthan, Gujarat and West Bengal for exploration and production of Coal Bed Methane (CBM). An additional 10 CBM blocks have been offered in the third round of CBM on 23rd February, 2006.

2.6 OIL AND NATURAL GAS CORPORATION LIMITED (ONGC)

Oil & Natural Gas Commission was established on 14th August, 1956 as a statutory body under Oil & Natural Gas Commission Act (The ONGC Act), for the development of petroleum resources. As per the decision of the Government, ONGC was converted into a Public Limited Company under the Companies Act, 1956 and named as "Oil and Natural Gas Corporation Limited" with effect from February 1, 1994. The Government disinvested around 10% of the equity shares of ONGC in March 2004 through a public offer in the domestic capital market at Rs. 750 per share. After the above disinvestment, the shareholding of the Government in ONGC came down to around 74.15%. At present, the authorized share capital of ONGC is Rs. 15,000 crore and paid-up equity capital is around Rs. 1,426 crore.

2.6.1 Highlights for the Year 2005-06 (upto December, 2005)

- While inaugurating the Golden Jubilee year of ONGC on 14th August, 2005 at ONGC headquarters Dehradun, His Excellency the President of India Dr. A. P. J. Abdul Kalam has given a new vision to ONGC – "I would suggest ONGC to give world leadership in management of energy sources, exploration of energy sources, technology in Underground Coal Gasification and above all finding new ways of tapping energy wherever it is to meet the ever-growing demand of the country".

- The oil production of ONGC went down to 18255 tonnes per day on 26th July, 2005 due to loss of processing facility at MHN Platform by a fire accident leading to closure of all wells from MHN/NQO. About 91% of the lost production has been restored.
- Project "Sagar Sammriddhi" for deepwater exploration is in progress.
- Sagar Vijay and two charter hired deepwater drilling rigs (Belford Dolphin & Transocean Discoverer) are engaged in drilling deepwater locations since 26.09.2003.
- ONGC & ONGC JVs obtained 8 out of the 20 blocks offered in NELP-V.
- MOU signed with Neyveli Lignite Corporation Ltd. to initiate Underground Coal Gasification pilot in shallower lignite.

2.6.2 Physical Performance during 2004-05 & 2005-06

		2004-05 Actual	2005-06 BE/MOU	2005-06 upto Dec, 2005 (Provisional)
Seismic Survey				
On-land	2D (GLK)	2,310	1,510	1,253.73
	3D (Sq. Kms.)	2,301	1,737	1,527.13
Offshore	2D (GLK)	14,375	3,000	
	3D (Sq. Kms.)	18,118	24,634	6,825.59
Drilling				
Exploratory	Meterage('000m)	291.603	353.36	216.487
	Wells (Nos.)	109	130	71
Development	Meterage('000m)	393.901	348.84	294.109
	Wells (Nos.)	179	165	103
Total (Expl.+Dev)	Meterage('000m)	685.504	702.20	510.596
	Wells (Nos.)	288	295	174
Production				
Crude Oil	MMT	26.484	26.614	18.209
Natural Gas	MMM^3	22,970	21,406	16,912
LPG	000'T	1,095	910	806
C2-C3	000'T	528	452	394
SKO	000'T	177	156	138
ARN/ LAN	000'T	1,608	1,276	1,174
Others	000'T	71	55	50
TOTAL VAP	000'T	3,479	2,849	2,562

2.6.3 Financial Performance during 2005-06

(Rs. Crore)

Parameters	2004-05 (Actual)	2005-06 (BE)	2005-06 (Actual) upto December, 2005
Plan Outlay	10,681.29	10,487.01	6,406.13
Total Income (Incl. Interest Income)	43,364.93	37,240.15	35,279.54
Net Profit	12,983.03	9,396.40	11,344.89

2.6.4 Achievements:

- ONGC posted a profit of Rs. 14,430.78 Crore for 2005-06 as compared to Rs. 12,983.05 Crore for the corresponding period of 2004-05. The impact of subsidy on the revenue is Rs. 11,956.49 Crore during 2005-06 as against Rs. 4103.80 Crore during 2004-05.
- State-of-the-art technologies inducted in hardware & software for seismic data acquisition, processing & interpretation, and in well logging.
- Advanced drilling techniques for sidetracks, multilateral and extended reach wells absorbed and implemented on fast track. Engineering design audit introduced with significant cost savings.



A presentation of ONGC Systems

2.6.5 Progress of Projects

The following major projects of ONGC are under various stages of implementation.

Sl. No.	Name	Approved Cost (Rs. in Crore)	Status/ Anticipated Commissioning
1.	Mumbai High North Development	2,929.40	February, 2006
2.	Mumbai High South Redevelopment	5,255.97	March, 2007
3.	Improved Oil Recovery-Rudrasagar	113.90	March, 2006
4.	Improved Oil Recovery-Geleki	390.09	March, 2007
5.	Improved Oil Recovery – Lakwa-Lakhmani	345.10	March, 2007
6.	D-1 Development(Phase – I)	506.52	March, 2006
7.	Vasai East Development	985.17	March, 2008
8.	G-1 & GS-15 Development	429.82	April, 2006
9.	Mumbai High Uran Trunk Pipeline	2,792.50	January, 2006
10.	C2-C3 & LPG Plant, Dahej	1,493.49	May, 2008
11.	Addl development of Bassein & installation of second stage Booster compressors	2,937.01	March, 2008
12.	Addl. Dev. Heera Pt-II	569.07	April, 2007
13.	Dev. of SB-11 Bassein field	245.33	May, 2007
14.	Addl. Dev. A1 Layer & L-III Res. MHN	910.53	December, 2006

2.6.6 Major Initiatives

Strategic Initiatives

- Comprehensive organizational restructuring – "Corporate Rejuvenation Campaign" (CRC) – conceptualised and launched across the entire organization changing from Business Group concept to Asset/Basin Management with focus on results rather than activities.
- Substantive decentralization of administrative authorities together with delegation of financial authorities carried out to empower the field executives.

ii) Strategic goals set for two decades 2001-2020

- Doubling Reserve Accretion to 12 billion tonne O+OEG.
- Improving Recovery Factor to the order of 40%.
- Production of 20 MMT per Annum O+OEG as equity oil and gas from acquisitions abroad.

iii) Infocom Projects

Comprehensive review of Information Technology and communication and Control Networks was carried out. Plans were finalized for modernization, expansion and integration of all Infocom systems over a 3 year period with investment of the order of Rs. 600 Crore.

2.6.7 CBM projects of ONGC

ONGC is carrying out CBM operations in West Bengal and Jharkhand. ONGC signed an MOU with Coal India Ltd. (CIL) to undertake joint exploration in North Raniganj as well as Jharia coalfields for the CBM blocks awarded by Government of India on nomination basis jointly to ONGC and CIL.

In the CBM Bidding Round-I, two blocks i.e. BK-CBM-2001/1 (Bokaro) and NK-CBM-2001/1 (N.Karanpura) have been awarded to a consortium of ONGC and IOC. In CBM-II, ONGC received 5 out of the 8 blocks awarded.

2.6.8 Health, Safety and Environment (HSE)

Environmental initiatives pertaining to metamorphosis of existent environment management system to conform to international benchmark, to minimize and to add value to waste through reduction at source as well as recycling options and thus, turning environmental liabilities into opportunities

Environmental initiatives encompassed solid waste, liquid effluent, air emission monitoring mechanism for proactive planning to manage waste through environment friendly technologies like bioremediation, reduction and recycling options and environmental reporting based on global reporting initiative principles.

2.6.9 Conservation of Energy and Petroleum Products

ONGC is actively pursuing energy conservation measures. The conservation of petroleum products namely HSD, Lube oil and natural gas are important activities. These measures include:-

- Measure taken to improve the efficiency of HSD consuming activities.
- Increase in lube oil change period resulting in substantial saving.
- Natural gas flaring has been reduced and the same is being supplied to consumers.
- Use of small DG sets and waste heat recovery equipment at offshore platforms, rigs, LPG plants at Hazira and Uran.
- Use of energy efficient equipment and devices such as Top drives, and turbo expanders at Hazira and Uran.
- Use of gas engines in place of diesel ones for power generation.
- Using natural gas geysers at Mehsana.
- Thermal energy cost reduction achieved by maintenance of steam traps at processing plants.
- Conducting Energy audit on regular basis and identification of Petroleum Products Conservation Opportunities (PPCOs) are identified.
- Use of small DG sets during lean periods in rigs, Proper capacity utilization, rationalization and efficiency improvement of equipments, use of energy efficient devices.
- Harnessing solar energy by using solar water heaters/ photo-voltaic panels at various locations.

2.7 ONGC VIDESH LIMITED (OVL)

ONGC Videsh Limited (OVL), a wholly owned subsidiary of ONGC, was incorporated as Hydrocarbons India Private Limited on March 5, 1965 with an initial authorized capital of Rs. 5 Lakhs, to perform international exploration and production business. Its name was changed to ONGC Videsh Limited on June 15, 1989. The authorized and paid-up capitals of OVL as on 31.3.2005 were Rs.500 Crore and Rs.300 Crore respectively. The primary business of the company is to prospect for oil and gas acreages abroad. These include acquisition of oil and gas fields in the foreign countries, exploration, production, transportation and sale of oil and gas.

Currently, OVL has participation in oil and gas projects in 14 countries namely, Vietnam, Sudan, Russia, Iraq, Iran, Myanmar, Libya, Syria, Cuba, Nigeria, Qatar, Egypt, Nigeria-Sao-Tome-Principe and Brazil. The Vietnam project is producing natural gas and the Greater Nile Oil Project (GNOP) in Sudan is producing crude oil. The project in Russia (Sakhalin-I) has also commenced gas production from October 2005. Block 5A in Sudan is currently under development and is expected to commence oil production in the first half of 2006. In Block A-I in Myanmar appraisal work is being carried out after which the fields shall be put on development.

OVL is pursuing acquisition of various oil and gas exploration and production opportunities in Africa, the Middle East, Central Asia and South East Asia, which are at different stages. The company earned a profit of Rs. 761.38 (78% higher) Crore during 2004-05 as compared to Rs. 428.45 Crore in 2003-04. Profit after Tax in 2005-06 upto December, 2005 is about Rs. 973.27 crore.

2.8 OIL INDIA LIMITED (OIL)

Oil India Limited (OIL), a Government of India Enterprise, under the administrative set-up of the Ministry of Petroleum and Natural Gas, is engaged in the business of exploration, production and transportation of crude oil and natural gas. OIL was incorporated in 1959 as a company with two-third's share of Burmah Oil Company/Assam Oil Company and one-third share of Government of India. In 1961, OIL became a joint venture company with equal share of Government of India and Burmah Oil Company. On 14th October, 1981, OIL became a Government of India Enterprise, a wholly owned Public Sector Undertaking. The authorized and paid up capital of the company is Rs.250 Crore and Rs 214 Crore respectively.

The Company produces crude oil and natural gas from its oil fields in Assam and Arunachal Pradesh and natural gas from its fields in Western Rajasthan. OIL also extracts LPG from the natural gas in Assam.

The Company has domestic operational areas in the states of Assam, Arunachal Pradesh, Rajasthan and Ganga Valley of Uttar Pradesh and Uttaranchal.

Under NELP regimes, OIL has taken participating interests in 14 NELP Blocks either as operator or along with other consortium JV partners. Out of these 14 blocks, 8 blocks are in onland, one block in shallow water offshore and 5 blocks in deepwater offshore. OIL is the operator in 6 onland blocks, out of which 3 blocks are in Rajasthan, 2 blocks in Assam and 1 block in Orissa.

Keeping in view E & P strategies for growth, OIL has already signed MOU with IOC for jointly acquiring producing properties of oil and gas and other ventures abroad . The company has so far acquired participating interests (PI) abroad, as under :-

i) 20% PI in Farsi Offshore block in Islamic Republic of Iran along with IOC(40%) and OVL (40%);

ii) 10% PI in Sudan Pipeline Project along with OVL(90%).

iii) 18.4% PI in Block 86 Libya OIL – IOC Consortium (50:50), OIL being operator.

iv) 10.5% PI in Contract area 102/4, Libya by OIL – IOC Consortium (50:50), OIL being operator.

The Company operates a crude oil trunk pipeline in the North East for transportation of crude produced by both OIL and ONGC in the region to feed Numaligarh, Guwahati and Bongaigaon refineries and a branch line to feed Digboi Refinery. OIL is also continuing reverse pumping of RAVVA crude to BRPL Refinery from Barauni since April, 2003 through its existing Barauni - Bongaigaon sector of the trunk pipeline.

The natural gas produced in Assam is sold to ASEB, BVFCL, APL, IOC (AOD), AGCL, NEEPCO and nearby Tea Gardens. In addition, natural gas produced in Rajasthan is supplied to Rajasthan Rajya Vidyout Utapadan Nigam Ltd. (RRVUNL). OIL is also engaged in production of LPG at its plant located at Duliajan, Assam.

In view of the changed business scenario in the hydrocarbon sector and to meet with the future challenges, OIL has already formulated its Strategic and Corporate Plan with the help of reputed consultant and started implementation of different priority modules.

2.8.1 New Hydrocarbon finds:

During the year 2005-06 (upto December, 2005), 4 new discoveries in Moran, Bazaloni, North Chandmari and Baghjan areas of Assam have been made.

2.8 .2 Physical Performance:

			2005-06		
Parameter	Unit	2004-05 (Actual)	Target	Actual upto Dec, 2005	Anticipated (2005-06)
Seismic Survey					
Onland 2D	GLKM	1978.59	1,500	381.67	1425.00
3D	SQKM	889.45	600	425.48	687.50
	Drilling				
Exploratory	'000 Metre	37.890	81.005	38.924	56.183
Well	NO.	6 + 6P	19 + 5P	4 + 7P	11+7P
Development	'000 Metre	115.673	83.095	53.760	104.167
Well	NO.	37 + 1P	23+ 5P	14 + 8P	34+4P
Production					
Crude Oil Production.	MMT	3.196	3.30	2.462	3.32
Natural Gas Production	MMSCM	2009.48	2076.00	1707.96	2,100.00
Natural Gas Sale	MMSCM	1471.96	1564.00	1306.80	1,594.00
LPG Production	'000 Tonnes	49.50	50.00	36.129	50.00

2.8.3 Financial Performance

(Rs. in crore)

Parameter	2004-05 (Actual)	2005-06		
		Target	Achievement Upto Dec, 2005	Anticipated (2005-06)
Plan Outlay	872.71	1,346.85	687.91	1,205.70
Total Income	4,097.15	3,562.42	4,318.02	5,353.32
Net Profit	1,061.68	687.53	1,354.53	1,383.19
Internal Resource	1,456.95	929.65	1,827.25	2,327.25

2.8.4 Other Achievements:

- Drilling of horizontal wells with the help of internationally reputed company commenced during 2005-06 and so far drilling of one well completed and result is very encouraging.
- In order to convert the relatively abundant resource of coal in North-East to liquid fuels, a pilot plant for coal liquefaction has been set up in Duliajan and studies are underway in collaboration with M/s hydrocarbon Technology Inc. (HTI), New Jersey, USA, a part of M/s Headwaters Technology Innovations Group.
- In order to enter into the business of providing pipeline transportation services, OIL is laying a product pipeline from Numaligarh in Assam to Siliguri in West Bengal for product evacuation from Numaligarh refinery.

2.8.5 Progress of Projects:

The following projects related to regular E&P activities are at various stages of implementation:

Sl. No.	Name of the Project/Location	Approved Cost (Rs./Crores)	Completion Time
1.	Replacement of Telecomm-unication system of Pipeline	48.96	March, 2006
2.	Intermediate Tank Farm at Tengakhat	30.00	March, 2006
3.	Gathering Stations at Baghjan and Chabua in Assam	29.50	March, 2006
4.	Mud Tank Systems in drilling rigs : 7 sets.	43.21	March, 2006
5.	Horizontal drilling of 4 wells	45.00	June, 2006
6.	Product pipeline from Numaligarh to Siliguri	468.92	September, 2007

2.8.6 Initiatives Taken by OIL:

The plan aims at more than **doubling its present level of crude oil production** in the immediate future and bringing about a manifold increase over a longer time horizon, through two distinct sets of initiatives. The first relates to physical activities in the following three major focus areas:

- Maintaining and improving production from the existing acreages in the North East through intensive exploration and development initiatives.
- Enlarging the Company's production base in the rest of the country through aggressive activities in the NELP blocks available with the company, acquisition of new blocks under future NELP rounds and acquisition of producing properties available in the market.
- Acquiring prospective exploration and producing acreages abroad.

The second set of initiatives relates to transformation of OIL to a learning organization with inherent flexibility to adapt to changes. This is being achieved by focusing on enhancing employees' capabilities and competencies to realize a shared vision through the process of continuous learning in teams. The philosophy of mutually accountable team activities aims at quantum improvement in performance and achievements.

The plan also calls for a diversified business portfolio for the Company through selective presence in the oil and gas value chain covering amongst others refining, marketing/retailing, gas monetization through cracker/power generation and extension of existing business of pipeline services and E&P services.

The plan is being implemented through six distinct modules:

1. Business and Organization Restructuring and Creation of a New Performance Management System.
2. Change Management and Creation of a new HR Policy to meet the requirements of the new and emerging competitive business environment.
3. Implementation of Enterprise Resource Planning (ERP)
4. Performance Improvement and Cost Reduction
5. Manpower Redeployment
6. Corporate Governance Framework The plan is in an advanced stage of implementation.



Oil India Men at work in one of the rigs

2.8.7 Control of Pollution and other environmental initiatives

Oil India Limited takes its responsibility of minimizing environmental pollution and remedying the effects of any pollution caused by its operations very seriously. Concerted efforts in protecting the environment have resulted in a clear and green environment in OIL's operational areas. Measures taken by the Company to minimize different types of pollution are detailed below.

- Recycling of drilling effluent pit water in drilling operations to contain all effluents within the well site premises.
- The formation water produced alongwith crude oil are scientifically treated with oil soluble demulsifiers to separate oil and water. The separated formation water is disposed off into selected disposal wells specially drilled for the purpose.
- Deployment of low pressure booster compressor/jet compressors (ejectors) to reduce flaring of very low pressure natural gas.
- Ambient air quality monitoring in and around OIL's operations areas and other vulnerable places with the help of a mobile Air Quality Monitoring Van.
- Unavoidable flaring of natural gas due to either non-lifting of the committed quantity by consumers or technical reasons is done only in scientifically designed flare pits having brick walls with refractory lining.
- OIL makes provisions and develops Green Belts around all new installations in its operational areas.
- The use of weedicides and pesticides is avoided in OIL's installations as a policy and the Company resorts to manual grass cutting for upkeepment of its various premises.
- OIL has successfully carried out a project on Bio-Remediation of oily sludge in collaboration with TERI. This technique is also now applied in fields wherever applicable.
- OIL has obtained ISO-9001, ISO-14001, ISO-17025, OHSAS-18001 for a number of its installations. Actions are also in hand to obtain these certifications for more number of installations.
- OIL is also carrying out a project on remediation of oil contaminated soil.

- OIL is carrying out a project on developing photo-insensitive variety of paddy to be grown near the natural gas flare pits of production installations.
- OIL gives top priority on HSE matters in its operations and adopted the same in its corporate vision statement.

2.8.8 Conservation of petroleum products

Details on conservation of petroleum products by Oil India Limited in carrying out various operations/activities are as under:

- Commissioning of submersible water pump
- Replacing with fuel efficient generating sets at Repeater Stations in pipeline operations
- Natural gas saving in Duliajan & Moran crude oil conditioning plant
- Crude oil conserved in Pipeline operations
- Condensate recovered in the fields of Duliajan, Moran & Rajasthan Project
- Used Solar Photo Voltaic Panel
- Saving of energy in GGS of Rajasthan Project by using Solar lighting.

2.9 GAIL (INDIA) LIMITED

2.9.1 Introduction

GAIL (India) Ltd, is India's principal natural gas transmission and marketing company with activities expanding to Gas Processing for fractionating LPG, Propane, SBP Solvent and Pentane; transmission of Liquefied Petroleum Gas (LPG); Petrochemicals like HDPE and LLDPE; leasing bandwidth in Telecommunications. The company has extended its presence in Power, Liquefied Natural Gas (LNG) re-gasification, City Gas Distribution and Exploration & Production through equity and joint ventures participations. The Company has an authorized and Paid-up Capital of Rs.1,000 crore and Rs. 845.65 crore respectively. The Government of India holds 57.35% of its equity, and the remaining is held by GDR holders (6.01%), ONGC and IOC (4.83% each), other Institutional & individual holders (26.98%).

2.9.2 City Gas Projects

In addition to its gas marketing through its Trunk and Regional Transmission systems, GAIL has also formed joint venture companies for supplies to households, commercial users and for the transport sector.

2.9.3 Gas Transmission

GAIL owns and operates a network of over 5340 km of Natural Gas high pressure trunk pipeline with a capacity to carry 118 MMSCMD of natural gas across the country. It supplies nearly 72 million cubic metres of natural gas per day as fuel to power plants for generation of about 4500 MW of power, as feedstock for gas based fertilizer plants to produce about 10 MMTPA of urea and to over 500 other small, medium and large industrial units to meet their energy and process requirements. GAIL's share of gas transmission business is 88 % and the company holds 85 % market share in gas marketing in India.

2.9.4. Telecommunication

GAIL has also been operating its state-of-art telecommunication network. GAIL's telecom business unit – 'GAILTEL' which has approximately 8,500 km of OFC with 99.97 per cent availability, offers highly dependable bandwidth for telecom service providers in the states of Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Uttar Pradesh, Andhra Pradesh, Haryana, Punjab and Delhi. The first to become operational in the Delhi-Mumbai route, GAILTEL has become a formidable force with its network connecting 73 cities based on DWDM technology. Today, GAILTEL's North-West-Central network corridor accounts for 65 per cent of India's long distance traffic.

2.9.5 Exploration and Production

Currently, the company is involved in exploration activities over acreage of 77,800 sq km, and plans to invest approximately Rs 800 crore in E&P activities over the next three years.



A view of GAIL's LPG Plant at Vijaypur (Guna) MP

GAIL now holds a participating interest varying between 10 to 80 percent in 15 exploration blocks in Basins such as Mahanadi, Bengal, Gujarat –Saurashtra, Mumbai, Cambay, Assam-Akaran and Cauvery. Furthermore, GAIL has also got stake in the A-1 and A-3 blocks in Myanmar GAIL has managed to extend the partnership in these ventures to various companies such as ONGCL, GSPCL, Gazprom, OIL, IOC, Hardy Exploration & Production, Enpro Finance Private Ltd., Daewoo, OVL and Korea Gas Corporation.

GAIL along with GSPC, has struck oil in the Cambay basin block CB-ONN-2000/1 and the commercialization of the block is expected soon. Presently production is planned with estimated recoverable reserve of 3.5 MMBBL, for 10 years.



A view of inaugural session of 4th Asia Gas Partnership Summit in New Delhi 20-21 Feb. 2006

2.9.6 Performance of GAIL (India) Limited at a glance for the year 2004-05 & 2005-06 (Provisional up to December 2005 & projected for January to March, 2006) is given below:

A) Physical:

		ACTUALS 2004-05	2005-06 (UPTO Dec.'05) (Provisional)	2005-06 (Jan'06 to Mar'06) (Projected)*
GAS TPTD. (including R-LNG TPTD.)	MMSCMD	71.56	79.05	77.38
LPG/SBP/OTHERS PRODUCTION	('000 MT)	1,393	975	283
PETROCHEMICAL PRODUCTION	('000 MT)	299	207	96
LPG TRANSPORTATION	('000 MT)	2,138	1,538	630

* as per Revised Estimates 2005-06.

B) Financial (Rs. in crore)

DESCRIPTION	ACTUALS 2004-05	2005-06 (UPTO Dec.'05) (Provisional)	2005-06 (Jan'06 to Mar'06) (Projected)*
PROFIT AFTER TAX	1,954	1,901	318
GROSS INTERNAL GENERATION (PAT+Deprn.)	2,899	2,321	460

* as per Revised Estimates 2005-06.

GAIL (India) Limited has paid dividend of Rs. 769.03 Crore (including Corporate Dividend Tax) for the year 2004-2005 as against Rs.763.20 Crore during the previous year.

2.9.7 Operations

During the year, GAIL (India) Limited has maintained its high standards of reliable supply of gas ensuring uninterrupted supply of gas to all its customers along the HBJ pipeline.

2.9.8 Major Projects (more than Rs. 100 Crore) Completed during the year (April'05 – Dec'05)

Nil

2.9.10 Major Projects (More than Rs. 100 Crore) approved during the Year (April'05 – Dec'05)

Nil. However, the following projects were approved on 28.01.2005 by Board of Directors of GAIL:

1. Jagoti – Dewas – Pithampur pipeline Project
2. Kelaras – Malanpur Pipeline Project

2.9.11 On-going Projects (More than Rs. 100 Crore)

Item	Dahej Uran Project.	Thulendi Phulpur pipeline Project	Vijaypur Kota Pipeline pipeline Project	Jagoti Pithampur Pipeline Project	Kelaras Malanpur Pipeline Project
Sanctioned cost (Rs. in crore)	1830.77	220	299.84	194. 82	104.73
Schedule of Completion	Feb'07 (Revised Sch)	15th May'06. (best endeavor basis)	31.12.2006	27.07.2006	27.07.2006
Commissioning	Jan'07	April'2006	Nov'2006	June'2006	June'2006
Physical Progress as on 15.11.05	29.80%	56.30%	33.34 %	13.99 %	14.63 %
Financial Progress as on 30.11.05 (Rs. in crore)	23.35	3.88	2.69	0.51	1.17



CHAPTER - III

3. REFINING

3.1 REFINING CAPACITY

The domestic refining capacity as on 1.4.2005 was 127.37 Million Metric Tonnes Per Annum (MMTPA). At present, there are 18 refineries operating in the country (17 in Public Sector and 1 in Private Sector). Mangalore Refinery and Petrochemicals Limited (MRPL), which was a Joint Sector Company, became a PSU subsequent to acquisition of its majority shares by ONGC. Out of the 17 Public Sector refineries, 7 are owned by M/s Indian Oil Corporation Limited, two each by Chennai Petroleum Corporation Limited (a subsidiary of IOC), Hindustan Petroleum Corporation Limited, and Oil and Natural Gas Corporation (ONGC Limited), one each by Bharat Petroleum Corporation Limited, Kochi Refineries Limited (a subsidiary of BPC), Numaligarh Refinery Limited (a subsidiary of BPC), and Bongaigaon Refineries and Petrochemicals (a subsidiary of IOC). The private sector refinery belongs to Reliance Industries Limited.

3.2 CRUDE PIPELINE DIVISION

Internationally transportation of products by pipelines is preferred to other modes of transport for the reasons of safety, operational conveniences and its environmental benefits. In most cases, transportation of products by pipelines is cheaper in comparison to other modes like rail and road.

In a major decision towards deregulation of oil sector and to attract investment in the petroleum product pipelines, in November, 2002 Government had laid down a new Petroleum Product Pipeline Policy for laying pipelines in the country on common carrier principle. Guidelines for laying petroleum product pipelines were notified on 20.11.2002. Supplementary guidelines in this regard have also been notified on 26.10.2004. Under this Policy, proposals have been received from Gas Transportation and Infrastructure Company Limited (a subsidiary of Reliance Industries Limited), Hindustan Petroleum Corporation Limited and Essar Oil Limited for laying cross-country pipelines.

3.3 CHENNAI PETROLEUM CORPORATION LIMITED (CPCL)

Chennai Petroleum Corporation Limited (CPCL) formerly known as Madras Refineries Limited (MRL) was formed as a joint venture in 1965 between the Government of India (GOI), Amoco India Inc., U.S.A. and National Iranian Oil Company (NIOC) having a share holding in the ratio 74%: 13%: and 13% respectively. In 1985, AMOCO disinvested in favour of GOI and the shareholding percentage of GOI and NIOC stood revised at 84.62 and 15.38 respectively. As a part of the restructuring steps taken up by the Government of India, M/s Indian Oil Corporation Limited (IOC) acquired equity from GOI in 2000-01. Currently, IOC holds 51.88% while Naftiran Inter-trade Company Limited (an affiliate of NIOC) continued its holding at 15.40%.

CPCL has two refineries, with a combined refining capacity of 10.5 million metric tonnes per annum (MMTPA). The Manali Refinery in Chennai has a capacity of 9.5 MMTPA and is one of the most complex refineries in India with Fuel, Lube, Wax and Petrochemical feedstocks production facilities. The second refinery at Nagapattinam was set up initially with a capacity of 0.5 MMTPA in 1993 and later on its capacity was enhanced to 1.0 MMTPA.

3.3.1 Physical Performance:

During the year 2004-05, the company processed 8.92 Million Metric Tonnes (MMT) of crude oil, which was 27% higher than the previous figure of 7.04 MMT. The company achieved MoU Excellent rating for its overall performance during the year 2004-05.

3.3.2 Financial Performance:

During the year 2004-05, the company achieved a turnover of Rs. 16,270.64 crore as against Rs. 9430.45 crore in the previous year. The Gross Profit before interest, depreciation and Tax, was Rs. 1299.67 crore compared to Rs. 736.52 crore in the previous year. The Profit After Tax has increased during 2004-05 from Rs. 400.05 crore to Rs. 596.97 crore. The company has paid a dividend of 120% during 2004-05 against 50% during 2003-04.

3.3.3 Projects completed

The company has successfully commissioned Visbreaker and Hydro-cracker unit of the 3 MMTPA Refinery Project at Manali Refinery during the year 2004-05. With the commissioning of Hydrocracker and Visbreaker Units, the company will have the advantage of processing a wide range of crudes thus providing sufficient flexibility to its operations. The revamp of CPCL's Fluidised Catalytic Cracking Unit (FCCU) has been successfully completed and commissioned in October 2004. A project to revamp the existing Tertiary Treatment Plant by replacing the chemical treating facilities with Ultra-filtration Technology has also been commissioned in November 2004. A new "Zero Discharge" project for treating the effluents from Refinery III and reusing the water has also been completed in September 2005.

