

# Corporate Sustainability Report 2006-07



The cover picture depicts BPCL emerging from the womb of Mother Earth as a flower. The womb denotes the source of our raw materials - oil and gas. The flower represents the responsible way in which BPCL has been conducting its operations. The blue background denotes the universe, symbolic of the frontiers that BPCL aspires to reach.



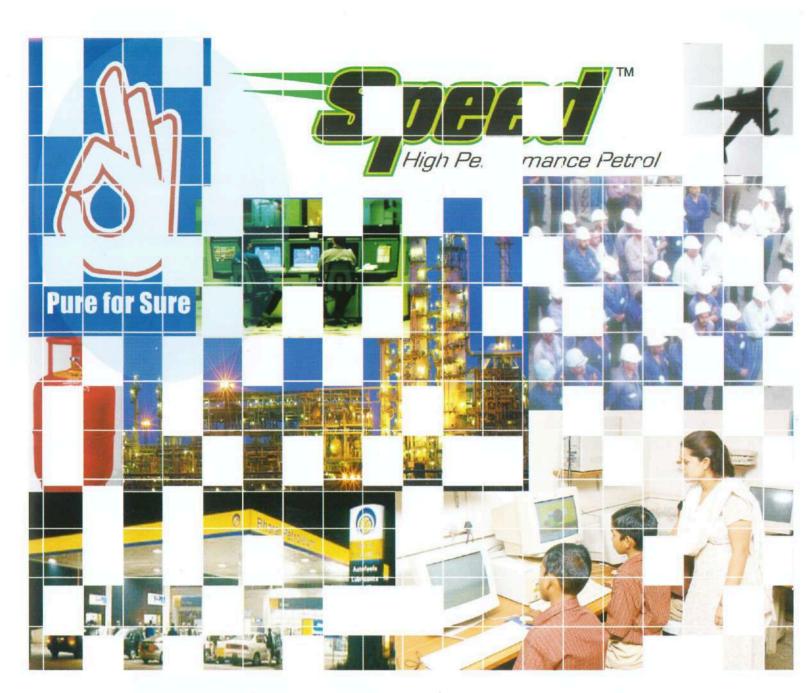
Corporate Office

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# Contents

	The J	Journey: 1976 – 2007				
_	1.1	About this Report 2				
	1.2	Message from our Chairman & Managing Director				
	1.3	Bharat Petroleum at a Glance 5				
	1.4	How we conduct our Business				
	Mana	aging Responsibly				
	2.1	Our Business and SD Strategy	16			
	2.2	Our Policies	18			
	2.3	Our Stakeholders	19			
2	2.4	Our Performance				
		2.4.1 Economic Performance	21			
		2.4.2 Environmental Performance	24			
		2.4.3 Social Performance	37			
	Grov	ving Responsibly				
	3.1	Overview of India's Macro-economy & Energy Sector		50		
	3.2	BPCL Challenges & Opportunities		52		
0	3.3	Embedding SD in Governance & Operations		53		
	3.4	Future Reporting		53		
	Appendices					
	List of Awards					
	List of Tables, Figures and Graphs					
	List	of Abbreviations			59	







- 1.1 About this Report
- 1.2 Message from our Chairman & Managing Director
- 1.3 Bharat Petroleum at a Glance
- 1.4 How we conduct our Business

#### 1.1 About this Report

Over the last few years, Bharat Petroleum Corporation Limited (BPCL) has been undergoing a rapid transformation to become a successful, profitable and innovative player in the energy business.

At BPCL, we aim to maximise value for our customers while also maximising value for our shareholders as the ultimate proof and condition for success. Our commitment to responsibility, integrity and transparency, both in the way we work and in our engagement with our stakeholders forms the bedrock of the trust on which our success as a market leader is built. As a natural progression of these values, BPCL has made its first attempt at reporting its economic, environmental and social performance, the three prerequisites for triple bottom line (TBL) reporting.

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The report covers our six strategic business units (SBUs) namely Aviation, Industrial & Commercial, Liquified Petroleum Gas, Lubricants, Refinery and Retail. The report is divided into three sections viz., The Journey: 1976-2007, Managing Responsibly and Growing Responsibly. We have also attempted to link our vision statements with each pertinent chapter. Since this is our first report, we have included information of our activities in 2007 and earlier, apart from a brief flash back of our journey to the present position of a market leader. Future reports shall cover the period of a fiscal year. This report has been prepared using GRI 2006 (G3) guidelines as a reference but it is not in accordance with any of the application levels stated in the guidelines. The Oil and Gas Indstry Guidance on Voluntary Sustainability Reporting (2005) issued by IPIECA and API has also been referred to. Using the above two guidelines both qualitative and quantitiative TBL information has been provided. While the economic performance is for BPCL as a whole, the environmental and social performance reported is representative of refineries and marketing locations as well as corporate contributions towards society/community development. In this report we have endeavoured to address the issues concering the Oil and Gas Industry, to which we belong as well as issues specific to our operations in the economic and geo-political context in which we operate.



#### 1.2 Message from our Chairman & Managing Director

Dear Stakeholder.

Welcome to BPCL's first corporate Sustainability Report, **Energising Lives**. This report is an attempt to capture BPCL's journey from its inception in 1976 to its current position of a market leader. Taking you through our success story, the report provides an overview of BPCL's history, triple bottom line performance, engagement with stakeholders and future challenges & opportunities in the context of the industry and Indian geo-political situation. An organisation's progress can be traced by the energy it generates-in its people, its customers, its stakeholders and in the environment. Thus committed to energising lives, we at BPCL continuously strive to reach new milestones, by synergising efforts to achieve our goals.



Mr. Ashok Sinha

#### Need for Sustainable Energy

The Indian growth story continued during 2006-07. The strong growth momentum seen during 2005-06 was sustained with the Gross Domestic Product (GDP) estimated to be around 9.4%. With the Indian economy poised to show strong growth in the years to come, experts reckon that India is on track to be amongst the top three economies of the world by the year 2050. This scenario brings with it immense opportunities and great challenges, particularly for the energy sector which is considered to be the engine for growth of emerging economies. Thus, we are cognisant of the fact that the greatest contribution to sustainable development of the energy sector is in meeting the energy challenge by responding to the country's need for energy in an environmentally and socially responsible manner. Juxtaposed with the country's economic progress we endeavour to provide sustainable energy to every level of our society so that the benefits of India's economic growth are socially inclusive. Accordingly, BPCL is not restricting itself to Bottom of the Pyramid (BOP) segment; rather we would like to touch the lives of nearly 45% of our population which still does not have access to sustainable energy.

#### Focus on the Triple Bottom Line

#### Economic

Equipped thus with a mission to energise growth, the sustainability of our business is of fundamental importance. We articulated certain aspirations leading upto 2010 under **Project Destiny**. Our primary aspiration is to be a leading energy company through sustained aggressive growth and high profitability. We aim to increase our volumes across every part of the value chain and quadruple our profits. Due to our impressive performance BPCL has moved up in the Fortune Global 500 list with a ranking of 325. BPCL has also invested in exploration and production, with blocks in India, Oman, East Timor and Australia.

While aiming to achieve these, our focus remains on all the pillars of Sustainable Development (SD) issues since we are deeply conscious of the fact that our industry and business deals with hazardous substances and has negative environmental impacts.

#### Environment

At BPCL we are of the firm view that environment is not necessarily a cost and that there are several opportunities for being an environmentally friendly yet profitable business. Moreover, being environmentally responsible is a

business imperative since we face challenging and environmentally conscious customers. Our various initiatives showcase BPCL's proactiveness in responding to environmental challenges. For instance, global warming and its impacts are serious issues for us. To coordinate our efforts in tackling climate change, we have established a special cell for carbon capture and reduction of emissions. Being a non Annex-I country we have voluntarily initiated the estimation of our carbon footprint across the entire supply chain. This large exercise is expected to be completed by mid-2008. Further, we are exploring low-carbon options in alternate fuels such as wind, solar, ethanol, bio-diesel, hydrogen and fuel cells. BPCL has been the front-runner in the alternate fuels segment, recording strong growth of 23.3% in the sale of CNG in Delhi. Mumbai, Surat and Ahmedabad. Auto LPG sales grew by 78% with sales of 48.4 TMT. The growth in this segment has helped us in retaining customers who had migrated from traditional fuels. Further details of these initiatives have been provided at relevant sections in the report. Our refineries are gearing up for producing Euro IV grades of petrol and diesel that are slated to be introduced in metros and major cities from April 2010. With low sulphur content and improvement in other key parameters, conversion to Euro IV will be a major step towards a better environment. BPCL has also made considerable investment in Research and Development (R&D) for exploring alternate technologies. We are collaborating with the Indian Institute of Science and Technology (IISC), India' premier research institute, in developing technology for hydrogen storage using nanotechnology. To further aid research in our sector, plans are afoot to open Rajiv Gandhi Institute of Petroluem Technology.

#### Social

Being in the retail sector, BPCL prides itself on its customer-centric approach and ability to proactively meet the consumer's emerging needs. We have had many "firsts" and "biggest" in India to our credit- first to introduce premium fuel (Speed), assured quality and quantity of fuel (Pure for Sure) and first bottled gas, largest loyalty program (Petro Card, Smart Fleet) and largest convenience store network (In & Out) to name a few. These initiatives formed part of our change plan when there were no private players in the sector.

Having a large and loyal customer base is not our only focus; we also actively engage with our communities to ensure mutual growth and development. A large number of community initiatives relating to safety, education, health, career development, etc. are being carried out at all our refining locations. Additionally, we have also adopted 20 villages across India where several development programs are being implemented.

Our employees are fundamental in achieving our triple bottom line growth. At BPCL we consider the quality of our people as our core strength. BPCL has always invested in training its people. Regular training analyses are done and appropriate training sessions conducted for them. Initiatives to identify, nurture and groom future leaders who will ensure our sustained growth are also underway.

#### Way forward

The coming days are expected to be full of challenges. The competition is expected to become intense in the coming years since India as a market is the focus of attention globally. BPCL has prided itself in being a proactive leader with innovation at the core. We consider ourselves to be well-placed to take full advantage of all the opportunities and enjoy a pre-eminent place in the market.

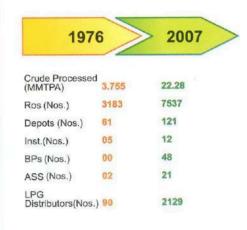
We hope that the conents of this report and the additional information on our website offers you a glimpse of our commitment to sustainable development. We look forward to receiving your feedback on our first corporate Sustainability Report.

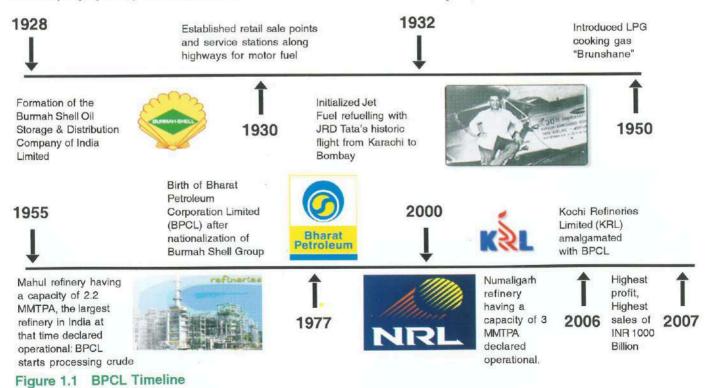
Ashok Sinha

Chairman & Managing Director

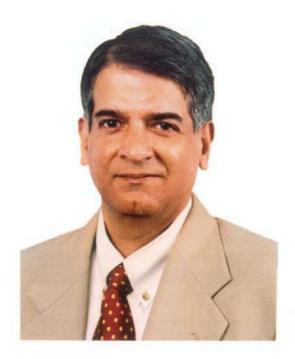
#### 1.3 Bharat Petroleum at a Glance

The Burmah Shell Group of Companies, an alliance of the Asiatic Petroleum (India), a consortium of Royal Dutch, Shell & Rothscilds and Burma Oil Company, a crude refining company primarily engaged in South Asia, was taken over by the Government of India on 24th January 1976 and renamed Bharat Petroleum Corporation Limited (BPCL) on 1st August 1977. This is how BPCL was born and is today India's second largest oil company with a market share of 22%, processing 22.28 million metric tons per annum (MMTPA) of crude oil. It is ranked 325th in the Fortune 500 list of companies and employs 13970 people. Headquartered in Mumbai, India, BPCL has two refineries namely Mahul and Kochi, with respective capacities of 12 MMTPA and 7.5 MMTPA. Additionally, the subsidiary refinery at Numaligarh has a 3 MMTPA capacity. With a brand value of USD 2.48 billion, BPCL produces a diverse range of products, from petrochemicals and solvents to aircraft fuel and specialty lubricants. Over the years the company has created tremendous assets with a robust distribution and marketing network spread across the country comprising of 7537 Retail Outlets, 48 LPG bottling plants, 2129 LPG distributorships, 3.27 million KL storage facilities, 121 depots, and 21 Aviation Service Stations. Some important milestones of the company's journey are shown below.





