

Indian Petroleum & Natural Gas Statistics

2002-03

MINISTRY OF PETROLEUM & NATURAL GAS
ECONOMICS AND STATISTICS DIVISION
GOVERNMENT OF INDIA
NEW DELHI

GOVERNMENT OF INDIA

MINISTRY OF PETROLEUM & NATURAL GAS

FOREWORD

The Ministry of Petroleum & Natural Gas has been publishing its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" containing comprehensive information on the Oil & Gas Sector, beginning from 1967 upto 2001-02. The bulletin provides information both in terms of calendar year and the financial year, to cater to the requirements of the different users. It also includes in brief the chronology of important events of the Indian Oil Sector and the control orders issued during the year.

The present compilation providing data for the year 2002-03, represents the sustained efforts of the Economics & Statistics Division of the Ministry.

We would welcome suggestions to restructure the bulletin or improve it.

(S.C.Tripathi)
Secretary to the Government of India

Shastri Bhawan
New Delhi-110001
July 2004

MINISTRY OF PETROLEUM & NATURAL GAS

ECONOMICS & STATISTICS DIVISION

PREFACE

The Economics & Statistics Division of the Ministry of Petroleum & Natural Gas has conscientiously endeavoured to bring out its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" from 1967. This has been made possible with inputs furnished by various Ministries and Departments of the Government of India, Petroleum Planning & Analysis Cell as well as the oil companies.

Part-I of the compilation deals with the Indian Petroleum Statistics, Part-II with International Petroleum Statistics, Part-III with Plan Statistics (including the draft X Plan figures), Part-IV focusses on financial performance of the oil companies and Part-V pertains to time series data on energy.

We express our deep sense of gratitude to all the data providers to the Ministry and record our appreciation for the efforts put in by the officials of the Economics & Statistics Division viz., Ms. Pushpa Thottan, Joint Advisor, Shri Khursheed Alam, Research Officer, Sr. Investigators Shri D.C.Garg and Dr.P.G.S.Rao, Ms. Kanwaljit Kaur, Jr. Investigator and Mrs. Parvesh Goswami, UDC.

Suggestions for its improvement would be duly appreciated.

A.K.Srivastava

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July 2004

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SCOPE AND COVERAGE OF DATA PUBLISHED

1. **Scope:** The **"Indian Petroleum & Natural Gas Statistics"** presents comprehensive statistics on various aspects of Indian Petroleum & Natural Gas Industries. The data on international developments in respect of the important segment of Petroleum and Natural Gas Industries have also been presented in the publication.

2. **Coverage:** The statistics presented in the publication cover the exploration, production, refining, marketing activities etc. of petroleum and natural gas industries.

3. **Source:** The primary statistics in respect of petroleum and natural gas industries included in the publication are based on various returns submitted by the oil public sector undertakings(PSUs), joint venture companies and private companies under the Ministry of Petroleum & Natural Gas.

   The sources of all the secondary data, including international statistics, incorporated in the publication, have been indicated at the bottom of relevant tables.

4. **Limitations:** The data in respect of sales/consumption of petroleum products reflect despatches of various petroleum products from the sales depots of different oil companies to the bulk consumers/retail outlets. The state-wise sales/consumption of such products show despatches to direct consumers / retail outlets meant for consumption / sales in a particular state.

5. **Reference Period:** All the key statistics for the domestic petroleum and natural gas industries have been presented on calendar (January-December) as well as on financial year (April-March) basis.

6. **Natural Gas:** The gross production of natural gas reflects gross withdrawals of natural gas from reservoir. On the other hand, the net production of natural gas show gross withdrawal of natural gas from reservoirs less gas used for reinjection into reservoirs for pressuring gas which is flared and / or vented.

   The utilisation data for natural gas includes gas marketed, gas used for LPG extraction and gas consumed for field operations by the companies engaged in hydrocarbons exploration / production activities.

7. **Petroleum Exports:** The data relating to export of crude oil includes Indian Crude Oil (Bombay High) consigned for processing abroad. The refined petroleum products supplied by the Indian Oil Corporation to Nepal have also been included under Indian exports from 1983-84.

8. **Petroleum Imports:** The crude oil and product import figures given in the publication included crude oil / petroleum products imported by the oil PSUs, private and parallel marketeers on behalf of Nepal for processing of crude oil in indian refineries and arranging supplies of desired products to Nepal. Petroleum products actually brought into the country from processing of indian and international crudes at foreign refineries for indian oil companies, have also been included under the product import figures.

9. **Value of Import/Export:** The value data in respect of exports of petroleum included in the publication show F.O.B. value of exports whereas similar value figures for imports reflect C.I.F. value of imports.

10. **Revision / updating:** Necessary revision / updating in the past data have been made in the light of latest available figures.

11. **Abbreviations:** Details of abbreviations used have been provided in Appendix.

12. **Conversion factor:** The conversion factors generally used in the oil sector are also given in the appendix.

INDIAN ECONOMY - SELECTED INDICATORS

Indicator	Unit/base	1990-91	1995-96	1999-00	2000-01	2001-02	2002-03*	
1. Geographical Area	M.Sq.Km.	3.29	3.29	3.29	3.29	3.29	3.29	
2. Population	Million	839	927	1001	1019	1037	1055	
3. Gross National Product at factor cost :								
(i) At current prices	Rs.Billion	5034	10598	17465	19003	20814	22178	A
(ii) At constant prices+	"	6837	8870	11368	11862	12570	13099	A
4. Net National Product at factor cost :								
(i) At current prices	Rs.Billion	4501	9419	15641	17025	18643	19797	A
(ii) At constant prices+	"	6142	7878	10078	10502	11152	11620	A
5. Per Capita Net National Product :								
(i) At current prices	Rupee	5365	10149	15626	16707	17978	18765	
(ii) At constant prices+	"	7321	8489	10068	10306	10754	11014	
6. Foreign Exchange Reserves								
(i) Gold++	Rs.Billion	68.28	156.59	129.73	127.11	148.68	167.85	
(ii) SDR	Mn. of SDRs.	75.9	55.9	4.0	2.0	8.0	3.0	
(iii) Foreign Exchange	Rs.Billion	43.88	584.46	1529.24	1844.82	2491.18	3414.76	
Foreign Exchange Rate	Rs./US$	17.943	33.450	43.333	45.684	47.692	47.500	
7. Foreign Trade :								
(i) Import	Rs.Billion	431.98	1226.78	2152.36	2308.73	2452.00	2965.97	
(ii) Export	"	325.53	1063.53	1595.61	2035.71	2090.18	2527.90	
(iii) Balance of Trade	"	-106.45	-163.25	-556.75	-273.02	-361.82	-438.07	
8. Index of Production :								
(i) Agricultural	@	148.4	160.7	176.8	167.3	177.1	na	
(ii) Industrial	1993-94=100		123.3	154.9	162.6	167.0	176.7	
9. Wholesale Price Index :	1993-94=100	73.7	121.6	145.3	155.7	161.3	166.8	
10. Consumer Price Index:								
(i) Industrial Workers	1982=100	193	313	428	444	463	na	
(ii) Agricultural Labourers	1986-87=100		237 #	306	305	309	D na	
(iii) Urban non-manual workers	1984-85=100	161	259	352	371	389	D na	
11. Employment : !								
(i) Public Sector	Million	19.06	19.43	19.31	19.14	na	na	
(ii) Private Sector	"	7.68	8.51	8.65	8.65	na	na	
Total	"	**26.73**	**27.94**	**27.96**	**27.79**	**na**	**na**	
No. of persons on live register of employment exchange	Million	34.89	36.90	40.31	41.23	42.07 !!	na	
12. Energy Generation (Gross) :								
Coal	Mn.Tonne	211.73	270.13	299.97	309.63	322.61	336.52	
Lignite	"	13.77	22.14	22.12	22.95	24.81	26.10	
Natural Gas	Bn.Cub.Mtr.	17.998	22.639	28.446	29.477	29.714	31.395	
Crude Oil	Mn.Tonne	33.02	35.17	31.95	32.43	32.03	33.07	
Petroleum Products	"	51.27	58.32	84.96	102.51	107.28	111.79	
13. Electricity Generated (Gross)								
(i) Utilities								
Hydel	B.KWH	71.7	72.6	80.6	74.5	73.9	63.8	
Thermal	"	186.5	299.3	386.8	408.1	422.0	448.4	
Nuclear	"	6.1	8.0	13.3	16.9	19.3	19.2	
Total	"	**264.3**	**379.9**	**480.7**	**499.5**	**515.2**	**531.4**	
(ii) Non-utilities	"	25.1	38.2	51.5	55.0	58.0	61.6	
Grand Total	"	**289.4**	**418.1**	**532.2**	**554.5**	**573.2**	**593.0**	

* : Provisional.
@ : Triennium ending 1981-82
! : As on 31 March
!! : January 2002.
: November-March.
D : April-December.

na = not available. A: Advance Estimates.
\+ : Figures upto 1992-93 are based on old series at 1980-81 prices and from 1993-94 onwards are based on 1993-94 prices.
++ : Gold is valued at Rs. 84.39 per 10 gms from May 1966 upto Sept. 1990 and closer to international market prices w.e.f. Oct. 17, 1990.
Source : Economic Survey

TRENDS IN INDIAN PETROLEUM INDUSTRY AT A GLANCE

Item	Unit	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
1. Reserves !							
(Balance Recoverable)							
(i) Crude Oil	Mn.Tonne	747	716	660	703	732	740
(ii) Natural Gas	Bn.Cub.Mtr.	692	675	648	760	763	751
2. Consumption							
(i) Crude Oil (in terms of refinery crude throughput)	Mn.Tonne	65.17	68.54	85.96	103.44	107.27	112.56
(ii) Petroleum Products (excl. RBF)	"	84.29	90.56	97.09	100.07	100.43	104.13
3. Production :							
(i) Crude Oil	"	33.86	32.72	31.95	32.43	32.03	33.04
(ii) Petroleum Products	"	61.31	64.54	79.41	95.61	100.00	104.14
4. Imports & Exports							
(i) Gross Imports :							
(a) Qty : Crude Oil	Mn.Tonne	34.49	39.81	57.80	74.10	78.71	81.99
Pol. Products	"	22.97	23.77	16.61	9.27	7.01	6.74
Total (a)	"	57.46	63.58	74.41	83.37	85.72	88.73
(b) Value:Crude Oil	Rs.Billion	158.72	149.17	400.28	659.32	603.97	761.95
Pol.Products	"	143.09	122.76	141.86	120.93	72.49	82.06
Total (b)	"	301.81	271.93	542.14	780.25	676.46	844.01
Pol. Imports as per DGCI&S	"	303.41	269.19	454.21	714.97	667.70	853.67
(ii) Exports :							
(a) Qty :							
Pol. Products	Mn.Tonne	2.38	0.72	0.75	8.37	10.09	10.29
(b) Value:							
Pol.Products	Rs.Billion	12.66	3.06	6.98	76.72	82.85	108.68
(iii) Net Imports :							
(a) Qty : Crude Oil	Mn.Tonne	34.49	39.81	57.80	74.10	78.71	81.99
Pol. Products	"	20.59	23.05	15.86	0.90	-3.08	-3.55
Total (a)	"	55.08	62.86	73.66	75.00	75.63	78.44
(b) Value:Crude Oil	Rs.Billion	158.72	149.17	400.28	659.32	603.97	761.95
Pol.Products	"	130.43	119.70	134.88	44.21	-10.36	-26.62
Total (b)	"	289.15	268.87	535.16	703.53	593.61	735.33
(iv) Unit Value of Crude oil imports(gross)	Rs./MT	4602	3747	6925	8898	7673	9293
5. India's Total Exports	Rs.Billion	1301.01	1397.53	1595.61	2035.71	2090.18	2527.90
6. Pol. imports as percentage of India's total exports							
(i) Gross Imports	%	23.2	19.5	34.0	38.3	32.4	33.4
(ii) Net Imports	%	22.2	19.2	33.5	34.6	28.4	29.1
7. Contribution of Oil Sector to Centre/State Resources							
(i) Royalty from crude oil	Rs.Billion	18.00	17.08	20.49	22.72	24.86	31.87
(ii) Royalty from gas	"	4.15	4.37	5.47	6.08	6.59	5.96
(iii)Oil Development Cess	"	28.38	27.51	27.16	27.28	28.78	50.47
(iv) Excise & Custom duties	"	209.73	215.13	326.62	359.12	361.05	451.26
(v) Sales Tax	"	127.58	134.90	181.06	233.75	200.90	297.41
(vi) Dividend	"	10.55	22.43	25.87	34.82	32.87	67.94
(vii)Corporate Tax/Others	"	19.25	26.21	38.63	53.45	N.A.	N.A.
8. Natural Gas :							
(i) Gross Production	Bn.Cub.Mtr.	26.401	27.428	28.446	29.477	29.714	31.395
(ii) Utilisation	"	24.522	25.716	26.885	27.86	28.037	29.972

*: Provisional. !: As on 1st April of initial year. N.A.: Not Available.

Source: Public Sector Undertakings / DGCI&S, Kolkata.

PART—I
PETROLEUM STATISTICS

2251IPNG—3A

PART—I
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I.2(a) CHRONOLOGY OF IMPORTANT EVENTS OF INDIAN PETROLEUM INDUSTRY DURING 2002-03

(A) EXPLORATION & PRODUCTION

1. Oil India Limited (OIL)

Drilled the deepest (depth 5566 mtr.) onshore well at Mechaki in Assam.

State-of-art Radio Telemetry System procured and commissioned for 3D seismic data acquisition in logistically difficult areas.

2D seismic lines were shot across Brahmaputra River connecting North Bank and South Bank.

Produced commercial oil for the first time from Langpar formation, which is the oldest formation in the Upper Assam Basin in Mati-mekhana area.

Carried out coal-only-processing test runs successfully in the pilot plant at Duliajan in order to study liquefaction of Assam coal as alternate source of hydrocarbon to substitute petroleum.

Crude oil trunk pipeline between Barauni and Bongaigaon was modified for reverse pumping of imported/Ravva crude to feed BRPL.

Taken up study for pilot scale implementation of Baghewala ultra heavy oil for its producibility by engaging M/s. PDVSA Intervep, Venezuela.

Made major discovery of below 3750 mtr gas reservoir during 2002-03 with preliminary in-place gas reserves of 5.4 BCM.

Voluntary retirement was opened for rationalization of employees of OIL 1089 employees opted.

Made profit after tax (PAT) of Rs.916.73 crores in 2002-03.

In the last 4 years (from 1999-2000 to 2002-03), OIL contributed Rs. 3,224.27 crores and Rs. 1,534.80 crores towards Central Exchequer and State Exchequer respectively.

2. Oil & Natural Gas Corporation Ltd. (ONGCL)

Exploratory efforts have resulted in six new hydrocarbon finds - Vasai West in Mumbai offshore, GS-KW & GS-49 in Krishna-Godavari offshore, Banmali & Laipling Gaon in Assam & Assam-Arakan basin and Chinnewala Tibba in Jaisalmer basin.

ONGC registered a Net Profit of Rs.10529.33 crore – the highest ever by any Indian Corporate.

Additional Gas Compressor Project in Heera completed in April 2002.

HV Well Platform under Additional Development of Heera Part-I commissioned on 17.11.02 ahead of schedule (30.11.02).

Alkaline Surfactant Polymer (ASP) Flood Pilot at Viraj commissioned on 1.8.02.

Gas collecting station commissioned at Ramnad in Karaikal asset on 20.9.02.

In 2002-03, 62 facilities including offshore & onshore installations received various accreditations on safety, quality and environment management including 33 ISO certifications.

Sagar Laxmi accredited with ISM code for safety management.

Institute of Management Development (IMD) awarded Golden Peacock National Quality Award for 2002.

3. ONGC Videsh Limited (ONGCVL)

Exploration & Production:

Got approval for Justification on Investment by Russian Govt. in September 2002.

Started drilling of five development wells at Vietnam Project in Sept. 2002 and production commenced in Nov.2002.

Received approval by Myanmar Oil & Gas Enterprise (MOGE) for Exploration Block – A1, Myanmar in April, 2002.

Got acquisition of 25% P1 in GNOP project, Sudan and ONGC Nile Ganga BV registered in Amsterdam in March 2003.

Signed far mout agreement with TPOC for Libyan Exploration Block NC-188 & NC-189 in Aug.2002.

Contract signed for Farsi Offshore Exploration Block, Iran in Dec.2002.

Others:

The following other activities were performed during the year 2002-03:

- Incorporation of wholly owned Subsidiary (Sakhalin India Inc.) in USA
- MOU with Oil India Limited
- Acquisition of interest in South Louisiana, USA through SII.
- Divestment of Stake in SII in favour of OIL.

4. Gas Authority of India Limited (GAIL)

Gas Supply Contract signed with Hindustan Fertilizer Corporation Limited (HFCL) in April'02 for supply to Namrup plant in Dibrugarh, Assam.

Received award for excellent MOU performance for 2000-01 in May'02 for the seventh time in a row.

MOU with IOC signed in May'02 to facilitate co-operation between the organizations in the field of research & development.

Participated in the sixth international oil & gas conference and exhibition at Tashkent, Uzbekistan to explore the investment potential in the hydrocarbon sector of the central Asian countries.

Signed a co-operation agreement with Korean Gas Corporation covering a broad range of activities in the gas and LNG sector including development of Trunk Gas Pipeline, setting up of Gas Processing Plants, E&P projects, Retail Marketing of Gas and other related projects.

The Delhi-Ahmedabad-Mumbai alternate optical fiber connectivity (OFC) route commenced operations.

HOA signed with Rajasthan State Power Corporation for supply of re-gasified LNG to the proposed Power Plant at Mathania near Jodhpur in June'02.

NTGG Pilot Plant Commissioned and Gas supply to PPN Power Project started in Aug'02.

In October'02 approval received for setting up CNG and City Gas Distribution Network activities for Lucknow city and Phase-1 activities for Kanpur, Agra, Faridabad and Pune cities at the cost of Rs 554.24 crore.

MOU signed with Punjab State Industrial Development Corporation Limited (PSIDC) for development of gas pipeline network and marketing of natural gas in the state.

During Nov.'02, HOA signed for supply of a re-gasified LNG with Rashtriya Chemicals & Fertilizers Limited (RCF).

Board approved expansion of UPPC from 330 KTA to 440 KTA at a cost of Rs 650 crore.

JV agreement signed with HPCL to distribute CNG and Auto-LNG in the state of Andhra Pradesh by the name of Bhagyanagar Gas Limited.

In Dec'02, HOA signed with MSEB for supply of re-gasified LNG.

UP Petrochemicals Complex (UPPC) conferred with ISO:9000:2000 for Quality Management System and ISO:14001 for Environmental Management System; and

Signed gas supply contract with Tripura National Gas Company Limited (TNGCL) in Agartala for supply to TNGCL's small scale industrial customers.

Signed agreement with Energy Infrastructure (India) Limited (EIL) for pipeline transportation of 105 TMT of LPG per annum through its JLPL line.

Signed MOC with National Iranian Oil Company (NIOC)/National Iranian Gas Export Company (NIGEC) covering various activities in the Natural Gas, CNG and LNG sectors.

Principles of Co-operation (POC) signed with Shell International Gas Limited for development of gas importation opportunities through pipeline and LNG, possibility of supplying R-LNG from Shell's Hazira LNG terminal on a long term basis.

HOA with Samcor Glass Limited, Rajasthan and SAMTEL Color Limited, UP for supply of re-gasified LNG from PLL's Dahej terminal.

In Jan'03 Board approval for laying of pipeline network for the transportation of re-gasified LNG in South-Gujarat of around 47 Kms at completed cost of Rs. 94.89 Crore; and for first stage project clearance for pipeline network from Kakinada (Andhra Pradesh) under National Gas Grid; and

Board approval for marketing tie-up agreement with Haldia Petrochemicals Limited (HPL) for Petrochemical Products under:

(i) Long Term Polypropylene and Pentane Off-take Agreement

(ii) Product Swap Agreement

(iii) Memorandum of Understanding

In March'03 Kandla Samakhiali LPG Pipeline (JLPL Phase II) mechanical completion achieved and Pipeline ready for commissioning.

(B) REFINING AND MARKETING

5. Bharat Petroleum Corporation Ltd. (BPCL)

Revamp of FCC unit, including de-bottle necking of Gas Plant with modification to reactor/regenerator carried out with an approved cost of Rs.53.5 crores for yield improvement.

Golden Environment Management Award – 2002 received in the large manufacturing category by World Environment Foundation, from the Dalai Lama on 8.6.2002.

Golden Peacock National Training Award 2002 received from the prestigious Institute of Directors (IOD) for outstanding commitment in Training & Development of Human Resources on 29.7.2002 at New Delhi.

BPC has the unique distinction of receiving the Golden Peacock Awards for Quality, Environment and Training.

New Oil Movement & Storage Control Room was inaugurated on 5th August 2002.

The Cetane Engine to identify optimum streams, reduce the emissions of particulate matters etc. equipment was successfully commissioned during September 2002 at a cost Rs.1.95 crores.

Quality assurance laboratory granted accreditation in the field of chemical testing in accordance with international standard ISI/IEC 17025:1999.

ISO 9001:2000 Certification received for its Quality Management System from M/s. Det Norske Veritas, B.V., the Netherlands for a period extending up to 20.9.2005.

On 22nd January 2003, the scaled up facility based on the pilot plant trials for the treatment of Sour Naphtha with DEA in DHDS complex in the refinery was inaugurated.

Marketing :

On 13.4.2002, Petrol Engine Oil – Automol Diamond with special additives launched to protect engine from wear & tear especially during start-up and acceleration and meets the lubrication requirements.

On 22.4.2002, BPC executed a full rake order of Packed Bitumen for a customer in Nepal, the first 'Bitumen Export' by rail wagons by BPC.

After deregulation, BPC is the first oil company to enter into a contract of affreightment on 17.5.2002 with Shipping Corporation of India, for transportation of crude.

Commissioned the first auto LPC dispensing station in Mumbai on 31.5.2002.

On 13.6.2002, Lubes SBU entered into an agreement with M/s. TELCO for marketing co-branded lubricants jointly through BPCL's retail outlets and Telco's dealers, distribution and service network.

On 27.6.2002, supply contract with M/s. Hindustan Lever Ltd for supply of various grades of Lubes to their 60 plants all over the country.

Lubes successfully initiated exports of branded lubricants to the Bangladesh market.

On 9.7.2002, launched 'Speed' – India's first new generation petrol at Mumbai with world-class multi-functional additives sourced from Chevron Oronite to remove harmful carbon deposits.

A 48 BTPN tank wagon siding of the new BG gantry at Kandla Installation, provided with the state-of-the-art MV Spray system (manual) inaugurated on 13.8.02.

5 Kg LPG cylinders launched at Shimla on 16.8.2002 and concurrently at 33 selected rural markets.

On 4th October, inaugurated the joint PBCL-IOC state-of-the-art Liquid Cargo Jetty at JNPT, Navi Mumbai to handle import & export of 8 MMT of petroleum & chemicals per annum at a capital cost of approx. Rs. 150 crore to achieve increased turnaround time.

Awarded refueling business of Silk Air, regional airlines of Singapore and Emirates at Cochin. Emirates now uplift ATF from BPCL at Delhi, Mumbai, Chennai, Hyderabad & Cochin.

Aviation SBU, launched Shell Aviation's Delivery Data Capture System for into-plane Aviation fuelling – Astra Nova – on 10th January 2003 at Taj Palace, New Delhi to enable accurate invoicing for all into-plane refueling.

'Speed' awarded the Product of the Year award in recognition of Bharat Petroleum's pioneering effort.

On 25.2.2002, BPC entered into an agreement with Kirlosker Oil Engines Ltd., (KOEL) and developed a multi grade 20W40 "K – OIL" for their Gen-sets.

Corporate R&D Centre (CRDC), Greater Noida recognized by Department of Scientific and Industrial Research (DSIR) till March 31, 2005 entailing certain tax benefits on R&D activities.

On 9.4.2002, the Refinery received the National Safety Council of India Safety award for the year 1999 "Yogyata Praman Patra" at New Delhi.

Refinery completed 5 million man-hours without Lost Time Accident on 4th August 2002 for the 5th time.

BPC was adjudged as one of the best performing organizations and was listed in the top 10 MOU signing Public Sector Enterprises to receive the Prime Minister's MOU Award to "Excellence in Performance for the year 2000-01".

Awarded the prestigious Golden Peacock Award-2002 for excellence in Corporate Governance.

On 8th October 2002, dividend paid of Rs.218.46 crores to the Government of India for the year 2001-02.

Bagged the prestigious Federation of Indian Chambers of Commerce and Industry (FICCI) award for outstanding corporate initiatives in the field of Environmental Conservation and Pollution Control for the year 2001-2002.

6. Hindustan Petroleum Corporation Limited (HPCL)

The performance highlights of the HPCL during 2002-03 are:

a) Mumbai Refinery:

Automation of Oil Movement & Storage (OM&S): in the first refinery in India at Mumbai refinery

The first refinery in the World to obtain Weights & Measures approval & excise approval for its Hydrostatic Tank Gauging (HTC) system installed in the floating roof tanks.

Bagged the "Golden Peacock Award" for innovative product/service, instituted by IOD (Institute of Directors) for using NMP treating technology to produce Food Grade Hexane.

Received ISO 14001 certification.

Production & supply of Special Cut Naphtha (SCN) and entire MS/HSD production of Bharat-II grade Commenced.

Completed 10 Million safe man-hours for the first time during past 10 years.

b) Visakh Refinery:

Commenced part MS/HSD production Bharat-II grade to cater to the demand of Hyderabad/Secunderabad region.

Achieved LEVEL 6 of International Safety Rating System (ISRS).

Received ISO 14001 certification.

b) Marketing:

- Launched new retail brand 'CLUB HP' which assures high quality personalized 'Vehicle and Consumer Care' through a select set of outlets, providing a distinct set of basic and value added offerings. A total of 685 'Club HP' outlets were commissioned, as of March 2003.
- Launched branded petrol 'power' as well as diesel 'TUBROJET' in select markets in the country with the promise of enhanced performance and improved engine health which contain specially imported additives.
- 5% Ethanol Blended Petrol (EBP) was introduced at various locations.
- HPCL was the first in the industry to introduce Auto LPG in India. It has so far commissioned 13 ALDs (Auto LPG Depots).
- Agreement with GAIL, to form a joint venture company called Bhagyanagar Gas Ltd., to distribute and market natural gas, piped gas, Compressed Natural Gas (CNG), Auto LPG in and around the cities of Andhra Pradesh.

c) **Projects:**

One LPG bottling plant of capacity 44 TMTPA at Kota (Rajasthan), capacity augmentation of nine existing Plants at various locations, amounting to a total of 236 TMTPA have been completed during the year, at a total cost of Rs. 48.94 crores. Three POL Depots (Baitalpur, Roorkee & Ajmer) having a total tankage of 13,725 KL were completed at a cost of Rs. 9.89 crores.

First pilot project of HP gas Rasoi Ghar (Community Kitchen) commissioned on 17.8.2002; 285 Rasoi Ghars commissioned by March 2003.

The Corporation achieved "Excellent" rating during 2002-03, for the 12th year, in succession.

7. Indian Oil Corporation Limited (IOCL)

a) Refineries

(i) Gujarat Refinery

Three batches of Naphtha (78.5 TMT) exported to Fujairah (UAE) from Gujarat Refinery in April/ May'02

Bitumen unit commissioned with BITUROX technology in Jun'02 to improve Bitumen production capacity as well as quality.

Custody transfer of HSD through mass flow meter for IOTL started on a regular basis since 10th Jun'02

FCC gasoline caustic wash vessel circulation facility installed and commissioned in September'02.

"IOC Premium MS" produced and dispatched for introducing in Baroda/Ahmedabad markets and SAP rolled out successfully in December'02.

A batch of about 4.3 TMT of 30/40 grade Bitumen was successfully prepared for the first time in Refinery on 9th Jan'03 to meet the immediate customer demand.

For the first time, a batch of around 120 KL of 96 RON MS prepared for defence requirement in Jan'03.

LPG truck dispatch from Dumad on regular basis commenced w.e.f. 18th Jan'03.

Gujarat refinery received the 'Industrial Safety Gold Award' from Greentech Foundation for the year 2001.

(ii) Barauni Refinery

Hydrogen generation unit commissioned in April'02.

Reside Fluidised Catalytic Cracking unit and LPG mounded bullet of capacity 1.5 TKL commissioned in Aug'02.

Diesel Hydro Treater Unit commissioned in Oct'02.

Sulphur Recovery Unit commissioned in Dec'02.

Heat Recovery Steam Generator (HRSG) commissioned on 21st Feb'03 and taken on range with Gas Turbine-2.

SAP rolled out successfully.

Three new Crude oil storage tanks of 40,000 KL capacity each commissioned in March'03.

Barauni refinery was awarded the highly commended certificate in the Oil and Gas Industry Sector by Royal Society for Prevention of Accidents, UK for the year 2002. This is the only Indian refinery in the oil sector to achieve this recognition. And the refinery received the 'Vishwakarma Rashtriya Puraskar' declared by DGFASLI, Ministry of Labour, Govt. of India for the year 2000.

(iii) Mathura Refinery

"IOC Premium MS" produced in July'02 was launched in Delhi market on 24th Aug'02

Debottlenecking of Fluidised Catalytic Cracking unit (FCCU) carried out to increase operation level of FCCU.

New control scheme on DCS was commissioned for LPG weathering control & estimation resulting in consistent product quality.

Additional low pressure gas burners were commissioned in VBU to reduce Hydrocarbon loss.

Mathura refinery received the "British Safety Award" for the year 2001-02 from British Safety Council in Jun'02.

(iv) Haldia Refinery

Under steam sharing strategy, Naphtha return stream dispatch to Guwahati refinery started from Jun'02 and to Digboi refinery started form Oct'02.

Heat Recovery Steam Generator (HRSG) commissioned and taken on range with Gas Turbine (GT) from Aug'02.

DG grade FO production meeting newly introduced BIS specification IS-15217: 2002 started and all FO now produced as per quality.

29 MT of micro-crystalline wax was exported to China in Nov.'02 for the first time.

"IOC Premium MS" was produced and dispatched for introducing in Kolkata markets in Dec'02 and SAP rolled out successfully in Jan'03.

Additional water-cooled condenser in Naphtha Splitter column installed to facilitate increased yield of Light Naphtha.

First time bulk Bitumen 7955 MT dispatched through tanker for export to Myanmar and China in Feb'03.

Catalytic ISO-De-waxing Unit, a first of its kind in India, was commissioned on 25th Mar'03 to produce various grades of API Group-II Lube Oil Base Stock, which are so far being imported in the country.

15.6 TMT of Motor Spirit (MS) dispatched first time, for export to Singapore on 6th Mar'03.

(v) Assam Oil Division (AOD), Digboi.

Bulk bitumen dispatch first time commenced in June'02.

Binder Oil, a specialty product used in Incense (Agarbatti) industry, was launched by Digboi refinery.

25 TMTPA capacity LPG bottling plant commissioned at Gopanari near Digboi in Sep'02, provided with mounded bullet storage for LPG, first of its kind in North-East.

Blending of Naphtha Return Stream, procured from Haldia refinery/HPL, for maximization of MS commenced w.e.f. Oct'02.

Advanced Process Control (APC) for New Delayed Coking Unit commissioned for improved product yield and quality.

Launched 5 kg LPG cylinder in the North East market at Nongpoh, Meghalaya with filling facility developed in-house at North Guwahati bottling plant in Nov'02.

Stream swapping between Digboi and Guwahati refineries (light naphtha ex Digboi to Guwahati and heavy naphtha ex-Guwahati to Digboi) commenced to increase mutual profitability and MS maximization for Digboi refinery in Jan'03.

"Rhinoshine" a quick-dying Bituminous coating having water proofing property and glossy finish for application on metal surfaces, motor vehicle chassis and wooden structures launched in March'03.

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(vi) Panipat Refinery

The implementation of advanced process control AVU, RFCCU & OHCU units completed and in operation since Oct'02 resulting in steady operation and better yield.

Production of DG grades HPS meeting new BIS specification started in Jan'03.

"Servocut LP" a specialty product used as Cutting oil in Engineering Industries has been produced and dispatched for the first time in Mar'03.

(vii) Guwahati Refinery

Under steam sharing strategy, Naphtha return stream dispatch from Haldia refinery to Guwahati refinery started from Jun'02

Amine treating unit of "Diesel Hydrotreater Project" commissioned I July'02.

Regular dispatch of MS commenced from 8th Aug'02 by blending ISOSIVATE with Naphtha return stream from Haldia Petro-chemicals Limited (HPC), after commissioning of ISOSIV Unit.

Hydrogen Unit, Diesel Hydro Treater Unit and Sulphur recovery unit of "Diesel Hydrotreater Project" commissioned in Aug'02, Nov'02 and in Dec'02 respectively.

Installation of one additional water-cooled condenser in Naphtha Splitter column was done to facilitate increased yield of Light Naphtha in Jan'03.

Stream swapping between Digboi and Guwahati refineries (light naphtha ex Digboi to Guwahati and heavy naphtha ex-Guwahati to Divboi) commenced to increase mutual profitability and MS maximization for Digboi refinery in Jan'03.

SAP rolled out successfully in March'03.

General/Awards Won :

Receipt of Imported Crude oils in Very Large Crude Carriers (VLCC) started w.e.f. June'02. at East-Coast of India for supplies to Haldia, Barauni & CPCL refineries for realizing the advantage of lower freight cost.

Barauni, Gujarat and Panipat refineries received the prestigious 'Sword of Honour' award from British Safety Council for safety practices.

Quality Control laboratories at Guwahati and Barauni refineries have been accredited by NABL (National Accreditation Board for testing and calibration Laboratories) in Apr'02 and Aug'02 respectively. With this, all IOC refinery laboratories have been accredited by NABL.

Indian Oil was selected for the Best Enterprise award for "Project Management (Projects costing more than Rs.100 crore)" jointly with ONGCL, for Gas Turbine and Heat recovery Steam generator at Panipat refinery. The project of Rs.167 crore was completed at a cost of Rs. 121 crore and 6 months ahead of schedule.

Business Development :

Gas:

Republic of India has entered into a Memorandum of Understanding with Islamic Republic of Iran in January 2003 for mutual cooperation in various areas including hydrocarbon sector.

(a) Exploration & Production:

IOC was awarded two CBM blocks-BK-CBM-2001/1 and NK-CBM-2001/1 along with ONGC by Govt. of India on 26th July, 2002

IOC-OVL-OIL consortium was awarded Farsi offshore exploration block in Iran by National Iranian Oil Company (NIOC) after global competitive bidding on 25th Dec., 2002.

Govt. of India approved Farming-in of IOC in the Block AAP-ON-94/1 in Assam-Arunachal Pradesh. Premier Oil North East India BV was nominated as the operator of the Block on 14th January, 2003.

IOC was awarded one NELP-III Block-AA-ONN-2001/2 in Mizoram along with its consortium partner ONGC by Govt. of India on 4th February, 2003.

(b) Marketing Division

MS/SKO/HSD deregulation smoothly implemented in totality in April 2002.

Supply agreement with M/s. Nepal Oil Corporation Ltd to meet Nepal's 100% demand of major petroleum products renewed for a further period of 5 years.

First advance license for intermediate supplies under deemed export scheme obtained to substitute direct imports of Naphtha (supplies to M/s L&T Ltd.)

First time export of bulk bitumen started to China/Myanmar/Bangladesh.

Transshipment of crude VLCCs at Kakinada for CPCL, Chennai and Haldia refineries commenced on regular basis in June 2002.

Secured new business of Srilanka Airlines at Bangalore in July 2002.

IOC Premium MS made available from Mathura in July 2002.

ISO Accreditation to Aonla Depot in July 2002.

Additional tankage at North Lakhimpur Depot (6000 KL) at a cost of Rs. 4.3 crore and dock line from PPT Jetty to marketing terminal at Paradeep at a cost of Rs. 45 crores completed in August'2002.

Tuticorin White Oil Terminal commissioned through tanker input.

First ATF/HSD export to Sri Lanka – M/s Ceypetco in Sept'02. Monthly one parcel (each parcel of 10 TMT ATF & 30 TMT HSD).

Additional Tankage at Paradeep Bunkering Depot (10,600 KL) at a cost of Rs.3.16 crores and Automation & revamping of facilities at Kanpur completed in Sept.2002.

Furnace Oil imports commenced at Tuticorin in October '02

Introduction of PG fuels in Tirumala Triupati Devasthanam (TTD), in Kolkata Agglomerate, Hyderabad & Agra at different periods in the year.

Additional tankage at Leh Depot (5 X 70 KL & 6 X 200 KL) and FO unloading facility at BG Siding Kandla Main Terminal completed & commissioned in Oct'2002.

Commissioned 93rd Aviation Fuel Station at Gaya in Bihar in Nov. 2002.

'IOC Premium' petrol made available from Koyali and Haldia refineries from November 2002.

LPG imports from Petrons Malaysia on Term basis commenced and Kandla received MS through pipeline in January 2003.

First bulk LPG cargo input arranged for commissioning of LPG import facilities and Port Blair LPG bottling plant.

First ever MS export ex-Haldia undertaken.

First export of 30 TMD HSD made to IOC's subsidiary M/s Lanka IOC.

'IOC Premium' petrol made available from CPCL.

Automation of TT loading facilities at Kanpur completed at a total cost of Rs. 22.92 crores in March 2003.

(c) Pipelines

Replacement of existing delivery line of 6" dia to 8" dia line from Marketing Manifold to tanks at Mourigram terminal resulting increase in flow rate from 9 to 16 kls/hr and Hydrostatic test of Patna-Mughalsarai and Mughalsarai – Allahabad Section started were completed in April, 2002.

In June, 2002 a branch Pipeline to Amousi (Lucknow) was hooked – up with BKPL at Gowaria and the line is kept under wet preservation with inhibited water.

R&M of tank no. SS08 at Vadinar and Hydrotest of tank no.SS03 at Vadinar were completed in July,2002.

Loop line-1 from 0-170 km of HBCPL commissioned on 16th Aug'02 under augmentation of HBCPL from 4.2 to 7.5 MMTPA.

Ever highest monthly throughput in SV Section of SMPL to the tune of 1951.6 TMT (equivalent to 21.68 MMTPA) achieved in the month of September'2002.

Loop line-II from 206 to 473 km of HBCPL commissioned in Sept. 2002 under augmentation of HBCPL from 4.2 to 7.5 MMTPA

Hon'ble Prime Minister inaugurated the branch pipeline to Amousi (Lucknow) of BKPL on 19th of October 2002.

2 nos. of crude oil storage tanks (7&8) under augmentation of HBCPL from 4.2 to 7.5 MMTPA project and Second 6.6 KV feeder from Panipat refinery as a part of integration of power between pipelines and refineries at Panipat were commissioned in December 2002.

MOU target (1.1 MMT) of HBPL and KAPL (0.745MMT) for the year 2002-03 were achieved and Tank No.CT04 at Chaksu was commissioned in Jan, 2003.

Mathura – Tundla Product Pipeline and API Separator of Oil Water Separator at Vadinar repaired and commissioned in Feb'2003.

Ever-highest throughput of 24.15 MMT against internal target of 23.60MMT for crude pipelines and ever-highest throughput of 14.30MMT in VC section for the year 2002-2003 achieved.

Koyali–Navagam product pipeline (KNK) commissioned on 13th March'2003.

20"dia Barauni-Patna section project of BKPL were commissioned on 14th March' 2003.

SMPL received safety award from British Safety Council for the year 2001 for 8th time consecutively.

KBPL received Golden Peacock Environment Management Award –2002 of World Environment Foundation for the performance year 2001-02.

(d) R&D Centre, Faridabad

The following were the performance highlights during 2002-03 in the R&D Center of IOC:

- Received13 Indian patents and 5 foreign patents and filed for 10 Indian patents and 19 foreign patents.
- Three awards received.
- 80 lubricant formulations developed including 37 new products.
- 63 new products commercialized.
- 43 approvals from OEMs/users obtained including 11 from international OEMS.
- 2500 research samples and 9499 routine samples analyzed.
- MOU signed with Railways for commercial production of bio-diesel.
- Branded gasoline and diesel introduced on R&D recommendation.
- Indian process upgraded to increase LPG and gasoline Octane.
- ZSM-5-based additive licensed for commercial production.

- Agreement signed with Zeolyst International for the development of catalyst for hydro cracking of naphtha into LPG.
- Needle coke production agreement reached with BRPL.
- Visbreaker process model (VisMod) installed and validated at Gujarat Refinery.
- 12 MOU/MOC finalized for the joint development/commercialization of various technologies.

8. IBP Co. Limited (IBPCL)

Sales of petroleum product during the year 2002/2003 were 4.69 million Kls as against 4.67 million Kls during 2001-02.

IBP has registered a growth of 6.5% in MS against industry's growth of 9.2%. In HSD, IBP has achieved a negative growth of 0.5% against industry's positive of 2.2% and resultant lower market share.

During the year 2002-03, 523 new retail outlets 3 SKO/LDO dealerships and 10 new LPG distributorships were commissioned. 1.12 lakh new customers for LPG were enrolled during the year. As on 31.03.2003, the company has 64 LPG distributorships and 2.63 lakh customers.

New course was taken for sales to the Bazar segment by appointment of Consignment Agents (CA). As on 31.3.03 we have 67 CAs on all India basis.

Various new products/packs launched include – Tub Type Grease (200 gms.); ESEO 40 (1 litre easy pour pouch): LS 2T – 40 ml & 60 ml in new design pouches; Harith 40; MG 20W40 (Liner cartons); New artwork designs for MG 20W40 (50 ltr & 10 ltr)/Haulic 68 (50 ltr)/CNG Oil (10 ltr.)

Approval received from Railways for rail-road engine oils as supplier in line with IOC, BPC and HPC.

During the financial year, IBP added 32 new consumer pumps besides enrolling 18 new consumers for MS/HSD including supplies to Defence.

IBP have started bitumen marketing for the first time in IBP and have sold 910 MTs during the year.

IBP have entered into MOU with number of companies including Sahara India, Orient Kraft and TCI for development consumer pumps (CPs) within their premises.

IBP also entered into contact with Army for supplies of MS, HSD & SKO to their Various units.

IBP sold 24903 MTs of LPG during the year thereby registering a growth of 90.1%.

Introduced 5 Kg LPG Cylinders in the state of Punjab.

CNG facility has been added at two ROs during the year, taking the number of ROs with CNG facililty to 4.

This financial year IBP along with Industry had implemented unleaded, extra low sulphur and low benzene petrol and HSD with 0.05% max. sulphur in the supply locations of Chennai (CMDA), Tirmula/ Tirupati (TTD), KMDA (Howrah, 24 Paraganas, Hoogli & Nadia District), Hyderabad/Secunderabad, Agra, Kanpur, Ahmedabad, Surat, Pune & Bangalor.

During the year 2002/03, along with the Industry IBP had introduced 5% Ethanol blended Petrol in the entire state of UP, Bhatinda and Pathankot in Punjab, Gokavaram in Andhra Pradesh, Pakni, Bhadli, Loni, Akolner, Gaigaon and Shirud in Maharashtra and Hazira in Gujarat. IBP is fully geared to supply 5% Ethanol blended Petrol in all its supply locations in the notified States.

During the year 2002/03, IBP commissioned a new terminal at Asoj, in the state of Gujarat of capacity 10,000 KLs. This is entirely Black Oil Depot, which has tankage for LDO and FO. With this IBP's number of Depots/Terminals are increased to 18.

9. BONGAIGAON REFINERY & PETROCHEMICALS LTD. (BRPL)

The company achieved highest ever production of LPG (31,825 MT) and MS (159,834 MT) in 2002-03. Also, the Distillate Yield on crude throughput (82.77%) was the highest ever while fuel & loss of 6.5% on crude throughput was the lowest ever.

The minor projects achieved during the year are:

i) PSF Product Diversification and Plant Modernisation

ii) Modification of LPG Recovery facilities in DCU-I&II

iii) Installation of a 22,000 MTPA capacity LPG Bottling Plant. The plant has been handed over to IOCL in June 2003 for operation.

iv) Installation of a 5 MW DG.

BRPL achieved highest ever Turnover of Rs.1862 crores during the year 2002-03 and recorded an all-time high net profit of Rs.178 crores.

The company introduced for the first time a voluntary retirement scheme in 2002-03 and 20 employees opted for the scheme.

BRPL become a subsidiary of Indian Oil Corporation w.e.f. 29-3-2001.

10. CHENNAI PETROLEUM CORPORATION LIMITED (CPCL)

Indian Institute of Industrial Engineering (IIIE) awarded the "Enterprise Excellence Award" in May 2002 to CPCL for its Financial and Operational strength during the year 2000-01

CPCL won the "Green-tech Platinum Award" for the year 2001-02 in recognition for its outstanding performance in Health, Safety and Environment in June 2002.

The first consignment of HSD and ATF were loaded in the Ship to CEYPETCO, Srilanka on term contract for a period of one year on 21st September 2002.

CPCL has paid Rs.13.83 crores to IOCL as dividend for the year 2001-02 in Sept.2002.

0.5 MMTPA additional facility at Cauvery Basin Refinery was inaugurated and the Operators Handbook for 1.00 MMTPA released during Sept.2002.

CPCL received the Loyola Environmental Award for the year 2002 for the sustained interest of CPCL in the endeavor of environmental awareness and protection for the benefit of mankind and CPCL-CBR received the State level Star Award 2001 for safety, health and environment from the National Safety Council of India – Tamilnadu chapter in Oct.2002.

Chairman, Indian Oil Group Companies inaugurated the HT Electrical Substation-1 in 3 MMTPA refinery expansion project at Manali.

Two Hydro Cracker Reactors costing Rs. 40 crores imported from Italy, for the "Once through Hydro Cracker" unit of CPCL's 3 MMTPA expansion project at Manali were erected. (The 1st reactor erected on Jan 28 and 2nd on Jan 30.2003)

The CPCL-CBR Oil Jetty was inaugurated at CPCL's Cauvery basin refinery, Panangudi near Nagapattinam on 1st March 2003.

Inaugurated the Substation-II of 3 MMTPA refinery expansion project at Manali during March 2003.

MOU signed with IOC on physical operations, financial performance and project implementation, for the year 2003-04.

CPCL-CBR received the first prize under Group-A category award for oil and sugar industries by the Inspectorate of Factories, Government of Tamilnadu, for having achieved more than 11 lakhs safe man-hours in the year 1998.

11. KOCHI REFINERIES LIMITED (KRL)

The cumulative crude throughput for the year 2002-03 was 7.579 MMT against the MOU target of 7.5.

KRL achieved a record in the production of MS, LPG, Bitumen, ATF, MTO, PIB and sulphur during the year.

The Refinery has been adjudged the 'Second Best Performer' among the Refineries under Group 1 for safety performance during the year 2001-02.

KRL achieved ISO 14001 re-certification for its environment management system and extended the validity for another 3 years.

KRL bagged the PCRA award for Exemplary work in Energy Conservation during 2001-02 under the Medium Project Category.

MOU for the year 2003-04 was signed between BPCL & KRL on March 15,2003.

12. MANGALORE REFINERY AND PETROCHEMICALS LIMITED (MRPL)

MRPL processed crude throughput of 7.25 MMT and processed Tengiz crude form Kazakahstan for the first time in the refinery.

HSD exported for the first time in July 2002.

Lowest fuel& loss of 6.89% on gross crude in Jan. 2003.

Ever highest 6.42 $/bl GRM in the month of Feb.03

ULHSD local PLT to HPCL was started for the first time in Feb. 2003.

Reformat was exported for the first time in Feb.2003.

Diesel export to Sri Lanka through IOC on term contract was given for the first time in March 2003.

On 3rd March 2003 ONGC acquired the total share holding of AV Birla Group in MRPL; and infused equity capital of Rs. 600 crores taking ONGC's holding to 51.25% thus making MRPL a subsidiary of ONGC.

Debt restricting packages (DRP) proposed by ONGC, which include interalia, conversion up to Rs.365 crores of loans into equity. Subsequently ONGC has acquired the equity allotted to lenders pursuant to DRP and the present holding of ONGC in MRPL is 71.62%.

13. RELIANCE INDUSTRIES LIMITED (RIL)

Reliance Petroleum Limited (RPL) merged with Reliance Industries Limited (RIL) w.e.f. 1st April, 2002.

RPL (RIL) was granted marketing rights in May 2002 for sale of MS/HSD including setting up 5849 retail out-let in the country.

RIL refinery commissioned effective 14.07.1999 took the first planned shutdown in November 2002.

Crude intake was 28.56 million tones representing capacity utilization of around 106%.

Export of petroleum products stood at 6.57 million tones value Rs. 6928 crores (US$ 1.43 billion). With such exports, RIL was adjudged India's largest manufacture exporter.

RIL discovered natural gas in Krishna-Godavari basin off Andhra Pradesh coast in October 2002. In place reserves of 10.5 TCF (currently estimated 14 TCF) can produce 40 MMSCMD of gas (more than 60% of current production).

14. MAHANAGAR GAS LIMITED (MGL)

Piped Natural Gas (PNG): Over 65,000 additional domestic consumers were connected during the year 2002-03 alone as compared to 53,000 connections in the previous year and cumulative 50,000 connections in the first six years of operations of the company.

Similarly, 20 Kms of Steel pipelines and 404 Kms of Polyethylene pipelines were laid during the current financial year.

As on date, over 2,27,000 domestic, 1,040 commercial, and 99 small industrial consumers have registered with our company for supply of PNG.

Compressed Natural Gas (CNG): During 2002-03 alone, over 17,600 taxis/cars and 17,100 three-wheelers got converted on CNG.

The total number of vehicles powered on CNG in the city of Mumbai, as on March 31,2003, increased to over 70,000 from 35,224 in the previous year. The number of three-wheelers CNG conversions, during the year, increased to over 17,100 from 7,639 in the previous year. MGL had set up additional 21 CNG outlets during the current year alone as compared to cumulative 25 CNG outlets set up during the previous seven year and focused on enhancement of compression capacity and number of dispensing points by upgrading 14 existing CNG outlets as well as converting the daughter booster stations to the online stations. As on March 31, 2003, the compression capacity and dispensing points have been increased to the level of 392,000 Kgs./per day and 192 Nos from 152,000 Kgs/per day and 78 Nos respectively. It successfully completed setting up of 45 CNG outlets by December 2002, which were otherwise planned by March 2003.

The growth in the gas sales volume has gone up from 4,20,000 SCM per day to over 6,28,500 SCM per day, an increase of almost 50%.

15. INDRAPRASTHA GAS LIMITED (IGL)

CNG: During the year the company laid and commissioned 23 km, 12" dia, steel pipeline from Dhaula Kuan to G.T. Karnal by-pass so as to make/commission 19 mother/online CNG stations in West Delhi and create a circular loop of natural gas pipeline around Delhi ensuring the security of natural gas for the automotive and other commercial consumer sectors.

As on 31st March 2003 the company had commissioned 107 CNG stations comprising of 47 mother stations (including 18 at DTC depots), 20 online stations, 29 daughter-booster Stations and 11 daughter stations. The compression capacity as on 31st March 2003 was 11.99 lakh kg./day.

PNG: Upto 31st March 2003, the company had laid infrastructure to supply Piped Natural Gas (PNG) to 22189 domestic, 150 small commercial and 35 large commercial consumers. However, upto 31st March 2003, there were 7719 domestic, 72 small commercial and 11 large commercials who were actually drawing natural gas.

16. ENGINEERS INDIA LIMITED (EIL)

During 2002-03 the EIL has secured the following major projects:

Domestic:

Panipat refinery expansion project and revamp of CDU at Mathura refinery of IOCL.
FCCU revamp at Manali of CPCL.
Expansion of petrochemicals complex at Pata and defect & integrity assessment of LPG pipeline of GAIL.
LAB revamp job of Tamilnadu petroproducts Ltd.
Green Fuels & Emission Control Project of HPCL at Mumbai.
Modernisation & instrumentation in MAA Refinery of KNPC, Kuwait.

International:

FEED for Ras Laffan Topsides Liquid Product, Berths of Qatar Petroleum.
Technical services for gas compressor stations in Iran for IRANITOK.
Extension of managing contractor's services in Iran for 9th Olefin Complexes for Pars Petrochemical Company and off sites & totalities Project of Far Petrochemicals.

Projects Completed in 2002-03

Numaligarh refinery project of NRL.
BHN process revamp of ONGC.
Mangalore-Bangalore pipeline of HPCL.
Smelter expansion project of NALCOP.
Barauni refinery expansion and Diesel hydro treater and solvent dewaxing/deoiling project of Digboi refinery and Diesel hydrotreater units of IOCL at Guwahati.
KG basin pipeline phase- II of GAIL.
Efficiency improvement of refinery heater/boiler of KNPC, Kuwait.
FCC Revamp at BPCL's Mumbai refinery.

Awards & Recognitions in 2002-03

President of India's Merit Certificate for excellence in the achievement of MOU targets for the year 2001-02.

EIL amongst Business Barons' India's 500 most outstanding companies.

Research & Development in 2002-03

Efficient steam trapping device developed and its potential energy saving demonstrated at CPCL and IOCL (Mathura). Order for 2500 traps has been received from the clients. Received NPMP award for excellence under creativity & innovation category.

Improved process scheme for LNG cold utilization developed and commercialized .

Entry in potential new areas such as fuel cells, GTL and gasification.

Project worth Rs. 1.78 crores awarded by CHT.

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I.2(b) NOTIFICATIONS ISSUED DURING 2002

The Gazette of India
Extra Ordinary
Part II – Section 3 – Sub-Section (ii)
Ministry of Petroleum and Natural Gas
Notification

New Delhi, the 28th February, 2002

S.O. 259(E) – In exercise of the powers conferred by sub-section (1) of section 15 of the Oil Industry(Development Act, 1974) (47 OF 1974), and in supersession of the notification of the Government of India in the Ministry of Petroleum and Natural Gas, number S.O. 101(E), dated the 1st February, 1989, the Central Government hereby specifies the rate of duty of excise in respect of crude oil (being an item specified in the Schedule to the said Act) at the rate of rupees one thousand eight hundred per tonne.

This notification shall come into force with effect from 1st March, 2002.

[F.No.G-35012/7/2001-Fin.II]
J.M. MAUSKAR, Jt. Secy.

Ministry of Petroleum and Natural Gas
Resolution

New Delhi, the 28th March, 2002

No.P-20029/22/2001-PP-The Government of India, Ministry of Petroleum & Natural Gas vide Resolution No. P-20012//29/97-PP dated 21st November 1997 had notified the details of phased programme of dismantling of administered pricing mechanism(APM). As a result, the consumer prices of all products except motor spirit (MS), high speed diesel (HSD), aviation turbine fuel (ATF), kerosene for public distribution (PDS kerosene) and LPG used for domestic cooking (domestic LPG) were decontrolled with effect from 1st April 1998. As a follow up of the aforesaid decision, the Government vide Ministry of Petroleum & Natural Gas Resolution No.20018/2/2000-PP dated 30th March 2001 decontrolled the pricing of aviation turbine fuel (ATF) with effect from 1st April 2001.

2. Pursuant to the decisions contained in the aforesaid Resolution of November 1997, the Government have now decided to dismantle the APM in the hydrocarbon sector with effect from 1st April 2002. The details of the decisions are given below:—

(i) Consumer prices of motor spirit (MS) and high speed diesel (HSD) will be market determined with effect from 1st April 2002. Consequently, the pricing of petroleum products, except for PDS kerosene and domestic LPG will be market determined with effect from 1st April 2002.

(ii) The subsidies on PDS Kerosene and domestic LPG will be borne by the Consolidated Fund of India from 1st April 2002. These subsidies will be on a specified flat rate basis, scheme for which will be notified separately. These subsidies will be phased out in the next 3 to 5 years.

(iii) Freight subsidy will continue to be provided for supplies of PDS Kerosene and domestic LPG to far flung areas, scheme for which will be notified separately. The freight subsidy will be borne by the Consolidated Fund of India with effect from 1st April 2002.

(iv) The price of indigenous crude oil of Oil and Natural Gas Corporation Ltd. and Oil India Ltd. will be market determined with effect from 1st April, 2002.

(v) The oil pool accounts will be wound up with effect from 1st April 2002. The cumulative outstandings of the oil companies against the pool account will be liquidated in the following manner:

(a) The Government will issue bonds to the extent of 80% of the amount equivalent to the provisional amount of the settled outstandings of the oil companies upto 31st March 2002.

(b) The pending claims relating to the APM period, including the updation of costs and margins for the fiscal year 2000-01, will be finalized as expeditiously as possible. The C&AG will be requested to do a special audit of the oil pool accounts. The whole of the balance amount due to the oil companies will be liquidated by issuing bonds for the remaining amount after the audit.

(c) The contingent liabilities under the pending litigations pertaining to the APM period, will be settled from Government budget as and when such litigations are finally decided.

(vi) The Oil Coordination Committee will be wound up with effect from 1st April 2002.

(vii) A Cell, by the name "Petroleum Planning and Analysis Cell", will be created under the Ministry of Petroleum & Natural Gas effective 1st April 2002 to assist the Ministry. The expenditure on this Cell will be borne by the Oil Industry Development Board(OIDB).

(viii) The new entrants, including private sector, will be allowed to market transportation fuels namely, motor spirit, high speed diesel and aviation turbine fuel as per the guidelines contained in the Ministry of Petroleum and Natural Gas Resolution No.P-23015/1/2001-Mkt. Dated 8th March 2002.

(ix) Regulatory mechanism will be set up to oversee the functioning of the downstream petroleum sector.

SHIVRAJ SINGH, Jt. Secy.

Ministry of Petroleum and Natural Gas

Resolution

New Delhi, the 30th March, 2002

No.P-20029/22/2001-PP- It has been decided to dismantle the Administered Pricing Mechanism (APM) in the petroleum sector effective 1st April, 2002. As a result, the Oil Coordination Committee (OCC) will stand abolished effective 1st April, 2002.

2. While a statutory regulator would be in place post APM to take care of most of the areas requiring intervention, the Government would still need to discharge some of the functions, presently being performed by the OCC, as such functions would continue to remain within the domain of the Government. Thus, it has been decided to create a "Petroleum Planning and Analysis Cell" effective 1st April, 2002, to be attached to the Ministry and assist inter alia in the discharge of following functions:

(a) Administration of subsidy on PDS Kerosene and domestic LPG and freight subsidy for far-flung areas;

(b) Maintenance of information data bank and communication system to deal with emergencies and unforeseen situations;

(c) Analyzing the trends in the international oil market and domestic prices;

(d) Forecasting and evaluation of petroleum import and export trends;

(e) Operationalising the sector specific surcharge schemes, if any.

The services of the Cell will also be utilised to wind up the oil pool account.

3. The structure of the Cell is at Annexure. Oil Industry Development Board(OIDB) will fund the office expenditure and the expenditure in respect of 43 personnel whose designations and job group have been mentioned in the Annexure, with the expenditure in respect of the rest of the personnel being borne by the concerned oil companies, to whom the employees belong, up till 31st December, 2002. The structure of the Cell will be reviewed after the phasing out of the subsidies.

4. The headquarters of the Cell will be at New Delhi.

SHIVRAJ SINGH, Jt. Secy.

ANNEXURE

STRUCTURE OF THE CELL TO ASSIST MOP&NG POST APM

Designation	Job Group	No. of Persons
Director	H	1
Finance and Accounts		
Additional Director	F/G	3
Joint / Deputy Director	C/D/E	4
Assistant Director	A/B	2
Assistant / Personal Secretary		4
Total		**14**
Planning and Computers		
Additional Director	F/G	3
Joint / Deputy Director	C/D/E	
Computer Systems		5
Planning, Marketing, Technical,		
Operations and Gas		6
Assistant / Personal Secretary		7
Total		**21**
Administration		
Joint Director	D/E	1
Assistant Director	A/B	1
Assistant / Personal Secretary		2
Messengers		4
Total		**8**
Total manpower		**43***

***Note:** More manpower would be needed during the year 2002-03 to wind up the oil pool account. 140 personnel would be required between April-July 2002. This number would get reduced to 70 by 31st August, 2002 and to 43 by 31st December, 2002

Note: Job groups shown in col.2 of the Table mean the job groups of a Schedule 'A' public sector undertaking.