3.3.4 New Project initiatives

To meet the requirements of the Manali Refinery, a new 42 inches dia crude oil pipeline is being contemplated from Chennai Port to Manali refinery along the route of the proposed Port Connectivity Project. The project is expected to be completed by end 2007.



A view of water treatment plant at CPCL refinery

3.4 Bongaigaon Refinery & Petrochemicals Limited (BRPL)

BRPL was incorporated on February 20,1974 as an integrated Petroleum and Petrochemicals refinery. The installed capacity of the refinery was 1 Million Metric Tonnes per Annum (MMTPA) which was enhanced to 2.35 MMTPA in 1995-96. The authorized equity capital and the paid up capital of the Company is Rs. 200 crore and Rs. 199.82 crore respectively. The Government of India has transferred its equity share of 74.46% to Indian Oil Corporation Limited (IOC) in March, 2001 and hence BRPL has become the Subsidiary Company of IOC on 29th March, 2001.

The refinery processed 2. 31 million metric tonnes of crude oil during the year 2004-05. Production of LPG in 2004-05 was 49.1 TMT as against the previous highest production of 47.75 TMT in 2003-04. The production of Motor Sprit, which is a high value added product, was 212.2 TMT in the year 2004-05 as against the previous year record of 196 TMT.

The Company achieved record net profit of Rs. 478 crore in 2004-05. The company expects to earn an estimated net profit of Rs. 223 crore in 2005-06.

3.5 NUMALIGARH REFINERY LIMITED (NRL)

Numaligarh Refinery Limited was incorporated on 22nd April, 1993 as a Public Limited Company under the companies Act. 1956. Presently, the Company is a subsidiary of Bharat Petroleum Corporation Limited.

The proposal for setting up a 3 Million Metric Tonnes per annum (MMTPA) Refinery was included in the "Assam Accord" signed on 15th August 1985 as part of Government of India's economic package offered for providing required thrust towards speedy economic development of Assam. The Numaligarh Refinery and its adjacent Marketing Terminal have been completed at the approved cost of Rs. 2724 crore and commercial operations commenced from October 2000.

During the year 2004-05, the crude throughput was 2,042 Thousand Metric Tonnes (TMT) against MOU target 2,500 TMT. During April-Sept. 2005, the crude throughput was 901.2 TMT against the target of 1,004 TMT. Distillate yield of 85.41% was achieved by NRL during 2004-05.

During the period 2004-05, the company registered a profit (After Tax) of Rs. 409.15 crore. The company has paid Rs. 125.06 crore as dividend for the year 2004-05.

3.5.1 Ongoing Projects

Motor Spirit (MS) Project

The MS Project for production of Motor Spirit conforming to Euro-III specifications, was approved in the year 2002-03. It is expected to reach the stage of "Oil In" by March 2006 and commissioning of all units of the plant progressively from April 2006 onward.

3.5.2 Marketing Terminal (Siliguri)

Capacity utilization of the refinery has been low in the past few years due to constraint in evacuation of products arising out of the shortfall in availability of railway rakes. To improve evacuation in future, NRL has entered into an agreement with Oil India Limited (OIL) for transportation of products from Numaligarh to Siliguri through a pipeline to be constructed and operated by OIL. NRL will develop dispatch facilities at Numaligarh and receiving terminal at Siliguri. The work for Siliguri terminal is in progress.

3.6 KOCHI REFINERIES LIMITED (KRL)

3.6.1 Kochi Refineries Limited (KRL)'s installed capacity at the inception in September 1966 was 2.5 million metric tonnes per annum (MMTPA). The capacity of the Refinery has been expanded from time-to-time and at present, it is 7.5 MMTPA. The secondary processing facilities have also been expanded to 1.75 MMTPA in phases.

3.6.2 Performance

3.6.2(a) Physical performance

During the year 2004-05, the Refinery achieved an all time high record crude oil throughput of 7.92 million metric tonnes (MMT) of crude oil with record in processing of 5.62 MMT of imported crude oil. KRL set records in the manufacture of liquefied petroleum gas, aviation turbine fuel (ATF), mineral turpentine oil (MTO), asphalt and natural rubber modified bitumen (NRMB) during the year.



A bird 's eye view of Kochi refinery

During the year 2005-06, crude oil throughput till 31.12.2005 was 4.935 MMT (tentative). The anticipated crude oil throughput for the year 2005-06 is 7.1 MMT.

The Company has a proven record in the field of safety. During the year, the Company was awarded 'Golden Peacock Innovation Award' by Institute of Directors for outstanding innovation for the development of NRMB. Apart from this, KRL was given special award for consistent and successful efforts and performance in pollution control from Kerala State Pollution Control Board (KSPCB). The Company has made significant investment in safety and fire protection systems. As on 30.11.2005, the Company had completed 5.25 million man-hours of continuous accident free operation. KRL was rated 'Level 8' in the International Safety Rating System by M/s Det Norske Veritas.

The performance of KRL for the year 2004-05 was adjudged as 'Excellent' rating based on Memorandum of Understanding (MoU) that the Company had signed with BPC. This is the fourteenth time when KRL was rated 'Excellent' consecutively. Till 2002-03 KRL was signing MoU with Government of India and 2003-04 was the first year when KRL had signed the MoU with BPCL, its holding Company.

The Company continued to bestow utmost importance to conservation of energy by regular monitoring and analysis of fuel and utilities consumption, optimizing plant operations and proper upkeep of plant and machinery. KRL was conferred with first position for Jawaharlal Nehru Centenary Award for Energy Performance among Group II category for the year 2004-05.

3.6.2 (b) Financial performance

Turnover and Profits

During the year 2004-05, Company has achieved an all time high gross sales turnover of Rs. 15,440.3 crore against Rs. 11,715.8 crore during 2003-04 registering a growth of 31.8%. The profit after tax was Rs. 842.12 crore during the year 2004-05 as compared to Rs. 555.09 crore in the year 2003-04. The Company has declared dividend of Rs. 77.54 crore which is 5.6% of the paid-up capital.

Upto September, 2005 turnover (excluding excise duty) and profit after tax were Rs. 5,878.5 crore and Rs. 277 crore respectively. Estimated figures of turnover (excluding excise duty) and profit after tax during the year 2005-06 are Rs. 13,294 crore and Rs.420 crore.

3.6.3 Projects

3.6.3 (a) Major Projects completed

(i) Capacity Expansion-Cum-Modernisation Project (CEMP) Phase-I

KRL has completed the first phase of Capacity Expansion–Cum-Modernisation Project (CEMP) during the year 2004-05 with an estimated capital cost of Rs.273 crore. By commissioning the project, KRL has started producing auto-fuels conforming to BS-II emission norms. Apart from this refinery modernization, the capacity of FCCU was increased to 1.75 MMTPA from 1.4 MMTPA.

(ii) Revamp of Electrical Distribution System Phase II

The project in the second phase envisages segregation of CDU I, FCCU and utility loads along with high tension/low tension system modernization and phasing out old & outdated electrical switch boards with new generation equipments. The project, costing Rs. 11 crore, has been commissioned in May 2005.

(iii) Bitumen Emulsion Plant

Bitumen emulsion is a mixture of bitumen and water in the emulsion form, which reduces the atmospheric pollution to a great extent during its road application. To have environmental friendliness in the application of conventional bitumen, a bitumen emulsion plant having a capacity of 10 tonnes per hour was commissioned in February 2005.

3.6.3 (b) Ongoing projects

(i) Capacity Expansion-Cum-Modernisation Project (CEMP) Phase-II

This project envisages the capacity addition by 2 MMTPA, modernization of the refinery for cost reduction and setting up of facilities for meeting Euro-III equivalent product specifications. The DFR for the project has been prepared. The Environmental Impact Assessment and Rapid Risk Analysis has also been carried out. NOC from KSPCB has also been obtained. Estimated cost of the project is Rs. 1,995 crore and the project is expected to be completed by September 2009.

(ii) Crude Oil Receipt Facilities

The project envisages implementation of facilities to set up Crude Oil Receipt Facilities (CORF) consisting of single buoy mooring, shore tank farm and associated pipelines. The investment clearance was given by BPCL Board on 23.9.2005 and the approved project cost is Rs. 821 crore. CORF would facilitate transportation of crude oil in larger tankers, thereby lowering the cost incurred on transportation of crude oil. The revised project completion date is May 2007.

(iii) Bitumen Revamp Project

The project involves revamp of existing bitumen blowing unit incorporating biturox process for making special grade bitumen in line with the new specification prescribed by the Bureau of Indian Standards. The investment approval of the project was obtained in April 2005. The estimated project cost is Rs. 25.97 crore and the project is scheduled for completion by October 2006.

3.6.3 (c) Project Proposals

(i) Bottom Upgrading Facility

KRL is looking into the possibility of setting up of bottom upgrading facility to tide over the fuel oil surplus situation in the country. Bottom upgrading facility at KRL would improve the yield pattern and also the refining margins. A scoping study is underway for setting up the suitable bottom upgrading facility with the help of an external consultant.

(ii) Petrochemical Business

It has become a necessity to have refinery/ petrochemical interface strategies to increase the refinery profitability and for benefiting down-stream operations because of crude oil price volatility and competitive pressures. A detailed feasibility study has been done for propylene recovery from post CEMP LPG pool.

(iii) Natural Gas Business

In the context of Petronet LNG Limited (PLL) setting up a liquefied natural gas terminal at Kochi, KRL has plans to take advantage of the emerging scenario by diversifying into natural gas business, the new growth sector. A Gas Task Force is already in place to market the regassified LNG and a feasibility study is underway for the City Gas Distribution Project.

3.6.4 Policy Initiatives Undertaken

Merger with BPC

The Boards of KRL and BPC, at their meeting held on 17.1.2005, approved the Scheme of Amalgamation of KRL with BPC with a swap ratio of 1:2.25 i.e. 4 fully paid-up equity shares of Rs. 10/- each of BPC for every 9 fully paid-up equity shares of Rs. 10/- each of the Company with the Appointed Date as 1.4.2006. Approval of the Ministry of Petroleum & Natural Gas to the Scheme was issued on 27.8.2005. As directed by the Department of Company Affairs, the Extraordinary General Meeting of KRL was held on 21.1.2006 to consider the approval of the Scheme of Amalgamation. The Scheme of Amalgamation of KRL with BPC was approved in this meeting.

3.7 MANGALORE REFINERY & PETROCHEMICALS LIMITED (MRPL)

Mangalore Refinery and Petrochemicals Limited (MRPL), first joint venture company for setting up a crude petroleum refinery in India was formed in 1987 jointly by Hindustan Petroleum Corporation Limited and Indian Rayon and Industries Limited and its associate companies (A.V. Birla Group). The refinery project was commissioned in March, 1996 with an actual capacity of 3.69 MMTPA. The expansion project of MRPL, having capacity of 9.69 MMTPA, was commissioned in April, 2001. The refinery is located at Mangalore on the western coast of India, primarily conceived to maximize middle distillates, such as kerosene and diesel. The refinery is designed to process light to heavy and sour to sweet crude. The performance of MRPL started deteriorating after dismantling of APM for refineries in April, 1998 and the Company came very close to become a sick company by 2002-03.

With the approval of the Government, ONGC acquired the entire stake of Aditya Birla Group in MRPL for Rs. 59.43 crore on 3.3.2003 and also infused additional equity capital of Rs. 600 crore in March, 2003 as part of the approved debt restructuring plan. With this, ONGC acquired 51% stake in the equity of MRPL. Thus, MRPL became a Government company within the meaning of Section 617 of the Companies Act, 1956 and also a subsidiary company of ONGC. In June/July 2003, ONGC acquired 35.80 crore equity shares held by banks and financial institutions issued against part conversion of their loans in terms of debt restructuring plan, increasing its stake in MRPL to 71.62%.

MRPL is the first refinery in India to produce Euro-III high speed diesel (HSD) and Euro III motor spirit (petrol).

3.7.1 Physical Performance

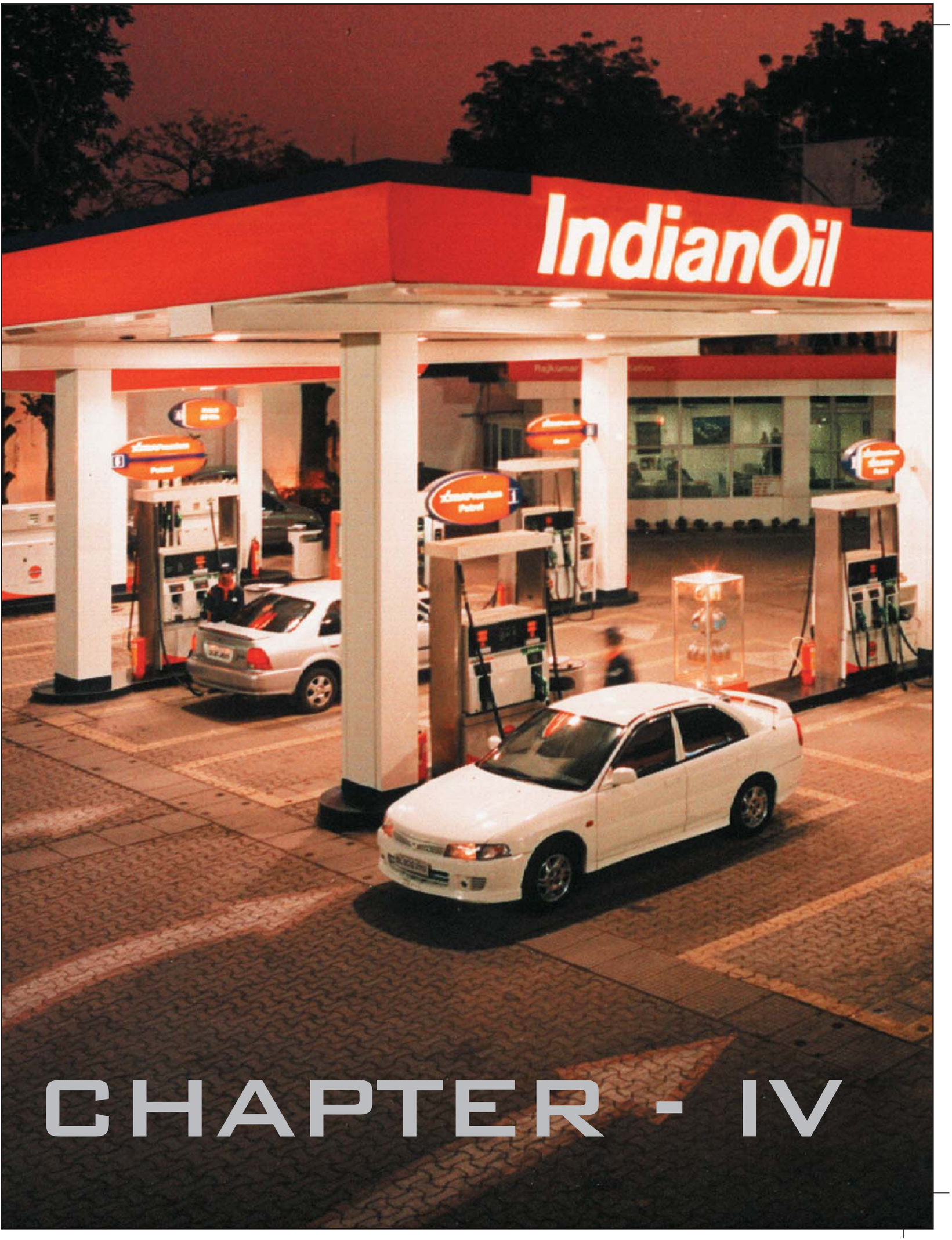
During the year 2004-05, the Company processed highest ever throughput of 11.848 million metric tonnes (MMT) of crude oil achieving 122% capacity utilization, produced 11.075 MMT of finished goods and dispatched 11.059 MMT of finished goods. Distillate yield for the year was 93.47%, comprising light distillates 19.15%, middle distillates 55.09% and heavy ends 19.23%. The fuel & loss of the refinery was 6.53%. The Company also completed turnaround of all the primary and secondary units of Phase I (3.69 MMTPA Unit) in a record period of just 19 days, taken up after more than four years of operation.

3.7.2 Financial Performance

During the financial year 2004-05, the Company achieved a remarkable financial performance, earning a net profit of Rs. 879.76 crore. The Company declared a maiden dividend of 10%. The commendable improvement was possible due to sustained availability of improved crude mix, higher capacity utilization, reduction in interest cost, reduction in fuel & loss and healthy refining margins prevailing in international markets throughout the year.

3.7.3 Future Plans

The Company has taken up various initiatives in direct marketing, which are yielding breakthrough results. The Company has acquired on concessionaire basis 18 "wayside facilities" from Karnataka State Tourism Development Corporation for the development of retail outlets and allied services & facilities. Capital investments are being made in several projects for product quality improvement, value addition, de-bottlenecking and energy saving (i.e. isomerisation, mix xylene, tankages, offsite facilities, variable speed drives and APC etc.)



CHAPTER - IV

4. MARKETING AND DISTRIBUTION

4.1 INDIAN OIL CORPORATION LIMITED (IOC)

4.1.1 Indian Oil Corporation Limited (Indian Oil) is the country's largest commercial enterprise, with a sales turnover of Rs. 1,50,677 crore (US$ 34.4 billion) and profit after tax of Rs. 4,891 crore (US$ 1.118 billion) for fiscal 2004. It is also the 18th largest petroleum company in the world and the No. 1 petroleum trading company among the national oil companies in the Asia-Pacific region. In 2004-05, the Corporation became the first Indian Corporate to breach the Rs.1, 50,000 crore mark in sales turnover.

4.1.2 The Corporation continues to be a dominant player in the downstream refining and marketing sector. In the year 2004-05, Indian Oil sold 50.13 million tonnes of petroleum products, including exports of 1.96 million tonnes. Its seven own refineries achieved a throughput of 36.63 million tonnes, and the pipeline network transported 43.03 million tonnes of crude oil and petroleum products.



Para-xylene plant of IOC at Panipat

4.1.3 Other significant milestones achieved by the Corporation was the crossing of the 50 million tonnes mark in product sales and expanding its country-wide retail network to over 10,000 during the year 2004-05. The Corporation also broke new ground during the year 2004-05 by crossing its first US$1 billion in revenue through initiatives in new businesses viz. overseas ventures, gas marketing and petrochemicals.

4.1.4 As a National Oil Company, it has attained "Excellent" MOU rating for the 16th consecutive year in 2004-05, indicating consistent and outstanding performance as per the laid-down criteria in the Memorandum of Understanding (MoU) with the Government of India.

4.1.5 **India's Flagship National Oil Company**

Beginning in 1959 as Indian Oil Company Ltd., Indian Oil Corporation Ltd. was formed in 1964 with the merger of Indian Refineries Ltd. (Estd. 1958).

The Indian Oil Group of companies owns and operates 10 of India's 18 refineries with a combined refining capacity of 54.20 million tonnes per annum (1 million barrels per day). These include two refineries of subsidiary Chennai Petroleum Corporation Ltd. (CPCL) and one of Bongaigaon Refinery and Petrochemicals Limited (BRPL). Indian Oil owns and operates the country's largest network of cross-country crude oil and product pipelines spanning nearly 10,000 kilometres, with a combined capacity of 60.42 MMTPA.

As India's flagship national oil company, Indian Oil and its associates account for 56% petroleum products market share among PSU companies, 42.5% national refining capacity and 70% of crude and product pipelines operated by the downstream oil companies.

4.1.6 **Network Beyond Compare**

As the flag-ship national oil company, Indian Oil's countrywide network of 24,000 sales points is backed for supplies by 158 bulk storage depots and terminals, 95 aviation fuel stations and 88 Indane LPG bottling plants. Its subsidiary, IBP Co. Ltd., is a stand-alone marketing company with a nationwide network of nearly 3,500 retail sales points.

Indian Oil reaches Indane cooking gas to the doorsteps of 41.05 million households in 2,353 markets through a network of nearly 4,700 Indane distributors.

Indian Oil also operates the largest and the widest network of retail outlets (petrol/diesel stations) in the country. A significant milestone was achieved with the commissioning of the company's 10,000th petrol station during the year 2004-05. IndianOil's *SERVO* brand lubricants, being the first and only one in its category in India to be accorded 'Superbrand' status, is the country's leading, with over 42% market share and 450 grades. *SERVO* lubricants are sold through over 10,000 Company retail outlets, besides a countrywide network of bazaar traders.

Indian Oil's ISO-9002 certified Aviation Service commands a 65% market share in aviation fuel business, meeting the fuel needs of domestic and international flag carriers, private airlines and the Indian Defence Services. During 2004-05, the Corporation's 95th aviation fuelling station was commissioned at Purnea in Bihar.

To maintain its competitive edge and leadership status, Indian Oil is investing Rs. 24,000 crore (US $ 5.6 billion) during the X Plan Period

(2002-07) in integration and diversification projects, besides refining and pipeline capacity augmentation, product quality upgradation and retail expansion. In the year 2004-05, Indian Oil exceeded the Planned expenditure target, indicating noteworthy progress in its projects.

4.1.7 Customer Service

At Indian Oil, customer is the first priority. During the year 2004-05, branded auto-fuels (XtraPremium petrol and XtraMile diesel) market was expanded to collectively cover an additional 5179 retail outlets across the country. About 460 exclusive XtraCare retail outlets in select urban and semi-urban markets were set up to offer a range of services to enhance customer delight and loyalty. Similarly, 66 large-format Swagat brand retail outlets with multiple facilities for highway motorists and 20 Kisan Sewa Kendras to meet the diverse needs of rural customers were also launched. Indian Oil's strong, customer-centric approach has helped the Corporation emerge as India's most trusted petrol pump brand in India, in a survey conducted by Nielson-ORG Marg for Economic Times.

4.1.8 Academy Company

Indian Oil is an "academy" company with a score of full-fledged training centres across the country building skills and competencies among Indian Oil people to face the challenges of the market place. Among these, the Indian Oil Institute of Petroleum Management (IIPM) at Gurgaon, the Indian Oil Management Centre for Learning at Mumbai, and the Indian Oil Management Academy at Haldia have emerged as world-class training and management academies.

4.1.9 R&D for Growth

Indian Oil's world class R&D Centre is perhaps Asia's finest. A wholly owned subsidiary Indian Oil Technologies Ltd., has been established for commercialising the innovations and technologies developed by the R&D Centre across the globe Besides pioneering work in lubricants formulation, refinery processes, pipeline transportation and alternative fuels such as bio-diesel, the Centre is also the nodal agency of the Indian hydrocarbon sector for ushering in Hydrogen fuel in the country.

4.1.10 Expanding Horizons

Indian Oil has set its sight to reach US$ 60 billion revenues by the year 2011-12 from current earnings of US$ 34.44 billion. The road map to attain this milestone has been laid through vertical integration – forward into petrochemicals and backwards into exploration and production of crude oil, besides diversification into natural gas business and globalisation of our operations.

In petrochemicals, a master plan envisaging Rs. 25,000 crore (US$ 5.7 billion) investment is already underway. The commissioning of the world's largest single train Linear Alkyl Benzene plant at Koyali refinery in August 2004 and the on-going integrated Paraxylene/Purified Terephthalic Acid (PX/PTA) plant and a world-scale Naphtha Cracker with downstream polymer projects are part of this plan. Indian Oil also proposes to convert the on-going Paradip refinery into a refinery-cum-petrochemicals complex to strengthen its presence in the sector.



Hydrogen Dispensing Pump at Indian Oil R&D Centre, Faridabad

In exploration & production (E&P), Indian Oil has participated in the first three rounds of NELP (New Exploration Licensing Policy) in India, in consortium with other companies, and was

awarded 11 exploration blocks. It has acquired participating interest in on-shore blocks in Assam and Arunachal Pradesh region. An MoU was signed with OIL in December 2004 for jointly participating in overseas petroleum opportunities and other related hydrocarbon chain. The Indian Oil - Oil India consortium achieved a major breakthrough overseas by bagging a block in the highly prospective Sirte basin in Libya in 2004-05. Another Block has been awarded in 2005-06 for which the Exploration and Production Sharing Agreement (EPSA) has been signed with National Oil Corporation (NOC), Libya. Considerable progress has also been made in the Farsi Exploration Block in Iran awarded to the Indian Oil – ONGC consortium and the first well is being spudded. The Corporation is also exploring opportunities to acquire a suitable medium-sized E&P company to quickly consolidate its upstream operations.

In natural gas business, Indian Oil is marketing 5.26 MMSCMD (million metric standard cubic metres per day) of gas. To augment its business in the sector, during the year, the Corporation finalised an import deal for 1.75 million tonnes of LNG per annum with Iran for supplies from the year 2009 onwards. The Corporation has also proposed partnering Petropars, a subsidiary of National Iranian Oil Company, in jointly developing gas blocks in the North Pars fields of Iran. Later developments led to the consortium submitting proposal for South Pars Gas Field. During the year, the Corporation also entered into an MoU with GAIL (India) Ltd. for developing integrated gas distribution projects at Agra and Lucknow. The Corporation has also been entrusted by the Government of India for laying the Dadri-Panipat gas pipeline and the expertise gained in this new venture will equip the Corporation to pursue similar projects in future.

The two overseas subsidiaries of Indian Oil, the Lanka IOC Ltd. (LIOC) and Indian Oil (Mauritius) Ltd. (IOML) went from strength to strength in 2005-06. The IPO launched by LIOC in Sri Lanka was a huge success being oversubscribed 11.6 times. By the year end, the subsidiary had captured 27% market share in the retail segment with more than 170 Retail outlets. IOML expanded its activities in Mauritius by commencing bunkering operations in addition to operating the already existing petroleum bulk storage terminal at Mer Rouge port, and five retail outlets. IOML has captured 7% of market share in the very first year of operation. IndianOil's Regional Office in Dubai, which is coordinating business expansion in the Middle East, has commenced blending of SERVO lubricants through contract blending arrangements for the first time recently.

The Corporation has launched several joint ventures in partnership with some of the most respected Corporates from India and abroad — Lubrizol, Nyco SA, Petronas, Oiltanking GmbH, Marubeni, to name a few. SERVO lubricants are being marketed in Dubai, Nepal, Bhutan, Kuwait, Malaysia, Bahrain, Indonesia, Sri Lanka, Kyrgyzstan, Mauritius, Bangladesh, etc.

IndianOil has been lending its expertise for nearly two decades to various countries in several areas of refining, marketing,



Chairman, Indian Oil, presenting final dividend for Year 2004-05 to Sh. Mani Shankar Aiyar, Former Union Minister Petroleum & Natural Gas

transportation, training and research & development. These include Sri Lanka, Kuwait, Bahrain, Iraq, Abu Dhabi, Tanzania, Ethiopia, Algeria, Nigeria, Nepal, Bhutan, Maldives, Malaysia, Sudan and Zambia.

Indian Oil achieved 20% growth in lubricant exports during the year. Blending of SERVO lubricants in Dubai, which commenced in 2003 opened up new markets in the Middle East, besides export to Sri Lanka.

4.1.11 Performance

4.1.11.1 Physical performance

In the current year, for the period till September 2005, the Corporation sold 23.98 million tonnes of products, including exports, during the first half of 2005-06. The throughput of its refineries and pipelines network was 18.57 million tonnes and 22.08 million tonnes respectively for the same period. For the period till December 2005, performance has been as under:

In 2004-05, Indian Oil exported 1.96 MMT of POL products vis-à-vis 1.81 MMT in 2003-04, registering growth of over 8.3%. Exports were 1.01 MMT during April-September 2005 Vs 0.84 MMT for the corresponding period last year.

4.1.11.2 Financial Performance

The Corporation achieved a turnover of Rs. 1,50,677 crore in 2004-05 as against Rs. 130,203 crore in 2003-04. The profit before tax was Rs. 5,955 crore and the profit after tax was Rs. 4,891 crore for the year 2004-05 against the corresponding figures in 2003-04 of Rs. 9,691 crore and Rs. 7,005 crore respectively.

Indian Oil Corporation (IOC) has paid out a total dividend of 145% amounting to Rs. 1693.62 crore for the financial year 2004-05, on the total share capital of Rs. 1,168.01 crore. With a record of 39 consecutive years of dividend declaration, Indian Oil has so far paid a cumulative dividend of Rs. 10,142 crore to its shareholders.

For the first six months of the current fiscal, ended September 2005, the Corporation's Gross Turnover moved up by 21.58%, to Rs. 85,955 crore from Rs. 70,696 crore for the corresponding period of the previous year. However, net profit for the first six months ended September 2005, was Rs. 895 crore as against Rs. 2,712 crore for the same period of the previous year, a decrease of 67%. The main reason for decrease in profit during the first six months of 2005-06 compared to the corresponding period last year is due to under-realization on sale of MS, HSD, SKO (PDS) and LPG (Domestic) consequent to non-revision of retail selling prices in line with the international prices.

4.1.12 New Initiatives

The ERP (Enterprise Resource Planning) implementation under the Project Manthan IT re-engineering project was extended to over 450 Indian Oil locations during 2004-05. A full-fledged disaster recovery site was also commissioned at Jaipur.

In order to widen the crude basket and optimize on input cost, more than seven new grades of crude were introduced in 2004-05 to be processed at Indian Oil Refineries. Euro-II and Euro-III petrol and diesel, as well as LPG, parcels were imported at short notice to meet the country's requirement. Enhanced use of very large and ultra large crude carriers resulted in substantial savings. Indian Oil has also commenced chartering of ocean vessels, with substantial savings and better management of the supply chain.

Linear Alkyl Benzene (LAB) launched by the Corporation to mark its foray in the Petrochemical sector garnered a market share of over 30% by March 2005.

New initiatives in Marketing have seen renewed thrust on Rural marketing and trials for packaged fuel. Indian Oil also commenced supply of Euro-III specification fuels w.e.f 1.4.05 in select towns/cities and Bharat Stage -II MS and HSD (now in NCT/NCR, Mumbai, Kolkata, Chennai and other Major cities) quality standards throughout India.

Parameter	Unit	Performance			
		2005-06 Apr-Dec (P)	2004-05	2004-05	2003-04
Refinery Crude throughput	MMT	28.4	27.6	36.63	37.66
Pipeline throughput	MMT	33.78	32.12	43.03	45.17
Product sales (domestic) *		34.57	35.81	48.17	46.80

* includes CNG.