"BPCL believes in combining sustainable development concerns with a good financial bottom line. This is why it is the preferred brand of millions of customers"



Mr. S. Radhakrishnan Director (Marketing)

At BPCL we believe in combining environmental and social concerns with a good financial bottom line through our core values of being Innovative, Caring and Reliable (INCARE). Health, Safety, Environment and Security (HSES) are a vital part of our business. We address health related issues of transporters and people at the forecourts through health camps where more than 100,000 people have been covered. Our offerings to our customers span not only quality products of a wide variety but also those that are environmentally friendly, such as gaseous fuels. BPCL was the first company in the country to commercially supply LNG and through strategic joint ventures we are increasing our penetration into several small and big cities. Thus, we have become the preferred brand not only because we give value for money but also for contributing to sustainable development.

#### 1.3.1 Products and Services

The complete business of BPCL has been divided into six SBUs which together with their individual products & services have been provided below. BPCL has evolved a comprehensive Brand Management Process that is being implemented with a deep understanding of consumers, with the ultimate objective of delivering the core values INCARE viz. Innovative, Caring and Reliable. The organisation has shifted its focus from being purely a purveyor of fuel to a retailer, to meeting a wider range of customer needs like convenience goods, banking & communication and has entered into the non-fuel retailing business in a big way by undertaking ventures such as Errand Malls, e-tailing, etc. BPCL is the first company in the oil sector in India to launch the pre-paid loyalty scheme called Petro Bonus; it has also made an aggressive entry into the e-commerce arena with the introduction of B2B and B2C solutions.





in more ways than one

#### Aviation LPG Industrial &Commercial Jet fuel supply, distribution & sale, Industrial fuels and solvents, CNG Online customer services, Auto LPG, Aircraft refuelling, Carnet cards, Aviation supply, distribution & sale, On-line Piped LPG, on the spot LPG refueling by lubricants supply, distribution and sale. business order placement, Customer Rural Marketing Vehicles in rural areas, advisory boards. Helpline emergency service cell, E-banking, Fuel management systems, Customer relationship centre. Bunkering, Energy audits, Consultancy/ technical services. Automotive lubricants, Industrial Production of Polypropylene feedstock, Petrol pumps, Speed fuels, In & Out stores, LPG, Automotive LPG, Food grade hexane, lubricants, Lube Shoppe, Specialty oils Automatic Teller Machines in petroleum retail Benzene, Toluene, Naphtha, Motor and greases, Value added services. outlets, Air, Water and Wash room, Gasoline, Mineral Turpentine, Aviation Lubricant top ups, Credit & debit cards, turbine fuel, Superior kerosene, High Petro cards, Smart fleet cards, Pure for speed diesel, Light diesel oil, Fuel oil, Sure and Ghar. LSHS, Bitumen, Sulphur, MTBE, XYTOL, Special boiling spirit, Rubberised bitumen, diesel additives, Bitumen emulsion. Lubricants Refinery Retail

Figure 1.2 Products and Services of BPCL

#### 1.3.2 BPCL Brands

BPCL has several notable brands which continue to make their mark in the market. Various initiatives like Pure for Sure, premium fuels, loyalty programs, non-fuel retailing, e-business and "Beyond LPG" have been successfully launched. While these initiatives have been successful in meeting targets, the dramatically changing scenario, due to regulatory changes as well as aggressive competitors, makes it essential for BPCL to not only adopt new strategies and processes, but also acquire new and different capabilities and mindsets.

#### 2006 Brand Awards

- BPCL was voted as one of India's leading brands, based on a proprietary survey for Asian Integrated Media, in association with MEDIA magazine, a leading international publication.
- BPCL was ranked 204 among Asia's 1000 leading brands. This is the highest position achieved by an Indian petroleum company



Figure 1.3 Main Brands of BPCL

#### 1.3.3 Subsidiaries

Numaligarh Refineries Limited (NRL), set up in accordance with the provisions made in the historic Assam Accord signed on 15th August 1985, has been conceived as a vehicle for speedy industrial and economic development of the North East region in India. This refinery was dedicated to the nation on 9 July 1999, by the then Prime Minister Mr. A. B. Vajpayee and started commercial operations in October 2000.

BPCL has 62.96% shares in NRL, whereas the remaining 37.04% shares are divided between the Government of Assam (12.35%), the Oil Industry Development Board (12.35%) and Oil India Limited (12.34%). The corporate office of NRL is in Guwahati and the plant is located in the Golaghat district of Assam designed to process 3 MMTPA of crude. The main products of this unit are Liquefied Petroleum Gas (LPG), Naphtha, Motor Spirit (MS), Aviation Turbine Fuel (ATF), Superior Kerosene Oil (SKO), High Speed Diesel (HSD) and Ultra Low Sulphur Diesel. NRL has 510 dedicated retail units named as **Energy Stations** to serve the customers in the whole of the North East region of India.



Entrance of an NRL **Energy Station** resembling a space ship



Numaligarh Refinery at Golaghat district in Assam

Bharat PetroResources Limited (BPRL) with an authorisation capital of 10,000 Million INR was incorporated on 26th October 2006 as the wholly owned subsidiary to implement BPCL's plans in the exploration and production sector. BPRL has joined the consortium of Oilex (Operator), Videocon Industries Ltd. (VIL) and Gujarat State Petroleum Corporation Ltd. (GSPCL) to participate in the joint petroleum development through formation of a Special Purpose Vehicle which was incorporated on 28th October 2006 as Bharat PetroResources JPDA Limited (BPR-JPDA Ltd.). This company is a 100% subsidiary of BPRL.

#### 1.3.4 Joint Ventures

BPCL has formed joint ventures with several strategic partners. These include the following eleven companies:

Bharat Shell Limited

Central UP Gas Limited

Cochin International Airport Limited

Indraprastha Gas Limited

Maharashtra Natural Gas Limited

Petronet CCK Limited

Petronet CI Limited

Petronet India Limited

Petronet LNG Limited

Sabarmati Gas Limited

Vi e Trans Pvt. Limited

IGL is one of BPCL's most successful Joint Venture projects at Delhi. From a small beginning in 1999, IGL has grown to be a vibrant and matured company engaged in distribution of natural gas for domestic, commercial and transport sector. Its CNG project has become a model for not only rest of the country, but even rest of the world. Delhi has got the, "Clean Cities International Partner of the Year Award 2003" by US department of Energy. Recently, MoP&NG has approved city gas distribution projects on IGL model. M/s GAIL has already capitalised on IGL's experience and taken the IGL model to countries like Thailand, Pakistan, Iran. Bangladesh etc to promote CNG in a big way.

For further information on our joint venture companies, please visit the individual websites mentioned as under:

www.shell.com/home/content/in-en www.etransinfo.com www.gspcgroup.com www.iglonline.net www.mahanagargas.com www.petronetindia.com www.petronetlng.com



Petronet LNG storage area



LNG container laying anchor at Dahej



Passengers disembarking from a flight at CIAL

#### 1.4 How we conduct our Business

#### Our Vision/Mission

#### "We energise the lives of people"

- We are a leading energy company with global presence through sustained aggressive growth and high profitability
- We are the first choice of customers, always
- We exploit profitable growth opportunities outside energy
- We are the most environment friendly company
- We are a great organisation to work for
- We are a learning organisation
- We are a model corporate entity with social responsibility

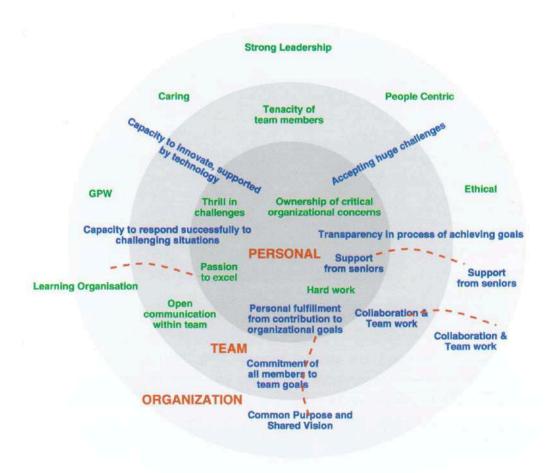


Figure 1. 4 Triggers for Success for achieving Vision

#### 1.4.1 Corporate Governance

BPCL's corporate philosophy on Corporate Governance has been to ensure fairness to the stakeholders through transparency, full disclosures, empowerment of employees and collective decision making.

As per the Articles of Association of the Company, the number of Directors shall not be less than three and more than sixteen. BPCL being a Government Company, the Government has decided the composition of the Board of BPCL. As on 31st March 2007, the Board of BPCL comprised a mix of executive and non-executive Directors as required under the terms of Clause 49 of the Listing Agreement.

Board of Directors 2007	
Total number of Directors	10
of which:Part-Time	
(Independent)Directors	3
Part-Time (Ex-Officio)	2
Directors	
Whole-Time (Executive)	5
Directors	
Meetings held over the year	10
For further information please	see
our Annual Report 2006-07	
at:www.bharatpetroleum/corpo.	rate/

annual report

The Board periodically reviewed the compliance of all laws applicable to the Company, including steps taken by the Company to rectify instances of noncompliances. There is a wellarticulated Code of Ethics known as The Code of Conduct for Board Members and Senior Management Personnel of Bharat Petroleum



Corporation Limited. The purpose of this Code, which came into force with effect from 1st of January 2006, is to reflect business practices and principles of behavior of the Board Members and Senior Management Personnel in affirming their commitment to Good Governance in line with the Company's Philosophy on Corporate Governance. This Code was adopted by the Board effective 1st January 2006, and the same has been posted on the website of the Company. All the Board members and senior management of the Company have affirmed compliance with the Code of Conduct in respect of the financial year ended 31st March 2007.

#### 1.4.2 Organisational Structure

BPCL has a well-defined organisational structure divided into six SBUs as described earlier. There are clearly articulated authority limits and internal guidelines, rules for all operating units and service entities. BPCL has a system of internal controls to ensure optimum utilisation and protection of resources, IT security, speedy and accurate reporting of financial transactions and compliance with applicable laws and regulations, as also internal policies and procedures. SAP R/3 and Business Information Warehouse systems have further enhanced the internal control mechanism.

BPCL has an internal audit department consisting of experts from various functions, which supplements the review of key business processes and controls through regular audits. Audit reports, significant risk area assessment and adequacy of internal controls are also periodically reviewed by the Audit Committee through meetings held with management, internal audit and statutory auditors.



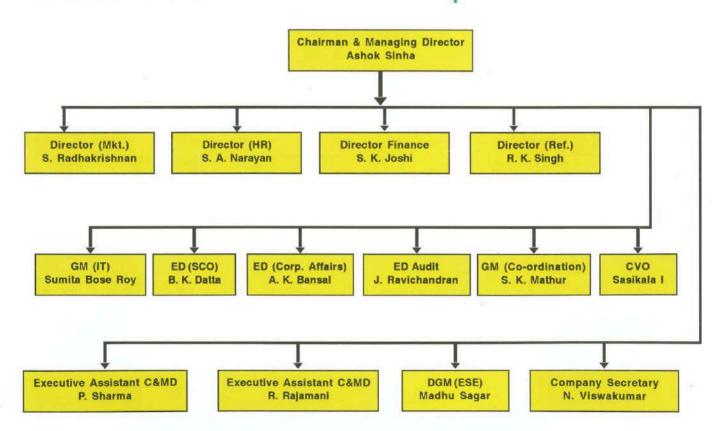
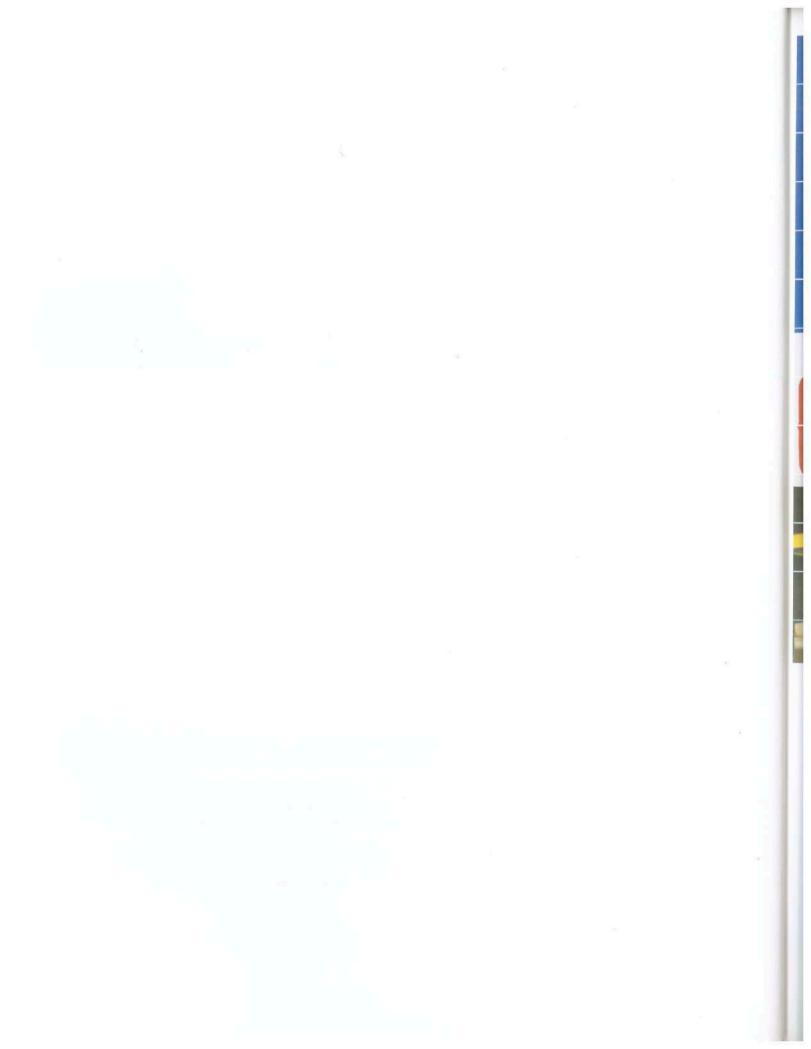