Ministry of Petroleum & Natural Gas

Notification

New Delhi, the 3rd September, 2002

G.S.R. 618(E).- In exercise of the powers conferred by Section 3 of the Essential Commodities Act, 1955 (Central Act 10 of 1955), the Central Government hereby makes the following Order to amend the Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Orders, 1998 namely:—

(1) This Order may be called the Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Second Amendment Order, 2002.

(2) It shall come into force on the date of its publication in the Official Gazette.

2. In the Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Order, 1998—

(a) in clause 2—

(i) for sub-clause (a), the following sub-clause shall be substituted "adulteration means introduction of any foreign substance into Motor Spirit/High Speed Diesel illegally or unauthorisedly with the result that the product does not conform to the requirements indicated in schedule I or any other requirement specified by the Central Government from time to time".'

(ii) for sub-clause (d), the following sub clause shall be substituted:—

" 'high speed diesel' means any hydrocarbon oil (excluding mineral colza oil and turpentine substitute) which meet the requirements of Bureau of Indian Standards specification No.IS-1460 or any other requirement specified by the Central Government from time to time and is suitable for use as fuel in Compression Ignition Engines.",

(iii) for sub-clause (f), the following sub-clause shall be substituted:—

"motor spirit means any hydrocarbon oil (excluding crude mineral oil) which meets the requirements of Bureau of Indian Standards specification No. IS-2796 or any other requirement specified by the Central Government from time to time and is suitable for use as fuel in Spark Ignition Engines.",

(iv) for sub-clause (r), the following sub-clause shall be substituted:—

"sale of off specification product means sale of Motor Spirit or High Speed Diesel by Dealer of quality not conforming to Bureau of Indian Standard specifications No.IS 2796 & IS 1460 for Motor Spirit and High Speed Diesel respectively or not in conformity with requirement of Schedule 1 or any other requirement specified by the Central Government from time to time.",

(b) in clause 3, sub-clause (iii) for item(b) the following shall be substituted namely:—

"(b) that the quantity and quality of the products are as per delivery documents issued by the Oil Company and the quality of the product conforms to the requirements indicated in Schedule I or to any other requirement specified by the Central Government from time to time. For this purpose, the Dealer/Consumer shall maintain a record of densities as indicated in Schedule I and keep samples of product or take such other measures as prescribed by Oil Company.",

(c) after clause (3E), the following clause shall be inserted, namely:—

"3(F) Doping of Ethanol with Petrol and/or Diesel: The Central Government may make it mandatory to supply Petrol and/or Diesel doped with a specified quantity of Anhydrous Ethanol and notify the timeframe for commencement of such supply in specified States/areas or whole of the country.",

(d) in clause 5, for sub-clause (1), the following sub-clause shall be substituted; namely:—

"(1) The Officer authorised in Clause 4 shall draw the sample from the tank, nozzle, vehicle or receptacle as the case may be to check whether density and/or other parameters of the Product conform to the requirement indicated in schedule-I or any other requirement specified by the Central Government from time to time.";

(e) in Schedule III—

(i) after item (12) and entries thereto, the following shall be included, namely :—

"(12A) Hindustan Petroleum Corporation Limited, Paradeep Terminal Paradeep Dist. Jagatsinghpur, 753003(Orissa).",

(ii) after item 47-E and entries thereto, the following shall be inserted, namely:—

"(47F) Indian Oil Corporation Limited, Paradeep Terminal Laboratory, Atharabanki, P.O. Paradeep Port, 754142 (Orissa)

(47G) Indian Oil Corporation Limited, Panipat Laboratory, Panipat Marketing Complex, Village Baholi, P.O.Dadiana,Panipat (Haryana).

(47H) Indian Oil Corporation Limited, Panipat Refinery Laboratory, Village Baholi, P.O. Dadiana, Panipat (Haryana)

(iii) for items (58) and (59) and entries relating thereto, the following shall be substituted, namely:—

"(58) Chennai Petroleum Corporation Limited, Refinery Laboratory, Manali, Chennai 600019, Tamil Nadu

(59) Kochi Refinery Limited, Refinery Laboratory, Post Ambalamugal, Kochi 682302, Kerala.",

(iv) under the head 'Other Refinery Laboratories", after item 59 the following shall be inserted, namely:—

"(59 A) Mangalore Refinery and Petrochemicals Limited Refinery Laboratory, Kuthethoor, P.O. Katipalla, Moodapadav, P.B.No.2 Mangalore, 574149, Karnataka

"(59 B) Reliance Petroleum Limited Refinery Laboratory, Moti Khavdi (vill), Digvijayagram (PO), Jamnagar (Dist.), 361 140, Gujarat".'

(v) under the head 'Government Laboratories', after item 62 the following shall be inserted, namely:—

"(62B) Fuel Testing Laboratory, Society For Petroleum Laboratory, B-14, Sector 62, Noida, U.P."

(vi) under the head 'Other Laboratories', after item 72 the following shall be inserted namely:—

(73) Ramdev Baba Engineering College, Kalol Road, Nagpur, 440013, Maharashtra

(74) Lakshmi Narayan Institute of Technology, Amravati Road, Nagpur, 440010 Maharashtra

[F.No.P-45018/28/2000-CC]
S. VIJAYARAGHAVAN, Jt. Secy.

Footnote:— The principal order was published by GSR 772(E) dated 28th December 1998 and amended vide GSR 814 (E) dated 29th October 2001 and GSR 211(E) dated 15th March 2002.

Ministry of Petroleum and Natural Gas

Resolution

New Delhi, the 3rd September 2002

No.P-45018/28/2000-CC –With a view to give boost to agriculture sector and reduce environmental pollution, Government of India have been examining for quite some time supply of ethanol – doped-petrol in the country. In order to ascertain financial and operational aspects of blending 5% ethanol with petrol as allowed in the specifications of Bureau of Indian Standards for petrol, Government had launched three pilot projects; two in Maharashtra and one in Uttar Pradesh during April and June, 2001 and these pilot projects have been supplying 5% ethanol-doped-petrol only to the retail outlets under their respective supply areas since then. Apart from the aforesaid field trails through pilot projects, R&D studies also were undertaken simultaneously. Both pilot projects and R&D studies have been successful and established blending of ethanol upto 5% with petrol and usage of ethanol-doped- petrol in vehicles.

2251/PNG—5B

Discussions were held with concerned agencies including the Governments of major sugar producing States. While the Society for Indian Automobile Manufacturers (SIAM) has confirmed the acceptance for use of 5% ethanol-doped-petrol in vehicles. State Governments of major sugar producing States and the representatives of sugar/distillery industries have confirmed availability/capacity to produce ethanol.

Government have set up an Expert Group headed by the Executive Director of the Centre for High Technology for examining various options of blending ethanol with petrol including use of ETBE in refineries. Considering the logistical and financial advantages, this Group has recommended blending of ethanol with petrol at supply locations (terminals/depots) of oil companies.

In view of the above, Government have now resolved that with effect from 1-1-2003, 5% ethanol-doped-petrol will be supplied in the following nine States and four contiguous Union Territories:

States
1. Andhra Pradesh
2. Goa
3. Gujarat
4. Haryana
5. Karnataka
6. Maharashtra
7. Punjab
8. Tamil Nadu
9. Uttar Pradesh

Union Territories
1. Daman and Diu
2. Dadra and Nagar Haveli
3. Chandigarh
4. Pondicherry

Government have also decided that any fiscal concession by the Central Government/State Government relating to supply of ethanol-doped-petrol shall be passed on to the consumers.

S. VIJAYARAGHAVAN, Jt. Secy.

The Gazette of India

Extra Ordinary

Part II – Section 3 – Sub-Section (i)

Ministry of Petroleum & Natural Gas

Notification

New Delhi, the 12th September 2002

G.S.R. 644(E).- In exercise of powers conferred by Section 3 of the Essential Commodities Act, 1955(10 of 1955) read with clause 3(F) of the Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Order, 1998, the Central Government hereby directs that in the following States and Union Territories only 5% ethanol blended petrol, as per Bureau of Indian Standards specification No.2796 shall be sold from the first January 2003, namely:—

States
1. Andhra Pradesh
2. Goa
3. Gujarat
4. Haryana
5. Karnataka
6. Maharashtra
7. Punjab
8. Tamil Nadu
9. Uttar Pradesh

Union Territories
1. Daman and Diu
2. Dadra and Nagar Haveli
3. Chandigarh
4. Pondicherry

[F.No.P-45018/28/2000-CC]
S. VIJAYARAGHAVAN, Jt. Secy.

2251IPNG—5A

The Gazette of India

Extra Ordinary

Part II – Section 3 – Sub-Section (i)

Ministry of Petroleum & Natural Gas

Notification

New Delhi, the 26th December 2002

G.S.R. 843(E).- In exercise of powers conferred by Section 3 of the Essential Commodities Act, 1955(10 of 1955) read with clause 3(F) of the Motor Spirit and High Speed Diesel (Regulation of Supply and Distribution and Prevention of Malpractices) Order, 1998 and in partial modification of the Notification of the Government of India in the Ministry of Petroleum & Natural Gas Number G.S.R. 644(E) dated 12th September, 2002 published in the Gazette of India, Extraordinary, part II, Section 3, Sub-section(i) of September 13, 2002 the Central Government hereby permits sale of only 5% ethanol blended petrol in the State of Andhra Pradesh, Maharashtra, Punjab and Uttar Pradesh starting in phased manner from the first January, 2003 and covering of the entire area of the said States by the 30th June, 2003.

The Central Government further permits to cover the entire States of Tamil Nadu, Goa, Haryana, Gujarat and Karnataka and Union Territories of Chandigarh, Pondicherry, Daman Diu and Dadra Nagar Haveli with sale of only 5% ethanol blended petrol by the 30th June, 2003.

[F.No.P-45018/28/2000-CC]
S. VIJAYARAGHAVAN, Jt. Secy.

2251IPNG—6A

I.3 PROGRESS OF INDIAN PETROLEUM INDUSTRY 1947-48 TO 2002-03

Year	Balance of recoverable Reserves@		Crude Oil production	Natural gas production	Refinery crude throughput	Refinery production	Consumption of POL Prods*	Gross Imports		Net Imports Crude Oil & Pol. Products		C.I.F. unit value of crude Imports	India's total Imports Exports		%age of gross POL Imports to India's Exports	Central excise & Customs duties on POL	Index of Self Reliance
	Crude Oil	Natural Gas						Crude Oil	POL Products	Qty.	Value		Imports	Exports			
	(MMT)	(BCM)	(MMT)	(BCM)	(MMT)	(MMT)	(MMT)	(MMT)	(MMT)	(MMT)	(Rs.Crore)	(Rs./MT)	(Rs. Crore)			(Rs. Crore)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1947-48	4	3	0.25	NA	0.25	0.23	2.72	0	2.36	NA	NA	NA	NA	NA	NA	NA	9
1950-51	4	2	0.26	NA	2.26	0.23	3.46	0	3.11	NA	NA	NA	NA	NA	NA	NA	7
1960-61	45	22	0.45	NA	6.13	5.78	7.99	5.71	2.22	7.71	43	68	NA	NA	NA	NA	5
1970-71	128	62	6.82	1.4 (107)	18.38	17.11	17.91	11.68	1.09 (30)	12.43	132	92	1634	1535	8.9	638	35
1980-81	366	352	10.51	2.4 (3349)	25.84	24.12	30.90	16.25	7.29 (19.17)	23.50	5258	2061	12549	6711	78.5	1570	32
1990-91	739	686	33.02	18.0 (6118)	51.77	48.57	55.04	20.70	8.66 (4660)	26.71	9775	2956	43193	32553	33.1	9179	56
1991-92	806	730	30.35	18.6 (7820)	51.42	48.35	56.97	24.00	9.44 (5218)	30.50	11824	3260	47851	44041	29.6	9337	50
1992-93	301	735	26.95	18.1 (10686)	53.48	50.36	58.90	29.25	11.28 (63.60)	26.81	15439	3653	63375	53688	31.8	10322	43
1993-94	779	718	27.03	18.3 (10689)	54.30	51.08	60.81	30.82	12.08 (7041)	38.86	16221	3466	73101	69751	25.4	12223	41
1994-95	765	707	32.24	19.4 (10316)	56.93	52.93	67.51	27.35	13.95 (7522)	38.05	16250	3772	89971	82674	21.6	12905	44
1995-96	732	660	35.17	22.6 (11517)	58.74	55.08	74.83	27.34	20.34 (12578)	44.24	22263	4212	122678	106353	22.7	15612	44
1996-97	727	640	32.90	23.3 (18538)	62.87	59.01	79.17	33.91	20.27 (15633)	51.01	32087	5409	138920	118817	28.8	21493	39
1997-98	747	692	33.86	26.4 (15872)	65.17	61.31	84.29	34.49	22.97 (14309)	55.08	28915	4602	154176	130101	23.2	20973	37
1998-99	716	675	32.72	27.4 (14917)	68.54	64.54	90.56	39.81	23.77 (12276)	62.86	26887	3747	178332	139752	19.5	21513	34
1999-00	660	648	31.95	28.4 (40028)	85.96	79.41	97.09	57.81	16.61 (14185)	73.67	53515	6925	215236	159561	34.0	32662	31
2000-01	703	760	32.43	29.5 (65932)	103.44	95.61	100.07	74.10	9.27 (12093)	75.00	70353	8898	230873	203571	38.3	35912	30
2001-02	732	763	32.03	29.7 (60397)	107.27	100.00	100.43	78.71	7.01 (7249)	75.63	59361	7673	245200	209018	32.4	36105	30
2002-03 (P)	741	751	33.04	31.4 (76195)	112.56	104.14	104.13	81.99	6.74 (8206)	78.44	73533	9293	296597	252790	33.4	45126	30

Note: Figures in parenthesis relate to value in Rs. Crore.
NA: Not Available
* Excluding RBF

(P): Provisional
BCM: Billion Cubic Metres.

MMT: Million Metric Tonnes.
@: As on 1st January of the initial year.
Source: PPAC, PSUs, DGCI&S, Calcutta & Economic Survey.

I.4 COMMODITY BALANCE OF CRUDE OIL AND PETROLEUM PRODUCTS

(Million Tonnes)

ITEM	1950-51+	1960-61+	1970-71+	1980-81	1990-91	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
1. Refinery Throughput	0.3	6.6	18.4	25.8	51.8	58.7	62.9	65.2	68.5	86.0	103.4	107.3	112.6
2. Domestic Production	0.3	0.5	6.8	10.5	33.0	35.2	32.9	33.9	32.7	31.9	32.4	32.0	33.0
a) On-shore	0.3	0.5	6.8	5.5	11.8	11.9	11.4	11.5	11.5	11.3	11.8	11.9	11.4
b) Off-shore	-	-	-	5.0	21.2	23.3	21.5	22.4	21.2	20.6	20.6	20.1	21.6
3. Imports	n.a.	6.0	11.7	16.2	20.7	27.3	33.9	34.5	39.8	57.8	74.1	78.7	82.0
4. Exports	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Net Imports (3-4)	n.a.	6.0	11.7	16.2	20.7	27.3	33.9	34.5	39.8	57.8	74.1	78.7	82.0
1. Domestic Consumption@	**3.3**	**7.7**	**17.9**	**30.9**	**55.0**	**74.8**	**79.2**	**84.3**	**90.6**	**97.1**	**100.1**	**100.4**	**104.1**
of which													
a) Naphtha $	-	-	0.9	2.3	3.4	4.2	4.0	6.6	8.9	10.8	11.7	11.7	11.9
b) Kerosene	0.9	2.0	3.3	4.2	8.4	9.9	10.2	11.1	12.2	11.9	11.3	10.4	10.4
c) High Speed Diesel Oil	0.2	1.2	3.8	10.3	21.1	32.3	35.0	36.1	37.2	39.3	37.9	36.5	36.6
d) Fuel Oils	0.9	1.7	4.7	7.5	9.0	11.2	11.5	11.5	12.5	12.5	12.7	13.0	12.7
2. Domestic Production $$	**0.2**	**5.7**	**17.1**	**24.1**	**48.6**	**55.1**	**59.0**	**61.3**	**64.5**	**79.4**	**95.6**	**100.0**	**104.1**
of which													
a) Naphtha	n.a.	-	1.2	2.1	4.9	6.0	6.1	6.1	6.1	8.2	9.9	9.2	9.7
b) Kerosene	n.a.	0.9	2.9	2.4	5.5	5.3	6.2	6.7	5.3	5.7	8.7	9.7	10.0
c) High Speed Diesel Oil	n.a.	1.1	3.8	7.4	17.2	20.7	22.2	23.4	26.7	34.8	39.0	39.8	40.1
d) Fuel Oils	n.a.	1.6	4.1	6.1	9.4	9.6	10.3	11.1	11.0	11.4	11.4	12.2	12.2
3. Imports	3.1	2.5	1.1	7.3	8.7	20.3	20.3	23.0	23.8	16.6	9.3	7.0	6.7
4. Exports @@	n.a.	n.a.	0.3	Neg	2.7	3.4	3.2	2.4	0.7	0.8	8.4	10.1	10.3
5. Net Imports (3-4)	n.a.	n.a.	0.8	7.3	6.0	16.9	17.1	20.6	23.1	15.8	0.9	-3.1	-3.6

*: Provisional
+: On a calender year basis.
@: Excluding refinery fuel consumption. Including import by private parties.
$: Includes NGL consumption from 1995-96 onwards.

n.a.: not available.
Neg: Negligible.
@@: Including supplies of POL products to Nepal till 1997-98.
$$: Excludes LPG production from fractionators.

I.5(a) GROWTH OF PETROLEUM INDUSTRY IN INDIA

(Calender Year)

(Rs.Crores)

Year	Crude Oil		Petroleum Products		Gross Imports			Exports/Re-exports			Net Pol. Imports (Col.8-11)
	Production	Refinery Crude Throughput	Production	Consumption*	Crude oil	Petroleum Products	Total	Crude oil	Petroleum Products	Total	
	(.....000 Tonnes.....)				(.....Rs.Crores.....)						
1	2	3	4	5	6	7	8	9	10	11	12
1960	451	6091	5747	7964	40.57	41.02	81.59	-	4.61	4.61	76.98
1965	3022	9754	9113	12356	40.38	44.73	85.11	-	3.92	3.92	81.19
1970	6809	18459	17172	18816	2.36	30.53	132.89	-	5.72	5.72	127.17
1980	9399	25075	23597	31633	3038.66	1788.28	4826.94	-	17.98	17.98	4808.96
1990	33311	51671	48402	57943	5929.62	3541.64	9471.26	-	941.40	941.40	8529.86
1991	31007	50954	47916	58462	6827.57	5533.55	12361.12	-	1041.13	1041.13	11319.99
1992	27874	54254	51041	62092	10432.44	5711.16	16143.60	-	1658.33	1658.33	14485.27
1993	26508	53509	50396	62836	10916.90	7107.23	18024.13	-	1547.22	1547.22	16476.91
1994	30969	56407	52872	64280	9915.10	7438.77	17353.87	-	1580.74	1580.74	15773.13
1995	35048	57971	54379	70269	10856.71	10251.01	21107.72	-	1728.55	1728.55	19379.17
1996	32986	61704	57869	76067	17194.53	15454.63	32649.16	-	2050.49	2050.49	30598.67
1997	33830	64533	60631	79464	17061.19	14131.47	31192.66	-	926.84	926.84	30099.07
1998	32806	66672	62809	82933	14513.77	10408.47	24922.24	-	1093.59	1093.59	23828.65
1999	32628	79538	73100	89973	26341.48	10056.27	36397.75	-	827.04	827.04	35570.71
2000	32124	101788	95186	90262	65879.24	7749.82	73629.06	-	1057.80	1057.80	72571.26
2001	31972	106744	98977	99160	59768.00	8179.00	67947.00	-	7941.00	7941.00	60006.00
2002(P)	32892	110148	101840	102425	69522.00	7655.00	77177.00	-	9243.00	9243.00	67934.00

(P) = Provisional

Source: PPAC.

*Excluding Refinery Fuel. Including private sales from 2001 onwards.

I.5(b) GROWTH OF PETROLEUM INDUSTRY IN INDIA

(Financial Year)

Year	Crude Oil		Petroleum Products		Gross Imports			Exports/Re-exports			Net Pol.
	Production	Refinery Crude Throughput	Production	Consumption*	Crude oil	Petroleum Products	Total	Crude oil	Petroleum Products	Total	Imports (Col.8-11)
	(.....000 Tonnes.....)				(.....Rs.Crores.....)						
1	2	3	4	5	6	7	8	9	10	11	12
1960-61	448(e)	6130	5777	8285	39.32	39.84	79.16	0	4.40(e)	0.00	74.60
1965-66	3473	10233	9561	12437	39.62	40.68	80.30	0	4.39	4.39	75.91
1970-71	6822	18379	17110	19135	106.72	29.91	136.63	0	4.67	4.67	131.96
1974-75	7684	21094	19603	23302	916.99	195.00	1111.99	0	17.40	17.40	1094.93
1980-81	10507	25836	24123	32261	3448.97	1917.52	5366.49	0	8.41	8.41	5258.08
1984-85	28990	35556	33236	40828	3430.34	1914.91	5345.25	1563.16	255.03	1818.19	3537.06
1989-90	34037	51942	18590	46789	4089.35	2254.71	6344.06	0	695.56	695.56	5648.50
1990-91	33021	51772	48562	57745	6118.42	4660.21	10778.63	0	1003.92	1003.92	9774.71
1991-92	30346	51423	48349	59603	7820.05	5218.27	13038.32	0	1214.65	1214.65	11823.67
1992-93	26950	53482	50359	61655	10685.86	6359.60	17045.46	0	1606.28	1606.28	15439.18
1993-94	27026	54296	51084	63648	10688.52	7041.43	17729.95	0	1508.81	1508.81	166221.00
1994-95	32239	56534	52927	70646$	10316.03	7521.71	17837.74	0	1587.38	1587.38	16250.36
1995-96	35167	58741	55081	78069$	11517.00	12577.85	24094.85	0	1831.99	1831.99	22262.92
1996-97	32901	62870	59004	82658$	18538.19	15633.49	34171.68	0	2079.65	2079.65	32092.03
1997-98	33858	65166	61308	87804$	15872.00	14309.00	30181.00	0	1266.00	1266.00	28915.00
1998-99	32722	68538	64544	94262$	14947.00	12276.00	27223.00	0	306.00	306.00	26887.00
1999-00	31949	85964	79411	102630$	40028.00	14186.00	54214.00	0	698.00	698.00	53516.00
2000-01	32626	103444	95614	106974$	65932.00	12093.00	78025.00	0	7672.00	7672.00	70353.00
2001-02	32032	107274	100004	107705$	60397.00	7249.00	67646.00	0	8285.00	8285.00	59361.00
2002-03 (P)	33042	112559	104140	111776$	76195.00	8206.00	84401.00	0	10868.00	10868.00	73533.00

(e) Estimated(P) Provisional

$ Includes RBF & consumption by pvt. parties.

Source: PSUs & PPAC

I.6(a) PETROLEUM ENERGY IN INDIA 1990 TO 2002 (CALENDAR YEARS)

PRODUCTS	1990	1995	1996	1997	1998	1999	2000	2001	2002(P)
1	2	3	4	5	6	7	8	9	10
AVAILABILITY									
IN ORIGINAL UNITS (MILLION TONNES)									
KEROSENE	8.64	10.24	10.28	10.16	11.45	10.50	10.24	10.29	10.67
ATF	1.74	2.15	2.34	2.19	2.26	2.17	2.52	2.43	2.28
HSD	20.90	31.18	35.46	37.32	36.77	38.46	37.25	37.14	36.96
LDO	1.53	1.36	1.29	1.24	1.33	1.50	1.65	1.58	2.09
FUEL OILS	9.31	6.34	6.65	6.89	6.99	7.37	12.43	8.45	12.54
OTHERS *	8.66	10.96	12.05	13.90	16.54	14.38	14.68	21.48	23.21
TOTAL	50.78	62.23	68.07	71.70	75.34	74.38	78.77	81.37	87.75
IN MILLION TONNES OF COAL EQUIVALENT UNIT @									
KEROSENE	17.28	20.48	20.56	20.32	22.90	21.00	20.48	20.58	21.34
ATF	3.48	4.30	4.68	4.38	4.52	4.34	5.04	4.86	4.56
HSD	41.80	62.36	70.92	74.64	73.54	76.92	74.50	74.28	73.92
LDO	3.06	2.72	2.58	2.48	2.66	3.00	3.30	3.16	4.18
FUEL OILS	18.62	12.68	13.30	13.78	13.98	14.74	24.86	16.90	25.08
OTHERS *	17.32	21.92	24.10	27.90	33.08	28.76	29.36	42.96	46.42
TOTAL	101.56	124.46	136.14	143.40	150.68	148.76	157.54	162.74	175.50
IN MILLION TONNES OF COAL REPLACEMENT UNIT @									
KEROSENE	69.12	81.92	82.24	81.28	91.60	84.00	81.92	82.92	85.36
ATF	13.05	16.12	17.55	16.43	16.95	16.28	18.90	18.23	17.10
HSD	188.10	280.62	319.14	335.08	330.93	346.14	335.25	334.26	332.64
LDO	13.17	12.24	11.61	11.16	11.97	13.50	14.85	11.06	18.81
FUEL OILS	18.62	12.66	13.30	13.78	13.98	14.74	24.86	16.90	25.08
OTHERS *	51.31	54.78	64.47	74.37	88.49	77.65	85.87	81.62	136.01
TOTAL	353.98	458.34	508.31	532.90	553.92	552.31	561.65	544.39	615.00
CONSUMPTION#									
IN ORIGINAL UNITS (MILLION TONNES)									
KEROSENE	8.42	9.28	9.63	9.74	10.46	10.72	10.70	10.29	9.80
ATF	1.73	2.01	2.17	2.11	2.10	2.15	2.24	2.27	2.26
HSD	21.18	30.90	34.28	36.40	36.62	39.29	38.31	36.89	36.61
LDO	1.51	1.32	1.23	1.21	1.27	1.46	1.46	1.23	1.35
FUEL OILS	9.10	10.44	10.78	10.92	11.14	11.65	11.25	11.66	11.80
OTHERS *	8.68	11.46	12.49	13.08	13.89	16.29	19.89	21.12	22.96
TOTAL	50.62	65.41	70.58	73.46	75.46	81.56	83.85	78.80	84.78
IN MILLION TONNES OF COAL EQUIVALENT UNITS@									
KEROSENE	16.84	18.56	19.26	12.48	20.22	21.44	21.40	20.58	19.60
ATF	3.46	4.02	4.34	4.22	4.20	4.30	4.47	4.54	4.52
HSD	42.36	61.84	68.56	72.80	73.24	78.58	76.62	73.78	73.22
LDO	3.02	2.64	2.40	2.42	2.54	2.92	2.92	2.46	2.70
FUEL OILS	18.20	20.88	21.56	21.84	22.28	23.30	22.51	14.00	23.60
OTHERS *	17.36	22.96	24.99	26.16	27.78	32.58	39.78	14.24	45.92
TOTAL	101.24	130.90	141.11	146.92	150.96	163.12	167.70	157.60	169.56
IN MILLION TONNES OF COAL REPLACEMENT UNIT @									
KEROSENE	67.36	74.24	77.09	77.92	83.68	85.76	85.59	82.32	78.40
ATF	12.98	15.08	16.28	15.83	15.75	16.13	16.77	17.03	16.95
HSD	190.62	278.10	308.52	327.60	329.58	353.61	344.79	332.01	329.49
LDO	13.59	11.88	11.07	10.89	11.43	13.14	13.14	8.61	12.15
FUEL OILS	18.20	20.88	21.56	21.84	22.28	23.30	22.51	14.00	23.60
OTHERS *	51.45	61.31	66.82	69.98	74.31	87.97	114.77	180.26	134.19
TOTAL	354.20	461.49	501.34	524.06	537.03	579.91	597.57	634.23	594.78

(P)=Provisional

* : Includes LPG, Gasolines,Refinery Gas and Refinery Fuel.

@ : Based on conversion factors adopted by FPC, 1974.

(#) : Includes Petroleum Products used for power generation.

I.6(b) PETROLEUM ENERGY IN INDIA 1990-91 TO 2002-03 (FINANCIAL YEARS)

PRODUCTS	1990-91	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03(P)
1	2	3	4	5	6	7	8	9	10
AVAILABILITY									
IN ORIGINAL UNITS (MILLION TONNES)									
KEROSENE	8.81	10.27	10.52	10.51	11.16	10.96	10.63	10.07	10.73
ATF	1.83	2.22	2.27	2.20	2.29	2.25	2.51	2.40	2.36
HSD	21.87	33.51	35.81	37.43	37.20	39.92	37.46	37.04	37.14
LDO	1.51	1.35	1.29	1.25	1.34	1.62	1.48	1.70	2.08
FUEL OILS	9.43	10.79	10.99	12.15	14.20	7.48	12.61	13.17	12.30
OTHERS *	8.75	10.60	11.02	13.15	15.70	15.57	15.89	22.21	24.02
TOTAL	52.20	68.74	71.90	76.69	81.89	77.80	80.58	86.59	88.63
IN MILLION TONNES OF COAL EQUIVALENT UNIT @									
KEROSENE	17.62	20.54	21.04	21.02	22.32	21.92	21.26	20.14	21.46
ATF	3.66	4.44	4.54	4.40	4.58	4.50	5.02	4.82	4.72
HSD	43.74	67.02	71.62	74.86	74.40	79.84	74.92	73.82	74.28
LDO	3.02	2.70	2.58	2.50	2.68	3.24	2.96	3.40	4.16
FUEL OILS	18.86	21.58	21.98	24.30	28.40	14.96	25.22	16.86	24.60
OTHERS *	17.50	21.20	22.04	26.30	31.40	31.14	31.78	44.42	48.04
TOTAL	104.40	137.48	143.80	153.38	163.78	155.60	161.16	163.46	177.26
IN MILLION TONNES OF COAL REPLACEMENT UNIT @									
KEROSENE	70.48	84.16	84.16	84.08	89.28	87.68	85.04	80.56	85.84
ATF	13.72	16.65	17.03	16.50	17.18	16.88	18.83	18.08	17.70
HSD	196.83	301.59	322.29	336.87	334.80	359.28	336.70	332.19	334.26
LDO	13.59	12.15	11.61	11.25	12.06	14.58	10.36	11.90	18.72
FUEL OILS	18.86	10.79	21.98	24.30	28.40	14.96	25.22	16.86	24.60
OTHERS *	51.93	56.71	58.96	70.35	84.00	84.08	76.73	84.40	142.26
TOTAL	365.41	482.05	516.03	543.35	565.72	577.46	552.88	543.99	623.38
CONSUMPTION#									
IN ORIGINAL UNITS (MILLION TONNES)									
KEROSENE	8.42	9.93	10.15	11.07	12.24	11.90	11.31	10.43	10.41
ATF	1.68	2.08	2.15	2.11	2.11	2.20	2.25	2.26	2.27
HSD	21.14	32.26	35.02	36.07	37.22	39.30	37.96	36.55	36.64
LDO	1.51	1.31	1.22	1.24	1.28	1.51	1.40	1.59	2.06
FUEL OILS	8.99	11.16	11.51	11.49	12.51	12.45	12.65	12.98	12.74
OTHERS *	8.68	11.84	12.71	13.50	14.56	17.87	20.53	22.01	23.57
TOTAL	50.42	68.58	72.76	75.48	79.92	85.23	86.10	85.82	87.69
IN MILLION TONNES OF COAL EQUIVALENT UNIT @									
KEROSENE	16.84	19.86	20.30	22.14	24.48	23.80	22.62	20.86	20.82
ATF	3.36	4.16	4.30	4.22	4.22	4.40	4.50	4.52	4.54
HSD	42.28	64.52	70.04	72.14	74.44	78.60	75.92	73.10	73.28
LDO	3.02	2.62	2.44	2.48	2.56	3.02	2.80	3.18	4.12
FUEL OILS	17.98	22.32	23.02	22.98	25.02	24.90	25.30	25.96	25.48
OTHERS *	17.36	23.68	25.42	27.00	29.12	35.74	41.06	44.02	47.14
TOTAL	100.84	137.16	145.52	150.96	159.84	170.46	172.20	171.64	175.38
IN MILLION TONNES OF COAL REPLACEMENT UNIT @									
KEROSENE	67.36	79.44	81.20	88.56	97.92	95.20	90.48	83.44	83.28
ATF	12.60	15.60	16.13	15.83	15.83	16.50	16.88	16.95	17.03
HSD	190.26	290.34	315.18	324.63	334.98	353.70	341.64	328.95	329.76
LDO	13.59	11.79	10.98	11.16	11.52	13.59	12.60	14.31	18.54
FUEL OILS	17.98	22.32	23.02	22.98	25.02	24.90	25.30	25.96	25.48
OTHERS *	51.41	70.62	75.62	79.62	85.44	94.39	76.63	82.04	138.88
TOTAL	353.20	490.11	522.13	542.78	570.71	598.28	563.53	551.65	612.97

(P)=Provisional * : Includes LPG, Gasolines,Refinery Gas and Refinery Fuel.

@ : Based on conversion factors adopted by FPC, 1974

(#) : Includes Petroleum Products used for power generation.

II. EXPLORATION

II.1 AREA WISE DEPLOYMENT OF DEEP DRILLING RIGS, WELLS & METREAGE DRILLED BY ONGC & OIL FROM 1970-71 TO 2002-03

YEAR	ONSHORE			OFFSHORE			TOTAL		
	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')
1	2	3	4	5	6	7	8	9	10
(A) OIL & NATURAL GAS COMMISSION / CORPORATION LTD.									
1970-71	31	89	168	1	-	1	32	89	168
1975-76	35	106	229	4	15	28	39	121	257
1980-81	34	72	134	7	32	78	41	104	212
1984-85	5	127	280	13	73	161	66	200	441
1989-90	115	491	971	33	134	353	148	625	1324
1990-91	108	369	777	32	139	276	140	508	1053
1995-96	91	328	728	21	79	163	112	407	891
1996-97	79	301	657	23	45	128	102	346	785
1997-98	76	230	512	17	58	133	93	288	645
1998-99	71	215	443	22	59	145	93	274	588
1999-00	74	226	522	20	63	146	95	291	668
2000-01	75	237	558	18	52	116	93	289	674
2001-02	75	261	583	19	43	112	94	304	695
2002-03	73	275	580	23	65	194	96	340	774
(B) OIL INDIA LIMITED									
1970-71	4	12	48	-	-	-	4	12	48
1975-76	3	11	36	-	-	-	3	11	36
1980-81	4	9	33	1	1	4	5	10	37
1984-85	7	25	86	1	2	10	8	27	96
1989-90	15	28	130	-	-	-	15	28	130
1990-91	13	27	112	-	-	-	13	27	112
1995-96	15	20	78	1	1	5	16	21	83
1996-97	15	24	102	-	1	3	16	25	105
1997-98	16	19	110	-	-	-	16	19	110
1998-99	16	19	97	-	-	-	16	19	97
1999-00	16	16	90	-	-	-	16	16	90
2000-01	16	25	89	-	-	-	16	25	89
2001-02	16	22	97	-	-	-	16	22	97
2002-03	13	37	130	-	-	-	13	37	130
TOTAL (A+B)									
1970-71	35	101	216	1	-	1	36	101	216
1975-76	38	117	265	4	15	28	42	132	293
1980-81	38	81	167	8	33	82	46	114	249
1984-85	60	152	366	14	75	171	74	227	537
1989-90	130	519	1101	33	134	353	163	653	1454
1990-91	121	396	889	32	139	276	153	535	1165
1995-96	106	348	806	22	80	168	128	428	974
1996-97	94	325	759	24	46	131	118	371	890
1997-98	92	249	622	17	58	133	109	307	755
1998-99	87	234	540	22	59	145	109	293	685
1999-00	90	244	612	21	63	146	111	37	758
2000-01	91	262	647	18	52	116	109	314	763
2001-02	91	283	680	19	43	112	110	326	792
2002-03	86	312	710	23	65	194	109	377	904

Source: PSUs.

II.2 EXPLORATORY & DEVELOPMENT DRILLING BY ONGC & OIL

Year	Exploratory		Development		Total	
	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')
1	*2*	*3*	*4*	*5*	*6*	*7*
			(A) ONSHORE			
1970-71	51+1P	106	50+3P	112	101+3P	218
1975-76	49+1P	120	68+1P	145	117+2P	265
1980-81	44+1P	96	38+2P	71	82+3P	167
1984-85	70+5P	186	82+1P	180	152+6P	366
1989-90	204	508	315	593	519	1101
1990-91	176	434	220	455	396	889
1995-96	177	427	171	334	348	761
1996-97	171	407	156	355	327	762
1997-98	114	297	135	326	249	623
1998-99	110	273	124	267	234	540
1999-00	123	337	121	275	244	612
2000-01	124	331	132	316	256	647
2001-02	140	380	143	300	283	680
2002-03*	139	332	173	378	312	710
			(B) OFFSHORE			
1970-71	-	1	-	-	-	1
1975-76	10	19	5	9	15	28
1980-81	15+1P	40	18	42	33+1P	82
1984-85	20+1P	62	51	109	71+1P	171
1989-90	61	160	73	193	134	353
1990-91	73	184	66	92	139	276
1995-96	27	77	52	86	79	163
1996-97	28	80	18	48	46	128
1997-98	20	50	38	82	58	132
1998-99	25	60	34	85	58	145
1999-00	28	87	35	59	63	146
2000-01	30	68	22	48	52	116
2001-02	15	45	28	67	43	112
2002-03*	20	58	45	136	65	194
			TOTAL (A+B)			
1970-71	52+1P	107	50+3P	112	101+3P	218
1975-76	59+1P	139	73+1P	154	132+2P	293
1980-81	59+1P	136	56+2P	113	115+4P	249
1984-85	90+6P	248	133+1P	289	223+7P	537
1989-90	265	668	388	786	653	1454
1990-91	249	618	286	547	535	1165
1995-96	204	504	223	470	427	924
1996-97	199	487	174	403	373	890
1997-98	334	347	173	408	307	755
1998-99	135	333	158	352	293	685
1999-00	151	424	156	334	307	758
2000-01	154	399	154	364	308	763
2001-02	155	425	171	367	326	792
2002-03*	159	390	218	514	377	904

P : Partly Drilled. *: Provisional Source: PSUs

II.3 STATUS OF WELLS

(As on 1st April of each Year)

(NUMBERS)

Company Year	Oil	Gas	Dry	Under Test	Injection	Others	Total
1	2	3	4	5	6	7	8
			(A) ASSAM OIL COMPANY				
1975	377	7	-	-	5	612	1001
1980	417	10	-	-	6	568	1001
1985	438	4	305	7	7	247	1001
1990	253	1	305	-	7	435	1001
1995	209	1	305	-	2	480	1001
1998	693	-	305	-	-	3	1001
1999	693	-	305	-	-	3	1001
2000	693	-	305	-	-	3	1001
2001	693	-	305	-	-	3	1001
2002	693	-	305	-	-	3	1001
			(B) OIL INDIA LIMITED				
1975	250	18	34	27	20	-	349
1980	273	26	40	48	34	-	421
1985	321	42	49	35	50	31	528
1990	422	53	66	36	62	70	709
1995	418	69	92	79	46	160	864
1998	642	97	97	-	50	54	940
1999	654	100	100	-	50	60	965
2000	695	100	107	-	47	54	1003
2001	719	104	109	-	46	54	1032
2002	659	95	151	52	47	52	1056
			(C) OIL & NATURAL CORPORATION LTD.				
1975	605	79	320	141	28	-	1173
1980	951	123	487	125	32	-	1718
1985	1434	170	659	216	67	-	2546
1990	2579	302	1128	69	198	303	4579
1995	3488	410	1797	135	534	535	6899
1998	3841	488	2090	67	628	627	7741
1999	3799	522	2145	59	634	857	8016
2000	3939	548	2178	75	659	906	8305
2001	4072	552	2266	68	690	940	8588
2002	4265	575	2390	70	852	734	8885
			(TOTAL) (A+B+C)				
1975	1282	104	354	168	53	612	2523
1980	1641	159	527	173	72	568	3140
1985	2186	216	1011	258	124	278	4073
1990	3254	356	1499	105	267	808	6289
1995	4115	480	2194	214	737	1175	8764
1998	5176	585	2492	67	678	684	9682
1999	5146	622	2551	59	684	920	9982
2000	5327	648	2590	75	706	963	10309
2001	5484	656	2080	68	736	997	10621
2002	5617	670	2846	122	899	789	10942

Note: The exploration activities of Assam Oil Company were vested in Oil India Limited w.e.f. 14th October, 1981.

Source: PSUs.

II. 4 STATE-WISE GEOLOGICAL SURVEYS ACHIEVEMENTS UPTO 31.3.2003

STATES	GEOLOGICAL SURVEYS (Sq. Km)
1	2
Andhra Pradesh	53427
A.N. Islands	6860
Arunachal Pradesh	3692
Assam	49249
Bihar	4035
Gujrat (Gulf Of Cambay)	60625
Himachal Pradesh	9946
Jammu & Kashmir	22970
Kerala-Karnataka (incl. Goa)	4000
Madhya Pradesh	44451
Manipur	2781
Meghalaya	1911
Mizoram	6134
Nagaland	6971
Rajasthan	44691
Sikkim	720
Tamil Nadu (Incl. Pondicherry)	20003
Tripura	21263
Uttar Pradesh	29797
West Bengal	8806
Total	402332

Source: ONGC and OIL.

II. 5 STATE-WISE ACHIEVEMENTS OF GEOPHYSICAL FIELD PARTIES IN INDIA SINCE INCEPTION UPTO 31.3.2003

AREA / STATE	2D		3D
	LK	GLK	SQK
1	2	3	4
OIL INDIA LTD.			
(A) ONSHORE			
Assam / Arunachal Pradesh		20291	1671
Rajasthan		11923	300
Orissa		4005	0
UP & Uttaranchal		5656	0
Total(A)		**41875**	**1971**
(B) OFFSHORE			
Orissa	13842		
Andaman	201		
Saurashtra	8767		332
Total(B)	**22810**		**332**
OIL & NATURAL GAS CORPORATION LTD.			
		2D GLK/LK	**3D GLK/LK**
(A) ONSHORE			
Andhra Pradesh		37082	23096
Assam		29914	20907
Bihar		6566	0
Gujarat		103198	60125
Himachal Pradesh		3688	0
Haryana		1038	0
Jammu& Kashmir		2563	0
Madhya Pradesh		9304	0
Meghalaya		205	0
Mizoram		35	0
Nagaland		558	0
Orissa		313	0
Punjab		4078	0
Rajasthan		20489	0
Tamil Nadu		39542	22943
Tripura		4783	0
Uttar Pradesh (Ganga Valley)		28929	0
West Bengal		29243	4217
TOTAL ONSHORE		**321528**	**131288**
(B) OFFSHORE			
West Coast		451326	800728
East Coast		125402	169986
TOTAL OFFSHORE		**576728**	**970714**
TOTAL ONGC		**898256**	**1102002**

GLK: Ground Line Kilometre. LK: Line Kilometre.
SQK: Square Kilometre.

II.6 BASIN-WISE/STATE-WISE ACHIEVEMENT OF DRILLING SINCE INCEPTION UPTO 31.3.2003

BASIN	STATE/REGION	Wells Numbers	Metreage ('000')
	A. ONSHORE		
Cambay	Gujarat	5042	8782
Rajasthan	Rajasthan	118	230
Kutch-Saurashtra	Madhya Pradesh	3	12
Gulf of Cambay	Gulf of Cambay	4	8
	Total WRBC	**5167**	**9032**
Upper Assam	Assam (Including Nagaland & Meghalaya)	2299	7699
Assam-Arakan Fold Belt	Arunachal Pradesh	56	137
	Mizoram under ERBC	1	3
	Total ERBC	**2356**	**7839**
Assam-Arakan Foot hills & Ganga Valley	Tripura	107	301
	West Bengal	30	121
	Bihar	6	30
	Orissa	4	9
	Mizoram under CRBC	1	3
	Total CRBC	**148**	**464**
Himalayan Foot-hills, Ganga Valley & Vindhyan/Gondwana	Himachal Pradesh	10	43
	Punjab	4	16
	Uttar Pradesh	8	28
	Madhya Pradesh under NRBC	1	7
	Jammu & Kashmir	4	12
	Total NRBC	**27**	**106**
Krishna-Godavari	Andhra Pradesh	370	1105
Cauvery	Tamil Nadu	425	1088
	Total SBRC	**795**	**2193**
TOTAL ONSHORE		**8493**	**19634**
B. OFFSHORE			
East Coast	East Coast including KG, Cauvery Andaman Offshore and Bengal Offshore	180	581
West Coast	West Coast including drilling in deep water, Kerala-Konkan and Kutch-Saurashtra	1826	4216
B. TOTAL OFFSHORE		**2006**	**4797**
TOTAL (A+B)		**10499**	**24431**

II.7 STATE-WISE/BASIN-WISE OIL AND GAS FIELDS IN INDIA
AS ON 1.4.2002

(Number)

Company / State	Basin	Oil Fields	Gas Fields	Oil and Gas Fields	Total Fields
1	2	3	4	5	6
A. OIL & NATURAL GAS CORPN. LTD.					
(a) ONSHORE					
Gujarat	Cambay	79	11	0	90
Assam	Upper Assam	24	1	0	25
AAFB		2	3	5	10
Nagaland	AAFB	3	0	0	3
Rajasthan	Jaisalmer	0	6	0	6
Andhra Pradesh	K.G. Basin	8	33	0	41
Tamil Nadu	Cauvery	16	10	0	26
Tripura	AAFB	0	6	0	6
(b) OFFSHORE					
East Coast	Andaman	0	1	0	1
K.G. Basin		6	4	0	10
Cauvery		3	0	1	4
West Coast	Mumbai Offshore	54	28	0	82
Cambay		2	0	0	2
Kutch		1	3	0	4
B. OIL INDIA LTD.					
Assam	Upper Assam Basin	0	0	8	8
Arunachal Pradesh	Upper Assam Basin	0	0	2	2
Rajasthan	Jaisalmer Basin	0	3	0	3
Bikaner Nagaur Basin		1	0	0	1*
C. PRIVATE/JVCs					
(a) ONSHORE					
Gujarat	Cambay	0	2	18	20
Arunachal Pradesh	AAFB	0	0	1	1
(b) OFFSHORE					
East Coast	PY-1/Ravva	0	2	2	4
West Coast	MS Tapti	0	2	0	2
Panna Mukta		0	0	2	2
TOTAL		**199**	**115**	**39**	**353**

AAFB : Assam Arakan Fold Belt.

Source: ONGC, OIL and DGH.
*: Heavy Oil

III. CRUDE OIL

III.1 RESERVES@ OF CRUDE OIL IN INDIA

(Million Tonnes)

Year	Gujarat	Assam(1)	Andhra Pradesh	Tamil Nadu	Western(2) Offshore	Eastern(3) Offshore	Grand Total
1	2	3	4	5	6	7	8
1966	62.73	90.27	-	-	-	-	153.00
1970	56.38	71.46	-	-	-	-	127.84
1975	45.72	84.41	-	-	13.77	-	143.90
1980	52.73	82.45	-	-	230.95	-	366.13
1985	86.61	101.80	-	-	311.10	-	499.51
1990	161.69	144.97	-	-	432.14	-	738.80
1995	154.60	150.01	1.38	3.63	414.30	7.79	731.71
1996	154.27	146.29	1.54	4.31	419.85	2.42	728.68
1997	151.70	150.71	1.66	4.47	436.11	2.42	747.07
1998	150.21	154.05	2.04	4.79	404.20	1.08	716.37
1999	146.36	154.14	2.79	5.03	339.00	13.00	660.32
2000	147.90	159.79	3.13	5.76	349.88	36.05	702.51
2001	145.10	163.86	3.68	5.78	353.89	53.91	726.22
2002	148.07	173.81	3.77	5.97	348.11	60.82	740.55

@ : Proved and indicated Balance Recoverable Reserves.

1: Includes Nagaland, Tripura and Arunachal Pradesh reserves of crude oil.

2. Includes Bombay High offshore and JVC.

3. Includes JVC/Pvt. Parties.

Source: ONGC/OIL and DGH.

III. 2 COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA (CALENDAR YEARS)

('000 Tonnes)

Year	On Shore					Off Shore		Grand	Cumulative
	AOC	OIL	JVC	ONGC	Total	ONGC	JVC	Total	Production
1	2	3	4	5	6	7	8	9	10
1950	259	-	-	-	259	-	-	259	6598
1955	272	75	-	-	347	-	-	347	8057
1960	179	272	-	-	179	-	-	179	10747
1965	158	1742	-	1122	3022	-	-	3022	18711
1970	107	3074	-	3632	6813	-	-	6813	48410
1975	68	3087	-	5128	8283	-	-	8283	85939
1980	41	796	-	4033	4870	4529	-	9399	138292
1985	-	2635	-	6580	9215	20645	-	29860	255892
1990	-	2697	-	9294	11991	21320	-	33311	415767
1991	-	2580	-	9033	11613	19394	-	31007	446774
1992	-	2486	-	8779	11265	16609	-	27874	474648
1993	-	2738	-	8688	11426	15082	-	26508	501156
1994	-	2898	-	9107	12005	18900	64	30969	532125
1995	-	2867	17	9050	11934	22656	458	35048	567173
1996	-	2858	36	8641	11535	20526	925	32986	600159
1997	-	3040	40	8388	11468	20088	2274	33830	633989
1998	-	3246	66	8215	11527	18605	2674	32806	666795
1999	-	3298	95	7878	11271	17378	3979	32628	699423
2000	-	3269	81	8320	11670	16474	3980	32124	731547
2001	-	3257	72	8613	11942	15988	4042	31972	763519
2002	-	2988	72	8533	11593	17202	4097	32892	796411

(a) = Following the take over of AOC by Govt. in Oct. 1981, the production figures shown under AOC are upto 14th Oct., 1981, thereafter the same have been merged with OIL

Source: PSU/JVC

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III. 3 COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA

(Financial Year)

Year	On Shore					Off Shore		Grand	Cumulative
	AOC	OIL	JVC	ONGC	Total	ONGC	JVC	Total	Production
1	2	3	4	5	6	7	8	9	10
1970-71	104	3084	3684	-	6872	-	-	6872	50303
1971-72	997	3159	4003	-	8159	-	-	8159	57602
1972-73	90	3131	4100	-	7321	-	-	7321	64923
1973-74	82	3079	4028	-	7189	-	-	7189	72112
1974-75	71	3079	4534	-	7684	-	-	7684	79796
1975-76	66	3103	5279	-	8448	-	-	8448	88244
1976-77	62	3085	5345	-	8492	406	-	8898	97142
1977-78	57	3113	5519	-	8689	2074	-	10763	107905
1978-79	53	2671	5599	-	8323	3310	-	11633	119538
1979-80	40	2215	5089	-	7344	4422	-	11766	131304
1980-81	48	1243	4231	-	5522	4985	-	10507	141811
1981-82	(a)23	995	5201	-	6196	7975	-	14171	158005
1982-83	-	2830	5356	-	8186	12877	-	21063	179068
1983-84	-	2873	5755	-	8628	17392	-	26020	205088
1984-85	-	2735	6119	-	8854	20136	-	28990	234078
1985-86	-	2654	6691	-	9345	20823	-	30168	264246
1986-87	-	2621	7241	-	9862	20618	-	30480	294726
1987-88	-	2448	7745	-	10193	20164	-	30357	325083
1988-89	-	2425	8503	-	10928	21112	-	32040	357123
1989-90	-	2704	9667	-	12371	21716	-	34087	391210
1990-91	-	2649	9181	-	11830	21191	-	33021	424231
1991-92	-	2529	8854	-	11383	18963	-	30346	454577
1992-93	-	2523	8681	-	11204	15746	-	26950	481527
1993-94	-	2811	8840	-	11651	15375	-	27026	508553
1994-95	-	2883	9130	4	12017	20226	251	32494	541047
1995-96	-	2882	8971	26	11879	22665	624	35168	576215
1996-97	-	2870	8504	38	11412	20181	1307	32900	609115
1997-98	-	3094	8387	42	11523	19863	2472	33858	642973
1998-99	-	3295	8100	77	11472	18286	2965	32723	675696
1999-00	-	3283	7921	94	11298	16727	3924	31949	707645
2000-01	-	3286	8431	78	11795	16627	4005	32427	740072
2001-02	-	3183	8635	71	11889	16073	4070	32032	772104
2002-03*	-	2952	8445	74	11471	17559	4014	33044	805148

* Provisional

(a) = After take over of AOC by Govt. in Oct, 1981, its production wing was merged with OIL.

So the production figures shown under AOC are upto 14th October 1981, thereafter the same have been merged with OIL.

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III. 4 STATE-WISE PRODUCTION OF CRUDE OIL IN INDIA

(000 Tonnes)

Year	ONSHORE					OFFSHORE		Grand Total
	Arunachal Pradesh	Tamil Nadu/ Andhra Pradesh	Assam Nagaland	Gujarat	Total	Tamil Nadu/ Andhra Pradesh	Bombay High	
1	2	3	4	5	6	7	8	9
			A. CALENDAR YEARS					
1970	-	-	3359	3450	6809	-	-	6809
1975	-	-	4189	4094	8283	-	-	8283
1980	2	-	1058	3812	4870	-	4529	9399
1985	60	-	4879	4576	9515	-	20645	30160
1990	41	313	5199	6440	11991	-	21320	33311
1991	41	311	5097	6162	11613	-	19393	31006
1992	55	331	4964	5915	11265	-	16609	27874
1993	55	481	5039	5851	11426	-	15082	26508
1994	37	639	5108	6222	12006	64	18900	30970
1995	27	491	5038	6318	11934	458	22656	35048
1996	36	390	4834	6278	11538	925	20528	32991
1997	27	374	5070	5998	11469	2274	20088	33831
1998	34	442	5273	5946	11692	2674	18606	32972
1999	45	504	5002	5720	11271	3979	17378	32628
2000	34	631	5185	5820	11670	3980	16474	32124
2001	68	746	5150	5976	11940	4041	15991	31972
2002	72	704	4787	6030	11593	4097	17202	32892
			B. FINANCIAL YEARS					
1970-71	-	-	3367	3455	6822	-	-	6822
1975-76	-	-	4300	4148	8448	-	-	8448
1980-81	2	-	1712	3808	5522	-	4985	10507
1985-86	60	-	4966	4319	9345	-	20823	30168
1990-91	43	313	5076	6398	11830	-	21191	33021
1991-92	42	318	4968	6035	11383	-	18963	30346
1992-93	59	352	4986	5807	11204	-	15746	26950
1993-94	49	536	5090	5076	11651	-	15375	27026
1994-95	35	656	5043	6283	12017	551	20226	32494
1995-96	28	418	5046	6386	11878	824	22665	35167
1996-97	36	381	4811	6184	11412	1307	20181	32900
1997-98	25	390	5130	5978	11523	2472	19863	33858
1998-99	38	449	5125	5860	11472	2965	18285	32723
1999-00	44	523	5028	5703	11298	3924	16727	31949
2000-01	31	700	5201	5863	11795	4005	16627	32427
2001-02	68	724	5095	6002	11889	4069	16074	32032
2002-03	74	695	4660	6043	11472	4013	17559	33044

IV. NATURAL GAS

IV.1 RESERVES @ OF NATURAL GAS IN INDIA

(Billion Cubic Metres)

Year	Gujarat	Assam(1)	Andhra Pradesh	Tamil Nadu	Western(2) Offshore	Eastern(3) Offshore	Grand Total
1	2	3	4	5	6	7	8
1966	23.09	40.06	-	-	-		63.15
1970	19.66	42.82	-	-	-	-	62.48
1975	16.15	65.24	-	-	6.28	-	87.67
1980	16.82	63.53	-	-	270.96	-	351.31
1985	22.41	87.67	-	-	368.55	-	478.63
1990	93.62	135.47	-	-	457.36	-	686.45
1995	93.99	125.59	29.84	4.74	414.65	7.30	676.11
1996	91.06	131.39	34.40	7.29	374.18	2.99	641.31
1997	89.11	133.81	35.50	9.99	388.25	35.60	692.26
1998	88.68	137.93	35.77	14.04	362.04	36.30	674.76
1999	84.35	142.19	37.35	15.54	363.65	4.88	647.96
2000	85.74	152.87	39.52	20.62	447.48	13.58	759.81
2001	83.51	156.29	39.65	21.95	442.58	18.97	762.95
2002	91.79	160.96	40.36	22.05	410.37	25.18	750.71

@ : Proved and indicated Balance Recoverable Reserves.

1: Includes Nagaland, Tripura and Arunachal Pradesh reserves of natural gas.

2. Includes Bombay High offshore and JVC.

3. Includes JVC/Pvt. Parties.

Source: ONGC/OIL and DGH.

IV.2(a) STATE-WISE GROSS PRODUCTION OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	ONSHORE							Total	OFFSHORE		Total	Grand Total
	Assam/ Nagaland	Gujarat	Rajasthan	Tamil Nadu	Andhra Pradesh	Tripura	Arunachal Pradesh		Eastern Offshore	Bombay High/ Western Offshore		
						Calendar Years						
1970	966	458	-	-	-	-	-	1424	-	-	-	1424
1975	1550	760	-	-	-	-	-	2310	-	-	-	2310
1980	621	868	-	-	-	-	-	1489	-	588	588	2077
1985	2049	884	-	-	-	-	4	2937	-	4971	4971	7908
1990	2015	1645	-	74	23	58	27	3842	-	14021	14021	17863
1991	2062	1856	-	41	134	75	31	4199	-	14450	14450	18649
1992	2054	1957	-	48	402	113	49	4623	-	13749	13749	18372
1993	1984	2082	-	75	603	101	49	4894	-	13229	13229	18123
1994	1937	2395	-	89	646	94	39	5200	4	14231	14235	19435
1995	1862	2796	8	115	660	122	33	5596	18	15813	15831	21427
1996	1939	2935	12	99	732	156	30	5903	42	17430	17472	23375
1997	1987	3118	110	93	975	176	28	6487	80	18029	18109	24596
1998	2047	3259	162	102	1185	290	36	7081	388	20185	20573	27654
1999	2076	3312	151	128	1346	342	43	7398	380	20194	20574	27972
2000	2216	3133	158	177	1509	352	15	7560	363	21377	21740	29300
2001	2065	3245	144	329	1746	425	3 $	7957	459	21213	21672	29629
2002*	2031	3461	116	388	2022	417	6 $	8441	829	21473	22302	30743

*:Provisional.

$: Oil India Ltd.'s share is included in Assam.