4.1.13 Subsidiaries

a. Indian Oil Blending Limited (IOBL)

IOBL is a wholly owned subsidiary of Indian Oil, engaged in manufacture of lubricants and greases. IOBL's profit after tax was (-) Rs.919 lakhs in 2004-05 against a profit of Rs. 30 lakhs during 2003-04. In order to improve the optimal utilization of the Blending plants, improve synergies and integrate operations for cost effectiveness, merger of Indian Oil Blending Ltd with the parent company, now approved by the Government, is in the final stages of implementation.

b. Indian Oil Mauritius Limited (IOML)

Indian Oil has established Indian Oil (Mauritius) Ltd. (IOML) as a wholly owned subsidiary in Mauritius. The subsidiary will own and operate storage facilities, Retail Outlets and Aviation facilities. With the commissioning of the terminal at Mer Rouge in December 2003, the first Retail Outlet in November 2004, and also a State-of-the-Art laboratory besides Aviation refueling services, IOML's operations have begun in right earnest to play a major role in the country's downstream oil business. In the year 2004-05, gross turnover was INR125.5 crore Vs INR 5.7 crore in 2003-04. Net profit rose to INR 91.86 lakhs in 2004-05 from the loss recorded in 2003-04 of INR 80.4 lakhs.

c. Lanka IOC (Pvt.) Limited (LIOC)

LIOC was incorporated as a wholly owned subsidiary of Indian Oil on 29th August 2002. Commercial operations commenced on 14th February 2003. The Company's spectacular performance has been capped by the success of its $34 million IPO of LIOC, oversubscribed nearly nine times post exercise of green-shoe option, and its listing was the island's largest ever, surpassing the $32 million initial public offering by Sri Lanka Telecom in late 2002. In the year 2004-05, gross turnover was INR 1,217.5 crore Vs INR 724.8 crore in 2003-04. Net profit rose to INR 102.8 crore Vs INR 28.8 crore in 2003-04.

d. Indian Oil Technologies Limited (IOTL)

ITL a wholly owned subsidiary of IOC, under the aegis of the R&D Centre has been formed with an aim to commercialize the intellectual property rights of the Corporation through consultancy and licensing of in-house developed Hydrocarbon Technologies both within the country and abroad. The subsidiary posted a profit after tax of Rs. 41.9 lakhs as against a loss of Rs.0.99 lakhs in 2003-04.

e. Chennai Petroleum Corporation Limited (CPCL)

Indian Oil has an equity share of 51.8% in CPCL, which owns and operates two Refineries at Manali and Narimanam in Tamil Nadu. The subsidiary recorded a turnover of Rs. 16,270.64 crore in 2004-05 Vs Rs. 9,430.45 crore in 2003-04. Profit after tax was Rs. 596.97 crore in 2004-05 Vs Rs. 400.05 crore in 2003-04.

f. Bongaigaon Refinery and Petrochemicals Limited (BRPL)

Subsequent to the transfer of 74.46% equity share of BRPL to Indian Oil in 2001, BRPL has become a subsidiary of the Corporation. The performance of the subsidiary has been greatly enhanced with the allocation of 1.52MMT Ravva crude ex K-G basin and the subsidiary recorded a profit after tax of Rs. 478 crore in 2004-05 Vs. Rs. 304 crore in 2003-04. Turnover in 2004-05 was Rs. 4,992 crore Vs Rs. 3,204 crore in 2003-04.

g. IBP Co. Limited (IBP)

IBP became a subsidiary of Indian Oil following the transfer of 53.58% equity held by the Government of India. The disinvestments of the balance 26% held by GOI was carried out through book building process as per SEBI guidelines in March 2004. The Company has three distinct Business Groups for Petroleum, Chemicals and Engineering.

During 2004-05, the company recorded its highest ever turnover of Rs. 13,664 crore and registered an increase of 28% over Rs. 10,711 crore in 2003-04. The increase in turnover was primarily achieved through higher Retail volumes aided by aggressive Retail expansion and strengthening of Company's brand equity. Despite under-recoveries, the company posted Rs. 58.87 crore as Profit after Tax.

The company commissioned 511 new Retail Outlets in 2004-05 increasing the total number of Retail outlets to 3,272 as on 31st March 2005. During the year 2004-05, the sale of petroleum products was 4.6 MMT registering a growth of over 10 % over the year 2003-04 sales of 4.17 MMT.

As on 1st April, 2005, the Company operates 17 terminals and depots and a nationwide network of over 3,652 sales points including Retail Outlets and SKO dealerships and LPG distributors.

The similarities in the businesses and the possible synergies of operation to result in higher efficiency, economy of scale and improved profits has led to the Holding

Company initiating steps for merger of IBP with Indian Oil. The merger proposal has been approved in principle by the Government of India. Further steps in line with laid down policy for mergers are being taken.

4.1.14 Projects

4.1.14.1 Major projects completed

In 2004-05

1. Linear Alkyl Benzene Plant at Gujarat Refinery.
2. Panipat-Rewari Product Pipeline.
3. Lab facility for catalyst evaluation for Hydrogen Generation Unit at R&D Centre, Faridabad.
4. New depots at Peddapalli, Along and NOIDA.

During the period April-December 2005

1. Diesel hydrotreater plant at Mathura Refinery.
2. MS Quality improvement project at Mathura Refinery.
3. Sidhpur-Sanganer product pipeline (as part of Panipat Refinery expansion linked projects).
4. Chennai-Trichy –Madurai Product Pipeline including Branch line from Asanur to Sankari.
5. MS Quality improvement project at Haldia.

4.1.14.2 Major Projects approved / under approval stage since April 2005

1. Dadri-Panipat R-LNG pipeline
2. Panipat Refinery Expansion from 12 to 15 MMTPA
3. Installation of facilities for HSD improvement in Diesel quality and Distillates Yield (Hydrocracker) Project at Haldia Refinery
4. Residue upgradation and diesel/petrol quality improvement project at Gujarat Refinery
5. Naphtha cracker at Panipat
6. Paradip Refinery cum Petrochemical Complex

4.1.14.3 Major Ongoing Projects as of December 2005

Sr. No.	Name of Project	Sanctioned Cost (Rs.Cr.)	Expected Commissioning
1.	Integrated Para-xylene /PTA at Panipat	5,104	April 2006
2.	Panipat Refinery Expansion Project from 6 to 12 MMTPA	4,165	June 2006
3.	MS Quality Upgradation Facilities at Gujarat	390	June 2006
4.	Panipat Refinery Expansion Project from 12 to 15 MMTPA	806	March 2008
5.	Installation of facilities for improvement in Diesel Quality and distillate yield (Hydrocracker) Project at Haldia Refinery	1,876	April 2009
6.	Panipat Refinery Expansion linked pipeline projects • Mundra-Kandla crude oil PL and conversion of Kandla-Panipat section of KBPL to crude oil PL	305.6	June 2006
7.	Koyali-Ratlam Product PL	224.69	December 2006
8.	Paradip-Haldia crude PL	1178	March 2006
9.	Koyali-Dahej Product PL	90.5	March 2006
10.	Dadri-Panipat R-LNG line	250.6	October 2007
11.	Depot at Chittorgarh and Jasidih	120.15	2006-07
12.	Bottling Plants at Vasai, Ilayangudi and Raipur	39.4	2006-07

4.1.15 Safety, Health & Environment

Emphasis in Indian Oil has always been on sustainable development. The Corporation has always been committed to providing a safe work place and in the enrichment of quality of life of employees, customers and the community. A comprehensive safety, health & environment management system is in place in all operating units and installations under which the facilities are periodically reviewed and upgraded from time to time for better performance. Safety systems are regularly audited for continuous improvement. Environment management systems of all Refinery units and Pipelines installations and major Marketing installations are certified to ISO-14001 standards.

All Indian Oil refineries fully comply with the prescribed environmental standards and incorporate state-of-the-art effluent treatment technologies. Sustained efforts are being made to further improve the existing standards and facilities.

All Refineries are accredited for Occupational Health and Safety Assessment Series (OHSAS - 18001). All Refineries are also rated under International Safety Rating System. Panipat and Gujarat Refineries are rated "level 9" in the scale of 1 to 10.

4.1.16 Control of Pollution and Environmental and Safety Initiatives

Indian Oil while achieving excellence in business activities is consciously committed to achieve environmentally sustainable growth and has continued with this endeavour during the year 2004-2005 and in 2005-06 also.

4.1.17 Achievements in 2004-05 and for the period April – December 2005 :

Environment Protection

1. Full compliance of effluent and emission norms at all Refinery units, Pipelines and Marketing installations.
2. Treated effluent has been reused to the extent of 65-70% at the Refineries. Panipat Refinery continues to maintain Zero discharge.
3. Use of 'Oilivorous-S' & 'Oilivorous-A' technologies for the treatment of oily sludge and Acid Tar respectively.
4. Following process units were installed and commissioned during the year for improving fuel quality & environment emissions:

a. Hydrogen unit and Diesel Hydrotreater unit at Mathura refinery.

b. New Motor Spirit Quality (MSQ) projects at Mathura and Haldia.

5. An annual report showcasing the Safety, Health and Environment efforts of all the Divisions of the corporation for the year 2004-2005 was published on the occasion of World Environment Day 2005.

Safety

For training the employees & increasing the safety awareness following educational films have been developed and are being used for the purpose:

- Construction Safety
- Operational Safety
- Role of Security in LPG Bottling Plant Safety
- Safe Decantation of Tank Truck (TT)
- Training Utility For Learning Indane Plant (TULIP)

The following activities were carried out during the period

- Quarterly and Annual Offsite Emergency drills were carried out at Refinery Units.
- Off site Disaster Drill conducted by all Pipeline Installations.
- Emergency Response Drill conducted by all Marketing installations.
- Off shore Oil Spill Response Drill conducted at SMPL, Vadinar in November 2004, January 2005 & June 2005.
- All Operating manuals updated by technical groups and critical manuals reviewed by inter-refinery experts.
- Revisit of HAZOP of identified process units at refineries is underway.
- Standardization of checklists for Startup, shutdown and emergencies handling procedures for all refineries.
- Standardisation of training modules for technology based processes and imparting training to operating personnel thereof.
- Development of Bio-Diesel Trans-Esterfication Technology.
- Setting up of Bio-Diesel Quality Control Lab at R&D Centre.

4.1.18 Safety & Environment Protection Awards

Barauni Refinery received "Oil Industry Safety Directorate Award" (First Position) for safety performance for the years 2003-04 and 2004-05 and Mathura Refinery for the year 2004-05.

Barauni Refinery was awarded Level 8 rating in International Safety Rating System (ISRS) in August 05 while Haldia Refinery achieved level 7 rating.

- Mathura Refinery, Guwahati Refinery & Haldia Refinery jointly received Shri A V Ogale Shield for safety in operations for the year 2004-05.
- Guwahati Refinery and Kandla Bhatinda Product Pipeline (KBPL), Panipat received the International Safety award 2004 from British Safety Council, UK in April, 2005.
- Salaya Mathura Pipeline (PL) received the Oil Industry Safety Award for the year 2003-04 in Group – 5 for Cross-country Pipeline (Rank 1).
- Haldia Mourigram Rajbandh Barauni Pipeline (PL) received the Suraksha Puraskar (Prashansa Patra) for year'2004 from the National Safety Council, India for implementing effective Occupational Safety and Health Management Systems & procedures.
- Marketing : The following locations received the National Safety Awards – 2004, instituted by Ministry of Labour

S.No.	Scheme/ Schedule	Installation	Award
1	III/11	Allahabad LPG Bottling Plant	Winner
2	III/11	Nabha LPG Bottling Plant	Runner Up
3	IV/11	Nabha LPG Bottling Plant	Winner
4	V/11	Varanasi LPG Bottling Plant	Winner
5	VI/11	Varanasi LPG Bottling Plant	Winner
6	VII/11	Kandla LPG Bottling Plant	Winner
7	VII/11	Jaipur Terminal	Runner Up
8	VIII/11	Madurai LPG Bottling Plant	Runner Up
9	VIII/11	Jaipur Terminal	Runner Up

4.1.19 Awards.

- First prize was awarded to Guwahati Refinery by Official Language Department (Ministry of Home Affairs) for outstanding performance among North-East Undertakings for the year 2003-04.
- Indira Gandhi Rajbhasha Shield to Panipat Refinery for outstanding performance in Town Offical Language Implementation Activities for the year 2003-04.
- In the regional category Gujarat Refinery was awarded first prize for 2003-04 for outstanding performance in Town Official Language Implementation Committee (Undertaking).
- Second Prize of Town Official Language Implementation Committee was awarded to Eastern Region office of Marketing Division for the year 2003-04.
- A special award of Town Official Language Implementation Committee from Official Language Department to Siliguri Bottling Plant for the year 2003-04.
- Mathura-Jullunder Pipeline's Bijwasan office was awarded 1st prize by Department of Official Language for the year 2004-05.
- Northern Region Pipeline Office, Panipat got first prize and Pipeline Head Quarters, Noida got 3rd prize of TOLIC by their respective Town Official Language Implementation Committees.
- R&D Centre, Faridabad won First prize for excellent work done in Hindi Implementation from the Ministry of Home Affairs, conducted by TOLIC for the year 2003-04.

Like every year 24th All India Kavi Sammelan was organized in Siri Fort Auditorium on 18th November 2005. Famous poets of the country recited their poems.

4.1.20 Conservation of Petroleum Products

4.1.20.1 Energy & Loss Minimization

Indian Oil Corporation continues to place emphasis on energy conservation and reduction of hydrocarbon loss at its Refineries.

4.1.20.2 Conservation of Petroleum Products

Indian Oil Corporation Ltd. (IOC) continuously maintains thrust on oil conservation at all its operating refineries through continuous in-house process monitoring and technology improvements.

The various energy conservation measures undertaken during the year brought down the Specific energy consumption of Indian Oil refineries to 73 from 77 in the previous year. Similarly, energy conservation schemes implemented during 2005 would have a recurring oil savings to the tune of around 22,000 MT/year of standard refinery fuel valued at about Rs 22 Crore. Adopting operational changes and best practices as well as increased awareness among the employees has brought about continuous improvements. The major schemes implemented during the year include the following:

- Installation of new 12 MW TG at Guwahati refinery.
- Vapour blow down recovery system in Delayed Coking unit of Guwahati.
- Hydrogen recovery from Catalytic reformer off gas at Barauni refinery.
- Pre-heat improvements in Crude distillation units at Haldia refinery
- Reduction in steam consumption by insulation effectiveness, positive isolation of redundant lines and optimizing the operating pressure of low pressure steam header at Digboi refinery.

(All figures in MBTU/Barrel/NRGF)

	2002-03	2003-04	2004-05	2005-06 (Apr-Dec 05)
Energy + Loss Performance	85	78	77	73

With the implementation of various energy conservation measures, the Energy consumption & Loss in IOC refineries has reduced over the years as per details below:
(MBTU/Bbl/NRGF is the unit for measuring Specific energy consumption + loss in Refinery sector calculated as per the guidelines of Center for High Technology using new complexity factors)

4.1.21 Energy Conservation Awards

- Panipat refinery won the second prize in 'Jawaharlal Nehru Centenary award - 2004-05' for lowest specific energy consumption among all PSU refineries in the country group-1 category. The award was presented by Secretary, MOP & NG on 14th November, 2005.
- Haldia refinery received Oil & Gas Conservation Fortnight (OGCF) award 2005 (second Prize) on 14th November 2005 from MOP & NG based on joint surveys on steam leaks conducted in all refineries in the country.
- Mathura and Haldia refineries received National energy Conservation Awards 2005 under refinery sector from Ministry of Power for Excellence in Energy performance. The awards have been given away by Hon'ble President of India on 14th December, 2005.

4.2 HINDUSTAN PETROLEUM CORPORATION LIMITED (HPC)

4.2.1.1 Hindustan Petroleum Corporation Limited (HPC) is the second largest integrated oil company in India. It has two refineries producing a wide variety of petroleum products - one in Mumbai (West Coast) having a capacity of 5.5 MMTPA and the other in Visakhapatnam (East Coast) with capacity of 7.5 MMTPA. The Corporation holds 16.95% equity in Mangalore Refinery and Petrochemicals Limited having a capacity of 9 MMTPA, and is progressing to set up a refinery in the State of Punjab. The Corporation owns and operates the largest Lube Refinery of 3,35,000 Tonnes capacity for Lube Base Oils. The authorized and paid up capital of the Corporation as on 31.12.2005 were Rs. 350 crore and Rs. 339.33 crore respectively. The Government of India's holding in HPCL is 51.01%.



A view of HPC Stall at Petrotech 2005, New Delhi

4.2.1.2 During 2004-05, the two refineries of the Corporation achieved a combined crude thruput of 13.94 MMT. The thruput expected to be achieved during 2005-06 is 13.62 MMT. The total sales of petroleum products during the period 2004-05 was 19.16 MMT. The total sales of petroleum products expected to be achieved during 2005-06 is 19.11 MMT. During the year 2004-05, the sales turnover was Rs. 65,019 Crore and profit after tax was Rs.1,277 Crore. The sales turnover expected to be achieved during 2005-06 is Rs. 67,016 Crore. The profit after tax during 2005-06 is Rs.405.63 Crore (Provisional). The Board of Directors had recommended a dividend of Rs. 580 Crore for the year 2004-05.

4.2.1.3. During the period 2004-05, the Corporation commissioned 1165 Retail Outlets and 160 LPG distributorships and released 17.00 lac new LPG connections. During the period 2005-06, new Retail Outlets and LPG distributorships expected to be commissioned are 501 and 73 respectively. The new LPG connections expected to be released during 2005-06 are 10.00 lakhs.

4.2.2. Major Projects Completed

- A new depot at Pedappali (in Andhra Pradesh) was constructed and commissioned at the cost of Rs.8.25 Crore.
- Additional tanks constructed and commissioned at Haldia at a cost of Rs.40.70 Crore.

4.2.3. Major Projects Approved

- Wind Power Project 100 MW: 100 MW Wind power project based on DFR was approved by Board of Directors on 30.7.2005 with the capital cost of Rs.475 Crore and for implementation of the project in 2 phases.

4.2.4. On- Going Projects

- Additional Tankages: Total tankages of 42,000 KL are currently under construction at two locations (Sewree–Wadala Terminal and Mughalsarai Top) at a total cost of Rs. 23.24 crore.
- LPG Plants: Revamping of Mahul BDU bottling plant (80 TMTPA capacity) at a cost of Rs. 21.67 crore is currently under implementation. Further, capacity augmentation of another 2 bottling Plants by 88 TMTPA at a cost of Rs. 36.05 crore is currently under implementation.
- Punjab Refinery Project: The project envisages setting up a grassroot refinery at Phulokhari, Bathinda District, Punjab and accordingly the approval for the same has been obtained from Government of India. In view of the current as well as projected changes in the supply/demand scenario and also the process modifications that need to be incorporated in the design to accommodate new product specifications, the capacity, the configuration of the refinery and line pipe sizes were reviewed in detail. It is now envisaged to phase out the implementation of 9 MMTPA refinery by implementing the project initially as 6 MMTPA refinery. Accordingly, a revised Detailed Feasibility Report (DFR) for 6 MMTPA refinery was approved by HPC Board in its meeting dated January 9, 2003. The project is currently being executed by a fully owned subsidiary of HPC viz. Guru Gobind Singh Refineries Limited. DOA has been signed with Government of Punjab on 12.8.2005.The project will be completed within 60 months of tying up of funding for the project. Total expenditure incurred as of November, 2005 is Rs. 287.70 crore.
- Green Fuels & Emission Control Project (Mumbai Refinery): The objectives of "Green Fuels and Emission Control Project" (GFECP) are to (i) meet future specifications of Bharat Stage III (Euro III) for Motor Spirit (MS) with a capability to make Euro -IV MS and Euro - III Diesel in line with the Auto Fuel Policy recommended by Mashelkar Committee, (ii) reduce Sulphur emission, (iii) de-bottlenecking of existing CDU, VDU & FCCU, (iv) maximise product yield and returns and (v) achieve crude processing capacity of 7.9 MMTPA . This project was approved by the Board of Directors on October 16, 2002 at a capital outlay of Rs.1,850 crore ((Revised). The anticipated project completion date is October 2006.
- Clean Fuels Project (Visakh Refinery): The objectives of "Clean Fuels Project" are to (i) meet future specifications of Bharat Stage II/III (Euro II/ Euro III) for MS & HSD in line with the Auto Fuel Policy recommended by Mashelkar Committee, (ii) reduce Sulphur Emissions, (iii) maximise product yields and returns and (iv) achieve crude processing capacity at 8.3 MMTPA. This project was approved on 30.04.03 at a capital outlay of Rs.1,635.18 crore. The anticipated project completion date is August 2006.
- Mumbai-Pune Pipeline (Derating and Extension): The project for Derating (Trombay Vashi Section) of Mumbai Pune Pipeline and its extension to Pakni via Hazarwadi has been approved by the Board on 30.1.2004 for total cost of Rs. 335.17 crore. Scheduled date of completion of the project is September 2006.

- Mundra-Delhi Pipeline: The project at a cost of Rs. 1,623.84 crore was approved by the Board of Directors on 28.7.2004. The project is currently under implementation, expenses incurred as of November 2005 are Rs. 40.67 crore and the scheduled completion of project is May, 2007.

4.2.5 Policy Initiatives Undertaken

HPC is marching along a path of high growth in keeping with the national priorities. Its ambitious plans include furthering the synergies and participating in the oil industry's growth by vertically integrating in both the upstream and downstream sectors. The policy initiatives undertaken also include growth and diversification ventures in the following areas:

- Enterprise Resources Planning (ERP) : With a view to derive benefits such as on-line, timely & accurate information for improved decision making, improved integration across functions & processes, standardization of systems & processes etc. ERP was taken up for implementation across the Corporation. 194 locations have gone live with ERP software, as of November 2005.

- HP Gas: Rasoi Ghar (Community Kitchen): LPG Marketing in India has traditionally been confined to domestic & non-domestic consumers in urban/semi- urban markets and all efforts till date have been in meeting the demands of these markets. With the saturation of urban and semi-urban markets and adequate availability of LPG in India, there is a need to look for alternative markets. Rural India presents a big opportunity for growth of LPG in India. Accordingly, the idea of a community kitchen (HP GAS Rasoi Ghar) was mooted to the Panchayats. HPC carried forward this initiative and has commissioned 1426 number of Community Kitchens as of November 2005.

- HPC had launched its new Retail Brand "Club HP" which assures high-quality personalized "Vehicle and Consumer Care" through a select set of outlets during 2002-03. The roll out of "Club HP" is being made in a phased manner providing a distinct set of basic and value added offerings which include "Fuel Quality and Quantity Assurance", "Efficient & Expert Service", "Quick Care Point", "Digital Air Towers", "Vehicle Finance and Insurance related services", "Bill Payment facilities", "HPCL- ICICI Credit Cards", "Loyalty Programs" and a host of other consumer amenities, which continued in 2004-05 across the country. A total of 2,334 Outlets have been upgraded to "Club HP" status, as of October 2005.

- Branded Fuel: Taking its retail branding initiative one step further, HPC had launched branded petrol as well as diesel in select markets in the country during 2002-03. The new branded products are aimed at discerning customers in major cities across the country and carry the promise of enhanced performance and improved engine health. "POWER" is the brand name for the new generation petrol that contains specially imported additives. The new diesel brand, "TURBOJET" has been formulated with specially imported additives to offer a solution for diesel engines. As of October 2005, "Power" has been launched at 1,332 outlets and "Turbojet" at 1,612 outlets, across the country.

4.2.6 Joint Ventures

The status of the joint ventures companies (JVCs) promoted by HPC is as follows:-

- **Mangalore Refinery & Petrochemicals Ltd.** (MRPL), with a actual capacity of 3.69 MMTPA was commissioned in March 1996. The expansion project of MRPL, having capacity of 9.69 MMTPA, was commissioned in April 2001. In March 2003 ONGC acquired the entire equity stake of Aditya Birla Group in MRPL for Rs. 59.43 crore and also infused additional equity capital of Rs. 600 crore in March 2003 as part of the approved restructuring plan. Consequent to the restructuring, HPC's equity at present stands at 16.95%. A fresh Shareholder Agreement dated 03.03.2003 was signed by HPC with ONGC to take care of the interests of HPC.

- **Hindustan Colas Ltd. (HINCOL):** The performance of HINCOL, a JVC formed with Colas SA of France for producing and marketing Bitumen Emulsions continues to be encouraging. In addition to Bitumen Emulsions, HINCOL has been successfully marketing a wide range of value added bitumen products like Modified Bitumen, Cut Back Bitumen etc. HINCOL presently operates manufacturing plants at Mumbai, Bahadurgarh, Chennai, Vadodara, Visakhapatnam and Mangalore.

- **South Asia LPG Co. Pvt. Ltd. (SALPG):** This JVC with Total Fina Elf of France envisages the construction of LPG Underground Cavern storage of 60,000 MT capacity and associated receiving & dispatch facilities at Visakhapatnam. This project is the first of its kind in South Asia and would facilitate import of LPG in large vessels resulting in savings in freight costs. The project will meet the requirement of a large storage for imported LPG in order to meet the burgeoning demand in Andhra Pradesh and neighbouring states.

The cost of the project is estimated to be Rs. 333 crore and it is being financed through debt-equity of 2.33:1. The debt has been fully tied up with a consortium of banks led by State Bank of India. The financial closure of the project has already been achieved. The project is expected to be completed by December 2006.

- **Petronet India Ltd. (PIL):** PIL was formed in May 1997 as a joint venture company with 50% equity by oil PSUs and balance 50% being taken by private companies/financial institutions. Special Purpose Vehicles (SPVs) were floated by PIL with oil companies for implementing individual pipeline projects, viz., Petronet MHB, Petronet CCK and Petronet VK, which are the operating companies.

Consequent to Government's Notification of 20th November, 2002, oil companies are laying pipelines independently. In view of this, PIL is examining future course of action to be taken in the matter.

- **Petronet MHB Ltd. (PMHBL):** HPC, along with Petronet India Ltd. (PIL) had promoted Petronet MHB Ltd., for the construction and operation of Mangalore-Hassan-Bangalore pipeline. PIL and HPC would each have 26% equity participation. ONGC has joined as a strategic partner in the company by taking 23% equity. The product pipeline from Mangalore to Bangalore, with a tap off point at Hassan, has been executed at a cost of Rs. 639 crore. The total length of the pipeline is 362.3 km. The pipeline is meeting the transportation needs between Mangalore, Hassan and Bangalore. Due to lower thruput and pipeline tariff, the operational and financials of PMHBL are affected. The restructuring of PMHBL is under progress.
- **Prize Petroleum Co. Ltd.:** HPC, in partnership with ICICI and HDFC, has formed a Joint Venture E & P Company viz., Prize Petroleum Co. Ltd. for participating in exploration and production of hydrocarbons. The consortium of Prize Petroleum with M/s GSPC, Jubilant Empro and Geoglobal Resources has been awarded the Block CB-ONN-2002/3 in the Cambay Area and the Production Sharing Contract for the same has been signed with the Government of India on February 6, 2004.

The consortium of Prize Petroleum has been awarded service contract for development of 3 marginal onshore fields of ONGC in Gujarat viz. Hirapur, Khambel and West Becharji.

- **Bhagyanagar Gas Ltd. (BGL):** (BGL) has been formed as a JVC by GAIL and HPC – for distribution and marketing of environmental friendly fuels (green fuels) viz., CNG and Auto LPG for use in the transportation, domestic, commercial and industrial sectors, in the State of Andhra Pradesh. BGL was incorporated on 22nd August, 2003. HPC and GAIL shall hold 22.5 % each of the equity while 5% would be held by Govt. of Andhra Pradesh and 50% by Strategic/ Financial Investors.

BGL has set up one Auto LPG outlet at Tirupati and three Auto LPG outlets at Hyderabad, which are operational. Commercial sales operations of CNG have commenced in Vijaywada during the current year.

4.3 BHARAT PETROLEUM CORPORATION LIMITED (BPC)

4.3.1.1 BPC is an integrated Oil Company in the downstream sector engaged in refining of crude oil and marketing of petroleum products. It has also diversified into the manufacture and marketing of petrochemical feedstock. The Corporation has an all India presence through its extensive marketing network. The authorised and paid-up share capital of the Corporation, as on 30.11.2005 is Rs. 300 Crore. The Government of India holding in BPC is 66.2%.

4.3.1.2. During the year 2004-05, BPC's Mumbai refinery achieved a thruput of 9.14 MMT. The thruput expected to be achieved during 2005-06 is 10.30 MMT. The profit after tax during 2004-05 was Rs. 965.80 crore. The profit after tax during 2005-06 is Rs. 129.83 Crore (Provisional).

4.3.1.3. During the year 2004-05, the Corporation sold 21.03 MMT of petroleum product. The total sale of petroleum products expected to be achieved during 2005-06 is 20.96 MMT. During the period 2004-05, the Corporation commissioned 896 new Retail Outlets, 4 SKO-LDO dealership and 142 new LPG distributorships. During the period 2005-06, new retail outlets and LPG distributorships expected to be commissioned are 800 and 100 respectively. The Corporation released 18.60 lakhs new LPG connections during the year 2004-05. The new LPG connections expected to be released during 2005-06 are 11.50 lakhs.

4.3.2. Policy Initiatives Undertaken by BPC

4.3.2.1. Product Security

BPC has acquired the Government of India's shareholding in Kochi Refineries Ltd. (KRL) and IBP's stake in Numaligarh Refinery Ltd. (NRL). With these acquisitions, the two companies KRL & NRL have become subsidiaries of BPC.

Consequent to the above acquisition, BPC's product availability from its own sources has gone up from 45% to 90% of its sales. In addition, BPC has tied up with other oil companies to cover its current deficit in the short term.

BPC has also plans to set up grassroots refineries at Bina in Madhya Pradesh and at Lohagara in Uttar Pradesh for meeting its deficit in the Northern Region.