Figure 1.5 Management Structure





# Managing Responsibly

- 2.1 Our Business and SD Strategy
- 2.2 Our Policies
- 2.3 Our Stakeholders
- 2.4 Our Performance
  - 2.4.1 Economic Performance
  - 2.4.2. Environmental Performance
  - 2.4.3. Social Performance

We are a great organization to work for

#### 2. 1 Our Business and SD Strategy

Our business strategy is derived from our Vision/Mission through which we commit ourselves to energise the lives of people. Through BPCL's products and services we have been Energising Wheels (fuels, lubricants, auto LPG, CNG), Energising Homes (LPG, Beyond LPG), Energising Business (industrial fuels & solvents, lubricants, services), Energising Skies (Jetfuel, carnet cards, Aviation Turbine Fuel, Aviation lubricants) and Energising Environment (greening initiatives, bio-fuels, health & safety). Thus, our strategy includes issues associated with all our significant stakeholders viz. shareholders, customers, employees, communities and environment. Thus, our business strategy is also our SD strategy since it addresses the economic, environment and social aspects of our organisational growth.

The main features of our business and SD strategy can be summarised as those relating to Energising Lives through More Energy, Secure Energy and Responsible Energy. These have been further detailed below:

#### More Energy

In line with the strong GDP growth, the Indian petroleum sector has been witnessing a significant increase in the consumption of petroleum products. During 2006-07, the year-on-year growth touched 5.9% resulting in sale of petroleum products growing from 113.21 MMT in 2005-06 to 119.85 MMT in 2006-07. Thus, with the Indian econmy on a strong trajectory, the Indian energy sector has the challenge of ensuring that the growth of the economy is not hampered on account of supply constraints. To cater to the demand, BPCL has been constantly increasing its refining capacity. The acquisition of NRL to the existing portfolio of Mumbai and Kochi refineries has allowed us to increase the amount of crude processed. The completion of the 6 MT grassroots refinery in Bina in Madhya Pradesh will further enhance BPCL's refining capacity.

#### Secure Energy

One of the key challenges facing oil refining and marketing companies has been to secure energy i.e. securing supplies of crude oil and gas. With a view to achieve a degree of self-reliance, BPCL has ventured into the upstream exploration and production arena. For greater focus, BPCL

### The Indian CEO: A Portrait of Excellence

A thought-provoking book, The Indian CEO: A Portrait of Excellence is the outcome of a landmark study sponsored by BPCL to determine key competencies necessary for Indian CEOs to steer their companies in the rapidly changing business and social environment. The book was released by the Hon'ble Prime Minister, Dr. Manmohan Singh in the presence of the Hon'ble Petroleum Minister Shri Murli Deora on 18th July 2007 at New Delhi.

The book is the distillate of a study, the first of its kind, which was initiated in 2002 by BPCL under the aegis of the Public Enterprise Selection Board, in association with the HayGroup, the renowned HR Consultants. It has been co-authored by Mr. S A Narayan, our Director (HR), Mr. S Mohan, our ED (HRD) along with Ms. Signe M. Spencer, Mr. Tharuma Rajah and Mr. Gaurav Lahiri of HayGroup.

This study has been conducted under rigorous methods developed at the McClelland Center for Innovation and Research at Boston. The Indian CEO Competency Model comprises 11 competencies which have been categorized into four groups:

- Socially Responsible Business Excellence
- Energising the Team
- Managing Environment
- **■** Inner Strength

The findings of this study is expected to help in providing food for thought for existing leaders as well as developing future leaders and benchmarking their skill-sets, strategies and successes. We are a great organization to work for

has promoted a 100% subsidiary company, BPRL, with a paid up capital of INR 10,000 Million. Also, in order to achieve a balanced portfolio of assets, BPCL has bid for new fields in India and abroad in consortium with other players. It is also looking at "farming in" opportunities. BPCL has taken these initiatives so that integration of the exploration and production area with the existing strengths in refining and marketing operations ensure the long-term growth of the enterprise. Further, we have also entered into strategic alliances through our 11 JVs (listed in the previous section) for ensuring pipeline access on a comon carrier principle, for LNG import and setting up LNG terminals, supply of CNG to household, automobile and industrial sectors and logistics support systems for the indian surface industry.

#### Responsible Energy

The history of the oil and gas sector has been marked by exploitation, conflicts, environmental degradation & pollution. In this context, BPCL is committed to providing responsible energy i.e. energy that is produced and used in ways that support human development over the long-term, in all its social, economic and environmental dimensions.

Environmentally, BPCL has been at the forefront of operating in an environmentally responsible way. It is amongst the pioneers in the industry with respect to constant technological advancement, investment in R&D and development of alternate fuels and low-carbon options such as auto LPG and CNG.

We have also contributed to the economic development within our areas of operation by investing in our communities through capability enhancement and support of local infrastructure such as schools and hospitals.

BPCLhas actively engaged with its communities and adopted a win-win strategy for mutual growth and development in all its dealings. We are looking at increasing our rural penetration and at socially inclusive products through various intiatives. The goal is to provide superior customer enablement for different segments.

We are a great organization to work for

#### 2. 2 Our Policies

#### Health, Safety and Environment (HSE) Policy

Commensurate with the HSE commitment we shall:

- Demonstrate our commitment by
  - Providing and maintaining safe facilities and working conditions.
  - Recognising that all employees have responsibility for their own safety and actions, which could affect the safety of others.
  - Adoption of appropriate technologies to minimise the impact of our activities on the environment.
- Establish clear objectives and targets to
  - Improve continuously for prevention of accidents & occupational illness and minimising any impact of our activities on the environment.
  - ⇒ Promote learning through training and sharing of experiences and best practices; including with contractors, customers and the public, wherever required.
  - □ Inculcate values and attitudes conducive to achieve excellence in health, safety and environmental performance.
- Provide means to achieve our mission by
  - Assigning clear roles & responsibilities at all levels and periodically reviewing and recognising contribution to HSE objectives.
  - Allocating adequate resources.
  - Fostering a spirit of participation by all employees in health, safety and environmental conservation efforts.
  - □ Creating appropriate forums for deliberations on health, safety and environmental issues.
- Monitor performance by
  - Periodically auditing work processes, systems & practices and promptly correcting deficiencies.
  - ⇒ Incorporating HSE performance as a parameter for assessing the overall performance of employees, business units, contractors and business associates.

#### **Security Policy**

Commensurate with the security commitment we shall:

- Adhere to the security rules, regulations, and laws of the land.
- Provide effective and proactive measures for physical and internal security.
- Keep ourselves in readiness to meet all emergency situations by appropriate action plans.
- Actively participate in implementation of security measures to combat external threats.
- Reinforce the security set up by providing regular trainings and upgradation of facilities.
- Monitor effectiveness of security measures by surprise checks, mock drills and take corrective actions.

#### **HSE Commitment**

Together we have the highest concern and commitment for protecting the health and safety of all employees, contractors, customers and the communities in which we operate and for conservation of the environment.

We will comply with all the statutory regulations and may even go beyond these for the benefit of our environment.

We consider health, safety and environmental aspects as an integral part of our business planning and operation process.

#### Security Commitment

We have the highest concern for the security of human lives and corporation's properties, goods and services.

We also commit ourselves to be alert and responsible to prevent theft, misuse, loss, damage, pilferage and sabotage of any nature which will hamper our business interests/continuity.

#### **Human Resource Vision**

Embody values we cherish.

Make BPCL, "A Great Place to Work".

Be business partner – first & last. Facilitate organisational change / learning.

Make people a source of our improvement.

Institute good Human Resource processes.

We are a model corporate entity with social responsibility

#### 2.3. Our Stakeholders

BPCL has several stakeholders at each point of its value chain. The significant ones have been identified as shareholders, business partners, customers, employees, suppliers, retailers & dealers, communities and environment. We endeavour to balance the needs of each stakeholder, such that we can provide long-term value during our engagement with them. Thus, through various exercises, BPCL has mapped stakeholder expectations and contributions for each stakeholder set. While most of these have been captured in the organisation's Vision/Mission, we have also articulated strategic goals and metrics to balance the needs of all significant stakeholders and encourage value creation throughout BPCL. There are several issues associated with our triple bottom line that are of importance to our stakeholders and which help them to make informed decisions about the organisation. These have been described in the following chapters that outline salient features of BPCL's economic, environmental and social performance. In order to provide a better view to our stakeholders, we have presented three years data viz., 2004-05, 2005-06 and 2006-07 for most issues.



Figure 2.1 Significant Stakeholders of BPCL

We are a leading energy company with global presence through sustained aggressive growth and high profitability



"BPCL believes in energizing its business stakeholders such that we provide value to each stakeholder in the most ethical and transparent manner".

Mr. S K Joshi Director (Finance)

BPCL we work towards providing value to each stakeholder and ensure that we give value for money in the most ethical and transparent manner.

For our shareholders, we have invested in developing investor relations and do not restrict ourselves to just distribution of dividend. For lenders we believe in truthful execution of contractual requirements, and cater to their information needs. We establish strategic and mutually beneficial relations with our business partners in joint ventures. BPCL's primary focus has been the dealership network through which we help develop our retailers & dealers into entrepreneurs. We invest time in understanding our customers' changing expectations devising programs and creating facilities to provide them with a superior shopping experience through service differentiation. We believe in the human touch in dealing with employees such that there is mutual win-win situation and that we partake in their growth in tandem with BPCL's growth.

We are a leading energy company with global presence through sustained aggressive growth and high profitability

#### 2.4 Our Performance

#### 2.4.1 Economic Performance

#### **Shareholding Structure**

BPCL is a profit-making public enterprise and has been designated as a Navratna company of the Government of India which has a majority 54.93% stake as the Promoter. The remaining 45.07% is held by investors as detailed below.

BPCL was among the first public sector companies to be listed and the first to offer shares to its employees.

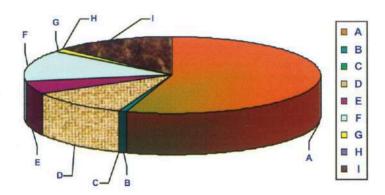
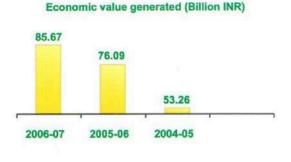


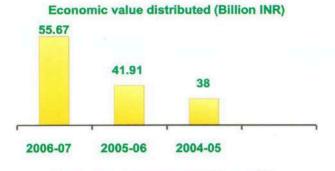
Figure 2.2 Shareholding Structure of BPCL

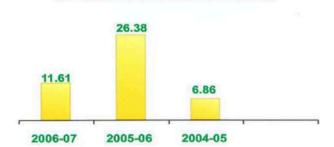
Shareholder Indicator	Shareholder Name	% Holding
Α	Government of India	54.93%
В	Government of Kerala	0.86%
С	Unit Trust of India	0.12%
D	Life Insurance Corporation of India	11.00%
E	Other Financial Institutions/Banks / Mutual Funds	5.45%
F	Foreign Institutional Investors	13.12%
G	Private Corporate Bodies	1.33%
H	NRIs/Overseas Corporate Bodies	0.11%
	Others including Clearing Members	13.08%

We are a leading energy company with global presence through sustained aggressive growth and high profitability

#### Value Creation







Economic value retained (Billion INR)

Economic Value Generated, Distributed & Retained Figure 2.3



Figure 2.4 BPCL rank amongst Fortune 500 Companies

#### Climbing the Fortune 500 Ladder

BPCL has scaled up its ranking to 325th position during 2006-07 in the prestigious list of Fortune Global 500 as compared to 368th position last year. Consolidated revenues increased to US\$ 21,862 million from US\$ 17.614 million during 2005-06 resulting in yearon-year growth of 24.12%.

#### Record Sales

For the first time Sales Turnover crossed the INR. 1000 billion mark.

The market sales during the year ended 31st March 2007 have increased to 23.45 MMT from 21.63 MMT achieved during the previous year.

"Health, Safety, Security and Environment issues are on the top of our agenda. No growth is sustainable if these issues are not addressed".



Mr. R. K. Singh Director (Refineries)

Health, Safety, Environment and Security (HSES) are on top of our agenda, particularly for the refineries. No growth is sustainable if HSES is not looked into. Hence, every business discussion in the organization commences with a review of our HSES performance. BPCL has elaborate targets for environment, health, safety and security. Our targets not only ensure that we meet all pertinent statutory requirements but also go beyond these requirements.