IV.2(b) STATE-WISE GROSS PRODUCTION OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	ONSHORE								OFFSHORE			Grand Total
	Assam/ Nagaland	Gujarat	Rajasthan	Tamil Nadu	Andhra Pradesh	Tripura	Arunachal Pradesh	Total	Eastern Offshore	Bombay High/ Western Offshore	Total	
						Financial Years						
1970-71	980	465	-	-	-	-	-	1445	-	-	0	1445
1975-76	1595	773	-	-	-	-	-	2368	-	-	0	2368
1980-81	843	842	-	-	-	-	-	1685	-	673	673	2358
1985-86	2029	919	-	-	-	-	6	2954	-	5180	5180	8134
1990-91	2010	1696	-	64	47	70	29	3916	-	14082	14082	17998
1991-92	2051	1898	-	41	150	80	31	4251	-	14393	14393	18644
1992-93	2034	1946	-	54	507	115	52	4708	-	13353	13353	18061
1993-94	1979	2166	-	76	610	102	47	4980	-	13356	13356	18336
1994-95	1909	2462	-	98	640	97	37	5243	10	14215	14225	19468
1995-96	1880	2887	12	117	679	130	33	5738	15	16888	16903	22641
1996-97	1942	2956	10	92	800	154	29	5983	80	17193	17273	23256
1997-98	2018	3175	149	95	1022	196	29	6684	284	19433	19717	26401
1998-99	2056	3279	164	106	1218	307	38	7168	395	19865	20260	27428
1999-00	2084	3271	151	138	1363	353	44	7404	369	20674	21043	28447
2000-01	2225	3150	159	200	1604	376	10 $	7724	370	21383	21753	29477
2001-02	1992	3171	100	348	1797	416	35	7859	573	21282	21855	29714
2002-03*	2075	3534	162	464	2036	445	7 $	8723	831	21837	22668	31391

*:Provisional.

$: Oil India Ltd.'s share is included in Assam.

IV.3 STATE-WISE GROSS AND NET PRODUCTION OF NATURAL GAS IN INDIA

(Million cubic metres)

Period	Gross Prodn.	Sales	Flarred	Net availability$
1	2	3	4	5
		ONSHORE		
Gujarat				
1970-71	465	NA	135	330
1975-76	773	629	138	635
1980-81	842	654	165	677
1985-86	919	709	118	801
1990-91	1696	986	402	1294
1995-96	2887	2407	280	2607
1996-97	2956	2382	350	2606
1997-98	3175	2483	361	2814
1998-99	3279	2530	400	2879
1999-00	3271	2512	417	2854
2000-01	3150	2407	436	2714
2001-02	3171	2396	401	2770
2002-03	3534	2829	322	3212
Rajasthan				
1995-96	12	12	0	12
1996-97	10	10	0	10
1997-98	149	145	0	149
1998-99	164	149	0	164
1999-00	151	147	0	151
2000-01	159	155	0	159
2001-02	100	95	0	100
2002-03	162	157	0	162
Assam / Arunachal Pradesh				
1970-71	980	250	607	373
1975-76	1595	384	946	649
1980-81	843	374	262	581
1985-86	2035	728	887	1148
1990-91	2039	925	621	1418
1995-96	1913	1005	403	1510
1996-97	1971	1206	268	1703
1997-98	2047	1272	270	1777
1998-99	2094	1252	314	1780
1999-00	2128	1350	237	1891
2000-01	2235	1478	219	2016
2001-02	2027	1326	179	1848
2002-03	2082	1363	183	1899

$: Includes internal consumption

IV. 3 STATE-WISE GROSS AND NET PRODUCTION OF NATURAL GAS IN INDIA

(Million cubic metres)

Period	Gross Prodn.	Sales	Flarred	Net availability$
1	2	3	4	5
Tripura				
1985-86	0	0	0	0
1990-91	70	70	0	70
1995-96	130	130	0	130
1996-97	154	154	0	154
1997-98	196	196	0	196
1998-99	307	306	0	307
1999-00	353	352	0	353
2000-01	376	375	0	376
2001-02	416	415	0	416
2002-03	445	445	0	445
Tamil Nadu				
1990-91	64	9	55	9
1995-96	117	19	96	21
1996-97	92	43	49	43
1997-98	95	46	48	47
1998-99	106	39	67	39
1999-00	138	86	51	87
2000-01	200	126	73	127
2001-02	348	249	98	250
2002-03	464	377	88	376
Andhra Pradesh				
1990-91	47	42	5	42
1995-96	679	670	0	679
1996-97	800	789	1	799
1997-98	1022	1011	2	1020
1998-99	1218	1197	9	1209
1999-00	1363	1333	16	1347
2000-01	1604	1569	23	1581
2001-02	1797	1770	18	1779
2002-03	2038	2008	18	2020

IV. 3 STATE-WISE GROSS AND NET PRODUCTION OF NATURAL GAS IN INDIA

(Million cubic metres)

Period	Gross Prodn.	Sales	Flarred	Net availability$
1	2	3	4	5
Total Onshore				
1970-71	1445	NA	742	703
1975-76	2368	1013	1084	1284
1980-81	1685	1028	427	1258
1985-86	2954	1437	1005	1949
1990-91	3916	2032	1083	2833
1995-96	5738	4243	779	4959
1996-97	5983	4584	668	5315
1997-98	6684	5153	681	6003
1998-99	7168	5473	790	6378
1999-00	7404	5780	721	6683
2000-01	7724	6110	751	6973
2001-02	7859	6251	696	7163
2002-03	8725	7179	611	8114
OFFSHORE				
1980-81	673	292	366	307
1985-86	5180	2520	2113	3067
1990-91	14082	8616	4048	10034
1995-96	16903	13589	930	15973
1996-97	17273	13602	1259	16014
1997-98	19717	15932	1175	18542
1998-99	20260	16678	924	19336
1999-00	21043	17456	840	20203
2000-01	21753	17961	865	20888
2001-02	21855	17940	981	20874
2002-03	22668	18690	812	21856
GRAND TOTAL				
1970-71	1445	NA	742	703
1975-76	2368	1013	1084	1284
1980-81	2358	1320	793	1565
1985-86	8134	3957	3118	5016
1990-91	17998	10648	5131	12867
1995-96	22641	17832	1709	20932
1996-97	23256	18186	1927	21329
1997-98	26401	21085	1856	24545
1998-99	27428	22151	1714	25714
1999-00	28447	23236	1561	26886
2000-01	29477	24071	1616	27861
2001-02	29714	24191	1677	28037
2002-03	31393	25869	1423	29970

$: Includes internal consumption

IV.4 STATE-WISE UTILISATION OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	Onshore						Offshore			Grand
	Gujarat	Assam	Tripura	Andhra Pradesh**	Tamil Nadu	Total	Mumbai High	JVC	Total	Total
1	2	3	4	5	6	7	8	9	10	11
1970-71	310	337	-	-	-	647	-	-	-	-
1975-76	637	487	-	-	-	1124	-	-	-	-
1980-81	696	519	-	-	-	1215	307	-	307	1522
1985-86	801	1082	-	-	-	1883	3067	-	3067	4950
1990-91	1294	1317	70	41	9	2731	10035	-	10035	12766
1991-92	1580	1247	80	144	12	3063	11378	-	11378	14441
1992-93	1717	1311	115	501	19	3663	12453	-	12453	16116
1993-94	1909	1244	102	593	20	3868	12472	-	12472	16340
1994-95	2182	1328	97	617	16	4240	13097	-	13097	17337
1995-96	2599	1510	130	678	21	4938	15966	13	15979	20917
1996-97	2614	1722	154	799	43	5332	15975	62	16037	21369
1997-98	2757	1898	196	1022	47	5920	17226	1376	18602	24522
1998-99	2769	1930	306	1218	40	6263	16769	2684	19453	25716
1999-00	2684	2036	353	1347	87	6507	17058	3321	20379	26886
2000-01	2421	2175	376	1581	126	6679	17705	3476	21181	27860
2001-02	2156	1950	416	1779	250	6551	17548	3938	21486	28037
2002-03*	2112	2062	446	2020	378	7018	17643	5311	22954	29972

*: Provisional.**:Includes Nagaland and Arunachal Pradesh.

IV. 5 INDUSTRY-WISE OFFTAKES OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	Energy Purpose							Non-Energy Purposes				Grand
	Power Generation	Industrial fuel	Tea Plantation	Domestic fuel	Captive Use/LPG shrinkage	Others	Total	Fertilizer	Petro-Chemicals	Others	Total	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1970-71	261	116	15	-	68	-	460	187	-	-	187	647
1975-76	368	143	33	13	104	-	661	463	-	2	465	1126
1980-81	492	163	45	14	176	-	890	611	5	16	632	1522
1985-86	1299	223	78	21	795	-	2416	2500	10	24	2534	4950
1986-87	2041	257	96	25	1295	-	3714	3335	-	26	3361	7075
1987-88	2721	281	99	34	1313	-	4448	3490	-	30	3520	7968
1988-89	1823	526	87	42	1329	-	3807	5334	21	88	5443	9250
1989-90	2140	695	78	41	1526	-	4480	6578	29	85	6692	11172
1990-91	3634	827	89	50	1775	-	6375	5612	409	370	6391	12766
1991-92	4774	766	108	72	2165	-	7885	5509	531	516	6556	14441
1992-93	4967	1450	105	187	1916	-	8625	6672	578	241	7491	16116
1993-94	4785	1794	121	189	2277	-	9166	6499	494	181	7174	16340
1994-95	5229	1927	134	190	2230	-	9710	6936	520	171	7627	17337
1995-96@	6836	2301	111	178	589	-	10015	7602	474	-	8076	18091
1996-97@	6935	2631	130	184	618	-	10498	7625	509	-	8134	18632
1997-98@	8114	3106	117	206	569	-	12112	8752	649	-	9401	21513
1998-99@	8714	3005	147	193	911	-	12970	8869	650	-	9519	22489
1999-00	8829	2329	140	250	4840	36	16424	8592	666	1203	10461	26885
2000-01	8801	2870	151	335	5004	38	17199	8480	779	1402	10661	27860
2001-02	9214	2979	147	485	5339	70	18234	7957	909	937	9803	28037
2002-03*	10510	2939	119	654	5409	136	19767	7955	1027	1223	10205	29972

@ : Excludes offtakes of natural gas by ONGC. *: Provisional.

V. REFINING

V.1 PETROLEUM REFINING CAPACITY IN INDIA AS ON 1.4.2003

(Million Tonnes per annum)

	Refinery	Year of Commissioning	Installed Capacity as on 1.4.2003
	1	2	3
(a) PUBLIC SECTOR REFINERIES			**89.97**
I.	IOC REFINERIES		39.95
	IOC,Digboi	1901	0.65
	IOC, Guwahati	1962	1.00
	IOC, Barauni	1964	6.00
	IOC, Koyali	1965	13.70
	IOC, Haldia	1974	4.60
	IOC,Mathura	1982	8.00
	IOC, Panipat	1998	6.00
II.	HPCL REFINERIES		13.00
	HPCL, Mumbai	1954	5.50
	HPCL,Visakh	1957	7.50
III.	BPCL, Mumbai	1955	6.90
IV.	CPCL REFINERIES		7.50
	CPCL,Manali	1969	6.50
	CPCL, Narimanam	1993	1.00
V.	KRL, Kochi	1966	7.50
VI.	BRPL, Bongaigaon	1979	2.35
VII.	NRL, Numaligarh	1999	3.00
VIII.	ONGC, Tatipaka	2002	0.08
IX.	MRPL, Mangalore	1996	9.69
(b) PRIVATE REFINERY			27.00
I.	RPL, Jamnagar	1999	27.00
	Total (a+b)		**116.97**

V.2(a) REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961 TO 2002

(000 Tonnes)

Year	Crude Throughput			Production of Petroleum Products		
	Public Sector/JVC	Private Sector	Total	Public Sector/JVC	Private Sector	Total
1	2	3	4	5	6	7
			(Calendar Years)			
1961	0	6440	6440	0	6090	6090
1965	1549	8205	9754	1328	7785	9113
1970	10994	7465	18459	10132	7040	17172
1975	16723	5112	21835	15602	4766	20368
1980	24668	407	25075	23213	384	23597
1985	41226	0	41226	38264	0	38264
1990	51671	0	51671	48402	0	48402
1991	50954	0	50954	47916	0	47916
1992	54254	0	54254	51041	0	51041
1993	53509	0	53509	50396	0	50396
1994	56407	0	56407	52872	0	52872
1995	57971	0	57971	54379	0	54379
1996	61704	0	61704	57869	0	57869
1997	64533	0	64533	60631	0	60631
1998	66672	0	66672	62809	0	62809
1999	73079	6459	79538	68180	4920	73100
2000	76943	24845	101788	71838	23348	95186
2001	77818	28926	106744	72595	26382	98977
2002	80469	29679	110148	74914	26926	101840

V.2(b) REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961-62 TO 2002-03

(000 Tonnes)

Year	Crude Throughput			Production of Petroleum Products		
	Public Sector/JVC	Private Sector	Total	Public Sector/JVC	Private Sector	Total
1	2	3	4	5	6	7
			(Financial Years)			
1961-62	60	6524	6584	11	6184	6195
1965-66	1966	8267	10233	1733	7828	9561
1970-71	10820	7559	18379	9965	7145	17110
1975-76	17045	5238	22283	15895	4934	20829
1980-81	25333	503	25836	23646	477	24123
1985-86	42910	0	42910	39881	0	39881
1990-91	51772	0	51772	48562	0	48562
1991-92	51423	0	51423	48349	0	48349
1992-93	53482	0	53482	50359	0	50359
1993-94	54296	0	54296	51084	0	51084
1994-95	56534	0	56534	52927	0	52927
1995-96	58741	0	58741	55081	0	55081
1996-97	62870	0	62870	59005	0	59005
1997-98	65166	0	65166	61308	0	61308
1998-99	68538	0	68538	64544	0	64544
1999-00	74052	11912	85964	69144	10267	79411
2000-01	77411	26033	103444	72059	23555	95614
2001-02	77620	29654	107274	72462	27542	100004
2002-03	82015	30544	112559	76236	27904	104140

V.3 REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1990-91 TO 2002-03

('000' Tonnes)

Year	IOC Digboi	BPCL Mumbai	HPCL Mumbai	HPCL Visakh	IOC Guwahati	IOC Barauni	IOC Gujarat	IOC Haldia	IOC Mathura	IOC Panipat
1	2	3	4	5	6	7	8	9	10	11
1990-91										
Total Production	540	6603	5506	3231	712	2206	8791	2608	7414	0
Crude Run	566	6957	5766	3464	783	2416	9334	2835	7808	0
1991-92										
Total Production	524	6630	4496	3676	793	2060	8877	2791	7825	0
Crude Run	546	6940	4729	3920	856	2262	9379	3021	8231	0
1992-93										
Total Production	523	6875	5619	4274	749	2097	9258	2810	7430	0
Crude Run	547	7233	5849	4527	815	2287	9780	3040	7843	0
1993-94										
Total Production	535	6831	5774	4203	840	2051	8830	2878	8121	0
Crude Run	554	7203	6018	4448	910	2222	9434	3106	8518	0
1994-95										
Total Production	509	7071	4913	4759	833	2039	9148	2998	8018	0
Crude Run	536	7506	5234	5014	884	2220	9888	3258	8377	0
1995-96										
Total Production	537	7065	5674	4753	781	2129	9476	3168	7934	0
Crude Run	559	7460	5965	5037	839	2322	10167	3416	8332	0
1996-97										
Total Production	453	7279	6238	4576	778	1720	9722	3189	7744	0
Crude Run	477	7640	6534	4847	848	1895	10352	3451	8113	0
1997-98										
Total Production	479	7591	6053	2308	779	1989	10043	4445	8302	0
Crude Run	502	7996	6378	2467	856	2181	10694	4706	8565	0
1998-99										
Total Production	524	8531	4955	3637	772	2017	10346	4432	8665	1908
Crude Run	553	8878	5203	3861	836	2204	10935	4714	8909	2208
1999-00										
Total Production	564	8433	5702	4252	858	3177	10429	3794	7875	3688
Crude Run	603	8907	6007	4555	914	3411	11109	4105	8125	4153
2000-01										
Total Production	651	8203	5189	5986	653	2889	11269	3502	6863	5206
Crude Run	678	8683	5575	6405	707	3122	12006	3873	7133	5707
2001-02										
Total Production	640	8279	5229	6334	578	2625	11028	3601	7780	5323
Crude Run	653	8744	5641	6706	656	2876	11697	4026	8031	5822
2002-03										
Total Production	577	8221	5660	6386	390	2637	11734	4031	7880	5561
Crude Run	581	8711	6078	6851	458	2994	12434	4513	8207	6101

Cont'd...

V.3 REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1990-91 TO 2002-03

(000 Tonnes)

Year	KRL(CRL) Kochi	CPCL Manali	CPCL Narimanam	BRPL Assam	NRL Numaligarh	MRPL Mangalore	ONGC Tatipaka	RPL Jamnagar	Total
1	12	13	14	15	16	17	18	19	20
1990-91									
Total Production	4715	5279	-	957	0	0	0	0	48562
Crude Run	5006	5698	-	1139	0	0	0	0	51772
1991-92									
Total Production	4554	5147	-	976	0	0	0	0	48349
Crude Run	4846	5529	-	1164	0	0	0	0	51423
1992-93									
Total Production	4853	4927	-	944	0	0	0	0	50359
Crude Run	5122	5323	-	1116	0	0	0	0	53482
1993-94									
Total Production	4568	5313	120	1020	0	0	0	0	51084
Crude Run	4862	5728	126	1167	0	0	0	0	54296
1994-95									
Total Production	4803	6461	370	1005	0	0	0	0	52927
Crude Run	5135	6921	382	1179	0	0	0	0	56534
1995-96									
Total Production	7010	5162	358	1011	0	23	0	0	55081
Crude Run	7421	5599	370	1215	0	39	0	0	58741
1996-97									
Total Production	6890	6143	332	1306	0	2635	0	0	59005
Crude Run	7293	6621	345	1542	0	2912	0	0	62870
1997-98									
Total Production	7312	6437	533	1485	0	3552	0	0	61308
Crude Run	7729	6965	556	1718	0	3853	0	0	65166
1998-99									
Total Production	7304	5652	619	1445	0	3737	0	0	64544
Crude Run	7770	6101	644	1653	0	4069	0	0	68538
1999-00									
Total Production	7326	5870	612	1665	186	4713	0	10267	79411
Crude Run	7830	6377	636	1905	215	5200	0	11912	85964
2000-01									
Total Production	7039	5524	559	1353	1293	5879	0	23556	95614
Crude Run	7520	6046	579	1488	1451	6438	0	26033	103444
2001-02									
Total Production	6398	5676	549	1314	2052	5043	13	27542	100004
Crude Run	6797	6123	566	1475	2307	5487	13	29654	107274
2002-03									
Total Production	7063	5658	631	1352	1665	6699	91	27904	104140
Crude Run	7580	6176	643	1463	1879	7253	93	30544	112559

V.4(a) PRODUCTION OF PETROLEUM PRODUCTS 1991 TO 2002
CALENDAR YEARS

('000' Tonne)

PRODUCTS	1991	1995	1998	1999	2000	2001	2002	% Variation 2001/2000	% Variation 2002/2001
1	2	3	4	5	6	7	8	9	10
(a) From Crude Oil									
1. Light Distillates	**9544**	**12258**	**13328**	**16186**	**24836**	**25856**	**27642**	**4.1**	**6.9**
of which									
LPG	1229	1533	1676	2045	3993	4530	4831	13.4	6.6
Mogas	3453	4367	5247	5898	7849	9232	10133	17.6	9.8
Naphtha	4423	5924	6006	7423	9966	9267	9363	-7.0	1.0
SBPS / Hexane	133	132	143	116	81	93	87	14.8	-6.5
2. Middle Distillates	**26296**	**29560**	**34989**	**41377**	**52534**	**54064**	**54872**	**2.9**	**1.5**
of which									
Kerosene	5270	5315	6003	5108	8321	9514	10062	14.3	5.8
ATF/RTF/Jet A-1	1656	2026	2224	2213	2509	2610	2702	4.0	3.5
HSD	17259	20348	24984	32012	39469	39785	39490	0.8	-0.7
LDO	1499	1364	1333	1499	1560	1578	2090	1.2	32.4
JBO	83	92	77	76	62	45	44	-27.4	-2.2
MTO	148	169	178	247	227	207	238	-8.8	15.0
3. Heavy Ends	**12076**	**12561**	**14492**	**15537**	**17816**	**19057**	**19326**	**7.0**	**1.4**
of which									
Furnace Oil	4982	5512	6471	6704	6250	7435	7602	19.0	2.2
LSHS/HHS/RFO	4434	4092	4482	4734	4995	4752	4644	-4.9	-2.3
Total Fuel Oils	9416	9604	10953	11438	11245	12187	12246	8.4	0.5
Lube Oils	410	582	644	654	700	696	645	-0.6	-7.3
Bitumen	1676	1922	2339	2459	2697	2512	2847	-6.9	13.3
Petroleum Coke	229	259	287	318	2054	2845	2522	38.5	-11.4
Paraffin Wax	45	43	34	43	53	44	42	-17.0	-4.5
Others Waxes	44	61	50	70	66	45	6	-31.8	-86.7
Total Waxes	89	104	84	113	119	89	48	-25.2	-46.1
4. Total Production	**47916**	**54379**	**62809**	**73100**	**95186**	**98977**	**101840**	**4.0**	**2.9**
5. Crude Throughput	**50954**	**57971**	**66672**	**79538**	**101788**	**106744**	**110148**	**4.9**	**3.2**
(b) From Natural Gas									
LPG	1173	1599	1889	1986	2040	2116	2350	3.7	11.1

*: Provisional

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991	1995	1998	1999	2000	2001	2002
Light Distillates	18.7	21.1	20.0	20.4	24.4	24.2	25.1
Middle Distillates	51.6	51.0	52.5	52.0	51.6	50.6	49.8
Total Fuel Oils	18.5	16.6	16.4	14.4	11.0	11.4	11.1
Lubes	0.8	1.0	1.0	0.8	0.7	0.7	0.6
Bitumen	3.3	3.3	3.5	3.1	2.6	2.4	2.6
Others	1.1	0.8	0.8	1.2	3.1	3.4	3.3
Total Production	**94.0**	**93.8**	**94.2**	**91.9**	**93.5**	**92.7**	**92.5**
RBF & Losses / inventories	6.0	6.2	5.8	8.1	6.5	7.3	7.5
Crude Throughput	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

V.4(b) PRODUCTION OF PETROLEUM PRODUCTS 1991-92 TO 2002-03 FINANCIAL YEARS

('000' Tonne)

PRODUCTS	Production							% Variation	
	1991-92	1995-96	1998-99	1999-00	2000-01	2001-02	2002-03*	2001-02 / 2000-01	2002-03 / 2001-02
1	2	3	4	5	6	7	8	9	10
				(a) From Crude Oil					
1. Light Distillates	**9673**	**12433**	**13776**	**18314**	**25048**	**26539**	**28619**	**6.0**	**7.8**
of which									
LPG	1250	1539	1724	2487	4088	4778	4903	16.9	2.6
Mogas	3420	4462	5573	6232	8070	9699	10361	20.2	6.8
Naphtha	4546	5975	6081	8170	9908	9180	9650	-7.3	5.1
SBPS / Hexane	135	150	127	106	93	84	82	-9.7	-2.4
2. Middle Distillates	**26371**	**29941**	**36168**	**44995**	**52445**	**54409**	**55937**	**3.7**	**2.8**
of which									
Kerosene	5339	5267	5341	5735	8714	9681	10028	11.1	3.6
ATF/RTF/Jet A-1	1539	2127	2289	2292	2513	2595	3053	3.3	17.6
HSD	17404	20661	26716	34793	39052	39899	40207	2.2	0.8
LDO	1482	1351	1336	1624	1481	1703	2079	15.0	22.1
JBO	82	95	81	70	57	44	47	-22.8	6.8
MTO	143	180	194	249	214	212	243	-0.9	14.6
3. Heavy Ends	**12305**	**12707**	**14600**	**16102**	**18121**	**19056**	**19584**	**5.2**	**2.8**
of which									
Furnace Oil	5430	5351	6407	6559	6479	7488	7529	15.6	0.5
LSHS/HHS/RFO	4207	4228	4623	4793	4913	4739	4638	-3.5	-2.1
Total Fuel Oils	9637	9579	11030	11352	11392	12227	12167	7.3	-0.5
Lube Oils	390	633	586	728	684	651	684	-4.8	5.1
Bitumen	1710	2032	2419	2485	2721	2561	2941	-5.9	14.8
Petroleum Coke	216	256	286	465	2473	2784	2659	12.6	-4.5
Paraffin Wax	44	43	40	47	51	45	42	-11.8	-6.7
Other Waxes	46	63	63	70	61	37	3	-39.3	-91.9
Total Waxes	90	106	103	117	112	82	45	-26.8	-45.1
4. Total Production	**48349**	**55081**	**64544**	**79411**	**95614**	**100004**	**104140**	**4.6**	**4.1**
5. Crude Throughput	**51423**	**58741**	**68538**	**85964**	**103444**	**107274**	**112559**	**3.7**	**4.9**
				(b) From Natural Gas					
LPG	1235	1715	1914	1986	2045	2205	2370	7.8	7.5

*: Provisional

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991-92	1995-96	1998-99	1999-00	2000-01	2001-02	2002-03*
Light Distillates	18.8	21.2	20.1	21.3	24.2	24.7	25.4
Middle Distillates	51.3	51.0	52.8	52.3	50.7	50.7	49.7
Total Fuel Oils	18.7	16.3	16.1	13.2	11.0	11.4	10.8
Lubes	0.8	1.1	0.9	0.8	0.7	0.6	0.6
Bitumen	3.3	3.5	3.5	2.9	2.6	2.4	2.6
Others	1.1	0.8	0.8	1.8	3.2	3.4	3.4
Total Production	**94.0**	**93.8**	**94.2**	**92.4**	**92.4**	**93.2**	**92.5**
RBF & Losses / inventories	6.0	6.2	5.8	7.6	7.6	6.8	7.5
Crude Throughput	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

VI.1(a) PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING 1996 TO 2002

(Qty: '000' Tonnes)

	Products	1996	1997	1998	1999	2000	2001	2002	% to total	Change % 2002/2001
1	**Light Distillates**	**14034**	**15269**	**17232**	**19870**	**21627**	**22851**	**23369**	**21.2**	**2.3**
	LPG	4121	4451	4887	5640	6596	7179	7849	7.1	9.3
	Mogas	4932	5109	5430	5776	6438	6940	7485	6.8	7.9
	Naphtha	3795	4453	5973	7921	8089	8261	7465	6.8	-9.6
	SBP/Hexane	212	222	174	145	128	111	109	0.1	-1.8
	Others	974	1034	768	388	376	360	461	0.4	28.1
2	**Middle Distillates**	**47826**	**49923**	**50905**	**54141**	**53257**	**51250**	**50631**	**46.0**	**-1.2**
	SKO	9627	9743	10460	10715	10699	10285	9804	8.9	-4.7
	ATF/Jet A-1	2171	2111	2101	2146	2236	2272	2257	2.1	-0.7
	HSDO	34275	36400	36619	39291	38310	36892	36611	33.3	-0.8
	LDO/MDO	1233	1212	1266	1461	1460	1234	1347	1.2	9.2
	JBO/Wash Oil	94	93	81	73	70	48	44	0.0	-8.3
	MTO	195	185	186	232	220	206	235	0.2	14.1
	Others	231	179	192	223	262	313	333	0.3	6.4
3	**Heavy Ends**	**14207**	**14272**	**14796**	**15962**	**15378**	**15549**	**16018**	**14.6**	**3.0**
	Furnace Oil	6502	6570	6745	7084	6206	7005	7080	6.4	1.1
	LSHS/HHS	4282	4346	4390	4663	5047	4659	4717	4.3	1.2
	Fuel oils (Total)	10784	10916	11135	11747	11253	11664	11797	10.7	1.1
	Lubes/Greases	690	786	848	950	801	794	949	0.9	19.5
	Bitumen/Asphalt	2206	2174	2343	2707	2781	2410	2705	2.5	12.2
	Petroleum Coke	329	227	286	324	371	409	324	0.3	-20.8
	Wax	122	87	85	152	107	105	57	0.1	-45.7
	Others	76	82	99	82	65	167	186	0.2	11.4
4	**Total (PSUs))**	**76067**	**79464**	**82933**	**89973**	**90262**	**89650**	**90018**	**81.8**	**0.4**
5	**Pvt. sales**	na	na	na	na	na	9510	12407	11.3	30.5
6	**TOTAL**	**76067**	**79464**	**82933**	**89973**	**90262**	**99160**	**102425**	**93.1**	**3.3**
7	RBF	3433	3518	3574	4873	6855	6995	7628	6.9	9.0
8	**Grand Total**	**79500**	**82982**	**86507**	**94846**	**97117**	**106155**	**110053**	**100.0**	**3.7**

Source: Petroleum Planning & Analysis Cell. na= not available.

VI.1(b) PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING 1994-95 TO 2002-03

(000' Tonne)

	Products	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	% Growth 2002-03/ 2201-02
1	**Light Distillates of which**	**11637**	**13701**	**14544**	**17866**	**20531**	**24531**	**29314**	**29618**	**28420**	**-4.0**
	LPG	3434	3922	4267	4803	5352	6421	7016	7728	8351	8.1
	Mogas	4141	4679	4955	5182	5507	5909	6613	7011	7570	8.0
	Naphtha	3400	4154	4030	6590	8891	10801	11673	11728	11929	1.7
	NGL	0	0	682	768	330	91	6	27	32	18.5
	Others	662	946	610	523	451	1309	4006	3124	538	-82.8
2	**Middle Distillates of which**	**40976**	**46082**	**49051**	**50903**	**53330**	**55434**	**53467**	**51439**	**52013**	**1.1**
	SKO	8964	9932	10153	11065	12243	11898	11307	10432	10405	-0.3
	ATF	1903	2082	2154	2108	2112	2197	2249	2256	2269	0.6
	HSDO	28261	32261	35019	36071	37217	39295	37958	36546	36644	0.3
	LDO	1369	1311	1223	1235	1278	1512	1399	1592	2063	29.6
	Others	479	496	502	424	480	532	554	613	632	3.1
3	**Heavy Ends of which**	**12873**	**15048**	**15573**	**15521**	**16701**	**17121**	**17293**	**19375**	**23693**	**22.3**
	Furnace Oil	5837	6971	7194	7168	7973	7690	7664	8451	8027	-5.0
	LSHS/HHS	4052	4189	4313	4323	4537	4763	4989	4531	4711	4.0
	Lubes/Greases	668	956	1013	1081	1097	1243	1115	1137	1250	9.9
	Bitumen	1939	2005	2273	2178	2412	2879	2774	2584	2986	15.6
	Petroleum Coke	197	319	276	227	393	328	1845	1798	2898	61.2
	Paraffin Wax	72	76	58	28	36	53	43	45	41	-8.9
	Other Waxes	59	57	57	45	76	89	62	51	13	-74.5
	Others	49	475	389	471	177	76	330	775	3767	386.1
TOTAL		**67509**	**74831**	**79168**	**84290**	**90562**	**97086**	**100074**	**100432**	**104126**	**3.7**
Refinery Fuel		3137	3238	3490	3514	3700	5544	6900	7273	7650	5.2
Grand Total		**70646**	**78069**	**82658**	**87804**	**94262**	**102630**	**106974**	**107705**	**111776**	**3.8**

Note : 1994-95 onwards total & product-wise consumption includes private sales also.
LSHS sales by pvt. parties included in FO. Break-up to these two products is not available.

VI.1(c) SALES/CONSUMPTION OF PETROLEUM PRODUCTS
(Product-wise break-up of both PSU and private parties)

(000' Tonnes)

	Products	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	% Change 2002-03/ 2001-02
						A. PUBLIC SECTOR					
1	**Light Distillates**	**11637**	**13143**	**14384**	**15742**	**17958**	**20473**	**21770**	**22916**	**23567**	**2.8**
	LPG	3434	3849	4184	4581	5041	6029	6613	7310	8143	11.4
	Mogas	4141	4679	4955	5182	5507	5909	6613	7011	7570	8.0
	Naphtha	3400	3669	4015	4716	6652	7970	8059	8128	7284	-10.4
	NGL	-	0	682	768	330	91	6	27	32	18.5
	Others	662	946	548	495	428	474	479	440	538	22.3
2	**Middle Distillates**	**40976**	**45460**	**48544**	**49716**	**51686**	**54259**	**52854**	**50661**	**50555**	**-0.2**
	SKO	8964	9317	9646	9878	10599	10731	10714	10114	9707	-4.0
	ATF	1903	2082	2154	2108	2112	2197	2249	2256	2269	0.6
	HSDO	28261	32254	35019	36071	37217	39287	37938	36515	36534	0.1
	LDO	1369	1311	1223	1235	1278	1512	1399	1202	1413	17.6
	Others	479	496	502	424	480	532	554	574	632	10.1
3	**Heavy Ends**	**12874**	**13915**	**14296**	**14380**	**15122**	**15919**	**15362**	**15515**	**16002**	**3.1**
	Furnace Oil	5837	6496	6534	6651	6767	6816	6371	7085	6941	-2.0
	LSHS/HHS	4052	4189	4313	4323	4537	4763	4989	4531	4711	4.0
	Lubes/Greases	668	712	705	835	885	915	797	819	938	14.5
	Bitumen	1939	2005	2273	2178	2412	2879	2618	2428	2847	17.3
	Petroleum Coke	197	319	276	227	315	328	414	367	335	-8.7
	Paraffin Wax	72	76	58	28	36	53	43	45	41	-8.9
	Other Waxes	59	57	57	45	76	89	62	51	13	-74.5
	Others	50	61	80	93	94	76	68	189	176	-6.9
	Total (A) (Excl. RBF)	**65487**	**72518**	**77224**	**79838**	**84766**	**90651**	**89986**	**89092**	**90124**	**1.2**
						B. PRIVATE SECTOR					
1	**Light Distillates**		**558**	**160**	**2124**	**2573**	**4058**	**7544**	**6702**	**8188**	**-22.2**
	LPG		73	83	222	311	392	403	418	208	-50.2
	Naphtha / NGL		485	15	1874	2239	2831	3614	3600	4645	29.0
	Benzene		0	0	0	23	33	8	0	0	—
	Others		0	62	28	0	802	3519	2684	3335	24.3
2	**Middle Distillates**		**622**	**507**	**1187**	**1644**	**1175**	**613**	**778**	**1510**	**94.1**
	SKO		615	507	1187	1644	1167	593	318	698	119.5
	HSDO		7	0	0	0	8	20	31	110	254.8
	LDO		0	0	0	0	0	0	390	650	66.7
	Others		0	0	0	0	0	0	39	52	33.3
3	**Heavy Ends**		**1133**	**1277**	**1141**	**1579**	**1202**	**1931**	**3860**	**4304**	**11.5**
	Furnace Oil / LSHS		475	660	517	1206	874	1293	1366	1086	-20.5
	Lubes/Greases		244	308	246	212	328	246	318	312	-1.9
	Bitumen		0	0	0	0	0	96	156	139	-10.9
	Petroleum Coke		0	0	0	78	0	34	1431	2228	55.7
	CBFS		0	0	0	83	0	230	75	74	(-)1.4
	Others@		414	309	378	0	0	32	514	465	(-)9.5
	Total (B)	**2027**	**2313**	**1944**	**4452**	**5796**	**6435**	**10088**	**11340**	**14002**	**23.5**
	TOTAL (A+B)	**67514**	**74831**	**79168**	**84290**	**90562**	**97086**	**100074**	**100432**	**104126**	**3.7**
	Refinery Fuel	3137	3238	3490	3514	3700	5544	6900	7273	7650	5.2
	Grand Total	**70651**	**78069**	**82658**	**87804**	**94262**	**102630**	**106974**	**107705**	**111776**	**3.8**

*: Provisional @: includes Propylene, Reformat, CBFS, Benzene etc.

Source: Petroleum Planning & Analysis Cell.

VI.1(d) TOTAL SALES/CONSUMPTION OF PETROLEUM PRODUCTS
(Incl. Sales to Nepal,Sikkim, Bhutan and Bunkers/International Airlines)

(Qty. '000' Tonnes)

Year	Total Consumption	% age Growth	Year	Total Consumption	% age Growth
1950	3319	6.2	1950-51	3485	9.8
1955	4817	17.8	1955-56	4920	15.2
1960	7964	16.9	1960-61	8285	16.7
1965	12356	7.6	1965-66	12437	6.3
1970	18816	8.3	1970-71	19135	7.5
1975	23541	2.2	1975-76	23673	1.6
1980	31633	1.0	1980-81	32261	3.0
1985	42973	7.6	1985-86	43363	6.2
1990	57943	3.8	1990-91	57745	1.7
1991	58462	0.9	1991-92	59603	3.2
1992	62092	6.2	1992-93	61655	3.4
1993	62836	1.2	1993-94	63648	3.2
1994	67373	7.2	1994-95	70646	11.0
1995	73486	9.1	1995-96	78069	10.5
1996	79500	8.2	1996-97	82658	5.9
1997	82982	4.4	1997-98	87804	6.2
1998	86507	4.2	1998-99	94262	7.4
1999	94846	9.6	1999-00	102630	8.9
2000	97117	2.4	2000-01	106974	4.2
2001	96645	-0.5	2001-02	107705	0.7
2002	97646	1.0	2002-03	111776	3.8

Note : i) Consumption includes refinery fuel from 1960/1960-61 onwards. Prior to that refinery fuel not available.
ii) Consumption excludes imports by private parties in respect of calender years.
iii) In respect of financial years consumption includes both imports from private parties & refinery fuel.
iv) Data upto 1959-60 is estimated.

VI.2 SALES/CONSUMPTION OF PETROLEUM PRODUCTS AND MARKET SHARE OF OIL COMPANIES IN INDIA FROM 1970-71 TO 2002-03

(Qty. ' 000' Tonnes)

Year	% S/C	IOC	B.Shell/ BPCL	Esso/ HPCL	@ Caltex/ HPCL(VMU)	IBP Pvt.	Other COs	Imports by Pvt. Parties	TOTAL
1970-71	S/C	9212	4219	2538	1279	291	373	-	17912
	%	51.4	23.6	14.2	7.1	1.6	2.1	-	100
1975-76	S/C	14525	3151	2647	931	659	534	-	22447
	%	64.7	14.0	11.8	4.1	2.9	2.4	-	100
1980-81	S/C	18494	5297	5596	-	1034	475	-	30896
	%	59.9	17.1	18.1	-	3.3	1.5	-	100
1985-86	S/C	23840	7580	7638	-	1552	262	-	40872
	%	58.3	18.5	18.7	-	3.8	0.6	-	100
1990-91	S/C	31426	10377	10576	-	2284	372	-	55035
	%	57.1	18.9	19.2	-	4.2	0.7	-	100
1991-92	S/C	32362	10688	11047	-	2498	379	-	56974
	%	56.8	18.8	19.4	-	4.4	0.7	-	100
1992-93	S/C	32906	11409	11511	-	2686	390	-	58902
	%	55.9	19.4	19.5	-	4.6	0.7	-	100
1993-94	S/C	33501	12099	12011	-	2860	341	-	60812
	%	55.1	19.9	19.8	-	4.7	0.6	-	100
1994-95	S/C	36359	13160.0	12588	-	2990	390	2027	67514
	%	53.9	19.5	18.6	-	4.4	0.6	3.0	100
1995-96	S/C	39858	14763	14151	-	3273	473	2313	74831
	%	53.3	19.7	18.9	-	4.4	0.6	3.1	100
1996-97	S/C	42054	15732	15460	-	3471	507	1944	79168
	%	53.1	19.9	19.5	-	4.4	0.6	2.5	100
1997-98	S/C	43465	16356	16000	-	3597	420	4452	84290
	%	51.6	19.4	19.0	-	4.3	0.5	5.3	100
1998-99	S/C	45489	17445	16249	-	3772	1811	5796	90562
	%	50.2	19.3	17.9	-	4.2	2.0	6.4	100
1999-00	S/C	49391	18894	17497	-	4133	736	6435	97086
	%	50.9	19.5	18.0	-	4.3	0.8	6.6	100
2000-01	S/C	47812	19368	17887	-	3959	960	10088	100074
	%	47.8	19.4	17.9	-	4.0	1.0	10.1	100
2001-02	S/C	47151	19047	17499	-	3747	1648	11340	100432
	%	46.9	19.0	17.4	-	3.7	1.6	11.3	100
2002-03	S/C	46336	19843	18228	-	3769	1948	14002	104126
	%	44.5	19.1	17.5	-	3.6	1.9	13.4	100

S/C : sales/consumption

@ : Included under Esso/HPCL from 1980-81 onwards.

Source : M -16 report of PPAC.

Note : Consumption excludes RBF

VI.3 DELIVERIES MADE TO INTERNATIONAL/COASTAL BUNKERS DURING 1990-91 TO 2002-03

(Qty. ' 000 ' Tonnes)

Items	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-67	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
1	2	3	4	5	6	7	8	9	10	11	12	13	14
INTERNATIONAL													
BUNKERS :													
F.O	107.6	73.8	78.7	116.0	120.1	85.8	87.5	69.8	74.5	63.6	64.8	28.6	25.2
H.S.D	10.7	12.9	14.3	13.3	11.8	18.3	13.7	11.0	9.1	6.8	3.7	3.0	2.9
L.D.O	32.2	29.4	27.7	29.1	25.0	20.4	19.7	17.3	15.8	15.7	18.7	6.3	2.8
TOTAL	**150.5**	**116.1**	**120.7**	**158.4**	**156.9**	**124.5**	**120.9**	**98.1**	**99.4**	**86.1**	**87.2**	**37.9**	**30.9**
COASTAL													
BUNKERS :													
F.O	208.0	194.3	182.9	195.4	214.4	160.7	194.3	174.3	144.3	153.4	139.9	170.5	105.6
H.S.D	129.5	122.3	111.2	120.6	129.5	120.5	157.6	137.7	115.7	156.1	153.4	217.7	177.8
L.D.O	34.2	34.7	39.6	40.1	38.1	32.1	29.6	26.5	26.5	26.8	21.8	25.2	16.2
TOTAL	**371.7**	**351.3**	**333.7**	**356.1**	**382.0**	**313.3**	**381.5**	**338.5**	**286.5**	**336.3**	**315.1**	**413.4**	**299.6**
TOTAL BUNKERS :													
F.O	315.6	268.1	261.6	311.4	334.5	246.5	281.8	244.1	218.9	217.0	204.7	199.1	130.9
H.S.D	140.2	135.2	125.5	133.9	141.3	138.8	171.3	148.7	124.9	162.9	157.1	220.7	180.7
L.D.O	66.4	64.1	67.5	69.2	63.1	52.5	49.3	43.8	42.3	42.5	40.5	31.5	19.0
TOTAL	**522.2**	**467.4**	**454.6**	**514.5**	**538.9**	**437.8**	**502.4**	**436.6**	**386.1**	**422.4**	**402.3**	**451.3**	**330.6**

Source : M6 report of PPAC

VI.4 STATE-WISE CONSUMPTION OF MAJOR PETROLEUM PRODUCTS DURING 2002-03

('000' Tonnes)

State/UT	Naphtha	LPG	Petrol	SKO	ATF	Diesel	LDO	FO	LSHS/ HHS	Lubes & Greases	Others	TOTAL
A. States												
1. Andhra Pradesh	75	639	551	552	77	3453	63	357	134	48	452	6401
2. Arunachal Pradesh	0	9	13	11	1	42	1	0	0	1	9	87
3. Assam	10	131	83	262	40	374	6	38	18	7	175	1144
4. Bihar	0	183	109	610	6	992	7	20	0	10	147	2084
5. Chhattisgarh	0	70	86	148	1	460	6	87	9	12	102	981
6. Goa	255	37	55	22	25	242	4	148	0	4	0	792
7. Gujarat	1827	502	616	771	57	2160	261	696	1054	44	583	8571
8. Haryana	0	304	254	158	20	2202	92	209	361	22	182	3804
9. Himachal Pradesh	0	64	55	48	12	286	4	25	10	4	38	546
10. Jammu & Kashmir	0	84	77	152	31	306	7	2	3	7	29	698
11. Jharkhand	0	80	110	252	3	689	75	116	1	27	45	1398
12. Karnataka	370	461	498	503	112	2221	44	492	143	33	48	4925
13. Kerala	592	358	390	237	80	1261	4	456	196	32	240	3846
14. Madhya Pradesh	182	316	281	496	25	1438	59	399	6	25	268	3495
15. Maharashtra	835	1212	1099	1389	692	3592	283	1193	1183	231	581	12290
16. Manipur	0	22	16	32	14	43	1	0	0	1	13	142
17. Meghalaya	0	10	21	26	0	121	0	0	0	1	10	189
18. Mizoram	0	16	9	6	0	20	1	0	0	0	9	61
19. Nagaland	0	11	12	13	1	17	0	0	0	0	11	65
20. Orissa	11	95	138	312	13	835	27	275	1	17	92	1816
21. Punjab	25	428	459	274	41	2211	27	178	634	34	132	4443
22. Rajasthan	738	347	312	419	55	2613	66	316	35	29	290	5220
23. Sikkim	0	6	5	15	0	23	0	1	0	0	3	53
24. Tamilnadu	839	770	676	585	201	2980	33	1116	731	138	372	8441

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VI.4 STATE-WISE CONSUMPTION OF MAJOR PETROLEUM PRODUCTS DURING 2002-03

('000' Tonnes)

State/UT	Naphtha	LPG	Petrol	SKO	ATF	Diesel	LDO	FO	LSHS/ HHS	Lubes & Greases	Others	TOTAL
25. Tripura	0	16	11	30	2	43	0	1	0	0	15	118
26. Uttaranchal	0	107	64	96	0	302	8	23	48	6	24	678
27. Uttar Pradesh	963	873	634	1271	65	4235	103	411	129	52	339	9075
28. West Bengal	562	418	215	781	103	1883	119	280	0	68	265	4694
Total (A)	**7284**	**7569**	**6849**	**9471**	**1677**	**35044**	**1301**	**6839**	**4696**	**853**	4474	**86057**
B.Union Territories												
1. Andaman & Nikobar	0	0	5	6	6	68	0	0	0	1	3	89
2. Chandigarh	0	30	55	14	26	54	3	4	6	2	10	204
3. Dadra Nagar Haveli	0	6	7	3	0	88	11	46	0	54	3	218
4. Daman & Diu	0	4	7	2	0	32	4	11	0	1	6	67
5. Lakshadweep	0	Neg	0	1	0	7	0	0	0	0	0	8
6. Delhi	0	508	604	190	560	1034	92	1	3	23	105	3120
7. Pondicherry	0	22	36	13	0	168	2	38	6	2	5	292
Total (B)	**0**	**570**	**714**	**229**	**592**	**1451**	**112**	**100**	**15**	**83**	132	**3998**
C. Outside India												
1. Bhutan	0	4	7	7	0	38	Neg	2	0	1	5	64
2. Nepal	0	0	0	0	0	1	0	0	0	1	3	5
Total (C)	**0**	**4**	**7**	**7**	**0**	**39**	**0**	**2**	**0**	**2**	8	**69**
D. Sales by Private	**4645**	**208**	**0**	**698**	**0**	**110**	**650**	**1086**	**@**	**312**	**6293**	**14002**
Grand Total (A+B+C+D)	**11929**	**8351**	**7570**	**10405**	**2269**	**36644**	**2063**	**8027**	**4711**	**1250**	**10907**	**104126**

Source: Petroleum Planning and Analysis Cell, New Delhi.

@ LSHS/HHS included in FO Note : Others includes Bitumen, Petroleum coke, Waxes, propylene,reformat,CBFs, Benzene etc.

VI.5 STATE-WISE PER CAPITA SALES/CONSUMPTION OF PETROLEUM PRODUCTS

(Unit: Kg)

State/UT	95-96	96-97	97-98	98-99	99-00	2000-01	2001-02	2002-03(p)
A. States								
1. Andhra Pradesh	67.6	71.6	73.9	78.7	86.9	82.9	83.5	84.5
2. Arunachal Pradesh	100.0	102.1	77.1	79.6	92.4	78.8	77.0	79.7
3. Assam	41.6	41.9	38.4	39.9	43.8	44.0	46.4	42.9
4. Bihar	36.2	35.6	35.0	36.9	37.9	39.7	27.8	25.1
5. Chhattisgarh							44.0	47.2
6. Delhi	277.8	289.9	263.6	243.8	267.2	235.5	223.9	226.4
7. Goa	589.8	580.3	532.9	443.7	582.1	612.4	595.2	589.3
8. Gujarat	172.5	187.2	186.8	202.2	215.9	190.0	176.3	169.4
9. Haryana	136.1	147.9	140.2	149.1	173.6	172.0	176.7	180.4
10. Himachal Pradesh	52.9	64.5	60.5	65.4	78.1	86.7	87.4	89.8
11. Jammu & Kashmir	53.3	56.6	56.7	57.8	64.2	61.2	65.5	69.3
12. Jharkhand						13.1	41.1	52.0
13. Karnataka	75.3	83.5	79.3	79.4	85.7	84.3	92.1	93.4
14. Kerala	85.2	91.0	94.3	98.7	113.3	119.8	107.5	120.8
15. Madhya Pradesh	48.8	51.6	51.9	51.3	57.6	68.1	57.5	57.9
16. Maharashtra	131.4	139.0	138.2	134.4	139.2	129.3	128.4	127.0
17. Manipur	41.4	40.9	32.6	31.0	36.7	32.6	27.6	59.4
18. Meghalaya	70.4	79.1	68.0	71.4	79.0	69.0	72.4	82.0
19. Mizoram	46.8	59.5	55.2	50.0	59.5	62.9	64.0	68.5
20. Nagaland	43.9	46.0	39.2	44.0	39.9	29.2	29.2	32.7
21. Orissa	45.3	47.3	46.4	46.1	45.3	45.2	44.5	49.5
22. Pondicherry						263.9	260.8	299.8
23. Punjab	176.3	184.8	185.4	189.8	195.7	173.0	184.2	182.9
24. Rajasthan	74.9	81.6	78.6	82.1	89.5	85.1	88.1	92.4
25. Sikkim	61.7	70.2	66.7	64.2	73.5	72.2	74.1	98.1
26. Tamilnadu	107.8	111.4	112.1	123.0	135.2	135.0	131.1	135.9
27. Tripura	25.9	29.2	26.4	27.4	30.3	33.2	34.2	37.0
28. Uttar Pradesh	49.7	55.6	56.4	58.8	61.6	60.2	53.7	54.7
29. Uttaranchal						20.9	80.3	80.0
30. West Bengal	50.2	52.2	49.6	51.0	58.4	58.5	63.6	58.5
B.Union Territories								
1. Chandigarh	251.3	261.5	260.5	276.2	362.8	275.2	225.3	226.4
2. Goa, (Incl. Daman & Diu and Dadra & Nagar Haveli)	277.8	451.9	603.3	625.8	634.9	537.0	529.1	754.0
3. Others	188.2	200.0	195.1	202.7	242.0	329.2	172.7	232.6
Total All India @	**79.2**	**86.2**	**90.1**	**92.2**	**102.0**	**104.2**	**104.9**	**108.1**

PER CAPITA CONSUMPTION OF SELECTED PETROLEUM PRODUCTS

(Unit : Kg)

Product	95-96	96-97	97-98	98-99	99-00	2000-01	2001-02	2002-03(p)
Naphatha	4.0	4.4	4.9	6.4	8.1	7.8	11.4	11.5
MS	5.1	5.2	5.4	5.7	6.0	6.4	6.8	7.3
SKO	10.2	9.6	10.3	10.9	10.9	10.4	10.2	10.1
HSDO	35.2	36.0	37.8	38.0	40.0	36.9	35.6	35.5
LDO	1.4	1.3	1.3	1.3	1.5	1.4	1.6	2.0
F.O (Regular)	7.1	7.1	7.0	6.7	6.9	6.2	8.2	7.8
LSHS/HHS	4.6	4.7	4.5	4.7	4.9	4.9	4.4	4.6
Total All India Sales @	**79.2**	**86.2**	**90.1**	**92.2**	**102.0**	**104.2**	**104.9**	**108.1**

(p) = Provisional * = Figures including Goa, Goa has been shown separatly later on

@ = Includes Ref. fuel & international bunkers upto the year 1995-96, later on pvt. imports also included.

Note : Population figures taken from RBI's report on currency and finance.

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VI.6 SECTOR-WISE CONSUMPTION (END-USE) OF SELECTED PETROLEUM PRODUCTS

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03	
	Consump-tion	% to Total	Consump-tion	% to Total	Consump-tion	% to Total
LPG						
1. Domestic	5432	74.6	6067	76.4	6820	78.8
2. Commercial/Industry	1009	13.9	1050	13.2	1105	12.8
3.Transport sector	5	0.1	5	0.1	6	0.1
4.Power Generation	2	0.0	2	0.0	3	0.0
5.Agricultural sector	3	0.0	5	0.1	4	0.0
6.Mining	2	0.0	2	0.0	4	0.0
7.Manufacturing	132	1.8	109	1.4	150	1.7
Chemicals	66	0.9	45	0.6	72	0.8
Engineering	26	0.4	23	0.3	21	0.2
Metallergical	16	0.2	15	0.2	24	0.3
Textiles	2	0.0	3	0.0	4	0.0
Consumer & Ind. Goods	22	0.3	23	0.3	29	0.3
8.Miscellaneous	160	2.2	179	2.3	201	2.3
9. Private Party sales	**403**	**5.5**	**418**	**5.3**	**208**	**2.4**
TOTAL	**7280**	100.0	**7946**	100.0	**8651**	100.0
NAPHTHA						
1. Fertilizers	3618	31.0	3426	29.2	3027	25.4
2. Petrochemicals	1989	17.0	2527	21.5	1455	12.2
3. Power Plants	1298	11.1	994	8.5	1188	10.0
4. Steel Plants	146	1.3	41	0.3	250	2.1
5. Others	1008	11.1	1140	9.7	1364	11.4
6. Private Party sales	**3614**	**31.0**	**3600**	**30.7**	**4645**	**38.9**
TOTAL(1+2+3+4)	**11673**	100.0	**11728**	100.0	**11929**	100.0

Cont'd...

VI.6 SECTOR-WISE CONSUMPTION (END-USE) OF SELECTED PETROLEUM PRODUCTS

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03	
	Consump-tion	% to Total	Consump-tion	% to Total	Consump-tion	% to Total
			HSDO			
1. TRANSPORT						
i) Road Transport	20471	53.9	19755	54.1	19897	54.3
ii) Aviation	40	0.1	36	0.1	26	0.1
iii) Shipping	247	0.7	285	0.8	239	0.7
iv) Railways	1439	3.8	1586	4.3	1670	4.6
Sub total (1)	**22197**	58.5	**21662**	59.3	**21832**	59.6
2. PLANTATION/FOOD						
i) Sugar Mills	136	0.4	122	0.3	114	0.3
ii) Others (incl.Plan. of Food)	7361	19.4	7105	19.4	7164	19.6
Sub total (2)	**7497**	19.8	**7227**	19.8	**7278**	19.9
3. Power Generation (Utilities)	**2596**	6.8	**2509**	6.9	**2497**	6.8
4. Industry						
i) Iron & Steel	102	0.3	87	0.2	92	0.3
ii) Textile & Fibre	416	1.1	266	0.7	140	0.4
iii) Cement	132	0.3	110	0.3	91	0.2
iv) Ceremic & Glass	59	0.2	46	0.1	28	0.1
v) Chemicals & Allied	165	0.4	135	0.4	116	0.3
vi) Aluminium	13	0.0	11	0.0	10	0.0
vii) Mining & Quarrying	642	1.7	629	1.7	641	1.7
viii) Engg. (Mech. & Elec.)	229	0.6	184	0.5	253	0.7
ix) Fertilizers	31	0.1	21	0.1	12	0.0
x) Other Industries & Construction	1343	3.5	1198	3.3	1165	3.2
Sub total (4)	**3132**	8.3	**2687**	7.4	**2548**	7.0
5. Misc. Services	**2516**	6.6	**2430**	6.6	**2379**	6.5
6. Private Party sales	**20**	0.1	**31**	0.1	**110**	0.3
Total (1+2+3+4+5+6)	**37958**	100.0	**36546**	100.0	**36644**	100.0

Cont'd...

VI.6 SECTOR-WISE CONSUMPTION (END-USE) OF SELECTED PETROLEUM PRODUCTS

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03	
	Consump-tion	% to Total	Consump-tion	% to Total	Consump-tion	% to Total
			LDO			
1. TRANSPORT						
i) Road Transport	3	0.2	1	0.1	4	0.2
ii) Aviation	4	0.3	10	0.6	2	0.1
iii) Shipping	42	3.0	29	1.8	29	1.4
iv) Railways	3	0.2	4	0.3	3	0.1
v) Other Transport (incl. Agri. Retail Trade)	6	0.4	9	0.6	2	0.1
Sub total (1)	**58**	4.1	**53**	3.3	**40**	1.9
2. PLANTATION/FOOD						
i) Sugar Mills	2	0.1	4	0.3	6	0.3
ii) Others (incl.Plan. of Food)	44	3.1	47	3.0	50	2.4
Sub total (2)	**46**	3.3	**51**	3.2	**56**	2.7
3. Power Generation (Utilities)	**215**	15.4	**165**	10.4	**173**	8.4
4. Industry						
i) Iron & Steel	82	5.9	77	4.8	94	4.6
ii) Textile & Fibre	94	6.7	104	6.5	102	4.9
iii) Cement	36	2.6	31	1.9	31	1.5
iv) Ceremic & Glass	37	2.6	35	2.2	53	2.6
v) Chemicals & Allied	142	10.2	122	7.7	157	7.6
vi) Aluminium	5	0.4	8	0.5	7	0.3
vii) Mining & Quarrying	18	1.3	18	1.1	25	1.2
viii) Engg. (Mech. & Elec.)	80	5.7	76	4.8	88	4.3
ix) Fertilizers	17	1.2	1	0.1	4	0.2
x) Other Industries & Construction	170	12.2	149	9.4	193	9.4
Sub total (4)	**681**	48.7	**621**	39.0	**754**	36.5
5. Misc. Services	**399**	28.5	**312**	19.6	**390**	18.9
6. Private Party sales	**0**	0.0	**390**	24.5	**650**	31.5
Total (1+2+3+4+5+6)	**1399**	100.0	**1592**	100.0	**2063**	100.0

Cont'd...

VI.6 SECTOR-WISE CONSUMPTION (END-USE) OF SELECTED PETROLEUM PRODUCTS

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03	
	Consump-tion	% to Total	Consump-tion	% to Total	Consump-tion	% to Total
			Furnace Oil			
1. TRANSPORT						
i) Road Transport	5	0.1	5	0.1	15	0.2
ii) Aviation	26	0.3	58	0.7	56	0.7
iii) Shipping	200	2.6	179	2.1	135	1.7
iv) Railways	12	0.2	11	0.1	8	0.1
v) Other Transport (incl. Agri. Retail Trade)	75	1.0	55	0.7	49	0.6
Sub total (1)	**318**	4.1	**308**	3.6	**263**	3.3
2. PLANTATION/FOOD						
i) Sugar Mills	9	0.1	8	0.1	7	0.1
ii) Others (incl.Plan. of Food)	267	3.5	314	3.7	369	4.6
Sub total (2)	**276**	3.6	**322**	3.8	**376**	4.7
3. Power Generation (Utilities)	**481**	6.3	**551**	6.5	**488**	6.1
4. Industry						
i) Iron & Steel	399	5.2	416	4.9	574	7.2
ii) Textile & Fibre	554	7.2	685	8.1	670	8.3
iii) Cement	404	5.3	446	5.3	301	3.7
iv) Ceremic & Glass	133	1.7	138	1.6	124	1.5
v) Chemicals & Allied	959	12.5	1274	15.1	1372	17.1
vi) Aluminium	137	1.8	127	1.5	103	1.3
vii) Mining & Quarrying	133	1.7	146	1.7	214	2.7
viii) Engg. (Mech. & Elec.)	175	2.3	188	2.2	184	2.3
ix) Fertilizers	897	11.7	820	9.7	445	5.5
x) Other Industries & Construction	752	9.8	817	9.7	727	9.1
Sub total (4)	**4543**	59.3	**5057**	59.8	**4714**	58.7
5. Misc. Services	**753**	9.8	**847**	10.0	**1100**	13.7
6. Private Party sales	**1293**	16.9	**1366**	16.2	**1086**	13.5
Total (1+2+3+4+5+6)	**7664**	100.0	**8451**	100.0	**8027**	100.0

Cont'd...