Sh. S.C. Tripathi Secretary, MoP&NG lighting lamp at Refinery Technology Meet held between 14-16 November 2005, Hyderabad

4.3.2.2 Entry in Exploration and Production of Oil and Gas

The entry into the upstream sector of Exploration and Production (E & P) business in oil & gas has become necessary for BPC in order to have reasonable supply security with the benefits of an integrated supply chain and hedging of price risks in the volatile oil market. The Board of Directors of BPC has given an 'in-principle' approval for venturing into this new business. In order to give a major thrust to Exploration and Production business, an allocation of Rs. 1,000 to Rs. 1,500 crore has been earmarked over the next five years, based on the opportunities available for it.

BPC has entered into this business with successful bidding for blocks offered by the Government of India under NELP - IV. BPC has been awarded three blocks which include two deep water blocks (in Krishna-Godavari and Mahanadi basins) in consortium with ONGC and OIL, wherein BPC has 10% participating interest in each block and one on-land block (in Cauvery basin) along with ONGC, wherein BPC has 40% participating interest. The exploration programme on these blocks has since commenced and the estimated expenditure for BPC on these three blocks would be approximately Rs.158 crore during the exploration period.

BPC has also actively pursued some 'farming-in' opportunities to acquire assets or take over participating interest of the existing E&P companies.

BPC is considering participation in bidding for blocks to be offered by the Government of India in the next round of NELP V. BPC is also considering bidding for the offshore marginal fields being offered by ONGC for development.

4.3.2.3 Refinery

Some of the Policy initiatives taken by the Refinery SBU are as under:-

- Constant efforts to upgrade product quality in line with the trends worldwide
- Optimizing costs in the entire value chain, from sourcing and transportation of crude, processing and optimization of products mix, and eventually realizing better margins.

4.3.3. Retail

- **Enhanced Fuel Preposition (EFP):**

The Pure for Sure (PFS) programme is an intense effort towards ensuring delivery of pure fuel in the right quantity to the consumers, deliver courteous and professional service and increase speed and efficiency of fuelling. The programme involves delivering of products to retail outlets in modified tank lorries fitted with tamper proof locks, comprehensive sealing of dispensing units at the retail outlets, periodic and surprise checks by the company personnel, monthly testing of product samples, periodic audits and re-certification once in six months.

The PFS programme has been well received by the consumers and most of the certified outlets have registered high growth compared to other outlets in the neighboring area.

Presently, the company has 4514 Retail outlets under PFS. Approximately 77% of MS volumes and 73% of HSD volumes were sold through these outlets. This Programme has been very successful in gaining customer confidence and enhancing sales from PFS Outlets.

- **Petrocard**

BPC was the first to launch a comprehensive Customer Loyalty Programme which rewards the customer each time they buy any product from its retail outlets using the card. The programme is called PETROBONUS and is administered through a Petrocard which uses the state-of-art Smart Card Technology. The technology, in addition to facilitating easy operations for the customers helps in understanding customers fuelling behavior comprehensively. Petrocard was also voted as the 'Product of the Year' by the Smart Card Forum of India. Currently over 15.47 lakh customers have been enrolled, thus making the Petro Bonus programme as the largest customer loyalty programme in India.

• **Smart fleet card**

BPC's Retail Highway Strategy has identified truck drivers as a large and valuable customer segment and to cater to their needs, two-tier Upgraded Highway Network has been developed. The first tier consists of One Stop Truckers Shops (which have been branded as **Ghars**), which are a network of strategically located sites, which are Company Owned and Company Operated (COCO).

The second tier consists of Fleet Card Retail Outlets (FCROs), a set of carefully selected Retail Outlets known for their high reputation in the market and having been certified as PFS. Smart Fleet Card, a unique programme for Fleet Owners and Corporates, has evoked enthusiastic response from Truck Fleet owners. More than 5.28 lakhs vehicles have been enrolled under this scheme.

• **New generation petrol fuel: SPEED**

Deregulation has opened avenues for marketing improved branded products. BPC realised the opportunity by launching New Generation Petrol - SPEED.

SPEED has been produced with world class additives sourced from M/s Chevron Oronite Company, LLC, USA and offers advantages of maximum power, lower vehicle maintenance, increased mileage and reduced emission by effectively removing harmful carbon deposits.

After introducing SPEED in Mumbai in July 2002, 'SPEED' has been successfully launched in 60 territories across the country and is strategically marketed from 2,148 'Pure for Sure' certified retail outlets. It is proposed to launch 'SPEED' in more cities in a phased manner, thus providing value added branded fuel to the customers.

• **Speed 93**

BPC launched SPEED 93, the new fuel for catering to the newer sophisticated engines of the modern automobiles was first launched in the city of Mumbai. Speed93 is a special blend of RON 93 Octane Petrol with world-class multi-functional additives, which complies with EPA 97 (Environment Protection Agency, USA) requirements. This is being launched initially in the select Metros/major cities in a phased manner.

• **Speed 97**

Speed 97, a powerful and a High Octane (97) petrol to clean car engine, maximize power output and minimize polluting emissions was launched in Mumbai in January 2005. It is the highest Octane petrol in India. This fuel has been launched to meet the demand of the most modern cars.

• **Hi-Speed Diesel launched**

BPC lunched yet another branded product "Hi-Speed Diesel" at a Retail Outlet in Mumbai. Hi-Speed Diesel is a blend of Diesel and world-class multi-functional additive sourced from Afton Chemicals (formerly M/s. Ethyl Asia Pacific Company). Presently, more than 1697 Retail Outlets are having High Speed Diesel.

4.3.4. LPG

With a view to achieving excellence in customer service, high standards of safety and operating practices, the following initiatives which have been taken are ensuring comfort, convenience and reliable service to the Bharatgas customers:

i. Improved customer services at Territory offices and LPG distributorships for effective redressal of customer complaints and improved response at distributor's end.
ii. BPC has launched a 24-hours service through a unique telephone no. 1712 where the customer can order for Bharat Gas Cylinder or log a leakage call.
iii. Improved inventory management at LPG distributorships.
iv. Ensure customer safety and enhanced customer awareness.
v. Training of LPG sales staff, distributors and their staff to improve their technical / behavioral skills.
vi. Computerization of the LPG distributorship network for on-line accounting.
vii. Pioneered 24-Hour Bharat gas Helpline which has been implemented in all major markets.

• **Introduction of 5 kg. cylinder in rural markets**

Keeping in mind the lower income customers in rural, and hilly areas, and the need to penetrate extensively in rural markets, it was felt that there was a need to introduce a smaller size cylinder so as to reduce both initial deposit cost as well as the recurring refill cost.

• **Rural mobile vehicle**

In order to reach the far - flung rural customers, BPC has introduced the Rural Mobile Vehicle (RMV) way back in 1999 in the State of Punjab. Encouraged by this novel method of reaching rural customers, BPC has introduced 24 RMVs during the year. RMV customer population has crossed 1 lakhs during November 2004.

• **LPG as auto fuel**

LPG being a clean and an environmentally friendly fuel, BPC was the first Oil Company to take up the initiative to set up an Auto LPG Dispensing station to run vehicles on LPG as a pilot project in Delhi in October 1999. BPC has commissioned 32 Auto LPG dispensing stations.

4.3.5. Lubricants

A number of initiatives were taken up to retain and increase the market share. The sales network was expanded during the year by appointing additional Primary Lube Distributors and by adding a large number of multi-product counters to the existing network. Channel finance for retail outlet dealers was strengthened by implementing Co-Branded Cards with ICICI leading to online validity of creditworthiness and credit availability of the customers as well as faster flow of funds.

In an endeavour to expand export operations during the year, entry was made in U.A.E. in addition to Bangladesh and Nepal. An MOU has been signed with a major petroleum retailing company in Africa for entering into African countries.

A major thrust has been given to Research and Development to support the Lubricant business initiatives.

Following new products were developed:-

i. High Performance Diesel Engine Oil
ii. New grades of rust preventive oil
iii. High performance greases
iv. Exclusive grades for Defence sector
v. Exclusive bearing oils for steel plants
vi. Alternate formulations for existing lubricants grades

Investments in JVC:

• Indraprastha Gas Co. Ltd.

Indraprastha Gas Co. Limited, a joint venture between Gas Authority of India (GAIL), BPC and the Government of National Capital Region of Delhi was incorporated on 23.12.1998 for implementing the Delhi City Gas Project with an authorized capital of Rs. 220 crore.

The equity of the company is Rs. 140 crore and BPCL's contribution towards equity works out to Rs. 31.50 crore @ 22.5% which has already been invested.

commercial establishments through pipeline in the National Capital Region of Delhi and installation of CNG outlets to feed the automobile sector. The company is vigorously pursuing the gas distribution project in Delhi. As of September 2005, IGL has commissioned over 137 CNG stations in Delhi. Number of CNG vehicles has crossed 1,03,041. Efforts are on to increase coverage of domestic customers.

• Petronet LNG Limited

Petronet LNG Limited (PLL), a Joint Venture Company of GAIL, ONGC, IOC and BPC has been incorporated with an authorised capital of Rs.1200 crore with the main objective to import Liquefied Natural Gas and development of necessary infrastructure for its utilisation in India.

Petronet LNG Ltd. has set up LNG receipt and re-gasification terminal facilities of 5.0 MMTPA capacity at Dahej in Gujarat which would be extended to 10 MMTPA and started commercial operation from April 2004.

• Central U.P. Gas LTD. (CUGL)

Central U.P. Gas Ltd. (CUGL) a Joint Venture Company (JVC) between BPCL and GAIL has been incorporated in March 2005, with an authorized capital of Rs. 50 crore, for implementing the City Gas Distribution Project for supply of CNG to the household and automobile sector in the city of Kanpur and then proposes to cover Allahabad, Baraelli and Jhansi.

All the necessary activities have been initiated and efforts are on to make the first CNG station operational before March 2006.



CHAPTER - V

5. OTHER UNDERTAKINGS/ORGANISATIONS

5.1 ENGINEERS INDIA LIMITED (EIL)

5.1.1. Engineers India Limited (EIL) is a design engineering and consultancy organisation situated at New Delhi. It has been serving the petroleum, petrochemicals and other process industries including the metallurgical industry since the mid-sixties. EIL provides a comprehensive range of project engineering services in these fields including process design, detailed engineering, procurement, construction and project management and supervisory assistance for commissioning and plant start-up. EIL also undertakes projects on LSTK basis. It continues to play a significant role in the hydrocarbon and process industries, both in India and abroad.

The authorised and paid-up share capital of the Company are Rs.100 crore and Rs.56.16 crore respectively.

To enhance reach and proximity to clients, the Kolkata branch office was upgraded and overseas offices in West Asia strengthened along with the opening of an office in Kuwait during the financial year 2005-2006. With these augmentations, the Company now has a network of regional offices in Chennai, Vadodara and Kolkota; branch office in Mumbai; overseas engineering and market offices in Abu Dhabi, Kuwait, Qatar and Australia; inspection/procurement offices at various locations all over India and also in London and Milan; and construction offices at different project sites in India and abroad. Besides, EIL has a wholly owned subsidiary in Malaysia namely EIL Asia Pacific Sdn Bhd for executing projects and a subsidiary company in India namely Certification Engineers International Ltd. for providing certification and inspection services.

Total manpower strength of the Company as on 31.3.2005 was 2,739.

EIL's management system conforms to ISO quality standards (ISO - 9001: 2000).

5.1.2 Performance

a) Physical performance–important assignments secured during 2004-2005

During the financial year 2004-2005, EIL secured new business worth Rs. 624.66 crore. Important assignments/jobs in the fields of refineries, pipelines, onshore/offshore oil & gas and non-ferrous metallurgy secured during the year include:

1) EPCM services for HPC's Visakh Refinery Clean Fuel Project, DHDS Revamp at HPC's Visakh Refinery, CCRU Revamp Project at IOC's Panipat Refinery and 2nd phase expansion of NALCO.
2) Process package and engineering services for RFCCU Revamp at IOC's Panipat Refinery.
3) Engineering consultancy services for Hydrogen Recovery from Off-Gases from CCRU at IOC's Gujarat Refinery.
4) Consultancy services for Sulphur Recovery Unit (SRU) Integration Project at Vizag, HPC; SDU Modification Ph-II at Digboi Refinery, IOC; and FCC Revamp of Gujarat Refinery of IOC.
5) Configuration study and DFR for an Integrated Refinery-cum-Petrochemical Complex at Paradip, IOC.
6) DFR for processing Rajasthan crude at Panipat Refinery, IOC; and product quality improvement and value addition at Essar Refinery, Essar Oil Ltd.
7) Process package, hazop study and cost estimation for preheat optimization for maximizing preheat and fractionation improvement in AVU-I & II at Barauni Refinery, IOC.
8) Basic Engineering Package and cost estimate for revamp of existing VGO HDS unit at Manali for LPG process, CPCL.
9) Basic Design and Engineering Package (BDEP) for Isomerisation & FCC Gasoline Treating Units proposed to be installed under Clean Fuels Project at Visakh, HPC in association with Axens, France.
10) Feasibility study for setting up a petrochemical complex at Dahej for ONGC.
11) PMC services for Naphtha Cracker Project at Panipat, IOC.
12) Engineering consultancy services for Naphtha Cracker Plant Revamp at Vadodara Complex, IPCL (RIL).
13) DFR for expansion of Petrochemical Plant at Pata based on additional C_2/C_3 from Vijaipur, GAIL.
14) DFR for setting up a Petrochemical Complex in Assam, GAIL.
15) Consultancy services for modification of UG FW Network at GPC Dahej, IPCL.
16) Consultancy services for revamping of GGS-I & II RDS, Assam, ONGC.

17) DFR, RRA, REIA including marine impact assessment study (Part-A) and selection of Process Licensor for conversion of naphtha into gasoline (Part-B) at Uran, ONGC.

18) DFR for LPG Plant at Yetagun Gas Field in Myanmar, GAIL.

19) Consultancy services for BPA Complex Reconstruction, ONGC.

20) Extension of running contracts for Revamping of Platform Facilities at Mumbai High, ONGC.

21) EPCM services for Mumbai - Manmad - Mangalya Pipeline extension to Piyala – Bijwasan, BPC; capacity augmentation of Mumbai-Manmad-Mangalya Pipeline, BPC; Mundra-Delhi Multiproduct Pipeline Project, HPC; Pune - Solapur Multiproduct Pipeline Project, HPC; Dadri-Panipat Pipeline Project, GAIL; Numaligarh-Siliguri Product Pipeline Project, Oil India Ltd.; Mora-Sachin Pipeline Project, Gujarat Gas Co. Ltd.; and Muri Alumina Refinery Expansion Project, INDAL.

22) DFR for Alumina Plant Expansion to 350 KTPA at Muri Works, INDAL.

23) Pre-project activities for 2nd Phase Expansion of NALCO's Integrated Complex at Angul, NALCO.

24) Third party inspection services for civil works of main Narmada and branch canals, Sardar Sarovar Narmada Nigam Ltd.

In addition to above, EIL has won number of assignments for specialised services in the areas of environment engineering, risk analysis, advance control and optimization, heat and mass transfer, information technology, specialist maintenance and also new infrastructural industries related areas such as intelligent buildings, highways and related works.

Outside India, EIL has been successful in securing following major jobs: -

1. Managing contractors' services for 9th Olefin Complex to Pars Petrochemical Company, Iran.
2. Technical assistance for projects in Iran to Petropars Limited, Iran.
3. PMC services for rehabilitation of Skikda Refinery for NAFTEC, Algeria.
4. Extension of running technical services contract with OIEC/EIED, Iran.
5. Extension of running contract for managing contractors' services for Third Aromatics Project in Iran with Bou Ali Sina Petrochemical Co., Iran.
6. Engineering services contract for providing engineering services for various projects in Kuwait with Equate Petrochemical Company, Kuwait.
7. Hazop study for Shuaiba Refinery Units, KNPC, Kuwait.
8. Consultancy services for construction of floating roof gasoline storage Tankages at Doha Depot, Qatar Fuel Company, Qatar.
9. Design study of public address / general alarm, closed circuit TV and field telephones in Dukhan Fields for Qatar Petroleum, Qatar.
10. Technical assistance to Ras Gas Company, Qatar.
11. Extension of running contract with BAPCO, Bahrain.
12. Technical assistance for construction management at Karratha, Australia to Paramount Co. Limited, Australia.
13. Energy conservation opportunity assessment study for Saudi Aramco's Jeddah Refinery, Saudi Arabia.

Business Forecast (January –March, 2006)

The major domestic jobs likely to be awarded include PMC services for expansion of Haldia Petrochemical Complex, PMC services for LNG Terminal at Kochi and Consultancy services for strategic crude oil storage. Overseas job prospects include managing contractor services for Mahabaad Petrochemical Company for Pars Petrochemical Company's 9th Olefin Complex in Iran, PMC services for Condensate Topping Project of Sonatrach, Algeria and additional work for development of capabilities of Sonatrach Engineers as also engineering subcontractor services for PIC's Kuwait Aromatics Complex in Kuwait.

(b) Financial Performance

Turnover of EIL was Rs. 913.06 crore during the year 2004-05 as against Rs. 1,069.53 crore during the year 2003-04. Its profit before tax and profit after tax were Rs.166.66 crore and Rs. 112.64 crore respectively in 2004-05 as compared to Rs. 129.99 crore and Rs. 80.18 crore respectively during 2003-04. EIL has declared dividend of Rs. 42.12 crore for the year 2004-05, which is 75% of its paid-up capital.

5.1.3. Policy Initiatives Undertaken

Salient policy initiatives taken by EIL include the following:

Organisational Structure Review

A study has been taken up to review the existing organizational structure at the senior management levels (upto DGM level) in the context of the current business environment. This study is expected to assist realignment of the organizational structure to the business requirements of the Company and help in implementing competency based assessment and development of human resources for succession planning to senior management levels as per the revised organizational structure.

Human Resource Development

(a) Multi-skill development: Training programmes including those for multi-skill development continued. Training programmes for enhancing growth opportunities of the employees were started during the year with the nomination of five persons for the one year diploma course in industrial safety and eighteen persons for the 12 week programme in purchase, contracts and monitoring functions. This initiative besides opening up additional opportunities for the employees would also enable the organisation to reduce overheads.

(b) Revision of promotion rules: The promotion rules for officers were revised to address the issues relating to stagnation and reward to extra brilliant officers.

(c) Employee Engagement Study: To address the issues of providing a challenging and satisfying work environment to its employees, a comprehensive Employee Engagement Study was undertaken in the second half of the financial year. Based on the outcome, actions plans will be formulated which would be directed towards increasing the productivity of the organization.

5.1.4. Memorandum of Understanding (MOU)

EIL signed a MOU on corporate performance with Ministry of Petroleum & Natural Gas for 2005-2006 with challenging targets for turnover of Rs. 1,500 crore, gross margin of Rs. 200 crore and overseas business of Rs. 150 crore.

5.1.5 Marketing Strategy

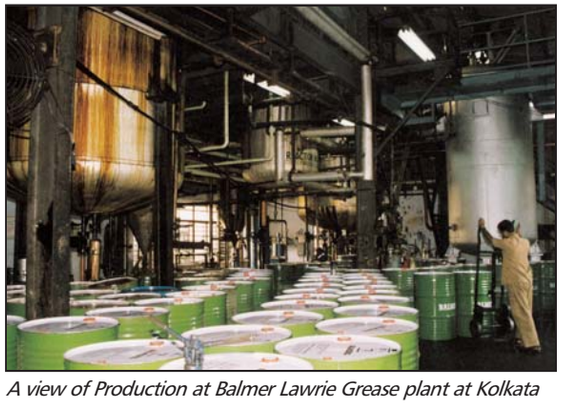
(a) Overseas Business: In order to expand overseas business, market surveys were undertaken for Saudi Arabia and Egypt and business contacts established with embassy representatives of several countries in India. Plans are underway to open branch offices in Saudi Arabia and Libya, while an office has already been opened in Kuwait.

(b) Niche Marketing: To market the organisation's project/engineering services forte in metallurgy and LNG and explore opportunities in the countries of the former Soviet Union and the Caspian Region, appointment of consultants has been initiated.

(c) Strategic Alliances: Efforts are underway for (i) partnering licensors for selling their technologies and providing basic engineering to various projects in India and abroad; (ii) partnering oil industry members in their efforts for seeking equity in oil projects abroad; and (iii) entering into tie-up with EPC contractors for providing detailed engineering services for their projects.

5.2 BALMER LAWRIE & COMPANY LIMITED (BL)

5.2.1 Balmer Lawrie & Co. Ltd. (BL) was established in 1867 as a Partnership Firm and was incorporated as Private Limited Company in 1924. It was subsequently converted into a Public Limited Company in the year 1936 with its Registered Office at 21, Netaji Subhas Road, Kolkata - 700 001. The authorised capital, paid-up capital and reserves & surplus of the company as on 31.3.2005 was Rs. 30 crore, Rs. 16.29 crore and Rs. 179.43 crore respectively.



A view of Production at Balmer Lawrie Grease plant at Kolkata

5.2.2. The company is a diversified, medium sized company with operations spread throughout India and overseas. The main activities of the Company are classified into a number of Strategic Business Units (SBU) viz., (i) Oil & Natural Gas Related (Industrial Packaging, Greases & Lubes and Performance Chemicals) (ii) Export Related including Infrastructure for Exports (Specialty Containers, Container Freight Station and Tea Blending & Packaging) (iii) Infrastructure and Services Related (Travel & Tours, Logistics Services and Project & Engineering Consultancy) (iv) Research & Development Related (Engineering, Design & Development Center, Applications Research Laboratory and Product Development Center).

5.2.3 During the year 2005-06, the company is expected to manufacture 37 lakhs barrels/drums against 35.23 lakhs achieved in 2004-05. The company is expected to produce 34,000 MT of Greases/Lubricants during 2005-06, which is the same as achieved during the period 2004-05. Similarly, the production of leather chemicals is estimated to be 4,200 MT during the year 2005-06 as against 4,089 during 2004-05.

5.2.4 The total turnover of the company is estimated at Rs. 1,100 crore in the year 2005-06 as against Rs. 1,071.69 crore during the last year. The profit after tax of company was Rs. 29.83 crore during the year 2004-05, whereas the estimated profit after tax during the year 2005-06 is Rs. 35 crore.

5.3 BIECCO LAWRIE LIMITED (BLL)

5.3.1 Biecco Lawrie Limited, a Government of India Enterprise, under the administrative control of the Ministry of Petroleum & Natural Gas (MOP&NG), was incorporated on 23rd December, 1919. This is a medium Sized Engineering Unit with diversified activities having two factories located at Kolkata. During the financial year under review, the company is expected to register total turnover of Rs. 55.53 crore and attained net profit (provisional) of Rs. 1.32 crore upto the period 31.12.2005. Net Worth of the company as on 31.3.2005 was negative and stands at Rs. 21.81 crore.

5.3.2 The physical performance of the company for 2005-06 with regard to turnover of electrical operations inclusive of switchgears, electric repair jobs and electrical projects is estimated to be Rs. 37.90 crore as against Rs. 28.08 crore achieved in the corresponding period of the preceding financial year, showing a positive trend in 2005-06.

5.3.3. The Company has drawn up its Restructuring Plan to ensure sustainable performance and growth of the company and has submitted the same to the Government for consideration of the Board for Restructuring of Public Sector Enterprises (BRPSE).

5.4 OIL INDUSTRY DEVELOPMENT BOARD (OIDB)

5.4.1. Objectives of Oil Industry (Development) Act, 1974

The Oil Industry (Development) Act, 1974 was enacted following successive and steep increase in the international prices of crude oil and petroleum products since early 1973, when the need of progressive self-reliance in petroleum and petroleum based industrial raw materials assumed great importance.

5.4.2. Functions of the Board

The Oil Industry Development Board (OIDB) was set up in January 1975 under the Oil Industry (Development) Act, 1974 to provide financial assistance for the development of Oil Industry. Its organizational set up consists of: -

(a) Chairman (b) Members and (c) Secretariat.

The functions of the Board, as defined in section 6 of the Act, involve rendering financial assistance for the promotion of all such activities as are, in its opinion, conducive to the development of the Oil Industry. The financial assistance is extended by way of loans and grants for activities such as prospecting, refining, processing, transportation, storage, handling and marketing of mineral oil, production and marketing of oil products and production of fertilizers and chemicals.

5.4.3. Resources of the Board

The funds required for various activities, envisaged under the Act, are made available by the Central Government after due appropriation by Parliament from the proceeds of cess levied and collected on indigenous crude oil and on Natural Gas. The proceeds of this duty are first credited to the Consolidated Fund of India and sums of money, as the Central Government think fit, are made available to OIDB after appropriation by the Parliament. The current rate of cess on crude oil produced in the country is Rs. 1,800/- per tonne (w.e.f. 1 March, 2002) excepting on crude oil from the 26 fields awarded under the Production Sharing Contracts. OIDB has, so far, received an amount of Rs. 902.40 crore from the cess collection. No amount has been allocated to OIDB out of cess since 1992-1993.

The internal resources generated by OIDB by way of interest receipts on loans and short-term investments supplements the OIDB Fund. As on 31st December 2005 an amount of Rs. 8,100 crore (approx.) has accrued to the Oil Industry Development Fund. During 2004-05, internal resources contributed Rs. 251 crore approx. (previous year Rs. 247 crore) to the total resource availability. The Board also paid an amount of Rs. 123.28 crore (Previous year Rs. 147.92 crore) during 2004-05 by way of Income Tax.

5.4.4. Assistance to Oil Industry

The OIDB has been entrusted with the responsibility to render, in such manner, to such an extent and on such terms and conditions financial and other assistance, as it may deem fit, for the promotion of all such measures as are, in its opinion, conducive to the development of Oil Industry. The Board renders

assistance by way of grant of loans for Projects, disbursements of grants for Research & Development programmes, refinancing of loans and funding expenditure of scientific advisory committees, study groups, task forces, etc. The OID Board determines the terms and conditions including interest rates for project loan from time to time and these are subject to review periodically and, at least, every three months, depending on the interest rates prevailing in the market. According to the formulation as recommended by the Standing Committee on Review of Interest Rates and approved by the OID Board, OIDB term loans carried the following interest rates for the quarter October 2005 to December 2005.

Period of loan	Effective interest rates (%) per annum
1 year	6.67
3 years	6.71
5 years	6.84
10 years	7.20

As per the recommendations of the Committee, further discount on interest rates on OIDB loans are also given to certain type of projects such as:-

- Project of Strategic National Importance that have a direct bearing on the energy security of the country are eligible for a discount of 100 basis points on the effective interest rates.
- Environmental Improvement Projects and Projects for special areas, such as, North-East region, J&K state etc. are eligible for a discount of 50 basis points on the effective interest rates.

5.4.5. Deployment of funds

The OIDB has accorded highest priority to programmes connected with exploration, production, refining and storage of crude oil/ natural gas. So far OIDB has up to 31st December 2005 extended following financial assistance to the Oil industry.

Financial assistance since 1975

(Rs. in crore)

	Cumulative up to December 2005 (Approx.)
Loans	19,004
Grants	797
Total	19,801

The loan outstanding from oil companies to OIDB, as on 31st December 2005 is Rs. 5,542 crore (approx.) In addition, the Board has invested its funds in the equity share of M/s. Biecco Lawrie Ltd Rs. 17.58 crore and Numaligarh Refinery Ltd. Rs. 90.80 crore. A major portion of the loan assistance has been utilized for meeting capital outlay on Plan Projects of the Oil Companies.

Details of financial assistance given during last ten years

(Rs. in crore)

Year	Loans	Grants	Total
1995-96	822.38	27.29	849.67
1996-97	1,428.21	44.24	1,472.45
1997-98	1,423.65	37.80	1,461.45
1998-99	1,107.15	51.24	1,158.39
1999-2000	980.32	45.41	1,025.73
2000-01	1,144.83	57.15	1,201.98
2001-02	1,504.25	96.51	1,600.76
2002-03	1,790.50	123.07	1,913.57
2003-04	520.00	77.21	597.21
2004-05	2,211.83	75.21	2,287.04
2005-06 (upto Dec. 2005)	610.00	43.00	653.00

Disbursement of Loans during the year 2005-06 (Up to 31 .12.2005)

(Rs. in crore)

Sl. No	Name of the Organization (Plan Projects Loans)	Allocation of Funds (2005-06) B E	Funds disbursed Up to 31 Dec 05
1	BPC	250.00	250.00
2	HPC	300.00	300.00
3	NRL	123.83	60.00
	Total	**673.83**	**610.00**

Grants in aid (Regular Grantee Institutions) during 2005-06 (Up to December 2005)

(Rs. in crore)

S.No.	Name of the Organisation	BE	Disbursement
1	CHT	9.59	2.68
2	PCRA	22.47	13.15
3	DGH	97.46	8.97
4	OISD	3.77	2.05
5	PPAC	8.84	5.67
	Total	**142.13**	**32.52**

Financial assistance disbursed for other R&D projects (as approved by OID Board/Central Government) during 2005-06 (BE) (Up to December 2005)

(Rs. in crore)

S.No.	R&D Project/Agencies	Approved Grant (2005-06) BE	Disbursed
1	NGHP	78.76	2.45
2	ONGC	81.83	2.97
3	Grant to Engineers India Limited	3.73	**3.30**
4	**Govt. of Rajasthan, Deptt. of Petroleum**	0.00	0.25
5	IIT Delhi	0.75	0.25
6	TERI	0.05	0.09
7	NGRI	1.00	0.00
8	IIP Dehra Dun	24.57	1.00
9	Hydrogen Corpus Fund	30.00	0.00
10	Jan Kerosene Pariyojana	66.40	0.00
11	Grant for cost of DFR for construction of Rajiv Gandhi Institute of Petroleum Technology	1.50	0.00
12	Grant to Observer Research Foundation through OVL	0.05	0.00
	Total	**288.64**	**10.31**

5.4.6. Major Projects being funded by OIDB during 2005-06 (position up to December 2005).

5.4.6.1 Jan Kerosene Pariyojana

Objective is to make available kerosene in the required quantities to the intended beneficiaries i.e. families below poverty line and secondly, to eliminate diversion of PDS SKO for adulteration. Pilot project is proposed to be implemented in 10% of the blocks of the country initially for six months. After review and based on the experience, Government will consider scaling up the scheme to cover the entire country. Capital expenditure anticipated for the scheme is Rs. 696 crore. During 2005-06, 10% of the cost i.e. Rs. 66.40 crore approximately is to be incurred on the scheme on pilot basis in 10% of blocks. Expenditure will be met out of OID Funds. OMCs will claim the reimbursement from OIDB. OID Board has approved the grant.