BPCL has made comprehensive arrangements for monitoring of health parameters. Each employee has a dedicated medical history sheet. At BPCL we pride ourselves on having established a robust safety culture throughout the organization where people can contribute, participate freely and get motivated. Good safety performance is rewarded; at the same time there is a disincentive scheme in which people are punished for unsafe acts. The success of these initiatives is visible in our safety performance: this year there were zero fatalities, 20.45 million man hours without lost time accidents and overall 45% reduction in lost time incidents at workplaces. NRL has had no accidents since the last 5 years. Sustenance of the environment and promoting eco-friendly schemes is an area of priority for us. Products from BPCL conform to the stringent eco-friendly EURO III norms BPCL lays stress on creating a good environment for work and this is manifested in our excellent housekeeping, creation of green belt, ecopark and butterfly park at Mahul, Kochi and Numaligarh respectively. Security is of high importance and elaborate arrangements to ensure the security of all persons in the refineries have been made. This is important not only for our employees but also the nearly 1000 casual workers present in each refinery at any given point of time.

BPCL is a proactive, vibrant organization that believes in strategic thinking. We are deeply conscious of the fact that to survive with a good reputation and brand, it is necessary to be profitable, competitive and safe (in terms of reputation and property) and to be trusted by people.

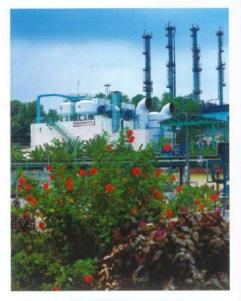
#### 2.4.2 Environmental Performance

#### **Our Environmental Footprint**

One of BPCL's vision statements is to be the most environment friendly company. Environmental protection is thus a core part of BPCL's vision and the organisation strongly believes that good health, safety and environmental performance is an integral part of an efficient business. Accordingly, the organisation has instituted a comprehensive environmental management system (EMS) that is aimed at curbing pollution in air and water, soil contamination, noise pollution and greening the business premises of the organisation across the country. Apart from numerous ongoing initiatives for achieving the above, BPCL's research and development center have programs for developing alternative fuels, hydrogen cells, fuel cells, etc. BPCL also has an incentive mechanism for all management staff called **PRISM** i.e. Performance Related Incentive Scheme for Management. This includes a set of performance parameters covering activities relating to environmental targets.

#### Raw Materials

As a petroleum refining company, BPCL has been mainly involved in the supply of fuel to consumers which is utilised as white oils, black oils, gases and customer specific fuels. Thus, the raw materials consumed by the organisation is primarily crude obtained from sources like Bombay High, Ratna Heera, Panna and D - 18, which are indigenous sources of India. Apart from this, imported crude from various sources is also processed at our refineries. Currently the Refinery SBU has a total crude processing capacity of 22.5 MMTPA. Of this the SBU achieved a highest ever levesl of 22.28 MMTPA during the year as opposed to 19.37 MMTPA in the previous year. The graphs provided in the next page indicate the raw material usage from the different sources at our various refineries. In order to reduce losses during processing, both Mahul and Kochi refineries recover oil from oil sludge. The total percentage reprocessed was about 0.39 % and 0.33% in the year 2005-06 and 2006-07 respectively. Apart from using crude, Mahul refinery also consumes methanol as a raw material in relatively small quantities.



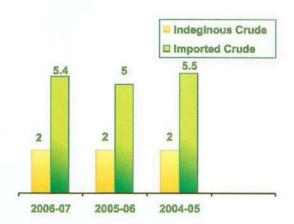
Oxygen plant at BPCL Refinery



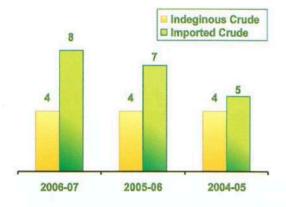
Mr. A. C. Sen (General Manager, HSE Entity)

"We are the most environment savvy organisation with intention of no harm to eco-system, humans, surrounding community and biodiversity."

#### Crude Consumption at Kochi (MMTPA)



#### Crude Consumption at Mahul (MMTPA)



#### Crude Consumption at Numaligarh (MMTPA)

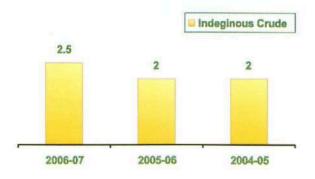


Figure 2.5 Crude Consumption at Refineries (MMTPA)

#### **HSE Councils**

BPCL has established Health, Safety & Environment (HSE) Councils with the objective of integrated monitoring, review and coordinated measures for protection of employees, the environment and the surrounding community. In addition to the existing Corporate Integration Council, four Regional Councils were created in 2006. To spearhead corporate commitment down the line, the Corporate Integration Council is headed by Director (Marketing) and comprises SBU heads, corporate HSE members and regional SBU management role holders.

#### Benchmarked Green Initiatives

BPCL's green initiatives were highlighted as a case study in FICCI's 2006 publication Green Companies of India: Corporate Contribution to Sustainable Development. The publication is a compilation of case studies of commendable environmental initiatives taken by Indian industry.

#### **Environmental Initiatives**

Commensurate with environmental vision/mission, we have adopted the following:

- Conserving Bio-diversities
- Environment friendly technologies for controlling emissions
- Emission reduction measures
- Technologies for Low sulfur / low benzene products
- Technologies for alternate environment friendly fuels
- Rain water harvesting at water resource crunch places
- Waste water re-cycling for reuse
- Bio-gas from canteen wastes
- Bio-remediation of sludge
- Efficient Oil water separators (OWS)
- Benzene vapour recovery system
- Developing gardens at locations
- Road corridors / islands for greening
- Vermi-culture for canteen waste
- Solar heating, wind mill, solar cell power
- Creation of Butterfly Park
- Creation of Ecopark

## Responsible Energy Consumption Direct and Indirect Energy

Total cost of direct and indirect energy consumption accounts for 4-5 % of the total operating cost of BPCL. The direct energy production at all BPCL locations is primarily due to fossil fuel consumption such as diesel and naphtha. These fuels are consumed for operating DG sets for standby power supply as well fire-fighting engines mainly at the terminals and retail outlets. In addition, the refineries have captive power plants and boilers that use the above mentioned fossil fuels as feedstock. Thus, direct energy is consumed by the 3 refineries (and their associated employee residential blocks), 121 depots and 7537 retail outlets. Kochi and Mahul refineries show an increase in direct energy consumption that can be attributed to increased capacity as a result of expansion activities undertaken during the last year. The specific energy consumption for Kochi and Mahul refineries has been captured in the graphs in the following section.

The indirect energy consumed, as shown in Figure 2.6, is indicative of the power purchased from the state electricity grids.

#### Environment Vision / Mission

Environmental protection is an integral part of all our business operations. Climate change and its impact is a serious issue for us. Together, we shall therefore adopt all precautionary measures for safeguard of products, infrastructure, facilities, employees at workplaces, surrounding communities, Biodiversities. We shall adopt all measures for curbing pollution in air and water, soil contamination, noise pollution, and greening all our premises, wherever we are, of the organisation.

#### Best Energy Record

Mahul Refinery achieved the best specific energy consumption reduction this year, reducing it by 11%. The Ministry of Petroleum and Natural Gas has awarded Mahul Refinerythe Best Improvement in Specific Energy consumption for 2007.

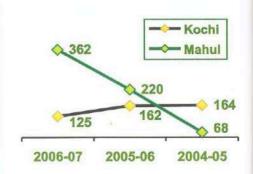
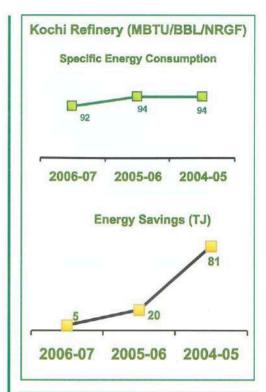


Figure 2.6 Indirect Energy Consumption at Refineries (TJ)

#### **Energy Conservation**

With the increase in energy requirements of the country and the other markets that we serve in the subcontinent through exports, it is inevitable that we as a business entity increase our production capacity. This will definitely have an impact on our own operational requirements in terms of energy consumption. The sharp spike in crude oil prices and product prices has led to alternatives being explored as a means of reducing the demand for petroleum products. Some of the key initiatives at BPCL include Bio-diesel, biogas generation, wind energy, solar heating, solar cell power etc. These have been discussed in greater detail in the Renewable Energy section.

Inspite of these initiatives, complete replacement of the fossil fuel based energy is not possible presently and can be only done in a phased manner. Accordingly, energy conservation efforts at BPCL receive continuous focus both in terms of improvement in operations/maintenance as well as development of new projects. For instance, the refinery operations have established an elaborate energy accounting system and Management Information System (MIS). There is continuous monitoring of fuel consumption and hydrocarbon loss is undertaken using sophisticated instrument and data acquisition system. Similarly, regular energy audits are carried out at the ROs to plug wastage and improve power factor, solar panels have been installed at some ROs and regional offices and variable speed motors have been provided for product dispatch. We have also increased our pipeline metwork from 358 kms to 1384 kms. Thus, we have implemented several energy conservation measures at all our units which have resulted in a saving of around 40%. This has been done keeping in mind the requirements of the Clean Development mechanism as per the Kyoto protocol as well as our own understanding that we need to conserve energy thereby reducing the Green House Gas emissions generated from our operations. As is evident from the graphs, specific energy consumption in Kochi refinery has decreased compared to the previous years. This reduction has been the cumulative result of a number of energy conservation initiatives including upgradation to energy efficient equipment, use of insulation materials in heating equipment, use of biogas etc.



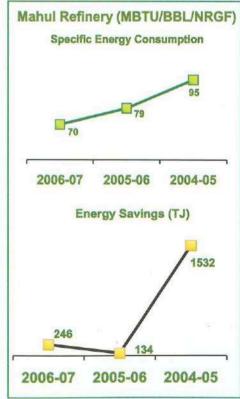


Figure 2.7 Energy Conservation at Refineries

#### **Tackling Climate Change**

Climate Change is a serious issue for BPCL. Extreme climate change may lead to loss of business opportunities in view of inundated roads due to torrential rain/rising sea level. Operations maybe interrupted or suspended temporarily due to disruption in production and supply process. Further, there maybe temporary dry outs at retail stations/hinterland supply locations. Given the severe consequences, BPCL has an HSE entity that looks after climate change management. The entity is headed by a senior level manager and supported by a group of management staff. At the Board level too, the Apex Council headed by Chairman & Managing Director along with other directors reviews the environmental perfromance and status regarding climate change. Thus, the issue is deliberated both at the Board as well as senior management level.

Presently, India's emission level is below 1990 base level under the Kyoto Protocol. Hence, no caps on emissions have been regulated. Rather, emission reduction projects are being structured as CDM projects. Inspite of this, a number of programs to restrict direct emissions have been instituted at BPCL. Alongside business operations, emission reductions have been achieved through upgrading infrastructure, modernisation, introducing clean technologies/monitoring devices, product storage management, increasing process safety level, etc.

Measurement of emissions is conducted through third parties to monitor status and ensure that our levels of emissions are well within the allowable limits. These measurements are carried out annually for all refineries and operating locations. However, accounting of total quantitiy of emissions has not been done so far and BPCL has plans to do so in future years.

#### Clean Development Mechanism

Several Clean Development Mechanism (CDM) Projects that come under the Kyoto Protocol have been identified. Steps have been undertaken to arrange host country approval and registration with United Nation Framework Convention for Climate Change (UNFCCC) to avail carbon emission reduction credits.

#### Carbon Disclosure Project

BPCL has participated in the 5th Carbon Disclosure Project (CDP). Representing the world's largest investor coalition with combined assets of US \$41 trillion under management, CDP seeks information on business risks and opportunities by climate change and greenhouse gas emissions data from the world's largest companies.

CDP 5 Report was released on 24th September 2007.

#### Climate Change Strategy

BPCL has developed a clear strategy to tackle climate change. The strategy lays stress on the following main areas:

- Setting up green fuel (LPG/CNG) terminals & stations
- Strenghtening retail stations/positions/services
- Laying cross country pipelines
- Using oil industry common carrier cross-country pipelines for supplies
- Increase refining position
- Developing renewable energy sources (e.g. windmills, solar cells)
- Strengthening energy security
- R&D for alternate fuels (bio-diesel, ethanol, hydrogen cells)

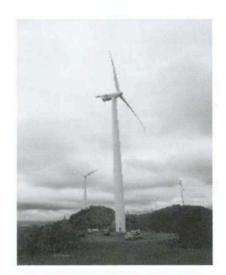
#### Strategy Implementation

Based on the above strategy, BPCL has constituted definitive action plans for reduction of GHG emissions through alternative fuels and nonconventional energy.