VI.6 SECTOR-WISE CONSUMPTION (END-USE) OF SELECTED PETROLEUM PRODUCTS

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03	
	Consump-tion	% to Total	Consump-tion	% to Total	Consump-tion	% to Total
			LSHS/HHS			
1. TRANSPORT	1	0.0	0	0.0	0	0.0
2. PLANTATION/FOOD						
i) Sugar Mills	0	0.0	0	0.0	0	0.0
ii) Others (incl.Plan. of Food)	22	0.4	21	0.5	44	0.9
Sub total (2)	**22**	0.4	**21**	0.5	**44**	0.9
3. Power Generation (Utilities)	**1657**	33.2	**1403**	31.0	**1639**	34.8
4. Industry						
i) Iron & Steel	102	2.0	83	1.8	71	1.5
ii) Textile & Fibre	177	3.5	164	3.6	141	3.0
iii) Cement	63	1.3	67	1.5	33	0.7
iv) Ceremic & Glass	96	1.9	95	2.1	111	2.4
v) Chemicals & Allied	260	5.2	328	7.2	259	5.5
vi) Aluminium	6	0.1	6	0.1	2	0.0
vii) Mining & Quarrying	5	0.1	1	0.0	1	0.0
viii) Engg. (Mech. & Elec.)	273	5.5	251	5.5	253	5.4
ix) Fertilizers	1723	34.5	1489	32.9	1422	30.2
x) Other Industries & Construction	243	4.9	251	5.5	401	8.5
Sub total (4)	**2948**	**59.1**	**2735**	**60.4**	**2694**	**57.2**
5. Misc. Services	**361**	7.2	**372**	8.2	**334**	7.1
6. Private Party sales	@	-	@	-	@	-
Total (1+2+3+4+5+6)	**4989**	100.0	**4531**	100.0	**4711**	100.0

@ : LSHS sales by Private parties included in FO sales. Break-up not available.

VI.7 CONSUMPTION OF DIESEL OIL IN INDIAN RAILWAYS DURING 1960-61 TO 2002-03

Year	No. of Diesel Locomotives	Consumption of Diesel oil (In Kls)	Consumption of Diesel per locomotive (In Kls)
1960-61	181	62771	346.8
1965-66	727	310813	427.5
1970-71	1169	569025	486.8
1975-76	1803	797610	442.4
1980-81	2403	1067470	444.2
1985-86	3046	1440269	472.8
1990-91	3759	1712816	455.7
1991-92	2905	1731473	596.0
1992-93	4069	1741751	428.1
1993-94	4192	1783162	425.4
1994-95	4259	1819464	427.2
1995-96	4313	1847748	428.4
1996-97	4363	1859443	426.2
1997-98	4496	1874139	416.8
1998-99	4586	1900804	414.5
1999-00	4651	1983427	426.5
2000-01	4702	1999262	425.2
2001-02	4815	1970723	409.3
2002-03	4699	2007993	427.3

Source : Railway Board, New Delhi.

VI. 8 INDUSTRY/PLANT-WISE OFFTAKES OF NAPHTHA DURING THE YEARS 1995-96 TO 2002-03

(Qty: '000' MTs)

Category and Plant	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
I. Fertilizer Plant:								
Madras Fertilizers	223	193	98	216	228	233	176	209
HFC, Durgapur	74	46	6	0	0	0	0	0
FCI, Gorakhpur	0	0	0	0	0	0	0	0
HCF, Barauni	57	47	51	22	0	0	0	0
SFC, Kota	183	182	181	190	183	142	160	172
Duncans Ind. Ltd.	392	336	358	382	352	310	297	0
RFP, Rourkela	124	126	113	114	65	46	18	11
GSFC, Baroda	75	81	65	114	59	66	104	46
FACT, Cochin	138	143	148	169	174	136	199	167
ZAC, Goa	288	253	281	205	243	196	216	185
IFFCO, Phulpur	262	269	432	657	628	701	656	688
IFFCO, Kalol	57	45	78	106	116	113	46	99
MCFL, Mangalore	122	168	140	165	127	152	186	167
SPIC, Tuticorin	290	266	275	265	308	310	270	259
GNFC, Bharuch	neg.	2	neg.	neg.	0	0	0	0
FACT, Alwaye	33	26	36	80	10	0	0	0
Coromandal Ferts. Vizag	78	84	76	60	3	0	0	0
NFL, Nangal	50	49	53	47	13	0	35	25
Others	478	703	1013	1090	1382	1468	1473	1619
Sub Total	**2924**	**3019**	3404	**3882**	**3891**	**3873**	**3836**	**3647**
II. Petrochemical Plants:								
BRPL, Bongaigaon	26	5	0	0	0	0	0	0
HOC, Rasayani	8	8	8	6	8	3	5	5
IPCL, Baroda	477	442	455	412	512	551	515	218
Nocil, Mumbai	140	281	260	221	186	255	190	11
RCF(Mathonal), Mumbai	-	-	-	-	-	0	0	0
Rama Ptro Chemicals	33	58	43	23	6	0	0	0
Reliance ind. Ltd.	222	359	364	516	486	360	480	423
National Peroxide	4	4	4	4	4	5	4	5
Oswal agro	8	53	65	7	0	0	0	0
RCF, Thal	-	-	-	-	0	0	0	0
Others	65	62	146	273	130	475	896	585
Sub Total	**983**	**1272**	**1345**	**1462**	**1332**	**1649**	**2090**	**1247**
III. Others :								
Essar Power Ltd.	-	-	-	-	232	39	66	132
Essar Steel Ltd.	-	-	-	-	279	126	12	4
Dabhol Power Corpn.	-	-	-	-	0	77	47	0
L&T Rajoula	-	-	-	-	52	62	69	66
IPCL, Dahej	-	-	-	-	186	282	256	78
NTPC, Kayamkulam	-	-	-	-	313	343	230	370
A.P.Gas Power Corpn.	-	-	-	-	193	86	7	12
NTPC, Kawas	-	-	-	-	127	369	410	500
Gujarat Ind. Power Corpn.	-	-	-	-	146	68	3	69
NTPC, Auriya	0	0	0	0	95	140	111	111
Gujarat Alkali	0	0	0	0	51	57	32	1
HCL, Khetri	4	5	neg.	2	2	1	1	0
others	221	400	760	1523	948	905	973	1070
Sub Total	**225**	**405**	**760**	**1525**	**2624**	**2555**	**2217**	**2413**
Grand Total (I+II+III)	**4132**	**4696**	**5509**	**6869**	**7846**	**8076**	**8143**	**7307**

Source : Industrial Performance Review, IOC Ltd. * = Provisional

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VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1995-96 TO 2002-03

(Qty: ' 000' MTs)

Category and Plant	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
				(1) POWER				
A.Northern:	**236.2**	**166.7**	**161.0**	**149.4**	**116.5**	**71.8**	**63.1**	**57.6**
NTPC Unchahar	-	-	-	-	9.5	2.8	2.7	0.0
TPS Obra	22.9	19.4	11.1	21.3	21.0	21.2	20.1	16.4
TPS Hardwaganj	3.6	4.5	4.5	8.5	7.6	2.7	2.5	2.4
BTPS Badarpur	0.0	0.0	1.4	0.0	1.2	0.3	0.0	0.0
GNTP Bhatinda	7.6	0.0	2.9	13.8	2.7	2.6	3.0	2.8
TPS Paricha	11.2	6.8	5.9	11.4	10.3	3.1	5.4	8.7
NTPS Singraull	2.9	5.4	1.5	1.4	na	5.6	2.7	1.3
NTPS Rihand	12.3	1.5	1.4	1.4	na	1.4	0.0	0.0
KTPS Kota	18.4	5.5	14.3	7.9	1.4	1.3	0.0	1.4
DVB Delhi	29.3	25.6	21.2	11.4	7.0	6.8	2.6	2.9
HSEB Faridabad	5.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0
TPS Ropar	24.7	23.1	19.4	14.5	14.3	10.6	7.5	7.2
TPS Panipat	48.3	40.3	46.5	33.3	13.7	8.2	16.6	13.1
HWP Rawatbhatta	49.3	28.5	30.9	24.5	27.8	0.0	0.0	0.0
Lehra Mohabbat, BTI						5.2	0.0	1.4
B. Eastern:	**162.7**	**144.1**	**110.4**	**99.4**	**113.0**	**114.7**	**111.6**	**112.9**
NTPC Kahalgaon	-	-	-	-	4.6	4.3	1.4	2.9
ASEB Chandrapura	65.1	43.0	42.6	30.8	11.2	0.0	0.0	0.0
CTPS Chandrapura	32.4	42.7	21.8	21.3	34.2	35.3	29.8	24.1
NTPC Farakka	24.4	23.7	28.2	33	19.0	14.1	9.9	15.7
BTPS Barauni	16.4	17.1	7.1	6.3	10.3	5.7	4.3	1.4
TTPS Talchar	15.4	8.9	0.0	3.1	1.4	0.0	0.0	0.0
BTPS Salakati	9	8.7	10.7	4.9	3.7	4.2	2.7	0.0
MCCPTA Haldia						24.1	24.7	23.7
Others						27.0	38.8	45.1
C. Wastern:	**1798.5**	**1764**	**1594.5**	**1268.8**	**1229.8**	**1645.2**	**1409.0**	**1449.1**
GEB Dhuwaran	745.8	724.9	686.4	507.5	611.1	643.4	472.6	403.5
GEB Ukai	63.9	70.4	46.2	18.4	20.3	10.5	15.9	8.1
GEB Gandhinagar	24.2	31.8	38.2	39.2	39.6	22.0	1.4	7.5
AECO Sabarmati	9.2	10.8	13.7	9.7	5.9	4.2	6.0	1.5
GEB Wanakbari	68.2	158.1	12.6	9.9	8.7	7.3	5.8	8.9
MPEB Sarani	48.0	30.0	18.4	16.3	8.4	16.0	23.8	16.6
MSEB Koradi	13.6	18.5	12.2	20.3	15.4	18.2	14.0	21.6
MSEB Chandrapur	23.6	16.1	30.7	27.0	6.6	13.8	17.2	10.4
MPEB Dhari	12.2	8.2	7.1	5.7	4.0	0.0	0.0	0.0
MSEB Nasik	18.6	31.3	7.4	11.3	7.3	7.5	16.6	10.6
MSEB Bhusawal	12.1	3.8	5.6	8.2	4.8	4.8	8.3	11.1
MSEB Paras	0.5	1.5	0.9	0.0	0.0	0.2	0.7	0.8
MSEB Parli	23.2	33.5	25.6	15.4	15.1	9.8	11.2	15.2
NTPC Korba	7.3	6.3	2.8	4.6	5.6	4.2	1.4	0.0
MPEB Korba	14.8	13.4	10.3	8.1	9.3	7.1	18.4	7.1
TATA Thermal	683.2	594.0	663.3	554	448.6	813.8	746.9	899.4
MPEB Chachai	17.7	5.8	4.4	4.7	3.5	5.9	11.6	7.1
NTPC Waldhan	7.0	2.8	3.0	4.4	13.0	23.9	4.3	1.3
MSEB Kaperkheda	5.4	2.8	5.7	4.1	2.6	15.3	19.4	7.4
MPEB Birsingpur						17.3	13.5	11.0

Source : Industrial Performance Review, IOC Ltd. *= Provisional.

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VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1995-96 TO 2002-03

(Qty: '000' MTs)

Category and Plant	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
D. Southern :	**232.7**	**194.1**	**198.8**	**227.1**	**666.8**	**702.6**	**860.4**	**811.4**
GMR Vasavi	-	-	-	-	248.6	230.8	232.8	226.9
TTPS Tutikorin	4.3	3.5	7.8	5.5	5.9	8.3	4.6	3.5
KTPS Palvancha	13.7	14.6	18.0	24.6	13.1	12.8	9.1	6.6
RTPS Raichur	9.4	2.4	2.3	12.2	17.3	12.1	6.8	1.3
MTPP Metturdam	9.7	.0.0	5.3	35.3	24.1	4.0	0.9	0.0
NLC Thermal Neyveli	47.5	41.5	21.1	16.0	20.3	79.7	58.8	34.9
HWP Manuguru	17.8	16.3	10.3	7.8	3.1	4.7	2.9	0.2
KEB Yellahanka	-	100.0	123.5	117.9	129	128.1	151.0	136.4
VTPS Ibrahimpatnam	-	3.6	5.6	4.1	2.7	4.5	2.6	1.3
RTPS Kalkamalla	-	9.6	4.9	2.3	2.5	3.6	0.0	1.3
NMTP Chennai	-	-	-	-	69.2	59.1	33.6	12.6
Samalpatti	-	-	-	-	-	0.0	86.0	130.5
Kerala SEB	-	-	-	-	-	89.4	38.3	6.9
Tata Power					-	0.0	131.4	56.9
Balaji power	-	-	-	-	-	0.0	57.8	128.5
Others	130.3	2.6	-	1.4	131.0	65.5	43.8	63.6
Total Power (A+B+C+D)	**2430.1**	**2268.9**	**2064.7**	**1744.7**	**2126.1**	**2534.3**	**2444.1**	**2431.0**
			(II) Fertilizer Plants					
A.Northern:	**1109.2**	**925.6**	**1083.4**	**1056.9**	**1062.1**	**816.9**	**959.0**	**842.6**
IFFCO Anola	-	-	-	-	1.5	4.3	0.0	0.0
Indo Gulf, Jagdishpur	49.7	56.2	64.3	49.9	37.9	11.3	0.0	0.0
NFL, Nangal	332.9	282.3	303.1	297.1	280.0	210.7	291.2	260.9
NFL, Bhatinda	356.3	267.6	330.2	306.1	334.0	237.7	310.3	265.0
NFL, Panipat	334.2	294.3	335.9	296.4	304.8	290.7	288.5	258.6
IFFCO, Phulpur	25.5	18.3	48.5	107.4	103.9	62.2	69.0	58.1
SFC, Kota	10.6	6.9	1.4	0.0	0.0	0.0	0.0	0.0
B. Eastern:	**249.1**	**231.9**	**197.8**	**197.7**	**229.3**	**204.2**	**79.3**	**28.0**
Oswal Fertilizers	na	na	na	na	0.0	18.2	17.6	8.9
HFC Durgapur	9.6	19.1	2.7	0.0	0.0	0.0	0.0	0.0
FCI Sindri	212.8	188.6	173.2	183.6	200.8	179.8	58.6	0.0
FCI Barauni	19.4	15.9	11.5	6.0	0.0	0.0	0.0	0.0
FCI Talchar	7.3	8.3	10.4	3.1	1.5	0.0	0.0	0.0
Paradeep Phosphate	na	na	na	na	27.0	6.2	3.1	19.1
C. Wastern:	**783.4**	**750.2**	**709.0**	**753.4**	**740.5**	**720.3**	**717.8**	**646.8**
RCF Mumbai	-	-	-	-	45.6	11.6	0.0	0.0
ZAC Goa	113.7	110.3	124.1	93.8	98.6	96.0	105.8	101.3
IFFCO Kalol	47.0	41.2	39.4	45.1	38.0	51.6	50.1	44.6
GSFC Baroda	135.5	144.6	139.4	134.0	116.6	110.8	115.9	76.1
GNFC Bharuch	487.2	454.1	406.1	480.5	441.7	450.3	446.0	424.8
D. Southern :	**582.6**	**604.4**	**623.0**	**599.4**	**544.4**	**472.3**	**665.7**	**727.8**
MFL Madras	91.0	78.1	100.3	145.1	139.0	126.6	114.1	125.3
MCFL Mangalore	61.0	82.7	71.7	91.2	69.7	73.1	80.9	85.2
FACT Cochin	114.9	126.4	135.7	83.3	114.8	120.7	309.0	358.7
NLC	80.0	83.8	78.9	55.7	11.2	0.0	0.0	0.0
SPIC Tuticorin	184.6	178.0	178.3	170.6	188.3	132.9	139.4	141.4
FCI Ramagundam	8.6	9.4	11.4	13.6	0.0	0.0	0.0	0.0
Coromandal Fertilizers	42.5	46.0	46.7	39.9	21.4	19.0	22.3	17.2
Total Fertilizers (A+B+C+D)	**2724.3**	**2512.1**	**2613.2**	**2607.4**	**2576.3**	**2213.7**	**2421.8**	**2245.2**

Source : Industrial Performance Review, IOC Ltd. *= Provisional.

Contd.....

VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1995-96 TO 2002-03

(Qty: ' 000' MTs)

Category and Plant	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
(III) Petrochemical Plants								
C. Wastern:								
Herdilla Chemicals Ltd	na	na	na	na	7.8	9.1	11.7	7.5
IPCL Baroda	127.7	95.4	76.0	85.8	37.3	31.1	24.8	46.6
NOCIL Mumbai	1.6	11.0	2.9	0.0	0.0	0.0	1.2	2.4
Reliance Ind. Mumbai	145.4	139.8	67.2	105.3	49.2	48.2	90.0	123.5
Sub Total (C)	**274.7**	**246.2**	**146.1**	**191.1**	**94.3**	**88.4**	**127.7**	**180.0**
D. Southern :								
FACT Udagamandal	11.3	8.5	9.7	18.8	6.2	0.0	62.2	0.0
NTPL Chennai	63.0	56.7	45.2	59.7	68.6	69.7	65.5	83.1
Sub Total (D)	**74.3**	**65.2**	**54.9**	**78.5**	**74.8**	**69.7**	**127.7**	**83.1**
Total Petrochemicals (C+D)	**349.0**	**311.4**	**201.0**	**269.6**	**169.1**	**158.1**	**255.4**	**263.1**
(IV) Steel Plants								
B.Eastern:								
RSP Rourkela	81.6	47.9	41.7	25.9	7.1	8.5	8.2	16.2
ASP Durgapur	13.4	4.7	14.3	9.6	8.4	7.4	11.3	8.1
TISCO Jamshedpur	5.2	0.0	0.0	0.0	1.0	0.0	0.1	0.5
BSP Bokaro	72.6	55.0	17.4	11.1	18.4	14.5	16.6	7.1
SAIL Patratu	5.7	10.9	9.9	12.3	12.6	2.9	9.3	0.0
Sub Total (B)	**178.5**	**118.5**	**83.3**	**58.9**	**47.5**	**33.3**	**45.5**	**31.9**
C.Wastern:								
HSL, Bhilai	25.7	26.4	14.4	14.4	15.7	13.0	8.7	10.0
Sub Total (C)	**25.7**	**26.4**	**14.4**	**14.4**	**15.7**	**13.0**	**8.7**	**10.0**
D.Southern:								
Essar Steels	na	na	na	na	20.0	42.0	23.1	37.1
Jindal Steel	na	na	na	na	11.5	6.1	7.9	0.0
Vizag Steel Plant	7.5	2.8	3.7	12.6	21.8	3.8	0.0	0.9
VISL Bhadravati	na	na	na	na	7.9	9.1	7.0	3.0
Sub Total (D)	**7.5**	**2.8**	**3.7**	**12.6**	**61.2**	**61.0**	**38.0**	**41.0**
Total Steel (B+C+D)	**211.7**	**147.7**	**101.4**	**85.9**	**124.4**	**107.3**	**92.2**	**82.9**

Source : Industrial Performance Review, IOC Ltd. * Provisional

Contd.....

VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1995-96 TO 2002-03

(Qty: ' 000' MTs)

Category and Plant	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03*
				(V) Others				
A.Northern:	**35.9**	**34.2**	**0.0**	**11.3**	**23.7**	**37.2**	**46.9**	**50.2**
HCI Khetri	na	na	na	na	6.7	0.0	0.0	0.0
Hindalco	35.9	34.2	0.0	11.3	17.0	37.2	46.9	50.2
B.Eastern:	**149.6**	**149.4**	**135.8**	**126.2**	**130.3**	**128.4**	**173.2**	**189.6**
Indal Muri	na	na	na	na	3.5	8.3	8.9	4.8
NALCO Angul	25.5	24.3	22.3	22.1	19.3	23.6	24.6	23.6
IRE Chatarpur	14.5	6.9	1.7	3.3	3.2	0.2	2.0	2.5
NALCO Damanjodi	65.1	68.8	68	65.7	62.7	69.9	84.3	118.8
OCL Rajgangapur	17.9	21.4	25.6	19.5	17.8	8.7	10.7	8.8
TELCO Jamshedpur	17.0	18.4	8.8	10.8	4.8	1.6	0.1	0.0
HCL Ghatsila	9.6	9.6	9.4	4.8	1.7	0.0	0.0	3.0
Phumphar Shipping	-	-	-	-	17.3	16.1	30.4	17.8
Others	-	-	-	-	-	-	12.2	10.3
C.Western:	**28.7**	**10.8**	**14.0**	**18.1**	**59.9**	**82.6**	**59.4**	**60.6**
BALCO Korba	na	na	na	na	28.2	21.0	0.0	18.7
Bombai Dye & Mkg. Co.	na	na	na	na	24.8	37.8	30.0	33.4
HOC Rasayani	9.2	10.8	14.0	18.1	6.9	0.3	0.0	0.0
HPC Mandovi Pellets	19.5	0.0	0.0	0.0	0.0	23.5	29.4	8.5
D.Southern:	**292.0**	**295.7**	**277.4**	**280.2**	**388.2**	**381.3**	**233.7**	**178.8**
Grasim	12.9	6.8	7.0	2.8	0.0	0.0	0.0	0.0
S.I.Viscose	42.3	31.3	18.8	11.8	35.0	19.0	8.1	0.0
Indal Belgaum	54.9	54.6	33.5	38.5	44.5	37.9	12.1	21.7
Tex MACO	4.2	7.9	10.0	0.0	0.0	6.1	0.0	0.9
Ballapur Ind.	9.1	5.5	6.7	17.6	19.8	17.1	0.8	0.8
Chem Plast	41.5	45.9	53.1	62.1	75.0	75.9	82.5	74.3
HOC Cochin	21.2	20	22.6	16.5	20.9	19.9	19.7	0.0
Kudramuk Iron & Ore Co.	44.1	55.5	64.9	70.8	68.7	60.4	83.2	73.1
FACT ASCL	61.8	68.2	60.8	60.1	111.4	108.5	7.0	0.0
Zuari	-	-	-	-	12.9	16.9	10.8	1.9
Others						19.6	9.5	7.0
Total Steel (A+B+C+D)	**506.2**	**490.1**	**427.2**	**435.8**	**602.1**	**629.5**	**513.2**	**563.0**
				(VI) General Trade				
A.Northern:	810.9	1095.2	1167.1	1348.8	1153.5	1340.0	1417.1	1437.8
B.Eastern:	446.5	490.9	509.5	539.9	433.6	388.8	391.9	373.2
C.Wastern:	2076.7	2232.2	2524.0	2547.9	2717.5	2374.3	2458.0	2482.7
D.Southern:	1149.8	1294.7	1366.1	1779.3	1649.0	1589.9	1575.6	1825.4
Total General Trade	**4483.9**	**5113.0**	**5566.7**	**6215.9**	**5953.6**	**5693.0**	**5842.6**	**6129.2**
Grand Total	**10705.3**	**10843.2**	**10974.2**	**11359.2**	**11579.3**	**11335.9**	**11583.0**	**11634.0**

(I+II+III+IV+V+VI)

Source : Industrial Performance Review, IOC Ltd. * Provisional

VI.10 STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA DURING 2001-02(E)

State/Union Territories	Gas Stations				Diesel Stations	
	Natural Gas (MCM)	HSD (KL)	Naphtha (KL)	Generation (GWH)	Diesel Oil (KL)	Generation (GWH)
1	2	3	4	5	6	7
NORTHERN REGION						
Haryana	0	0	0	0.00	0	0.00
Himachal Pradesh	0	0	0	0.00	0	0.00
Jammu & Kashmir	0	814	0	3.71	5337	24.26
Punjab	0	0	0	0.00	0	0.00
Rajasthan	27	0	0	123.00	0	0.00
Uttar Pradesh	0	0	0	0.00	0	0.00
Chandigarh	0	0	0	0.00	0	0.00
Delhi	257	31	0	1167.04	0	0.00
Central Sector	3595	0	0	16340.03	0	0.00
WESTERN REGION						
Gujarat	538	0	139937	3172.02	0	0.00
Madhya Pradesh	0	0	0	0.00	0	0.00
Maharashtra	1149	0	0	5219.53	0	0.00
Goa	56	0	0	307.00	0	0.00
Daman & Diu	0	0	0	0.00	0	0.00
D. & N. Haveli	0	0	0	0.00	0	0.00
Central Sector	1608	0	0	7373.31	0	0.00
SOUTHERN REGION						
Andhra Pradesh	1075	281	103730	5627.69	18183	93.00
Karnataka	218	0	0	991.09	151519	1401.75
Kerala	0	172	45433	240.66	124726	509.97
Tamil Nadu	137	4976	73189	1905.53	468600	2130.40
Lakshadweep	0	0	0	0.00	7140	19.86
Pondicherry	62	0	0	249.35	0	0.00
Central Sector	290	0	0	1316.33	0	0.00
EASTERN REGION						
Bihar	0	0	0	0.00	0	0.00
Orissa	0	0	0	0.00	0	0.00
West Bengal	0	337	0	0.63	0	0.54
D.V.C.	0	7045	252	17.72	0	0.00
A & N Islands	0	0	0	0.00	25300	115.00
Sikkim	0	0	0	0.00	0	0.00
Central Sector	0	0	0	0.00	0	0.00
NORTH EASTERN REGION						
Assam	368	164	0	950.64	0	0.00
Manipur	0	0	0	0.00	84	0.23
Meghalaya	0	0	0	0.00	0	0.00
Nagaland	0	0	0	0.00	14	0.10
Tripura	16	0	0	215.62	700	2.00
Arunachal Pradesh	0	0	0	0.00	3156	17.00
Mizoram	0	0	0	0.00	1147	3.31
Central Sector	640	0	0	1877.67	0	0.00
TOTAL (ALL INDIA)	10036	13820	362541	47098.57	805906	4317.42

KL: Kilo Litres MCM: Million Cubic Metres GWH: Gigawatt Hour

Source: Central Electricity Authority. (E): Estimated.

VI.11 STATE-WISE CONSUMPTION OF FOSSIL FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 2001-02

State/Union Territories	Steam Stations						Gross
	Coal (TMT)	Lignite (TMT)	Furnace Oil (KL)	HSD/ LDO (KL)	LSHS/ HHS (KL)	Natural Gas (MCM)	Gene-ration (GWH)
1	2	3	4	5	6	7	8
NORTHERN REGION							
Haryana	4020	0	0	3858	25580	0	4931
Himachal Pradesh	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	0	0	0
Punjab	10327	0	525	1687	23865	0	14693
Rajasthan	6471	0	13586	857	0	0	10591
Uttar Pradesh	15422	0	43263	28250	0	0	20606
Chandigarh	0	0	0	0	0	0	0
Delhi	1192	0	0	8680	3883	0	1509
Central Sector	29055	0	82819	0	0	0	43758
WESTERN REGION							
Gujarat	16722	1107	6075	5945	495801	0	29220
Madhya Pradesh	10509	0	46587	10601	0	0	12521
Chhattisgarh	6035	0	10680	272	0	0	7756
Maharashtra	36383	0	83951	17794	1615236	23096	52730
Goa	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0
D. & N. Haveli	0	0	0	0	0	0	0
Central Sector	20939	0	18525	0	0	0	32195
SOUTHERN REGION							
Andhra Pradesh	16367	0	17798	3525	0	0	22245
Karnataka	7562	0	13409	282	0	0	11148
Kerala	0	0	0	0	0	0	0
Tamil Nadu	18715	0	81755	2807	0	0	20325
Lakshadweep	0	0	0	0	0	0	0
Pondicherry	0	0	0	0	0	0	0
Central Sector	9963	17318	16377	235	8324	0	30313
EASTERN REGION							
Bihar	696	0	15927	4228	0	0	673
Jharkhand	3006	0	0	13005	0	0	3805
Orissa	2175	0	1690	2411	0	0	2599
West Bengal	13661	0	2516	69436	0	0	20056
D.V.C.	5869	0	48307	32896	0	0	7529
A & N Islands	0	0	0	0	0	0	0
Sikkim	0	0	0	0	0	0	0
Central Sector	17502	0	37186	0	0	0	21634
NORTH EASTERN REGION							
Assam	39	0	2134	440	0	0	46
Manipur	0	0	0	0	0	0	0
Meghalaya	0	0	0	0	0	0	0
Nagaland	0	0	0	0	0	0	0
Tripura	0	0	0	0	0	0	0
Arunachal Pradesh	0	0	0	0	0	0	0
Mizoram	0	0	0	0	0	0	0
Central Sector	0	0	0	0	0	0	0
TOTAL (ALL INDIA)	252630	18425	543110	207209	2172689	23096	370883

TMT: Thousand Metric Tonnes KL: Kilo Litres MCM: Million Cubic Metres
GWH: Giga Watt Hour Source: Central Electricity Authority.

VII. FOREIGN TRADE

VII.1 IMPORT/EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS FROM 1970 TO 2002

(Qty. '000' Tonnes, Value:Rs. Crores)

Year	Crude Oil		Petroleum Products		Total	
	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7
			GROSS IMPORTS			
1970	11665	102.36	970	30.53	12635	132.89
1975	13600	992.02	2291	199.46	15891	1191.48
1980	15976	3038.66	6800	1788.28	22776	4826.94
1985	14811	3808.74	4292	1440.70	19103	5249.44
1990	20793	5929.62	7454	3541.64	28247	9471.26
1991	21813	6827.57	9746	5533.55	31559	12361.12
1992	29977	10423.44	10308	5711.66	40285	16143.60
1993	30309	10916.90	11954	7107.23	42263	18024.13
1994	27895	9915.10	13918	7438.77	41813	17353.87
1995	26901	10856.71	17931	10251.01	44832	21107.72
1996	32812	17194.53	20764	15454.63	53576	32649.16
1997	33573	17061.19	19839	14131.47	53412	31192.66
1998	38479	15156.00	23572	12784.00	62051	27940.00
1999	53306	33750.00	18400	13708.00	71706	47458.00
2000	70024	59456.00	11103	12616.00	81127	72072.00
2001	77554	61781.00	7574	8462.00	85128	70243.00
2002*	81907	69522.00	7040	7655.00	88947	77177.00
			EXPORTS			
1970	-	-	412	5.72	412	5.72
1975	-	-	166	13.83	166	13.83
1980	-	-	70	17.98	70	17.98
1985	2044	503.88	1695	482.06	3739	985.94
1990	-	-	2605	941.40	2605	941.40
1991	-	-	2477	1041.13	2477	1041.13
1992	-	-	3986	1658.33	3986	1658.33
1993	-	-	4003	1547.22	4003	1547.22
1994	-	-	3482	1580.74	3482	1580.74
1995	-	-	3318	1728.55	3318	1728.55
1996	-	-	3326	2050.49	3326	2050.49
1997	-	-	2833	1926.84	2833	1926.84
1998	-	-	1135	546.00	1135	546.00
1999	-	-	739	600.00	739	600.00
2000	-	-	6460	5929.00	6460	5929.00
2001	-	-	9657	8131.00	9657	8131.00
2002*	-	-	10055	9243.00	10055	9243.00
			NET IMPORTS			
1970	11665	102.36	558	24.81	12223	127.17
1975	13600	992.02	2125	185.63	15725	1177.65
1980	15976	3038.66	6730	1770.30	22706	4808.96
1985	12767	3304.86	2597	958.64	15364	4263.50
1990	20793	5929.62	4849	2600.24	25642	8529.86
1991	21813	6827.57	7269	4492.42	29082	11319.99
1992	29977	10423.44	6322	4053.33	36299	14485.27
1993	30309	10916.90	7951	5560.01	38260	16476.91
1994	27895	9915.10	10436	5858.03	38331	15773.13
1995	26901	10856.71	14613	8522.46	41514	19379.17
1996	32812	17194.53	17438	13404.14	50250	30598.67
1997	33573	17061.19	17006	12204.63	50579	29265.82
1998	38479	15156.00	22437	12238.00	60916	27394.00
1999	53306	33750.00	17661	13108.00	70967	46858.00
2000	70024	59456.00	4643	6687.00	74667	66143.00
2001	77554	61781.00	-2083	331.00	75471	62112.00
2002*	81907	69522.00	-3015	-1588.00	78892	67934.00

*: Provisional

Source: IOC & PPAC.

VII.2 IMPORT/EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS
1970-71 TO 2002-03

(Qty '000' Tonnes, Value:Rs. Crores)

Year	Crude Oil		Petroleum Products		Total	
	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7
			GROSS IMPORTS			
1970-71	11683	106.72	1084	29.91	12767	136.63
1975-76	13624	1051.76	2218	204.34	15842	1256.10
1980-81	16248	3348.97	7289	1917.52	23537	5266.49
1985-86	15144	3686.80	3865	1273.60	19009	4960.40
1990-91	20699	6118.42	8660	4660.21	29359	10778.63
1995-96	27342	11517.00	20335	12577.85	47677	24094.85
1996-97	33906	18538.19	20265	15633.49	54171	34171.68
1997-98	34494	15872.00	22970	14309.00	57464	30181.00
1998-99	39808	14917.00	23772	12276.00	63580	27193.00
1999-00	57805	40028.00	16608	14186.00	74413	54214.00
2000-01	74097	65932.00	9267	12093.00	83364	78025.00
2001-02	78706	60397.00	7009	7249.00	85715	67646.00
2002-03	81989	76195.00	6737	8206.00	88726	84401.00
			EXPORTS			
1970-71	-	-	332	4.67	332	4.67
1975-76	-	-	170	13.96	170	13.96
1980-81	-	36	8.41	36	8.41	
1985-86	528	135.15	1963	509.58	2491	644.73
1990-91	-	-	2648	1003.94	2648	1003.94
1995-96	-	-	3435	1831.98	3435	1831.98
1996-97	-	-	3162	2084.78	3162	2084.78
1997-98	-	-	2381	1266.00	2381	1266.00
1998-99	-	-	720	306.00	720	306.00
1999-00	-	-	746	698.00	746	698.00
2000-01	-	8365	7672.00	8365	7672.00	
2001-02	-	-	10085	8285.00	10085	8285.00
2002-03	-	-	10289	10868.00	10289	10868.00
			NET IMPORTS			
1970-71	11683	106.72	752	25.24	12435	131.96
1975-76	13624	1051.76	2048	190.38	15672	1242.14
1980-81	16248	3348.97	7253	1909.11	23501	5258.08
1985-86	14616	3551.65	1902	764.02	16518	4315.67
1990-91	20699	6118.42	6012	3656.27	26711	9774.69
1995-96	27342	11517.00	16900	10745.87	44242	22262.87
1996-97	33906	18538.19	17103	13548.71	51009	32086.90
1997-98	34494	15872.00	20589	13043.00	55083	28915.00
1998-99	39808	14917.00	23052	11970.00	62860	26887.00
1999-00	57805	40028.00	15862	13488.00	73667	53516.00
2000-01	74097	65932.00	902	4421.00	74999	70353.00
2001-02	78706	60397.00	-3076	-1036.00	75630	59361.00
2002-03	81989	76195.00	-3552	-2662.00	78437	73533.00

VII.3 IMPORT / EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS

(Qty :'000' Tonnes)
(Value : Rs.Crores)

ITEM	1999		2000		2001		2002	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7	8	9
GROSS IMPORTS								
A. Crude Oil	**53306**	**33750**	**70024**	**59456**	**77554**	**61781**	**81907**	**69522**
B. Pol.Products								
I.Light Distillates	**3724**	**3524**	**3890**	**5020**	**3980**	**4575**	**3570**	**4399**
1. LPG	1621	1669	1037	1449	708	941	672	990
2. Naphtha	2040	1807	2853	3571	3272	3634	2898	3409
3. MS	63	48	0	0	0	0	0	0
II.Middle Distillates	**12815**	**9127**	**4270**	**4106**	**798**	**917**	**664**	**689**
1.ATF	2	4	1	3	2	8	2	9
2.SKO	6501	5136	3017	3175	773	888	604	606
3.HSD	6312	3987	1252	928	23	21	25	26
4.Others	0	0	0	0	0	0	33	48
III.Heavy Ends	**1861**	**1057**	**2943**	**3490**	**2796**	**2970**	**2806**	**2567**
1.FO / LSHS	1457	799	1640	1198	1501	1100	1370	1122
2.Lubes / Others[HEI]	404	258	1303	2292	1295	1870	1436	1445
TOTAL(B)	**18400**	**13708**	**11103**	**12616**	**7574**	**8462**	**7040**	**7655**
GRAND TOTAL(A+B)	**71706**	**47458**	**81127**	**72072**	**85128**	**70243**	**88947**	**77177**
EXPORTS								
Pol.Products								
I.Light Distillates	**715**	**571**	**3344**	**3866**	**4827**	**4978**	**5052**	**5522**
1.Naphtha	617	467	2307	2585	2622	2543	2571	2602
2.MS	98	104	934	1116	2105	2288	2409	2810
3.TAME	0	0	103	165	100	147	72	110
II.Middle Distillates	**0**	**0**	**1318**	**1535**	**2753**	**2572**	**2972**	**2861**
1.HSD/LDO	0	0	1198	1404	2567	2396	2552	2481
2.ATF	0	0	120	131	186	176	420	380
III.Heavy Ends	**24**	**29**	**1798**	**528**	**2077**	**581**	**2031**	**860**
1.FO/LSHS	0	0	381	240	489	271	1075	800
2.Others[HEE]	24	29	1417	288	1588	310	956	60
TOTAL	**739**	**600**	**6460**	**5929**	**9657**	**8131**	**10055**	**9243**
NET IMPORTS								
A. Crude Oil	**53306**	**33750**	**70024**	**59456**	**77554**	**61781**	**81907**	**69522**
B. Pol.Products	**17661**	**13108**	**4643**	**6687**	**-2083**	**331**	**-3015**	**-1588**
GRAND TOTAL	**70967**	**46858**	**74667**	**66143**	**75471**	**62112**	**78892**	**67934**

Source: Petroleum Planning & Analysis Cell, New Delhi. TAME: Tertiary Amyl Methyl Ether.
HEI: Includes Bitumen, Low Sulphur Waxy Residue etc. HEE: Includes Coke and Vacuum Gas Oil.

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VII.4 IMPORT/EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS

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

ITEM	1999-00		2000-01		2001-02		2002-03*	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	2	3	4	5	6	7
GROSS IMPORTS								
A. Crude Oil	**57805**	**40028**	**74097**	**65932**	**78706**	**60397**	**81989**	**76195**
B. Petroleum Products								
I.Light Distillates	**3504**	**3765**	**4018**	**5438**	**3967**	**4287**	**3366**	**4777**
1. LPG	1587	1801	853	1332	659	810	1073	1867
2. Naphtha	1917	1964	3165	4106	3308	3477	2293	2910
II.Middle Distillates	**11319**	**9260**	**1919**	**2389**	**424**	**425**	**806**	**934**
1.ATF	1	4	1	3	2	9	2	7
2.SKO	6312	5543	1918	2386	391	388	698	808
3.HSD	5006	3713	0	0	31	28	106	119
3.Others	0	0	0	0	0	0	0	0
III.Heavy Ends	**1784**	**1160**	**3330**	**4266**	**2618**	**2537**	**2565**	**2495**
1.FO / LSHS	1377	865	1728	1309	1425	1030	1256	1084
2.Lubes / Others[HEI]	407	295	1602	2957	1193	1507	1309	1411
Total(B)	**16607**	**14185**	**9267**	**12093**	**7009**	**7249**	**6737**	**8206**
Grand Total(A+B)	**74412**	**54213**	**83364**	**78025**	**85715**	**67646**	**88726**	**84401**
EXPORTS								
Petroleum Products								
I.Light Distillates	**714**	**659**	**4221**	**4935**	**5008**	**4927**	**4493**	**5475**
1.Naphtha	583	520	2882	3273	2515	2234	2067	2325
2.MS	131	139	1202	1442	2406	2570	2336	3011
3.TAME	0	0	137	220	87	123	90	139
4.Reformate	0	0	0	0	0	0	0	0
II.Middle Distillates	**0**	**0**	**1757**	**2046**	**3084**	**2747**	**3875**	**4337**
1.HSD/LDO	0	0	1597	1872	2890	2571	3178	3547
2.ATF	0	0	160	174	194	176	697	790
III.Heavy Ends	**32**	**39**	**2387**	**691**	**1973**	**545**	**1921**	**1056**
1.FO/LSHS	0	0	508	320	482	255	1120	902
2.VGO/Lubes	32	39	1879	371	272	211	101	109
3.Coke	0	0	0	0	1219	79	700	45
Total	**746**	**698**	**8365**	**7672**	**10065**	**8219**	**10289**	**10868**
NET IMPORTS								
A. Crude Oil	**57805**	**40028**	**74097**	**65932**	**78706**	**60397**	**81989**	**76195**
B. Pol.Products	**15861**	**13487**	**902**	**4421**	**-3056**	**-970**	**-3552**	**-2662**
Grand Total	**73666**	**53515**	**74999**	**70353**	**75650**	**59427**	**78437**	**73533**

*: Provisional. TAME: Tertiary Amyl Methyl Ether.

HEI: Includes Bitumen, Lube Oil Base Stock, Low Sulphur Waxy Residue, Carbon Black Feed Stock.

Source: Petroleum Planning & Analysis Cell, New Delhi.

VII.5 TREND IN INDIA'S OVERALL TRADE BALANCE AND TRADE BALNCE WITH OPEC COUNTRIES

(Rs. Crores)

Year	India's Overall Trade					India's Trade with OPEC Countries					% of India's trade with OPEC to India's total trade	
	Exports	Imports	Balance of Trade	% variation over preceding year		Exports	Imports	Balance of Trade	% variation over preceding year			
				Exports	Imports				Exports	Imports	Exports	Imports
1	2	3	4	5	6	7	8	9	10	11	12	13
1970-71	1535	1634	-99	8.6	3.3	99	126	-27	-	-	6.4	7.7
1975-76	4036	5265	-1229	21.2	16.5	633	1166	533	35.5	6.0	15.7	22.1
1980-81	6711	12549	-5838	4.6	37.3	745	3488	-2743	3.9	44.7	11.1	27.8
1981-82	7806	13608	-5802	16.3	8.4	940	3770	-2830	26.2	8.1	12.0	27.6
1982-83	8803	14293	-5490	12.8	5.0	820	3899	-3079	-12.8	3.4	9.8	27.2
1983-84	9771	15831	-6060	11.0	10.8	882	3225	-2343	7.6	17.3	9.0	20.4
1984-85	11744	17134	5390	20.2	8.2	944	3326	2282	7.0	3.1	8.0	19.0
1985-86	10895	19658	-8763	-7.2	14.7	835	3420	-2585	-11.5	2.8	7.7	17.8
1986-87	12452	20096	-7644	14.3	2.2	831	1792	-961	-0.5	-47.6	6.7	8.9
1987-88	15674	22244	-6570	25.9	10.7	980	3319	-2339	17.9	85.2	6.3	14.9
1988-89	20232	28235	-8003	29.1	26.9	1207	3681	-2474	23.2	10.9	6.0	13.0
1989-90	27658	35328	7670	36.7	25.4	1841	5074	-3233	52.5	37.8	6.7	14.3
1990-91	32553	43198	-10645	17.7	22.3	1831	7041	-5210	-0.5	38.8	5.6	16.3
1991-92	44041	47851	-3810	35.3	10.8	3852	9499	-5647	110.5	34.9	8.7	19.9
1992-93	53688	63375	-9687	21.9	32.4	5180	13690	8510	34.5	44.1	9.6	21.6
1993-94	69751	73101	-3350	29.5	15.3	7473	16377	-8904	44.3	19.6	10.7	22.4
1994-95	82674	89971	-7297	18.5	23.1	7631	19002	11371	2.1	16.0	9.2	21.1
1995-96	106353	122678	-16325	28.6	36.4	10300	25586	-15286	35.0	34.6	10.7	20.9
1996-97	118817	138920	-20103	11.7	13.2	11475	36135	-24660	11.4	41.2	9.9	26.0
1997-98	130100	154176	-24076	9.5	11.0	13110	34950	-21840	14.2	-3.3	10.1	22.7
1998-99	139752	178332	-38580	7.4	15.7	14982	32711	-17719	14.4	-6.4	10.7	18.3
1999-00	159561	215236	-55675	14.2	12.1	16910	48394	-31484	12.8	47.9	10.6	22.5
2000-01	203571	230873	-27302	27.6	7.3	22223	12385	9838	31.4	25.6	10.9	5.4
2001-02	209018	245199	-36181	2.6	6.2	25016	14215	10801	12.6	14.8	12.0	5.8
2002-03*	252790	296597	-43807	20.9	21.0	33462	16651	16811	33.8	17.1	13.2	5.6

*Provisional.

Source: (i) Ministry of Commerce (ii) Economic Survey.

VII.6 INDIA'S FOREIGN EXCHANGE RESERVES (1970-71 TO 2002-03)

Year	S.D.R. Million	GOLD* (Rs.Crores)	Foreign Exchange (Rs.Crores)
1	2	3	4
1970-71	148.9	182.53	438.12
1975-76	202.8	182.53	1491.70
1980-81	490.5	225.58	4822.12
1985-86	115.1	274.28	7384.35
1990-91	75.9	6828.30	4388.10
1991-92	65.7	9038.80	14578.00
1992-93	12.7	10548.80	20140.50
1993-94	76.5	12794.10	47287.00
1994-95	4.6	13751.80	66005.60
1995-96	55.9	15658.50	58445.90
1996-97	1.4	14557.20	80367.50
1997-98	1.0	13394.00	102506.70
1998-99	8.0	12562.20	125412.00
1999-00	4.0	12972.60	152924.00
2000-01	2.0	12711.00	184482.00
2001-02	8.0	14868.00	249118.00
2002-03	3.0	16785.00	341476.00

Source: Economic Survey/Ministry of Finance.

*Gold is valued at Rs.53.58 per 10 grams upto May 1966 and at Rs.84.39 per 10 grams upto september 1990 and closer to international market price w.e.f. October 17, 1990

VII.7 INDIA'S IMPORTS AS A PROPORTION TO OVERALL EXPORTS FROM THE COUNTRY 1970-71 TO 2002-03

(Rs. Crores)

Year	POL Imports		India's Total Exports		Gross POL Imports as % age of total Gross Exports	Net POL Imports as % age of total Net Exports
	Gross	Net	Gross	Net of POL Exports		
1	2	3	4	5	6	7
1970-71	137	132	1535	1530	8.9	8.6
1975-76	1256	1242	4036	4022	31.1	30.9
1980-81	5266	5268	6711	6703	78.5	78.4
1985-86	4961	4316	10895	10250	45.5	42.1
1990-91	10779	9775	32558	31554	33.1	31.0
1991-92	13038	11824	44041	42826	29.6	27.6
1992-93	17046	15439	53688	52062	31.8	29.6
1993-94	17730	16221	69751	68242	25.4	23.8
1994-95	17838	16250	82674	81087	21.6	22.5
1995-96	24095	22263	106353	104521	22.7	21.3
1996-97	34547	32826	118817	104328	29.1	31.5
1997-98	30181	28915	130101	117058	23.2	24.7
1998-99	27193	26887	139753	127783	19.5	22.2
1999-00	74412	73666	159561	158863	34.0	19.2
2000-01	83364	74999	203571	195899	38.3	34.6
2001-02	85715	75630	209018	200733	32.4	28.4
2002-03	88726	78437	252790	241922	33.4	29.1

Source: Ministry of Commerce.

VIII. MANPOWER

VIII.1 MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA

(As on 1st April)

(Number)

CATEGORY	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9	10
1. Exploration & Production	57633	50244	48585	52909	51656	50942	50049	49540	48237
2. Refining	23031	24622	20723	25294	37619	27019	27178	25322	26451
3. Marketing	34270	37321	38744	37943	41806	41110	40852	41865	40561
4. Pipelines	3619	3712	3934	3782	3803	4180	4196	4094	4092
5. R&D	2953	2935	2901	2832	2869	2858	2723	2797	2330
6. Others	14929	20770	21958	15249	13580	13293	9990	9992	8256
Grand Total	**136435**	**139604**	**136845**	**138009**	**151333**	**139402**	**134988**	**133610**	**129927**

VIII.2 CATEGORY-WISE MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA

(Number)

CATEGORY	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9	10
1. Executive/ Managerial	40282	41460	40770	42836	43237	43971	44804	45385	45301
2. Supervisory	9245	8467	12295	12908	12142	12551	11807	13138	12610
3. Clerical	16934	16102	15520	15927	14795	13627	14127	13014	12263
4. Workman	64722	65045	61174	61000	61057	60292	57693	54860	52200
5. TOTAL	**131183**	**131074**	**129759**	**132671**	**131231**	**130441**	**128431**	**126397**	**122374**
6. Expatriates/ Foreign Experts/ on Contract	5252	8530	7086	5338	20102	8961	6557	7213	7553
GRAND TOTAL	**136435**	**139604**	**136845**	**138009**	**151333**	**139402**	**134988**	**133610**	**129927**

VIII.3 CATEGORY-WISE MANPOWER EMPLOYED IN VARIOUS SECTORS OF PETROLEUM INDUSTRY IN INDIA

(Number)

CATEGORY	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9	10
EXPLORATION AND PRODUCTION									
1. Executive/ Managerial	17555	17636	17318	17637	17846	17867	18560	19461	19605
2. Supervisory	4279	3272	4865	6513	6005	5824	5087	6601	6349
3. Clerical	4532	3870	3526	4305	4117	3797	3971	3278	3068
4. Workman	30295	25400	22793	24444	23678	23133	22431	20200	19215
5. TOTAL	**56661**	**50178**	**48502**	**52899**	**51646**	**50621**	**50049**	**49540**	**48237**
6. Expatriates/ Foreign Experts/ on Contract	972	66	83	10	10	321	0	0	0
GRAND TOTAL	**57633**	**50244**	**48585**	**52909**	**51656**	**50942**	**50049**	**49540**	**48237**
PETROLEUM REFINING									
1. Executive/ Managerial	4271	5450	4236	5746	5079	5175	5534	5556	5977
2. Supervisory	1195	642	1719	2269	1922	1928	2740	2589	2586
3. Clerical	2479	2129	2033	2804	2092	1886	2748	2587	2521
4. Workman	11893	12546	11144	12504	13434	13652	13017	12338	12266
5. TOTAL	**19838**	**20767**	**19132**	**23323**	**22527**	**22641**	**24039**	**23070**	**23350**
6. Expatriates/ Foreign Experts/ on Contract	3193	3855	1591	1971	15092	4378	3139	2252	3101
GRAND TOTAL	**23031**	**24622**	**20723**	**25294**	**37619**	**27019**	**27178**	**25322**	**26451**
MARKETING									
1. Executive/ Managerial	8678	8978	9623	9522	10864	10924	11619	11649	11598
2. Supervisory	2314	2482	2721	2524	2584	2605	2188	2274	2320
3. Clerical	5566	5392	5428	5190	5916	5910	5726	5434	5245
4. Workman	17291	17216	17719	17454	18128	18125	18010	17956	17152
5. TOTAL	**33849**	**34068**	**35491**	**34690**	**37492**	**37564**	**37543**	**37313**	**36315**
6. Expatriates/ Foreign Experts/ on Contract	421	3253	3253	3253	4314	3546	3309	4552	4246
GRAND TOTAL	**34270**	**37321**	**38744**	**37943**	**41806**	**41110**	**40852**	**41865**	**40561**

IX. PRICES

IX.1 WHOLESALE PRICE INDICES OF SELECTED PETROLEUM PRODUCTS

(1993-94 =100)

Products	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
LPG	131.4	150.0	162.0	176.1	248.2	266.6	284.0
Petrol	131.1	144.5	148.1	148.1	154.2	158.1	163.4
High Speed Diesel Oil	120.9	145.2	148.7	176.4	228.8	252.3	273.5
Light Diesel Oil	133.7	141.8	143.4	168.2	232.2	243.8	233.0
Kerosene	100.8	101.1	100.9	101.9	270.2	304.0	359.7
Furnace Oil	120.3	118.3	108.6	131.2	203.5	187.5	179.7
Aviation Turbine Fuel	107.1	109.6	109.6	109.9	144.2	152.1	135.7
Lubricating Oil	119.0	123.9	130.0	134.9	142.6	147.6	154.7
Naphtha	119.8	144.8	146.1	191.0	294.7	265.6	256.5
Bitumen	126.6	145.1	145.6	156.7	203.5	214.2	207.6
All commodities	127.2	132.8	140.7	145.3	155.7	161.3	166.8

Source: Office of the Economic Adviser, Ministry of Industry.

IX.2(a)PRICES OF INDIGENOUS CRUDE IN INDIA WITH RATE OF ROYALTY & OIL DEVELOPMENT CESS

(Rs./MT)

	Effective date	BASIC PRICE	ROYALTY	CESS	BASIC RATE	S.TAX ON BASIC RATE	TOTAL
	1	2	3	4	5	6	7
	upto 13.7.75	on import parity basis Rs.713.04/MT					
(A)	**ONSHORE CRUDE (ON LONG RUN SOCIAL MARGINAL COST BASIS ADOPTED)**						
	14.07.75	270.04	-	-	270.04	-	270.04
	08.09.76	245.42	-	60.00	305.42	-	305.42
	16.12.77	203.42	42.00	60.00	305.42	-	305.42
	01.04.81	203.42	61.00	60.00	324.42	-	324.42
(B)	**OFFSHORE CRUDE**						
	16.12.77	331.65	42.00	60.00	433.65	-	433.65
	01.04.81	331.65	61.00	60.00	452.65	-	452.65
(C)	**OFFSHORE & ONSHORE CRUDE***						
	11.07.81	1021.00	61.00	100.00	1182.00	-	1182.00
	15.02.83	1021.00	61.00	300.00	1382.00	-	1382.00
	01.04.84	1021.00	192.00	300.00	1513.00	5.24	1518.24
	01.03.87	1021.00	192.00	600.00	1813.00	17.24	1830.24
	01.04.87	1021.00	314.00	600.00	1935.00	22.12	1957.12
	01.02.89	1021.00	314.00	900.00	2235.00	34.12	2269.12
	01.04.90	1021.00	481.00	900.00	2402.00	40.80	2442.80
	16.09.92	1506.00	481.00	900.00	2887.00	115.48	3002.48
	01.04.93	1796.00	**539.80	900.00	3235.80	129.43	3365.23
	01.04.96	**2094.00	**578.00	900.00	3572.00	142.88	3714.88

*Long run social marginal cost basis given up.

1.4.1998 w.e.f. 1.4.98, price of indigenous crude has been linked to weighted average FOB price of actual import of crude with the floor price of Rs. 1991/MT for the basic price payable to ONGC/OIL exclusive of cess of Rs. 900/MT and royalty as per methodology given below. The price is fixed on monthly basis. Upper ceiling of Rs.5570/MT has also been fixed by the Government w.e.f. January 2000. Royalty for the period April'98-May'99 was payable at the rate of Rs.578/MT.

Jun-99 Effective June 1999, royalty is being paid based on the revised formula. The methodology for arriving at the well head-value is as under: i) Royalty amount may be deducted from the selling price after applying 8% debit on this amount to arrive at the well-head value. ii) Cess for the time being may not be deducted from the selling price to arrive at the well-head value of the crude oil. iii) 20% of well-head value would be considered for working out the royalty subject to an upper ceiling of Rs.850/MT w.e.f. 1.12.99. For the period 1.6.99 to 30.11.99 upper ceiling of royalty was Rs.750/MT.

1.4.2002 As per Govt. notification No.79 dated March 28, 2002 the price of indigenous crude oil of ONGC and OIL will be market determined w.e.f. 1.4.2002.

**Provisional.

Source: Petroleum Planning & Analysis Cell.

IX.2(b) CONSUMER PRICES OF NATURAL GAS

(Excluding Royalty, Taxes and All Statutory Levies)

(Rs./'ooo' cubic metre)

Effective Date	Off-shore (Landfall point) and On-shore	Gas along HBJ Pipelines	For North-Eastern States	Calorific Value Range (K. Cal / SCM)
01.01.1995	1850	2700	1000	9000-9500
01.10.1997	2150	3300	1200	10000
01.01.1998	2411	3561	1315	10000
01.04.1998	2271	3421	1250	10000
01.07.1998	2246	3396	1307	10000
01.10.1998	2222	3372	1200	10000
01.01.1999	2215	3365	1274	10000
01.04.1999	2167	3317	1224	10000
01.07.1999	2499	3649	1499	10000
01.10.1999	2850	4000	1700	10000
01.04.2000	2850	4000	1700	10000
01.04.2001	2850	4000	1700	10000
01.04.2002	2850	4000	1700	10000
01.04.2003	2850	4000	1700	10000

Note:

1. The price of gas was linked to a calorific value range of 9000-9500 K Cal/Standard Cubic Metres(SCM) during 01.01.1992 to 30.09.1997 and w.e.f. 1.10.97, it has been linked to the international price of a basket of LSHS Fuel Oils and net calorific value of 10000 K.Cal. Per 1000 SCM.

2. w.e.f. 01.10.1997 gas price along HBJ pipeline includes Rs.1150 per 1000 SCM towards transportation charges. The transportation charges along HBJ pipeline are being increased by 1% for every 10% increase in CPI and are linked to the calorific value of 8500 K.Cal/SCM.

3. The discount of Rs.400 per 1000 SCM was applicable in case of gas price for North Eastern States upto 30.09.1997 thereafter w.e.f. 01.10.1997 the applicable discount in case of gas price for North Eastern States is Rs.300 per 1000 SCM.

4. Other than HBJ pipeline, GAIL/transporters are permitted to negotiate transportation charges with the consumers.

5. ONGC/OIL/GAIL are permitted to sell gas from marginal / isolated fields to be developed after 1.10.97 at market driven prices.

Source: Petroleum Planning & Analysis Cell.