5.4.6.2 Mumbai Refinery Green Fuels and Emission Control Project of HPC

Mumbai Refinery has undertaken the above mega project at an approved cost of Rs.1,152 crore to meet the requirement of MS /HSD of Euro-III grade in Metro cities and Bharat stage-II grade in rest of the country by 2005 as recommended under Auto Fuel Policy. This project envisages to enhance refining capacity from current level of 5.5 MMTPA to 7.9 MMTPA. The major facilities proposed under this project are NHT/CCR, Isomerization unit, FCC Gasoline Hydrotreater unit with associated auxiliaries and revamp of existing CDU-1/VDUs and FCC Units. The OIDB advanced a loan of Rs. 150 crore during the current financial year for the said project.

5.4.6.3 Visakh Refinery Clean Fuels Project of HPC

Similarly Visakh Refinery has undertaken Clean Fuels Project at an approved cost of Rs. 1,635 crore to cater to the requirement of MS/HSD of Euro-III grade in Metro/Mega cities and Bharat Stage-II grade in rest of the country by April 2005 as recommended under Auto Fuel Policy. Diesel requirement as per new norms & MS of Bharat stage-II will be supplied by April 2005, while the project for Euro-III MS will be completed by 2006. After implementing this project, Visakh Refinery will be able to process 8.33 MMTPA crude from current level of 7.5 MMTPA. The major facilities proposed under this project are NHT/CCR/NIU/FCC NHT in MS block, Fuel Gas Desulpurization project and revamp of exisiting FCCU-II & DHDS units. The OIDB advanced a loan of Rs.150 crore during the current financial year for the said project.

5.4.6.4 Indore Pipeline Project of BPC

The project envisages laying a cross-country pipeline from Manglia to Piyala (686 km, 16" dia) and providing a 54 km 8" feeder line from Piyala to the existing BPC installation at Bijwasan. A grassroots terminal shall be constructed at Piyala with a tankage of 1.77 lakhs KL, and with rail loading facilities for rail dispatches to up north locations. The pipeline will have a dedicated telecom and SCADA system. During the current financial year, OIDB released a loan assistance of Rs.150 crore to BPC for the said purpose.

5.4.6.5 Refinery Modernisation Plan of BPC

The primary objective is to upgrade the refinery facilities for producing environment friendly products in line with future specifications and also for reducing source emission with associated improvement in distillate yield and enhancement of the refinery crude processing capacity to 12 MMPTA. Post modernization, BPC will be able to produce 50% of HSD conforming to EURO-III specifications, balance being 0.05% Sulphur HSD quality. The MS product quality will be of BIS-2000 Metro grade. The OIDB extended a loan assistance of Rs.50 crore to BPC for the project during the current financial year.

5.4.6.6 Hydrogen Corpus Fund (HCF)

In the wake of interest across the world on the use of hydrogen as an auto fuel, the Government of India decided that the Indian Oil Industry should also work synergistically to make headway in this frontier area.

With the above objective, a Hydrogen Corpus Fund of Rs.100 crore has been set up with individual shares as under :

IOC, ONGC, GAIL (Rs.16 crore each)	Rs. 48 crore
BPCL, HPCL (Rs.6 crore each)	Rs. 12 crore
OIDB (balance of Rs100 crore)	Rs. 40 crore

The Director, IOC will act as a nodal agency and coordinate with all other Oil PSUs. The accounts for the funds are required to be kept separately and handled by OIDB on behalf of Government. The funds will be released by OIDB after approval by the Steering Committee on Hydrogen as per parameters as may be feasible, depending on nature and

complexities of individual sanctioned project(s).

In accordance with the directives of the Ministry, OIDB has already contributed Rs. 10 crore to the corpus for the year 2004-05. Further grants will be released on requirement basis.

5.4.6.7 Appointment of Consultant

The Expenditure Reforms Committee Report on autonomous bodies envisages that there has to be a system of "Outside/Peer" review of every autonomous organization once in three or five years, depending on its size and nature of the activity. These reviews should focus inter-alia on:

1. the purposes for which the Autonomous Body was set up and whether these objectives have been or are being achieved.
2. whether the activities should be continued at all, either because they are no longer relevant or have been completed or if there has been a substantial failure in achievement of objectives.
3. whether the nature of the activities is such that these need to be performed only by an Autonomous Organisation.
4. whether similar functions are also being undertaken by other organizations-be it in the Central Government or State Governments or the private sector-and if so whether there is scope for merging or winding up these Organisations.
5. the scope for maximizing internal resources generation in the organization so that the dependence upon government budgetary support could be kept at a minimum.

In view of the above directives, M/s A.F. Ferguson & Co. have been appointed as Consultant for Comprehensive Review of functioning of OIDB vis-à-vis objectives as well as for enlarging the scope of activities for meeting future requirements. The review is estimated to be completed within a span of 3 months.

5.4.7 Grant in aid for R& D Activities

Keeping in view the paramount need for attaining self-sufficiency in the production of crude oil, the OIDB has been according highest priority to the programmes connected with exploration & production of crude oil and other alternative sources of energy. The OIDB has taken initiatives to fund various seismic surveys and R&D projects in upstream technology. The OIDB is also funding National Gas Hydrate Programmes, exploration of coal bed methane in Rajasthan, oil & gas production technology from deepwater and development of advanced geo-chemical techniques for petroleum exploration and exploitation of alternate energy sources.

The Board has set up a Peer Group to recommend the projects of interest in upstream sector. These projects are, in the first instance, examined by the Group and if recommended, are placed before the Board for taking appropriate decision.

Since 1999, OIDB has funded a large number of projects relating to upstream sector out of which 35 projects approximately have been completed. During the year 2005-06, an amount of **Rs. 3 crore** has already been released by OIDB for various R&D projects in the upstream sector.

5.4.8 Dividend from NRL

OIDB has taken a stake of Rs. 90.80 crore in NRL's equity. NRL has paid a dividend of Rs. 15.44 crore to OIDB for the year 2004-05.

5.5 DIRECTORATE GENERAL OF HYDROCARBONS (DGH)

5.5.1 The Directorate General of Hydrocarbons (DGH) was established under the administrative control of Ministry of Petroleum & Natural Gas by Government of India Resolution in 1993. Objectives of DGH are to promote sound management of the Indian oil and natural gas resources having a balanced regard for environment, safety, technological and economic aspects of the petroleum activity. DGH has been entrusted with certain responsibilities concerning the Production Sharing Contracts for Discovered fields and Exploration blocks, promotion of investment and monitoring of E&P activities including review of reservoir performance of major fields. In addition, DGH is also engaged in opening up of new /unexplored areas for future exploration and development of non-conventional hydrocarbon energy sources such as Coal Bed Methane & Gas Hydrate. Details of the main activities undertaken by DGH during 2005-06 are as under:

5.5.2 Opening up of New Areas for Future Exploration

To open up new areas for exploration, DGH has carried out reconnoitory surveys in poorly explored / unexplored basins with the aim to upgrade geological information of the areas and carve-out new blocks for offer under future rounds of New Exploration Licensing Policy (NELP).

5.5.3 Analysis of Remote Sensing Data/Satellite Imageries in Deccan Syneclise Region

The study covers an area of about 500 x 500 sq. km over Narmada-Cambay/Deccan Syneclise region in Central India to delineate the regional geological structures.

5.5.4 Marine Offshore Seismic Survey and Marine Magnetic Telluric (MT) Survey in Gulf of Kutch

The survey programme includes about 235 LKM of refraction survey and about 32 MT stations. The job has been awarded to National Geophysical Research Institute (NGRI)/National Institute of Oceanography (NIO) consortium. The survey programme has objective of mapping the thickness of sediments, basement configuration and to delineate the presence of sub trappean Mesozoic sediments.

5.5.5 MT Studies in Central India

The survey programme consists of acquiring the data over 100 magneto-telluric (MT) stations to map basement configuration below the extensive deccan region of western and Central India. The study will further investigate to refine the models of subsurface structure to formulate strategies for future hydrocarbon exploration in this complex region. The job has been awarded to NGRI.

5.5.6 Seismic Survey in Kutch Onland Basin

About 900 GLK of 2D seismic survey was planned in challenging Rann of Kutch area which is poorly explored. Letter of Indent (LOI) has been awarded to NGRI for survey programme.

5.5.7 Aeromagnetic surveys in Punjab, Himachal Pradesh, Uttaranchal, Uttar Pradesh & Bihar states by Government Agencies

DGH has initiated High Resolution Aeromagnetic Survey for the first time in India in the areas of Punjab, Himachal Pradesh, Uttaranchal, Uttar Pradesh & Bihar through National Remote Sensing Agency, Hyderabad. Area of about 100,000 LKM is planned to be covered over 3 years period. NRSA covered about 24,000 LKM in the state of Punjab, Haryana and adjoining H.P.

5.5.8 Geochemical Survey in Bhima- Kaladgi Basin

Geochemical survey in Bhima-Kaladgi basin carried out. Sampling and analytical work completed.

5.5.9 Geochemical Survey in Cuddapah Basin

Work started in February, 2005 and completed in August, 2005. A total 300 samples collected, analyzed, interpreted and report received. This survey is useful for upgrading the geological information in this basin.

5.5.10 Implementation of NELP

NELP – V

20 Exploration blocks were offered under fifth round of NELP-V on 4th January, 2005. The last date for submission of NELP-V bids was 31.05.2005. A total of 69 bids were received for all the offered 20 blocks. For some blocks, as many as nine bids were received which was a record. All 20 offered blocks received bids for the first time in NELP rounds. A total of 49 companies had participated in bidding, out of which 26 were foreign companies. The bids were evaluated in DGH and the bid evaluation reports were submitted to MOP&NG on 20th June, 2005. The Production Sharing Contracts for 18 blocks were signed on 23rd September, 2005 and also the contracts for remaining 2 blocks were signed on 16th December, 2005.

NELP-VI

The blocks for forthcoming NELP–VI round were identified and the data packages prepared in record time after conclusion of the previous round. A total 55 blocks comprising of 24 deepwater, 6 shallow water & 25 onland have been offered under NELP-VI on 23rd February, 2006.

5.5.11 Monitoring of Production Sharing Contracts

Government of India has signed contracts for 29 discovered fields, 16 CBM blocks and 138 blocks for exploration and development to Private/JV & NOCs. Out of this, contracts for 122 exploration blocks, 16 CBM blocks & 28 discovered fields are under operation. DGH monitors the execution of management of these Production Sharing Contracts on behalf of GOI through Management Committees set up for each block/field. This involves indepth review of annual work programme, project

monitoring, calculation of reserves and production profile, making simulation model of the field, review and approval of development plan, budget and safety management system.

About US$ 4.067 billion (Rs. 18,300 crore) investment has already been made by companies on Exploration & Development till December, 2005. During 2004-05, Pvt/JV sector produced 4.30 MMT of oil and 6.78 BCM of natural gas.

5.5.12 Monitoring of the Petroleum Exploration Licenses held by NOCs – on nomination basis

DGH reviewed the progress of exploration activities in respect of 133 Petroleum Exploration Licenses held by NOCs (115 ONGC and 18 OIL) on nomination basis on a half-yearly basis vis-à-vis minimum committed work programme.

5.5.13 Field Development, Reservoir and Production Monitoring

DGH is monitoring the development activities of various fields under the Production Sharing Contracts such as Panna-Mukta, Ravva, Tapti, Laksmi, Gauri, Kharsang, PY-3, Asjol, Bakrol, Indrora, Lohar, Baola, Dholka, NS-A, N.Balol, Mangala, Aishwariya, Rageshwari and Saraswati.

5.5.14 The Redevelopment plans of Mumbai High North and South and monitoring of IOR/EOR projects of ONGC

The Redevelopment Plans for Mumbai High North and South are under implementation by ONGC. DGH is continuously monitoring the field performance based on Redevelopment Plans, Progress of EOR pilots. G&G and other studies on regular basis. To analyze the field performance voluminous data of more than 700 wells of Mumbai High field is being updated on a regular basis in DGH.

Monitoring the performance of IOR/ EOR schemes under implementation in major fields of ONGC is now being carried out on regular basis.

5.5.15 National Knowledge Hub (NKH)

DGH has embarked upon the project of setting up of National Knowledge Hub (NKH) of Geoscience data for E&P industry in India. The NKH will:

- Enable evaluation of the total hydrocarbon potential of the country by integrating geo-scientific data
- Protect past investment, attract new investments and thus promote desired growth in future by Leveraging on modern technology
- Improve the efficiency of hydrocarbon prospecting in the country by providing integrated and synergetic environment
- Provide level playing field to small players to take part in E&P activities by providing NKH facilities at nominal cost.
- Create Geo-scientific ambience and establish a link among the Geo-scientists, Petroleum engineers both from industry and academia to strengthen over-all Geo-scientific activities in India.

The National Knowledge Hub (NKH) will comprise the following for use by the industry:

- The National Data Repository (NDR)
- The National G&G Processing Center (NGPC)
- The National Visualization and Application Center (NVAC)
- The National Training Center (NTC)
- The National E&P Knowledge Portal (NKP)

Two meetings on NDR, which is the heart of the National Knowledge Hub, so far have been held. The meetings have been attended by Directors and nominated coordinators from the participating organizations. Nine organizations engaged in acquisition and interpretation of Geoscience data have become members of NDR in India till date.

The project of setting up of NDR was appreciated by all participating organizations and as a first step towards implementation of the project it was unanimously decided to prepare the metadata dictionary of the Geoscience data. Members of the NDR core team from DGH visited NRSA, NGRI, OIL where-in meetings with all the Heads of all disciplines were held and meta data attributes were identified for relevant data for preparation of metadata.

The proposal for setting up of NKH has been approved by Advisory Council and the detailed proposal has been put up before the Ministry. The process of including private oil

companies in the NKH will be initiated where-by private oil companies also will be made members of NKH. The draft guidelines and modalities of membership for NKH are also under preparation.

5.5.16 Coal Bed Methane (CBM)

Government of India has awarded 16 CBM blocks for exploration and production of Coalbed Methane in different coalfields of India. The commercial production of CBM from few of these awarded blocks likely to start by 2007-08. These blocks may yield a peak production of 23 MMSCMD of CBM in the country (i.e. about 20% of current gas production of the country).

CBM-III

Information Dockets/Data Dockets for 10 exploration blocks of CBM have been prepared. These blocks were offered on 23rd February, 2006.

5.5.17 Gas Hydrates

Till date technology for commercial production of gas from natural occurring gas hydrate is not available in the world. Scientific studies are being carried out in countries like USA and Japan etc. to develop technology to tap this unconventional source of energy.

Under the National Gas Hydrate Programme (NGHP) of India, pilot studies for gas hydrates production after necessary R&D activities were planned in the road map in year 2007-08. Before this study, exploration drilling/coring rig in deep waters along with onboard facilities for gas hydrate analysis and suitable science support of trained scientist was to be completed by year 2003 but this activity could not be done so far due to non-availability of above services. All efforts are being made to get suitable services along with a rig to complete the drilling/coring programme, which may now take place in February to April, 2006, if the ongoing negotiation with Joint Oceanographic Institutions, Texas A&M University, USA are successful. After completion of gas hydrate coring/drilling programme, we will be able to establish whether commercial quantities of gas hydrates are available in the country. This will be followed by pilot production of gas from gas hydrates in 2010-11, if by then a suitable production methodology is evolved /available.

5.5.18 Essentiality Certificates

During the period (April-November, 2005), 4729 of Essentiality Certificate have been issued for the goods used for petroleum operations for various blocks/fields under PSC regime as well as for areas under PEL/ML.

5.5.19 Status of International Cooperation

Various R&D projects, which ought to be taken up on priority, were identified. During this exercise, Alberta Research Council (ARC) in Canada, Norwegian Petroleum Directorate (NPD) in Norway & Energy Resources and Development Unit (ERDU) of Department of Trade & Industries in UK were identified as agencies for cooparation.

5.5.20 Work by Advisory Council

The Advisory Council of DGH advises on the technical matters/scientific projects to be implemented by DGH. Council also examines major technical studies and progress of work carried out by DGH.

5.6 OIL INDUSTRY SAFETY DIRECTORATE (OISD)

The Oil Industry Safety Directorate (OISD) assists Safety Council under Ministry of Petroleum & Natural Gas (MOP&NG). The council is headed by Secretary, P&NG as Chairman and includes Additional/Joint Secretaries, in MOP&NG, Chief Executives of all Public Sector Undertakings (PSUs) under the Ministry, Chief Controller of Explosives (CCE), Advisor (Fire) of the Govt. of India, DGMS and the Director General of Factory Advice Service & Labour Institute etc. as members.

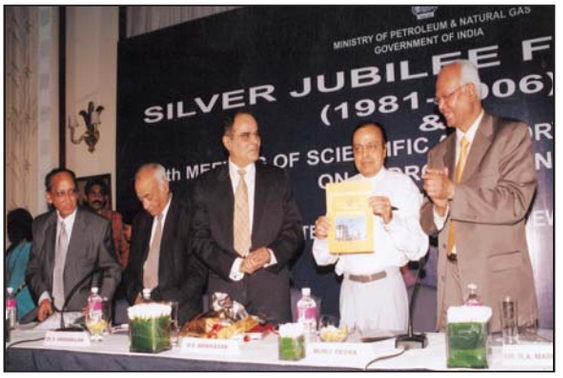
5.6.1 Standardisation

OISD standards are reviewed periodically to incorporate the latest technological developments, and experience gained in their implementation, so as to update them in line with the current international practices. Complete review of two existing standards were approved by Safety Council in 2005-06. As on 31-12-2005, OISD has issued 104 safety standards. It is planned to develop 2 new standards & complete revision of 5 existing standards during 2005-06.

5.6.2 External Safety Audits (ESA)

External Safety Audits (ESA) of one refinery, three LPG recovery plants, 13 marketing locations i.e POL terminal/ Depot, LPG plants, 20 Exploration and Production (E&P) installations and 1,153 km of cross country

pipelines have been carried out till December, 2005. Additionally, pre-commissioning inspection of four new projects in refineries and five marketing locations & 755 km of cross country pipeline has been carried out in line with approved methodology till December, 2005.



Hon'ble Minister of Petroleum and Natural Gas, Sh. Murli Deora releasing compendium on "Contributions of SAC to Hydrocarbon sector" compiled by Centre for High-technology on 6 March 2006 at New Delhi

5.6.3 Safety Performance Evaluation

Safety performance evaluation is done by specially developed system based on total loss concept. The evaluation for the year 2004-05 has been completed in 2005.

5.6.4 Training Programs/Workshops

Technical workshops covering entire oil industry are organized to discuss latest developments, sharing of experiences etc. It is planned to organize four workshops covering Refineries, Gas Processing and Marketing activities in 2005-06.

5.7 CENTRE FOR HIGH TECHNOLOGY (CHT)

Centre for High Technology (CHT) was established in 1987 as a specialized agency of the oil industry to assess futuristic requirements, acquire, develop and adopt technologies in the field of refinery processes, petroleum products, additives, storage and handling of crude oil, products and gas.

CHT has sponsored following R&D projects:-

2004-05

- Identification and Estimation of Poly Aeromatic Hydrocarbon (PAH) in diesel fuel by IIP
- Up-gradation of Fluidized Catalytic Cracking (FCC) Recycle Oil through Solvent Extraction by IIP in association with HPCL, CPCL and EIL
- Study on Boundary Lubrication Mechanism and its applications by Indian Institute of Science (IISc), IOCL (R&D) and IIP
- Development of Catalyst for reducing sulfur in FCC Gasoline with Minimum Octane loss.

2005-06

- Catalyst Development for Isomerisation of Light Naphtha by IIP and IOC-R&D.

CHT organized various seminars and workshops including:

- International level XIII Refinery Technology Meet (RTM) was jointly organized by CHT and Bharat Petroleum Corporation Limited during 14-16th November, 2005 at Hyderabad.
- One day seminar on Environment Friendly fuels held on 2nd April, 2005 at New Delhi.
- Workshop on "FCC Best Operational Practices & Equipment Reliability" held on 18th February, 2005 at New Delhi.

In order to encourage energy conservation in refineries, CHT recommends awards for best performance in energy consumption, energy conservation over past performance, oil conservation awards in the area of furnace/ boiler thermal efficiency etc.

CHT has been publishing its monthly Bulletin since September 2003 to bring out information on the activities of CHT.

5.8 PETROLEUM INDIA INTERNATIONAL (PII)

5.8.1

Petroleum India International (PII) is a consortium of public sector companies in the petroleum, Petrochemicals and engineering sector. PII was established in 1986 with the common objectives of mobilizing the individual capabilities of its member companies into a joint endeavour for providing technical, managerial and other human resources on a global basis.

5.8.2

PII has provided technical back up services, management consultancy HRD and training services, turnaround maintenance of refineries, information technology and procurement services to the oil and gas sector in Nigeria, Kuwait, France, UAE, Saudi Arabia, USA and Texaco.

5.8.3 The revenue generated and the profits declared based on the audited accounts for the year 2003-2004 and 2004-2005 and the estimates for the current year and following year of PII are as given below :

(Rs. in lakhs)

Particulars	Audited		Approved Budget	Projected Estimate
	2003-2004	2004-2005	2005-2006	2006-2007
Total Income	3,228	4,338	10,500	11,025
Profit before Tax	774	1,213	2,587	2,756
Profit after Tax	534	823	1,707	1,811

5.9 PETROLEUM PLANNING & ANALYSIS CELL (PPAC)

The Petroleum Planning & Analysis Cell (PPAC) was created w.e.f. 1st April 2002 after dismantling of the Administered Pricing Mechanism (APM) in the petroleum sector and abolition of the erstwhile OCC. It is attached to Ministry of Petroleum & Natural Gas and assist inter-alia in the discharge of following functions :

1. Administration of subsidy on PDS Kerosene and domestic LPG and freight subsidy for far-flung areas;
2. Maintenance of information data bank and communication system to deal with emergencies and unforeseen situations;
3. Analyzing the trends in the international oil market and domestic prices;
4. Forecasting and evaluation of petroleum import and export trends;
5. Operationalising the sector specific surcharge schemes, if any.

Oil Industry Development Board (OIDB) funds the expenditure for the Cell.


National GAS Conservation Programme
GAIL (India) Limited
Gas & Beyond
तृतीय राष्ट्रीय गैस सं
3rd National Gas Conserva
er 14, 2005
The Taj Mahal Hotel
New Delhi
DR. U.D. CHOUBEY

CHAPTER - VI

6. CONSERVATION OF PETROLEUM PRODUCTS

6.1 India has been dependent on oil imports to meet its domestic energy requirements and is importing about 70% of its oil requirements. With the growth of economy, without corresponding increase in domestic oil production the imports would increase in the times to come. The spiraling prices of crude oil in the recent past have made all the developing economies adopt a cautious approach for judicious utilization of the already strained resources. The oil shock of 1973 had forced the Government of India to think in the direction of conservation through efficient utilization of petroleum products.

In order to create awareness on the importance and need for conservation through efficient utilization of petroleum products among consumers and assist them in this regard, Petroleum Conservation Research Association (PCRA) was set up as a registered society under the Ministry of Petroleum & Natural Gas in 1978. Its mandate was to promote conservation of petroleum products in the major consuming sectors of transport, industry, households and agriculture through direct technical assistance, R&D, educational and training programmes and mass awareness campaigns. Efficient utilization not only reduces demand for energy but also brings down the level of pollution, which has been a matter of great concern in recent years.

PCRA's activities and achievements for the year 2005-06 (up to December, 2005) are summarized below:-

6.1.1 Transport Sector

Driver Training Programmes:

425 'Driver Training Programmes (DTPs)' (for the organized and unorganized sector) involving training of above 5100 drivers (including approx. 3500 drivers in the private sector) were conducted.

Model Depot Studies:

- 75 'Model Depot project (MDP) studies' were conducted for various State Transport Undertakings, which lead to modernization resulting in improvement of maintenance practices and improvement in KMPL.
- MDP of 25 BEST depots in Mumbai on payment basis.

Follow-up Programme with trained drivers:

Follow-up programmes with previously trained drivers were organized by all the four regions of PCRA through get-togethers to obtain feedback on the effectiveness of their training by PCRA.

6.1.2 Industrial Sector

Energy Efficiency Studies:

- PCRA conducted 51 energy audits, 63 fuel oil diagnostic studies and 68 SSI studies during April-December, 2005 to identify possible areas of improvement in energy utilization and to promote fuel-efficient practices, equipment and technology in industries.

- Energy Audit of ONGC Installations /DG sets was taken up at the cost of 1.25 Cr.

Institutional Training Programmes:

158 Institutional Training Programmes were organized at the premises of various industries in different parts of the country during April-December, 2005. Each of these programmes cover 20-30 executives, supervisors and technicians.

Empanelment of Energy Auditors:

PCRA is the national level agency for energy audits and needs to empanel energy auditors for further increasing its reach. Over the years, PCRA has been playing an important role of developing quality energy auditors whose services become available to industries and commercial establishments in the country. Today a strong force of 90 PCRA empanelled energy auditors is providing service to the Indian industry throughout the country.

Seminar/ Technical & Consumer Meets:

These programmes are organized at various places to provide a common platform for industrial consumers of petroleum products to share their ideas, experience and problems related to energy use. PCRA organized 17 such technical meets/ seminars as of December 2005.

6.1.3 Agriculture Sector

Rectification of Lift Irrigation Pumpsets:

An agriculture survey scheme involving rural school children has been launched. 400

students participated in the scheme and surveyed 2032 farmers to collect data for rectification plan.

Kisan Melas:

Kisan Melas (agricultural fairs) provide an ideal forum to educate farmers on the need and benefits of oil conservation. PCRA participated in 11 Melas up to December 2005 this year.



Valedictory Function organized by PCRA held in January 2006 at New Delhi

Youth Programmes:

PCRA organizes a variety of programs for youth by approaching schools. These constitute quiz, essay, debate and the painting competitions on topics related to energy conservation. PCRA aims to make young minds understand the issue of energy conservation and motivate them to apply and promote the cause of oil conservation into their widening spheres of domestic and the professional lives. During this year, a total of 229 programmes were organized as of December, 2005 across all regions.

6.2 Action Group Meetings

These meetings are organized in different states with the State Level coordinator of the oil industry as the convener. These are aimed at facilitating interaction between oil users and the State Government on the issues related to oil conservation in industrial, transport and the agriculture sectors within the State. The forum is effectively used to draw out action plans and monitor progress on different conservation activities. Total five Action Group meetings were held during the last year.

6.3 Exhibitions

PCRA organized/participated in 48 exhibitions at various locations and conducted 135 publicity campaigns to create and spread conservation awareness amongst all sectors of economy.

6.4 Lecture Series:

PCRA as a nodal agency for forging linkages with other organizations directly engaged in energy conservation activities. Five lecture series have been organized by PCRA since June, 2004 for sharing and documenting energy conservation efforts made in last 10 years by various organizations directly engaged in energy conservation activities. PCRA as a nodal agency will also compile the information shared by these organizations and put it on the web.

6.5 Education and Mass Awareness Campaigns

PCRA reaches out to millions of consumers of petroleum products in the major consuming sectors and the masses with its messages on conservation through various media and involving women and youth wherever feasible. Given below are some of the major campaigns undertaken during the year.

- An innovative radio programme under the title 'Boond Boond Ki Baat' , launched during 2002-03, is being aired on AIR's FM Gold channel every Monday at 9.00 AM. This 'infotainment' programme of 45 minutes duration has already completed over 157 episodes and likely to complete over 167 episodes by March 2006. The listeners' response to the programme has surpassed all expectations. Repeat broadcast of the original programme for 26 other AIR stations in Hindi and 16 stations in 6 regional languages is being broadcasted. Keeping in view the popularity of this programme was started on FM-Rainbow. 24 episodes of this programme have already been compeered effective July 2005 at 3 p.m.
- 'Khel Khel Mein Badlo Duniya' is an infotainment TV programme developed by PCRA for the youth, which is very popular. The programme broadcasted on national network every Sunday at 11 am and repeated every Wednesday at 9 am has already completed 120 episodes and likely to touch 130 episodes during the current financial year. It aims at educating young people about various methods of conservation of energy, water, environment etc. and providing vocational guidance in pattern making, motor rewinding, holding domestic winy etc. The response to the programme has been overwhelming with participation of 12000 students from over 225 institutions across the country.

- A number of short films, radio jingles, TV spots and fillers have been developed and aired on different channels throughout the year to retain and sustain listeners' interest in conservation of petroleum and other energy forms.
- Apart from the electronic media, well-timed newspaper advertisements, press campaigns, hoardings, bus panels, passenger shelters, kiosks, road safety barriers, electronic display boards etc. were extensively used to spread the message of energy conservation.
- Printed literature including posters, pamphlets, folders and low-cost handbills containing technical and general information on efficient utilization of petroleum products, tips on conservation and other information were distributed throughout the country.

6.6 Research & Development

PCRA continued its efforts towards new R&D projects through formulating strategies and promoting measures for accelerating conservation of petroleum products leading to environment protection, energy security and sustainable development. It has promoted research; developed deployed efforts aimed at petroleum conservation and environment protection; supported and facilitated adoption and dissemination of fuel-efficient technologies and worked for substitution of petroleum products with alternate fuels. The thrust in 2004-05 was to look into replicating potential of R&D projects at the time of sponsoring of their project. For this purpose, the project sponsor was requested to contact & wherever feasible, associate the prospective users of technology right from the inception. This year, PCRA's activities on bio-diesel increased manifold with the opening of "National Bio-fuel Centre" at PCRA and simultaneous launching of a dedicated website on bio-fuels namely www.pcra-biofuels.org. PCRA also continued with its efforts on Urban Solid Waste Management through municipal waste utilization by composting at source. Besides, PCRA conducted many workshops and training programs for different stakeholders.

PCRA's Efforts in Bio-diesel :

PCRA's National Bio-fuel Centre (NBC):

- All the information from root-to canopy on bio-diesel is available at NBC.
- It provides information regarding availability of seeds & saplings, plantation, economics, manufacturing plants, other agencies and persons working in the field of bio-diesel including work done on bio-diesel in various parts of the country.
- It educated general public about bio-diesel and it's potential in India.
- It is also useful for R&D scientists and experts on Bio-diesel.
- PCRA also launched a new website on Bio-fuels: www.pcra-biofuels.org, on which all the above-mentioned information is available.