- A 5 MW wind energy project has been set up in the state of Karnataka and three more such 5 MW projects will be set up in the states/Union Territories of Maharashtra, Pondicherry and Daman. The power generated will be evacuated to the state grid.
- 2. BPCL has also major plans for entering the biodiesel value chain. Towards this end, plantation of Jatropha has been arranged at around 1000 acres of land at existing storage locations and LPG Bottling Plants. A set of guidelines for Jatropha plantation has been issued, with a view to adopt uniform standards all over the country.
- 3. An important milestone achieved in January this year was the commissioning of a 3 KVA poly electrolyte membrane fuel cell generator based on hydrogen at a Company Owned Company Operated (COCO) retail outlet at Medchal near Hyderabad. This is a pilot project, the first of its kind undertaken in the country along with BHEL at a cost of INR 4.8 million. Phase I has been completed and the facilities are being tested on full load operations for continuous 12 hours working.
- 4. A5 KVA wind-cum-solar power generator has been commissioned in March 2007 at a COCO retail outlet at Uluberia near Kolkata at a cost of INR 1.8 million. Another 5KVA solar power generator is being set up at a COCO outlet in Bangalore with a project cost of INR 0.8 million. Several solar cells are in use at Retail Stations and Regional Offices at Chennai/Kolkata and the C&MD's office at Mumbai.

#### **Greening Cities**

Recognising the fact that Natural gas, considered to be the fuel of the future is also eco friendly, BPCL has made initial forays into its commercial utilisation. Involved as a partner in the 'Green Delhi' pioneering effort, today the company has invested in six locations viz. Delhi, Pune, Kochi, Kanpur, Gandhinagar & Bangalore, where such services are in place.



Wind mill installed in Kamataka

#### Ethanol Blended Petrol

The Ministry of Petroleum and Nautral Gas (MoPNG) has mandated the marketing of 5 % Ethanol Blended Petrol (EBP). The public tenders floated by BPCL for this purpose have been finalised for 16 states and EBP supplies have been commenced in several states.

#### Water Consumption and Conservation

Fresh water is used at our refineries mainly in the cooling towers apart from general canteen and domestic use; and for fire-fighting purpose in all locations. In the year 2006-07 the total water consumption was 5.98 million m³ and 3.81 million m³ in refineries and marketing locations respectively.

Table 2.1 Water consumption at BPCL (Lakh m³/year)

Location	Water consumption		
	2006-07	2005-06	2004-05
Refineries*	60	50	52
Marketing Locations**	0.28	0.27	0.28
Total	60.28	50.27	52.28

<sup>\*</sup> Consumption values averaged for refineries

It is evident from the table that water consumption has increased at both the refineries and the marketing locations this year compared to the previous year. This is again primarily attributable to capacity expansions in refineries and increase in the number of marketing locations. Fresh water is sourced from surface and groundwater directly and sourced from municipal supplies indirectly. Initiatives to harvest rain water are being actively implemented at all the refineries.

Over the years BPCL has strived hard to conserve water through harvesting, improved efficiency in usage as well as reuse and recycling of the process water. The process water is sent to the effluent treatment plant from where it goes to the oil water separator from where it is routed back to the process and is also stored in tanks for fire fighting. These measures are helping us in conserving fresh water.

#### **Emissions and Waste**

#### **Emissions**

Air quality remains a key area of focus even as we gear our efforts to tackle climate change. Some air emissions from our operations have an impact on the local air quality. These include SOx, NOx and SPM. The

#### **Environment Awards**

BPCL was the one of the first few Indian organisations to have proactively installed a water treatment plant in 1990, much beofre it became stipulated by statute. Since then our SBUs have tirelessly worked towards ensuring the highest environmental performance standards.

Their efforts are rewarded each year and this year too is no exception when several BPCL locations were announced winners of the Greentech Environment Award 2007:

Delhi, AFS Refinery Mumbai Karur Receiving Terminal Patna TOP Manmad Installation Jalandhar Installation Irimpanam Installation LPG Bottling plant, Pivala. Faridabad Manglia Installation Rajbandh TOP

<sup>\*\*</sup> Consumption values representative of sample locations and averaged for all marketing locations.

robust environmental management systems at BPCL ensure that no limits as prescribed by PCB are exceeded. Although we cannot quantify the amount of emissions physically because such systems are not in place, we have, through external independent agencies, verified our emission limits at periodic intervals. Based on their reports we have calculated the quantity of emissions for the last three financial years as shown in the adjacent graphs. In case of our marketing locations, the levels of SPM, SOx and NOx are within the limits prescribed in the consent to operate under the Air Prevention & Control of Pollution Act 1981 and Rules 1982.

#### **Treated Effluents**

Process water from the refineries is treated in the effluent treatment plant (ETP) to ensure that the treated effluent quality meets statutory norms. Further, since these effluents may have traces of oil present in them, hence the treated effluent from the ETP is run through the oil-water seperator in three cycles so as to ensure that the discharge does not contain any process material. This is an essential operation not only from the point of view of not damaging the soil and the water bodies but also from the economic point because of the cost of crude.

In recent times we have tried to ensure that our units ensure zero discharge and the process water is either diverted back to the process or used for gardening purposes. We have been able to achieve zero discharge in Numaligarh since October 2006. Our other units are working to achieve the same objective of zero discharge. The adjacent graph represents average of BOD and TSS levels present in the treated effluents discharged from our units. These parameters are much below the limits as prescribed by the pollution control board viz., 15 mg/l and 20 mg/l respectively.

#### Wastes

The wastes generated at our locations of operations are categorised into hazardous, non-hazardous, bio-degradable and non-biodegradable wastes. The non-hazardous non-biodegradable waste is disposed off as scrap while the non-hazardous bio-degradable waste is used making manure or vermi-compost. Bio-remediation is employed for hazardous wastes that are bio-degradable while the non-biodegradable hazardous wastes generated are disposed as per the rules and regulations prescribed

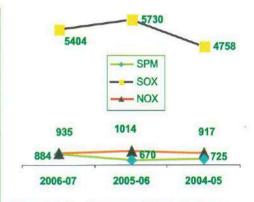


Figure 2.8 Average Air Emissions form Refineries (MT)

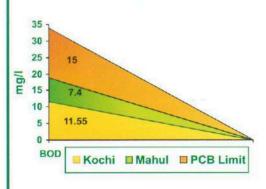


Figure 2.9 BOD levels in effluents from Refineries (mg/l)

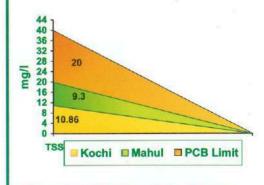


Figure 2.10 TSS levels in effluents from Refineries (mg/l)

by the PCB under the aegis of the Hazardous Wastes Management & Handling Rules, 1989 as amended 2003. The type of wastes and their disposal methods has been mentioned below. In case any sale takes place involving hazardous wastes, it is done only to parties authorised by the PCB. In no case any other party is entertained for such a sale. BPCL however does not have any role in monitoring the waste disposal practices these parties may indulge into, once the material has been sold to them. The Table 2.2 outlines the different types of hazardous wastes generated in the refineries. In the Kochi refinery seven types of wastes are generated. The wastes reprocessed are oily sludge and waste PIB oil; wastes disposed at the secured landfill are FCC catalyst fines, ETP chemical sludge and spent molecular sieves. Apart from this all other wastes are sold to parties authorised by the PCB. Similarly, at Mahul refinery the various types of hazardous wastes generated are spent catalyst, oily earth material, oily sludge from crude tanks, waste bituminous oil, waste transformer oil, Cobalt-Molybdenum spent catalyst, Nickel spent catalyst and lead acid batteries. The refinery also had some non-hazardous waste generated in the year 2006-07 amounting to 13 Tonnes namely spent charcoal which was sold to a third party authorised by the PCB. Table 2.2 also provides the details of the disposal methods for the above wastes undertaken at our refineries.



Tray arrangement provided under a tank lorry to check spillage at Manmad Installation

#### Bioremediation with Oil Zapper

As a commitment towards improved environmental performance and sustenance, the Board of Directors of BPCL consented for the disposal of sludge through Bio-remediation. Using Oil Zapper organic bacteria from TERI, BPCL has treated solid waste i.e. sludge. The results of this bio-remediation method has vielded encouraging results and the resultant treated soil has been found to support the growth of plants. Several locations of BPCL have successfully adopted the bio-remediation method.



Funnel arrangement with collection box provided to check spillage at Tank Lorry Filling Gantry in Manmad Installation

Managing Responsibly

We are the most environment friendly company

Table 2.2 Hazardous Waste Generated at Refineries (MT)

Kochi Refinery				
Type of hazardous waste generated in Tonnes	2006-07	2005-06	2004-05	Disposal method
Oily sludge	165	82	180	Reprocessing
FCC catalyst fines	72	72	90	Secured landfill
DHDS spent catalyst	225	0	0	Sale
ETP chemical sludge	15	15	15	Secured landfill
Waste PIB oil	0	3	0	Reprocessing
Spent molecular sieves	0	0	10	Secured landfill
Lead acid battery	0	2	13	Sale
Total	477	174	308	

Mahul Refinery				
Type of hazardous waste generated in Tonnes	2006-07	2005-06	2004-05	Disposal method
Spent catalyst	108	170	160	Secured landfill
Oily sludge from crude tank	5581	2319	4600	Oil recovered
Waste transformer oil	0	24	0	Sale
Waste bituminous oil	0	60	0	Sale
Waste oil	0	0	100	Sale
Mo spent catalyst	0	0	110	Sale
Ni spent catalyst	0	0	4	Sale
Total*	5689	2573	4974	

<sup>\*</sup> Total excludes 75 lead acid batteries which were disposed to authorised party

Numaligarh Refinery				
Type of hazardous waste generated in Tonnes	2006-07	2005-06	2004-05	Disposal method
Chemical & oily sludge	3	23	18	Sale
Spent catalyst	10	152	109	Secured landfill
Spent adsorbents	0	628	0	Secured landfill
Bio sludge	347	129	81	Green belt
Total	360	932	208	

We are the most environment friendly company

#### **Environmental Expenditure**

The high priority afforded to constant improvement in our environmental performance means substantial investment in various initiatives. Rather than perceiving this to be a cost, BPCL considers all environment-related expenses as investment for a safer future. These investments are broadly of two types:

- 1. Operating Investment: These occur on a recurring basis and are necessary for the continuation of routine operations for environmental management. Fees for renewal of consents to operate under the laws prescribed by the Government of India, third party monitoring of emissions, operation of effluent treatment plants, training programs etc. are included in this category.
- 2. Capital Investment: These occur on a one-time basis, during the procurement for environment treatment equipment, procurement of cleaner technologies, etc.

The table provided below is indicative of the combined expenditure incurred at our different locations. We expect to bring in measures in the near future to bifurcate and report the expenditure under each category. For FY 06-07 expenditure incurred in refineries was 129.3 Million INR and for marketing locations was 1982 Million INR.

Table 2.3 Investment in Environment at BPCL (Million INR)

Location		Investment	
	2006-07	2005-06	2004-05
Refineries*	130	760	904
Marketing Locations*	1982	1745	1101
Total	2112	2505	2005

<sup>\*</sup> Average values



Rain water harvesting at Kochi refinery



Bio gas plant at the Mahul refinery operational since 2001 where gas is generated from canteen waste.



BPCL was one of the first to commission a Benzene Recovery unit in 2004 at its Mahul refinery leading to significant reduction in pollution

We are the most environment friendly company

#### Safeguarding Biodiversity

Growing populations and rising wealth are putting many sensitive and biodiversity-rich ecosystems under threat. Meeting the world's need for more and increasingly diverse energy supplies risks adding to the pressure. Hence, there is an urgent need to find the right balance between development and conservation of nature.

At BPCL we are acutely aware of the threats to bio-diversity from human activity and its resultant consequences such as climate change. This is why we have adopted a 3-step approach to safeguarding biodiversity:

- 1. Conserve exisiting biodiversity
- 2. Protect endangered habitats and species
- 3. Develop a management plan for conservation initiatives

At Kochi, an eco park covering an area of 5.5 acres of land was developed during 2004-05 as part of ISO 14001 EMS objective. More than 3800 plants of different varieties including herbal plants and ornamental plants are planted and maintained here. The Eco Park has now become a natural habitat for a variety of birds and flies as well as for seasonal migratory birds. It also helps in restoring a healthy eco system, control pollution, develop a clean environment and prevent soil erosion.



Butterfly Valley at Numaligarh is spread over 15 acres of land. It is home to many exotic and rare species and a dozen endangered species of butterflies.
Butterflies are sensitive to macroclimatic conditions and a variety of habitat factors. Hence their presence in a certain region is indicative of good air quality.



A view of the water pond at Kochi refinery



Greening initiative at Vashi - Mankhurd section of the eastern express highway at Mumbai



A view of the Butterfly Park at Numaligarh refinery





Mr. S. A. Naravan Director (Human Resources)

BPCL boasts of a good talent pool with well-qualified and high calibre people. We strive to provide an enabling work environment to our employees be it in the form of empowerment or employee benefits. BPCL was the first public sector organization to establish a Balanced Score Card system for all management cadres and to link incentive payouts to business, company and individual performance. In order to ensure the sustained growth of BPLC, we developed Project Calibre in tandem with Project Destiny to identify a pool of future leaders from our current middle and senior managers. Through the establishment of Junior Management Council, bright and promising junior managers are also given an opportunity to play a role in the organizations strategic decisionmaking process. Regular Employee Satisfaction Surveys enable us to understand employee concerns and act accordingly. Although BPCL has received the Best Employer Award from external agencies, we are not complacent and continue to develop policies and programs in the best interests of our people. This is because BPCL has always believed in People above Oil.