2251/PNG—13A

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-2003

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
Motor Spirit (Rs./Kl)					
Storage point price	15111.16	14891.16	15111.16	14891.16	14811.16
State surcharge	4.00	605.00	276.00	795.00	442.50
BMC surcharge	0.00	0.00	859.00	0.00	0.00
Siding charge	3.57	0.00	0.00	0.00	51.90
Rly/ocean/freight	91.96	29.87	0.00	0.00	197.79
RPO surcharge	36.00	36.00	36.00	36.00	36.00
RPO charge	4.36	4.36	4.36	4.36	4.36
PAF (01.03.2002)	0.00	0.00	-227.31	-277.07	0.00
Assessable value	**15251.05**	**15566.39**	**16059.21**	**15449.45**	**15543.71**
Excise duty amount	4575.32	4669.92	4817.76	4634.84	4663.11
Sub total	**19826.37**	**20236.31**	**20876.97**	**20084.29**	**20206.82**
Assessable value adjusted	0.00	0.00	0.00	0.00	0.00
FDZ charges	44.00	44.00	44.00	44.00	44.00
Spl. Excise duty	7500.00	7500.00	7500.00	7500.00	7500.00
Sub total	**27370.37**	**27780.31**	**28420.97**	**27628.29**	**27750.82**
Delivery charge beyond FDZ	0.00	13.44	0.00	0.00	0.00
RPO price	**27370.37**	**27793.75**	**28420.97**	**27628.29**	**27750.82**
Sales tax amount	5474.07	5558.75	8526.29	8288.49	5550.16
Surcharge on sales amount	0.00	0.00	1000.00	0.00	0.00
Cess advalorem amount	0.00	1000.00	0.00	0.00	0.00
Dealer commission	639.00	639.00	639.00	639.00	639.00
RSP/Kl	**33483.44**	**34991.50**	**38586.26**	**36555.78**	**33939.98**
RSP/Ltr	33.49	35.00	38.59	36.56	33.94
High Speed Diesel (Rs./Kl)					
Storage point price	15531.58	15531.58	15531.58	15531.58	15131.58
State surcharge	2.00	300.00	137.00	120.00	328.30
BMC surcharge	0.00	0.00	299.00	0.00	0.00
Siding charge	3.88	0.00	0.00	0.00	56.42
Rly/ocean/freight	102.68	21.93	0.00	0.00	221.32
RPO surcharge	21.00	21.00	21.00	21.00	21.00
RPO charge (exciseable)	0.27	0.27	0.27	0.27	0.27
Wagon load adjustment	0.00	0.00	0.00	0.00	17.35
PAF (01.03.2002)	0.00	0.00	0.00	0.00	0.00
Assessable value	**15661.41**	**15874.78**	**15988.85**	**15672.85**	**15776.24**
Excise duty amount	2192.60	2222.47	2238.44	2194.20	2208.67
Sub total	**17854.01**	**18097.25**	**18227.29**	**17867.05**	**17984.91**
Assessable value adjusted	0.00	0.00	0.00	0.00	-17.35
FDZ charges	44.00	44.00	44.00	44.00	44.00
Spl. Excise duty	1500.00	1500.00	1500.00	1500.00	1500.00
Sub total	**19398.01**	**19641.25**	**19771.29**	**19411.05**	**19511.56**
Delivery charge beyond FDZ	0.00	13.44	0.00	0.00	0.00
RPO price	**19398.01**	**19654.69**	**19771.29**	**19411.05**	**19511.56**
Sales tax amount	2327.76	2466.66	6722.24	4852.76	3902.31
Surcharge on sales amount	0.00	0.00	1000.00	0.00	0.00
Cess advalorem amount	0.00	1000.00	0.00	0.00	0.00
Dealer commission	385.00	385.00	385.00	385.00	385.00
RSP/Kl	**22110.77**	**23506.35**	**27878.53**	**24648.81**	**23798.87**
RSP/Ltr	22.11	23.51	27.88	24.65	23.80

Cont'd....

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-2003

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
ATF (Domestic Airlines) Rs./Kl					
Basic price	14570.00	14990.00	14650.00	14860.00	14570.00
Inland differential	570.00	0.00	0.00	0.00	570.00
State surcharge	2.00	1020.00	430.00	1032.00	235.00
Freight	344.45	301.18	100.00	122.19	635.63
Siding charges	0.00	0.00	0.00	0.00	0.00
Marketing cost	800.00	2000.00	800.00	600.00	721.35
MSL cost	168.00	168.00	168.00	168.00	168.00
Assessable value	**16454.45**	**18479.18**	**16148.00**	**16782.19**	**16899.98**
Excise duty	2632.71	2956.67	2583.68	2685.15	2704.00
Posted airfield price per KL	**19087.16**	**21435.85**	**18731.68**	**19467.34**	**19603.98**
(exclusive of sales tax and other levies)					
Superior Kerosene Oil(Rs./Kl)					
Storage point price	6860.00	6860.00	6860.00	6860.00	
State surcharge	0.00	62.00	4.00	113.00	
BMC surcharge	0.00	0.00	62.00	0.00	
Siding charge	3.69	0.00	0.00	0.00	
Rly/ocean/freight	52.51	19.37	0.00	0.00	
Assessable value	**6916.20**	**6941.37**	**6926.00**	**6973.00**	
Excise duty amount	1106.59	1110.62	1108.16	1115.68	
State Govt. Subsidy	0.00	0.00	0.00	-576.00	
Sub total	**8022.79**	**8051.99**	**8034.16**	**7512.68**	
Sales tax amount	320.91	366.37	321.37	300.51	
Surcharge on sales amt	0.00	0.00	32.14	0.00	
Sub total	**8343.70**	**8418.36**	**8387.67**	**7813.19**	
Cess / Toll charges / TOT amount	0.00	0.00	120.51	0.00	
Ex-mi depot price/kl	8343.70	8418.36	8508.18	7813.19	
Wholesale margin	204.00	204.00	204.00	143.00	
Transport charges	284.25	203.30	226.00	52.25	
Leakage and other expenses	0.00	0.00	19.50	0.00	
Resale tax	0.00	0.00	44.79	0.00	
Distributor's profit	0.00	0.00	7.55	0.00	
Wholesale price/Kl	8831.95	8825.66	9010.02	8008.44	
Retailer margin	180.00	176.45	200.00	360.00	
Leakage and other expenses	0.00	92.07	0.00	30.00	
Retailer transportation	0.00	205.18	0.00	0.00	
Resale tax	0.00	0.00	46.05	0.00	
Distributor's profit	0.00	0.00	3.95	0.00	
Retail selling price/Kl	9011.95	9299.36	9260.02	8398.44	
RSP/Ltr	9.01	9.30	9.26	8.40	

Cont'd.....

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-2003

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
Liquefied Petroleum Gas (Domestic) (Rs./14.2 Kg Cyl)					
Basic price	169.43	169.43	169.43	169.43	
State surcharge	0.03	3.86	4.08	7.01	
Freight upto bottling plant	1.42	2.27	0.00	0.00	
Assessable value	**170.88**	**175.56**	**173.51**	**176.44**	
Excise duty @16%	27.34	28.09	27.76	28.23	
Price at bottling plant	**198.22**	**203.65**	**201.27**	**204.67**	
Freight / local delivery charges	10.00	10.00	10.00	10.00	
Octroi /transit tax	0.00	0.00	0.00	0.00	
Price including octroi	**208.22**	**213.65**	**211.27**	**214.67**	
Central sales tax / sales tax	16.66	36.32	16.90	17.17	
Surcharge on sales tax	0.00	0.00	1.69	0.00	
TOT	0.00	0.00	3.17	0.00	
Billable rate	**224.88**	**249.97**	**233.03**	**231.84**	
Price to dealer (14.2kg/cyl)	224.88	249.97	233.03	231.84	
Distributor commission	16.33	16.33	16.33	16.33	
Resale tax	0.00	0.00	1.25	0.00	
RSP for 14.2kg/cyl	241.21	266.30	250.61	248.17	
Furnace Oil (Rs./Kl)					
Ex-storage point price		11040.00	10690.00	11690.00	
State surcharge		105.00	191.60	401.63	
Notional railway freight		160.00	0.00	0.00	
Assessable value		11305.00	10881.60	12091.63	
Excise duty @16%		1808.80	1741.06	1934.66	
Total inclusive of excise duty		13113.80	12622.66	14026.29	
Sales tax		2622.76	1994.38	2244.21	
Additional tax on sales tax		0.00	0.00	112.21	
Total		**15736.56**	**14617.04**	**16382.71**	
Light Diesel Oil (Rs./Kl)					
Ex-storage point price	14610.00	14610.00	14610.00	14610.00	14610.00
Reduction	0.00	0.00	0.00	0.00	-917.87
State surcharge	25.00	370.00	121.28	455.00	5.00
Notional railway freight	268.27	340.00	0.00	0.00	427.88
Siding Dest.	0.00	0.00	0.00	0.00	58.15
Assessable value	**14903.27**	**15320.00**	**14731.28**	**15065.00**	**14183.16**
Excise duty @16%	2384.52	2451.20	2357.00	2410.40	2269.31
Additional levy	1500.00	1500.00	1500.00	1500.00	1500.00
Total inclusive of excise duty	**18787.79**	**19271.20**	**18588.28**	**18975.40**	**17952.47**
Sales tax	2254.54	2418.54	2936.95	4743.85	3590.49
Surcharge on sales tax	0.00	0.00	0.00	0.00	0.00
Total	**21042.33**	**21689.74**	**21525.23**	**23719.25**	**21542.96**

IX.4 TRENDS IN RETAIL SELLING PRICES OF SELECTED PETROLEUM PRODUCTS IN METROPOLITAN TOWNS IN INDIA

Prices as on	Mumbai	Kolkata	Delhi	Chennai	Kanpur
		Motor Spirit (Rs./Litre)			
01.01.1975	3.26	3.27	3.27	3.19	3.35
08.06.1980	5.15	5.14	5.11	4.90	5.22
17.03.1985	7.34	7.16	7.00	7.39	7.16
01.04.1990	10.76	10.07	9.84	11.09	10.31
01.04.1991	13.72	12.53	12.23	13.81	12.73
01.04.1992	16.71	15.48	14.62	17.17	15.19
01.04.1993	17.91	16.59	15.71	18.74	16.35
01.03.1994	19.11	17.70	16.78	19.98	17.45
08.04.1995	19.26	17.68	16.80	19.98	18.12
01.04.1996	19.26	17.67	16.95	19.98	18.12
01.04.1997	24.03	22.05	21.13	24.91	22.40
01.04.1998	25.79	23.54	22.84	26.79	23.76
01.04.1999	28.25	24.56	24.01	27.99	26.06
03.04.2000	28.47	26.33	26.07	27.99	26.08
01.04.2001	31.73	29.03	28.75	30.38	28.94
01.04.2002	30.78	26.99	26.54	28.49	26.80
01.04.2003	38.59	35.00	33.49	36.56	33.94
		High Speed Diesel Oil (Rs./Litre)			
01.01.1975	1.06	1.10	1.11	1.15	1.15
08.06.1980	2.21	2.25	2.28	2.24	2.34
17.03.1985	3.52	3.35	3.47	3.60	3.70
26.03.1985	3.45	3.48	3.39	3.52	3.60
01.04.1990	4.30	4.20	4.08	4.36	4.44
01.04.1991	5.62	5.20	5.05	5.42	5.42
01.04.1992	5.68	5.31	5.05	5.72	5.42
01.04.1993	6.88	6.43	6.17	6.91	6.54
01.03.1994	7.78	7.27	6.98	7.80	7.38
08.04.1995	7.84	7.25	6.99	7.80	7.69
01.04.1996	7.84	7.24	6.99	7.80	7.68
01.04.1997	9.00	8.32	8.02	8.86	8.65
01.04.1998	11.43	10.55	10.25	11.30	10.85
01.04.1999	11.84	10.18	10.03	10.91	10.92
01.04.2000	16.91	14.20	14.56	15.24	15.17
01.04.2001	20.07	16.92	17.06	18.01	18.16
01.04.2002	21.10	16.97	16.60	18.10	17.75
01.04.2003	27.88	23.51	22.11	24.65	23.80



Indian Petroleum & Natural Gas Statistics

2002-03

MINISTRY OF PETROLEUM & NATURAL GAS
ECONOMICS AND STATISTICS DIVISION
GOVERNMENT OF INDIA
NEW DELHI

GOVERNMENT OF INDIA

MINISTRY OF PETROLEUM & NATURAL GAS

FOREWORD

The Ministry of Petroleum & Natural Gas has been publishing its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" containing comprehensive information on the Oil & Gas Sector, beginning from 1967 upto 2001-02. The bulletin provides information both in terms of calendar year and the financial year, to cater to the requirements of the different users. It also includes in brief the chronology of important events of the Indian Oil Sector and the control orders issued during the year.

The present compilation providing data for the year 2002-03, represents the sustained efforts of the Economics & Statistics Division of the Ministry.

We would welcome suggestions to restructure the bulletin or improve it.

(S.C.Tripathi)
Secretary to the Government of India

Shastri Bhawan
New Delhi-110001
July 2004

MINISTRY OF PETROLEUM & NATURAL GAS

ECONOMICS & STATISTICS DIVISION

PREFACE

The Economics & Statistics Division of the Ministry of Petroleum & Natural Gas has conscientiously endeavoured to bring out its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" from 1967. This has been made possible with inputs furnished by various Ministries and Departments of the Government of India, Petroleum Planning & Analysis Cell as well as the oil companies.

Part-I of the compilation deals with the Indian Petroleum Statistics, Part-II with International Petroleum Statistics, Part-III with Plan Statistics (including the draft X Plan figures), Part-IV focusses on financial performance of the oil companies and Part-V pertains to time series data on energy.

We express our deep sense of gratitude to all the data providers to the Ministry and record our appreciation for the efforts put in by the officials of the Economics & Statistics Division viz., Ms. Pushpa Thottan, Joint Advisor, Shri Khursheed Alam, Research Officer, Sr. Investigators Shri D.C.Garg and Dr.P.G.S.Rao, Ms. Kanwaljit Kaur, Jr. Investigator and Mrs. Parvesh Goswami, UDC.

Suggestions for its improvement would be duly appreciated.

A.K.Srivastava

(A.K.Srivastava)
Joint Secretary to the Government of India

Shastri Bhawan
New Delhi-110001
July 2004

X.2 PERCENTAGE SHARE OF CENTRAL EXCISE ON POL TO TOTAL CENTRAL EXCISE AND TO NET NATIONAL PRODUCT

Year	Net National Product at factor cost at current Prices	Central Excise	Central Excise on POL	Central Excise as% of NNP	Central Excise on POL as % of NNP	Central Excise on POL as % of Total Central Excise
	(.....Rs. Crores.....)					
1	2	3	4	5	6	7
1960-61	15204	416	101	2.7	0.7	24.3
1965-66	23752	898	261	3.8	1.1	29.1
1970-71	38968	1759	608	4.5	1.6	34.6
1975-76	69005	3845	1040	5.6	1.5	27.1
1980-81	118236	6500	1216	5.5	1	18.7
1985-86	221401	13006	2718	5.9	1.2	20.9
1990-91	450145	24451	5478	5.4	1.2	22.4
1991-92	514607	28121	5262	5.5	1	18.7
1992-93	587064	30651	5042	5.2	0.9	16.4
1993-94	685912	31872	5310	4.6	0.8	16.7
1994-95	805981	36900	6696	4.6	0.8	18.1
1995-96	941861	40187	7159	4.3	0.8	17.8
1996-97	1093961	45008	9076	4.1	0.8	20.2
1997-98	1224946	47962	10947	3.9	0.9	22.8
1998-99	1415093	53246	13494	3.8	1	25.3
1999-00	1564142	61902	20202	4	1.3	32.6
2000-01	1702454	68526	24663	4	1.4	36
2001-02	1861117	72535	29338	3.9	1.6	40.4
2002-03	1995229	82810	35960	4.2	1.8	43.4

Source : (i) Government of India's Economic Survey for N.N.P.
(ii) Budget papers of Central Government
(iii) National Accounts Statistics.

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X.3 COMPOSITE UNIT INCIDENCE OF EXCISE AND CUSTOM DUTIES ON PETROLEUM PRODUCTS

Year	Consumption of POL Products (Excl. R.B.F.) ('000' MTS)	Central Excise Duty realisation (Rs.Crores)	Customs Duties realisation (Rs.Crores)	Total Central Excise & Custom duties (Rs.Crores)	Composite incidence of Excise & Customs duties (Rs.)
1	2	3	4	5	6
1960-61	7985	101	23	124	155.29
1965-66	11917	281	83	344	288.66
1970-71	17912	608	30	638	356.19
1975-76	22447	1040	115	1155	514.55
1980-81	30896	1604	354	1570	508.20
1985-86	40872	3969	1050	3768	921.90
1990-91	55035	5478	3701	9179	1667.80
1991-92	56974	5262	4075	9337	1638.82
1992-93	58902	5042	5280	10322	1752.40
1993-94	60812	5310	6913	12223	2010.00
1994-95	67513	6996	6209	12906	191.63
1995-96	74637	7159	8453	15612	2091.72
1996-97	79168	9076	12417	21493	2714.86
1997-98	84290	10947	10026	20973	2488.20
1998-99	90562	13494	8019	21513	2375.50
1999-00	97086	20202	12460	32662	3364.23
2000-01	100074	24663	11249	35912	3588.54
2001-02	100432	29338	6767	36105	3594.97
2002-03	104126	35960	9166	45126	4363.29

X.4 ROYALTY AND OIL DEVELOPMENT CESS PAID BY OIL COMPANIES ON PRODUCTION OF CRUDE OIL AND NATURAL GAS DURING 1975-76 TO 2002-03

(Rs. Lakhs)

Year	Royalty Paid on Crude Oil						Royalty Paid on Natural Gas					Oil
	Western Region	Eastern Region	Southern Region	Total Onshore	Bombay High/KG Offshore	Total	Western Region	Eastern Region	Southern Region	B.High/KG Off-shore	Total	Development Cess
1	2	3	4	5	6	7	8	9	10	11	12	13
1975-76	615	645	0	1260	0	1260	43	26	0	0	69	3081
1980-81	1578	531	0	2109	1997	4106	168	36	0	50	253	6040
1985-86	18275	12433	0	30708	12155	42863	242	96	0	1905	2243	86629
1990-91	39424	26074	1291	66789	136037	202826	1283	421	68	12038	18810	278197
1991-92	17723	19385	964	38072	52885	90957	1910	428	216	18859	21418	250077
1992-93	47037	31250	2674	80961	126901	207862	2391	520	720	17229	20860	219198
1993-94	30672	24704	2086	57462	69683	127145	2912	547	862	19585	23906	217538
1994-95	32041	25660	2245	59946	96157	156103	2975	422	854	18154	22405	264559
1995-96	32716	25239	2182	60137	103576	163713	3753	457	956	21952	27118	277735
1996-97	34897	26305	2400	63602	105549	169151	3661	403	1262	22004	27330	266747
1997-98	34210	27951	2531	64692	115390	180082	4839	675	2065	33956	41535	283757
1998-99	33256	27972	3033	64261	106739	171000	4831	982	2301	35667	43781	275385
1999-00	40551	33452	3632	77635	127260	204895	6036	1784	2785	44117	54722	271633
2000-01	46416	39577	5431	91424	135789	227213	5472	1350	3282	50732	60836	272760
2001-02	54229	41574	14529	110332	138261	248593	7383	2932	4354	51215	65884	287845
2002-03	90306	58305	10631	159242	133595	328576	3797	1332	4309	75949	49648	504705

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X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2003

(%)

S. No.	Products	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Goa	Gujarat	Haryana
1	2	3	4	5	6	7	8	9
A. Crude Oil & Gas								
1.	Crude Oil	4	4	4	4	4	4	4
2.	Natural Gas	16		12		8	20	10
B. PETROLEUM PRODUCTS								
3.	MS*							
	MS	30.55	20	20	21.5	19	20	20
4.	HSD*							
	HSD	19.33	12	12	17	17	18	12
5.	ATF Bonded					20	30	
	ATF Duty Paid	30.55		20	25	20	23	20
6.	AV.Spirit Bonded						30	
	AV.Spirit Duty Paid	30.55		20	25	20	9	20
7.	LDO	19.33	12	12	17	17	8	12
8.	Kerosene/IKO (House Hold)					1	8	12
	Kerosene/IKO	8		4	6/5			10
	Kerosene/IKO (Others)					4	8	
9.	Furnace Oil	16		20	8	18	12	10
10.	Lube	16	12	12	16	12	15	10
11.	Greases	16		12	16	20	15	10
12.	LPG (House Hold)					1(PDS)	14	
	LPG	16		12	9			10
	LPG (Others)					8	15	
13.	Naphtha/Pet. Naphtha	12		12	17	18	16	12
14.	Asphalt/Bitumen	12		20		20	12	10
15.	MLO	19.33		20	9	8	12	10
16.	HBF/Brake Fluid Oil	16		12	16	20	12	10
17.	LSHS	16		12	9	18	15	10
18.	M.T.O.	16		20	9	20	12	10
19.	Pet. Coke(Declared Goods)	4	4	4	4	4	4	4
20.	Transformer Oil	16		12	9	8	12	10

*: Greater Mumbai, Navi Mumbai, Thane.

Cont'd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2003

(%)

S. No.	Products	Himachal Pradesh	Karnataka	Kerala	Madhya Pradesh	Maha-rashtra	Manipur
		10	11	12	13	14	15
A.	**Crude Oil & Gas**						
1.	Crude Oil	4	4	4	4		
2.	Natural Gas	8	12	24	8	13	
B.	**PETROLEUM PRODUCTS**						
3.	MS*					30	
	MS	20	28	28	25	29	20
4.	HSD*					34	
	HSD	12	17.5	24	25	31	12
5.	ATF Bonded					30	
	ATF Duty Paid	20	28	34	25	25	20
6.	AV.Spirit Bonded						
	AV.Spirit Duty Paid	20	28	34	25		20
7.	LDO	10	17.5	41	12	13	12
8.	Kerosene/IKO (House Hold)					4	0
	Kerosene/IKO	8		12	2		
	Kerosene/IKO (Others)		15			20	4
9.	Furnace Oil	8	15	30	8	13	20
10.	Lube	8	15	24	12	13	10
11.	Greases	8	15	24	12	13	10
12.	LPG (House Hold)					8	
	LPG	8	12	16	12		8
	LPG (Others)					13	
13.	Naphtha/Pet. Naphtha	12	12	22	12	13	12
14.	Asphalt/Bitumen	8	15	30	8	13	20
15.	MLO	8	15	30	8	13	
16.	HBF/Brake Fluid Oil	8	15	24	8	13	
17.	LSHS	8	15	30	8	13	20
18.	M.T.O.	8	15	30	8	13	20
19.	Pet. Coke(Declared Goods)	4	4	4	4	4	
20.	Transformer Oil	8	15	24	12	13	20

*: Greater Mumbai, Navi Mumbai, Thane.

Cont'd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2003

(%)

S. No.	Products	Delhi	Nagaland	Orissa	Punjab	Rajasthan	Tamil Nadu	Jammu & Kashmir
		16	17	18	19	20	21	22
A.	**Crude Oil & Gas**							
1.	Crude Oil		4		4		4	4
2.	Natural Gas	20	12		8	11.5	8	20
B.	**PETROLEUM PRODUCTS**							
3.	MS*							
	MS	20	24	20	20	23	30	20
4.	HSD*							
	HSD	12	15	20	8	16	25	12
5.	ATF Bonded							
	ATF Duty Paid	20	15	20	20	23	29	20
6.	AV.Spirit Bonded							
	AV.Spirit Duty Paid	20		20	20	23	29	20
7.	LDO	12	15	20	20	16	25	8
8.	Kerosene/IKO (House Hold)	4	5	Nil(PDS)			4	
	Kerosene/IKO				20	8		4
	Kerosene/IKO (Others)	12	15	4			25	
9.	Furnace Oil	20	—	4	8	10	16	20
10.	Lube	12	20	12	8	12	16	20
11.	Greases	12	20	12	8	12	16	20
12.	LPG (House Hold)							
	LPG	8	12	12	8	12	8	12
	LPG (Others)							
13.	Naphtha/Pet. Naphtha	20	12		12	12	16	12
14.	Asphalt/Bitumen	20	12	8	20	12	12	20
15.	MLO	12		12	8	10	16	20
16.	HBF/Brake Fluid Oil	20		12	8	10	12	20
17.	LSHS	20	12	12	20	10	16	20
18.	M.T.O.	20	12	12	8	16	16	20
19.	Pet. Coke(Declared Goods)		4		4	4	4	4
20.	Transformer Oil	8	12	12	6	10	16	20

*: Greater Mumbai, Navi Mumbai, Thane.

Cont'd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2003

(%)

S. No.	Products	Jharkhand	Sikkim	Tripura	Uttar Pradesh	West Bengal	Chandi-garh	Megha-laya
		23	24	25	26	27	28	29
A. Crude Oil & Gas								
1.	Crude Oil		4	4	4	4	4	4
2.	Natural Gas			12	20		8	20
B. PETROLEUM PRODUCTS								
3.	MS*							
	MS	20	20	20	20	20	20	20
4.	HSD*							
	HSD	15	10	12	20	12.55	11	8
5.	ATF Bonded							
	ATF Duty Paid	25		20	20	25	20	20
6.	AV.Spirit Bonded							
	AV.Spirit Duty Paid	25		20	20	20	20	
7.	LDO	15	10	12	20	12.55	8	8
8.	Kerosene/IKO (House Hold)					4.55(PDS)		
	Kerosene/IKO	6	12	5	10		8	4
	Kerosene/IKO (Others)					20		
9.	Furnace Oil	8	20	5	20	20	8	
10.	Lube	16	12	12	10	15	8	8
11.	Greases	16	12	12	20	15	8	8
12.	LPG (House Hold)							
	LPG	9	12	12	10	17	8	8
	LPG (Others)							
13.	Naphtha/Pet. Naphtha	12	12	5		12		
14.	Asphalt/Bitumen	9	8	5	20	10	8	
15.	MLO	9			20	10	8	
16.	HBF/Brake Fluid Oil	16	12	12	10	15	8	
17.	LSHS	9	8	5	20	10	8	
18.	M.T.O.	9	8	5	20	4	8	
19.	Pet. Coke(Declared Goods)		4	4	4	4	4	
20.	Transformer Oil			5	10	10	8	

*: Greater Mumbai, Navi Mumbai, Thane.

X.6 SALES TAX PAYMENTS (INCLUSIVE OF MST AND CST) ON CRUDE OIL CONDENSATES, NATURAL GAS & PETROELUM PRODUCTS MADE BY THE OIL COMPANIES TO STATE/UT GOVERNMENTS

(Rs. In Lakhs)

STATE/UTs	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
1. CRUDE OIL									
Andhra Pradesh	0	0	0	53	86	6	103	4	0
Arunachal Pradesh	41	23	32	29	27	34	614	60	70
Assam	6122	5976	6218	6590	6618	8896	10634	10741	15604
Gujarat	7675	7826	8333	8170	7933	10851	12574	13607	21736
Maharashtra	21312	23441	22814	22486	20311	25765	29321	27925	60303
Nagaland	14	0	0	0	0	0	0	0	0
Tamil Nadu	492	470	453	447	504	718	957	1009	1627
Rajasthan	0	0	0	0	0	0	0	1	1
TOTAL (1)	**35656**	**37736**	**37850**	**37775**	**35479**	**46270**	**54203**	**53347**	**99341**
2. NATURAL GAS									
Andhra Pradesh	1374	1627	2143	5316	5180	6762	8022	9895	11689
Arunachal Pradesh	0	0	0	0	0	0	0	0	0
Assam	580	722	1065	1257	1569	2497	3036	2595	2624
Gujarat	5931	7924	26642	31638	35010	38863	44568	44547	46746
Haryana	0	0	0	350	0	0	0	0	0
M.P	0	0	2565	2426	7436	6180	6972	5824	3388
Maharashtra	8775	4998	6776	7264	11853	9509	10772	7977	7624
Rajasthan	0	8	7	1260	107	148	157	184	153
Tamil Nadu	28	39	101	129	97	286	390	744	1050
Tripura	78	113	127	207	410	629	760	789	790
U.P	0	0	5654	7080	8376	10908	12334	12598	10327
TOTAL (2)	**16766**	**15431**	**45080**	**56927**	**70038**	**75782**	**87011**	**85153**	**84391**
3. POI PRODUCTS									
Andhra Pradesh	61688	73029	88786	110110	109847	158452	194146	151883	249820
Assam	7030	8150	13011	11866	14801	19298	24568	25714	31717
Arunachal Pradesh	0	0	0	2	0	0	190	426	532
Bihar	22818	25181	29497	36503	33775	57416	61684	45278	69118
Chhattisgarh	0	0	0	0	0	0	6763	16673	28668
Gujarat	88738	97801	118159	141668	149204	176193	203068	237604	321224
Haryana	9488	10402	18469	23906	26202	41750	71515	63685	83300
Himachal Pradesh	496	614	806	876	1379	4155	7625	8031	9876
Jammu & Kashmir	1742	2305	2568	3464	4098	7009	11153	9869	14996
Jharkhand	0	0	0	0	0	0	10988	19460	31959
Karnataka	49346	60135	77274	98126	94173	116533	140413	125237	164918
Kerala	45693	56791	70780	83885	89928	86602	134010	103372	149289
Madhya Pradesh	31365	36178	42813	62255	69222	76902	86495	65876	111293
Maharashtra	116384	128425	152663	184845	176887	285395	386015	278283	506197
Manipur	463	464	592	535	523	888	1362	1090	1625
Meghalya	6	110	277	319	515	796	1380	1093	1848
Mizoram	113	134	177	197	126	250	339	499	959
Nagaland	147	155	222	295	182	769	907	1358	1401
Orissa	10003	11802	14974	18456	22283	24359	34861	27587	43654
Punjab	10834	13845	17263	19505	20259	43865	76277	64631	87190
Rajasthan	30236	36759	44588	49755	64911	80114	101883	88392	141074
Tamil Nadu	80939	93275	117578	134604	148699	206292	236552	188827	267751
Tripura	354	391	476	599	636	759	1356	1981	2445
Uttar Pradesh	55540	66992	79487	94489	105988	152489	196708	167481	229656
Uttaranchal	0	0	0	0	0	0	4721	12284	16470
West Bengal	39183	39132	47867	56217	62270	74411	95276	77600	113225
Goa	8023	8187	10137	12256	12338	19026	21944	14999	20092
Sikkim	57	53	80	107	111	281	613	728	982
(b) Union Territories									
Daman & Diu	13	18	29	31	25	38	119	50	67
Chandigarh	130	147	186	171	176	482	1732	2221	1867
Delhi	15248	23407	28964	35828	34697	53797	81164	67760	86496
Dadra & Nagar Haveli	0	0	0	2	1	3	5	5	40
Pondicherry/Mane	105	180	221	228	208	237	412	478	592
Total (3)	**686182**	**794062**	**977944**	**1181100**	**1243464**	**1688561**	**2196244**	**1870455**	**2790341**
Grand Total (1+2+3)	**738604**	**847229**	**1060874**	**1275802**	**1348981**	**1810613**	**2337458**	**2008955**	**2974073**

Source : Compiled on the basis of the receipts from the oil companies

XI. TRANSPORTATION

XI.1 TONNAGE OF INDIAN TANKERS FLEET 1975 TO 2003

(DWT in '000' Tonnes)

Year*	Coastal Oil Tanker						Offshore		Specialised		Overseas								Overseas total		Total all tankers	
	Product Carriers		Crude Oil Carriers		Total Vessels		Supply offshore		vessels for carriers		Ore oil bulk carriers		Crude oil carriers		Product		LPG carriers					
	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT	No. of tankers	DWT
1975	N.A.	N.A.	N.A.	N.A.	9	137.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	31	2420.0	40	2557.6
1980	N.A.	N.A.	N.A.	N.A.	10	158.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	38	3335.3	48	3493.8
1985	N.A.	N.A.	N.A.	N.A.	18	306.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	48	3807.0	66	4113.1
1990	13	185.6	2	82.2	15	267.8	57	69.7	30	70.5	9	990.5	22	2121.2	25	601.9	0	0.0	56	3713.2	158	4121.2
1991	14	186.1	2	82.2	16	268.3	63	75.9	31	70.7	9	990.5	23	2206.4	25	601.5	1	17.0	58	3815.4	168	4230.3
1992	15	217.0	2	82.2	17	299.2	63	75.9	32	70.8	8	889.0	23	2206.4	25	601.4	2	34.7	58	3731.5	170	4177.4
1993	11	144.9	2	82.2	13	227.1	67	84.9	33	61.9	3	312.0	25	2441.0	34	1065.6	2	34.7	64	3853.3	177	4227.2
1994	11	144.9	2	82.2	13	227.1	73	91.9	27	61.2	3	312.0	29	3052.0	31	839.9	2	34.7	65	4238.6	178	4618.8
1995	12	145.5	2	82.2	14	227.7	74	91.9	27	62.8	3	312.0	32	3475.0	31	833.2	2	34.7	68	4654.9	183	5037.3
1996	12	148.0	2	82.2	14	230.2	71	87.0	26	61.9	3	312.0	33	3615.0	34	1001.0	3	52.9	73	4980.9	184	5360.0
1997	11	131.6	2	82.2	13	213.8	71	87.0	27	63.2	3	312.0	31	3212.5	36	1231.9	4	71.0	74	4827.4	185	5191.4
1998	9	129.8	2	82.2	11	212.0	69	80.8	25	56.7	3	312.0	31	3212.5	37	1280.4	5	99.4	76	4904.3	181	5253.8
1999	10	122.2	2	82.2	12	204.4	69	80.8	26	56.7	3	312.0	31	3212.5	40	1451.3	6	138.1	80	5113.9	187	5455.8
2000	11	132.0	2	82.2	13	214.2	68	81.2	27	57.2	3	312.0	35	3709.3	43	1573.3	6	138.1	87	5732.7	195	6085.3
2001**	10	83.2	2	82.2	12	165.4	69	85.4	27	59.2	4	355.1	34	3455.7	45	1656.5	6	138.1	89	5605.4	197	5915.4
2002	12	90.1	2	82.2	14	172.3	70	85.6	28	59.2	3	231.6	34	3474.3	45	1642.3	6	138.1	88	5486.3	200	5803.4
2003	12	61.0	2	82.2	14	143.2	73	95.8	31	53.2	2	169.3	36	3592.1	40	1493.0	7	162.6	85	5417.0	203	5709.2

*: As on 31st December upto 1988 and thereafter 31st March of each year.
**: As on 30th June.
DWT: Dead Weight Tonnage.
N.A.: Not Available
Source: Directorate General of Shipping

XI.2 INDIAN TONNAGE AS ON 31.3.2003

(Tonnes)

	Owner of the ship	Gross Registered Tonnage	Dead Weight Tonnage
	COASTAL TRADE		
	Tankers (Product Carriers)		
1	ASM Shipping Ltd.	3391	6100
2	Associated Maritime Pvt. Ltd.	1090	2052
3	Atlantic Shipping Pvt. Ltd.	2814	3617
4	Essar Shipping Ltd.	4412	6618
5	Foods, Fats & Fertilisers	396	596
6	Hede Ferrominas (P) Ltd.	493	872
7	Jaisu Shipping (P) Ltd.	1873	2808
8	Mercator Lines	11041	14452
9	Reliance Industries Ltd.	14960	23497
10	Viking Lighterage & Cargo Handlers P. Ltd.	306	415
	Total	**40776**	**61027**
	Tankers (Crude Oil Carriers)		
1	The Shipping Corporation of India Ltd.	50080	82246
	Total	**50080**	**82246**
	Offshore Supply Vessels		
1	Admn. of UT of Lakshadweep	738	960
2	Dolphin Offshore	363	272
3	Dredging International India P. Ltd.	92	0
4	Essar Shipping Ltd.	3939	5253
5	GAL Offshore Shipping	640	0
6	Garware Shipping Corporation Ltd.	4335	5300
7	Great Eastern Shipping Co. Ltd.	16399	20797
8	Hede Ferominas (P) Ltd.	628	750
9	Oil and Natural Gas Commission	37065	43659
10	Rajamahendri Shipping & Oil Field Services P.Ltd.	189	125
11	Seaspan Shipping	157	66
12	Jayesh Shipping P.Ltd.	69	0
13	Shipping Corporation of India Ltd.	13100	17912
14	VNS Offshore Service Co.	487	737
	Total	**78201**	**95831**
	Specialised Vessels for Offshore Services		
1	Elcome Surveys	392	469
2	Essar Shipping Ltd.	4485	2970
3	Jaisu Shipping Co.(P) Ltd.	99	99
4	Jayesh Shipping Pvt. Ltd.	491	407
5	Oil and Natural Gas Commission	53804	32141
6	Raj Shipping	715	915
7	Samson Maritime	1493	1810
8	South East Asia Marine Engg. & Construction Ltd.	11211	6135
9	South India Corpn. (Agencies) Ltd.	490	826
10	The Council of Scientific & Industrial Research	2661	800
11	The Department of Ocean Development	4582	1605
12	The Director General of Lighthouses & Lightships	5823	3083
13	The Geological Survey of India	2942	2005
	Total	**89188**	**53265**

Cont'd....

XI.2 INDIAN TONNAGE AS ON 31.3.2003

(Tonnes)

	Owner of the ship	Gross Registered Tonnage	Dead Weight Tonnage
	OVERSEAS		
	Ore Oil Bulk Carriers		
1	The Shipping Corporation of India Ltd.	94955	169257
	Total	**94955**	**169257**
	Oil Tankers (Crude Carriers)		
1	Essar Shipping Ltd.	480010	919080
2	Great Eastern Shipping Co.Ltd.	137084	250390
3	India Steamship Co.Ltd.	40614	60300
4	Seven Islands Shipping	3794	6009
5	The Shipping Corporation of India Ltd.	1293627	2356308
	Total	**1955129**	**3592087**
	Oil Tankers (Product Carriers)		
1	ASM Shipping	18101	30990
2	Century Shipping	16899	29990
3	Essar Shipping Ltd.	24654	39204
4	Great Eastern Shipping Co.Ltd.	359909	606743
5	Mercator Lines	49353	84810
6	Pratibha Shipping Ltd.	16949	29810
7	Sanmar Shipping Corpn.	85898	149732
8	Shipping Corpn. Of India Ltd.	258424	417209
9	Varun Shipping Co. Ltd.	63489	104555
	Total	**893676**	**1493043**
	LPG Carriers		
1	Great Eastern Shipping Co. Ltd.	21308	28400
2	Shipping Corpn. Of India Ltd.	35556	35202
3	Varun Shipping Co.Ltd.	77583	98990
	Total	**134447**	**162592**

Source: Directorate General of Shipping, Mumbai.

XI.3 SHARE OF TRAFFIC OF PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS

Name of the port	Year	Total traffic	POL traffic	POL as %age of total traffic at the port
1	2	3	4	5
Kolkata/Haldia	1969-70	6.89	1.53	22.2
	1979-80	8.56	4.58	53.5
	1989-90	14.45	6.44	44.6
	1995-96	21.52	10.74	49.9
	1996-97	23.12	10.98	47.5
	1997-98	28.16	14.34	50.9
	1998-99	29.38	15.75	53.6
	1999-00	31.03	16.47	53.1
	2000-01	30.00	14.24	47.5
	2001-02	30.40	14.00	46.0
	2002-03	35.75	16.46	46.0
Mumbai	1969-70	15.04	8.60	57.2
	1979-80	16.57	7.84	47.3
	1989-90	28.55	18.58	65.1
	1995-96	34.05	20.15	59.2
	1996-97	33.73	18.71	55.5
	1997-98	32.10	16.73	52.1
	1998-99	30.97	16.78	54.2
	1999-00	30.41	16.79	55.2
	2000-01	27.06	15.64	57.8
	2001-02	26.43	15.71	59.4
	2002-03	26.77	16.03	59.9
Chennai	1969-70	6.44	2.24	34.8
	1979-80	9.99	3.73	37.3
	1989-90	23.94	9.72	40.6
	1995-96	30.72	11.57	37.7
	1996-97	31.85	12.45	39.1
	1997-98	35.53	11.59	32.6
	1998-99	35.20	10.57	30.0
	1999-00	37.44	10.05	26.8
	2000-01	41.22	8.90	21.6
	2001-02	36.12	8.37	23.2
	2002-03	33.69	8.92	26.5
Kochi	1969-70	4.79	3.56	74.3
	1979-80	5.47	3.87	70.7
	1989-90	7.13	5.59	78.4
	1995-96	11.50	9.36	81.4
	1996-97	11.74	9.23	78.6
	1997-98	12.17	9.77	80.3
	1998-99	12.68	9.45	74.5
	1999-00	12.80	9.95	77.7
	2000-01	13.12	9.67	73.7
	2001-02	12.06	8.59	71.2
	2002-03	13.00	9.37	72.1

Cont'd....

XI.3 SHARE OF TRAFFIC OF PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS

Name of the port	Year	Total traffic	POL traffic	POL as %age of total traffic at the port
1	2	3	4	5
Kandla	1969-70	2.11	0.98	46.4
	1979-80	7.27	5.45	75.0
	1989-90	18.93	14.36	75.9
	1995-96	30.34	22.34	73.6
	1996-97	33.73	25.06	74.3
	1997-98	38.90	29.02	74.6
	1998-99	40.64	30.47	75.0
	1999-00	46.30	34.61	74.8
	2000-01	36.74	25.09	68.3
	2001-02	37.73	22.71	60.2
	2002-03	40.63	23.01	56.6
Visakhapatnam	1969-70	8.30	1.94	23.4
	1979-80	10.23	1.94	19.0
	1989-90	21.12	6.83	32.3
	1995-96	32.82	12.54	38.2
	1996-97	34.50	13.38	38.8
	1997-98	36.01	12.12	33.7
	1998-99	35.65	12.80	35.9
	1999-00	39.51	15.29	38.7
	2000-01	44.69	18.34	41.0
	2001-02	44.34	18.58	41.9
	2002-03	46.01	16.91	36.8
Mormugao	1969-70	9.03	0.15	1.7
	1979-80	14.80	0.73	4.9
	1989-90	14.17	1.04	7.3
	1995-96	18.10	1.91	10.6
	1996-97	17.31	1.23	7.1
	1997-98	21.18	1.13	5.3
	1998-99	18.20	1.05	5.8
	1999-00	18.23	1.14	6.3
	2000-01	19.63	1.09	5.6
	2001-02	22.93	1.15	5.0
	2002-03	23.65	1.13	4.8
J.N.P.T.	1989-90	0.70	0.00	0.0
	1995-96	6.87	0.00	0.0
	1996-97	8.07	0.00	0.0
	1997-98	8.90	0.68	7.6
	1998-99	11.72	1.17	10.0
	1999-00	14.98	1.41	9.4
	2000-01	18.58	1.81	9.7
	2001-02	22.52	1.75	7.8
	2002-03	26.84	1.89	7.0

Cont'd....

XI.3 SHARE OF TRAFFIC OF PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS

Name of the port	Year	Total traffic	POL traffic	POL as %age of total traffic at the port
1	2	3	4	5
Paradip	1969-70	1.75	0.00	0.0
	1979-80	2.31	0.00	0.0
	1989-90	6.18	0.00	0.0
	1995-96	11.26	1.07	9.5
	1996-97	11.58	1.69	14.6
	1997-98	13.30	1.74	13.1
	1998-99	13.11	2.01	15.3
	1999-00	13.64	2.22	16.3
	2000-01	19.90	2.20	11.1
	2001-02	21.13	1.99	9.4
	2002-03	23.90	1.92	8.0
Port of Tuticorin	1977-78	0.63	0.35	55.6
	1979-80	2.41	0.44	18.3
	1989-90	5.32	0.48	9.0
	1995-96	9.29	0.44	4.7
	1996-97	9.17	0.43	4.7
	1997-98	9.97	0.42	4.2
	1998-99	10.15	0.39	3.8
	1999-00	9.99	0.46	4.6
	2000-01	12.28	0.46	3.7
	2001-02	13.02	0.43	3.3
	2002-03	13.29	0.49	3.7
New Mangalore	1977-78	0.38	0.20	52.6
	1979-80	0.90	0.21	23.3
	1989-90	7.66	0.58	7.6
	1995-96	8.88	0.96	10.8
	1996-97	12.45	4.92	39.5
	1997-98	15.28	6.51	42.6
	1998-99	14.21	6.46	45.5
	1999-00	17.60	8.32	47.3
	2000-01	17.89	10.92	61.0
	2001-02	17.50	9.90	56.6
	2002-03	21.43	13.45	62.8
Ennore	2001-02	3.40	0.00	0.0
	2002-03	8.49	0.00	0.0
GRAND TOTAL	1969-70	54.35	19.02	35.0
	1979-80	78.49	28.78	36.7
	1989-90	148.14	63.60	42.9
	1995-96	215.34	91.07	42.3
	1996-97	227.26	98.08	43.2
	1997-98	251.51	104.04	41.4
	1998-99	251.73	106.88	42.5
	1999-00	271.92	116.71	42.9
	2000-01	281.10	108.35	38.5
	2001-02	287.58	103.18	35.9
	2002-03	313.45	109.58	35.0

Source : Ministry of Shipping.

XI.4 MOVEMENT OF POL TRAFFIC ON RAILWAYS SINCE 1970-71

Year	Tonnes Originating ('000' Tonnes)	Earnings ('000' Rs.)	Average Lead (Kms)	Earnings (Paise/ Tonnes/ Kms)	Average Freight Col 3 Divided Col 2 (Rs/Tonnes)
1	2	3	4	5	6
1970-71	8857	464081	594	8.8	52.40
1975-76	11663	860925	605	12.2	73.82
1980-81	14954	1835693	780	15.7	122.76
1985-86	18635	4705145	588	42.9	252.49
1990-91	24988	9617393	605	63.6	384.88
1991-92	25555	10264888	606	66.3	401.68
1992-93	26412	11733798	603	73.7	444.26
1993-94	25950	14596035	638	88.2	562.47
1994-95	27724	18009092	655	99.2	649.58
1995-96	28909	19993460	667	103.7	691.60
1996-97	28516	20310003	652	109.2	712.23
1997-98	30727	25212161	640	128.2	820.52
1998-99	32993	25740998	616	126.7	780.20
1999-00	34260	24733162	544	132.7	721.93
2000-01	36180	26632553	549	134.1	736.11
2001-02	35615	27456426	555	138.9	770.92
2002-03	34051	27546070	564	143.4	808.97

XI.5 RAIL FREIGHT RATES IN RESPECT OF PETROLEUM PRODUCTS

(Rs./Tonne)

Effective Dates	Distance in Kilometres							
	100	300	500	800	1000	1500	2000	2500
1	2	3	4	5	6	7	8	9
				DANGEROUS (POL PRODUCTS)				
15.04.1985	78.0	175.2	267.0	433.3	526.4	721.1	876.2	1011.5
01.04.1990	106.1	256.1	411.2	567.2	805.3	1151.4	1414.1	1617.4
01.10.1990	109.1	263.2	422.7	675.7	827.9	1183.7	1453.8	1662.8
16.08.1991	120.0	289.5	465.0	743.3	910.7	1301.1	1599.2	1829.1
01.04.1992	129.0	311.2	499.9	799.0	979.0	1399.8	1719.1	1966.3
01.04.1993	141.9	342.3	549.4	894.9	1096.5	1567.8	1925.4	2202.3
01.04.1994	141.9	347.0	579.4	929.3	1163.4	1684.4	2090.2	2390.8
01.04.1995	151.8	371.3	620.0	994.4	1244.8	1802.3	2236.5	2558.2
01.08.1996	167.0	408.4	682.0	1093.8	1369.3	1982.5	2460.2	2814.0
01.04.1997	187.0	457.4	763.8	1225.1	1533.6	2220.4	2755.4	3151.7
01.04.1999	194.5	475.7	794.5	1274.1	1594.9	2309.2	2865.6	3277.8
01.04.2000	216.4	531.4	887.7	1425.2	1785.2	2584.7	3207.8	3669.2
01.04.2001	222.9	547.3	914.3	1468.0	1838.8	2662.2	3304.0	3779.3
01.04.2002	250.2	580.2	910.2	1405.2	1735.2	2560.2	3175.2	3625.2
01.04.2003	200.2	464.2	728.2	1124.2	1388.2	2048.2	2540.2	2900.2
				NON-DANGEROUS (POL PRODUCTS)				
15.04.1985	63.9	141.7	215.1	348.3	422.7	578.5	702.6	810.8
01.04.1990	93.3	223.3	357.9	571.3	699.5	999.6	1227.1	1403.4
01.10.1990	95.9	229.6	368.0	587.3	719.1	1027.6	1261.5	1442.8
16.08.1991	105.5	252.6	404.8	646.0	791.0	1130.4	1387.7	1587.1
01.04.1992	109.5	261.7	409.0	668.4	818.2	1169.2	1435.1	1641.2
01.04.1993	133.4	320.4	514.6	836.4	1024.1	1464.2	1798.2	2056.5
01.04.1994	133.4	324.8	542.1	868.5	1086.6	1573.2	1952.1	2232.5
01.04.1995	142.7	347.5	580.0	929.3	1162.7	1683.3	2088.7	2388.8
01.08.1996	157.0	382.3	638.0	1022.2	1279.0	1851.6	2227.6	2827.7
01.04.1997	175.8	428.2	714.6	1144.9	1432.5	2073.8	2573.3	2943.0
01.04.1999	182.8	445.3	714.3	1190.7	1489.8	2156.8	2676.2	3060.7
01.04.2000	186.5	454.2	758.1	1214.5	1519.6	2199.9	2729.7	3121.9
01.04.2001	192.1	467.8	780.8	1250.9	1565.2	2265.9	2811.6	3215.6
01.04.2002	216.8	502.8	788.8	1217.8	1503.8	2218.8	2751.8	3141.8
01.04.2003	200.2	464.2	728.2	1124.2	1388.2	2048.2	2540.2	2900.2

NOTE : Dangerous POL - include Motor Spirit, Benzene, and other dangerous mineral oils.
Non-Dangerous POL includes HSDO, LDO and other Petroleum & Hydrocarbon oil (Except Kerosene Oil)

SOURCE : Railway Board

XI.6 CRUDE OIL, NATURAL GAS & PRODUCT PIPELINES IN INDIA

Type of pipeline / Owner	Length (in Kms.) as on 1st April								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
CRUDE PIPELINES (ONSHORE)									
ONGC	763	791	810	843	888	966	975	1181	1708
OIL	1517	1524	1524	1524	1538	1538	1538	1538	1538
IOC	1230	1230	1230	1689	2210	2373	2373	2352	2791
HPCL		11	11	11	11	11	11	11	11
SUB TOTAL	**3510**	**3556**	**3575**	**4067**	**4647**	**4888**	**4897**	**5082**	**6048**
CRUDE PIPELINES (OFFSHORE)									
ONGC	525	667	667	667	667	667	731	731	798
IOC	6	6	6	14	14	14	14	33	33
SUB TOTAL	**531**	**673**	**673**	**681**	**681**	**681**	**745**	**764**	**831**
GAS PIPELINES (ONSHORE)									
ONGC	371	630	644	654	679	685	687	759	929
GAIL	3038	3116	3829	3938	4017	4077	4205	4476	4591
OIL	90	90	90	90	90	90	213	213	213
BPCL	2	2	2	2	2	2	2	2	2
SUB TOTAL	**3501**	**3838**	**4565**	**4684**	**4788**	**4854**	**5107**	**5450**	**5735**
GAS PIPELINES (OFFSHORE)									
ONGC	622	638	638	638	638	638	660	660	671
SUB TOTAL	**622**	**638**	**638**	**638**	**638**	**638**	**660**	**660**	**671**
PRODUCT PIPELINES (ONSHORE)									
IOC(AOD)	108	69	69	69	69	69	75	75	75
IOC	2527	3981	3981	3981	3981	3981	4136	4142	4346
BPCL	74	74	77	398	415	482	553	576	613
HPCL		191	191	563	563	585	585	808	812
ONGC		8	8	8	8	8	14	14	14
RPL						113	113	113	113
GAIL							1233	1233	1233
SUB TOTAL	**2709**	**4323**	**4326**	**5019**	**5036**	**5238**	**6709**	**6961**	**7206**
PRODUCT PIPELINES (OFFSHORE)									
BPCL	3	3	3	3	3	3	3	3	3
ONGC	48	48	48	48	48	48	48	48	48
SUB TOTAL	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**
GRAND TOTAL	**10924**	**13079**	**13828**	**15140**	**15841**	**16350**	**18169**	**18968**	**20542**

XII. MARKETING NETWORK

XII.1 Retail Outlets in India as on 1st January of each year

(Numbers)

Year	Retail Outlets	B/Shell BPCL	ESSO/ HPCL	CALTEX/ HPCL (VMU)	IOC	AOC/ AOD	IBP	TOTAL
1	2	3	4	5	6	7	8	9
1970	Nos.	3577	1922	1392	2655	129	233	9908
	%	36.1	19.4	14.0	26.8	1.3	2.4	100.0
1975	Nos.	3173	1867	1206	3546	163	525	10480
	%	30.3	17.8	11.5	33.8	1.6	5	100.0
1980	Nos.	3296	3198		4231	173	975	22873
	%	27.8	26.9		35.6	1.5	8.2	100
1985	Nos.	3442	3451@		4707	202	1062	12864
	%	26.7	26.8		36.6	1.6	8.3	100
1990	Nos.	3847	3829		5452	268	1228	14264
	%	26.3	26.2		37.3	1.8	8.4	100
1991	Nos.	3907	3910		5542	276	1258	14893
	%	26.2	26.3		37.2	1.9	8.4	100
1992	Nos.	3976	3946		5602	281	1287	15092
	%	26.3	26.2		37.1	1.9	8.5	100
1993	Nos.	4016	3968		5605	283	1294	15166
	%	26.5	26.2		37	1.8	8.5	100
1994	Nos.	4045	4009		5637	283	1315	15289
	%	26.5	26.2		36.9	1.8	8.6	100
1995	Nos.	4146	4094		5889	283	1364	15776
	%	26.3	26		37.3	1.8	8.6	100
1996	Nos.	4240	4199		6140	291	1403	16273
	%	26.1	25.8		37.7	1.8	8.6	100
1997	Nos.	4332	4279		6375	303	1426	16715
	%	25.9	25.6		38.1	1.8	8.5	100.0
1998	Nos.	4383	4315		6444	311	1440	16893
	%	25.9	25.5		38.1	1.8	8.5	100.0
1999	Nos.	4410	4345		6532	311	1442	17040
	%	25.9	25.5		38.3	1.8	8.5	100.0
2000	Nos.	4449	4480		6770	312	1461	17472
	%	25.5	25.6		38.7	1.8	8.4	100.0
2001	Nos.	4555	4536		7134	315	1475	18015
	%	25.3	25.2		39.6	1.7	8.2	100.0
2002	Nos.	4610	4642		7433	318	1551	18554
	%	24.8	25.0		40.1	1.7	8.4	100.0
2003	Nos.	4772	4799		7635	323	1808	19337
	%	24.7	24.8		39.5	1.7	9.3	100.0

Note : 1. % = Percentage.
2. @ = Includes HPCL (VMU) retail outlets.
3. The data excludes consumers outlets.
4. Source: PSUs.

XII.2 STATE-WISE NUMBER OF RETAIL OUTLETS, MPDC's, LDO/SKO DEALERS AND LPG DISTRIBUTORS AS ON 1.4.2003

(Numbers)

State/UT	Retail Outlets	MPDC's	LDO/SKO Dealers	LPG Distributors
STATES				
Andhra Pradesh	1614	18	605	711
Arunachal Pradesh	34	2	32	28
Assam	369	1	357	212
Bihar	841	9	354	231
Chhattisgarh	247	0	105	94
Delhi	354	0	116	307
Goa	73	1	20	48
Gujarat	1223	12	494	508
Haryana	744	16	148	256
Himachal Pradesh	125	1	26	97
Jammu & Kashmir	159	1	47	138
Jharkhand	416	0	82	106
Karnataka	1158	4	324	455
Kerala	857	1	242	318
Madhya Pradesh	902	18	266	420
Maharashtra	1830	16	761	908
Manipur	31	3	35	26
Meghalaya	60	0	35	30
Mizoram	14	1	19	23
Nagaland	32	1	19	22
Orissa	426	7	179	150
Punjab	1202	14	242	400
Rajasthan	1265	28	252	392
Sikkim	15	0	12	3
Tamil Nadu	1714	0	464	510
Tripura	33	1	40	26
Uttar Pradesh	2573	64	674	914
Uttaranchal	218	0	68	126
West Bengal	1183	12	467	402
UNION TERRITORIES				
Andaman & Nicobar	5	0	1	2
Chandigarh	40	0	12	30
Dadra & Nagar Haveli	5	0	2	1
Daman & Diu	6	0	5	2
Lakshadweep	0	0	0	2
Pondicherry	41	0	8	12
Bhutan	21	0	2	0
GRAND TOTAL	**19830**	**231**	**6515**	**7910**

Source: Public Sector Undertakings.

XII.3 STATE-WISE AND COMPANY-WISE RETAIL OUTLETS AS ON 1.4.2003

(Number)

State / UT	IOCL	IBP	HPCL	BPCL	AOD	TOTAL
1	2	3	4	5	6	7
STATES						
Andhra Pradesh	574	210	439	391	0	1614
Arunachal Pradesh	15	0	0	0	19	34
Assam	121	12	38	5	193	369
Bihar	346	124	161	208	2	841
Chhattisgarh	96	12	72	67	0	247
Delhi	135	42	85	92	0	354
Goa	12	3	26	32	0	73
Gujarat	472	187	264	300	0	1223
Haryana	300	149	151	139	5	744
Himachal Pradesh	60	4	32	29	0	125
Jammu & Kashmir	82	4	34	39	0	159
Jharkhand	159	29	119	109	0	416
Karnataka	464	85	305	304	0	1158
Kerala	286	82	265	224	0	857
Madhya Pradesh	407	60	205	230	0	902
Maharashtra	585	128	552	565	0	1830
Manipur	13	0	0	0	18	31
Meghalaya	22	4	5	2	27	60
Mizoram	5	0	0	0	9	14
Nagaland	12	0	0	0	20	32
Orissa	175	15	102	132	2	426
Punjab	488	225	242	247	0	1202
Rajasthan	529	74	366	295	1	1265
Sikkim	8	2	2	3	0	15
Tamil Nadu	643	102	487	482	0	1714
Tripura	8	0	0	0	25	33
Uttar Pradesh	1111	366	522	574	0	2573
Uttaranchal	87	23	55	53	0	218
West Bengal	444	129	308	300	2	1183
UNION TERRITORIES						
Andaman & Nicobar	5	0	0	0	0	5
Chandigarh	15	4	11	10	0	40
Dadra & Nagar Haveli	2	0	2	1	0	5
Daman & Diu	3	0	0	3	0	6
Lakshadweep	0	0	0	0	0	0
Pondicherry	16	4	13	8	0	41
Bhutan	11	0	0	10	0	21
Grand Total	**7711**	**2079**	**4863**	**4854**	**323**	**19830**

Source: Public Sector Undertakings.

XII.4 STATE-WISE NUMBER OF LPG DOMESTIC CONSUMERS AS ON 1.4.2003

('000' Number)

State / UT	IOCL	IBP	HPCL	BPCL	AOD	TOTAL
1	2	3	4	5	6	7
STATES						
Andhra Pradesh	2622	15	3387	1481	0	7504
Arunachal Pradesh	20	0	0	0	68	88
Assam	541	0	5	4	697	1247
Bihar	1170	0	173	221	0	1564
Chhattisgarh	303	0	220	100	0	623
Delhi	2235	0	439	770	0	3443
Goa	3	0	202	119	0	325
Gujarat	2439	9	855	812	0	4115
Haryana	1159	40	365	752	0	2315
Himachal Pradesh	784	0	108	37	0	929
Jammu & Kashmir	283	0	609	103	0	995
Jharkhand	519	0	90	65	0	674
Karnataka	1446	0	1402	841	0	3688
Kerala	2013	0	499	1002	0	3514
Madhya Pradesh	1511	0	781	517	0	2809
Maharashtra	867	9	4154	4332	0	9362
Manipur	41	0	0	0	122	163
Meghalaya	35	0	0	0	37	72
Mizoram	55	0	0	0	86	141
Nagaland	33	0	0	0	57	90
Orissa	346	0	446	142	0	934
Punjab	1840	59	619	781	0	3299
Rajasthan	1231	0	740	808	0	2779
Sikkim	69	0	0	0	0	69
Tamil Nadu	4071	75	799	1647	0	6592
Tripura	69	0	0	0	96	164
Uttar Pradesh	4405	34	888	1750	0	7077
Uttaranchal	1004	1	22	128	0	1154
West Bengal	2368	22	739	410	9	3547
UNION TERRITORIES						
Andaman & Nicobar	32	0	0	0	0	32
Chandigarh	177	0	61	41	0	279
Dadra & Nagar Haveli	0	0	20	0	0	20
Daman & Diu	0	0	22	0	0	22
Lakshadweep	3	0	0	0	0	3
Pondicherry	75	0	74	25	0	173
GRAND TOTAL	**33766**	**263**	**17717**	**16887**	**1173**	**69805**

Source: Public Sector Undertakings.