CHAPTER - VII

7. INTERNATIONAL CO-OPERATION

7.1 The global energy scenario is fast changing and being oil deficit, India needs to explore more ways and means to address its energy concerns. In order to give special attention to matters relating to international co-operation, a new Division was created in the Ministry of Petroleum and Natural Gas with effect from 1-4-2005. This division, known as the International Co-operation (IC) Division, is headed by an Additional Secretary.

7.2 The principal role of the IC Division is to promote long term engagement of Indian Companies in the hydrocarbon sector abroad. The specific areas to be pursued abroad are:-

(i) equity participation in developed oil and gas fields;

(ii) exploration and production contracts in new fields, both oil and natural gas;

(iii) participation in mid-stream and down-stream projects in the oil and gas sector;

(iv) promotion of Indian participation in transnational oil and gas pipeline projects;

(v) participation in bilateral bodies such as Joint Commissions and Joint Working Groups on Hydrocarbons Cooperation to ensure that India's interests in specific countries are effectively projected and pursued;

(vi) participation at regional and global multilateral fora to pursue issues of interest to India such as organisation and functioning of oil markets; investments and joint ventures in the Hydrocarbon sector and cooperation between academic and research institutions to promote R&D, transfer of technology, training, dissemination of data on hydrocarbons, etc;

7.3 Several forays were made at the international level to explore ways and means to augment the energy security of the country. The overseas visits of the Minister during the year 2005-06 and the objectives/successes achieved are as under:

Sl. No.	Countries visited and period	Objectives of the visits and the successes achieved
1.	Pakistan, Azerbaijan & Iran (June 2005)	Minister visited Pakistan and Iran for consultations with his counterpart Ministers in the two countries on the Iran-Pakistan-India (IPI) Pipeline Project. During these visits, it was agreed that two bilateral Joint Working Groups would be set up at officials' level to pursue cooperation in the IPI Project. Minister also visited Baku (Azerbaijan) to initiate Government-to-Government negotiations to establish longterm contracts for Caspian crude, which would be available in the Mediterranean Sea with the commissioning of the BTC Pipeline. Minister also addressed the Caspian Oil & Gas Conference.
2.	Turkey and Romania (June – July, 2005)	The Minister visited Turkey at the invitation of his counterpart and also delivered the keynote address at the CERA Oil & GAS Conference co-sponsored by the Turkish Government in Istanbul. The two Ministers agreed to establish a Joint Working Group on Hydrocarbon Cooperation. (The visit led to the signing of an MOU with Turkey for hydrocarbon cooperation during the return visit of the Turkish Minister in November 2005). The Minister visited Romania at the invitation of his counterpart and signed an inter-Governmental MOU on Cooperation in the hydrocarbon sector. Several other MOUs between organizations and companies of the two sides were also signed during the visit.
3.	Norway, Iceland and Bangladesh (August – September, 2005)	The Minister visited Norway at the invitation of his counterpart to discuss cooperation between the two countries. Norway is a major oil exporter and a world

		leader in deepsea drilling. A meeting of the Joint Working Group in the Hydrocarbon Sector also took place during the visit. The Minister visited Iceland to pursue cooperation in hydrogen fuel technology. The Minister also paid a one-day visit to Bangladesh to discuss the Myanmar-India Pipeline. During this visit, he met the Bangladesh Prime Minister, Foreign Minister, Finance Minister and the Leader of the Opposition and had substantial delegation-level discussions with the Energy Adviser to the Prime Minister.
4.	Russia, Kazakhstan, Japan and Republic of Korea (September 2005)	The Minister visited Sakhalin (Russia) to participate in the "First Oil" function in the project, in which ONGC is a stakeholder. He also had discussions with the Russian Energy Minister on the Agenda of the Round Table of North and Central Asian Oil Ministers scheduled to be held in New Delhi in November 2005. He visited Japan and Republic of Korea briefly during this tour and held consultations with his counterpart Ministers on a wide range of issues, including follow up to the decisions of the Asian Oil Ministers' Round Table held in January 2005 and preparations for the North and Central Asian Oil Ministers' Round Table held in New Delhi in November 2005. Several matters of bilateral interest were pursued in regard to R&D and technology cooperation, energy conservation, storage, etc. He also visited Kazakhstan to deliver the key-note address at the Kazakh Oil & Gas Conference, KIOGE 2005.
5.	Saudi Arabia & Qatar (November 2005)	In Saudi Arabia, the Minister attended the inauguration of the Secretariat building of the International Energy Forum in Riyadh. He chaired the inaugural session of the event where he projected India's perspectives on the global and regional energy dialogue. In Qatar, the Minister addressed the International Petroleum Technology Conference. He also had substantial bilateral discussions with his counterpart Minister on LNG supplies to India.
6.	China (January 2006)	The Minister visited China at the invitation of his counterpart, the Chairman of the National Development & Reforms Commission (NDRC). During this visit, an inter-Governmental MOU on Cooperation in the Hydrocarbon Sector and several other MOUs between Indian and Chinese organizations/companies were signed. This visit laid the foundation of a substantial, long-term, bilateral cooperation in different areas of the Hydrocarbon sector, including joint bids for assets in third countries, and cooperation in regard to R&D, technology, storage, conservation and promotion of environment friendly fuels.

7.4 ROUND TABLE CONFERENCE IN NEW DELHI

The Ministry organized a one-day Round Table of Ministers of Principal oil producing and consuming countries in Asia in New Delhi on 25th November, 2005, with a view to promoting regional cooperation in the oil economy. The theme of the round table was stability, security and sustainability of the Asian Hydrocarbon Economy.

At the Round Table, Ministers and Heads of Delegations from the principal Asian oil and gas producing countries-the Russian Federation, Kazakhstan, Uzbekistan, Turkmenistan and Azerbaijan-met with the principal Asian oil and gas consuming countries-Japan, the Republic of Korea, China, Turkey and India. The International Energy Forum (IEF) also participated. There was broad consensus on the need of enhanced dialogue cooperation between the Asian countries in the oil and gas sector particularly in the promotion of increased linkages between the producing and consuming countries in Asia. It was also agreed that the Round Table would meet regularly, with the next Round Table to be jointly hosted by Turkey and Azerbaijan.

7.5 OVERSEAS INITIATIVES IN GAS SECTOR

In order to meet the increasing demand of gas in India, import of gas as LNG and through transnational pipelines is being explored from Iran, Turkmenistan and Myanmar. The following initiatives were pursued during the year:

(i) The Iran-Pakistan-India Pipeline

India, Iran and Pakistan have constituted three bilateral Joint Working Groups for pursuing the project:

- The India-Pakistan Joint Working Group (JWG)
- The India-Iran Special Joint Working Group (SJWG)
- The Pakistan-Iran Joint Working Group

Three meetings of the JWG and SJWG have been held to discuss the project including its technical and commercial aspects.

(ii) G-to-G Iran LNG Imports

LNG Sale Purchase Agreements for import of a total of 5.0 MMTPA LNG was signed between National Iranian Gas Export Company (NIGEC) & GAIL, IOC and BPC on 13th June, 2005.

Negotiations for an additional 2.5 MMTPA LNG import are in progress.

(iii) Integrated LNG Project

IOC and Petropars, the 100% subsidiary of Naftiran Intertrade Company (NICO) of Iran, signed a MOU on 1st November 2004 for jointly developing an Integrated LNG Project in Iran. Consortium of IOC and Petropars submitted a detailed pre-proposal to NIOC in 2005 which involves: (i) development of upstream facilities for one of the phases of the South Pars Gas Field, and (ii) downstream facilities for liquefaction of the entire gas production to produce about 9MMTPA LNG with at least 50% of the LNG to be marketed in India. Meanwhile, the IOC-Petropars MOU which was valid till 31st October, 2005, has been extended for one more year.

7.6 AN OVERVIEW OF INTERNATIONAL OPERATIONS OF OIL PSUs.

The oil PSUs have vigorously pursued overseas opportunities with a view to enhance the energy security of India not only in the areas of E&P but also to undertake commercial operations in order to turn into global players. The International Cooperation Division has provided support in many of these initiatives through diplomatic interventions. A list of such ongoing projects is as follows:

Detiails of ongoing exploration and production projects
E&P Projects

S. No	Country	Project	Participating Companies
1	Australia	Exploration Block WA 306- P Off-shore.	OVL-55% Antrim Energy Inc. 32.5% Magllan-12.5%
2	Cuba	Exploration Blocks	OVL 100%
3	Cuba	Exploration Blocks 25,26, 27, 28, 29, 36 Part of 35.	OVL-30% NorskHydro-30% Repsol-40%
4	Egypt	Block 6 (North Ramadan Block)	OVL-70% IPR-30% IPR is operator in exploration stage.
5	Iran	Farsi Offshore Exploration Block	OVL 40%IOC 40%OIL 20%
6	Iraq	Exploration Block-8	OVL-100%
7	Ivory Coast	Exploration Block C1-112	OVL-23.5% OIL-11.5% Vanco-30% Sinopec-30% Petroci-5%
8	Kazakh-stan	Makhambet & Satpayev Blocks	OVL - Proposed
9	Libya	Exploration Block NC-188 & 189 On-land.	OVL 49% TPOC 51%
10	Libya	Exploration & Production Sharing Agreement (EPSA) for the Block 86	OIL – 50% and Operator IOC – 50%
11	Libya	EPSA for Block 102/4	OIL – 50% and Operator IOC – 50%
12	Libya	EPSA for Block 81/1	OVL
13	Myanmar	Exploration Block A3	Daewoo-60% OVL-20% GAIL – 10% KOGas-10%.
14	Myanmar	Exploration Block A-I	OVL 20% GAIL 10% Daewoo 60% Kogas 10%
15	Myanmar	Rakhine Offshore Block A-2 and Rakhine Onshore Block L(Sittwe Area)	Essar Oil Ltd.
16	Myanmar	RSF-6 & RSF-9	OIL-40% IOC-30% GAIL-30%
17	Nigeria-Sao Tome Pr.JDA	Exploration Block 2	OVL EEL / jointly 15%
18	Nigeria	Exploration Deep water Block-321 & 323	OVL KNOC Nigerian partner
19	Qatar	Exploration block (off-shore) Najawat Najim.	OVL.
20	Russia	Sakhalin-I On-land and Off-shore.	OVL 20% Exxon 30% Sodeco 30% SMNG-S 11.5% RN Astra 8.5%

21	Sudan	Oil Producing Block GNOP	OVL- 25% CNPC- 40% Petronas- 30% Sudapet 5%
22	Sudan	Exploration Block 5A	OVL 24.125% Petronas 68.875% Sudapet 7%
23	Sudan	Exploration Block 5B	OVL- 23.5% Petronas- 41% Lundin- 24.5% Sudapet- 11%
24	Syria	Exploration Block 24On-land.	OVL 60% IPR 40%
25	Syria	E&P	Shell & Syrian Petroleum Corporation
26	Venezuela	San Cristobal	OVL & PdVSA
27	Vietnam	Gas Producing Block 06.1	OVL- 45% BP- 35% PetroVietnam 20%
28	Vietnam	Exploration Block - 127 & 128	OVL
		Refinery & Pipeline Projects	
29	Oman	Implementation of Integrated Management System at ORC	IOC
30	Sudan	Pipeline Project	OVL – 90% OIL – 10%
		Marketing Projects	
31	Egypt	Participation in Retail Gas Companies of Shell Gas B.V. in Egypt	GAIL
32	Egypt	Participation in National Gas Company (Natgas) in Egypt	GAIL
33	Mauritius	Port terminal at Mer Rouge (tankage – 18,000 MT)	Indian Oil Mauritius Ltd.
34	Mauritius	Retail outlet development - 10 nos	IOC
35	Mauritius	Laboratory	IOC
36	Sri Lanka	Downstream marketing of Petroleum products	IOC
37	Dubai (UAE)	Lube hub for Marketing of SERVO in Middle East & East Africa.	IOC
		Gas Projects	
38	China	Participation in China Gas Holdings Ltd. (CGHL)	GAIL



CHAPTER - VIII

8. WELFARE OF SCHEDULED CASTES/SCHEDULED TRIBES, OTHER BACKWARD CLASSES AND THE PHYSICALLY HANDICAPPED

8. WELFARE OF SCHEDULED CASTES/ CHEDULED TRIBES, OTHER BACKWARD CLASSES AND PHYSICALLY HANDICAPPED

8.1 The orders relating to the reservation for the Scheduled Castes (SCs)/Scheduled Tribes (STs), Other Backward Classes (OBCs) and Physically Handicapped persons issued from time to time by the Department of Personnel & Training, the Department of Public Enterprises, the Ministry of Social Justice and Empowerment and Ministry of Tribal Affairs are being implemented in the Ministry of Petroleum & Natural Gas and the Public Sector Undertakings under its administrative control. The SCT Cell of this Ministry monitors the implementation of reservation policies in PSUs as well as in the Ministry. The PSUs have also constituted Implementation Cells under the supervision of their Liaison Officers to safeguard the interests of SCs/STs, OBCs and Physically Handicapped (P/H) employees and redress their grievances. The Liaison Officers of the PSUs are responsible for ensuring implementation of the Presidential Directives as well as the various orders of the Government. Remedial action on the grievances of the SCs/STs, OBCs and P/H employees of PSUs received through Members of Parliament, National Commission for SCs and STs, National Commission for Scheduled Area and Scheduled Tribe are taken, wherever necessary.

The status of appointment of SCs/STs/OBCs/ Physically Handicapped persons is monitored by the Ministry through Quarterly report furnished by PSUs separately.

During the Special Recruitment Drive launched by Department of Personnel & Training to fill up the backlog vacancies reserved for SCs and STs, progress was monitored at higher levels to achieve the targets drawn and reports were sent to Department of Personnel & Training/ Department of Public Enterprises as per formats prescribed and also as per time schedule drawn by Department of Personnel & Training. Reports as provided by PSUs, projected 135 vacancies out of 150 as filled up during the said drive and the remaining 15 vacancies to be filled up by the end of March 2006. A statement showing the status of the backlog of vacancies reserved for SCs/ STs as on 31.12.2005 may also be seen.

8.2 SPECIAL COMPONENT PLAN (SCP) AND TRIBAL SUB PLAN (TSP)

In accordance with the Government policy, all Public Sector Undertakings under the administrative control of the Ministry have made allocation in their Annual Plan for the Year 2005-06 for various activities related to the welfare and socio-economic development of Scheduled Castes, Scheduled Tribes and people of weaker sections residing in the neighbourhood of project locations through Special Component Plan and Tribal Sub-Plan which are as follows:

(i) Construction of school/college buildings, scholarships, adult education, distribution of teaching materials, establishing library and other aid to SC/ ST students.

(ii) Construction of community latrines on the lines of Sulabh Shouchalaya etc. in villages inhabited mainly by SC/ST and weaker sections of the society.

(iii) Financial assistance to through co-operative societies for providing facilities of handlooms, weaving, etc. to enable them to be self-employed.

(iv) Provision of drinking water facilities to nearby villages through ring wells/tube wells etc.

(v) Provision of community health facilities, free medical services, medicines through medical camp and family planning camps etc.

(vi) Financial assistance to physically handicapped persons for their rehabilitation.

(vii) Vocational training/guidance under the scheme "Earn While You Learn". Training programmes are arranged in various trades like basket making, weaving, coir rope making, sewing, poultry training, fishing, tailoring, typing, driving and also supply of tools like machines etc.

(viii) Distribution of seeds and fertilizers free of cost to farmers and construction of approach roads/adoption of villages.

(ix) Social forestry schemes by distributing seeds of fruit bearing trees, saplings, other plants etc.

8.3 BACKLOG OF VACANCIES RESERVED FOR SC/ST/OBC/PH IN PUBLIC SECTOR OIL COMPANIES AS ON 31.12.2005

S.No.	Name of the company	SC	ST	OBC	PH
1	ONGC	-	-	82	10
2	IOC	-		48	26
3	HPC	1	1	94	9
4	BPC	1	-	41	-
5	GAIL (India) Limited	3	1	75	14
6	EIL	1	2	14	1
7	OIL	-	4	18	3
8	CPCL	-	-	1	1
9	KRL	-	-	-	-
10	IBP	-	-	-	-
11	BRPL	-	-	3	2
12	Biecco Lawrie	-	-	17	1
13	NRL	1	-	10	6
14	Balmer Lawrie	-	-	24	7

The Expenditure incurred by Public Sector Oil Companies on the activities under Special Component Plan (SCP) and Tribal Sub-Plan (TSP) upto 31.12.2005 is as under:

S.No.	Name of the Company	Expenditure incurred (Rs. in Lakhs)		Total (Rs. in Lakhs)
		SCP	TSP	
1	ONGC	73.69	51.31	125.00
2	IOC	38.81	14.44	53.25
3	HPC	385.00	combined	385.00
4	BPC	60.37	combined	60.37
5	GAIL (India) Limited	12.16	8.80	20.96
6	EIL	NIL	NIL	NIL
7	OIL	NIL	NIL	NIL
8	CPCL	14.26	combined	14.26
9	KRL	5.39	combined	5.39
10	IBP	7.50	combined	7.50
11	BRPL	18.90	28.45	47.35
12	Biecco Lawrie	0.30	combined	0.30
13	NRL	12.16	8.80	20.96
14	Balmer Lawrie	5.00	combined	5.00



CHAPTER - IX

9. WELFARE, DEVELOPMENT AND EMPOWERMENT OF WOMEN

9.1 The Ministry of Petroleum & Natural Gas and Public Sector Undertakings/Organisations under its administrative control have been taking full initiatives towards welfare and development as also to empower the women employees. With a view to deal with gender sensitization and to promote the cause of women empowerment, special programmes are organised focusing on their professional development and welfare activities. These include external and in-house training, programmes on women health, sponsoring them to attend the National meet of the Forum of Women in Public Sector, etc.

9.2 Women Fora have been formed in the PSUs to look after the interest of the women employees. List of Do's and Don'ts prepared by the National Commission for Women has been circulated for attention of all employees. Committees have been set up to attend to redressal of complaints on 'Sexual harassment at work place'.

9.3 In the Ministry of Petroleum & Natural Gas, a Women Cell has been constituted since January 1998 to cater to women's issues/ grievances and to look into complaints of sexual harassment, if any. The guidelines of the Supreme Court, the Ministry of Human Resources Development and Ministry of Labour are implemented in this regard. This cell is headed by a senior lady officer.

9.4 As on 31.12.2005, against the total strength of 275 employees in Ministry (Proper), 48 women were in position.

9.5 The number of women employees vis-à-vis total number of employees as on 31.12.2005 in the oil PSUs is tabulated as below:-

Sl. No.	Name of PSU	Total No. of Employees	Total No. of Women Employees
1.	ONGC	35,015	1,976
2.	IOC	30,162	2,323
3.	HPC	10,781	687
4.	BPC	12,037	1,060
5.	GAIL (India) Limited	3,369	156
6.	EIL	2,643	282
7.	OIL	8,626	324
8.	CPCL	1,654	70
9.	KRL	1,895	84
10.	IBP	2,118	180
11.	BRPL	1,731	78
12.	NRL	700`	23
13.	MRPL	967	34
14.	Biecco Lawrie	489	5
15.	Balmer Lawrie	1,429	70



CHAPTER - X

10. DEVELOPMENT OF NORTH - EASTERN REGION

10.1 The Ministry of Petroleum & Natural Gas has no budget allocation for implementation of Centrally sponsored schemes and programmes in any States including North-Eastern States in the Petroleum Sector. However, the oil PSUs, under the administrative control of this Ministry, on their own and through their own resources have been implementing schemes and projects on commercial considerations as also some socio-economic programmes for the development of North-Eastern Region. Following are the contributions of the oil PSUs in social, employment and training activities.

10.1.1 OIL & NATURAL GAS CORPORATION LIMITED (ONGC)

ONGC has been actively pursuing the exploration activities in the N.E. Sector viz Assam, Tripura, Nagaland, etc. During the 9th Plan period (1997-2002), the actual expenditure in the North East Sector was Rs. 2,463 Crore, which covered the funds spent on exploration and production activities.

In the 10th Plan (2002-07) outlay of ONGC, the outlay for the North East Sector has been kept at Rs. 3,015 Crore, which is nearly 10% of ONGC's total domestic plan outlay. About 20% of the total exploration outlay of ONGC has been earmarked for prospects in the North East Region. The outlay for the current year 2005-06 is Rs. 719.96 crore out of the total ONGC outlay of Rs. 10,487.01 Crore. The following three Improved Oil Recovery (IOR) projects namely Geleki, Rudrasagar and Lakwa-Lakhmani with an approved investment of Rs. 850 Crore are under execution during the tenth plan period.

ONGC has taken up steps to provide Urban Amenities in Rural Areas (PURA), a vision of His Excellency, the President of India. PURA envisages bridging the rural-urban gap and achieving a balance socio-economic development. ONGC has set up the ONGC-PURA Trust with a seed capital of Rupees Ten Crore. To begin with it would operate in the states of Tripura, Assam, Nagaland, in the North East States among others. First ONGC-PURA project started on 18th April 2005 at Maichara village, Tripura.

10.1.2 OIL INDIA LIMITED (OIL)

Oil India Limited views Social Welfare as a genuine expression of goodwill and responsibility towards humanity and the Nation. The projects undertaken by OIL from time to time are as follows:

- Oil India Limited has developed over 1400 Kms. of roads and built around 150 bridges in its operational areas in Assam and Arunachal Pradesh, through its Area Development Scheme.
- OIL, under its rural development scheme, is engaged in various welfare activities based on real needs of the village population of its operational areas.
- OIL runs a Handicrafts Training and Production Centre, where stipendiary training is extended to rural women.
- Villagers after systematic scrutiny are imparted training in scientific approach to agriculture.
- Bio-gas plants have been installed in villages.
- Environment cleaning and tree plantation are vigorously encouraged by the company.
- OIL has marked special funds for upliftment of education, health and socio-economic development of SCs/STs, under the Special Component Plan and Tribal Sub-Plan.
- OIL provides mobile dispensary services, free medical camps, family planning and welfare services, free CAT scanning facilities and supports free Eye Camps.
- OIL has a legacy of promoting and fostering sports.
- The 150 bedded modern hospital of OIL at Duliajan (Assam) caters not only to the needs of its employees and their dependents, but also provides services to common people in and around its operational areas from time to time.
- The OIL hospitals at Moran and Kharsang (Arunachal Pradesh) also provide similar services to the common people in and around its areas. OIL has introduced Mobile Dispensary services, where its Medical team visits from time to time interior villages and provides essential free medical care and also during floods and other calamities to help prevent epidemics.
- OIL also provides financial assistance to various NGOs for construction of primary health centers and educational infrastructure in the villages for common people in and around its operational areas.
- OIL has an ongoing "Apprentice Trainee Scheme" whereby the vocational skills of

students from the industrial training institutes of Assam are further sharpened. Under Oil India Rural Development Society to further the Company's policy of encouraging local unemployed youths to supply and produce materials and services for the Company's operational needs, OIL has introduced a programme of entrepreneurial skills to teach young people in and around its oilfield areas as to how start and maintain business ventures.

- OIL has undertaken a new Community Welfare initiative towards promoting Agro-based Industries through creation of Self-Help Groups. An MOU with State Institute of Rural Development (SIRD), Assam to implement various economic activities in the region. With SIRD, OIL proposes to promote projects, which can create self-employment avenues and promote entrepreneurship in OIL's area of operations, towards generating substantial source of livelihood. OIL has already invested Rs.100 lakhs in the above project and will also contribute Rs.3 Crore in the next three years. The project aims to generate employment avenues for 1000 self-help groups and 10,000 families under the Special Swarna Jayanti Gram Swaraj Yojana.
- OIL in partnership with SIRD, Indian Council of Agricultural Research (ICAR), Technology Information, Forecasting and Assessment Council (TIFAC), Don Bosco Youth and Educational Services (DBYES) and State Bank of India (SBI) are working to help the rural community through training programmes, financial subsidy, etc. in OIL's operational areas.
- OIL recently engaged the services of a third party to carry out a social audit of the Company's Social Welfare Programmes and initiatives to assess the impact and public perception of the same. The Group's findings and analysis are being studied, so that Company can take up much needed projects under its Corporate Social Responsibility Programme in the future.
- Over Rs. 8 crores have been spent on these activities by way of constructing roads, bridges, schools and colleges, treatment of the sick in remote areas through mobile dispensaries, providing treatment in OIL hospitals and conducting eye camps etc.

10.1.3. GAIL (INDIA) LIMITED (GAIL)

GAIL had started its activities in Assam in 1992 and has been supplying gas to around 50 customers since then. The average gas supply in Assam is 0.47 MMSCMD. The supply of gas is made to Assam State Electricity Board (ASEB) as a fuel for their Power Plants at Maibella and Geleki in the district of Sibsagar; Hindustan Fertilizers Corporation Limited (HFCL) as a feedstock for their Fertilizer plants at Namrup in the district of Dibrugarh; and as a fuel to large number of tea leaf processing.

In Tripura, GAIL has created pipeline network to connect different gas fields of ONGC to the consumers. GAIL has laid around 60 kms. of pipeline connecting ONGC gas fields at Agartala Dome, Rokhia and Konaban, and is supplying around 1.34 MMSCMD Natural Gas to Power Plants of Department of Power, Government of Tripurs and NEEPCO.

In addition to this, GAIL is also supplying Natural Gas to Tripura Natural Gas Company (TNGCL), which subsequently supplies gas to a large number of domestic consumers. GAIL has recently acquired a majority stake of 29% in this company under a Joint Venture route, in alliance with Tripura Industrial Development Corporation (TIDC) and Assam Gas Company Limited (AGCL).

In addition to Supply, Distribution and Marketing of Natural Gas, GAIL has constructed and has been operating a LPG Plant at Lakwa in the districts of Sibsagar, which incurred an investment of around Rs. 240 crore. The LPG plant has a capacity to produce 85,000 tonnes of LPG per annum for meeting the requirement of about 6 lakhs domestic LPG consumers. LPG produced from this plant is presently being supplied to IOC, AOD's bottling plants at North Guwahati & Silchar and, in future, would be supplied to a host of other small new bottling plants coming up in the states of Nagaland, Manipur, Arunachal Pradesh, Meghalaya and Mizoram.

GAIL's Natural Gas and LPG business provide direct and indirect employment to a large number of people in the North-East Region and contribute significantly to the state exchequer by way of tax revenues.

In the area of Petrochemicals, GAIL has taken proactive initiatives to set-up Assam Gas Cracker Project at Lepetkata in the district of Dibrugarh.

GAIL has also integrated backwards by way of securing one E&P Block in Tripura under NELP-IV bidding and another E&P Block in

Assam under NELP-V bidding. GAIL holds 80% and 35% of the equities in these blocks, respectively. GAIL has initiated actions for the early development of these fields.

GAIL has also associated with the people of North-East Region and has significantly contributed towards Society & Community Development in and around the areas adjoining its installations. GAIL has undertaken several projects under its Social Responsibility Programme with special thrust on Community Development, Education, Environment Protection, healthcare, Infrastructure etc. in the region. The Company's efforts in this direction are being stepped up over the current financial year in a more planned and comprehensive manner.

10.1.4 BONGAIGAON REFINERY & PETROCHEMICALS LTD. (BRPL)

Bongaigaon Refinery & Petrochemicals Limited (BRPL) has made a gross investment of Rs. 978 crore up to 31st March 2005 in putting up various plants and associated manufacturing facilities at Dhaligaon. During the year 2005-06, a further capital investment of Rs. 54 crore is envisaged against various projects.

The Refinery business of BRPL has been in operation since 1979. The Petrochemicals and Polyester Staple Fibre (PSF) plants were added later on phase-wise. These units, particularly the Petrochemicals & PSF plants, have a vital role in providing business to few ancillary units of the North Eastern region, both in the Govt. sector and the private sector, who supplies packing materials, raw material, etc. to BRPL. Similarly, some of the products from BRPL like Petroleum Coke, Di-Methyle Teraphthaletye (DMT), PSF, etc. constitute the raw materials for some of the down-stream industries in the region. Thus BRPL has been contributing a lot to the industrial and economic development of the region.

Further BRPL has been taking up various social upliftment schemes from time to time in its neighborhood under the Special Component Plan and Tribal Sub-Plan. The outlay for these activities is gradually being increased over the years and the various schemes under the aforesaid Plans are given due importance. For the year 2005-06, the company has earmarked Rs. 1.20 crore for socio-economic upliftment under the Special Component Plan and Tribal Sub- Plan in the region.

BRPL has been giving priority to persons from the North East regarding employment in BRPL. Out of a total of 1,733 employees as on 31-12-2005, over 90% belong to this region.

10.1.5 NUMALIGARH REFINERY LIMITED (NRL)

Numaligarh Refinery has been set up as a grass-root refinery at Numaligarh in the District of Golaghat (Assam) in fulfilment of the commitment made by the Government of India in the historic "Assam Accord" signed on 15th August, 1985 for providing the required thrust towards industrial and economic development of Assam.

Retail Marketing Activities

For improving viability, NRL has authorization from the Government for setting up a chain of 510 retail outlets in various parts of the country for marketing auto fuels. The company launched its retail network "NRL ENERGY STATIONS" during the year 2004-05. A total of 16 energy stations have been made operational. Out of 16, 11 nos. of Retail Outlets have been set up in North East. Work is in progress for developing another 89 energy stations on priority.

Motor Spirit (MS) Project:

A 225 Thousand Metric Tonnes per annum (TMTPA) capacity Motor Sprit project is currently under implementation at an approved cost of Rs. 296.86 crore for production of MS conforming to Euro-III norms from the surplus Naphtha available in the refinery. The project is expected to be completed on schedule by the end of the financial year 2005-06.

Marketing Terminal at Siliguri

To improve evacuation of products NRL has entered into an agreement with Oil India Limited (OIL) for transportation of products from Numaligarh to Siliguri through a pipeline to be constructed and operated by OIL. NRL will develop despatch facilities at Numaligarh and receiving terminal at Siliguri. The work for Siliguri terminal is in progress.