#### 2.4.3 Social Performance

#### **Towards a Safe Working Environment**

BPCL has always endeavoured to improve the quality of its operations and to mitigate the Health, Safety, Environment and Security (HSES) risks associated with them. The regional HSE councils established have assigned clear roles and responsibilities at all levels for meeting the health and safety targets. These councils have helped in aligning efforts at the regional level and utilising synergy across the different businesses and entities. Exclusive HSE workshops have been introduced to cover all employees working at locations and offices in a phased manner. During the year, 21 HSE&S workshops were organised for company employees and a total of 4792 hours of classroom training was imparted.

BPCL considers the root cause findings from incident investigations as the most important means of preventing such incidents. A platform has been provided for locations to present **Near-miss** incidents. Further, to improve the morale of its people, BPCL has institutionalised the Health Safety Environment & Security awards, rewarding locations for reporting near-misses, environmental care and excellence in HSE&S performance. As a result of these initiatives, there were zero fatalities 0and reportable work-place incidents have been reduced by 45% this year.

In order to reinforce safety for hired vehicle drivers and cleaners, seminars on Road Transportation Safety were jointly organised with the National Safety Council at Chennai and Mumbai. A large number of transporters and officials attended the seminar in which everyone expressed their commitment for improved performance. In addition, a large number of safety clinics, training programmes and workshops were held for vehicle crews at BPCL's 47 training centers across the country. Special health clinics were held at locations for vehicle crews who underwent various health check-ups by doctors. As a result of these efforts, a 17% reduction on accients on road has been achieved.

Table 2.4 Reportable Accidents at BPCL (Nos.)

Location	Reportable A	ccidents (No.)	
	2006-07	2005-06	2004-05
Refineries	1	4	7
Marketing Locations	6	7	5
Total	7	11	12

#### **HSE Record & Awards**

BPCL recorded zero fatalities during the year and reportable lost time incidents at workplaces have been reduced by 45%. Overall, we have achieved 20.45 million manhours without lost time accidents.BPCL's HSE efforts have been recognised by a number of regulatory bodies and safety savvy organisations. During the year, BPCL received the first OISD Safety Award in the category of LPG Marketing Organisations. 22 locations have also received awards for contribution to safety activities from National Safety Council.

Other noteworthy awards received in 2007 include:



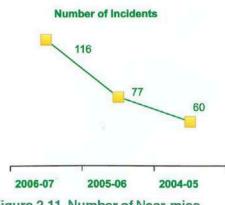


Figure 2.11 Number of Near-miss incidents

#### Towards being an Employer of Choice

BPCL realises that it needs to have highly motivated and engaged employees for realising its ambitious of becoming most profitable downstream player. BPCL's core strength has always been the quality of its human resources. In line with this belief, BPCL always seeks to involve people across the organisation in all the major initiatives being undertaken. This engagement ensures ownership of people at all levels to the goals and targets set.

#### **Employees and Employee Diversity**

As per 31st March 2007, there were 13970 full time confirmed employees working in the organisation at its different locations, Additionally, BPCL has several temporary and contractual employees. BPCL employees consist of full time management as well as non-management staff. The adjoining table indicates the various categories of employees along with a diversification indicating the number of women employees, people belonging to minorities and the ones who are physically handicapped. All employees have the right to Freedom of Association and Collective Bargaining and those in the bargainable category are unionised.

BPCL being a Public Sector Unit offers 3% reservation in its job selection to Persons with Disabilities (PWD) as per the Government of India guidelines under Section 33 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. For grievance redressal against sexual harassment, the company instituted a complaint committee set up in 2004 as per the directions of the National Commission for Women.

#### **Hiring Practices**

One of BPCL's core strengths is its human resource. There are detailed guidelines on recruitment of management as well as non - management staff. Generally the recruitment is at entry level and then based on performance the career advancement takes place. Internal staff is preferred if in case there is any vacancy, and this announcement is through weekly notices.

#### Shell Helen Keller Award

BPCL has been recognised for its outstanding work for persons with disabilities and has been awarded the prestigious NCPEDP - Shell Helen Keller Award 2005.

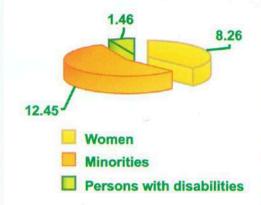


Figure 2.12 Employee Representation (%) at BPCL



A female employee at the forecourt of a BPCL Petrol Pump near Shantipath, New Delhi. Uniquely, this station is completely manned by women.

#### Career Development

One of the key challenges that BPCL is facing is the retention of skilled and experienced manpower. The opening up of the economy has created numerous avenues, besides increasing overall compensation levels. At the same time, BPCL has ambitious plans and goals. While attrition is a reality, BPCL is constantly focused on improving its HR policies to face the emerging challenges.

With a view to differentiate performance and reward high performers, BPCL had introduced a Performance Related Incentive Scheme for the first time in 2003-04. Since then, quarterly career development reviews are conducted for all employees apart from the year end performance appraisal. With a view to benchmark performance with the highest standards, BPCL had identified competencies which set apart outstanding performers. During the year, the process was carried forward and these competencies have been used to profile select staff. BPCL has implemented the 'development center' for its employees. The 'development center' is a method for assessing the competencies and development potential of the participants by trained assessors using diagnostic processes. Atotal of three Development Centers were conducted during the year covering 31 Territory Managers.

Training and Development continues to be an important thrust area. The Bharat Petroleum Learning Center at Mumbai and the Regional/Refinery Training Centers are used for imparting training on new initiatives and for skill upgradation of employees.

#### Listening to our People

Employees are considered the core strength of the organisation and they play an important role in leading the organisation in a highly competitive scenario. There have been constant endeavors on the part of the company to intimately work with and develop human capital. BPCL has been focusing on developing and retaining its human capital. Employee Satisfaction in the organisation is extremely important.

The Employee Satisfaction Enhancement Cell has been established in the organisation for this purpose and is headed directly by a Deputy General Manager at the Corporate level for grievances of various types which include issues among others related to social life, career progression, remuneration, transfers etc.

#### IDEAS Platform

The IDEAS platform, which was institutionalised in the year 2000 to nurture creativity and innovation amongst employees, has become a key event in the organisation. Employees look forward to this event to share the innovations made by them at their work place. During 2006-07, an award under a new category Customer Satisfaction Enhancement-Prevention of Adulteration & Malpractice was added. A total of 35 awards were given away this year in recognition of the contributions made by the participants.



Employees at BPCL Refinery

#### Training

During the year 2006-07, 1157 mandays of training was imparted in the organisation details of which are mentioned in the table provided below. The training imparted was for the different categories of employees, and the programmes were conducted considering their needs in different areas, based on the type of work and future development for life long employability. The table provided below gives a detail of the programs held in the different employee categories and also gives the trend of the mandays involved in the various training programmes. In 2005-06 we revisited our vision and articulated a new one considering the contemporary and the future business scenario. We have addressed all 4500 Management staff through large numbers of Appreciative Enquiry across regions, which was conducted by all senior officials including Chairman, Directors, EDs, and GMs. This process went on for 3-4 months.

Table 2.5 Details of Training Programs at BPCL

Year		2006-07		
Program Name	Number of Programmes	Number of Participants	Number of Mandays	
Management	11	216	510	
Staff	11	201	480	
Labour	4	75	167	
Total	28	492	1157	

Year		2005-06		
Program Name	Number of Programmes	Number of Participants	Number of Mandays	
Management	8	129	330	
Staff	22	378	746	
Labour	8	173	374	
Total	38	680	1450	

Year		2004-05		
Program Name	Number of Programmes	Number of Participants	Number of Mandays	
Management	2	47	141	
Staff	19	288	669	
Labour	10	198	466	
Total	31	533	1276	

#### Mission Statement

We are fully committed to help our employees in solving their genuine problems by adopting the attitude of respect, genuineness and empathy. Entering into their frame of mind to understand them to make them realise their innermost strengths. Communicate with the employees to motivate them to use their own resources to enhance their performance which leads to satisfaction. Encourage them to assume responsibility to make BPCL, "A Great Place To Work".

We are the first choice of customers, always

#### Customers

BPCL is committed to serve the customer to the fullest extent with the best of quality and quantity apart from catering to the aspects of safety, transparency and customer friendly initiatives.

BPCL pioneered the movement to provide customer specific products with an assurance of proper quantity and excellent quality. This commitment led to the, "Pure for Sure (PFS)" programme after the deregulation of the oil industry and launch of high performance fuel "Speed" and other initiatives like installation of three dimensional locks (Abloy locks) and the Global Positioning System (GPS) in tank lorries to check adulteration of the product. The Pure for Sure initiative is a voluntary initiative wherein the retailers are encouraged to qualify to certain parameters so as to ensure that the end customer gets full value for his money. This initiative also ensures that the customers' expectations regarding the quality and quantity of the product / service are met with. As on 31st March 2007, BPCL has 73% of retail outlets numbering 5502 under this programme and targets to bring the remaining 27% also in the near future to adhere to these parameters. This programme is backed with the certification by an internationally recognised certification agency promising that all the parameters envisaged in the PFS are duly complied with. A major thrust area in BPCL's operations for customers' is transparency of all operations. To achieve this objective BRASS - RT (Bharat Retail Automation Solution & Services - Real Time) project has been launched which is actually the automation of the retail outlets. The focus is more at the retail outlets because it is one of the major points of interaction of the consumer with the organisation. BRASS-RT will provide the customer with complete transparency in terms of exact quantity of fuel dispensed, automated receipt and better payment options through Smartcard / Credit / Debit card. The project presently is fully operational in 320 outlets and the same is proposed to be implemented in 2000 outlets during 2007-08.

Apart from the aspect of quality and quantity BPCL has also been focusing stringently on customer safety. Recognising that there is a need to ensure safety at the customer end especially in the area of LPG cooking gas, customers of Bharatgas are being provided with rodent resistant steel braided LPG hose pipes branded as "Suraksha Tubes". BPCL also conducts "Safety Clinics" regularly to educate customers on the safe use of LPG and energy conservation. Emergency service cells / Bharatgas

#### **Programmes for Generation Next**

BPCL believes in development of knowledge for the present as well as the future generations. Hence its training programmes are designed to accommodate the children also, who are considered the future torch bearers of the country. BPCL has invested 4.81 Million INR in these efforts to impart knowledge and development in the last three years.

#### **ERP Success Story**

**BPCL** implemented ERP solutions during 1999 - 2000 with SAP/R3, the first public sector oil company to implement such a system. It was also the largest implementation. Initially implemented to meet MIS requirements, the system has also been used for Business Data Warehousing and supply Chain Management for lubes business. Overall, it has helped the company to be more efficient, reduce costs and achieve customer satisfaction. It has also aided in establishing an efficient risk management system in place. Presently, BPCL offers consultancy services in ERP in different countries like namely Qatar, Singapore, Finland, Malaysia, Indonesia and Saudi Arabia. The Customer Competency Centre at Mumbai has been certified thrice by SAP and BPCL's ERP team was invited by SAP in 2007 to Holland to share their experience in managing this centre.

We are the first choice of customers, always

Helplines have been put in place to attend to LPG leakage complaints after the distributor's working hours and on holidays. Special emphasis is also laid on training the distributors and their staff for providing customer assistance promptly. BPCL has set up Customer Relation Centres (CRCs) across the country so as to ensure that customers have a forum to provide feedback and record their grievances. The increased efforts for educating customers for safe usage of LPG have contributed to a reduction fo41% in domestic accidents.

Apart from the above mentioned efforts to address concerns of the consumers in the area of quality, safety and transparency BPCL has initiated following initiatives for customers;

- "In & Out eTraveller", a single platform for travel and hospitality needs by providing e-ticketing / e- booking facility for rail, air and bus tickets and hotel accommodation. This facility offers a flexible payment option through cash, credit/debit card, cash card etc. Presently, 37 In & Out convenience stores have this facility which has been proposed to be increased to about 100 stores.
- "Quick Service Restaurants", as stand alone as well as within the In & Out stores through alliance with major FMCG companies.
- Company operated, "One Stop Truckers Stop (OSTSs)" supported by dealer operated, "Highway Star" outlets for both truckers and motorists wherein amenities range from hygienic restrooms, laundry, multi cuisine Dhaba called "Ghar Dhaba".
- "ebharatgas.com", offering information on LPG usage, safety etc and a facility for customers to book for LPG refill online; service available to 8.8 Million customers across 200 cities in India.
- LPG Reticulated system commonly referred as," Piped LP Gas" to 21,916 households.
- For Industrial consumers structured Fuel Oil products with a view to help them in hedging price fluctuations and other value added services likeE-biz, e-banking, Energy Audits etc.

#### IDEAs for Customers

During the year 2006-07, an award under a new category, "Customer Satisfaction Enhancement – Prevention of Adulteration & Malpractice" was added.