XII.5 CNG ACTIVITIES IN INDIA AS ON 1.4.2003

Item	Delhi	Maharashtra	Gujarat				Grand
	Delhi	Maharashtra	Vadodara	Surat	Ankleshwar	Total	Total
	IGL	MGL	GAIL	GGCL	GGCL		
1	2	3	4	5	6	7	8
Station Type							
Mother	47	3	1	1	0	2	52
Online	20	28	0	1	0	1	49
Daughter Booster	29	15	0	0	0	0	44
Daughter	11	0	1	0	1	2	13
Total	**107**	**46**	**2**	**2**	**1**	**5**	**158**
No. of Vehicles							
Cars	9455	45000	450	771	117	1338	55793
Autos	49810	25000	0	459	0	459	75269
RTVs	4934	0	0	0	0	0	4934
Buses	8874	46	0	0	0	0	8920
Total	**73073**	**70046**	**450**	**1230**	**117**	**1797**	**144916**
Price (Rs./Kg)	16.83	19.71	18.20	18.66	18.66		
Average Consumption							
TPD	675.00	242.2	0.65	2.27	0.2		
MMSCMD	0.88	0.34	0.0008	0.0028	0.00025		

MMSCMD: Million Standard Cubic Metres Per Day TPD : Tonnes per day

NOTE: 1 Kg of CNG = 1.304 SCM of Gas = 1.387 litres of petrol on energy equivalent basis

Source:

1. GAIL : Gas Authority of India Ltd.
2. IGL : Indraprastha Gas Ltd.
3. MGL : Mahanagar Gas Ltd.
4. GGCL : Gujarat Gas Company Ltd.

XII.6 SUPPLY PLAN OF GREEN FUELS IN INDIA

SPECIFICATION	Metros		Taj Trapezium		State/UT capitals and major cities		All India	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
Motor Spirit								
Low Lead (0.15 gm./ltr.)	Dec, 1996	June 1994	-	Sep, 1995	-	-	Dec, 1996	Dec, 1996
Unleaded (0.013 gm./ltr.)	Dec, 1997 in Delhi & Mumbai	In all Metros & Radial routes: April 1995	-	April 1995	Dec, 1998	June 1998		1.2.2000
Ultra Low Sulphur (0.05%)		**NCR** w.e.f. 1.4.2000 **Kolkata** w.e.f. 1.10.2000 **Chennai** w.e.f. 1.7.2001						
MS with max. 3% Benzene		April, 2000						
Ultra Low Sulphur (0.05%) with 1% Benzene max.		**NCT** w.e.f. 1.11.2000 **Mumbai** w.e.f. 1.1.2001 **NCR** w.e.f. 31.3.2001						
High Speed Diesel								
Low Sulphur (0.5%)	April, 1996	April, 1996	April, 1996	April, 1996	-	-	-	-
Extra Low Sulphur (0.25%)	April, 1999	Inner Delhi: Aug, 1997 Other Metros and whole Delhi: Apr, 1998	Sep, 1996	Sep, 1996	-	-	1.1.2000	1.1.2000
Ultra Low Sulphur (0.05%)		**NCR** w.e.f. 1.4.2000 for non-comml. vehicle conforming to EURO-II norms **Mumbai** w.e.f. 1.1.2001 **NCT** for all types of vehicles w.e.f. 1.3.2001 **NCR** for all types of vehicles w.e.f. 30.6.2001 **Kolkata** w.e.f. 1.7.2001 **Chennai** w.e.f. 1.7.2001						

XIII. ENERGY

XIII.1 GROSS PRODUCTION OF ENERGY BY VARIOUS SOURCES IN INDIA

YEAR	'Coal & Lignite			Hydro-Carbon			Power			
	(Million Tonnes)			Natural gas	Crude Petroleum		Thermal	Hydel Petroleum	Nuclear Products@	**Total**
	Coal	Lignite	Total	(MM3)	('000' Tonnes)			(Million Kwh)		
1	2	3	4	5	6	7	8	9	10	11
1960-61	55.67	0.05	**55.72**	N.A.	448	6077	9100	7837	N.A.	**16937**
1965-66	67.73	2.57	**70.30**	507	3473	10081	19641	16734	N.A.	**36376**
1970-71	72.95	3.39	**76.34**	1445	6822	28162	28162	25248	2417	**55827**
1975-76	99.63	3.03	**102.66**	2368	8448	22055	43303	33302	2626	**79231**
1976-77	100.99	4.02	**105.01**	2428	8898	22732	50245	34836	3252	**88333**
1977-78	100.98	3.58	**104.56**	2839	10763	24670	52495	37961	1740	**92196**
1978-79	101.95	3.30	**105.25**	2811	11633	25671	53420	47138	2770	**103328**
1979-80	103.94	2.90	**106.84**	2767	11766	27228	57155	45494	2876	**105525**
1980-81	113.91	5.11	**119.02**	2358	10507	25346	61301	46542	3001	**110844**
1981-82	124.23	6.31	**130.54**	3851	16194	29717	69392	49597	3021	**122010**
1982-83	130.50	6.93	**137.43**	4936	21063	32761	79880	48309	2022	**130211**
1983-84	138.22	7.30	**145.52**	5961	26020	34793	86535	49867	3494	**139896**
1984-85	147.41	7.80	**155.21**	7241	28990	35546	98770	53785	4078	**156633**
1985-86	154.20	8.05	**162.25**	8134	30168	42735	114119	50933	4985	**170037**
1986-87	165.77	9.43	**175.20**	9853	30480	45867	128820	53760	5020	**187600**
1987-88	179.72	11.16	**190.88**	11467	30357	47808	149464	47396	5034	**201894**
1988-89	194.60	12.40	**207.00**	13217	32040	49215	157510	57793	5822	**221125**
1989-90	200.89	12.64	**213.53**	16988	34087	52143	178522	61996	4623	**245141**
1990-91	211.73	14.11	**225.84**	17998	33021	52201	186452	71535	6244	**264231**
1991-92	229.28	15.97	**245.25**	18645	30346	52213	208551	72599	5561	**286711**
1992-93	238.26	16.62	**254.88**	18060	26950	54435	224485	69833	6748	**301066**
1993-94	246.04	16.90	**262.94**	18335	27026	55305	247618	70311	5394	**323323**
1994-95	253.80	17.20	**271.00**	19388	32239	57400	262900	82500	5600	**351000**
1995-96	270.13	22.14	**292.27**	22308	35170	58320	299600	72500	8000	**380100**
1996-97	285.66	22.54	**308.20**	23255	32901	62500	316870	68610	9010	**394490**
1997-98	295.93	23.05	**318.98**	26401	33858	64820	336100	74480	10040	**420620**
1998-99	292.27	23.42	**315.69**	27428	32723	68244	353800	82620	11890	**448310**
1999-00	299.97	22.12	**322.09**	28446	31949	84955	386226	80533	13252	**480011**
2000-01	309.63	22.95	**332.58**	29477	32426	102514	409289	74481	16928	**500698**
2001-02	322.61	24.81	**347.42**	29714	32032	107277	422000	73900	16300	**515200**
2002.03	336.52	26.10	**362.62**	31695	33042	111790	448400	63800	19200	**531400**

* = Provisional

Source = (i) Central Electricity Authority and Economic Survey 2003-04
(ii) Ministry of Coal.

XIII.2 TRENDS IN COMMERCIAL ENERGY PRODUCTION

Energy From	Unit	Production						
		1950-51	1960-61	1970-71	1980-81	1990-91	2001-02	2006-07
Coal	MMT	33.00	55.67	72.95	144.01	211.73	325.65	405.00
Lignite	"	-	0.05	3.39	4.80	13.77	24.30	55.96
Crude Oil	"	0.26	0.45	6.82	10.51	33.02	32.03	33.97
Natural Gas	BCM	-	-	1.44	2.35	18.00	29.69	37.62
Hydro Power	Bkwh	2.52	7.84	25.25	46.54	71.66	82.80	103.49
Nuclear Power	"	-	-	2.42	3.00	6.14	16.92	19.30
Wind Power	"	-	-	-	-	0.03	1.70	4.00

Source: Tenth Plan Document

XIII.3 ENERGY CONSUMPTION BY FUEL & BY SECTOR

a. PERCENTAGE SHARE OF DIFFERENT FUELS IN COMMERCIAL ENERGY CONSUMPTION

Sector	1953-54	1960-61	1970-71	1980-81	1990-91	1996-97
Coal	80.1	75.3	56.1	47.9	35.9	28.9
Oil & Gas	16.7	19.9	34.7	41.4	49.1	54.0
Electricity	3.2	4.8	9.2	10.7	15.0	17.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

b. PERCENTAGE SHARE IN FINAL ENERGY CONSUMPTION BY DIFFERNT SECTORS

Sector	1953-54	1960-61	1970-71	1980-81	1990-91	1996-97
Industry	39.9	41.5	49.6	49.6	44.7	41.9
Transport	43.7	40.2	28.2	23.5	19.8	22.3
Household	9.6	9.7	12.2	9.7	11.8	12.1
Agriculture	1.4	1.6	2.7	6.3	8.2	9
Others	5.4	7	7.3	10.9	15.5	14.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ninth Plan Document, Volume II.

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PART - II

INTERNATIONAL STATISTICS

XIV.1(a) WORLD PROVED RESERVES OF CRUDE OIL AT END 2002

	At end 2002			
Country/Region	Thousand Min. barrels	Thousand Min. Tonnes	Share of total	R/P ratio
USA	30.4	3.8	2.9%	10.8
Canada	6.9	0.9	0.7%	9.0
Mexico	12.6	1.8	1.2%	10.1
Total North America	**49.9**	**6.4**	**4.8%**	**10.3**
Argentina	2.9	0.4	0.3%	10.1
Brazil	8.3	1.1	0.8%	15.4
Colombia	1.8	0.3	0.2%	8.5
Ecuador	4.6	0.7	0.4%	31.2
Peru	0.3	^	*	9.2
Trinidad & Tobago	0.7	0.1	0.1%	13.6
Venezuela	77.8	11.2	7.4%	74.0
Other S. & Cent. America	2.0	0.3	0.2%	39.2
Total S. & Cent. America	**98.6**	**14.1**	**9.4%**	**42.0**
Azerbaijan	7.0	1.0	0.7%	62.5
Denmark	1.3	0.2	0.1%	10.0
Italy	0.6	0.1	0.1%	16.6
Kazakhstan	9.0	1.2	0.9%	26.1
Norway	10.3	1.4	1.0%	8.7
Romania	1.0	0.1	0.1%	20.9
Russian Federation	60.0	8.2	5.7%	21.7
Turkmenistan	0.5	0.1	0.1%	8.3
United Kingdom	4.7	0.6	0.5%	5.4
Uzbekistan	0.6	0.1	0.1%	11.3
Other Europe & Eurasia	2.4	0.3	0.2%	14.5
Total Europe & Eurasia	**97.5**	**13.3**	**9.3%**	**17.0**
Iran	89.7	12.3	8.6%	73.8
Iraq	112.5	15.2	10.7%	*
Kuwait	96.5	13.3	9.2%	*
Oman	5.5	0.7	0.5%	16.8
Qatar	15.2	2.0	1.5%	57.6
Saudi Arabia	261.8	36.0	25.0%	86.0
Syria	2.5	0.3	0.2%	11.9
United Arab Emirates	97.8	13.0	9.3%	*
Yemen	4.0	0.5	0.4%	23.4
Other Middle East	0.1	^	*	7.8
Total Middle East	**685.6**	**93.4**	**65.4%**	**92.0**
Algeria	9.2	1.2	0.9%	16.5
Angola	5.4	0.7	0.5%	16.4
Cameroon	0.4	0.1	*	15.2
Rep. of Congo (Brazzaville)	1.5	0.2	0.1%	16.0
Egypt	3.7	0.5	0.4%	14.1
Gabon	2.5	0.3	0.2%	23.2
Libya	29.5	3.8	2.8%	59.4
Nigeria	24.0	3.2	2.3%	32.8
Sudan	0.6	0.1	0.1%	6.6
Tunisia	0.3	^	*	11.2
Other Africa	0.3	^	*	3.2
Total Africa	**77.4**	**10.3**	**7.4%**	**27.3**
Australia	3.5	0.4	0.3%	14.1
Brunei	1.4	0.2	0.1%	18.0
China	18.3	2.5	1.7%	14.8
India	5.4	0.7	0.5%	19.4
Indonesia	5.0	0.7	0.5%	11.1
Malaysia	3.0	0.4	0.3%	10.6
Papua New Guinea	0.2	^	*	14.3
Thailand	0.6	0.1	0.1%	9.6
Vietnam	0.6	0.1	0.1%	4.7
Other Asia Pacific	0.8	0.1	0.1%	14.7
Total Asia Pacific	**38.7**	**5.2**	**3.7%**	**13.7**
TOTAL WORLD	**1047.7**	**142.7**	**100.0%**	**40.6**
Of which OECD @	72.0	9.4	6.9%	9.7
OPEC	819.0	111.9	78.2%	82.0
Non-OPEC £	150.9	20.1	14.4%	11.9
Former Soviet Union	77.8	10.7	7.4%	22.9

* Over 100 years ^ Less than 0 .05 w Less than 0.05% n/a not available

@ 1982 excludes Central European members £ Excludes Former Soviet Union

Reserves/Production (R/P) ratio - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that level.

Source : B.P.AmocoStatistical Review of world Energy, 2003.

XIV.1(b) WORLD PROVED RESERVES OF NATURAL GAS AT END 2002

	Trillion Cubic Metres	Trillion Cubic Feet	Share of Total	R/P ratio
USA	5.19	183.5	3.3%	9.6
Canada	1.70	60.1	1.1%	9.3
Mexico	0.25	8.8	0.2%	7.1
Total North America	**7.15**	**252.4**	**4.6%**	**9.4**
Argentina	0.76	27.0	0.5%	21.1
Bolivia	0.68	24.0	0.4%	*
Brazil	0.23	8.1	0.1%	25.2
Colombia	0.13	4.5	0.1%	20.7
Peru	0.25	8.7	0.2%	*
Trinidad & Tobago	0.66	23.5	0.4%	39.6
Venezuela	4.19	148.0	2.7%	*
Other S. & Cent. America	0.18	6.4	0.1%	*
Total S. & Cent. America	**7.08**	**250.2**	**4.5%**	**68.8**
Azerbaijan	0.85	30.0	0.5%	*
Denmark	0.08	3.0	0.1%	10.0
Germany	0.32	11.3	0.2%	18.4
Italy	0.23	8.0	0.1%	15.0
Kazakhstan	1.84	65.0	1.2%	*
Netherlands	1.76	62.0	1.1%	25.5
Norway	2.19	77.3	1.4%	33.5
Poland	0.17	5.8	0.1%	41.7
Romania	0.10	3.6	0.1%	9.4
Russian Federation	47.57	1680.0	30.5%	81.2
Turkmenistan	2.01	71.0	1.3%	38.2
Ukraine	1.12	39.6	0.7%	61.7
United Kingdom	0.70	24.6	0.4%	6.8
Uzbekistan	1.87	66.2	1.2%	33.0
Other Europe & Eurasia	0.24	8.4	0.2%	21.3
Total Europe & Eurasia	**61.04**	**2155.8**	**39.2%**	**58.9**
Bahrain	0.09	3.3	0.1%	10.0
Iran	23.00	812.3	14.8%	*
Iraq	3.11	109.8	2.0%	*
Kuwait	1.49	52.7	1.0%	*
Oman	0.83	29.3	0.5%	56.2
Qatar	14.40	508.5	9.2%	*
Saudi Arabia	6.36	224.7	4.1%	*
Syria	0.24	8.5	0.2%	59.0
United Arab Emirates	6.01	212.1	3.9%	*
Yemen	0.48	16.9	0.3%	*
Other Middle East	0.05	1.6	•	*
Total Middle East	**56.06**	**1979.7**	**36.0%**	*
Algeria	4.52	159.7	2.9%	56.3
Egypt	1.66	58.5	1.1%	73.1
Libya	1.31	46.4	0.8%	*
Nigeria	3.51	124.0	2.3%	*
Other Africa	0.84	29.5	0.5%	*
Total Africa	**11.84**	**418.1**	**7.6%**	**88.9**
Australia	2.55	90.0	1.6%	73.9
Bangladesh	0.30	10.6	0.2%	26.8
Brunei	0.39	13.8	0.3%	34.1
China	1.51	53.3	1.0%	46.3
India	0.76	26.9	0.5%	26.9
Indonesia	2.62	92.5	1.7%	37.1
Malaysia	2.12	75.0	1.4%	42.2
Pakistan	0.75	26.4	0.5%	35.8
Papua New Guinea	0.35	12.2	0.2%	*
Thailand	0.38	13.3	0.2%	20.0
Vietnam	0.19	6.8	0.1%	80.2
Other Asia Pacific	0.69	24.5	0.4%	34.1
Total Asia Pacific	**12.61**	**445.3**	**8.1%**	**41.8**
TOTAL WORLD	**155.78**	**5501.5**	**100.0%**	**60.7**
Of which: European Union 15	3.14	111.0	2.0%	14.4
OECD @	15.38	543.2	9.9%	14.1
Former Soviet Union	55.29	1952.6	35.5%	75.5

* Over 100 years ^ Less than 0.05 • Less than 0.05% n/a not available

@ 1982 excludes Central European members

Reserves/Production (R/P) ratio - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that level.

Source : B.P.AmocoStatistical Review of world Energy, 2003.

XIV.2 WORLD CRUDE OIL* PRODUCTION DURING 1996 - 2002

(Million tonnes)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over2001	2002 Share of total
USA	382.1	380.0	368.1	352.6	352.6	349.2	**350.4**	0.3%	9.9%
Canada	115.5	120.7	125.1	121.0	126.9	127.5	**135.6**	6.4%	3.8%
Mexico	162.6	169.7	173.5	165.2	171.2	176.6	**178.4**	1.0%	5.0%
Total North America	660.1	670.4	666.7	638.8	650.8	653.3	**664.4**	1.7%	18.7%
Argentina	40.8	43.4	44.0	41.8	40.4	40.8	**39.4**	-3.2%	1.1%
Brazil	40.2	43.1	49.8	56.3	63.2	66.3	**74.4**	12.2%	2.1%
Colombia	31.8	33.2	38.5	41.6	35.3	31.0	**29.7**	-4.2%	0.8%
Ecuador	20.0	20.2	19.5	19.4	20.9	21.2	**20.8**	-1.5%	0.6%
Peru	6.0	5.9	5.8	5.4	5.1	4.8	**4.8**	-	0.1%
Trinidad & Tobago	7.0	6.7	6.7	7.0	6.8	6.5	**7.5**	15.4%	0.2%
Venezuela	162.2	171.4	181.0	167.0	171.6	165.2	**151.4**	-8.3%	4.3%
Other S. & C. America	5.0	5.3	6.2	6.2	6.6	7.0	**7.5**	7.7%	0.2%
Total S. & C. America	312.9	329.2	351.5	344.6	349.8	342.8	**335.7**	-2.1%	9.4%
Azerbaijan	9.1	9.2	11.4	13.8	14.0	14.9	**15.3**	2.8%	0.4%
Denmark	10.1	11.4	11.4	14.7	17.8	16.9	**18.1**	7.0%	0.5%
Italy	5.5	6.0	5.6	5.0	4.6	4.1	**5.4**	29.8%	0.2%
Kazakhstan	23.0	25.8	25.9	30.1	35.3	40.1	**47.2**	17.8%	1.3%
Norway	154.8	156.3	149.7	149.7	160.2	162.2	**157.4**	-3.0%	4.4%
Romania	6.9	6.8	6.6	6.4	6.3	6.2	**6.1**	-2.3%	0.2%
Russian Federation	302.9	307.4	304.3	304.8	323.3	348.1	**379.6**	9.1%	10.7%
Turkmenistan	4.4	5.4	6.4	7.1	7.2	8.0	**9.0**	12.4%	0.3%
United Kingdom	129.7	127.9	132.1	136.8	125.9	116.7	**115.9**	-0.6%	3.3%
Uzbekistan	7.6	7.9	8.2	8.1	7.5	7.2	**7.2**	0.3%	0.2%
Other Europe & Eurasia	26.3	25.2	24.3	22.7	22.5	22.3	**23.0**	3.1%	0.7%
Total Europe & Eurasia	680.2	689.0	686.0	699.2	724.6	746.7	**784.2**	5.0%	22.0%
Iran	184.8	185.1	188.9	176.2	187.5	182.6	**166.8**	-8.6%	4.7%
Iraq	28.6	57.1	104.4	124.9	127.3	116.5	**99.7**	-14.4%	2.8%
Kuwait	105.1	105.1	107.2	98.3	104.0	101.9	**91.8**	-9.8%	2.6%
Oman	44.4	44.9	44.7	45.0	47.6	47.5	**44.6**	-6.2%	1.3%
Qatar	26.2	32.2	34.6	33.4	36.8	35.8	**34.7**	-3.3%	1.0%
Saudi Arabia	443.5	451.3	452.0	419.1	450.6	434.1	**418.1**	-3.7%	11.8%
Syria	29.4	28.8	28.8	28.9	27.6	29.1	**28.6**	-1.9%	0.8%
United Arab Emirates	117.9	117.0	119.9	107.6	117.0	113.5	**105.6**	-6.9%	3.0%
Yemen	16.9	17.7	18.0	19.2	21.3	22.3	**22.4**	0.4%	0.6%
Other Middle East	2.3	2.3	2.3	2.2	2.3	2.3	**2.3**	-	0.1%
Total Middle East	999.1	1041.6	1100.8	1054.8	1121.9	1085.6	**1014.6**	-6.5%	28.5%

Contd....

XIV.2 WORLD CRUDE OIL* PRODUCTION DURING 1996 - 2002

(Million tonnes)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over2001	2002 Share of total
Algeria	59.3	60.3	61.8	63.9	66.8	65.8	**70.2**	6.7%	2.0%
Angola	35.4	36.5	36.0	36.7	36.9	36.6	**44.6**	22.0%	1.3%
Cameroon	5.6	6.3	5.3	4.8	4.5	4.1	**3.7**	-9.9%	0.1%
Rep. of Congo (Brazzaville)	10.4	11.6	13.6	15.1	14.2	14.0	**13.3**	-4.7%	0.4%
Egypt	45.1	43.8	43.0	41.4	38.8	37.3	**37.0**	-1.0%	1.0%
Equatorial Guinea	0.9	3.0	4.1	5.0	5.6	9.0	**11.7**	31.0%	0.3%
Gabon	18.3	18.2	16.9	17.0	16.4	15.0	**14.7**	-2.0%	0.4%
Libya	68.6	70.0	69.6	67.0	69.5	67.0	**64.7**	-3.5%	1.8%
Nigeria	104.7	112.7	105.9	99.2	103.3	107.8	**98.6**	-8.5%	2.8%
Sudan	0.2	0.4	0.6	3.1	8.6	10.4	**11.5**	10.4%	0.3%
Tunisia	4.2	3.8	4.0	4.1	3.8	3.5	**3.6**	3.3%	0.1%
Other Africa	3.0	3.1	3.0	2.7	3.0	3.1	**3.0**	-4.8%	0.1%
Total Africa	355.7	369.8	363.7	359.9	371.3	373.3	**376.4**	0.8%	10.6%
Australia	26.6	28.8	27.4	24.5	35.4	31.8	**31.5**	-1.0%	0.9%
Brunei	8.0	7.9	7.6	8.9	9.4	9.9	**10.2**	3.5%	0.3%
China	158.5	160.1	160.2	160.2	162.6	164.8	**168.9**	2.5%	4.8%
India	36.3	37.3	36.7	36.5	36.1	36.0	**36.7**	2.0%	1.0%
Indonesia	76.7	75.7	74.2	68.6	71.5	68.0	**62.4**	-8.1%	1.8%
Malaysia	34.4	35.1	36.9	35.6	35.5	35.0	**37.0**	5.6%	1.0%
Papua New Guinea	5.0	3.5	3.8	4.1	3.2	2.7	**2.1**	-20.7%	0.1%
Thailand	3.8	4.5	4.7	5.2	6.6	7.0	**7.9**	13.4%	0.2%
Vietnam	8.9	10.1	12.1	14.6	16.2	17.1	**17.3**	1.0%	0.5%
Other Asia Pacific	6.7	7.3	6.6	6.3	6.3	6.6	**7.3**	10.9%	0.2%
Total Asia Pacific	365.0	370.3	370.2	364.4	382.9	378.9	**381.4**	0.7%	10.7%
TOTAL WORLD	**3372.9**	**3470.2**	**3538.8**	**3461.7**	**3601.3**	**3580.6**	**3556.8**	**-0.7%**	**100.0%**
Of which OECD	1006.5	1019.9	1011.2	986.5	1011.3	1001.4	**1009.7**	0.8%	28.4%
OPEC	1377.6	1438.0	1499.4	1425.2	1506.0	1458.1	**1364.2**	-6.4%	38.4%
Non-OPEC £	1642.0	1670.1	1676.9	1666.6	1702.0	1698.0	**1728.1**	1.8%	48.6%
Former Soviet Union	353.3	362.0	362.5	369.9	393.3	424.5	**464.6**	9.4%	13.1%

* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids - the liquid content of natural gas where this is recovered separately).
Excludes liquid fuels from other sources such as coal derivatives. ^ Less than 0.05

£ Excludes Former Soviet Union

Note: Because of rounding some totals may not agree exactly with the sum of their component parts.

Source : B.P.Amoco Statistical Review of world Energy, 2003.

XIV.3 CRUDE OIL PRODUCTION BY OPEC MEMBER COUNTRIES

(Million Tonnes)

OPEC Countries	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Algeria	52	48	58	58	57	57	56	57	59	60	62	64	67	66	70
Indonesia	78	65	72	78	74	74	74	74	77	76	74	69	72	68	62
Iran	74	110	161	173	175	182	183	183	184	185	189	176	188	183	167
Iraq	130	71	105	14	26	23	25	27	30	57	104	125	127	117	100
Kuwait	72	54	62	10	55	96	104	105	106	105	107	98	104	102	92
Libya	88	53	69	74	71	67	69	69	69	70	70	67	70	67	65
Nigeria	102	73	90	94	97	98	98	98	105	113	106	99	103	108	100
Qatar	22	16	21	20	23	21	21	21	26	32	35	33	37	36	35
Suadi Arabia	493	182	341	427	441	431	426	427	444	451	452	419	451	434	419
U.A.E	112	49	105	121	115	111	113	111	118	117	120	108	117	114	107
Venezuela	116	90	116	129	130	134	142	152	162	171	181	167	172	165	151
Total	**1339**	**811**	**1199**	**1198**	**1262**	**1295**	**1311**	**1324**	**1378**	**1438**	**1499**	**1425**	**1506**	**1458**	**1364**

Source : B.P.Amoco Statistical Review of World Energy, June 2003

XIV.4 WORLD PRODUCTION* OF NATURAL GAS DURING 1996–2002

(Million tonnes oil equivalent)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	487.5	488.8	494.3	487.4	496.3	501.9	492.9	-1.8%	21.7%
Canada	147.3	149.2	154.1	159.7	164.9	168.1	165.2	-1.8%	7.3%
Mexico	25.2	28.5	30.9	33.5	32.2	31.8	31.3	-1.4%	1.4%
Total North America	**660.0**	**666.5**	**679.3**	**680.6**	**693.4**	**701.8**	**689.4**	**-1.8%**	**30.3%**
Argentina	26.0	24.6	26.6	31.1	33.7	33.4	32.5	-2.8%	1.4%
Bolivia	2.9	2.6	2.7	2.2	3.1	4.6	4.9	5.6%	0.2%
Brazil	5.0	5.4	5.6	6.1	6.5	6.8	8.2	20.4%	0.4%
Colombia	4.2	5.3	5.6	4.7	5.3	5.5	5.5	1.0%	0.2%
Trinidad & Tobago	6.4	6.7	7.8	10.6	12.6	13.3	15.1	13.6%	0.7%
Venezuela	26.8	27.7	29.1	24.7	25.1	26.2	24.6	-6.0%	1.1%
Other S. & Cent. America	2.0	2.1	2.3	1.9	1.9	2.0	1.9	-5.8%	0.1%
Total S. & Cent. America	**73.3**	**74.4**	**79.7**	**81.3**	**88.2**	**91.8**	**92.7**	**1.0%**	**4.1%**
Azerbaijan	5.3	5.0	4.7	5.0	4.7	4.7	4.3	-7.3%	0.2%
Denmark	5.8	7.1	6.8	7.0	7.3	7.5	7.6	0.2%	0.3%
Germany	15.7	15.4	15.0	16.1	15.2	15.7	15.7	-0.3%	0.7%
Italy	18.0	17.3	17.1	15.7	14.6	13.7	13.6	-1.2%	0.6%
Kazakhstan	5.5	6.8	6.7	8.4	9.7	9.7	11.0	13.2%	0.5%
Netherlands	68.2	60.4	57.2	53.3	51.6	55.7	53.9	-3.2%	2.4%
Norway	33.7	38.7	39.8	43.6	44.8	48.5	58.9	21.4%	2.6%
Poland	3.2	3.2	3.2	3.1	3.3	3.5	3.6	2.0%	0.2%
Romania	15.5	13.5	12.6	12.6	12.4	12.2	9.7	-20.7%	0.4%
Russian Federation	505.0	479.3	496.2	495.9	490.5	488.2	499.4	2.3%	22.0%
Turkmenistan	29.6	14.5	11.2	19.1	39.5	43.1	44.9	4.3%	2.0%
Ukraine	15.4	15.7	15.1	15.2	15.0	15.4	15.5	0.8%	0.7%
United Kingdom	75.8	77.3	81.2	89.2	97.4	95.3	92.8	-2.6%	4.1%
Uzbekistan	41.1	43.0	46.0	46.7	47.4	48.2	48.4	0.5%	2.1%
Other Europe & Eurasia	12.6	12.0	11.1	10.3	10.2	10.1	10.0	-0.4%	0.4%
Total Europe & Eurasia	**850.4**	**809.2**	**823.9**	**841.2**	**863.6**	**871.5**	**889.3**	**2.0%**	**39.1%**
Bahrain	6.7	7.2	7.5	7.8	7.9	8.2	8.3	1.1%	0.4%
Iran	35.1	42.3	45.0	50.7	54.2	57.0	58.1	1.9%	2.6%
Kuwait	8.4	8.3	8.5	7.8	8.6	8.6	7.8	-8.3%	0.3%
Oman	3.9	4.5	4.7	4.9	7.6	12.6	13.3	5.7%	0.6%
Qatar	12.3	15.7	17.6	19.8	22.4	25.1	26.4	5.0%	1.2%
Saudi Arabia	40.0	40.8	42.1	41.6	44.8	48.3	50.7	5.0%	2.2%
Syria	2.2	3.5	3.8	4.0	3.8	3.9	3.7	-5.9%	0.2%
United Arab Emirates	30.4	32.7	33.4	34.6	34.5	40.5	41.4	2.2%	1.8%
Other Middle East	3.1	3.0	2.9	3.1	3.1	2.7	2.3	-15.2%	0.1%
Total Middle East	**142.1**	**158.0**	**165.5**	**174.3**	**186.9**	**206.9**	**212.0**	**2.5%**	**9.3%**

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XIV.4 WORLD PRODUCTION* OF NATURAL GAS DURING 1996—2002

(Million tonnes oil equivalent)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
Algeria	56.1	64.6	68.9	77.4	76.0	70.4	72.3	2.7%	3.2%
Egypt	10.4	10.5	11.0	13.2	16.5	19.3	20.4	5.5%	0.9%
Libya	5.2	5.4	5.2	4.2	4.9	5.0	5.1	1.0%	0.2%
Nigeria	4.9	4.6	4.6	5.4	11.3	16.6	16.0	-3.6%	0.7%
Other Africa	3.4	4.4	4.5	4.9	5.3	6.0	6.1	1.9%	0.3%
Total Africa	**80.0**	**89.5**	**94.2**	**105.1**	**114.0**	**117.3**	**119.9**	**2.2%**	**5.3%**
Australia	27.1	26.9	27.9	28.5	29.5	30.2	31.0	2.7%	1.4%
Bangladesh	6.8	6.8	7.0	7.5	9.0	9.7	10.1	4.3%	0.4%
Brunei	10.5	10.5	9.7	10.1	10.2	10.3	10.3	0.5%	0.5%
China	17.9	20.0	20.1	21.9	24.5	27.3	29.3	7.7%	1.3%
India	18.7	20.7	22.2	23.3	24.2	24.6	25.6	4.0%	1.1%
Indonesia	60.7	60.4	57.8	63.9	61.7	59.7	63.5	6.4%	2.8%
Malaysia	30.3	34.8	34.6	36.8	40.7	42.6	45.2	6.3%	2.0%
New Zealand	4.4	4.6	4.0	4.7	4.9	5.2	5.7	9.5%	0.3%
Pakistan	13.8	14.0	14.4	15.6	17.0	17.9	18.8	5.1%	0.8%
Thailand	10.9	13.7	14.7	16.0	16.8	16.2	17.0	4.8%	0.7%
Other Asia Pacific	4.8	5.2	5.5	5.8	7.6	11.3	14.9	31.2%	0.7%
Total Asia Pacific	**205.9**	**217.6**	**217.9**	**234.1**	**246.1**	**255.0**	**271.4**	**6.5%**	**11.9%**
TOTAL WORLD	**2011.7**	**2015.2**	**2060.5**	**2116.6**	**2192.2**	**2244.3**	**2274.7**	**1.4%**	**100.0%**
Of which European Union 15	189.3	183.0	182.1	185.7	190.4	192.3	187.9	-2.3%	8.3%
OECD	923.9	928.9	942.4	951.7	971.8	986.9	981.8	-0.5%	43.2%
Former Soviet Union	602.1	564.7	580.1	590.6	607.1	609.6	623.9	2.3%	27.4%
Other EMEs	485.7	521.7	538.2	574.0	613.1	647.6	669.0	3.3%	29.4%

* Excluding gas flared or recycled
^ Less than 0.05
Because of rounding some totals may not tally exactly with the sum of their component parts.

Source : B.P. Amoco Statistical Review of world Energy, 2003.

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XIV.5 WORLD CONSUMPTION OF NATURAL GAS DURING 1996 - 2002

(Million tonnes oil equivalent)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	584.6	587.9	578.0	579.9	606.3	578.2	600.7	3.9%	26.3%
Canada	76.7	75.4	76.4	74.7	74.7	74.5	72.6	-2.6%	3.2%
Mexico	25.7	29.1	31.9	33.6	34.6	35.1	37.9	8.0%	1.7%
Total North America	**687.0**	**692.4**	**686.3**	**688.2**	**715.6**	**687.8**	**711.2**	**3.4%**	**31.2%**
Argentina	25.7	25.7	27.5	29.1	29.9	28.1	27.2	-3.0%	1.2%
Brazil	5.0	5.4	5.6	6.4	8.4	10.5	12.3	16.7%	0.5%
Chile	1.5	2.5	2.9	4.1	4.7	5.7	5.9	3.2%	0.3%
Colombia	4.2	5.3	5.6	4.7	5.3	5.5	5.5	1.2%	0.2%
Ecuador	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	•
Peru	0.4	0.2	0.4	0.4	0.3	0.3	0.4	19.5%	•
Venezuela	26.8	27.7	29.1	24.7	25.1	26.2	24.6	-6.0%	1.1%
Other S. & Cent. America	7.4	7.9	9.2	10.4	10.9	11.6	12.2	4.7%	0.5%
Total S. & Cent. America	**71.1**	**74.8**	**80.4**	**79.9**	**84.7**	**88.0**	**88.2**	**0.2%**	**3.9%**
Austria	6.6	6.9	6.8	6.9	6.6	7.0	7.3	4.4%	0.3%
Azerbaijan	5.3	5.0	4.7	5.0	4.9	7.0	7.1	1.7%	0.3%
Belarus	11.7	13.3	13.5	13.8	14.6	14.5	14.9	2.9%	0.7%
Belgium & Luxembourg	11.8	11.3	12.4	13.3	13.4	13.2	13.4	1.3%	0.6%
Bulgaria	4.6	3.7	3.1	2.7	2.9	2.7	2.6	-3.4%	0.1%
Czech Republic	7.6	7.7	7.7	7.7	7.5	8.0	8.0	-0.5%	0.4%
Denmark	3.7	3.9	4.3	4.5	4.4	4.6	4.6	-0.1%	0.2%
Finland	3.0	2.9	3.3	3.3	3.4	3.7	3.7	0.1%	0.2%
France	32.5	31.2	33.3	33.9	35.7	37.7	38.5	2.2%	1.7%
Germany	75.2	71.3	71.7	72.1	71.5	74.6	74.3	-0.4%	3.3%
Greece	^	0.2	0.7	1.2	1.7	1.7	1.8	4.4%	0.1%
Hungary	10.2	9.7	9.8	9.9	9.6	10.7	10.7	0.4%	0.5%
Iceland	-	-	-	-	-	-	-	-	-
Republic of Ireland	2.7	2.8	2.8	3.0	3.4	3.6	3.7	2.7%	0.2%
Italy	46.4	47.9	51.5	56.0	58.4	57.3	57.2	-0.1%	2.5%
Kazakhstan	8.1	6.4	6.5	7.1	8.7	9.1	8.7	-3.7%	0.4%
Lithuania	2.3	2.4	2.1	2.2	2.5	2.5	2.6	1.1%	0.1%
Netherlands	37.5	35.2	34.9	34.1	35.3	35.2	35.4	0.6%	1.6%
Norway	2.9	3.3	3.4	3.2	3.6	3.4	3.5	5.0%	0.2%
Poland	9.5	9.4	9.5	9.3	10.0	10.4	10.1	-2.6%	0.4%
Portugal	-	0.1	0.7	2.0	2.1	2.3	2.7	21.0%	0.1%
Romania	21.8	18.0	16.8	15.5	15.4	14.9	15.6	4.7%	0.7%
Russian Federation	341.9	315.3	328.3	327.3	339.5	335.4	349.6	4.2%	15.3%
Slovakia	5.5	5.6	5.7	5.8	5.8	6.2	6.9	10.2%	0.3%
Spain	8.4	11.1	11.8	13.5	15.2	16.4	18.8	14.4%	0.8%
Sweden	0.8	0.7	0.8	0.8	0.7	0.6	0.7	7.7%	•
Switzerland	2.4	2.3	2.4	2.4	2.4	2.5	2.5	-0.4%	0.1%
Turkey	8.1	8.5	8.9	10.8	12.7	14.4	15.6	8.4%	0.7%
Turkmenistan	9.0	9.1	9.2	10.2	11.3	11.6	11.9	2.9%	0.5%
Ukraine	74.2	66.8	61.9	65.7	65.8	63.8	62.8	-1.6%	2.8%
United Kingdom	73.9	76.0	79.1	84.2	87.1	86.7	85.1	-1.8%	3.7%
Uzbekistan	39.0	40.9	42.3	44.3	42.4	46.0	47.2	2.6%	2.1%
Other Europe & Eurasia	12.5	13.3	13.2	11.7	11.9	13.0	12.0	-7.9%	0.5%
Total Europe & Eurasia	**879.1**	**842.2**	**863.1**	**883.4**	**910.4**	**920.7**	**939.5**	**2.1%**	**41.2%**

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XIV.5 WORLD CONSUMPTION OF NATURAL GAS DURING 1996 - 2002

(Million tonnes oil equivalent)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
Kuwait	8.4	8.3	8.5	7.8	8.6	8.6	7.8	-8.3%	0.3%
Qatar	12.3	13.1	13.3	12.6	9.7	10.2	9.6	-5.7%	0.4%
Saudi Arabia	40.0	40.8	42.1	41.6	44.8	48.3	50.8	5.0%	2.2%
United Arab Emirates	24.4	26.1	27.4	28.3	28.3	34.3	35.4	3.2%	1.5%
Other Middle East	15.6	17.7	18.5	19.4	19.9	20.7	20.4	-1.5%	0.9%
Total Middle East	**135.7**	**148.4**	**156.4**	**163.5**	**168.0**	**180.6**	**185.1**	**2.5%**	**8.1%**
Algeria	19.4	18.1	18.8	19.2	19.6	23.3	23.7	1.6%	1.0%
Egypt	10.2	10.4	10.8	12.9	16.5	19.3	20.4	5.5%	0.9%
South Africa	-	-	-	-	-	-	-	-	-
Other Africa	12.9	12.9	13.4	13.9	15.3	16.1	16.6	3.0%	0.7%
Total Africa	**42.5**	**41.4**	**43.0**	**46.0**	**51.4**	**58.7**	**60.7**	**3.3%**	**2.7%**
Australia	18.3	18.3	19.2	19.3	20.3	21.4	21.6	0.8%	0.9%
Bangladesh	6.8	6.8	7.0	7.5	9.0	9.7	10.1	4.3%	0.4%
China	15.9	17.4	17.4	19.3	22.1	25.0	27.0	8.0%	1.2%
China Hong Kong SAR	1.5	2.4	2.2	2.4	2.2	2.2	2.1	-5.0%	0.1%
India	18.7	20.7	22.2	23.3	24.2	24.5	25.4	3.8%	1.1%
Indonesia	28.2	28.7	25.0	28.7	29.1	30.1	31.3	4.0%	1.4%
Japan	59.5	58.6	62.5	67.1	68.6	71.1	69.7	-2.0%	3.1%
Malaysia	16.0	15.0	15.7	14.5	21.9	23.2	24.3	4.9%	1.1%
New Zealand	4.3	4.6	4.0	4.7	4.9	5.2	5.0	-3.5%	0.2%
Pakistan	13.8	14.0	14.4	15.6	17.0	17.9	18.8	5.1%	0.8%
Philippines	^	^	^	^	^	0.1	1.6	>100.0%	0.1%
Singapore	1.4	1.4	1.4	1.4	1.4	1.1	1.6	38.6%	0.1%
South Korea	12.2	14.8	13.8	16.8	18.9	20.8	23.6	13.4%	1.0%
Taiwan	4.0	4.6	5.7	5.6	6.2	6.7	7.7	14.7%	0.3%
Thailand	10.7	13.1	14.3	15.6	18.4	20.3	23.3	14.9%	1.0%
Other Asia Pacific	3.4	3.8	4.1	4.4	4.4	4.4	4.2	-5.2%	0.2%
Total Asia Pacific	**214.7**	**224.2**	**228.9**	**246.2**	**268.6**	**283.7**	**297.3**	**4.8%**	**13.0%**
TOTAL WORLD	**2030.1**	**2023.4**	**2058.1**	**2107.2**	**2198.7**	**2219.5**	**2282.0**	**2.8%**	**100.0%**
Of which European Union 15	302.5	301.5	314.1	328.8	338.9	344.6	347.2	0.8%	15.2%
OECD	1130.0	1136.7	1147.3	1174.0	1218.8	1206.5	1235.6	2.4%	54.1%
Former Soviet Union	498.5	467.1	476.5	482.6	496.7	497.8	511.9	2.8%	22.4%
Other EMEs	401.5	419.7	434.2	450.1	483.3	515.3	534.6	3.7%	23.4%

^ Less than 0.05

• Less than 0.05%

Note: The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data

Source : B.P. Amoco Statistical Review of world Energy, 2003.

XIV.6 PRODUCTIVITY OF PRODUCING WELLS IN OPEC MEMBER COUNTRIES DURING 2002

Country	Average Depth (Feet)	Wells			Av-daily Production ('000' bbl)	t/w/d
		Flowing	Artificial Lift	Total		
1	2	3	4	5	6	7
Algeria	9598	973	322	1295	735.1	77.4
Indonesia	3290	1395	7680	9075	1125.4	16.9
I.R.Iran	7184	1331	-	1331	3248.4	333.0
Iraq	na	na	na	na	2126.5	na
Kuwait	8165	800	-	800	1745.9	297.7
Sp.Libya A.J.	8480	938	560	1498	1200.3	109.3
Nigeria	9000	1883	580	2463	1801.7	99.8
Qatar	12363	309	159	468	568.9	165.8
Suadi Arabia	8150	1430	95	1525	7093.1	634.5
U.A.E	8931	1068	349	1417	1900.3	183.0
Venezuela	6534	570	12412	12982	2431.8	25.6
Total OPEC	**8018**	**10910**	**22544**	**33454**	**23977.4**	**97.8**
Total World	**70053**	**51175**	**845991**	**897166**	**63644.3**	**9.7**

t/w/d = tonne/well/day
na = not available
- = negligible

Source : OPEC Annual Statistical Bulletin, 2002.

XIV.7 WORLD OIL REFINING CAPACITIES AT END 1996 - 2002

(Thousand barrels daily *)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	15452	15711	16261	16512	16595	16785	16761	-0.1%	20.0%
Canada	1807	1811	1844	1861	1861	1917	1923	0.3%	2.3%
Mexico	1444	1449	1449	1449	1481	1481	1481	-	1.8%
Total North America	**18703**	**18971**	**19554**	**19822**	**19937**	**20183**	**20165**	**-0.1%**	**24.0%**
Argentina	651	653	650	650	657	657	657	-	0.8%
Brazil	1481	1739	1750	1845	1863	1823	1823	-	2.2%
Neth. Antilles & Aruba	520	520	520	535	535	590	590	-	0.7%
Venezuela	1183	1183	1183	1183	1183	1183	1183	-	1.4%
Other S. & Cent. America	2264	2288	2192	2232	2240	2230	2285	2.5%	2.7%
Total S. &. Cent. America	**6099**	**6383**	**6295**	**6445**	**6478**	**6483**	**6538**	**0.8%**	**7.8%**
Belgium	690	698	732	736	770	785	788	0.4%	0.9%
France	1749	1872	1918	1933	1984	1961	1987	1.3%	2.4%
Germany	2098	2170	2206	2240	2262	2274	2286	0.5%	2.7%
Greece	403	403	403	403	403	412	412	-	0.5%
Italy	2256	2241	2269	2292	2292	2292	2292	-	2.7%
Netherlands	1169	1196	1196	1212	1212	1233	1233	-	1.5%
Norway	308	308	310	323	318	307	310	1.0%	0.4%
Russian Federation	6284	6119	5793	5645	5597	5545	5553	0.1%	6.6%
Spain	1232	1265	1247	1247	1247	1247	1247	-	1.5%
Sweden	421	422	422	422	422	422	422	-	0.5%
Turkey	671	673	643	643	643	643	643	-	0.8%
United Kingdom	1873	1823	1848	1777	1778	1769	1785	0.9%	2.1%
Other Europe and Eurasia	6660	6525	6420	6246	6161	6201	6341	2.3%	7.6%
Total Europe and Eurasia	**25814**	**25715**	**25407**	**25119**	**25089**	**25091**	**25299**	**0.8%**	**30.2%**
Iran	1330	1378	1448	1450	1450	1474	1474	-	1.8%
Iraq	634	634	634	634	639	644	644	-	0.8%
Kuwait	825	880	895	895	690	745	770	3.4%	0.9%
Saudi Arabia	1670	1693	1780	1811	1811	1816	1816	-	2.2%
United Arab Emirates	250	298	235	290	440	674	711	5.5%	0.8%
Other Middle East	1172	1164	1169	1175	1173	1164	1254	7.7%	1.5%
Total Middle East	**5881**	**6047**	**6161**	**6255**	**6203**	**6517**	**6669**	**2.3%**	**7.9%**
Total Africa	**3004**	**2945**	**2898**	**2998**	**3049**	**3218**	**3303**	**2.6%**	**3.9%**
Australasia	848	890	916	919	919	926	926	-	1.1%
China	4226	4559	4592	5401	5407	5643	5744	1.8%	6.8%
India	1210	1236	1356	2190	2219	2261	2289	1.2%	2.7%
Indonesia	992	1022	1098	1120	1116	1116	1116	-	1.3%
Japan	5006	5056	5088	5109	5029	4811	4721	-1.9%	5.6%
Singapore	1245	1246	1246	1246	**1255**	**1255**	**1255**	-	**1.5%**
South Korea	1917	2316	2316	2316	2316	2316	2316	-	2.8%
Taiwan	732	732	732	732	732	874	1159	32.6%	1.4%
Thailand	777	824	855	855	880	992	983	-0.9%	1.2%
Other Asia Pacific	1064	1066	1193	1234	1310	1413	1417	0.3%	1.7%
Total Asia Pacific	**18017**	**18947**	**19392**	**21122**	**21183**	**21607**	**21926**	**1.5%**	**26.1%**
TOTAL WORLD	**77518**	**79008**	**79707**	**81761**	**81939**	**83099**	**83900**	**1.0%**	**100.0%**
Of which: EU 15	12921	13069	13237	13265	13382	13421	13478	0.4%	16.1%
OECD	41359	42289	43104	43443	43596	43661	43723	0.1%	52.1%
Former Soviet Union	9600	9329	8900	8674	8596	8514	8522	0.1%	10.2%
Other EMEs	26559	27390	27703	29644	29747	30924	31655	2.4%	37.7%

* Atmospheric distillation capacity on a calendar-day basis

Note: For the purposes of this table, annual changes and shares of total are calculated using thousand barrels daily figures.

Source : B.P. Amoco Statistical Review of world Energy, 2003.

XIV.8 WORLD REFINERY CRUDE THROUGHPUT DURING 1993 TO 2002

(Million Tonnes Per Annum)

Country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% change 2002/2001	% share of total 2002
1	2	3	4	5	6	7	8	9	10	11	12	13
Usa	676	688	694	730	728	737	735	750	751	741	-1.3	21.5
Canada	76	78	78	84	84	85	85	88	90	90	0.0	2.6
Mexico	76	72	74	72	71	72	69	68	69	69	0.0	2.0
South & Central America	240	244	238	261	260	266	271	266	266	251	-5.6	7.3
Europe & Eurasia @	707	713	716	738	737	758	737	962	973	976	0.3	28.3
Former Soviet Union	294	252	243	236	235	222	222	227	241	255	5.8	7.4
Middle East	239	244	264	281	280	284	297	278	293	301	2.7	8.7
Africa	116	113	117	121	121	121	120	115	119	120	0.8	3.5
Australasia	37	39	39	43	43	43	44	44	44	41	-6.8	1.2
China	128	127	135	154	153	160	183	210	209	219	4.8	6.4
Japan	198	207	207	215	214	209	206	206	204	198	-2.9	5.7
Other Asia pacific	300	314	339	407	406	395	414	444	450	437	-2.9	12.7
Total World	**3088**	**3092**	**3144**	**3342**	**3334**	**3351**	**3382**	**3430**	**3467**	**3444**	-0.7	100.0
Of which OECD	1814	1842	1858	1969	1964	1982	1964	1984	1979	1938	-2.1	56.3
Other EMEs#	949	965	1007	1105	1102	1113	1166	1219	1248	1250	0.2	36.3

Excludes central Europe and Former soviet Union

Source : BP Amoco Statistical Review of World Energy, June 2003.

@ Eurasia included in the data from year 2000 onwards preior to that data relates to Europe only.

XIV.9 COUNTRY-WISE WORLD OIL CONSUMPTION DURING 1996 - 2002

(Million tonnes)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	836.5	848.0	863.8	888.9	897.6	896.1	894.3	-0.2%	25.4%
Canada	82.1	85.2	86.7	87.2	88.1	88.7	89.7	1.1%	2.5%
Mexico	73.8	77.3	81.2	80.8	84.1	83.4	80.9	-3.0%	2.3%
Total North America	**992.4**	**1010.5**	**1031.7**	**1056.9**	**1069.8**	**1068.2**	**1064.9**	**-0.3%**	**30.2%**
Argentina	20.4	21.2	22.1	21.0	20.3	19.0	16.8	-11.7%	0.5%
Brazil	74.1	79.9	83.2	85.7	85.8	87.5	85.4	-2.4%	2.4%
Chile	10.6	11.2	11.4	11.6	10.9	10.6	10.8	1.9%	0.3%
Colombia	12.2	12.3	12.0	10.6	10.5	11.1	10.0	-9.6%	0.3%
Ecuador	5.7	6.5	6.6	6.0	5.8	5.9	5.9	-0.9%	0.2%
Peru	7.4	7.3	7.4	7.5	7.4	7.0	7.0	-0.4%	0.2%
Venezuela	19.0	20.4	21.6	21.3	22.5	22.2	22.9	3.2%	0.7%
Other S. & Cent. America	52.4	53.9	55.3	55.2	55.1	55.5	56.0	0.9%	1.6%
Total S. & Cent. America	**201.8**	**212.7**	**219.6**	**218.9**	**218.3**	**218.8**	**214.8**	**-1.9%**	**6.1%**
Austria	11.6	11.9	12.3	12.1	11.8	12.8	13.0	1.2%	0.4%
Azerbaijan	7.0	6.0	7.5	7.4	6.2	3.7	3.6	-1.9%	0.1%
Belarus	9.3	9.6	8.3	7.0	6.6	5.9	5.8	-0.9%	0.2%
Belgium & Luxembourg	29.4	30.3	31.6	32.4	33.9	32.2	32.9	2.2%	0.9%
Bulgaria	5.5	4.4	4.8	4.5	3.9	4.0	4.2	3.8%	0.1%
Czech Republic	8.4	8.0	8.3	8.2	7.9	8.3	8.2	-2.0%	0.2%
Denmark	11.4	11.1	10.7	10.6	10.4	9.8	9.8	-0.2%	0.3%
Finland	10.3	10.2	10.5	10.7	10.7	10.5	10.9	3.4%	0.3%
France	91.0	91.7	95.0	96.4	94.9	95.5	92.8	-2.7%	2.6%
Germany	137.4	136.5	136.6	132.4	129.8	131.6	127.2	-3.3%	3.6%
Greece	18.2	18.4	18.2	18.7	19.9	21.7	21.8	0.2%	0.6%
Hungary	7.1	7.1	7.4	7.1	6.8	6.7	6.4	-4.0%	0.2%
Iceland	0.8	0.9	0.9	0.9	0.9	0.9	0.9	2.4%	*
Republic of Ireland	6.0	6.6	7.4	8.3	8.2	9.0	8.7	-3.5%	0.2%
Italy	94.2	94.6	94.7	94.4	93.5	92.8	92.9	0.1%	2.6%
Kazakhstan	10.2	10.3	8.2	6.6	7.0	6.8	6.5	-5.0%	0.2%
Lithuania	3.3	3.3	3.8	3.1	2.4	2.7	2.7	-0.7%	0.1%
Netherlands	37.4	39.5	39.4	40.6	41.7	43.9	43.8	-0.4%	1.2%
Norway	10.1	10.3	10.0	10.1	9.4	9.7	9.4	-2.3%	0.3%
Poland	17.2	18.2	19.9	19.9	20.0	19.2	19.7	2.4%	0.6%
Portugal	12.1	13.7	15.1	15.4	14.9	14.6	14.9	1.5%	0.4%
Romania	13.0	13.7	12.0	9.5	10.0	10.6	10.9	2.8%	0.3%
Russian Federation	130.1	129.1	123.7	126.2	123.5	122.3	122.9	0.5%	3.5%
Slovakia	3.4	3.4	3.8	3.4	3.4	3.2	3.3	2.7%	0.1%
Spain	58.7	62.0	66.4	68.4	70.0	72.7	73.5	1.0%	2.1%
Sweden	17.4	16.1	16.2	16.1	15.2	15.2	15.0	-1.4%	0.4%
Switzerland	12.2	12.8	13.0	12.6	12.2	13.1	12.4	-5.2%	0.4%
Turkey	29.8	30.0	29.6	29.5	31.6	30.5	29.9	-1.8%	0.8%
Turkmenistan	3.0	3.0	2.8	2.5	2.3	2.4	2.6	8.3%	0.1%

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XIV.9 COUNTRY-WISE WORLD OIL CONSUMPTION DURING 1996 - 2002

(Million tonnes)

Country/Region	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
Ukraine	14.2	13.8	14.3	12.7	12.0	12.7	12.9	1.6%	0.4%
United Kingdom	83.9	81.3	81.2	80.1	78.9	77.3	77.2	-0.1%	2.2%
Uzbekistan	7.4	6.7	7.0	7.1	6.4	6.5	6.6	1.5%	0.2%
Other Europe & Eurasia	19.2	21.0	21.7	21.4	20.8	21.7	21.9	1.0%	0.6%
Total Europe & Eurasia	**930.2**	**935.5**	**942.3**	**936.3**	**927.1**	**930.5**	**925.2**	**-0.6%**	**26.3%**
Iran	60.6	59.0	55.9	57.3	56.1	54.0	53.2	-1.5%	1.5%
Kuwait	6.3	6.9	9.1	10.3	10.4	10.5	10.7	1.8%	0.3%
Qatar	1.1	1.1	1.2	1.1	1.2	1.4	2.0	47.4%	0.1%
Saudi Arabia	53.7	55.3	58.8	60.9	62.4	62.7	63.4	1.1%	1.8%
United Arab Emirates	18.0	17.8	14.4	13.5	12.2	12.3	12.4	0.9%	0.4%
Other Middle East	58.6	61.0	62.6	63.6	66.0	65.5	65.7	0.3%	1.9%
Total Middle East	**198.3**	**201.1**	**202.0**	**206.7**	**208.3**	**206.4**	**207.4**	**0.5%**	**5.9%**
Algeria	8.1	8.0	8.2	8.1	8.5	9.1	9.9	8.4%	0.3%
Egypt	24.6	26.0	27.3	27.8	27.2	26.1	26.1	-0.1%	0.7%
South Africa	20.7	21.0	21.3	21.8	22.5	23.0	23.6	2.7%	0.7%
Other Africa	52.7	53.9	55.7	57.4	57.7	58.3	59.0	1.2%	1.7%
Total Africa	106.1	108.9	112.5	115.1	115.9	116.5	118.6	1.8%	3.4%
Australia	35.9	37.0	37.0	38.0	37.7	38.1	38.0	-0.4%	1.1%
Bangladesh	2.9	3.3	3.7	3.3	3.3	3.3	3.4	2.0%	0.1%
China	174.4	185.6	190.3	207.2	230.1	232.2	245.7	5.8%	7.0%
China Hong Kong SAR	9.3	9.2	8.8	9.3	9.7	11.7	13.1	11.8%	0.4%
India	79.4	83.3	86.8	95.2	97.5	96.7	97.7	1.0%	2.8%
Indonesia	42.4	45.9	43.5	46.8	50.4	52.1	51.2	-1.7%	1.5%
Japan	268.8	265.0	253.6	257.3	255.4	247.5	242.6	-2.0%	6.9%
Malaysia	19.0	20.2	19.0	20.3	20.4	20.6	22.5	9.1%	0.6%
New Zealand	5.9	6.1	6.1	6.3	6.3	6.4	6.8	5.6%	0.2%
Pakistan	16.6	17.0	17.6	18.2	18.8	18.4	17.9	-2.5%	0.5%
Philippines	17.5	18.8	19.1	18.0	16.6	16.5	15.6	-5.2%	0.4%
Singapore	30.3	32.4	33.3	31.6	33.5	36.4	35.5	-2.6%	1.0%
South Korea	101.4	111.4	93.9	100.7	103.2	103.1	105.0	1.8%	3.0%
Taiwan	34.8	36.0	37.2	39.9	39.8	39.2	38.8	-1.0%	1.1%
Thailand	37.5	37.8	35.4	35.4	34.8	33.1	35.3	6.7%	1.0%
Other Asia Pacific	16.4	17.5	18.3	19.0	20.6	21.4	22.5	5.1%	0.6%
Total Asia Pacific	**892.5**	**926.5**	**903.6**	**946.5**	**978.1**	**976.7**	**991.6**	**1.5%**	**28.1%**
TOTAL WORLD	**3321.3**	**3395.2**	**3411.7**	**3480.4**	**3517.5**	**3517.1**	**3522.5**	**0.1%**	**100.0%**
Of which European Union 15	619.0	623.9	635.3	636.6	633.8	639.6	634.4	-0.9%	18.0%
OECD	2112.4	2144.6	2150.5	2187.5	2198.4	2194.5	2181.9	-0.6%	61.9%
Former Soviet Union	188.7	186.7	180.8	177.4	170.8	167.4	168.3	0.6%	4.8%
Other EMEs	1020.0	1064.0	1080.2	1115.5	1148.0	1155.3	1172.3	1.5%	33.3%

* Inland demand plus international aviation and marine bunkers and refinery fuel and loss

^ Less than 0.05 • Less than 0.05%

Source : B.P. Amoco Statistical Review of World Energy, 2003.