Diesel Quality Upgradation Project

NRL has established capability for producing BS-II & Euro-III grade High Speed Diesel (HSD) with limited capacity utilization, without any additional capital investment.

Wax Plant

Assam crude offers good potential for production of Paraffin & Microcrystalline wax. The wax produced from Assam crude is of high quality and is accepted in the international market. Presently techno-commercial studies are being carried out.

10.2 NORTH EAST REFINERIES

10.2.1 There are four refineries in Assam viz. Guwahati, digboi, Bongaigaon Refineries and Petrochemicals Limited (BRPL) and Numaligarh Refineries Limited (NRL). Guwahati and Digboi refineries are fully owned by Indian Oil Corporation (IOC), BRPL is subsidiary of IOC and NRL is a subsidiary of Bharat Petroleum Corporation Limited (BPC). These refineries mostly refine crude produced by ONGC, OIL and Ravva crude. As these refineries are of sub-economic size and suffer from locational disadvantages, they need Government's intervention for ensuring their viability after the dismantling of the APM. Even though these refineries are unviable, it is necessary to keep them operational and viable in view of the need to stimulate industrial development and to provide for socio-economic development in the northeast region.

The year of commissioning and the capacity of NE refineries are given in the following table:

Refinery	Year of Commissioning	Capacity (MMT)*
Digboi	1901	0.65
Guwahati	1962	1.00
BRPL	1979	2.35
NRL	2000	3.00
Total		7.00

*Million Metric Tonne.

The following benefits have been extended to the North East refineries so as to improve their economic viability Post APM:

(i) The products of all four North East refineries have an excise duty exemption of 50% effective 01.03.2002.

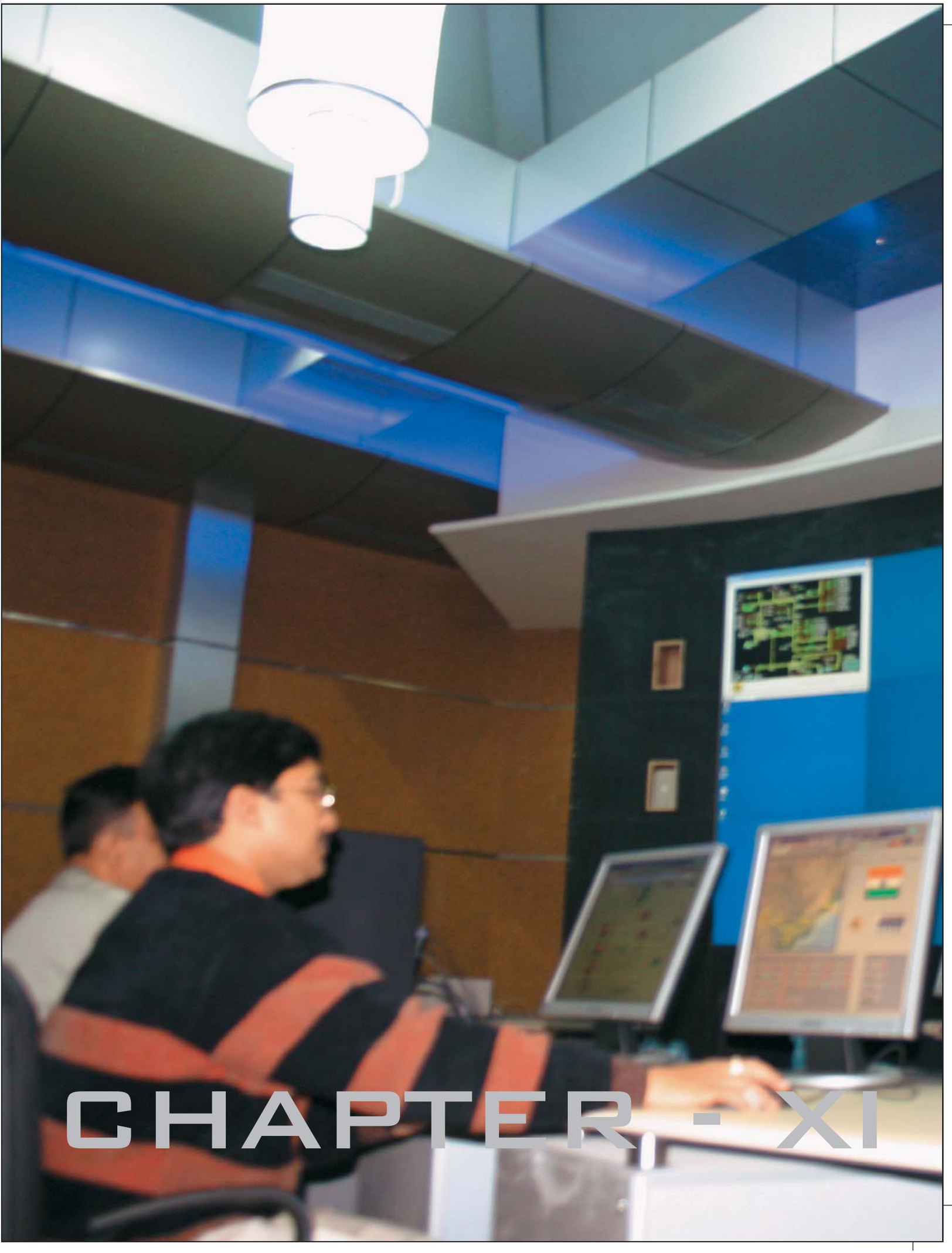
(ii) As per the post APM crude oil supply agreement between these refineries and OIL/ONGC, the domestic crude available to these refineries is priced on FOB basis instead of import parity basis thereby benefiting them.

(iii) 1.5 MMTPA of Ravva crude has been made available to BRPL effective 01.04.2003. This increase the availability of total domestic crude to North East refineries and the benefit of increase in overall availability of crude oil is shared by all the four North East refineries thereby improving their capacity Utilization.

A comparison of profit after tax of NRL and BRPL for the years 2002-03, 2003-04, 2004-05 & 2005-06 (April – December, 2005) is given below.

(Rs. In crore)

Name of the Refinery	2002-03	2003-04	2004-05	2005-06 (April-December, 2005)
NRL	174.60	214.95	409.15	273.65
BRPL	178.50	303.74	478.30	144.11



CHAPTER - XI

11. GENERAL

11.1 PROGRESSIVE USE OF HINDI

11.1.1. The Ministry of Petroleum & Natural Gas is implementing provisions of the Official Language Act, 1963 and Rules framed thereunder. It is also responsible for the implementation of Official Language Policy in various Offices of Public Sector Undertakings under its administrative control.

11.1.2. This Ministry has been notified under Rule 10(4) of the Official Language (Use for Official Purpose of the Union) Rules, 1976. Three sections of the Ministry viz. Administration Section, Library and SC/ST Cell have been identified under Rule 8(4) for doing their entire work in Hindi. The Establishment Section is also required to do entire work in Hindi in respect of group 'C' and 'D' employees. Eleven types of work have been identified under the aforesaid Rule for doing in Hindi only. Further, instructions have been issued, under the said Rules to all Officers/ employees of the Ministry who are proficient in Hindi, to prepare and submit drafts etc. of following categories of communications in Hindi language only:

a) All communications to State Government & Union Territory Administration in Region 'A' and Region 'B' and all offices, Undertakings, etc. of Central Government situated in these Regions or to any person in these Regions.

b) Replies to all incoming communication written in Hindi.

c) Reply to application, appeal or representation written or signed by an employee in Hindi.

11.1.3 The Ministry has prepared a time-bound programme to impart in-service training to all its employees who do not possess working knowledge of Hindi. Under this programme, 4 employees were nominated for Probodh class under Hindi Teaching Scheme during 2005-06. A time – bound programme for imparting Hindi Stenography/Hindi typing training to Stenographers and Lower Division Clerks (LDCs) of the Ministry has also been prepared, under which 2 Stenographers and 2 LDCs were nominated for training.

11.1.4 The first working day of every month is observed as Hindi Divas in the Ministry. All the Officers/employees are expeced to undertake official work only in Hindi on that day. Similarly, the PSUs under the Ministry have also been advised to observe Hindi Divas every month in their offices.

11.1.5 The 'Hindi Fortnight' was celebrated in the Ministry during 12–26 September, 2005 and a number of competitions viz., Hindi essay writing competition, Hindi noting/drafting competition etc. were organised. 10 participants were given cash awards.

11.1.6 On the occasion of Hindi Divas/Week/ Fortnight/Month, the message from Hon'ble Cabinet Secretary was circulated among all the Officers of the Ministry.

11.1.7 The Parliamentary Committee on official Language Committee inspected the Ministry and 34 offices of PSUs under the administrative control of the Ministry scattered throughout the country. 20 PSU offices were entrusted upon with the coordination work also. The location in-charge and offices of official language actively participated in the inspections. All the PSUs were made aware of findings of the Committee and orders were issued for removing short comings.

11.1.8 All computers were provided with Hindi software during the year.

11.1.9 In order to undertake the Official Language implementation work effectively, an Official Language implementation Committee (OLIC) is functioning in the Ministry under the chairmanship of Joint Secretary (Admn.). All the Public Sector Undertakings under the Ministry are members of the Committee. This Committee reviews the overall progress of implementation of the Official Language Policy in the Ministry and the Public Sector Undertakings, as also the progress of implementation of the Annual Programme circulated by Department of Official Language.

11.1.10 Quarterly progress reports on progressive use of Hindi are sent to Department of Official Language, and Quarterly progress reports received from Public Sector Undertakings are reviewed in the Ministry.

11.1.11 So far, 317 offices of the Public Sector Undertakings, in which 80 percent staff acquired working knowledge of Hindi, have been notified in pursuance of Rule 10 (4) of the Official Language (Use for Official Purposes of the Union) Rules, 1976. One office was denotified due to closure of the

project. The Public Sector Undertakings have been advised to conduct survey of their offices with a view to ascertain the number and percentage of employees who have acquired working knowledge of Hindi.

11.1.12 The Annual Programme for the financial year 2005-06 received from the Department of Official Language was circulated to all officers of the Ministry and Chief Executives of PSUs/ Offices. Various Sections in the Ministry and all PSUs were instructed to ensure its proper implementation.

11.1.13 Books, magazines and newspapers published in Hindi are available in Ministry's library. Help books, such as Administrative and Technical Terminology in Hindi, English-Hindi Dictionaries etc. have been provided to various Sections and Desks.

11.1.14 With a view to assess position of compliance of Official Language Rules and use of Hindi in the various offices of PSUs in different parts of the country, an inspection Team has been constituted under the Chairmanship of a Joint Secretary who is also the Chairman of OLIC of the Ministry. 10 offices in region "A" and "B" have been inspected in 2005-06.

11.2 PUBLIC GRIEVANCE CELL

In accordance with the guidelines of the Cabinet Secretariat, Government of India, the Public Grievance Cell has been functioning in the Ministry of Petroleum & Natural Gas as a regular measure. This Cell has been attending to the grievances of members of the public against the Public Sector Oil Company and other departments under the administrative control of this Ministry. All possible efforts are being taken to ensure the regular monitoring of the pubic grievances received through Department of Public Grievances, Department of Administrative Reforms and Public Grievances and other Departments of the Government as well as the members of the public. A systematic mechanism has been evolved so as to ensure speedy and expeditious redressal of the public grievances. This Public Grievance Cell is functioning under the charge of Director of Public Grievances.

During the year 2005-06 (upto 31st December, 2005), the Public Grievance Cell of this Ministry received a total of 371 grievances and the pendency of the grievances as on 31st March, 2005 was 14 grievances. During the year 2005-06 (upto 31st December, 2005), 186 grievances have been settled/disposed off.

The Director of Public Grievances in the Ministry is empowered to call for files/papers of the documents connected with grievances pending for more than 3 months and to take a decision thereon with approval of the Secretary, Ministry of petroleum & Natural Gas or Head of the Organisation empowered to communicate final decision to aggrieved parties.

11.3 INFORMATION FACILITATION COUNTER

The Information Facilitation Counter of the Ministry of Petroleum & Natural Gas was set up on 30th June, 1997 and the same has been functioning on regular basis. Its main responsibilities are to ensure transparency in the working of this Ministry and providing relevant information on all aspects of Oil Industry. The Citizens' Charter drafted by Experts of the Oil Industry under the aegis of this Ministry is the guiding force which aims at educating the common man about the consumers' entitlements to public services, including the standards of petromance, quality of products, mode of access to information, etc.

The type of information provided to the public has been ranging from the supply of Basic Petroleum Statistics to the provision of information on various locations in the country rostered under various Marketing Plans for Retail Outlets, LPG Distributorships, Kerosene Agencies. Dealer Selection Guidelines (both in Hindi and English) are provided to the members of the Public to enlighten them about the eligibility criteria. Material published by the Petroleum Conservation Research Association on SAVE OIL is prominently displayed at the Counter and supplied to the visitors on demand.

During the year 2005-06, 4,200 members of the public have benefited from the Information Facilitation Counter.

11.4 INFORMATION TECHNOLOGY INITIATIVES

With the continued efforts of National Information Centre (NIC) Ministry of Petroleum & Natural Gas has active IT enabled services. The main computer centre is equipped with 2 Servers, with structured LAN providing Internet & email facility to about 130 PCs. 30 more PCs will be connected shortly. This LAN is connected to NIC's NICNET through a shared 54 MBPS RF link and a stand by 4 MBPS Leased Line. All officers have been provided email accounts on NIC's server and senior officers have also been provided dialup accounts at their residence.

11.4.1 E-GOVERNANCE

There has been a consistent effort in implementing various e-Governance applications in the Ministry. A web enabled "Telephone Bills Payment & Monitoring System (TBPMS)" has been implemented for generation of Exchange wise Sanction Orders and for maintaining the history of each telephone allotted to the officers/sections of the Ministry. A "Composite Payroll System (CPS)" developed by NIC's Accounting Informatics Division, with the involvement of CGA, Ministry of Finance, for all Central Government Offices has been operational. Online payslips for each employee has been provided through Ministry's intra-website. A web enabled version of the "Office Procedure Automation (OPA)" (File Tracking Software) has been made operational. Website of the Mi9nistry has been completely revamped and made content rich and attractive in the first phase. Content Management System (CMS) for the website will be developed in the next phase. Information under Section 4(1) (b) of RTI Act has been made available on the website of the Ministry (http://petroleum.nic.in). Employees have been trained on the usage of ongoing applications like OPA, CPS, TBPMS etc. Intra-Web portal of the Ministry is being used as one point source of information for providing Circulars, Notices, Payslips and various administrative forms like EL, GPF and Medical etc.

As per directions from Cabinet Secretariat to host all the websites on Government of India's Webserver, websites of DGH, IOCL Tech, GAIL, EII have been hosted on NIC's server. Accounts for GAIL, CPCL, DGH and IBP have been created for uploading tenders on http://tenders.gov.in and accounts for IBP & EIL have been created for uploading policies on http://policies.gov.in

11.5 OUTSTANDING AUDIT OBJECTIONS

Audit had shown a total number of 67 objections as outstanding in its report submitted to the Ministry in 2005-06. Attempts have been made to settle the outstanding Audit observations expeditiously.

11.6 C & AG'S REPORT

Gist of important Audit observations included in the C&AG's Report for the year 2005 are at Appendix VIII.

11.7 RECENT CHANGES IN PRICING AND TAXATION OF PETROLEUM PRODUCTS

The trend in the international prices of Indian basket of crude oil and sensitive petroleum products for the years 2002-03, 2003-04 and 2005-06 compared with increase in domestic prices is depicted below:

11.7.1. Trend in the international oil prices & domestic prices

Period	Crude oil (Indian Basket) $/bbl	Petrol $/bbl	Diesel $/bbl	Kerosene $/bbl	LPG $/MT
March 2002	23.31	26.43	23.27	23.65	194.00
2002-03	26.66	30.15	28.93	29.33	280.40
2003-04	27.96	35.03	30.48	31.19	278.45
200-05	39.22	49.01	46.91	49.50	368.52
2005-06 (upto 15/2/06)	55.36	63.83	63.94	69.01	480.09
Percentage Increase in international prices in 2005-06 over Mar'02	137.5%	141.5%	174.8%	191.9%	147.5%
Percentage Increase in current retail price over Mar'02 (Delhi retail prices considered)	-	63.9%	83.5%	0.8%	22.6%

Note: Indian basket comprises price of Brent (dated) and Oman/Dubai average in the ratio of 43:57 upto 2004-05 & 42:58 for 2005-06.

11.7.2 With the import dependence of domestic refineries as high as 76% for their crude oil requirement and with the dismantling of APM for petrol and diesel and shift over to import parity pricing in April 2002, the impact of rising international prices were not fully reflected in domestic selling prices. Despite the increase in the international prices, the selling prices of petrol and diesel were not revised by the oil marketing companies (OMC's) in line with international prices. Similarly, the basic prices of domestic LPG and PDS kerosene remained largely unrevised since 2002, despite the steep increase in crude prices.

11.7.3 While passing on the entire impact of the steep increase in the oil prices to the consumers would have resulted in steep increase in the domestic prices, the Government took certain measures in favour of vulnerable sections of the economy, by ensuring that the burden was shared between Government, the oil marketing companies (OMC's), and consumers:

11.7.4 **Reduction/Changes in Central taxes**

- The excise duties on petrol were scaled down from 30% to 26%, on diesel from 14% to 11% and on LPG from 16% to 8% effective June 16th 2004.
- Effective 19th August 2004, further reduction in excise duties on refined products was given effect to. The applicable excise duty on petrol was lowered from 26% to 23% and that on diesel brought down from 11% to 8%. This was combined with reduction in the customs duty on petrol and diesel from 20% to 15%. Similarly, excise duty on PDS kerosene was scaled down from 16% to 12% and customs duty on LPG and Kerosene from 10% to 5%.
- Effective 1st March 2005, the customs and excise duty on PDS Kerosene and LPG for domestic use were reduced to zero.
- Effective 1st March 2005, the customs duty on petrol and diesel were reduced from 15% to 10% and that on crude oil brought down from 10% to 5%. The customs duty on aviation turbine fuel (ATF), furnace oil (FO) [for general use], low sulphur heavy stock (LSHS) [for general use] and bitumen were reduced from 20% to 10%. Customs duty on Naphtha, FO and LSHS for fertilizer use continued to remain NIL. The resultant loss of tax revenue was neutralised by way of increase in the excise duties on petrol and diesel. Accordingly, the excise duty on petrol was revised from 23% plus Rs.7.50 per litre to 8% plus Rs.13.00 per litre (from Rs 12.07 per litre to Rs 14.59 per litre) and on diesel from 8% plus Rs.1.50 per litre to 8% plus Rs.3.25 per litre (from Rs 3.15 per litre to Rs 4.80 per litre)

11.7.5 **Price band mechanism for petrol and diesel**

Greater flexibility to OMC's to allow for autonomous adjustments in prices of petrol and diesel were sought to be provided. Effective 1st August 2004, the revised methodology, allowing oil companies limited freedom to revise the prices of petrol and diesel within a reasonable price band was put in place. The concept of price band was based on the principles of rolling average prices of these products in the international markets. Accordingly, oil companies were permitted to carry out autonomous adjustments in prices within a band of +/- 10% of the mean of rolling average C&F prices of last 12 months and last quarter, i.e. three months. In case of breach of this band, the OMCs were to approach the Ministry of Finance through Ministry of Petroleum & Natural Gas to modulate the excise duty rates so that the spiraling prices prevailing in the international markets do not cause undue hardships to the consumers. However, consequent to further rise in the international prices the price band approach was given up.

11.7.6 **Loss Sharing with Upstream PSU companies**

A larger share of the losses of public sector OMCs on account of domestic LPG and PDS kerosene, petrol and diesel were passed on to be absorbed by upstream companies, namely, ONGC, OIL and GAIL.

11.7.7 **Upward adjustment in retail selling prices**

- Effective 16th June 2004, the OMCs were allowed a moderate increase in prices of petrol by Rs 2.00/litre, diesel by Re 1.00/ litre and LPG by Rs.20 per cylinder. This was coupled with reduction in excise duties.
- Effective 1st August 2004, the retail price of petrol was increased by Rs 1.10 per litre and for diesel by Rs 1.42 per litre.
- Effective 5th November 2004, the price of domestic LPG was increased by Rs 20 per cylinder, the price of petrol was increased by Rs 2.19 per litre while the price of diesel was increased by Rs 2.12 per litre.
- Effective 21st June 2005, the price of petrol was increased by Rs 2.50 per litre while the price of diesel was increased by Rs 2.00 per litre.

- Effective 7th September 2005, prices of petrol and diesel were increased, by Rs 3.00/litre and Rs 2.00/litre at Delhi.
- The selling price of Kerosene (PDS) has remained untouched since 2002.

11.7.8 Financial repercussions

In consequence of the non-revision of petrol and diesel, and even more so of PDS kerosene and domestic LPG, the profitability of oil companies were eroded in 2004/05 and 2005/06. In the current financial year (2005/06) the financial position of the PSU oil refining and marketing companies have come to such a pass that they would make huge losses, were it not for transfers from upstream companies and subsidies from the Government. This is evident from the data on profit after tax given below:

Profit After Tax from Financial Years 2001-02 to 2004-05 and April - December 2005 – PSUs

(Rs/crore)

Company	2001-02	2002-03	2003-04	2004-05	2005-06 Apr-Dec'05
UPSTREAM OIL COS					
ONGC	6197.88	10529.30	8664.40	12983.05	11344.89
OIL	525.22	916.73	949.70	1061.70	1354.53
GAIL	1185.83	1639.00	1869.34	1953.91	1900.81
Sub Total	**7908.93**	**13085.03**	**11483.44**	**15998.66**	**14600.23**
INTEGRATED OIL COS.					
IOC	2884.66	6114.89	7004.82	4891.38	889.66
HPC	787.98	1537.36	1903.94	1277.33	-1607.78
BPC	849.83	1250.03	1694.57	965.80	-1658.60
IBP	195.79	87.75	214.66	58.87	-520.83
Sub Total	**4718.26**	**8990.03**	**10817.99**	**7193.38**	**-2897.55**
STAND ALONE REFINERIES					
KRL	68.77	456.00	555.09	842.12	220.60
MRPL	-492.48	-411.81	459.42	879.76	401.10
NRL	122.98	174.63	214.95	409.15	273.65
CPCL	63.71	302.89	400.05	596.97	451.70
BRPL	-198.61	178.45	303.74	478.30	144.11
Sub Total	**-435.63**	**700.16**	**1933.25**	**3206.30**	**1491.16**
TOTAL- PSU	**12191.56**	**22775.22**	**24234.68**	**26398.34**	**13193.84**

The oil companies have reported their financial distress in terms of "under-recoveries" with respect to the import parity formula that has been in use ever since the end of the APM regime.

11.7.9 Reported "under-recoveries" of PSUs-OMCs

As per import parity formula and prevalent customs duties

Rs in Crore

Product	2003-04	2004-05	2005-06 (Est.)
PDS Kerosene	3,751	9,480	14028*
Domestic LPG	5,523	8,362	9,676*
Total on PDS Kerosene and Domestic LPG	9,274	17,842	23,704*
Petrol and diesel	nil	2,304	16,000
Total	**9,274**	**20,146**	**39,704**

Note: Gross under recoveries before considering upstream & refinery discounts but after netting out subsidy provided in Union Budget. * Gross subsidy (before fiscal subsidy) is Rs 15,328 crore and Rs 11,276 crore for PDS kerosene and domestic LPG respectively amounting to a total of Rs 26,604 crore.

11.7.10 The upstream oil companies have been contributing large sums under the extant arrangement of loss-sharing evolved by Government. The year-wise contribution from 2004-05 onwards is below:

(Rs. in crore)

Upstream oil companies	2003-04	2004-05	2005-06 (Apr-Dec) (Provisional)
ONGC	2,695	4,104	8,549
GAIL	428	1,137	526
OIL	nil	706	676
Total	**3,123**	**5,947**	**9,751**

11.8 Subsidies on PDS kerosene and Domestic LPG

11.8.1 In a gazette notification issued in November 1997, the Government set a timetable for the gradual phasing of subsidies on PDS kerosene and domestic LPG. The stated policy called for the retention of price subsidies @ 33.3 percent for kerosene and 15 percent for LPG for household use. The subsidy phasing was originally planned to be completed by the time of sector deregulation in April 2002. However, the Government later decided that the subsidy on domestic LPG and PDS kerosene would be provided on a specified flat rate basis from the Consolidated Fund from April 1, 2002. After providing for this subsidy, the retail prices were to vary as per changes in the international prices. These subsidies were to be phased out in three to five years, and in terms of a decision taken by the Government in March 2005, subsidy at 1/3rd of the level applicable for 2002-03 would now continue till 31.3.2007.

11.8.2 The Government however did not allow the oil companies to increase the prices of PDS kerosene and domestic LPG in tune with the international prices since 2002-03. The Government has further decided that a portion of the under recoveries on sensitive products be shared by the upstream oil companies. The upstream companies have contributed Rs 3,123 crore and Rs 5,947 crore during 2003-04 and 2004-05 respectively as discounts. While the subsidy on PDS kerosene and domestic LPG from the fiscal budget is reducing, in view of the phase-out, the subsidy bill to the account of the oil companies has increased substantially which is evident from the data given below:

SUBSIDY ON PDS KEROSENE & DOMESTIC LPG

(Rs. in crore)

Particulars	2002-03	2003-04	2004-05	2005-06 (Est.)
Fiscal Budget	6,709*	4,079	2,930	2,900
Oil companies "Under recovery"	5,430	9,274	17,842	23,704
Total	**9,926**	**15,566**	**20,772**	**26,604**

*Arrears of 2002-03 of Rs 2,213 crore were paid through fiscal budget in 2003-04 of Rs 6,292 crore. This amount has been reclassified to 2002-03 and adjusted in 2003-04.

SUBSIDY ON PDS KEROSENE & DOMESTIC LPG

(Rs./Selling Unit)

	PDS Kerosene (Rs./Litre)			
Item	2002-03	2003-04	2004-05	2005-06 (Est.)
Subsidy from fiscal budget	2.45	1.65	0.82	0.82
"Under recoveries" to oil companies*	1.69	3.12	7.96	12.14
Total subsidy to consumer	4.14	4.77	8.78	12.96
	Domestic LPG (Rs./Cylinder)			
Subsidy from fiscal budget	67.75	45.18	22.58	22.58
"Under recoveries" to oil companies*	62.27	89.54	124.89	147.74
Total subsidy to consumer	130.02	134.72	147.47	170.32

* On a gross basis before adjusting amount shared by upstream companies

11.8.3 During 2005-06, besides the initial budgeted subsidy of Rs 2,900 crore, Government is also providing additional support in the form of "Oil Bonds" to the PSU oil marketing companies to the extent of Rs 11,500 crore. Balance of "under recovery" will be borne by the PSU oil companies.

11.9 Changes in Central taxes

11.9.1 In view of the steep increase in the international prices of crude oil and petroleum products in 2004 and 2005, the Government has taken measures to reduce to level of taxes. The details of the major changes that have taken place in the level of Central taxes since 1998 are given below:

MAJOR CHANGES IN EXCISE/CUSTOMS DUTY

EXCISE DUTY

Item	As on 2.6.98	As on 28.2.99	As on 30.9.00	As on 1.3.02	As on 1.3.03	As on 16.6.04	As on 19.8.04	As on 01.03.05
Crude	Rs.900 pmt as cess	Rs.900 pmt as cess	Rs.900 pmt as cess	Rs.1800 pmt As cess	Rs.1800 pmt as cess	Rs.1800 pmt as cess	Rs.1800 pmt as cess	Rs.1800 pmt as cess
Petrol	32% + Re 1 per litre	32% + Re 1 per litre	16% + Re 1 per litre	32% + Rs 7 per litre	30% + Rs.7.50 per litre	26% + Rs.7.50 per per litre	23% + Rs.7.50 per litre	8% + Rs.13 per litre
Diesel	15%	16% + Re 1 per litre	12% + Re 1 per litre	16% + Rs 1 per litre	14% + Rs.1.50 per litre	11% + Rs.1.50 per litre	8%+ Rs.1.50 per litre	8% + Rs.3.25 per litre
SKO (PDS)	10%	8%	8%	16%	16%	16%	12%	NIL
Domestic LPG	10%	8%	8%	16%	16%	8%	8%	NIL

CUSTOMS DUTY

Item	As on 2.6.98	As on 28.2.99	As on 1.3.2000	As on 30.9.2000	As on 1.3.03	As on 19.8.04	As on 1.3.05
Crude	22%	20%	15%	10%	10%	10%	5%
Petrol	32%	30%	25%	20%	20%	15%	10%
Diesel	32%	30%	25%	20%	20%	15%	10%
SKO (PDS)	Nil	Nil	Nil	Nil	10%	5%	Nil
Domestic LPG	12%	10%	10%	10%	10%	5%	Nil

Note: With effect from 9-7-04, an additional levy of Education Cess @ 2% has been imposed.

11.10 Contribution of Oil PSUs for the relief work caused by earthquake in Jammu & Kashmir

Sl. No.	Name of the oil PSU	Rs. in crore
1.	Oil & Natural Gas Corporation	2
2.	Indian Oil Corporation	1
3.	Bharat Petroleum Corporation Limited	0.5
4.	Hindustan Petroleum Corporation Limited	0.5
5.	GAIL (India) Limited	0.75
6.	Oil India Limited	0.75



APPENDICES

APPENDIX - I

WORK ALLOCATED TO MINISTRY OF PETROLEUM AND NATURAL GAS

1 Exploration for, and exploitation of petroleum resources, including natural gas and Coal Bed Methane.

2 Production, supply, distribution, marketing and pricing of petroleum, including natural gas, Coal Bed Methane and petroleum products.

3 Oil refineries including Lube Plants.

4 Additives for petroleum and petroleum products.

5 Lube Blending and greases.

6 Planning, development and control, of and assistance to all industries dealt with by the Ministry.

7 All attached or subordinate offices or other organizations concerned with any of the subjects specified in the list.

8 Planning, development and regulation of oilfield services.

9 Public sector projects falling under the subjects included in this list. Engineers India Limited and IBP Company, together with their subsidiaries, except such projects as are specifically allotted to any other Ministry/ Department.