Raising environmental awareness of our customers through media campaigns

#### Citizen's Charter

Citizen's charter – a tool for ensuring transparency in communicating with customers and educating them about their rights has been made a top priority for grievance redressal and has been established and positioned at various customer contact points.

#### Retailers & Distributors

Starting its operations in 1976 with 3183 retailers, BPCL today has registered a growth of 137% today and presently has 7537 retailers across the length and breadth of India. This is in addition to 2129 LPG distributors who serve about 23 million households. BPCL has come a long way along with its retailers and distributors for whom the concept of business has undergone a sea change from providing basic services to customers like fuel and LPG cylinder delivery to initiatives like, "In& Out" convenience stores and, "Beyond LPG". Bharatgas has 23.51 million customers today as compared to 0.49 million in 1976. Sale of retail fuels saw a growth of 12% compared to 2005-06 with actual quantity being 13.01 MMT as compared to 11.61 MMT in 05-06 fiscal. LPG sales in the same period were 2726 TMT as compared to 2586.44 TMT in 05-06, an increase of 6% compared to the last fiscal.

The main focus today for retailers is diversification of services and ensuring fulfilment of quality, quantity, safety, transparency and customer friendly services. Diversified business includes the following:

 Ghar and Highway star providing services which range from laundry, kirana (groceries), hauda (bathing facility for truckers), amphitheatre, Automatic Teller Machines and a one stop facility for bookings of travel and hospitality requirements.

LPG distributors are providing several products under the programme "Beyond LPG" such as Kitchenware, gas stoves, electrical appliances, solar lighting, pre-paid vouchers for cellular phones, FMCG products and, "Suraksha" LPG hose.



A BPCL Retail Station

#### Customer Responsiveness Award

BPCL won the, "Avaya Global Connect Awards for Customer Responsiveness Award" for the year 2006 in the PSU category, beating stiff competition from other nominees – IOC, SAIL, BHEL and NTPC.

The award was presented by the Economic Times in a function presided over by Mr. Bakul Dholakia, Director IIM Ahemedabad attended by leading corporate entities. Mr. Dholakia in his keynote address, while complementing the winners emphasised, "There is a marked shift by companies to develop competencies for 'Customer Responsiveness' as compared to the earlier thinking of only providing 'Customer Satisfaction'. Top managements play a vital role in developing these competencies across organisations and ensuring that customers' dynamic needs are constantly tracked and addressed".

#### Management Chair at IIM

BPCL instituted a Management Chair at the Indian Institute of Management (IIM), Lucknow, in the area of Customer Care Management, with the aim of researching newer ways of providing customer service standards.

#### Transporters

At the heart of BPCL's business are the transporters, who perform the basic task of transferring the product to and from the various refineries, depots, installations, aviation stations, retail outlets and bottling plants. They have to perform this task regularly with due care due to the hazardous nature of the product and any mistake on their part will be have grave consequences.

Transporters being an important stakeholder in the supply chain, BPCL has initiated many programmes which ensure their continuous interaction with the company officials at the different levels on relevant issues as and when required.

Annual safety training to educate the driver about the nature of the product, the hazards involved and safety precautions like driving speed etc. to be undertaken while transporting the product.

Apart from these interactions, transporters regularly interact at the entry point of any unit owned by BPCL while issuing clearance / gate pass for entry and exit from the unit. Any issue of concern is noted at the gate itself by the security personnel and resolved by the concerned authority at the earliest.

Keeping in view the nature of the work carried out by the truckers, BPCL has initiated the following facilities to the truckers:

- "One Stop Truckers Shop (Ghar)", wherein the facilities include laundry, kirana (groceries), hauda (bathing facility for truckers) apart from other amenities like amphitheatre.
- "Smartfleet" card to large fleet owners: The value proposition to the customer in this program is flexible payment options including credit provided by Tata Finance, centralised billing, tracking of vehicles, reward points, messaging facility, emergency services and options for MIS reports. The customer's odometer reading is captured every time they transact and this will enable them do a detailed analysis of cost per km for each vehicle. Similarly, there is a facility for tracking the vehicle on the highways, where even if the vehicle is not transacting it can mark its presence through the card. This is one facility which is expected to be a major boon to the long distance vehicle crew and owner as the owner can track the movement of his vehicle and can also send and receive messages from his crew.



Ghar Dhaba at a BPCL Retail Station





#### Sharing wider responsibility

At BPCL we believe that social and economic goals are connected rather than conflicting. Thus, an organisation should function in an integrated manner with its key communities and return to society the value it has created. Which is why, we believe some of our finest achievements are not those found in our balance sheets but in small towns and villages spread across India. Our involvement in sharing this wider responsibility i.e CSR, dates way back to 1984, when in pursuance with our philosophy "to give back to the society/community our best", we aimed to help the people enrich their lives, be it our employees or their families also extending the scope of definition of families to those that we saw beyond our glass cabins in these rustic surroundings, and thus started our romance. Today, we term them as our extended family i.e. our villagers from rural areas

#### Initiatives at Refinery SBU Initiatives at Mahul Refinery

BPCL initially started working in Mahul, the village located in our neighborhood of its Mumbai refinery since 1986, for the sole reason of their upliftment. The habitants of Mahul, essentially from the fishing community, were rich because they possessed marine wealth but as far as education, health, etc was concerned, they needed help. BPCL volunteered and the initial success brought such gratification that immediately it adopted another village (this time an interior one) called Karjat, developments with selfless intentions helped introspect about the future role BPCL should adopt in its aim to contribute to this effort, then there after there was no looking back. As a corporate responsibility, today 20 villages across India have been adopted. This includes making substantial investments for nearly a decade and a half in them to make them fully self reliant, providing them fresh drinking water, sanitation facilities, medical facilities, enhancing their income standards by imparting vocational training and agricultural innovations.

However, BPCL also firmly believes that the only vehicle for raising the villagers from their present state is by educating the young and the old, a focus on providing grants for opening schools and opening adult literacy camps as well.

#### Initiatives at Mahul & Karjat Villages

- Vocational Guidance
- Child Guidance Centre
- Counselling Centre
- · Balwadi (crèche)
- Cataract & medical camps
- Veterinary camps
- Medical dispensary
- Field workers
- Fertiliser and Bamboo sapling distribution
- · Grain Bank
- Awareness Talks (AIDS, etc.)
- · Solar lights
- Maintenance of school rooms
- Computer donation
- Notebook distribution



Vocational training for women in tailoring at Karjat

In Mahul Refinery's neighbouring community, the message of quality education is being spread by providing a well equipped science laboratory at the Narayan Acharya Vidya Niketan Hight School, Chembur, benefiting over 1000 children. During the year, the refinery continued its partnership with AVERT Society, an USAID body for furthering awareness and prevention of HIV/AIDS, covering a larger population of 1 lakh people including specific target groups.



Students working diligently at their computers, sponsored by BPCL- Mahul Refinery

#### Initiatives at Kochi Refinery

Similar to the initiatives at Mahul, Kochi refinery too has developed and implemented CSR initiatives since inception. A Special Component Plan has been established for the aid of SC/ST people in the community, Education, Health, Women and Infrastructure with defined objectives and targets for each category.

The refinery also contributed in the augmentation and upkeep of civic amenities in the city of Kochi. Various community welfare schemes are being implemented in the Single Point Mooring project affected areas in Puthuvypeen and Ernakulam. The schemes undertaken in 2006-07 include widening of city roads, providing amenities at Government hospitals, assistance in providing sanitation facilities, upgrading facilities at primary health centres, street lighting facilities at schools, assistance to libraries etc.

#### Initiatives at Numaligarh Refinery

NRL has initiated definitive measures for improving the lives of the people in the neighboring areas through innovative and people friendly program. All these programs are implemented in coordination with local bodies and various Government Departments and include the following:

- Free primary medical & health services and medicines through mobile health camps;
- Financial assistance to Schools & Colleges in the nearby area for developing its infrastructure, purchasing books for library and other educational aid:
- · Awarding of scholarships to meritorious students;
- Improvement of roads and drinking water facility;
- Aid to various Self-help groups through self-employment schemes etc.

Thus, our CSR activities have touched the lives of many, including the beneficiaries, the employees, families of employees, the management, families of management staff, etc. Leveraging India's title for the second largest oil major, we are making every effort spent in social commitment count for that much more BPCL believes in sustainable efforts and not sporadic attempts at community development. Through these interventions, we strive towards reinforcing the brand image of **Energising Lives**.

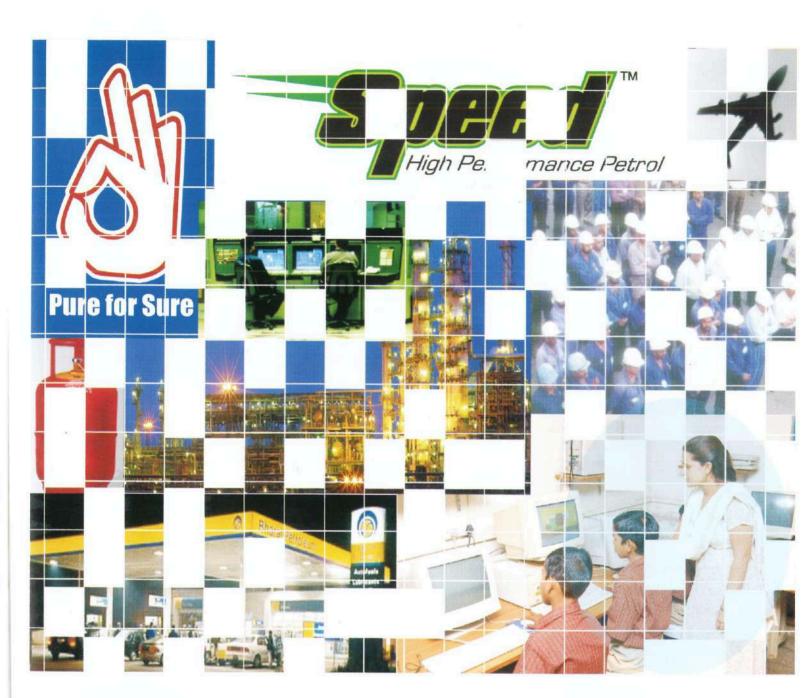
#### Initiatives at Kochi

- Educational: Financial assistance to students for purchase of books and uniforms, donation of computers
- Health: Medical camps in SC/ ST areas. These include multi specialty, ophthalmology, artificial limb camps.
- Women: Donation of sewing machines, awareness talks on International Women's Day, self
   help groups for women
- Infrastructure: Development of roads, waiting shelter, maintenance of medicals centres, Traffic Islands, maintenance of Heritage Structures.



Clock Tower at Tripunithura, Kochi built by the Maharaja of Travancore. This structure is maintained by BPCL-Kochi Refinery.





# **Growing Responsibly**

3

- 3.1 Overview of India's Macro-economy & Energy Sector
- 3.2 BPCL : Challenges & Opportinities
- 3.3 Embedding SD in Governance & Operations
- 3.4 Future Reporting

# 3.1 Overview of India's Macro-economy & Energy Sector

#### Macro-economic indicators

India is a unique economy. Favorable demographic characteristics and growth in per capita income are main drivers for this developing economy that has seen a GDP growth rate of more than 8% since the last four consecutive years. It is estimated that by 2050 India will be the third largest economy. The salient macroeconomic and energy indicators of India are as follows:

Population 1.1 bn to 1.47 bn in 2031	CAGR 1.1 %
Energy consumption: 304 to 1.112 kgoe/capita in 2031	CAGR 5.1 %
Two Wheelers: 0.6 mn to 41.5 mn over 30 years	CAGR 15.3 %
Cars: 0.54 mn to 5.71 mn over 30 years	CAGR 8.2 %
Electricity: absent in 84 mn households in 2000	44.2% of total
Renewables in use. GHG emissions low	~3% of Globe

#### **Energy Sector**

The energy challenge is of fundamental importance to India's economic growth imperatives. Apart from fuelling growth, the financial contributions made by the sectors are significant. India is the fifth largest energy consuming country in the world and the sixth largest crude oil consumer in the world. As per Government of India's (Gol) 2006 estimates, it is projected that India shall be consuming more than 8% of the world's oil in 2030.

> Largest contributor to exchequer in 06-07	~USD 39 bn
> Sixth largest crude oil consumer in world	2.6 mbopd
> % of crude import to total imports & exports	25 & 38% resp
> 5 Indian oil & gas companies in the Global F500 list	<b>&gt;</b>
Panks 6th in world refining capacity with 3.4% of global capacity	
India at present has the largest greenfield refinery in the world	>

Total primary commercial energy requirement in the country is projected to grow 5 times over next two decades; while the world energy requirement is projected to grow 2 times in the same period. In 2006 the country's energy mix comprised of 57% coal, 28% oil and the remaining distributed amongst hydro, natural gas and nuclear. It is projected that in 2030 India's dependence on coal will continue whereas gas and nuclear will emerge as the fastest growing fuels.

India's Petroleum sector policies mirror Gol's concern for energy security and to promote competitive markets while safeguarding consumer interests (see Box).