XIV.10 PRODUCT-WISE REGIONAL CONSUMPTION OF MAIN PETROLEUM PRODUCTS DURING 1996 - 2002

(Thousand barrels daily)

	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
North America									
Gasolines	9389	9560	9849	9998	10106	10211	10553	3.4%	44.9%
Middle distillates	6194	6398	6450	6628	6811	6812	6643	-2.5%	28.3%
Fuel oil	1348	1351	1506	1415	1518	1411	1161	-17.8%	4.9%
Others	4805	4882	4788	5169	5037	5007	5130	2.5%	21.9%
Total North America	**21736**	**22191**	**22593**	**23210**	**23473**	**23441**	**23487**	**0.2%**	**100.0%**
of which: USA									
Gasolines	8167	8324	8579	8716	8813	8890	9181	3.3%	46.6%
Middle distillates	5342	5502	5545	5700	5852	5884	5722	-2.7%	29.0%
Fuel oil	831	777	869	814	893	794	635	-20.0%	3.2%
Others	3969	4017	3924	4290	4143	4082	4170	2.2%	21.2%
Total USA	**18309**	**18621**	**18917**	**19519**	**19701**	**19649**	**19708**	**0.3%**	**100.0%**
S. & Cent. America									
Gasolines	1187	1257	1274	1387	1273	1237	1201	-2.9%	26.2%
Middle distillates	1538	1625	1700	1684	1680	1700	1701	•	37.1%
Fuel oil	768	827	850	740	789	747	736	-1.6%	16.0%
Others	807	831	859	896	919	999	953	-4.6%	20.7%
Total S. & Cent. America	**4300**	**4539**	**4683**	**4705**	**4662**	**4684**	**4590**	**-2.0%**	**100.0%**
Europe									
Gasolines	4220	4271	4309	4322	4209	4127	4023	-2.5%	25.1%
Middle distillates	6356	6421	6630	6700	6740	6958	6892	-0.9%	43.0%
Fuel oil	2260	2206	2194	2096	1975	1983	2030	2.4%	12.7%
Others	2790	2933	2956	2947	3063	3107	3080	-0.9%	19.2%
Total Europe	**15626**	**15831**	**16090**	**16065**	**15987**	**16176**	**16025**	**-0.9%**	**100.0%**
Middle East									
Gasolines	773	812	828	842	846	849	904	6.5%	20.8%
Middle distillates	1466	1463	1458	1485	1499	1535	1554	1.2%	35.8%
Fuel oil	1208	1233	1219	1265	1264	1221	1150	-5.9%	26.5%
Others	664	681	702	712	710	703	730	3.9%	16.9%
Total Middle East	**4112**	**4189**	**4207**	**4304**	**4320**	**4309**	**4338**	**0.7%**	**100.0%**
Africa									
Gasolines	552	559	568	574	578	589	597	1.3%	23.6%
Middle distillates	894	920	950	985	1009	1029	1057	2.7%	41.8%
Fuel oil	446	466	491	494	470	450	446	-0.9%	17.7%
Others	347	360	374	385	394	412	427	3.6%	16.9%
Total Africa	**2239**	**2305**	**2383**	**2439**	**2451**	**2481**	**2527**	**1.9%**	**100.0%**
Asia Pacific (including China and Japan)									
Gasolines	4549	4973	5018	5309	5549	5610	5868	4.6%	27.4%
Middle distillates	7160	7430	7186	7595	7792	7962	8054	1.1%	37.6%
Fuel oil	3795	3829	3564	3549	3505	3339	3144	-5.9%	14.7%
Others	3364	3447	3483	3745	4092	4088	4333	6.0%	20.3%
Total Asia Pacific	**18868**	**19680**	**19250**	**20198**	**20939**	**21000**	**21399**	**1.9%**	**100.0%**

Contd....

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XIV.10 PRODUCT-WISE REGIONAL CONSUMPTION OF MAIN PETROLEUM PRODUCTS DURING 1996–2002

(Thousand barrels daily)

	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
China									
Gasolines	986	1111	1098	1164	1313	1252	1387	10.8%	25.9%
Middle distillates	1080	1202	1277	1455	1633	1709	1786	4.5%	33.3%
Fuel oil	719	750	725	694	725	728	631	-13.3%	11.8%
Others	888	871	946	1103	1314	1342	1558	16.1%	29.0%
Total China	**3672**	**3935**	**4047**	**4416**	**4985**	**5030**	**5362**	**6.6%**	**100.0%**
Japan									
Gasolines	1576	1646	1611	1702	1735	1720	1758	2.2%	32.9%
Middle distillates	2027	1991	1949	1978	1958	1957	1912	-2.3%	35.8%
Fuel oil	1067	977	879	861	804	690	647	-6.3%	12.1%
Others	1142	1147	1085	1077	1079	1066	1020	-4.3%	19.2%
Total Japan	**5812**	**5761**	**5525**	**5618**	**5576**	**5434**	**5337**	**-1.8%**	**100.0%**
World excl. FSU									
Gasolines	20670	21433	21847	22433	22562	22623	23145	2.3%	32.0%
Middle distillates	23607	24257	24374	25076	25531	25997	25900	-0.4%	35.8%
Fuel oil	9824	9911	9825	9559	9521	9152	8666	-5.3%	12.0%
Others	12778	13134	13161	13853	14216	14317	14654	2.4%	20.2%
Total World excl. FSU	**66879**	**68735**	**69207**	**70921**	**71831**	**72090**	**72365**	**0.4%**	**100.0%**
European Union 15									
Gasolines	3559	3590	3607	3622	3545	3486	3395	-2.6%	25.3%
Middle distillates	5440	5514	5677	5761	5822	6005	5955	-0.8%	44.4%
Fuel oil	1755	1703	1736	1663	1557	1543	1602	3.8%	11.9%
Others	2295	2379	2402	2419	2447	2500	2458	-1.7%	18.4%
Total European Union 15	**13049**	**13186**	**13422**	**13465**	**13371**	**13535**	**13409**	**-0.9%**	**100.0%**
OECD									
Gasolines	15968	16415	16728	17028	17070	17088	17408	1.9%	36.7%
Middle distillates	15468	15738	15751	16110	16274	16491	16229	-1.6%	34.2%
Fuel oil	5036	4904	4831	4671	4641	4408	4137	-6.2%	8.7%
Others	9084	9353	9203	9611	9626	9621	9684	0.7%	20.4%
Total OECD	**45556**	**46409**	**46513**	**47420**	**47611**	**47608**	**47457**	**-0.3%**	**100.0%**
Other EMEs									
Gasolines	4702	5018	5119	5405	5492	5535	5738	3.7%	23.0%
Middle distillates	8139	8519	8623	8967	9257	9507	9671	1.7%	38.8%
Fuel oil	4788	5008	4994	4888	4880	4744	4529	-4.5%	18.2%
Others	3694	3781	3958	4242	4590	4696	4970	5.8%	20.0%
Total Other EMEs £	**21323**	**22325**	**22694**	**23501**	**24220**	**24482**	**24908**	**1.7%**	**100.0%**

^ Less than 0.05

• Less than 0.05%

£ Excludes Former Soviet Union

Source : B.P. Amoco Statistical Review of World Energy, 2003.

XIV.11 WORLD OIL PRODUCTION, CONSUMPTION AND RELATIVE DEFICIT/SURPLUS IN EACH COUNTRY/REGION DURING 2001 AND 2002

(Million Tonnes)

Country/Region	2001				2002*			
	Production	Consump-tion	Deficit/ Surplus	% extent of dependence	Production	Consump-tion	Deficit/ Surplus	% extent of dependence
1	2	3	4	5	6	7	8	9
North America	653.3	1068.2	-414.9	-38.8	664.4	1064.9	-400.5	-37.6
South & Central America	342.8	218.8	124.0	56.7	335.7	214.8	120.9	56.3
Middle East	1085.6	206.4	879.2	426.0	1014.6	207.4	807.2	389.2
Africa	373.3	116.5	256.8	220.4	376.4	118.6	257.8	217.4
Asia pacific	378.9	976.7	-597.8	-61.2	381.4	991.6	-610.2	-61.5
Of which India	36.0	96.7	-60.7	-62.8	36.7	97.7	-61	-62.4
Japan	na	247.5	na	na	na	242.6	na	na
China	164.8	232.2	-67.4	-29.0	168.9	245.7	-76.8	-31.3
Australia	31.8	38.1	-6.3	-16.5	31.5	38.0	-6.5	-17.1
OECD	1001.4	2194.5	-1193.1	-54.4	1009.7	2181.9	-1172.2	-53.7
Europe & Eurasia	746.7	930.5	-183.8	-19.8	784.2	925.2	-141.0	-15.2
Former Soviet Union	424.5	167.4	257.1	153.6	464.6	168.3	296.3	176.1
Total World	**3580.6**	**3517.1**	63.5	1.8	**3556.8**	**3522.5**	34.3	1.0

Source : BP Amoco Statistical Review of World Energy, June 2003.

XIV.12 WORLD CRUDE OIL AND PETROLEUM PRODUCTS IMPORTS AND EXPORTS DURING 2002

Country/Area	Imports		Exports		Imports		Exports	
	Crude	Products	Crude	Products	Crude	Products	Crude	Products
	(Million Tonnes)				(Thousand Barrels Daily)			
1	2	3	4	5	6	7	8	9
USA	451	111	1	42	9047	2310	26	878
Canada	43	8	71	25	868	174	1428	531
Mexico	0	12	93	4	0	242	1876	90
South & Central America	42	13	103	43	847	265	2076	888
Europe	467	120	67	42	9386	2508	1348	886
Former Soviet Union	0	6	189	76	0	115	3790	1580
Middle East	4	5	787	108	84	107	15811	2251
North Africa	8	6	93	36	167	125	1870	750
West Africa	3	8	152	4	58	174	3042	92
East & Southern Africa	25	5	8	0	496	111	169	6
Australasia	25	5	16	4	492	109	329	86
China	69	31	7	10	1394	648	147	199
Japan	202	48	0	4	4061	1010	0	88
Other Asia pacific	327	98	48	54	6571	2051	970	1133
Unidentified*	0	10	29	33	0	209	590	698
Total World	**1667**	**486**	**1667**	**486**	**33471**	**10157**	**33471**	**10157**

* Includes changes in the quality of oil in transit, movements not otherwise shown, unidentified military use etc.

Note : Bunkers are not included as exports

Intra-area movements (for example, between countries in Europe) are excluded.

Source : BP Amoco Statistical Review of World Energy, June 2003.

XIV.13 EXPORTS OF CRUDE OIL AND REFINED PETROLEUM PRODUCTS FROM OPEC MEMBERS

(Million Tonnes)

Country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
1	2	3	4	5	6	7	8	9	10	11
					CRUDE OIL					
Algeria	308.0	329.2	332.8	390.8	373.1	594.4	414.6	461.1	441.5	397.3
Indonesia	681.6	792.6	743.9	706.7	709.7	678.0	781.9	622.5	599.2	609.9
I.R.Iran	2600.0	2650.0	2621.0	2630.0	2587.0	2512.0	2291.0	2492.2	2184.6	2093.6
Iraq	59.2	60.0	63.5	88.1	746.6	1417.6	2130.9	2039.8	1710.2	1494.6
Kuwait	1440.0	1263.5	1186.4	1224.2	1134.2	1190.2	948.2	1230.7	1214.1	1138.0
Sp.Libya A.J.	1110.0	1125.0	1120.3	1123.4	1115.7	1161.0	991.7	1005.0	987.6	922.4
Nigeria	1557.0	1590.0	1665.0	1812.9	1855.5	1832.8	1705.1	1986.4	2089.4	1798.2
Qatar	340.6	322.6	333.0	367.0	465.0	572.4	580.5	617.6	605.5	580.8
Suadi Arabia	6292.9	6233.6	6290.8	6109.3	6184.5	6390.4	5719.7	6253.1	6035.9	5284.6
U.A.E	1970.0	1955.0	1925.0	1943.2	1949.0	2039.0	1919.0	1814.9	1786.7	1614.0
Venezuela	1540.0	1696.4	1819.9	1976.4	2210.8	2243.9	1923.0	2003.5	1964.7	1572.0
Total OPEC	17899.6	18017.9	18101.6	18331.1	19331.1	20586.9	19405.5	20526.7	19619.4	17505.5
					REFINED PETROLEUM PRODUCTS					
Algeria	374.6	384.0	395.8	406.1	462.3	461.9	599.7	544.3	555.8	408.2
Indonesia	239.1	250.1	294.1	297.1	257.3	220.8	191.9	188.8	196.3	152.4
I.R.Iran	70.0	119.5	165.6	172.5	225.9	277.8	362.9	347.3	307.7	290.0
Iraq	17.6	17.8	18.3	23.6	18.9	23.0	23.0	23.0	25.0	22.5
Kuwait	419.0	622.3	794.2	751.5	848.0	795.0	838.6	674.5	642.3	572.2
Sp.Libya A.J.	142.0	130.0	132.7	125.3	147.9	168.6	201.2	237.0	225.0	221.1
Nigeria	32.5	25.0	38.8	22.6	25.3	3.8	14.1	47.3	65.7	78.2
Qatar	116.2	103.0	98.0	107.0	125.0	95.1	75.3	75.3	78.1	67.3
Suadi Arabia	1385.7	1360.1	1321.6	1492.0	1392.9	1368.9	1279.7	1228.1	1082.6	993.5
U.A.E	160.0	155.0	269.1	271.9	323.1	319.1	331.0	391.7	398.2	485.5
Venezuela	634.5	633.5	688.3	742.1	841.5	846.2	828.0	779.6	761.1	569.7
Total OPEC	**3591.2**	**3800.3**	**4216.5**	**4411.7**	**4668.0**	**4580.2**	**4745.3**	**4536.8**	**4337.8**	**3860.6**

Note : Equador and Gabon withdraw their membership from OPEC.

Source : OPEC Annual Statistical Bulletin, 2002. * : Provisional

XIV. 14 CRUDE OIL IMPORTS FROM OPEC MEMBER COUNTRIES BY REGIONS 1993 TO 2002

(Million Tonnes)

IMPORT REGION	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
1	2	3	4	5	6	7	8	9	10	11
North america	189.8	187.6	183.1	185.4	212.0	236.5	221.8	239.5	245.6	210.7
Of which : USA	182.0	177.0	171.3	174.0	199.2	222.2	209.0	226.6	229.4	194.8
Latin America	38.9	40.7	33.6	40.0	35.2	37.3	41.1	45.6	45.7	35.0
Western Europe	279.6	262.3	253.6	252.1	264.3	292.4	248.0	255.1	215.9	188.8
Of which :										
France	52.4	44.4	44.0	42.2	42.7	49.9	41.1	39.9	35.7	30.8
Germany	31.2	37.1	29.8	28.8	27.3	28.0	23.8	24.8	20.8	18.2
Italy	55.8	46.8	49.4	53.8	60.2	64.0	59.2	61.8	51.0	49.7
U.K	17.3	11.5	10.1	9.2	6.6	7.3	4.3	3.9	4.1	5.0
Middle East	14.8	15.6	15.1	15.6	15.3	15.7	14.6	13.6	13.5	11.9
Africa	14.0	14.7	25.2	23.6	26.1	27.9	27.8	31.0	27.8	24.2
Asia and Pacific	346.3	358.7	369.9	371.3	380.5	377.8	393.3	413.0	401.1	389.6
Of which:										
Japan	169.3	179.2	179.2	177.2	186.5	177.5	175.0	177.9	198.2	190.2
Oceania	10.6	9.2	9.6	10.8	10.6	12.8	na	na	na	na
Eatern Europe	7.1	8.7	9.8	9.2	11.7	13.8	9.0	10.2	7.6	6.3
Unspecified	5	-	0.5	2.8	0.3	0.8	10.5	15.4	17.0	2.7
OECD Area	662.3	631.4	570.3	618.1	663.2	721.3	na	na	na	na
TOTAL WORLD	**906.1**	**897.2**	**900.5**	**910.7**	**955.8**	**1015.2**	**966.2**	**1023.4**	**974.1**	**869.1**

Source : OPEC Annual Statistical Bulletin, 2002

Note : Converted into million tonnes using conversion factor : 1bbl = 0.136 Metric Tonnes

* : Provisional

XIV. 15 CRUDE OIL EXPORTS FROM OPEC MEMBER COUNTRIES BY DESTINATION DURING 2002

(1,000 b/d)

Destination/Country	Algeria	Indonesia	IR Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela
1	2	3	4	5	6	7	8	9	10	11	12
North america	104.3	47.1	-	932.8	215.9	-	644.3	14.8	1339.2	10.0	935.6
Latin America	8.2	-	35.0	-	-	-	136.4	-	60.5	-	464.5
Eatern Europe	1.8	-	90.0	24.6	-	7.5	2.6	-	-	-	-
Western Europe	265.2	-	620.6	414.3	118.8	899.9	412.3	1.5	940.0	3.0	126.9
Middle East	-	-	25.0	78.4	-	-	-	-	135.5	-	-
Africa	-	-	120.0	-	-	13.6	140.6	-	187.3	26.0	-
Asia and Pasific	17.9	562.8	1203.0	44.5	803.3	1.4	462.0	555.1	2622.1	1575.0	-
Unspecified	-	-	-	-	-	-	-	9.4	-	-	44.9
TOTAL WORLD	**397.3**	**609.9**	**2093.6**	**1494.6**	**1138.0**	**922.4**	**1798.2**	**580.8**	**5284.6**	**1614.0**	**1572.0**

Source : OPEC Annual Statistical Bulletin, 2002

- Nil or Negligible

XIV. 16 VALUE OF PETROLEUM EXPORTS@ FROM OPEC MEMBER COUNTRIES DURING 1993 TO 2002

(Billion US $)

Countries	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11
Algeria	6.90	6.36	6.90	9.16	8.35	5.69	7.55	12.92	13.29	13.48
Indonesia	5.69	6.00	6.44	7.87	7.24	4.60	6.58	10.94	8.94	8.58
I.R.Iran	14.25	14.80	14.94	17.96	17.66	11.10	16.09	25.44	21.42	19.22
Iraq	0.42	0.42	0.46	0.68	4.28	5.11	12.10	18.15	12.68	10.40
Kuwait	9.70	10.48	12.05	14.09	13.46	8.96	10.99	19.20	15.91	15.55
Sp.Libya A.J.	7.69	7.17	7.76	9.54	8.90	5.61	7.73	13.25	10.87	10.48
Nigeria	10.85	11.04	11.51	14.88	15.84	9.84	12.45	20.04	17.19	17.08
Qatar	2.81	2.62	2.98	3.80	4.65	3.17	4.77	7.83	6.96	6.89
Suadi Arabia	38.62	38.12	42.50	50.04	52.12	33.39	44.93	74.59	65.21	63.29
U.A.E	12.11	11.68	12.82	14.98	15.26	11.13	15.02	26.15	22.41	21.77
Venezuela	11.03	11.47	13.73	18.52	18.18	11.51	16.46	25.60	20.18	19.85
Total OPEC	**120.07**	**120.16**	**132.09**	**161.52**	**165.94**	**110.14**	**154.71**	**254.10**	**215.07**	**206.58**

@= Where applicable, petroleum product exports are included

Data for some countries may include export of condensates and other NGLs.

Source : OPEC Annual Statistical Bulletin, 2002.

XIV.17 SPOT PRICES OF KEY OPEC CRUDES SINCE 1990

(US $/BBl)

Period	Country/Crude Name													
	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia		UAE	Venezuela	Indonesia	I.R.Iran		Iraq		Oman
	kuwait Exp.	Brega	Forcados	Dukhan	Arab Medium	Arab Heavy	Murban	T.J.Medium	Attacka	Iran Light	Iran Heavy	Basrah	Kirkuk	Oman
	31.4/2.6	40.4/0.2	41.4/1.1	41.4/1.1	30.3/2.4	28.0/3.0	39.4/0.8	24.0/0.85	42.3/0.09	33.9/1.4	31.0/1.6	34.0/2.0	36.1/2.1	36.3/0.79
1990	-	23.82	23.74	21.22	19.50	18.77	21.70	18.58	23.73	20.64	19.91	-	-	20.89
1991	-	20.41	20.17	17.86	15.77	14.02	18.17	15.83	20.68	17.34	16.33	-	-	17.14
1992	-	19.84	19.61	18.49	16.41	15.22	18.86	16.03	20.51	17.77	16.72	-	-	17.72
1993	14.07	17.08	17.44	16.21	14.19	13.03	16.90	14.32	18.10	15.06	14.08	-	-	15.77
1994	14.14	15.88	16.20	15.82	14.41	13.65	16.21	14.34	16.48	14.84	14.56	-	-	15.12
1995	15.90	17.21	17.26	16.73	16.09	15.58	17.18	15.91	17.82	16.17	16.26	-	-	16.34
1996	18.41	21.06	21.21	19.46	19.01	18.44	20.30	19.48	21.53	19.03	18.49	-	-	19.12
1997	17.81	19.36	19.29	18.99	17.97	17.17	19.59	-	20.35	18.24	18.00	-	-	18.52
1998	11.26	12.90	12.62	12.55	11.53	10.90	12.67	-	13.53	11.97	11.45	10.77	10.79	12.06
1999	16.75	18.08	17.93	17.65	16.95	16.44	17.89	-	17.94	17.25	16.93	16.28	16.43	17.27
2000	25.78	28.65	28.40	26.95	25.99	25.24	27.75	-	29.54	26.75	26.02	24.92	25.17	26.50
2001	21.37	24.70	24.24	23.74	22.6	21.9	24.02	-	26.3	22.9	21.67	20.00	20.07	22.75
2002	23.61	24.96	25.05	24.55	14.88	23.08	24.87	-	25.38	23.52	23.09	23.02	22.63	23.94
2002														
Jan	18.11	19.71	19.53	19.28	na	18.00	19.74	na	19.77	18.95	18.64	16.87	16.94	18.54
Feb	18.69	20.32	20.13	19.78	na	18.61	20.24	na	19.44	18.95	18.58	18.64	18.36	19.06
Mar	22.74	23	23.55	23.29	na	22.51	23.75	na	23.15	22.31	21.98	22.72	22.12	23.02
Apr	24.28	25.48	25.59	25.17	na	24.02	25.60	na	25.66	24.10	23.73	23.87	23.14	24.62
May	24.48	24.96	24.97	25.37	na	24.41	25.90	na	25.71	23.76	23.40	23.62	23.00	24.87
Jun	23.80	23.69	23.83	24.36	na	23.49	24.93	na	24.60	22.52	22.21	23.44	22.68	24.03
Jul	24.39	25.73	25.86	25.05	na	24.36	25.68	na	25.89	24.37	23.95	24.01	23.92	24.74
Aug	25.14	26.68	26.83	25.53	na	24.98	26.20	na	26.89	25.20	24.74	25.21	24.58	25.25
Sep	26.64	28.28	28.44	27.08	na	26.33	27.58	na	28.17	26.87	26.45	26.55	26.05	26.75
Oct	26.23	27.63	27.84	26.87	na	25.85	27.31	na	27.77	26.05	25.57	24.29	24.15	26.55
Nov	22.97	24.09	24.09	23.67	na	22.42	24.31	na	26.77	22.24	21.66	21.74	20.84	23.37
Dec	25.65	29.02	29.24	26.53	na	25.42	26.90	na	30.18	26.40	25.70	25.35	25.83	26.21

Notes : The number below crude names indicate the API gravities content in weight percentage; T.J. Medium quatations are posted prices.
Source : OPEC Annual Statistical Bulletin, 2002.

XIV.18 CRUDE OIL SPOT PRICES IN US $/BBL

(Average Unit Value, FOB)

Crude	Country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11	12
Brent	U.K	17.00	15.81	17.03	20.66	19.12	12.76	17.85	28.37	24.46	24.98
WTI	U.S.A	18.44	17.20	18.41	21.77	20.62	14.40	19.25	30.30	25.89	26.09
WTS	U.S.A	16.86	16.27	17.41	20.91	18.81	12.84	17.95	28.29	23.17	24.65
Louisiana Light	Louisiana	18.55	17.25	18.59	22.34	20.73	14.20	19.03	30.45	25.95	26.14
Dubai	UAE	14.92	14.75	16.10	18.57	18.15	12.18	17.20	26.15	22.81	23.80
Iranian Light	Iran	15.38	15.13	16.35	20.04	17.78	11.27	16.57	26.64	22.61	23.48
Iranian Heavy	Iran	14.48	14.74	15.94	19.40	17.32	10.82	16.13	26.05	22.08	23.05
Urals	Russia	15.39	15.23	16.52	20.81	18.33	11.83	17.18	26.97	23.12	23.76
Minas	Indonesia	17.89	16.20	17.63	20.63	19.30	12.36	17.79	28.75	24.06	25.54
Tapis	Malaysia	18.85	17.14	18.28	21.53	21.00	13.84	18.84	29.74	25.33	25.64

XIV.19 PETROLEUM PRODUCTS SPOT PRICES IN US $/BBL

(Average Unit Value, FOB)

Product	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11
					NW EUROPE					
Gasoline	20.93	18.89	20.01	23.22	23.33	16.76	23.11	34.27	28.91	28.53
Gas Oil	22.28	19.81	20.47	25.74	23.39	16.19	20.85	34.28	29.15	27.77
Jet/Kero	23.36	20.95	21.60	27.05	24.58	17.16	22.04	36.89	30.82	29.21
Naphtha	18.47	17.30	18.15	21.70	21.43	14.64	18.68	28.97	23.73	24.22
LSFO	13.50	14.00	15.76	17.52	15.47	11.73	14.75	23.66	19.54	21.74
HSFO	10.22	13.01	14.82	16.30	14.59	10.20	14.41	21.33	17.80	20.61
					U.S.A					
Gasoline	21.58	20.53	22.58	25.81	25.22	17.8	22.71	35.95	30.96	30.25
Gas Oil	22.03	20.69	20.72	26.35	23.64	16.43	20.45	36.41	29.78	28.50
Jet/Kero	23.31	22.20	21.76	27.57	24.58	18.03	21.74	38.10	31.12	29.76
Naphtha	..	..	..	..	..	..	..	..	..	..
LSFO	14.64	15.05	16.06	19.22	16.91	12.32	15.47	25.03	20.68	22.46
HSFO	11.22	12.24	14.47	16.03	15.26	10.25	13.96	20.65	17.35	20.90
					SINGAPORE					
Gasoline	24.02	21.09	22.14	23.58	24.57	17.19	21.02	32.51	27.50	28.00
Gas Oil	24.02	20.88	21.61	27.07	24.28	15.47	19.13	32.44	27.29	27.45
Jet/Kero	23.31	22.2	21.76	27.57	24.58	18.03	21.74	34.27	28.31	27.99
Naphtha	17.22	16.35	17.54	20.22	21.93	14.84	19.39	28.28	23.78	24.89
LSFO	14.86	13.35	14.55	17.95	16.93	10.98	15.50	25.73	21.83	23.74
HSFO	10.81	12.37	14.30	15.90	15.10	10.09	15.14	24.12	20.37	22.88

.. = Not Available

Source : Energy Prices and Taxes, 1st Quarter of 2003. International Energy Agency Publication.

XIV. 20 NATURAL GAS PRICES FOR INDUSTRY AND HOUSEHOLD USE

US $ 10^7 kcal (GCV Basis)

Country	1995	1996	1997	1998	1999	2000	2001	2002*
			A. FOR INDUSTRIAL USE					
Austria	171.9	172.0	164.5	154.7	144.7	NA	NA	NA
Belgium	141.5	132.6	131.4	c	c	c	c	c
Canada	69.8	71.1	72.5	70.6	79.4	89.8	108.8	125.3
Czech Repubic	157.5	164.1	152.2	159.6	142.8	147.6	155.9	173.6
Finland	145.9	148.7	143.7	138.5	128.1	130.7	126.0	126.9
France	161.0	161.9	152.7	145.5	135.4	167.8	187.1	171.9
Germany	201.1	201.6	189.9	177.7	161.6	187.9	NA	NA
Hungary	105.6	105.8	145.0	144.8	134.9	124.9	158.5	188.7
Ireland	318.3	317.8	300.9	171.6	164.9	114.2	143.5	183.8
Italy	173.7	197.9	191.9	171.3	c	c	c	c
Japan	490.4	423.1	463.3	356.0	385.8	452.7	406.4	357.0
Mexico	70.2	102.7	114.2	81.4	88.3	150.0	163.4	122.7
Netherlands	158.7	153.0	142.8	132.9	116.8	166.5	175.6	164.5
New Zealand	203.0	217.2	222.0	209.3	217.4	176.2	162.7	187.4
Poland	129.7	138.4	130.6	132.0	121.8	133.0	173.3	173.1
Spain	159.0	168.7	155.8	137.8	131.5	175.4	176.0	165.5
Switzerland	296.9	272.8	237.5	238.8	215.0	222.9	296.4	281.1
Turkey	157.6	187.8	199.3	172.3	162.3	175.3	200.1	215.4
U.K	127.1	92.0	101.8	108.7	102.9	104.6	140.4	141.7
U.S.A	100.8	129.2	136.2	119.0	118.7	171.3	191.5	151.2
OECD Europe	166.4	164.2	159.3	150.5	134.6	157.7	NA	NA
OECD	130.1	143.6	147.6	133.5	129.5	168.3	186.8	161.4
			B. FOR HOUSEHOLD USE					
Austria	459.7	468.3	430.8	415.3	393.4	348.4	368.5	379.3
Belgium	487.1	451.8	413.3	409.8	383.1	407.7	NA	NA
Canada	162.2	169.7	170.6	169.8	212.4	199.4	294.1	236.2
Czech Repubic	125.5	131.6	128.7	177.3	185.1	214.1	233.0	274.8
Denmark	691.5	739.2	677.6	645.2	654.6	735.1	709.2	720.1
Finland	177.9	181.4	170.3	169.0	156.2	159.5	221.1	201.6
France	500.5	470.4	426.6	434.9	384.5	354.5	402.7	435.0
Germany	476.8	438.9	416.6	404.8	382.2	373.4	NA	NA
Hungary	137.2	136.3	165.6	202.5	185.0	166.3	183.2	215.4
Ireland	473.6.	472.8	447.7	420.3	435.3	345.8	353.0	376.2
Italy	667.2	733.1	698.6	690.7	639.0	c	c	c
Japan	1410.7	1294.1	1287.8	1068.4	1196.4	1294.1	1168.2	1086.4
Mexico	298.0	319.4	296.7	274.5	244.5	275.6	300.2	272.7
Netherlands	406.2	400.2	393.1	393.6	369.2	359.4	401.4	457.1
New Zealand	363.4	415.9	437.7	380.2	379.3	322.5	296.6	341.6
Poland	208.7	236.1	227.7	248.3	240.9	247.5	304.0	336.9
Spain	609.5	613.4	548.0	533.2	481.1	491.4	507.9	496.9
Switzerland	537.8	505.7	437.7	439.6	412.2	411.3	490.5	494.9
Turkey	210.6	209.3	237.5	235.1	225.8	259.6	242.6	254.6
U.K	328.8	325.7	338.2	330.6	321.0	292.8	286.5	317.0
U.S.A	244.3	264.3	266.8	262.2	257.2	298.4	375.3	326.5
OECD Europe	444.0	437.7	423.3	423.0	399.0	328.9	NA	NA
OECD	361.9	367.2	363.1	359.3	351.8	352.6	382.9	359.0

NA = Not Available; GCV = Gross Caloific Value; 0.95 tonne of oil is approximatly 10^7 kcol. of Gas
Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2003.
c = price is confidential

XIV. 21 CRUDE OIL IMPORT COST IN US $/bbl

(Average Unit Value, CIF)

Country	1993	1994	1995	1996	1997	1998	19999	2000	2001	2002
IEA*	16.37	15.65	17.19	20.52	19.11	12.52	17.26	28.00	23.65	24.18
IEA Europe	16.14	15.63	17.06	20.67	18.88	12.30	17.32	27.89	23.92	24.26
Australia	17.91	16.76	18.53	21.81	21.78	14.60	18.38	30.79	26.61	25.80
Belgium	15.84	15.41	16.94	20.53	18.65	11.97	17.33	27.87	24.20	24.35
Canada	17.19	16.30	17.76	21.26	20.59	13.15	17.85	29.10	24.87	24.97
France	16.05	15.76	17.14	20.82	18.99	12.43	17.45	28.18	24.13	24.63
Germany	16.88	15.81	17.07	20.68	19.01	12.48	17.51	28.09	24.15	24.40
Greece	15.09	15.17	16.54	20.08	18.45	11.66	16.64	26.95	23.22	24.08
Italy	15.87	15.49	16.90	20.53	18.83	12.21	17.10	27.77	23.87	24.34
Japan	17.47	16.48	18.02	20.55	20.55	13.68	17.38	28.72	25.01	24.96
Netherlands	15.53	15.20	16.92	20.39	18.37	11.98	16.97	27.59	23.48	23.99
Spain	15.13	15.24	16.96	20.45	18.34	11.80	16.99	27.16	23.32	23.80
Sweden	16.60	15.81	17.23	20.86	18.90	12.61	17.68	28.13	24.03	23.86
Turkey	16.05	15.52	16.78	20.25	18.79	11.99	16.07	26.61	NA	NA
U.K	16.58	15.83	17.29	21.08	19.32	12.64	18.01	28.45	24.45	24.58
U.S.A	15.87	15.06	16.74	20.16	18.34	12.02	17.06	27.54	22.07	23.58

* = Computed across all countries of the region using import volumes as current weights.

For reasons as confidentially,data for some countries are not listed separately.

Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2003.

XIV. 22 DEVELOPMENT OF SPOT PRICES OF KEY OPEC CRUDE OILS

(US $/bbl)

Year/Month	Iran	Kuwait	Nigeria Bonny	Saudi Arabia		UAE
	Light 33.9	Export 31.4	Light 36.7	Light 34.2	Heavy 28.0	Dubai 32.4
2000						
January	24.35	23.70	25.41	24.43	23.08	23.23
February	25.70	24.84	28.36	25.85	24.00	24.77
March	25.87	25.07	27.54	26.02	24.52	24.99
April	22.86	22.29	22.91	22.95	22.00	22.14
May	26.10	25.60	27.87	26.27	25.27	25.69
June	27.99	27.44	29.86	29.09	27.09	27.24
July	27.09	26.39	28.75	27.19	25.99	26.35
August	27.12	26.21	29.06	27.12	25.52	26.79
September	30.45	29.05	32.65	30.60	28.00	30.05
October	30.42	28.87	30.67	30.17	28.21	30.57
November	29.75	28.20	32.86	29.81	27.94	30.25
December	22.66	21.11	25.47	22.65	20.83	22.27
2001						
January	22.63	21.08	25.43	22.31	20.74	22.56
February	24.65	23.10	27.4	24.82	23.32	24.79
March	23.58	22.03	24.35	23.77	22.57	23.67
April	24.05	22.50	25.43	24.24	23.15	24.06
May	25.58	24.03	28.51	25.77	24.60	25.40
June	25.80	24.25	28.06	26.17	24.88	25.86
July	23.78	22.47	24.81	24.03	22.61	23.45
August	24.68	23.13	25.41	24.92	23.77	24.70
September	24.54	22.99	25.98	24.73	23.63	24.37
October	20.04	18.49	20.6	20.16	19.36	19.93
November	17.64	16.09	18.92	17.82	17.00	17.62
December	17.69	16.14	18.78	17.99	17.21	17.60
2002						
January	18.95	18.11	19.65	18.83	18.00	18.54
February	18.95	18.69	20.30	19.47	18.61	19.02
March	22.31	22.74	23.76	23.33	22.51	22.97
April	24.10	24.28	25.79	24.98	24.02	24.54
May	23.76	24.48	25.10	25.33	24.41	24.77
June	22.52	23.80	23.98	24.42	23.49	23.87
July	24.37	24.39	25.93	25.13	24.36	24.66
August	25.20	25.14	26.94	25.63	24.98	25.22
September	26.87	26.64	28.46	27.10	26.33	26.72
October	26.05	26.23	27.90	26.95	25.85	26.41
November	22.24	22.97	24.07	23.67	22.42	23.28
December	26.40	25.65	29.27	26.56	25.42	25.81
2003						
January	29.13	28.08	30.78	29.1	27.78	28.02
February	29.89	30.02	32.33	31.11	29.86	29.94
March	27.94	27.81	30.83	28.98	27.33	27.76

Source : OPEC Monthly Bulletins

XIV.23 DEVELOPMENT OF SPOT PRISES OF MAJOR PETROLEUM PRODUCTS IN KEY TRADING CENTRES OF THE WORLD DURING 2001 AND 2002

(US $/Bl)

Market/Product	2001					2002				
	Jan	Mar	June	Sept	Dec	Jan	Mar	June	Sept	Dec
NAPHTHA:										
North Europeon Market, FOB Rotterdam	27.36	27.19	27.21	23.19	17.48	21.42	28.27	24.33	33.46	34.20
South Europeon Market, FOB Italy	26.35	24.13	27.15	23.46	16.91	17.55	23.43	22.05	27.95	27.71
Carribean Cargoes	34.10	28.63	25.85	26.30	19.32	19.63	25.86	26.85	32.16	31.49
Singapore Cargoes	25.50	27.43	27.57	24.67	18.36	18.97	24.92	23.84	27.52	29.57
Middle East FOB	24.29	26.28	26.95	24.07	17.61	18.55	24.27	23.82	27.13	28.14
GASOLINE (Premium Unl. 95)										
North Europeon Market, FOB Rotterdam	29.85	31.52	31.73	29.88	19.16	20.93	25.74	29.02	32.63	31.34
South Europeon Market, FOB Italy	28.76	30.53	32.21	29.93	19.11	19.89	24.07	26.23	31.79	30.57
US East Coast, NewYork (Unl.regular 87)	34.81	32.96	30.07	31.61	21.73	22.53	28.94	29.78	32.61	33.59
Singapore Cargoes	30.02	29.88	26.89	29.47	22.61	21.00	27.93	28.54	30.49	30.25
JET KERO										
North Europeon Market, FOB Rotterdam	32.03	31.72	33.69	32.18	23.11	23.46	26.73	28.04	34.19	33.21
US East Coast, New York	36.03	32.91	32.92	31.77	22.52	23.35	27.00	28.34	34.11	34.67
Carribean Cargoes	36.17	30.11	32.13	30.28	21.26	22.24	26.72	27.66	33.67	34.27
Singapore Cargoes	29.70	28.72	30.84	31.05	21.77	22.93	25.16	26.49	32.92	32.10
Middle East FOB	26.38	26.41	28.93	29.64	20.48	21.62	23.65	25.09	31.19	29.77
GAS OIL										
North Europeon Market, FOB Rotterdam	30.15	29.38	31.06	30.87	21.35	21.55	25.05	25.97	31.54	32.63
South Europeon Market, FOB Italy	27.32	27.55	30.98	na	27.58	22.37	24.15	25.48	30.56	32.02
US East Coast, New York	35.51	31.12	31.74	30.71	21.90	22.23	26.48	26.89	32.25	34.21
Carribean Cargoes	35.56	28.97	31.58	30.10	21.10	21.49	25.77	26.49	31.91	33.64
Singapore Cargoes	28.41	26.83	30.00	29.44	20.11	21.66	25.71	27.82	31.43	31.88
Middle East FOB	25.05	24.31	28.08	28.00	19.33	19.50	23.28	25.89	28.90	28.53
FUEL OIL										
North Europeon Market (1%s)	20.54	20.56	19.23	19.84	14.98	16.20	17.25	19.32	24.33	26.11
South Europeon Market,(1%s) FOB italy	20.13	18.39	17.71	18.99	15.15	17.26	17.99	20.21	25.07	24.07
US East Coast, New York (1%s)	25.40	23.31	20.22	20.24	16.52	16.08	19.43	22.70	26.02	26.68
Carribean Cargoes (2%s)	20.21	18.26	16.64	18.70	14.35	14.50	18.25	20.79	24.55	23.58
Singapore Cargoes (380 Cst)	17.99	20.04	20.16	21.85	16.44	16.24	19.73	21.99	25.34	24.24
Singapore Cargoes (180 Cst)	18.37	20.08	20.26	21.74	16.15	16.07	19.37	21.66	24.70	23.95
Middle East (180 Cst)	15.68	17.93	18.92	20.57	14.61	14.95	18.41	20.64	23.66	21.95

Source : OPEC Monthly Statistical Bulletin

XIV. 24 WORLD SURVEY OF SELECTED PETROLEUM PRODUCTS PRICES IN 2002

Country	US $ Exchange Rate in National Currencies	Premium Leaded Gasoline (US$/Ltr)	Automotive Diesel Oil Non-commercial use (US$/Ltr)	Heavy Fuel Oil For Industry (US$/tonne)	Light Fuel Oil For Household Use (US$/1000Ltr)	Light Fuel Oil For Industry Use (US$/1000Ltr)
1	2	3	4	5	6	7
Australia	1.84	0.482	0.468	..	..	..
Austria	1.06	na	0.678	..	360.5	..
Belgium	1.06	0.988	0.684	160.4	272.9	225.5
Canada	1.57	na	..	179.6	316.8	199.9
Czech Republic	32.73	na	0.664	139.4	332.0	227.3
Denmark	7.88	na	0.862	..	703.3	362.9
Finland	1.06	na	0.739	..	345.3	283.0
France	1.06	1.032	0.727	175.6	343.3	280.9
Germany	1.06	na	0.792	..	330.6	285.0
Greece	1.06	0.739	0.586	..	476.1	408.2
Hungary	257.40	..	0.782	163.5	na	705.9
Ireland	1.06	..	0.730	247.8	405.1	311.6
Italy	1.06	..	0.807	..	785.5	654.6
Japan	125.30	na	0.673	201.5	363.8	243.4
Korea	1251.00	..	..	274.9	443.2	442.4
Luxembourg	1.06	na	0.598	na	276.9	247.3
Mexico	9.66	na	..	..	..	..
Netherlands	1.06	na	0.745	..	538.8	..
New Zealand	2.16	na	0.292	320.8	..	244.8
Norway	7.99	1.198	1.027	..	648.8	489.2
Poland	4.08	na	0.632	131.1	356.4	253.3
Portugal	1.06	na	0.608	223.2	na	na
Slovak Republic	45.25	..	..	..	..	..
Spain	1.06	0.821	0.649	184.5	348.4	300.3
Sweden	9.72	na	0.863	na	648.2	268.5
Switzerland	1.56	na	0.857	na	262.4	213.0
Turkey*	1512.30	0.978	..	264.4	716.5	..
U.K	0.67	1.154	1.130	..	238.8	..
U.S.A	1.00	na	0.348	163.6	314.7	187.1

.. = not available na = nt applicable

* = Exchange rates for Turkey are per 1000 Lira.

Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2003.

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XIV. 25 POSTED AIRFIELD PRICES OF JET A-1 FUEL AT MAJOR INTERNATIONAL AIRPORTS AS ON 1ST APRIL OF EACH YEAR

(U.S.C/U.S.GALLON)

Countries/Ports	1990	1995	1996	1997	1998	1999	2000	2001	2002
Australia									
Baharin	NA	NA	NA	NA	NA	NA	NA	65.75	74.75
France									
Paris	66.24	60.94	77.62	70.42	54.20	54.20	91.99	86.79	68.30
Germany									
Frankfurt	67.96	62.29	78.21	66.87	NA	NA	NA	NA	NA
Netherlands									NA
Amesterdam	65.22	NA	NA	NA	NA	NA	NA	NA	NA
Italy									NA
Rome	68.48	82.03	71.97	NA	NA	NA	NA	NA	NA
Kenya									
Nairobi	NA	NA	NA	NA	NA	NA	NA	94.14	76.71
Malaysia									
Kaulalampur	NA	NA	NA	NA	NA	NA	NA	76.00	59.90
Singapore									
Paya Lebqr/Chan-gi	63.10	57.87	71.33	66.99	41.98	46.81	78.23	73.86	60.45
Switzerland									
Geneva	67.93	64.71	78.53	73.56	NA	NA	NA	NA	NA
U.A.E									
Abu Dhabi	NA	NA	NA	NA	NA	NA	NA	92.00	82.00
Dubai	78.11	80.00	92.00	91.00	63.50	63.00	108.25	89.45	78.30
U.K									
London (Heathrow)	66.37	57.00	73.68	63.55	47.31	46.98	87.65	83.06	62.42
Kuwait	NA	NA	NA	NA	NA	NA	NA	85.00	74.00
New York (1)	64.98	52.74	67.63	62.07	49.92	48.29	NA	81.63	61.04
Japan									
Tokyo	85.75	72.03	82.63	87.20	60.58	64.48	100.70	71.02	71.02
India									
Mumbai	89.59	93.00	110.40	119.40	81.60	75.60	120.00	113.34	94.43
Delhi	91.28	62.93	99.36	107.46	74.80	69.30	120.00	115.86	97.00
Madras	NA	NA	NA	NA	84.32	78.12	124.00	111.31	92.95

(1) = Air India contact Price

NA : Not available

Source : Air India

2251IPNG—21A

XIV. 26 INTERNATIONAL PETROLEUM PRICE INDEX DURING 1993 TO 2002

(US$/bbl))

Petroleum Spot	Price 1990	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
U.K. BRENT 38.0/0.26	20.89	72.00	72.05	66.92	87.67	80.73	53.83	75.86	120.46	117.09	119.82
USA WEST TAXAS INTERMEDIATE 40.0/0.4	24.46	75.43	70.28	75.31	90.76	84.06	58.71	78.90	124.16	106.30	106.83
UAE DUBAI FATEH 32.5/1.43	20.38	73.26	72.33	79.00	91.17	88.81	59.62	84.59	127.88	110.69	NA
USA ANS 27.0/1.06	21.92	74.68	71.76	78.38	93.66	86.36	57.03	81.07	129.56	106.48	112.91
IRAN LIGHT 33.9/1.4	20.64	72.97	71.90	78.34	92.2	88.37	57.99	83.58	129.60	110.95	113.95
IRAN HEAVY 31.0/1.6	19.91	70.72	73.13	81.67	92.87	90.41	57.51	85.03	130.69	108.84	115.97
INDONESIA MINAS 33.0/0.1	23.26	76.91	69.69	75.84	88.99	82.80	52.92	76.70	123.56	NA	NA
NIGERIA BONNY LIGHT 36.7/0.1	24.16	72.72	67.09	71.77	87.91	80.30	52.86	74.79	117.92	NA	NA
MEXICO ISTHUMAS 31.8/1.51	22.05	72.20	69.66	75.87	93.65	82.81	54.78	78.41	126.08	NA	NA
RUSSIA URALS 36.1/2.52	22.54	68.28	67.39	73.74	89.22	81.10	52.26	76.49	117.92	101.91	105.68
MALAYSIA TAPIS 44.3/0.2	26.91	78.28	71.18	75.96	91.40	86.88	57.35	78.49	123.50	NA	95.73
AUSTRALIA GIPPSLAND 46.0/0.13	23.62	74.77	68.16	73.37	89.03	84.04	56.44	78.32	124.47	106.77	107.83
SAUDI ARABIA ARAB HEAVY 28.0/3.0	18.77	69.42	72.72	83.00	98.24	91.48	58.07	87.59	134.47	116.68	124.56

Note : The number below the crude names show the API gravities and percentage of sulphur by weight.
Source : Based on data from OPEC Annual Statistical Bulletin, 2002.

XIV.27 TANKER FLEET DEVELOPMENT IN OPEC MEMBERS, 1998 - 2002 (1,000 DWT)

	1998		1999		2000		2001		2002	
Country	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
Algeria	1	22.6	1	22.6	1	22.6	1	22.6	1	22.6
Indonesia	25	739.1	31	904.2	32	988.9	32	988.9	32	988.9
Iran	17	2998.9	20	3523.6	21	3699.6	24	3070.6	27	4002.9
Iraq	16	1364.2	9	534.3	9	534.3	9	534.3	9	534.3
Kuwait	26	3343.0	17	2890.3	16	2862.9	26	3329.6	17	2898.0
Libya	9	1113.5	5	526.8	6	775.3	6	775.3	6	775.3
Nigeria	2	413.0	2	413.0	2	413.0	2	413.0	2	408.8
Qatar	5	479.0	5	465.8	4	368.6	4	368.6	4	368.6
Saudi Arabia	10	521.8	11	481.3	12	578.6	12	578.6	12	578.6
UAE	13	659.4	13	659.4	10	291.6	10	291.6	9	291.6
Venezuela	10	521.8	7	373.8	6	320.3	6	320.3	6	320.3
Total OPEC	**134**	**12176**	**121**	**10795**	**119**	**10856**	**132**	**10693**	**125**	**11190**
Total World	**3424**	**300460.0**	**3313**	**289358**	**3329**	**292059**	**3336**	**291110**	**3368**	**293571**
OPEC %		4.1		3.7		3.7		3.7		3.8

a) Including commercial units, Government owned vessels and tankers for purpose other than transportation.
Total may not add up, due to independent rounding. DWT : Deadweight Tonnage
Source : OPEC Annual Statistical Bulletin, 2002.

XIV.28 WORLD TANKER FLEET BY AGE, (1,000 DWT)

	1987 and earlier		1988-92		1993-97		1998-2002		Total	
Country	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
10,000-19,999	284	4312.2	43	639.7	99	1368.4	144	2187.3	570	8507.6
20,000-29,999	222	5926.5	51	1459.4	22	626.6	26	608.7	321	8621.2
30,000-39,999	281	9868.0	31	1153.4	59	2123.3	122	4280.6	493	17425.3
40,000-49,999	112	4946.3	76	3283.9	88	3915	131	6004.6	407	18149.8
50,000-59,999	73	3997.7	3	175.1	2	110.2	1	59.7	79	4342.7
60,000-69,999	120	7712.3	22	1455.7	20	1353.5	21	1415.0	183	11936.5
70,000-79,999	5	355.0	2	141.8	-	-	15	1078.8	22	1575.6
80,000-89,999	135	11571.9	25	2117.4	9	766.1	10	821.1	179	15276.5
90,000-99,999	49	4624.5	63	6078.1	66	6374.5	24	2350.2	202	19427.3
100,000-109,999	14	1475.1	21	2173.4	21	2212.1	103	10884.9	159	16745.5
110,000-119,999	8	922.6	9	1009.2	1	110.5	19	2129.0	37	4171.3
120,000-129,999	20	2520.4	5	619.0	6	747.6	9	1134.3	40	5021.3
130,000-139,999	13	1756.0	12	1644.0	10	1342.3	1	130.0	36	4872.3
140,000-149,999	4	574.0	37	5364.9	25	3697.1	26	3850.6	92	13486.6
150,000-159,999	11	1693.7	23	3551.9	9	1380.9	51	7968.0	94	14594.5
160,000-199,999	9	1619.9	-	-	-	-	11	1796.5	20	3416.4
200,000-229,999	3	654.5	-	-	-	-	-	-	3	654.5
230,000-259,999	27	6708.3	40	10106.5	23	5931.9	11	2848.0	101	25594.7
260,000-299,999	26	7097.4	40	11184.9	59	16999.3	54	15699.7	179	50981.3
300,000-349,999	9	2841.3	4	1213.9	34	1031.6	82	25151.9	129	39523.0
350,000 and over	19	7919.7	-	-	-	-	3	1326.9	22	9246.6
Total World	**1444**	**89097.3**	**507**	**53372.2**	**553**	**59375.2**	**864**	**91725.8**	**3368**	**293571**

a) Commercial fleet as well as tankers covered to purposes other than transportation.
b) Included vessels mentioned under a) and government owned tankers
Source : OPEC Annual Statistical Bulletin, 2002.
DWT : Deadweight Tonnage - = Nil or negligible.

XIV.29 INTER-AREA TOTAL OIL MOVEMENTS DURING 2002

(Million Tonnes)

From/To	USA	Canada	Mexico	S. & C. America	Europe	Africa	Australasia	China	Japan	Other Asia Pacific	Rest of World	Unidentified *	Total
USA	-	4.9	7.7	8.2	10.7	0.5	0.8	1.1	4.0	4.4	1.0	-	**43.3**
Canada	95.5	-	-	0.2	0.5	-	-	-	0.2	0.1	-	-	**96.5**
Mexico	76.2	1.2	-	7.8	9.7	-	-	-	0.6	2.0	0.2	-	**97.7**
S& C America	119.2	5.2	0.6	-	13.5	0.6	-	0.9	0.3	5.6	-	-	**145.9**
Europe	57.0	24.6	0.7	2.8	-	10.0	-	3.6	0.7	5.4	4.7	-	**109.5**
Former Soviet Union	9.8	-	-	7.4	214.6	0.5	-	8.1	1.2	10.4	2.3	10.0	**264.3**
Middle East	114.7	6.9	0.9	13.6	161.1	36.9	8.6	38.9	195.4	315.5	2.5	-	**895.0**
North Africa	13.6	5.1	1.7	4.5	87.3	4.0	-	0.3	3.6	5.7	3.2	-	**129.0**
West Africa	55.5	1.0	-	9.9	35.2	2.7	0.1	9.5	3.8	38.2	-	-	**155.9**
E & S Africa	-	-	-	-	-	-	-	6.4	1.5	0.8	-	-	**8.7**
Australasia	2.9	-	-	-	-	-	-	1.6	4.4	11.6	-	-	**20.5**
China	1.3	-	-	0.5	0.3	-	0.4	-	4.1	9.9	0.3	-	**16.8**
Japan	0.3	-	-	-	0.1	-	-	1.6	-	2.2	-	-	**4.2**
Other Asia Pacific	8.3	0.1	-	-	4.5	0.3	18.8	28.4	28.3	13.2	0.6	-	**102.5**
Unidentified *	6.7	2.5	-	-	49.9	-	1.0	-	2.4	0.3	-	-	**62.8**
TOTAL IMPORTS	**561.0**	**51.5**	**11.6**	**54.9**	**587.4**	**55.5**	**29.7**	**100.4**	**250.5**	**425.3**	**14.8**	**10.0**	**2152.6**

* Includes changes in the quantity of oil in transit, movements not otherwise shown, unidentified military use etc.

Source : B.P. Amoco Statistical Review of World Energy, June 2003.

XIV. 30 WORLD PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2002

(Million tonnes oil equivalent)

Country/Region	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electric	Total
USA	894.3	600.7	553.8	185.8	58.2	2293.0
Canada	89.7	72.6	30.7	17.0	78.6	288.7
Mexico	80.9	37.9	7.0	2.2	5.6	133.7
Total North America	**1064.9**	**711.2**	**591.5**	**205.0**	**142.4**	**2715.4**
Argentina	16.8	27.2	0.6	1.3	7.6	53.5
Brazil	85.4	12.3	12.0	3.4	64.4	177.5
Chile	10.8	5.9	2.0	-	5.2	23.9
Colombia	10.0	5.5	2.0	-	7.6	25.2
Ecuador	5.9	0.1	-	-	1.7	7.7
Peru	7.0	0.4	0.4	-	4.1	11.8
Venezuela	22.9	24.6	^	-	14.0	61.5
Other S. & Cent. America	56.0	12.2	0.8	-	18.1	87.1
Total S. & Cent. America	**214.8**	**88.2**	**17.8**	**4.7**	**122.7**	**448.2**
Austria	13.0	7.3	3.5	-	8.9	32.7
Azerbaijan	3.6	7.1	^	-	0.5	11.2
Belarus	5.8	14.9	0.3	-	^	21.0
Belgium & Luxembourg	32.9	13.4	7.3	9.7	0.5	63.8
Bulgaria	4.2	2.6	6.8	4.6	0.5	18.7
Czech Republic	8.2	8.0	20.4	4.2	0.6	41.5
Denmark	9.8	4.6	4.2	-	^	18.6
Finland	10.9	3.7	4.5	5.1	2.5	26.6
France	92.8	38.5	12.7	98.9	15.0	258.0
Germany	127.2	74.3	84.6	37.3	5.9	329.4
Greece	21.8	1.8	9.9	-	0.8	34.2
Hungary	6.4	10.7	3.3	3.2	^	23.6
Iceland	0.9	-	0.1	-	1.6	2.6
Italy	92.9	57.2	13.8	-	10.9	174.8
Kazakhstan	6.5	8.7	21.7	-	2.0	38.9
Lithuania	2.7	2.6	0.1	3.2	0.2	8.7
Netherlands	43.8	35.4	8.9	0.9	^	89.0
Norway	9.4	3.5	0.5	-	29.4	42.9
Poland	19.7	10.1	56.4	-	0.9	87.1
Portugal	14.9	2.7	5.0	-	1.5	24.1
Republic of Ireland	8.7	3.7	1.8	-	0.3	14.4
Romania	10.9	15.6	6.9	1.3	3.6	38.3
Russian Federation	122.9	349.6	98.5	32.0	37.2	640.2
Slovakia	3.3	6.9	3.9	4.1	1.2	19.4
Spain	73.5	18.8	21.9	14.3	6.1	134.5
Sweden	15.0	0.7	2.2	15.6	15.1	48.5
Switzerland	12.4	2.5	0.1	6.2	8.3	29.6
Turkey	29.9	15.6	18.1	-	5.0	68.6
Turkmenistan	2.6	11.9	-	-	-	14.5
Ukraine	12.9	62.8	38.3	17.7	2.2	133.8
United Kingdom	77.2	85.1	36.5	19.9	1.7	220.3
Uzbekistan	6.6	47.2	1.0	-	1.6	56.5
Other Europe & Eurasia	21.9	12.0	12.9	1.8	14.9	63.5
Total Europe & Eurasia	**925.2**	**939.5**	**506.1**	**280.0**	**178.9**	**2829.5**

Contd....

XIV. 30 WORLD PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2002

(Million tonnes oil equivalent)

Country/Region	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electric	Total
Iran	53.2	61.1	0.8	-	1.1	116.2
Kuwait	10.7	7.8	-	-	-	18.6
Qatar	2.0	9.6	-	-	-	11.7
Saudi Arabia	63.4	50.8	-	-	-	114.2
United Arab Emirates	12.4	35.4	-	-	-	47.8
Other Middle East	65.7	20.4	7.6	-	0.8	94.6
Total Middle East	**207.4**	**185.1**	**8.4**	**-**	**1.9**	**403.1**
Algeria	9.9	23.7	0.5	-	^	34.0
Egypt	26.1	20.4	0.8	-	3.1	50.3
South Africa	23.6	-	81.8	2.9	0.9	109.2
Other Africa	59.0	16.6	7.5	-	14.5	97.5
Total Africa	**118.6**	**60.7**	**90.6**	**2.9**	**18.5**	**291.0**
Australia	38.0	21.6	49.5	-	3.8	112.9
Bangladesh	3.4	10.1	0.4	-	0.2	14.1
China	245.7	27.0	663.4	5.9	55.8	997.8
China Hong Kong SAR	13.1	2.1	5.4	-	-	20.6
India	97.7	25.4	180.8	4.4	16.9	325.1
Indonesia	51.2	31.3	17.8	-	2.1	102.4
Japan	242.6	69.7	105.3	71.3	20.5	509.4
Malaysia	22.5	24.3	3.3	-	1.7	51.8
New Zealand	6.8	5.0	1.3	-	5.4	18.4
Pakistan	17.9	18.8	2.1	0.4	4.6	43.8
Philippines	15.6	1.6	3.5	-	1.6	22.3
Singapore	35.5	1.6	-	-	-	37.1
South Korea	105.0	23.6	49.1	27.0	1.2	205.8
Taiwan	38.8	7.7	32.5	9.0	1.4	89.3
Thailand	35.3	23.3	8.6	-	1.6	68.9
Other Asia Pacific	22.5	4.2	60.5	-	10.9	98.1
Total Asia Pacific	**991.6**	**297.3**	**1183.5**	**118.0**	**127.7**	**2717.8**
TOTAL WORLD	**3522.5**	**2282.0**	**2397.9**	**610.6**	**592.1**	**9405.0**
Of which European Union 15	634.4	347.2	216.8	201.7	69.2	1468.9
OECD	2181.9	1235.6	1116.3	522.7	289.5	5346.1
Former Soviet Union	168.3	511.9	160.5	53.4	52.0	946.1
Other EMEs	1172.3	534.6	1121.0	34.2	250.6	3112.8

* In this Review, primary energy comprises commercially traded fuels only. Excluded, therefore, are fuels such as wood, peat and animal waste which. though important in many countries, are unreliably documented in terms of consumption statistics

^ Less than 0.05

Source : B.P.Amoco Statistical Review of World Energy, 2003.