10 The Oil Fields (Regulation and Development) Act, 1948 (53 of 1948).

11 The Oil and Natural Gas Commission Act, 1959 (43 of 1959).

12 The Petroleum & Minerals Pipelines (Acquisition of right of User in Land) Act, 1962 (50 of 1962).

13 The Esso (Acquisition of Undertakings in India) Act, 1974 (4 of 1974).

14 The Oil Industry (Development) Act, 1974 (47 of 1974)

15 The Burmah-Shell (Acquisition of Undertakings in India) Act, 1976 (2 of 1976).

16 The Caltex (Acquisition of Shares of Caltex Oil Refining (India) Limited and of the Undertakings in India of Caltex (India) Limited Act, 1977.

17 Administration of the Petroleum Act, 1934 (30 of 1934) and the rules made thereunder.

APPENDIX - II

List of public sector undertakings and other organisations under the administrative control of the Ministry of Petroleum & Natural Gas

I.	**Oil Companies in which Government of India has a shareholding (31.03.2005)**		
1.	Oil & Natural Gas Corporation Limited		74.14%
2.	Indian Oil Corporation Limited		82.03%
3.	Hindustan Petroleum Corporation Limited		51.01%
4.	Bharat Petroleum Corporation Limited		66.20%
5.	GAIL (India) Limited		57.35%
6.	Engineers India Limited		90.40%
7.	Oil India Limited		98.13%
8.	Biecco Lawrie & Co. Ltd.		57.00%
9.	Balmer Lawrie & Co. Ltd.		61.80%
II.	**Subsidiaries and Other Companies.**		
1.	ONGC Videsh Limited	-	wholly owned by ONGC
2.	Mangalore Refinery & Petrochemicals Limited	-	subsidiary of ONGC
3.	Indian Oil Blending Limited	-	wholly owned by IOC
4.	Bongaigaon Refinery & Petrochemicals Limited	-	subsidiary of IOC
5.	IBP Co. Ltd	-	subsidiary of IOC
6.	Chennai Petroleum Corporation Limited	-	subsidiary of IOC
7.	Indian Oil Mauritius Ltd	-	subsidiary of IOC
8.	Numaligarh Refineries Limited	-	subsidiary of BPC
9.	Kochi Refineries Limited	-	subsidiary of BPC
10.	Certification Engineers International Limited	-	wholly owned by EIL
11.	EIL Asia Pacific Sdn BHD	-	wholly owned by EIL
III.	**Other Organisations**		
1.	Oil Industry Development Board		
2.	Petroleum Conservation Research Association		
3.	Oil Industry Safety Directorate		
4.	Centre for High Technology		
5.	Petroleum India International		
6.	Directorate General of Hydrocarbons		

APPENDIX - III

PRODUCTION OF CRUDE OIL AND NATURAL GAS

ITEM	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06* (Apr-Dec)
1	2	3	4	5	6	7
1. CRUDE OIL PRODUCTION ++ ('000' Tonnes)						
(a) Onshore:						
Gujarat	5815	6002	6042	6131	6189	4665
Assam/Nagaland	5199	5095	4660	4592	4701	3399
Arunachal Pradesh	78	69	74	77	83	78
Tamil Nadu	436	440	395	375	391	294
Andhra Pradesh	263	283	300	281	227	154
Total (a)	**11791**	**11889**	**11471**	**11456**	**11591**	**8590**
of which OIL	3286	3182	2951	3002	3196	2465
ONGC	8428	8636	8445	8380	8321	6055
JVC/Private	77	71	75	74	74	70
(b) Offshore:						
ONGC	16629	16074	17560	17677	18164	12163
JVC/Private	4006	4069	4013	4240	4226	3288
Total (b)	**20635**	**20143**	**21573**	**21917**	**22390**	**15451**
Grand Total (a+b)	**32426**	**32032**	**33044**	**33373**	**33981**	**24041**
2. NATURAL GAS PRODUCTION (Million Cubic Metres)						
(a) Onshore:						
Gujarat	3149	3280	3531	3517	3711	2750
Assam/Nagaland	2204	1992	2047	2204	2248	1824
Arunachal Pradesh	32	32	36	44	40	32
Tripura	376	416	446	508	496	368
Tamil Nadu	200	349	466	605	678	654
Andhra Pradesh	1604	1797	2038	1927	1707	1255
Rajasthan	160	101	162	168	213	174
Total (a)	**7725**	**7967**	**8726**	**8973**	**9093**	**7057**
of which OIL	1861	1618	1744	1887	2009	1708
ONGC	5555	5725	5871	5779	5657	4175
JVC/Private	309	624	1111	1307	1427	1174
(b) Offshore:						
ONGC	18465	18317	18367	17805	17313	12717
JVC/Private	3287	3430	4296	5184	5357	4323
Total (b)	**21752**	**21747**	**22663**	**22989**	**22670**	**17040**
Grand Total (a+b)	**29477**	**29714**	**31389**	**31962**	**31763**	**24097**

*: Provisional
Source: ONGC, OIL and DGH.

++:Includes condensates
$: Included in Assam.

APPENDIX - IV

REFINERY CRUDE THROUGHPUT

('000 Tonne)

Refinery	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06* (Apr-Dec)
1	2	3	4	5	6	7
(a) PUBLIC SECTOR	**77411**	**77620**	**82015**	**89495**	**92808**	**70913**
IOC,Guwahati,Assam	707	656	458	891	1002	630
IOC,Barauni,Bihar	3122	2876	2994	4304	5082	4158
IOC,Koyali,Gujarat	12006	11697	12434	12758	11698	8353
IOC,Haldia,West Bengal	3873	4026	4513	4518	5418	4045
IOC,Mathura,Uttar Pradesh	7133	8031	8207	8248	6387	5845
IOC, Digboi, Assam	678	653	581	602	651	496
IOC, Panipat, Haryana	5707	5822	6101	6338	6387	4902
Total IOC	**33226**	**33761**	**35288**	**37659**	**36625**	**28429**
BPC, Mumbai, Maharashtra	8683	8744	8711	8757	9138	7380
HPC, Mumbai, Maharashtra	5575	5641	6078	6108	6118	4432
HPC,Visakh,Andhra Pradesh	6405	6706	6851	7591	7825	5386
Total HPC	**11980**	**12347**	**12929**	**13699**	**13943**	**9818**
KRL, Kochi, Kerala	7520	6797	7580	7854	7924	4929
CPCL, Manali, Tamil Nadu	6046	6123	6176	6387	8181	7294
CPCL,Narimanam,Tamil Nadu	579	566	643	653	742	514
Total CPCL	**6625**	**6689**	**6819**	**7040**	**8923**	**7808**
BRP, Bongaigaon, Assam	1488	1475	1463	2126	2311	1794
NRL, Numaligarh, Assam	1451	2307	1879	2200	2042	1530
ONGC, Tatipaka, Tamil Nadu	0	13	93	91	93	71
MRPL, Mangalore, Karnataka	6438	5487	7253	10069	11809	9154
(b) PRIVATE SECTOR	**26033**	**29654**	**30544**	**32345**	**34309**	**24471**
RPL, Jamnagar, Gujarat	26033	29654	30544	32345	34309	24471
Total (a+b)	**103444**	**107274**	**112559**	**121840**	**127117**	**95384**

*: Provisional

Source: Public Sector Undertakings / Private Company.

Note:
1) CPCL and BRPL are subsidiaries of IOC.
2) KRL and NRL are subsidiaries of BPC.
3) MRPL is subsidiary of ONGC.

APPENDIX - V

PRODUCTION OF PETROLEUM PRODUCTS

('000 Tonne)

PRODUCTS	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06* (Apr-Dec)
1	2	3	4	5	6	7
(A) FROM CRUDE OIL						
1. Light Distillates	**25048**	**26539**	**28619**	**31971**	**32701**	**23029**
of which LPG	4088	4778	4903	5348	5569	3817
Mogas	8070	9699	10361	10999	11017	7575
Naphtha	9908	9180	9650	11317	14315	10510
Others[LD]	2982	2882	3705	4307	1800	1127
2. Middle Distillates	**52445**	**54409**	**55937**	**60018**	**62465**	**47137**
of which Kerosene	8714	9681	10028	10187	9300	6721
ATF/RTF/Jet A-1	2513	2595	3053	4289	5201	4439
HSD	39052	39899	40207	43316	45880	34767
LDO	1481	1703	2079	1659	1546	724
Others[MD]	685	531	570	567	538	486
3. Heavy Ends	**18121**	**19056**	**19584**	**21474**	**23067**	**16780**
of which Furnace Oil	6479	7488	7529	8737	10519	7646
LSHS/HHS/RFO	4913	4739	4638	4635	4261	2967
Lube Oils	684	651	684	666	646	466
Bitumen	2721	2561	2941	3397	3349	2461
Petroleum Coke	2473	2784	2659	2743	3158	2317
Paraffin Wax	51	45	42	53	66	48
Others Waxes	61	37	3	Neg.	8	3
Others[HE]	739	751	1088	1243	1060	872
Total (1+2+3)	**95614**	**100004**	**104140**	**113463**	**118233**	**86946**
(B) FROM NATURAL GAS						
LPG	2045	2205	2370	2320	2240	1611

*: Provisional

Source: Public Sector Undertakings / Private Company.

LD: Includes Propylene, C-3, Propane, Hexane, Special Boiling Point Spirit, Benzene, Toluene, Petroleum Hydro Carbon Solvent, Natural Heptane, Methyl Tertiary Butyl Ether, Poly Isobutine, Poly Butadine Feed Stock and Methyl Ethyl Keetone Feed Stock.

MD: Includes Mineral Turpentine Oil, JP-5, Linear Alkyl Benzene Feed Stock, Aromex, Jute Batching Oil, Solvent 1425, Low Sulphur Heavy Fuel HSD, Desulphurisation Hydrocracker Bottom and Special Kerosene.

HE: Includes Carbon Black Feed Stock, Sulphur, Solar Oil, Light Aluminium Rolling Oil and Extracts.

APPENDIX VI

SALES/CONSUMPTION OF PETROLEUM PRODUCTS

('000' Tonne)

Products	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06 (Apr-Dec)
1 Light Distillates of which	20531	24531	29314	29618	31755	34335	35404	23140
LPG	5352	6421	7016	7728	8351	9305	10203	7431
Mogas	5507	5909	6613	7011	7570	7897	8251	6455
Naphtha	8891	10801	11673	11728	11929	11868	13993	7904
NGL	330	91	6	27	32	0	0	0
Others	451	1309	4006	3124	3873	5265	2957	1350
2 Middle Distillates of which	53330	55434	53467	51439	52065	52023	53906	40097
SKO	12243	11898	11307	10432	10405	10230	9395	6993
ATF	2112	2197	2249	2256	2269	2484	2811	2356
HSDO	37217	39295	37958	36546	36644	37074	39651	29662
LDO	1278	1512	1399	1592	2063	1619	1476	685
Others	480	532	554	613	684	616	573	401
3 Heavy Ends of which	16701	17121	17293	19375	20306	21393	22282	15544
Furnace Oil @	7973	7690	7664	8451	8027	8312	9154	6273
LSHS/HHS	4537	4763	4989	4531	4711	4633	4404	2968
Lubes/Greases	1097	1243	1115	1137	1250	1427	1317	615
Bitumen	2412	2879	2774	2584	2986	3373	3337	2313
Petroleum Coke	393	328	1845	1798	2563	2877	3129	2650
Paraffin Wax	36	53	43	45	41	41	60	45
Other Waxes	76	89	62	51	13	20	20	2
Others	177	76	330	775	715	710	822	678
TOTAL	90562	97086	100074	100432	104126	107751	111592	78781

@ : LSHS sales by pvt. parties included in FO. Break-up of these two products is not available.

APPENDIX - VII

IMPORTS / EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS

(Qty :'000' Tonne, Value : Rs.Crore)

ITEM	2002-03		2003-04		2004-05		2005-06 (Apr-Dec)*	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7	8	9
GROSS IMPORTS								
A. Crude Oil	**81989**	**76195**	**90434**	**83528**	**95861**	**117003**	**72227**	**121967**
B. Petroleum Products								
I. Light Distillates	**3857**	**5418**	**4529**	**6034**	**5391**	**9973**	**4910**	**11202**
1. LPG	1073	1867	1708	2558	2334	4413	2177	4812
2. MS	0	0	0	0	233	501	425	1164
3. Naphtha	2784	3551	2371	2884	2214	4029	1919	4406
4. Propane/MTBE	0	0	450	592	610	1030	389	820
II. Middle Distillates	**806**	**934**	**906**	**1015**	**1028**	**2047**	**1519**	**3701**
1. ATF	2	7	2	9	3	14	2	9
2. SKO	698	808	804	890	211	429	766	1893
3. HSD	106	119	100	116	814	1604	751	1799
III. Heavy Ends	**2565**	**2495**	**2566**	**2674**	**2409**	**2867**	**1579**	**2687**
1. FO/LSHS	1256	1084	953	810	741	692	530	690
2. Lubes/Others[HEI]	1309	1411	1613	1864	1668	2175	1049	1997
Total (B)	**7228**	**8847**	**8001**	**9723**	**8828**	**14887**	**8008**	**17590**
Grand Total (A+B)	**89217**	**85042**	**98435**	**93251**	**104689**	**131890**	**80235**	**139557**
EXPORTS								
Petroleum Products								
I. Light Distillates	**4493**	**5475**	**5448**	**7100**	**6288**	**11513**	**4907**	**11617**
1. LPG	0	0	0	0	145	307	36	102
2. MS	2336	3011	2979	4021	2897	5625	1465	3491
3. Naphtha	2067	2325	2176	2653	2925	5030	3291	7745
4. TAME	90	139	83	117	0	0	10	25
5. Reformate	0	0	210	309	321	551	105	254
II. Middle Distillates	**3875**	**4337**	**7841**	**8713**	**9973**	**16689**	**7907**	**18019**
1. SKO	0	0	0	0	207	460	88	262
2. HSD/LDO	3178	3547	6181	6763	7286	11782	5795	12754
3. ATF	697	790	1660	1950	2480	4447	2024	5003
III. Heavy Ends	**1921**	**1056**	**1331**	**968**	**1950**	**1726**	**2023**	**2767**
1. FO/LSHS	1120	902	1310	928	1792	1517	1301	1472
2. VGO/Lubes	101	109	17	36	102	137	698	1276
3. Coke/Bitumen/ White Oil/Paraffin	700	45	4	4	56	71	24	19
Total	**10289**	**10868**	**14620**	**16781**	**18211**	**29928**	**14837**	**32403**
NET IMPORTS								
A. Crude Oil	**81989**	**76195**	**90434**	**83528**	**95861**	**117003**	**72227**	**121967**
B. Pol.Products	**-3061**	**-2021**	**-6619**	**-7058**	**-9383**	**-15041**	**-6829**	**-14813**
Grand Total	**78928**	**74174**	**83815**	**76470**	**86478**	**101962**	**65398**	**107154**

TAME: Tertiary Amyl Methyl Ether.

*: Provisional.

HEI: Includes Bitumen, Lube Oil Base Stock, Low Sulphur Waxy Residue, Carbon Black Feed Stock, Rubber Processing Oil and Paraffin Wax.

Source: Petroleum Planning & Analysis Cell, New Delhi.

APPENDIX - VIII

C&AG'S REPORT

Indian Oil Corporation Limited

Review on Branching and Capacity augmentation of Pipelines in Northern Region

Increase in the pipe size of Mathura-Tundla Pipeline without approved proposals for extension of the pipeline to Kanpur and Gwalior and for expansion of Mathura refinery rendered the expenditure of Rs. 6.20 crore on increased pipe size infructuous.

(Para 3.1.5 of Report No. 6 of 2005)
Commercial

Due to delayed review of the demand-supply position, the Company incurred an infructuous expenditure of Rs. 2.24 crore on the capacity augmentation of the Panipat-Ambala-Jalandhar sections of the Mathura-Jalandhar Pipeline.

(Para 3.1.6 of Report No. 6 of 2005)
Commercial

An expenditure of Rs. 66.68 crore incurred on Phase-II augmentation of Kandla-Bhatinda Pipeline was avoidable as the throughput did not at any time justify this augmentation.

(Para 3.1.9 of Report No. 6 of 2005)
Commercial

Encashment of the bank guarantees of the contractor in excess of requirements resulted in payment of interest of Rs. 70.29 crore.

(Para 3.1.10 of Report No. 6 of 2005)
Commercial

Review of Re-engineering Project (Manthan)

Instead of doing the rollout of the project beyond the first 99 sites by in-house expertise as per plan, the work was assigned to five outside consultants entailing an additional and avoidable expenditure of Rs. 9.56 crore.

(Para 5.1.4 of Report No. 6 of 2005)
Commercial

Due to delay of over two years from September 2002 to November 2004 in completion of the IT re-engineering project (Manthan) the Company could not derive the projected benefits of Rs. 358 crore per annum from on-line integrated business processes and optimization in supply Chain Management.

(Para 5.1.6 of Report No. 6 of 2005)
Commercial

Appointment of vendor for delivery of 'add-ons' software packages was done without inviting global tender. The bid was finalized after a delay of 25 months in evaluation of techno-commercial bid, waiving important tender conditions.

(Para 5.1.8 of Report No. 6 of 2005)
Commercial

The Company failed to identify and allocate Rs. 20.32 crore as the cost of manpower deployed from various divisions towards implementation of the project.

(Para 5.1.9 of Report No. 6 of 2005)
Commercial

The Company had not been able to provide adequate training to all users for operating in the new technological environment.

(Para 5.1.13 of Report No. 6 of 2005)
Commercial

The Company had failed to appreciate the possible risks of not keeping the off-site data back up at site(s) other than their Primary Data Centre before 'go-live' of sites. Instances of breakdown of leased links interrupting the business transactions occurred at sites, which were not put on the three tiers Communication Network.

(Para 5.1.14 and 5.1.31 of Report No. 6 of 2005)
Commercial

Although 'As Is' business processes continued to be in operation, their non-incorporation as 'To Be' business processes in the ERP Software resulted in gaps in the functionalities provided by SAP.

(Para 5.1.17 of Report No. 6 of 2005)
Commercial

Adequate sign-off procedures were not followed by the Company at the time of 'go-live' of SAP which resulted in uploading the data without purification. This was confirmed when Audit noticed that data in respect of lube inventory was not correctly uploaded at depot at Ajmer in December 2003 which resulted in difference of Rs. 2.63 crore (May 2004) in the physical inventory and stock as per SAP.

(Paras 5.1.23 and 5.1.36 of Report No. 6 of 2005)
Commercial

The Management had not carried out any independent certifications. No post implementation review of the system was conducted by outside agencies.

(Para 5.1.45 of Report No. 6 of 2005)
Commercial

The Company had not been able to identify any tangible benefits of the project so far. None of the Critical Success Factors had been achieved despite implementation of SAP at 292 sites (March 2004).

(Paras 5.1.9 and 5.1.45 of Report No. 6 of 2005)
Commercial

Irregularities on individual transactions in IOCL

Defective planning and lack of foresight of Indian Oil Corporation Limited (IOCL) resulted in infructuous expenditure of Rs. 8.95 crore in 1999-00 on replacement of pipeline with higher diameter of Kandla Port.

(Para 4.1.2 of Report No. 6 of 2005)
Commercial

IOCL purchased land for an amount of Rs. 2.78 crore in July 1998 to set up an LPG Bottling Plant at Bhilwara (Rajasthan) without carrying out detailed feasibility study. The project was subsequently abandoned thereby resulting in blockage of Rs. 2.78 crore besides infructuous expenditure of Rs. 37.90 lakh.

(Para 4.1.3 of Report No. 6 of 2005)
Commercial

IOCL incurred an infructuous expenditure of Rs. 2.17 crore during 2000-01 on an abandoned project as it decided to shift its depot from Satna to Bagha without considering liability of providing employment to local people and without entering into contract with Hindustan Petroleum Corporation Limited for sharing cost of railway siding, which necessary for economic viability of the depot.

(Para 4.1.4 of Report No. 6 of 2005)
Commercial

Creation of computerized loading facilities by IOCL at Karnal bottling plant in July 1998 and September 2000 without proper planning resulted in an infructuous expenditure of Rs. 2.01 crore out of which only facilities costing Rs. 79 lakh only could be purposefully used.

(Para 4.1.5 of Report No. 6 of 2005)
Commercial

IOCL failed to comprehensively assess the demand for low sulphur heavy stock which led to under utilization of Storage tanks and railway siding constructed at a cost of Rs. 8.40 crore and commissioned during December 1999 to March 2001.

(Para 4.2.7 of Report No. 6 of 2005)
Commercial

The IOCL made an idle investment of Rs. 4.03 crore in the bitumen emulsion plant made in April 1999 due to improper assessment of future demand of bitumen emulsion.

(Para 4.2.8 of Report No. 6 of 2005)
Commercial

Due to delay in requesting IOCL for marketing its products within the country instead of exporting to avail benefits of excise duty exemption for north eastern refineries, the Bongaigaon Refinery and Petrochemicals Limited (BRPL) had to suffer a loss of Rs. 4.09 crore for the exports made during the period March-August 2002.

(Para 4.6.1 of Report No. 6 of 2005)
Commercial

IOCL transferred petroleum products to its locations outside Andhra Pradesh during April 2002 to June 2003 as stock transfer instead of requesting HPCL to execute the supplies and attracted avoidable purchase tax amounting to Rs. 10.39 crore.

(Para 4.6.4 of Report No. 6 of 2005)
Commercial

Oil and Natural Gas Corporation Limited

Review on Performance of Products Sharing Contracts with private exploration and production companies

Since 1991, the Government invited foreign and domestic private sector companies to participate in the development of oil and gas fields, fully/partly discovered, and the exploratory blocks. The audit results of the production sharing contracts (PSC) between the Government, ONGC and the foreign and domestic private sector companies, in respect of medium-sized fields, were examined and incorporated in the CAG's Audit Report of 1996. This report contains a follow-up of the Audit review of the issues raised in the previous Audit Report and the performance of the production sharing contracts.

(Paras 3.3.1 and 3.3.3 of Report No. 6 of 2005)
Commercial

The major issues of 'non-reimbursement of past costs to ONGC', 'import parity price not made applicable for gas produced by national oil companies (ONGC and OIL)' and 'non-finalisation of agreement for sale of crude oil and gas with the Government's nominees (IOCL and GAIL)'raised in the CAG's Audit Report of 1996 remained unaddressed in spite of the assurances given to Audit by the Government.

(Para 3.3.4 of Report No. 6 of 2005)
Commercial

Gas price allowed to different JVs was higher than the price it was sold by GAIL to consumers. ONGC was asked by the Government to meet the loss suffered by GAIL on this account and consequently it absorbed an adverse impact of Rs. 4,265 crore upto March 2004 in respect of five medium-sized fields.

(Para 3.3.4 of Report No. 6 of 2005)
Commercial

The non-finalisation of the Agreements for sale of crude oil and gas led to non-recovery of Rs. 277.15 crore for transportation of gas by ONGC and short payment of Rs. 300.59 crore to ONGC towards processing charges in respect to Panna/Mukta gas.

(Para 3.3.5 (i) of Report No. 6 of 2005)
Commercial

Transportation charges and processing charges in respect of Tapti field had not been finalized and the provisional tariff affected the Government/ONGC take.

(Para 3.3.5 (ii) of Report No. 6 of 2005)
Commercial

Deficiencies in PSC of Ravva JV led to the disputes over calculation of profit petroleum, such as computation of pre-tax rate of return (PTRR) and payment of production bonus (Rs. 47.56 crore) to ONGC.

(Para 3.3.5 (iii) of Report No. 6 of 2005)
Commercial

The recovery of levies by the Government was adversely affected due to absence of defination of 'wellhead value' of gas on which the royalty was to be calculated and a provision in PSCs in deviation with draft PSCs approved by ONGC Board on payment of royalty/cess on the Government's share of profit petroleum.

(Para 3.3.6 (i) and (ii) of Report No. 6 of 2005)
Commercial

ONGC was obliged to bear 100 per cent royalty in respect of pre-NELP exploratory blocks (Rs. 228.78 crore upto March 2004 in respect of two blocks) irrespective of its participating interest in JVs.

(Para 3.3.6 (iii) of Report No. 6 of 2005)
Commercial

I.T review on pay roll application in Mumbai Region

There was a provision in the payroll application to store and process data relating to advances to employees and monitor its recovery with interest but due to incomplete data entry such opportunity was not used, which led to creation of incomplete and unreliable database.

(Para 5.2.9 of Report No. 6 of 2005)
Commercial

Over payments and short recoveries of various allowances and advances to the staff illustrated weakness in payroll system being operated by Mumbai Region. This resulted in an excess and irregular payments/short recovery totaling Rs. 4 crore during 2001-02 out of which an amount of Rs. 12.18 lakh has been recovered subsequently by the Management after having pointed out by Audit.

(Para 5.2.11 of Report No. 6 of 2005)
Commercial

Irregularities on individual transactions in ONGC

Failure to consider financial position of vendors before award of contracts and consequent delay in supply/ installation of gas compressors led to flaring of low-pressure gas and consequent loss of revenue of Rs. 71.02 crore during the period between August 2001 and December 2003 to Oil and Natural Gas Corporation Limited (ONGC).

(Para 4.1.6 of Report No. 6 of 2005)
Commercial

ONGC incurred an infrctuous expenditure of Rs. 38.86 crore during 1999-00 to 2001-02 in setting up offshore facilities and re-entry in a well without assessing fully the hydrocarbon potential of the gas field.

(Para 4.3.1 of Report No. 6 of 2005)
Commercial

ONGC incurred an infructuous expenditure of Rs. 9.32 crore during 1999 on re-entry of an already drilled exploratory well due to negligence in measuring length of casing pipes and consequential short-landing of the casing in the well.

(Para 4.3.2 of Report No. 6 of 2005)
Commercial

ONGC awarded work for operation and maintenance of three multi support vessels to an incompetent party and suffered a loss of Rs. 205.05 crore during 2001-02 and 2002-03 as poor performance of the contractor led to non-availability of own vessels.

(Para 4.5.4 of Report No. 6 of 2005)
Commercial

ONGC incurred an avoidable expenditure of Rs. 22.19 crore due to its failure to avail exemption of customs duty on goods imported for use in non-designated areas during the period from June 1999 to July 2001.

(Para 4.6.5 of Report No. 6 of 2005)
Commercial

Due to lack of proper follow up ONGC could not obtain essentiality certificate from the Directorate General of Hydrocarbons for availing the benefit of 'Nil' customs duty, which resulted in avoidable expenditure of Rs. 3.82 crore in May-July 2000.

(Para 4.6.6 of Report No. 6 of 2005)
Commercial

ONGC could not realize sales dues of Rs. 509.07 crore towards supply of natural gas to 33 consumers between April 1979 to May 1992 as well as interest thereon amounting to Rs. 1,875.07 crore due to disputes raised by these customers in regard to the revised price of gas remaining unresolved.

(Para 4.7.3 of Report No. 6 of 2005)
Commercial

Engineers India Limited

Engineers India Limited suffered a loss of Rs. 2.60 crore in recommending incorrect specifications in October 1999 in the consultancy work relating to transfer pipelines.

(Para 4.1.1 of Report No. 6 of 2005)
Commercial

Bharat Petroleum Corporation Limited

Imprudent decision of Bharat Petroleum Corporation Limited (BPCL) to augment the tankage capacity at Haldia refinery led to an idle investment of Rs. 11.35 crore made in April 2000/March 2003.

(Para 4.2.1 of Report No. 6 of 2005)
Commercial

BPCL decided (February 2002) to surrender 56,779 square metres of land procured at Navalur to re-site the existing Depot at Hubli. This resulted in an infructuous expenditure of Rs. 1.88 crore.

(Para 4.2.2 of Report No. 6 of 2005)
Commercial

Injudicious concessions extended by BPCL to a private sector company in supply of Naphtha from July 2000 to April 2002 resulted in undue favour of Rs. 28.81 crore to a customer and loss of Rs. 54.22 crore on account of bad debts written off in the accounts.

(Para 4.7.1 of Report No. 6 of 2005)
Commercial

Hindustan Petroleum Corporation Limited

Hindustan Petroleum Corporation Limited (HPCL) incurred additional expenditure of Rs. 1.39 crore on outsourcing the bitumen filling work keeping its own plant idle during October 2000 to April 2004.

(Para 4.2.3 of Report No. 6 of 2005)
Commercial

Failure of HPCL to supply necessary inputs timely to the contractor resulted in Visakh Refinery losing the benefit of Rs. 14.95 crore, during 1997-98 to June 2000-01, towards price reduction for the delay in completion of the contract.

(Para 4.5.2 of Report No. 6 of 2005)
Commercial

HPCL failed to avail of timely customs duty exemption, which resulted in an additional interest cost of Rs. 3.36 crore during November 2001 to April 2003.

(Para 4.6.3 of Report No. 6 of 2005)
Commercial

HPCL failed to review its credit policy to Ferro Alloys Corporation Limited, which resulted in loss of Rs. 3.69 crore plus interest during December 1998 to March 1999.

(Para 4.7.2 of Report No. 6 of 2005)
Commercial

IBP Company Limited

Delay in surrender of land by IBP Company Limited (IBP) to Railways resulted in an avoidable payment of rent and other expenses amounting to Rs. 3.66 crore during the period April 2000 to November 2002.

(Para 4.2.4 of Report No. 6 of 2005)
Commercial

The decision of IBP to take possession of an unsuitable piece of land and delay in deciding to dispose it of in July 1994 and October 1994 resulted in blockage of Rs. 1.08 crore.

(Para 4.2.5 of Report No. 6 of 2005)
Commercial

Due to delay in surrendering the tank the IBP suffered a loss of Rs. 1.28 crore towards its rental charges for the period from April 2001 to December 2002.

(Para 4.5.3 of Report No. 6 of 2005)
Commercial

Bongaigaon Refinery and Petrochemicals Limited

The BRPL failed to avail exemption of sales tax benefits on export sales and thereby incurred avoidable expenditure of Rs. 1.21 crore during the period from July 2000 to August 2001.

(Para 4.6.2 of Report No. 6 of 2005)
Commercial