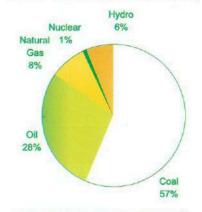
At the same time, there has been increasing thrust from Goi on renewable energy sources due to depleting conventional energy resources, environmental and security concerns

India is taking up major initiatives in fields of renewable and alternative sources of energy for a long term sustained growth. It was one of the pioneer countries in establishing hydro-electric power plants in 1898, one of the first in Asia. Similarly, emphasis has been given in developing hydro, solar and wind based power generation plants. Major recent initiatives of Gol for promoting renewable and alternative sources of energy include the following:

- India's Auto Fuel Policy promotes use of higher grade fuel with less carbon emission
- A Specially dedicated Ministry of New and Renewable Energy (MNRE) has been created
- 5% ethanol blended petrol mandatory in some states with plans to increase it to 20%
- Plantation of Jatropha and other bio-diesel yielding plants has been incentivised
- National Hydrogen Energy Board constituted in 2003 to implement
   National Hydrogen Energy Roadmap and Programme
- National Gas Hydrate Programme established for exploration and development of gas hydrates resources of India
- Ultra Mega Power Projects proposed to meet the growing power demand

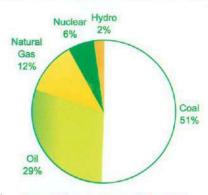
Based on the above, it is apparent that the hydrocarbon sector will have an important role to play in India's growth. Accordingly, BPCL's growth, challenges and opportunities need to be seen in the context of the Indian general and industry scenario and how these are expected to change in the long-term.

#### India's Energy Mix 2006 (423 Mtoe)



Source: BP Statistical Review June 2007

#### India's Energy Mix in 2030 (1,652 Mtoe)



Source: Integrated Energy Policy 2006 (Forced Nuclear + Hydro + Gas)

#### India's Petroleum Sector Policies

#### **Upstream**

- -New Exploration & Licensing Policy
- -Coal Bed Methane
- -Overseas equity participation in E&P assets

#### Downstream

2005

- -Petroleum & Natural Gas
- Regulatory Board Act, 2006
- -Policy for Development of Natural
- -Gas Pipeline and City Gas
- Distribution Networks
- -Petroleum Product Pipeline Policy 2002 and Petroleum Product Pipeline (Regulation of Tariff) Order
- -Regulation on setting up of ROs

#### **BPCL**: Challenges & Opportunities

India is currently very low on per capita emission of GHG. Yet, lowering the energy intensity of GDP growth through higher energy efficiency is important for meeting India's energy challenge and ensuring its energy security. Accordingly, amongst the most important challenges for BPCL is climate change. Global warming and its impacts are serious issues for BPCL since predictions of future climate impacts show that the consequences could vary from disruptive to catastrophic. BPCL-specific risks include physical risks to plants and establishment, flooding of coastal locations, inundated road conditions seriously causing interruptions in continuity of business, loss of reputation in the eyes of the public for not being able to maintain supplies, etc. However, BPCL does not foresee any regulatory risks as the country has a very well laid down environmental policy and norms for compliance by all in the industry. Over the years all BPCL locations and refineries have been submitting environmental reports to the respective Pollution Control Board of the States.

#### Climate Change: An opportunity for BPCL

Being in the business of conventional fuels for several decades, the priority challenges are emission reduction and alternate green fuels. Anticipating the above risks, BPCL has taken proactive action to deal with and to convert the risk into opportunities. An environment cell has been opened under the Health, Safety & Environment entity with two separate wings i.e. Carbon Capture and Reduction of Emissions, and CDM activities. Research and Development Centre at NOIDA and Environment Cell will play key roles in this direction.

In addition, a Carbon committee consisting of finance and environment heads would be interacting with global and domestic forums to keep track of risk management strategies of global peer companies.

BPCL sees many opportunities in emission reduction through the following:

- -renewable energy
- -improving efficiency
- -substitution of high efficiency equipment/facilities, and
- -fuel switching in case of existing fossil fuel driven machines

#### India's Renewable Energy Target

10% of additional electricity capacity by 2012 (excluding large hydro) increasing to 20% by 2020. 10 Gigawatts of renewable energy by 2012.

#### International Biofuels Forum

BPCL has taken several steps in actively pursuing the ethanol initiative on behalf of the Indian public sector companies by looking at ethanol investment opportunities in Brazil. Recently, the International Biofuels Forum was launched at the UN headquarters in New York. This has been done on the initiative of Brazil, for ensuring cooperation on ethanol/biofuels between the world's six major producers and consumers namely, Brazil, China, European Union, South Africa, USA and India. The objective is to accomplish the common mission of creating an international market for biofuels. BPCL has been nominated to represent the Government of India at this forum.

Thus, BPCL has been investing its resources in assessing the feasibility of options that would help it in tackling climate change.

## 3.3 Embedding SD in Governance & Operations

Good governance, transparency and accountability combined with thought leadership and innovation have been the cornerstones of our growth. As we realize our ambitions both as a downstream and upstream player, embedding SD thinking in our governance and operations becomes vital.

#### Board Commitment

Our Board engages in strategic review of all initiatives. The alternate fuel projects involving bio-diesel and ethanol had support from the Board prior to their implementation. Overall, the Board is seized of SD issues facing BPCL and provides oversight on all important issues.

#### Management Commitment

The senior management is involved in strategy formulation and providing necessary guidance and action plans to all plants and establishments. While doing so, the senior management takes into account relevant SD issues both within the Indian as well as global context. Our Directors are on various industry platforms and have been responsible for thought leadership on important SD issues.

#### Transparency Initiatives

BPCL takes pride in being transparent in its engagement with its stakeholders. All establishments across the country will be playing a greater role in *Responsible Care*, a voluntary environmental initiative. Similarly, BPCL has voluntarily disclosed its climate change plans to the 5<sup>th</sup> *Carbon Disclosure Project*. Our initiative on *Sustainability Reporting* is also towards being more accountable to our stakeholders.

# 3.4 Future Reporting

As mentioned in the section *About This Report*, this is our first report and has been prepared using G3 guidelines as a reference. During the preparation of this report, we have collated a considerable amount of data relating to our 3 refineries and marketing locations. We plan to put in place a mechanism of independenent verification through external bodies. Similar to other Fortune 500 companies, BPCL intends to publish future sustainability reports in accordance with GRI guidelines as soon as establishment of such process and mechanism is completed.

#### RESPONSIBLE CARE

#### A Public Commitment Guiding Principles

- To recognize and respond to community concerns about chemicals and our operations
- To develop and produce chemicals that can be manufactures, transported, used and disposed of safely.
- To make health, safety and environmental considerations a priority in our planning for all existing and new products and processes.
- To report promptly to officials, employees, customers and the public information on chemicalrelated or environmental hazards and to recommend protective measures.
- To counsel customers on the safe use, transportation and disposal of chemical products.
- To operate our plants and facilities in a manner that protects the environment and the health and safety of our employees and the public.
- To extend knowledge by conducting or supporting research on the health, safety and environmental effects of our products, processes and waste materials.
- To work with other to resolve problems created by past handling and disposal of hazardous substances.
- To participate with government and others in creating responsible laws, regulations and standards to safeguard the community, workplace and environment.



# **Appendices**

- List of Awards
- List of Tables, Figures & Graphs
- List of Abbreviations

#### Name of Award

Name of Award	Location	Award Type	Year
Greentech Environmental	Delhi,AFS	Gold	2007
Excellence Award	Refinery Mumbai	Gold	2007
	Karur Receiving Terminal	Silver	2007
	Patna TOP	Silver	2007
	Manmad Installation	Silver	2007
	Jalandhar Installation	Silver	2007
	Irimpanam Installation	Silver	2007
	LPG Bottling plant, Piyala	Silver	2007
	Manglia Installation	Bronze	2007
	Rajbandh TOP	Bronze	2007
Greentech Safety Awards	Borkhedi	Gold	2007
	Karur	Gold	2007
	DelhIASF	Silver	2007
	Rewari	Silver	2007
	Manmad	Stiver	2007
	Paradeep	Silver	2007
Oil Industry Safety Award	Lube Oil blending plant, BPCL	*	2006-07
Punjab State safety Award	LPG Bottling plant, Tiwana	150	2006
Best Improvement in SpecificEnergy Consumption from MOP&NG	Mahul Refinery		2007

Name of Award	Location	Award Type	Year
National Safety Council (Maharashtra Chapter)	Wadi Lube Installation	E	2006
National Safety Council (Maharashtra Chapter)	Borkhedi Depot		2006
National Safety Council (Maharashtra Chapter)	Manmad Installation	-	2006
National Safety Council (Maharashtra Chapter)	Sewree Installation		2006
National Safety Council (Maharashtra Chapter)	Pakni Depot	-	2006
National Safety Council (Maharashtra Chapter)	Miraj Depot	*	2006
National Safety Council (Maharashtra Chapter)	Gaigaon Depot	•	2006
National Safety Council (Maharashtra Chapter)	Akola Depot		2006
National Safety Council (Maharashtra Chapter)	Nasik LPG plant	¥1	2006
National Safety Council (Maharashtra Chapter)	Jalgaon LPG plant	*	2006
National Safety Council (Maharashtra Chapter)	Wail LPG plant	-	2006
National Safety Council (Maharashtra Chapter)	Solapur LPG plant	-	2006
National Safety Council (Maharashtra Chapter)	Nagpur LPG plant	•	2006
National Safety Council (Maharashtra Chapter)	Aviation Station	8	2006

# List of Tables, Figures and Graphs

#### **List of Tables**

Table Number	Description
2.1	Water consumption at BPCL (Lakh cubic meter per year)
2.2	Hazardous wastes generated at refineries (MT)
2.3	Investment in environment at BPCL (Million INR)
2.4	Reportable Accidents at BPCL (Nos.)
2.5	Details of Training Programs at BPCL

### **List of Figures**

Figure Number	Description
1.1	BPCL Timeline
1.2	Products and Services of BPCL
1.3	Main Brands of BPCL
1.4	Triggers for Success for achieving Vision
1.5	Management Structure
2.1	Significant stakeholders of BPCL
2.2	Shareholding structure of BPCL

#### **List of Graphs**

74.	
Figure Number	Description
2.3	Economic value generated, distributed and retained (Billion INR)
2.4	BPCL rank in amongst Fortune 500 Companies
2.5	Crude consumption at refineries (MMTPA)
2.6	Indirect energy consumption at refineries (Tera Joules)
2.7	Energy conservation at refineries
2.8	Average air emissions from refineries (Metric Tonnes)
2.9	BOD levels in effluents from refineries (mg/l)
2.10	TSS levels in effluents from refineries (mg/l)
2.11	Number of Near miss incidents
2.12	Employee Representation (%) at BPCL

# List of Abbreviations

A	API	American Petroleum Institute
	ATF	Aviation Turbine Fuel
D		
В	BPCL	Bharat Petroleum Corporation Limited
	BOD	Biological Oxygen Demand
0		
C	CDP	Carbon Disclosure Project
	CDM	Clean Development Mechanism
	CNG	Compressed Natural Gas
E	EMS	Environmental Management System
	554455	
F	FICCI	Federation of Indian Chambers of Commerce & Industry
	11001	rederation of indian chambers of commerce a maustry
G	GRI	Global reporting Initiative
	GOI	Government of India
	G3	GRI 2006 Guidelines
		S. I. 2000 Galdonilos
H	HSD	High Speed Diesel
	HSE	Health, Safety and Environment
200		
I,	IISC	Indian Institute of Science
	IPIECA	International Petroleum Industry Environmental Conservation Association
	INCARE	Innovative, Caring and Reliable
	LBO	
_	LPG	Liquefied Petroleum Gas
M		
IVI	MMTPA	Million Metric Tonnes per Annum
	MoP&NG	Ministry of Petroleum & Natural Gas
	MS	Motor Spirit

#### List of Abbreviations

NRL Numaligarh Refineries Limited

NOx Nitrous Oxide

NCPEDP National Centre for Promotion of Employment for Disabled People

OISD Oil Industry Safety Directorate

OSTS One Stop Truckers Shop

P PCB Pollution Control Board

SBU Strategic Business Unit

SD Sustainable Development

SKO Superior Kerosene Oil

SOx Sulphur Oxide

SPM Suspended Particulate Matter

TBL Triple Bottom Line

TSS Total Suspended Solids

UNFCCC United Nations Framework Convention for Climate Change



#### Refinery

Bharat Petroleum Refinery, Mahul, Chembur, Mumbai 400074

#### **Aviation Business**

Plot Nos. A5 & 6, Sector 1, Noida 201301 Dist. Gautam Budh Nagar

#### **Retail Business**

Maker Towers E & F, 12th Floor, Cuffe Parade, Mumbai 400005

#### **LPG Business**

Bharat Bhavan, 4 & 6 Currimbhoy Road, Ballard Estate, Mumbai 400001

#### **Lubricant Business**

ECE House, Post Box No.7, Connaught Circus,New Delhi 110001

# Industrial & Commercial Business

Bharat Bhavan, 4 & 6 Currimbhoy Road, Ballard Estate, Mumbai 400001

# **BHARAT PETROLEUM NETWORK ACROSS INDIA**