XIV. 31 PER CAPITA PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2002
SOME INTERNATIONAL COMPARISONS

(Kg. Oil equivalent)

	Oil	Natural Gas	Coal	Nuclear Energy	Hydro Electric	Total
USA	3,068	2,061	1,900	637	200	7,866
Canada	2,839	2,297	972	538	2,487	9,136
Mexico	771	361	67	21	53	1,275
Total North America	2,489	1,662	1,382	479	333	6,346
Argentina	455	737	16	35	206	1,450
Brazil	484	70	68	19	365	1,006
Chile	684	373	127	-	329	1,513
Colombia	226	124	45	-	172	570
Ecuador	468	8	-	-	135	611
Peru	258	15	15	-	151	435
Venezuela	891	957	-	-	545	2,393
Other S. & Cent. America	961	209	14	-	310	1,494
Total S. & Cent. America	541	222	45	12	309	1,129
Austria	1,585	890	427	-	1,085	3,988
Azerbaijan	439	866	-	-	61	1,366
Belarus	586	1,505	30	-	-	2,121
Belgium & Luxembourg	3,018	1,229	670	890	46	5,853
Bulgaria	560	347	907	613	67	2,493
Czech Republic	804	784	2,000	412	59	4,069
Denmark	1,815	852	778	-	-	3,444
Finland	2,096	712	865	981	481	5,115
France	1,552	644	212	1,654	251	4,314
Germany	1,540	900	1,024	452	71	3,988
Greece	1,982	164	900	-	73	3,109
Hungary	634	1,059	327	317	-	2,337
Iceland	3,000	-	333	-	5,333	8,667
Italy	1,624	1,000	241	-	191	3,056
Kazakhstan	439	588	1,466	-	135	2,628
Lithuania	771	743	29	914	57	2,486
Netherlands	2,704	2,185	549	56	-	5,494
Norway	2,043	761	109	-	6,391	9,326
Poland	510	262	1,461	-	23	2,256
Portugal	1,433	260	481	-	144	2,317
Republic of Ireland	2,175	925	450	-	75	3,600
Romania	505	722	319	60	167	1,773
Russian Federation	845	2,403	677	220	256	4,400
Slovakia	611	1,278	722	759	222	3,593
Spain	1,780	455	530	346	148	3,257
Sweden	1,667	78	244	1,733	1,678	5,389
Switzerland	1,699	342	14	849	1,137	4,055
Turkey	420	219	254	-	70	963
Turkmenistan	456	2,088	-	-	-	2,544
Ukraine	270	1,314	801	370	46	2,799
United Kingdom	1,304	1,438	617	336	29	3,721
Uzbekistan	257	1,837	39	-	62	2,198
Other Europe & Eurasia	126	69	74	10	86	365
Total Europe & Eurasia	933	947	510	282	180	2,852

Contd.....

XIV. 31 PER CAPITA PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2002
SOME INTERNATIONAL COMPARISONS

(Kg. Oil equivalent)

	Oil	Natural Gas	Coal	Nuclear Energy	Hydro Electric	Total
Iran	799	917	12	-	17	1,745
Kuwait	4,458	3,250	-	-	-	7,750
Qatar	3,333	16,000	-	-	-	19,500
Saudi Arabia	2,631	2,108	-	-	-	4,739
United Arab Emirates	3,179	9,077	-	-	-	12,256
Other Middle East	813	252	94	-	10	1,171
Total Middle East	**1,163**	**1,038**	**47**	**-**	**11**	**2,260**
Algeria	312	748	16	-	-	1,073
Egypt	362	283	11	-	43	698
South Africa	536	-	1,859	66	20	2,482
Other Africa	83	23	11	-	20	137
Total Africa	**138**	**70**	**105**	**3**	**21**	**338**
Australia	1,910	1,085	2,487	-	191	5,673
Bangladesh	23	69	3	-	1	96
China	191	21	515	5	43	774
China Hong Kong SAR	1,926	309	794	-	-	3,029
India	91	24	169	4	16	304
Indonesia	232	142	81	-	10	464
Japan	1,903	547	826	559	161	3,995
Malaysia	896	968	131	-	68	2,064
New Zealand	1,700	1,250	325	-	1,350	4,600
Pakistan	120	126	14	3	31	294
Philippines	191	20	43	-	20	273
Singapore	8,452	381	-	-	-	8,833
South Korea	2,192	493	1,025	564	25	4,296
Taiwan	1,717	341	1,438	398	62	3,951
Thailand	559	369	136	-	25	1,092
Other Asia Pacific						
Total Asia Pacific	**259**	**78**	**309**	**31**	**33**	**710**
TOTAL WORLD	**558**	**361**	**380**	**97**	**94**	**1,490**

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XIV. 32 PER CAPITA CONSUMPTION OF MAIN PETROLEUM PRODUCTS SOME INTERNATIONAL COMPARISONS DURING 2002

(Kg./Per Capita)

Country/Area	Gasoline Distillates	Middle	Fuel Oil	Others	Total
USA	1568	977	108	712	3367
Europe	276	472	139	211	1098
Middle East	252	434	321	204	1211
China	54	69	24	60	207
Japan	687	747	253	398	2084
OECD	640	597	152	356	1745

Source : (1) B.P Amoco statistical review of world Energy, June 2003.
(2) Per World population UN population division's publication 'World Population Prospects, 2002.

XIV. 33 TRENDS IN WORLD PRIMARY ENERGY CONSUMPTION (1980—2002)

(Million Tonnes Oil Equivalent)

Year	Oil	Natural Gas	Coal	Hydro Electricity	Nuclear Energy	Total
1980	3024.1	1296.4	1966.0	433.6	172.9	6893.0
1981	2918.3	1312.1	1959.1	443.2	203.2	6835.9
1982	2820.3	1308.9	2002.2	460.0	222.7	6814.1
1983	2797.3	1325.0	2039.2	482.0	248.0	6891.5
1984	2843.0	1426.5	2114.5	498.7	297.7	7180.4
1985	2826.5	1474.7	2209.6	510.2	350.9	7371.9
1986	2905.2	1487.4	2262.6	519.9	377.4	7552.5
1987	2948.4	1557.8	2341.9	534.3	406.3	7788.7
1988	3037.5	1662.1	2241.5	183.7	488.4	7613.2
1989	3087.5	1737.4	2272.2	183.3	502.3	7782.7
1990	3134.5	1770.5	2244.5	189.4	516.7	7855.6
1991	3133.6	1802.8	2189.7	194.6	541.4	7862.1
1992	3163.2	1805.3	2171.8	193.9	545.6	7879.8
1993	3134.6	1844.6	2162.4	204.4	564.4	7910.4
1994	3193.8	1853.4	2174.1	206.1	574.6	8002.0
1995	3234.7	1911.7	2206.7	216.2	599.9	8169.2
1996	3313.6	2004.7	2284.5	219.1	520.9	8342.8
1997	3386.3	1990.3	2265.8	223.4	616.5	8482.3
1998	3406.6	2015.4	2243.2	224.8	626.9	8516.9
1999	3469.1	2065.1	2159.9	226.6	651.5	8572.2
2000	3503.6	2164.0	2186.0	230.4	668.6	8752.6
2001	3517.1	2219.5	2243.1	584.7	601.0	9165.4
2002(P)	3522.5	2282.0	2397.9	592.1	610.6	9405.1

Source : B.P Amoco statistical review of world Energy, June 2003.
(P) : Provisional

XIV. 34 PRIMARY ENERGY CONSUMPTION* IN SELECTED COUNTRIES/AREAS OF THE WORLD DURING 1996—2002

(Million Tonnes Oil Equivalent)

	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	2189.8	2206.7	2220.9	2258.9	2314.3	2250.9	2293.0	1.9%	24.4%
Canada	285.7	285.5	282.6	284.1	289.7	285.9	288.7	1.0%	3.1%
Mexico	114.2	120.5	126.6	130.1	134.3	133.7	133.7	•	1.4%
Total North America	**2589.7**	**2612.7**	**2630.1**	**2673.1**	**2738.3**	**2670.5**	**2715.4**	**1.7%**	**28.9%**
Argentina	53.9	55.9	57.9	57.3	58.8	57.8	53.5	-7.4%	0.6%
Brazil	151.0	160.5	166.8	171.1	176.4	174.5	177.5	1.7%	1.9%
Chile	19.1	22.1	21.6	22.3	23.8	23.3	23.9	2.3%	0.3%
Colombia	27.7	27.9	27.3	25.0	24.9	26.9	25.2	-6.5%	0.3%
Ecuador	7.2	8.1	8.2	7.7	7.7	7.7	7.7	0.8%	0.1%
Peru	11.1	10.9	11.3	11.7	11.9	11.7	11.8	0.9%	0.1%
Venezuela	58.0	61.1	63.8	59.8	61.9	62.1	61.5	-0.9%	0.7%
Other S. & Cent. America	76.6	79.4	82.3	83.9	85.0	84.7	87.1	2.8%	0.9%
Total S. & Cent. America	**404.6**	**425.9**	**439.2**	**438.8**	**450.4**	**448.7**	**448.2**	**-0.1%**	**4.8%**
Austria	29.1	30.3	30.9	31.6	31.5	32.2	32.7	1.7%	0.3%
Azerbaijan	12.6	11.4	12.6	12.8	11.4	11.0	11.2	1.9%	0.1%
Belarus	21.4	23.5	22.2	21.0	21.5	20.6	21.0	1.8%	0.2%
Belgium & Luxembourg	59.1	60.3	63.0	64.1	66.4	64.0	63.8	-0.4%	0.7%
Bulgaria	23.3	20.7	20.7	18.0	17.8	18.1	18.7	2.9%	0.2%
Czech Republic	43.0	41.7	39.9	38.5	40.0	41.7	41.5	-0.5%	0.4%
Denmark	24.1	21.7	20.6	19.9	18.8	18.6	18.6	•	0.2%
Finland	24.5	25.1	25.6	25.7	26.0	26.4	26.6	0.6%	0.3%
France	244.7	241.0	247.2	251.3	254.8	258.2	258.0	-0.1%	2.7%
Germany	344.0	337.8	334.5	328.5	330.5	335.7	329.4	-1.9%	3.5%
Greece	27.0	27.2	28.6	30.1	31.8	33.4	34.2	2.7%	0.4%
Hungary	24.2	23.8	23.8	23.7	23.0	24.0	23.6	-1.7%	0.3%
Iceland	1.9	2.1	2.2	2.3	2.4	2.5	2.6	4.5%	•
Republic of Ireland	10.8	11.6	12.4	13.2	13.9	14.6	14.4	-1.5%	0.2%
Italy	162.4	163.9	168.5	173.7	176.4	176.0	174.8	-0.7%	1.9%
Kazakhstan	45.9	40.7	39.1	35.0	40.6	40.2	38.9	-3.1%	0.4%
Lithuania	9.0	8.6	9.2	7.8	7.0	8.1	8.7	8.1%	0.1%
Netherlands	85.2	84.7	84.5	83.2	86.5	88.5	89.0	0.5%	0.9%
Norway	37.1	39.3	40.4	41.5	45.9	41.0	42.9	4.5%	0.5%
Poland	100.8	98.6	94.1	91.1	88.4	88.6	87.1	-1.7%	0.9%
Portugal	19.4	20.4	22.4	22.8	23.3	25.0	24.1	-3.6%	0.3%
Romania	48.2	45.2	41.3	36.9	37.0	37.3	38.3	2.8%	0.4%
Russian Federation	647.2	610.9	611.4	621.1	636.0	638.7	640.2	0.2%	6.8%
Slovakia	17.5	17.1	17.6	17.5	18.1	18.6	19.4	4.2%	0.2%
Spain	104.8	111.7	118.1	122.7	129.2	133.0	134.5	1.1%	1.4%
Sweden	48.8	50.4	51.6	51.6	48.6	52.1	48.5	-6.9%	0.5%
Switzerland	27.1	28.9	29.1	30.1	29.4	31.5	29.6	-6.1%	0.3%
Turkey	67.7	69.6	70.6	68.9	73.7	70.8	68.6	-3.0%	0.7%

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* In this Review, primary energy comprises commercially traded fuels only. Excluded, therefore, are fuels such as wood, peat and animal waste which. though important in many countries, are unreliably documented in terms of consumption statistics

^ Less than 0.05

XIV. 34 PRIMARY ENERGY CONSUMPTION* IN SELECTED COUNTRIES/AREAS OF THE WORLD DURING 1996-2002

(Million Tonnes Oil Equivalent)

	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
Turkmenistan	12.0	12.1	12.0	12.7	13.6	14.0	14.5	3.8%	0.2%
Ukraine	141.6	138.9	133.7	136.5	136.7	135.9	133.8	-1.5%	1.4%
United Kingdom	224.8	220.4	224.0	223.3	224.0	226.0	220.3	-2.5%	2.3%
Uzbekistan	49.0	50.1	51.8	53.6	51.2	54.8	56.5	3.1%	0.6%
Other Europe & Eurasia	63.9	65.6	67.2	63.1	63.0	64.2	63.5	-1.1%	0.7%
Total Europe & Eurasia	**2802.1**	**2755.3**	**2770.8**	**2773.8**	**2818.4**	**2845.3**	**2829.5**	**-0.6%**	**30.1%**
Iran	98.5	103.7	105.2	113.4	115.0	114.1	116.2	1.8%	1.2%
Kuwait	14.6	15.3	17.7	18.1	19.0	19.1	18.6	-2.7%	0.2%
Qatar	13.4	14.2	14.5	13.7	10.9	11.6	11.7	0.6%	0.1%
Saudi Arabia	93.7	96.1	101.0	102.5	107.2	111.0	114.2	2.8%	1.2%
United Arab Emirates	42.4	43.9	41.8	41.8	40.5	46.6	47.8	2.6%	0.5%
Other Middle East	80.3	85.2	88.0	89.4	92.9	94.1	94.6	0.4%	1.0%
Total Middle East	**342.9**	**358.4**	**368.2**	**378.9**	**385.5**	**396.5**	**403.1**	**1.6%**	**4.3%**
Algeria	28.0	26.5	27.5	27.9	28.6	32.9	34.0	3.4%	0.4%
Egypt	38.4	39.9	41.9	44.7	47.6	49.2	50.3	2.3%	0.5%
South Africa	106.0	109.4	108.8	107.9	108.4	107.0	109.2	2.0%	1.2%
Other Africa	83.6	85.4	88.2	91.6	93.3	95.6	97.5	2.0%	1.0%
Total Africa	**256.0**	**261.2**	**266.4**	**272.1**	**277.9**	**284.7**	**291.0**	**2.2%**	**3.1%**
Australia	100.8	103.1	106.4	108.6	109.4	112.6	112.9	0.3%	1.2%
Bangladesh	10.0	10.6	11.0	11.0	12.8	13.6	14.1	3.8%	0.1%
China	917.4	930.4	864.3	766.2	765.7	833.6	997.8	19.7%	10.6%
China Hong Kong SAR	15.0	15.1	15.4	15.6	15.6	18.9	20.6	9.0%	0.2%
India	270.0	282.4	290.3	298.1	312.0	314.2	325.1	3.4%	3.5%
Indonesia	79.4	84.0	80.0	89.1	95.3	101.0	102.4	1.4%	1.1%
Japan	503.6	507.4	502.2	508.7	515.9	514.8	509.4	-1.1%	5.4%
Malaysia	37.7	37.7	37.4	38.3	45.7	48.1	51.8	7.7%	0.6%
New Zealand	17.2	17.3	16.8	17.4	17.8	17.8	18.4	3.7%	0.2%
Pakistan	38.3	37.4	39.6	40.8	42.0	42.7	43.8	2.6%	0.5%
Philippines	21.1	22.6	22.9	22.7	22.6	22.7	22.3	-1.8%	0.2%
Singapore	31.6	33.8	34.7	32.9	34.8	37.6	37.1	-1.3%	0.4%
South Korea	163.8	179.6	165.5	180.5	191.1	195.9	205.8	5.0%	2.2%
Taiwan	68.9	72.9	77.5	81.1	85.6	86.8	89.3	2.9%	0.9%
Thailand	58.4	61.2	58.2	59.7	62.4	63.6	68.9	8.2%	0.7%
Other Asia Pacific	88.1	90.0	88.0	89.0	93.0	95.7	98.1	2.5%	1.0%
Total Asia Pacific	**2421.3**	**2485.5**	**2410.2**	**2359.7**	**2421.7**	**2519.6**	**2717.8**	**7.9%**	**28.9%**
TOTAL WORLD	**8816.6**	**8899.0**	**8884.9**	**8896.4**	**9092.2**	**9165.3**	**9405.0**	**2.6%**	**100.0%**
Of which European Union 15	1408.7	1406.5	1431.9	1441.7	1461.7	1483.7	1468.9	-1.0%	15.6%
OECD	5103.1	5147.7	5170.6	5243.6	5355.1	5314.0	5346.1	0.6%	56.8%
Former Soviet Union	961.1	920.0	915.7	922.2	939.0	944.6	946.1	0.2%	10.1%
Other EMEs	2752.7	2831.3	2798.8	2730.4	2797.9	2906.7	3112.8	7.1%	33.1%

* In this Review, primary energy comprises commercially traded fuels only. Excluded, therefore, are fuels such as wood, peat and animal waste which, though important in many countries, are unreliably documented in terms of consumption statistics

• Less than 0.05% ^ Less than .05

XIV. 35 ECONOMIC INDICATORS OF OPEC NATIONS DURING 2002

Country	Mid Year Population 2002 (Million)	GDP* 2002 (Bn. $)	Per capita GDP* 2002 (US $)	Petroleum* Exports 2002 (m $)	Total* Exports (m $)	Petroleum* Exports as % of total Exports	Oil Reseves* Dec.2002 (Bn.bbls)	Gas Reserves Dec.2002 (Bn. CM)	Producing Oil wells Dec.2002	Refining Capacity Dec.2002 (000/bbls/ day)	Exports of Refined Products (000/bbls/ day)
1	2	3	4	5	6	7	8	9	10	11	12
Algeria	31.48	54.15	1720	13482	19496	69.2	11.34	4523	1295	462.2	408.2
Indonesia	218.70	173.22	792	8583	56893	15.1	4.72	2557	9075	1057.0	152.4
Iran	65.97	106.39	1613	19219	24440	78.6	99.08	26600	1331	1474.0	290.0
Iraq	24.22	26.12	1078	10400	13344	77.9	115.00	3109	na	603.0	22.5
Kuwait	2.36	35.33	14944	15549	16218	95.9	96.50	1557	800	899.0	572.2
Libya	5.54	19.74	3567	10482	11681	89.7	36.00	1314	1498	380.0	221.1
Nigeria	132.91	42.73	321	17083	17238	99.1	31.51	4503	2463	445.0	78.2
Qatar	0.61	18.82	30779	6885	11032	62.4	15.21	25768	468	137.0	67.3
Saudi Arabia	22.12	190.98	8635	63286	67200	94.2	262.79	6646	1525	1825.0	993.5
U.A.E	3.05	71.24	23368	21768	37760	57.6	97.80	6060	1417	491.3	485.5
Venezuela	25.10	94.34	3759	19845	26200	75.7	77.80	4191	12982	1183.2	569.7
Total	**532.05**	**833.05**	**1566**	**206581**	**301502**	**68.5**	**847.72**	**86828**	**33454**	**8956.7**	**3860.6**

Note : Total includes figures for Saudi arabia-Kuwait Divided Zone. * = Provisional or estimated figures of July 11, 2002. na = Not available

Source : OPEC Annual Statistical Bulletin, 2002.

XIV. 36 WORLD IMPORTS OF NATURAL GAS BY COUNTRY, 1998 - 2002

(Million Standard Cubic Metres)

Country/Region	1998	1999	2000	2001	2002	% Change 2002/01
North America	**91375**	**102090**	**109208**	**118324**	**119180**	**0.7**
Canada	1270	1200	2060	4730	5350	13.1
USA	90105	100890	107148	113594	113830	0.2
Latin America	**4970**	**6690**	**9560**	**14220**	**18720**	**31.6**
Argentina	2200	1200	-	-	-	-
Brazil	-	370	2120	4420	5260	19.0
Chile	1240	3390	4070	5140	5340	3.9
Mexico	1530	1730	2980	3990	7450	86.7
Puerto Rico	-	-	350	630	630	0.0
Eastern Europe	**39760**	**39350**	**40850**	**40800**	**42420**	**4.0**
Bulgaria	3600	3350	3200	2900	2800	-3.4
Former Czechoslovakia	16260	16600	17300	17600	17670	0.4
Hungry	8500	8700	9200	9300	10550	13.4
Poland	7600	7500	7750	8000	7700	-3.8
Romania	3800	3200	3400	3000	3700	23.3
Western Europe	**219910**	**242380**	**265470**	**265324**	**281110**	**5.9**
Austria	6200	6120	**6120**	6550	6650	1.5
Belgium	15500	16210	16300	16039	16980	5.9
Finland	4200	4200	4300	4500	4500	0.0
France	36800	41120	42620	41590	43710	5.1
Germany	73800	75230	76200	78200	81040	3.6
Greece	900	1500	2140	1980	2090	5.6
Ireland	1500	2100	2600	3500	3500	0.0
Italy	42600	49410	58500	54750	58580	7.0
Luxembourg	760	700	700	800	900	12.5
Netherlands	5300	7340	12600	8530	9130	7.0
Portugal	800	2150	2350	2460	2680	8.9
Spain	12600	15450	16930	18985	20900	10.1
Sweden	860	840	840	950	1050	10.5
Switzerland	2700	3040	3050	3030	2980	-1.7
Turkey	10380	12300	14300	16380	17720	8.2
United Kingdom	900	1370	2200	3000	4700	56.7
Former Yugoslavia	4110	3390	3720	4080	4000	-2.0
Middle East	**1750**	**2000**	**2650**	**4500**	**4900**	**8.9**
Iran	1750	2000	2650	4500	4900	8.9
Africa	**450**	**800**	**1730**	**1580**	**1690**	**7.0**
Tunisia	450	800	1730	1580	1690	7.0
Asia & Pacific	**87410**	**93790**	**101080**	**108716**	**113718**	**4.6**
Japan	66300	69360	**72590**	74306	73098	-1.6
South Korea	14310	17520	19680	21830	23989	9.9
Singapore	1500	1500	**1500**	1270	2660	109.4
Taiwan	5300	5320	5980	6400	7440	16.3
Thailand	-	90	1330	4910	6200	26.3
Total World	**445625**	**487100**	**530548**	**553464**	**581738**	**5.1**
OPEC	1750	2000	2650	4500	4900	8.9
OPEC Percentage	0.4	0.4	0.5	0.8	0.8	0.0

Source : OPEC Annual Statistical Bulletin, 2002.

XIV.37 WORLD IMPORTS OF REFINED PRODUCTS BY COUNTRY, 1998 - 2002

(1,000 Barrels/ Day)

Country/Region	1998	1999	2000	2001	2002	% Change 2002/01
North America	**1404.5**	**1509.1**	**1761.9**	**1765.0**	**1643.5**	**-6.9**
Canada	184.9	173.8	163.9	210.4	188.5	-10.4
USA	1215.4	1331.0	1593.7	1550.3	1450.7	-6.4
Others	4.2	4.3	4.3	4.3	4.3	0.0
Latin America	**1476.8**	**1486.3**	**1548.1**	**1418.3**	**1379.8**	**-2.7**
Brazil	301.6	304.7	288.4	297.2	292.8	-1.5
Cuba	132.3	135.0	131.0	130.0	130.5	0.4
Mexico	324.7	354.8	437.1	309.0	269.7	-12.7
Netherlands Antiles	33.3	33.5	33.2	33.8	33.5	-0.9
Panama	23.8	21.0	17.0	18.1	17.6	-2.8
Puerto Rico	98.7	99.0	99.0	100.0	99.5	-0.5
Others	562.5	538.4	542.4	530.1	536.3	1.2
Eastern Europe	**359.2**	**269.0**	**199.6**	**221.0**	**226.7**	**2.6**
Bulgaria	6.0	6.0	12.0	9.7	10.9	12.4
Former USSR	105.0	40.0	10.0	10.0	10.0	0.0
Hungry	30.2	26.8	21.1	24.3	39.4	62.1
Poland	98.4	92.3	62.7	63.0	66.6	5.7
Others	119.6	103.9	93.8	114.0	99.8	-12.5
Western Europe	**4651.2**	**4843.5**	**5166.7**	**5247.6**	**4960.6**	**-5.5**
Belgium	287.6	291.4	302.0	322.1	299.6	-7.0
France	372.6	574.2	556.8	543.3	568.9	4.7
Germany	961.4	879.1	915.8	945.9	729.8	-22.8
Italy	414.2	368.0	359.4	324.2	315.1	-2.8
Netherlands	771.1	813.0	957.4	1000.1	1028.3	2.8
United Kingdom	245.8	257.2	293.8	340.7	270.1	-20.7
Others	1598.6	1660.5	1781.5	1771.2	1748.7	-1.3
Middle East	**347.1**	**342.0**	**347.7**	**362.8**	**345.2**	**-4.9**
Syrian Arab Republic	23.0	20.0	20.2	21.0	20.6	-1.9
Others	324.2	322.0	327.5	341.8	324.6	-5.0
Africa	**469.3**	**480.6**	**533.1**	**447.2**	**490.2**	**9.6**
Egypt	47.7	49.3	50.7	53.2	52.0	-2.3
Morocco	25.7	27.0	28.5	29.6	29.1	-1.7
Nigeria	44.5	52.6	106.3	93.3	102.0	9.3
Senegal	9.4	9.5	9.6	9.9	9.8	-1.0
Tunisia	52.6	53.1	51.4	50.0	50.7	1.4
Others	289.4	289.1	286.6	291.8	289.2	-0.9
Asia & Pacific	**5179.3**	**5232.6**	**5205.1**	**5196.1**	**5198.0**	**0.0**
Australia	64.6	76.9	86.2	85.1	97.3	14.3
China	587.3	631.9	522.4	601.7	562.1	-6.6
Hong Kong	409.1	411.0	393.1	387.6	390.4	0.7
India	**437.8**	**441.2**	**449.0**	**462.0**	**455.5**	**-1.4**
Japan	1074.8	1013.7	1015.3	945.8	970.6	2.6
New Zealand	20.0	31.0	25.6	23.5	24.1	2.6
Singapore	649.4	643.2	632.7	626.3	629.5	0.5
Others	1936.2	1983.7	2080.7	2064.2	2068.6	0.2
Total World	**13887.6**	**14163.1**	**14762.2**	**14738.5**	**14286.6**	**-3.1**

Source : OPEC Annual Statistical Bulletin, 2002.

XIV.38 WORLD CRUDE OIL EXPORTS BY COUNTRY, 1998 - 2002

(1,000 Barrels/Day)

Country/Region	1998	1999	2000	2001	2002	% Change 2002/01
North America	**1258.7**	**1168.0**	**1226.7**	**1150.4**	**1166.9**	**1.4**
Canada	1146.4	1047.4	1175.2	1130.2	1146.3	1.4
USA	112.2	120.6	51.5	20.2	20.6	2.0
Latin America	**5188.5**	**4715.5**	**5039.5**	**5060.9**	**4663.3**	**-7.9**
Colombio	444.4	515.4	608.0	576.0	566.3	-1.7
Ecuador	242.8	226.4	219.4	243.0	239.6	-1.4
Mexico	1807.4	1671.7	1848.5	1882.5	1880.9	-0.1
Trinidad & Tobago	52.4	58.0	60.2	62.7	60.3	-3.8
Venezuela	2243.9	1923.0	2003.5	196.7	1572.0	699.2
Others	397.6	320.9	300.0	331.9	344.0	3.6
Eastern Europe	**2428.2**	**2565.0**	**3058.3**	**3346.1**	**3942.3**	**17.8**
Former USSR	2425.1	2562.8	3056.3	3344.4	3940.4	17.8
Others	3.1	2.2	2.0	1.7	2.0	17.6
Western Europe	**4525.7**	**4670.5**	**4985.2**	**4904.9**	**5148.7**	**5.0**
Norway	2713.9	2696.0	2902.8	2978.8	3113.2	4.5
United Kingdom	1606.7	1707.0	1735.4	1645.9	1745.9	6.1
Others	205.1	267.4	347.1	280.3	289.6	3.3
Middle East	**15597.9**	**15147.0**	**16016.5**	**15129.2**	**13781.9**	**-8.9**
Iran	2512.0	2291.0	2492.2	2184.6	2093.6	-4.2
Iraq	1417.6	2130.9	2039.8	1710.2	1494.6	-12.6
Kuwait	1190.2	948.2	1230.7	1214.1	1138.0	-6.3
Oman	842.6	891.5	905.0	917.0	908.0	-1.0
Qatar	572.4	580.5	617.6	605.5	580.8	-4.1
Saudi Arabia	6390.4	5719.7	6253.1	6035.9	5284.6	-12.4
Syrian Arab Republic	340.3	347.1	338.0	346.0	337.0	-2.6
UAE	2039.0	1919.0	1814.9	1786.7	1614.0	-9.7
Others	293.3	319.2	325.3	329.3	331.3	0.6
Africa	**5226.1**	**4863.0**	**5172.4**	**5261.5**	**4915.8**	**-6.6**
Algeria	549.4	414.6	461.1	441.5	397.3	-10.0
Angola	698.1	699.3	668.9	660.2	690.2	4.5
Cameroon	120.8	107.2	107.9	111.2	121.7	9.4
Congo	238.2	256.2	249.8	250.0	256.0	2.4
Egypt	55.5	56.1	51.6	53.6	56.6	5.6
Gabon	336.1	314.4	308.2	315.0	314.9	0.0
Libya	1161.0	991.7	1005.0	987.6	922.4	-6.6
Nigeria	1832.8	1705.1	1986.4	2089.4	1798.2	-13.9
Others	234.2	318.3	333.5	352.4	358.5	1.7
Asia & Pacific	**2210.7**	**2222.1**	**2266.2**	**2214.8**	**2259.0**	**2.0**
Australia	216.7	205.3	383.6	356.3	366.3	2.8
Brunei	146.3	168.4	171.9	176.2	177.2	0.6
China	312.9	143.7	209.3	164.7	169.7	3.0
Indonesia	678.0	781.9	622.5	599.2	609.9	1.8
Malaysia	401.7	395.5	380.2	397.6	401.6	1.0
Vietnam	248.0	300.9	286.9	303.2	305.2	0.7
Others	207.2	226.3	211.7	217.6	229.0	5.2
Total World	**36435.8**	**35351.0**	**37764.9**	**37067.8**	**35877.9**	**-3.2**
OPEC	20586.9	19405.5	20526.7	19619.4	17505.5	-10.8
OPEC %	56.5	54.9	54.4	52.9	48.8	-7.8

Source : OPEC Annual Statistical Bulletin, 2002.

XIV. 39 WORLD EXPORTS OF REFINED PRODUCTS BY COUNTRY, 1998—2002

(1,000 Barrels/ Day)

Country/Region	1998	1999	2000	2001	2002	% Change 2002/01
North America	**1174.2**	**1171.2**	**1360.3**	**1374.5**	**1407.5**	**2.4**
Canada	352.6	366.9	370.9	411.4	403.8	-1.8
USA	821.6	804.3	989.3	963.1	1003.7	4.2
Others	-	-	-	-	-	-
Latin America	**2130.5**	**2079.2**	**2063.9**	**2131.7**	**1878.2**	**-11.9**
Argentina	110.3	81.1	109.0	119.6	103.2	-13.7
Ecuador	34.6	33.9	35.0	40.0	36.3	-9.3
Mexico	106.8	100.5	89.2	96.2	101.7	5.7
Netherlands Antilles	220.5	193.6	205.0	220.0	206.2	-6.3
Trinidad & Tobago	134.6	133.3	142.6	145.0	140.3	-3.2
Venezuela	846.2	828.0	779.6	761.1	569.7	-25.1
Virgin Islands	385.0	382.1	385.9	397.2	388.4	-2.2
Others	292.4	326.6	317.6	352.6	332.2	-5.8
Eastern Europe	**1112.8**	**1143.8**	**1325.8**	**1512.3**	**1844.6**	**22.0**
Romania	69.6	44.6	50.4	54.3	49.8	-8.3
Former USSR	872.0	913.1	1086.3	1246.5	1582.0	26.9
Others	171.2	186.1	189.1	211.5	212.8	0.6
Western Europe	**4263.2**	**4252.7**	**4436.1**	**4454.1**	**4221.6**	**-5.2**
Belgium	387.4	400.2	414.1	407.1	401.2	-1.4
France	332.2	366.9	396.1	399.1	354.2	-11.3
Germany	305.6	352.0	393.3	388.6	373.4	-3.9
Italy	458.6	409.2	430.8	451.5	421.2	-6.7
Netherlands	1304.5	1298.7	1371.2	1416.8	1314.0	-7.3
United Kingdom	518.6	479.8	443.2	416.9	455.1	9.2
Others	956.3	946.0	987.2	974.1	902.4	-7.4
Middle East	**3284.2**	**3302.1**	**3140.3**	**2962.6**	**2838.0**	**-4.2**
Bahrain	248.0	260.2	260.0	274.0	264.7	-3.4
Iran	277.8	362.9	347.3	307.7	290.0	-5.8
Iraq	23.0	23.0	23.0	25.0	22.5	-10.0
Kuwait	795.0	838.0	674.5	642.8	572.2	-11.0
Qatar	95.1	75.3	75.3	78.1	67.3	-13.8
Saudi Arabia	1368.9	1279.7	1228.1	1082.6	993.5	-8.2
UAE	319.1	331.0	391.7	398.2	485.5	21.9
Others	157.3	131.5	140.4	154.7	142.2	-8.1
Africa	**957.6**	**1162.2**	**1172.7**	**1213.6**	**1060.2**	**-12.6**
Algeria	461.9	599.7	544.3	555.8	408.2	-26.6
Egypt	103.3	93.6	87.3	96.3	92.4	-4.0
Gabon	5.7	6.9	7.0	7.7	7.2	-6.5
Nigeria	3.8	14.1	47.3	65.7	78.2	19.0
Libya	168.6	201.2	237.0	225.0	221.1	-1.7
Others	214.2	246.7	249.8	263.1	253.2	-3.8
Asia & Pacific	**2936.4**	**2852.7**	**2844.1**	**2869.8**	**2569.8**	**-10.5**
Australia	121.9	122.9	122.8	122.7	86.3	-29.7
China	188.6	264.8	292.0	246.9	267.9	8.5
Indonesia	220.8	191.9	188.8	196.3	152.4	-22.4
Japan	133.7	109.3	90.1	96.1	82.2	-14.5
Malaysia	139.9	146.1	143.7	153.0	147.6	-3.5
Singapore	969.8	940.6	892.6	942.0	925.1	-1.8
Others	1161.7	1077.0	1114.1	1112.8	908.4	-18.4
Total World	**15858.9**	**15963.9**	**16343.0**	**16518.5**	**15819.8**	**-4.2**
OPEC	4580.2	4745.3	4536.8	4337.8	3860.6	-11.0
OPEC %	28.9	29.7	27.8	26.3	24.4	-7.2

Source : OPEC Annual Statistical Bulletin, 2002.

PART–III
PLAN STATISTICS

PART–III
PLAN STATISTICS

XV. 2 DEMAND FOR PETROLEUM PRODUCTS

Items	1990-91	1995-96	1998-99	1999-00	2000-01	2001-02	2002-03
1	2	3	4	5	6	7	8
Demand of Petroleum Products(MMT)	55.04	74.67	90.56	97.09	100.07	100.43	104.13
Annual Growth Rate %	1.70	10.80	7.40	7.20	3.00	0.40	3.00
Share of Middle Distillates (%)	60.20	61.70	58.90	57.10	53.40	51.20	50.20

Source : Plan Document

MMT: Million Metric Tonnes.

XV. 3 IMPORT AVAILABILITY RATIOS OF CRUDE OIL & PETROLEUM PRODUCTS

Items	1990-91	1995-96	1998-99	1999-00	2000-01	2001-02	2002-03
1	2	3	4	5	6	7	8
A. CRUDE OIL							
(i) Production	33.02	35.17	32.72	31.95	32.43	32.03	33.04
(ii) Imports	20.70	27.34	39.81	57.81	74.10	78.71	81.99
(iii)Availability (Net)	53.72	62.51	72.53	89.76	106.53	110.74	115.03
(iv) Item (ii) as % of Item (iii)	38.53	43.74	54.89	64.41	69.56	71.08	71.28
B. PETROLEUM PRODUCTS							
(i) Production*	49.49	56.8	66.75	81.4	97.696	102.21	106.51
(ii) Imports(Net)	8.66	20.34	23.05	15.86	0.902	-3.076	-3.552
(iii)Availability (Gross)	58.15	77.14	89.8	97.26	96.79	99.13	102.96
(iv) Item (ii) as % of Item (iii)	14.89	26.37	25.7	16.3	0.9	3.1	3.4

*: Includes LPG Production from Natural Gas.

XV. 4 VALUE* OF CRUDE OIL & POL PRODUCTS IMPORTED DURING V,VI,VII,VIII AND IX FIVE YEAR PLAN PERIODS

Plan Period/Year	VALUE (Rs./ Crores)
1	2
Vth Plan (1974-79)	6977
VIth Plan (1980-85)	21388
VIIth Plan (1985-90)	19585
Annual Plan (1990-91)	9775
Annual Plan (1991-92)	11824
VIIIth Plan (1992-97)	102265
IXth Plan (1997-2002)	239032
2002-03	73533

*Net of POL Imports.

XV. 5 TENTH PLAN PROJECTION PROFILE FOR CRUDE OIL AND NATURAL GAS PRODUCTION

Company	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
			Crude Oil (MMT)			
ONGC	25.90	25.99	26.38	26.19	25.56	130.02
OIL	3.50	3.60	3.75	3.85	4.00	18.70
Joint Venture / Private Companies	3.68	3.55	3.53	3.08	2.68	16.52
Total	**33.08**	**33.14**	**33.66**	**33.12**	**32.24**	**165.24**
			Natural Gas			
	(.....MMSCMD.....)					**(BCM)**
ONGC	65.50	63.37	62.22	58.83	57.03	112.10
OIL	6.01	6.41	6.61	7.69	7.80	12.61
Joint Venture / Private Companies	15.05	19.31	26.62	26.62	29.40	42.72
Total	**86.56**	**89.09**	**95.45**	**93.14**	**94.23**	**167.43**

Source: Draft Tenth Five Year Plan Document.
MMT: Million Metric Tonnes.
MMSCMD: Million Metric Standard Cubic Metres Per Day.
BCM: Billion Cubic Metres.

XV. 6 PRODUCT AVAILABILITY DURING THE TENTH PLAN

('000' Tonne)

Product	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
Light Distillates	**34293**	**37057**	**38913**	**38811**	**38405**	**187479**
LPG	7545	7989	8823	8749	8635	41741
MS	10478	10994	11470	11676	11580	56198
Naphtha	11878	13447	13753	13521	13333	65932
Others	4392	4627	4867	4865	4857	23608
Middle Distillates	**66251**	**72144**	**78523**	**78976**	**78296**	**374190**
ATF	3621	4367	4763	4787	4717	22255
SKO	13966	14656	15062	15110	14944	73738
HSD	47258	51921	57625	58007	57593	272404
LDO	877	701	570	570	545	3263
Others	529	499	503	502	497	2530
Heavy Ends	**19567**	**20243**	**19915**	**19485**	**19265**	**98475**
Lubes	836	900	900	882	850	4368
LSHS	4574	4206	3518	3468	3451	19217
FO	7576	7841	7128	6037	5963	34545
Bitumen	3239	3175	3112	3090	3061	15677
Others	3342	4121	5257	6008	5940	24668
Grand Total	**120111**	**129444**	**137351**	**137272**	**135966**	**660144**

Source: Draft Tenth Five Year Plan Document.

XV. 5 TENTH PLAN PROJECTION PROFILE FOR CRUDE OIL AND NATURAL GAS PRODUCTION

Company	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
			Crude Oil (MMT)			
ONGC	25.90	25.99	26.38	26.19	25.56	130.02
OIL	3.50	3.60	3.75	3.85	4.00	18.70
Joint Venture / Private Companies	3.68	3.55	3.53	3.08	2.68	16.52
Total	**33.08**	**33.14**	**33.66**	**33.12**	**32.24**	**165.24**
			Natural Gas			
	(.....MMSCMD.....)					**(BCM)**
ONGC	65.50	63.37	62.22	58.83	57.03	112.10
OIL	6.01	6.41	6.61	7.69	7.80	12.61
Joint Venture / Private Companies	15.05	19.31	26.62	26.62	29.40	42.72
Total	**86.56**	**89.09**	**95.45**	**93.14**	**94.23**	**167.43**

Source: Draft Tenth Five Year Plan Document.
MMT: Million Metric Tonnes.
MMSCMD: Million Metric Standard Cubic Metres Per Day.
BCM: Billion Cubic Metres.

XV. 6 PRODUCT AVAILABILITY DURING THE TENTH PLAN

('000' Tonne)

Product	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
Light Distillates	**34293**	**37057**	**38913**	**38811**	**38405**	**187479**
LPG	7545	7989	8823	8749	8635	41741
MS	10478	10994	11470	11676	11580	56198
Naphtha	11878	13447	13753	13521	13333	65932
Others	4392	4627	4867	4865	4857	23608
Middle Distillates	**66251**	**72144**	**78523**	**78976**	**78296**	**374190**
ATF	3621	4367	4763	4787	4717	22255
SKO	13966	14656	15062	15110	14944	73738
HSD	47258	51921	57625	58007	57593	272404
LDO	877	701	570	570	545	3263
Others	529	499	503	502	497	2530
Heavy Ends	**19567**	**20243**	**19915**	**19485**	**19265**	**98475**
Lubes	836	900	900	882	850	4368
LSHS	4574	4206	3518	3468	3451	19217
FO	7576	7841	7128	6037	5963	34545
Bitumen	3239	3175	3112	3090	3061	15677
Others	3342	4121	5257	6008	5940	24668
Grand Total	**120111**	**129444**	**137351**	**137272**	**135966**	**660144**

Source: Draft Tenth Five Year Plan Document.

XV. 9 CRUDE OIL PROCESSING AND IMPORT DURING THE TENTH PLAN

('000' Tonne)

	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
			Processing			
Total	**124526**	**134947**	**144547**	**144577**	**143377**	**691974**
Indigenous	29843	30031	31534	31394	30904	153706
Imported	94683	104916	113013	113183	112473	538268
High Sulphur	70499	79880	90030	90224	89610	420243
Low Sulphur	24184	25036	22983	22959	22863	118025
			Imports			
High Sulphur	70853	80281	90482	90677	90060	422353
Low Sulphur	24306	25162	23098	23074	22978	118618
Total	**95159**	**105443**	**113580**	**113751**	**113038**	**540971**

Source: Draft Tenth Five Year Plan Document.

XV. 10 VALUE OF IMPORT OF CRUDE OIL AND PETROLEUM PRODUCTS DURING THE TENTH PLAN PERIOD

(Million US$)

	2002-03	2003-04	2004-05	2005-06	2006-07	TOTAL
1	2	3	4	5	6	7
			CRUDE OIL - IMPORT (OVERSEAS PRODUCTION)			
Low Sulphur	3386	3505	3218	3214	3201	16524
High Sulphur	9870	11183	12604	12631	12545	58833
Gross Crude Oil	**13256**	**14688**	**15822**	**15845**	**15746**	**75357**
Overseas production	(32)	(84)	(113)	(344)	(843)	(1416)
Net Crude Oil	**13224**	**14604**	**15709**	**15501**	**14903**	**73941**
			PRODUCT - IMPORT (EXPORT)			
LPG	272	339	329	519	724	2183
Naphtha	(138)	(368)	(695)	(599)	(559)	(2359)
MS	(439)	(429)	(407)	(344)	(228)	(1847)
ATF	(196)	(302)	(352)	(343)	(318)	(1511)
HSD	(1005)	(1416)	(1924)	(1630)	(1168)	(7143)
FO/LSHS	44	109	294	449	512	1408
Lubes	128	121	134	161	188	732
Others	(184)	(254)	(352)	(405)	(400)	(1595)
Product exports	(1518)	(2200)	(2973)	(2192)	(1249)	(10132)
Net Import	**11706**	**12404**	**12736**	**13309**	**13654**	**63809**

Source: Draft Tenth Five Year Plan Document

XV.11 ESTIMATES OF DEMAND OF PETROLEUM PRODUCTS DURING THE TENTH PLAN

('000' Tonne)

PRODUCTS	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	CARG
1	2	3	4	5	6	7	8
			BASE CASE SCENARIO				
LPG	8055	8776	9528	10310	11123	11966	8.2
Naphtha	10928	10823	10723	8668	9128	9228	-3.5
MS(R)	6910	7460	8042	8653	9259	9907	7.5
MS(D)	160	160	160	160	160	160	0.0
MS(T)	7070	7620	8202	8813	9419	10067	7.3
ATF	2299	2370	2445	2523	2605	2691	3.2
SKO	11000	11000	11000	11000	11000	11000	0.0
HSD(R)	30663	32505	34325	36179	38096	40115	5.5
HSD(D)	9152	9641	10183	10787	11459	12209	5.9
HSD(T)	39815	42146	44508	46966	49555	52324	5.6
LDO	1500	1500	1500	1500	1500	1500	0.0
FO	7081	7397	7733	8089	8466	8866	4.6
LSHS	5787	5787	5787	5787	5787	5787	0.0
FO/LSHS	12868	13184	13520	13876	14253	14653	2.6
Bitumen	2726	2808	2892	2979	3069	3161	3.0
Lubes/Greases	1103	1202	1245	1283	1342	1386	4.7
Others	5668	5668	5668	5668	5668	5668	0.0
TOTAL	**103032**	**107097**	**111231**	**113586**	**118662**	**123644**	**3.7**
			UPPER CASE SCENARIO				
LPG	8055	8776	9528	10310	11123	11966	8.2
Naphtha	10928	13696	13806	11751	12980	13380	3.5
MS(R)	6910	7563	8275	9054	9904	10833	9.4
MS(D)	160	160	160	160	160	160	0.0
MS(T)	7070	7723	8435	9214	10064	10993	9.2
ATF	2299	2414	2535	2661	2794	2934	5.0
SKO	11000	11000	11000	11000	11000	11000	0.0
HSD(R)	30663	32932	35369	37986	40797	43816	7.4
HSD(D)	9152	9729	10341	10993	11686	12422	6.3
HSD(T)	39815	42661	45711	48979	52483	56238	7.2
LDO	1500	1500	1500	1500	1500	1500	0.0
FO	7230	7719	8251	8831	9464	10153	7.0
LSHS	5787	5787	5787	5787	5787	5787	0.0
FO/LSHS	13017	13506	14038	14618	15251	15940	4.1
Bitumen	2779	2918	3064	3217	3378	3547	5.0
Lubes/Greases	1103	1202	1245	1283	1342	1386	4.7
Others	5668	5668	5668	5668	5668	5668	0.0
TOTAL	**103234**	**111064**	**116529**	**120201**	**127583**	**134552**	**5.4**

Source: Draft Tenth Five Year Plan Document.

PART–IV
FINANCIAL PERFORMANCE

XVI. 1 DIVIDEND PAID BY PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS FOR FISCAL YEAR 2002-03

(Rs. Crore)

Name of Company	Total amount of dividend paid by Oil PSUs	
	Total	Paid to Govt.
1. Oil & Natural Gas Corp. Ltd. (ONGC)	4277.80	3598.02
2. Oil India Ltd. (OIL)	278.21	273.00
3. Gas Authority of India Ltd. (GAIL)	591.96	398.63
4. Indian Oil Corp. Ltd. (IOCL)	2258.16	1852.37
5. Hindustan Petroleum Corp. Ltd. (HPCL)	678.66	346.15
6. Bharat Petroleum Corp. Ltd. (BPCL)	450.00	297.90
7. IBP Co. Ltd. (IBP)	31.01	8.06
8. Engineers India Ltd. (EIL)	22.46	20.30
Total	**8588.26**	**6794.43**

XVI. 2 EQUITY CAPITAL OF PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS AS ON 31st MARCH 2003

(Rs. Crore)

Name of the PSU	Authorised Capital	Paid up Equity Capital	% Govt. holding as on 31.3.2003
1. Indian Oil Corp. Ltd. (IOCL)	2500.00	1168.01	82.03
2. Bharat Petroleum Corp. Ltd. (BPCL)	300.00	300.00	66.20
3. Hindustan Petroleum Corp. Ltd. (HPCL)	350.00	339.00	51.01
4. Oil & Natural Gas Corp. Ltd. (ONGC)	15000.00	1425.93	84.10
5. Oil India Ltd. (OIL)	250.00	214.00	98.13
6. Gas Authority of India Ltd. (GAIL)	1000.00	845.65	67.35
7. Kochi Refineries Ltd. (KRL)	150.00	137.87	0.00
8. Bongaigaon Refinery & Petrochemicals Ltd. (BRPL)	200.00	199.82	0.00
9. Engineers India Ltd. (EIL)	100.00	56.16	90.40
10. Chennai Petroleum Corp. Ltd. (CPCL)	400.00	149.00	0.00
11. IBP Co. Ltd. (IBP)	100.00	22.15	26.00
12. Biecco Lawrie Ltd.	50.00	42.00	57.00
13. Balmer Lawrie Ltd.	30.00	16.29	0.00
14. Numaligarh Refinery Ltd. (NRL)	1000.00	735.63	0.00

KRL and NRL: Subsidiaries of BPCL.

BRPL, CPCL and IBP: Subsidiaries of IOCL.

*: Balmer Lawrie Investment Ltd. is the holding company of Balmer Lawrie & Co. Ltd.

XVI. 3 STATEMENT SHOWING PROFIT AFTER TAX EARNED BY PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS DURING 1997-98 TO 2002-03

(Rs. Crores)

S.No	Name of PSUs	Profit after tax during					
		1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
1	Indian Oil Corporation Ltd.	1706.5	2213.52	2443.4	2720.33	2884.66	6114.89
2	Bharat Petroleum Corporation Ltd.	532.7	701.23	703.86	832.66	849.83	1250.03
3	Hindustan Petroleum Corporation Ltd.	701.16	901.26	1057.41	1088.01	787.98	1537.36
4	Oil & Natural Gas Corporation Ltd.	2677.78	2754.49	3629.48	5228.78	6197.9	10529.3
5	Oil India Ltd.	288.84	291.6	409.79	467.36	525.22	916.73
6	Gas Authority of India Ltd.	1020.31	1059.92	861.27	1126.16	1185.84	1639.11
7	Kochi Refineries Ltd.	220.41	338.23	235.2	109.46	68.77	456.02
8	Bongaigaon Refinery & Petrochemicals Ltd.	67.99	34.26	32.24	-57.44	-198.61	178.5
9	Engineers India Ltd.	73.24	117.77	126.2	123.85	24.71	64.16
10	Chennai Petroleum Corporation Ltd.	129.28	204.93	143.14	122.43	63.71	302.89
11	IBP Co. Ltd.	31.56	35.23	41.71	54.22	195.79	87.75
12	Balmer Lawrie & Co. Ltd.	16.41	16.83	14.32	6.01	8.01	16.49
13	Numaligarh Refineries Ltd.	*	*	*	21.6	122.98	174.63
14	Biecco Lawrie Co. Ltd.	-4.88	0.45	0.17	-8.67	-10.9	-9.2

* NRL refinery was commissioned in the year 2000-01.

XVI. 4 PERFORMANCE OF PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS DURING 2002-03

Sl. No.	Performance parameters	Unit	ONGC	OIL	GAIL	IOCL	HPCL	BPCL	EIL	BRPL	CPCL	IBP	NRL	Balmer	Blecco	KRL
1	Authorised Capital	Rs. Crores	15000.00	250.00	1000.00	2500.00	350.00	300.00	100.00	200.00	400.00	100.00	1000.00	30.00	50.00	150.00
2	Paid up Capital	Rs. Crores	1425.93	214.00	845.65	778.67	339.00	300.00	56.16	199.82	149.00	22.15	735.63	16.29	42.00	138.47
3	% Shareholding by	%														
	(a) Government	%	84.11	98.13	67.35	82.03	51.01	66.20	90.395	nil	nil	26.00	-	61.799**	57.37	0.00
	(b) Financial Institution/ bodies others	%	0.20	nil	21.86	5.04	48.70	29.19	3.403	14.32		10.11	12.34		41.85	25.18
	(c) Holding Company/ Other CPSUs	%	12.02	nil	9.66	9.11	nil	-	nil	74.46@	51.81@	53.58@	75.31#		0.47	54.95#
	(d) Employees	%	0.54	1.87	0.03	1.87	0.29	1.12	-		0.14	0.06	-		nil	0.06
	(e) State Govt.	%	nil	nil	0.00	0.12	0.00	-	6.20	-	nil	-	12.35	0.056	nil	5.06
	(f) Public	%	3.13	nil	1.10	1.83	0.00	3.49	-	11.22	13.15	10.25	nil	17.156	0.30	14.73
4	Gross Turnover	Rs. Crores	35387.20	2896.83	12086.43	119848.23	52605.00	47237.83	818.27	1861.53	8629.95	8936.74	2804.74	886.82	27.66	10480.20
5	Net worth	Rs. Crores	36608.19	3456.90	6336.57	18927.99	6679.00	4747.43	751.23	422.76	1293.33	498.86	991.60	195.14	-20.18	1437.71
6	Reserves and surplus	Rs. Crores	34313.03	3242.89	5493.48	18149.32	6340.00	4447.43	695.07	222.94	1146.28	476.71	257.82	147.69	0.31	1299.24
7	Gross Block (fixed assets and producing property)	Rs. Crores	74199.94	2119.38	11048.71	34203.88	10754.00	9973.29	118.06	884.50	2265.19	874.15	2511.68	274.09	15.61	2210.64
8	Capital employed	Rs. Crores	35217.00	4072.97	8129.81	28083.74		7818.00	751.23	537.08	2119.05	575.06	2286.50	355.74	12.35	2639.97
9	Profit after tax (PAT)	Rs. Crores	10529.32	916.70	1639.00	6114.89	1537.36	1250.30	64.16	178.50	302.89	87.75	174.60	16.49	-9.25	456
10	Debt-Equity ratio		0.01:1	1:8.98	0.32:1	0.77:1	0.09:1	0.69	-	0.89	1.53	-	1.23:1	0.82	.72:1	0.42:1
11	Earning Per Share	Rs.	73.84	42.84	19.38	78.53	45.37	41.67	11.42	8.93	20.31	39.62	2.37	10.13	NA	32.93
12	Book value	Rs.	250.00	161.53	74.93	243.08	217.45	158.25	133.77	21.75	86.72	225.22	13.48	119.79	NA	103.83
13	Total dividend	Crore	4277.80	278.21	591.96	2258.16	678.66	450.00	22.46	53.95	52.15	31.01	59.75	5.70	nil	138.47
14	Dividend as a % of PAT (excluding Tax)	%	40.63	30.35	36.11	36.93	44.14	36	35.01	30.23	19.42	35.34	30.33	30.62	nil	30.36

**Balmer Lawrie Investment Ltd. is the holding company
@ IOC is the holding company
BPCL is the holding company.

PART–V
TIME SERIES DATA ON ENERGY

225 IPNG—25B

PART–V
TIME SERIES DATA ON ENERGY

225 IPNG—25B

XVII.2 AVAILABILITY OF PRIMARY SOURCES OF CONVENTIONAL ENERGY IN INDIA

Year	Coal & Lignite (TMT)	Crude Petroleum (TMT)	Natural Gas (MCM)	Electricity Hydro & Nuclear (GWH)
1	2	3	4	5
1970-71	71240	18505	647	27665
1971-72	74070	20250	718	29231
1972-73	78210	19450	771	28329
1973-74	77680	21044	762	31368
1974-75	85600	21700	951	30081
1975-76	92170	22072	1124	35928
1976-77	100100	22522	1381	38088
1977-78	103840	25270	1464	40279
1978-79	100160	26290	1711	49929
1979-80	105540	27887	1676	48354
1980-81	109320	26755	1522	49543
1981-82	121020	30654	2222	52586
1982-83	130138	33460	2957	50394
1983-84	139302	36465	3399	53500
1984-85	141458	36154	4141	58023
1985-86	155536	44784	4950	56003
1986-87	166846	45956	7072	58862
1987-88	180645	48089	7968	52479
1988-89	193970	49855	9250	63685
1989-90	209481	53577	11172	66761
1990-91	214987	53720	12766	77782
1991-92	232338	54340	14441	78281
1992-93	245255	56197	16116	76596
1993-94	256327	57848	16340	75860
1994-95	269180	59588	17338	88360
1995-96	284043	62510	21202	80561
1996-97	298621	66806	21495	77972
1997-98	306824	68352	24522	84665
1998-99	310738	72531	25716	94845
1999-00	315047	89754	26886	93895
2000-01	341220	106523	27860	91409
2001-02	349740	110738	28037	93260
2002-03	360708	115031	29972	83069

(p) - Provisional
TMT: Thousand Metric Tonnes
MCM: Million Cubic Metres
GWH: Giga Watt Hour=1 Million Kilo Watt Hour
N.A.: Not Available.
Thermal electricity is not considered as primary source of energy.

225 NG—268

XVII. 3 CONSUMPTION OF PRIMARY SOURCES OF CONVENTIONAL ENERGY IN INDIA

Year	Coal & Lignite (TMT)	Crude * Petroleum (TMT)	Natural Gas (MCM)	Electricity ** (GWH)
1	2	3	4	5
1970-71	71230	18379	647	43724
1971-72	74060	20042	718	47063
1972-73	78180	19328	771	49088
1973-74	77660	20958	762	50246
1974-75	85580	21094	951	52632
1975-76	92160	22283	1124	60246
1976-77	104130	22995	1381	66609
1977-78	103780	24898	1464	69255
1978-79	100150	25974	1711	77293
1979-80	105530	27474	1674	78084
1980-81	109310	25836	1522	82367
1981-82	121010	30146	2222	90245
1982-83	130130	33156	2957	95589
1983-84	137290	35263	3399	102344
1984-85	141450	35556	4141	114068
1985-86	155530	42910	4950	122999
1986-87	166840	45699	7072	135952
1987-88	179209	47754	7968	145613
1988-89	192119	48803	9250	160196
1989-90	203424	51942	11172	175419
1990-91	213360	51772	12766	190357
1991-92	232330	51423	14441	207645
1992-93	241750	53482	16116	220674
1993-94	256320	54296	16340	238567
1994-95	269174	56534	17338	259630
1995-96	284037	58741	21202	277029
1996-97	298620	62870	21495	280206
1997-98	306824	65166	24522	296749
1998-99	313476	68538	25716	309734
1999-00	315047	85964	26886	312841
2000-01	341220	103444	27860	316600
2001-02	349740	107274	28037	321048
2002-03	360708	112559	29972	N.A.

(p) - Provisional
TMT: Thousand Metric Tonnes
MCM: Million Cubic Metres
GWH: Giga Watt Hour=1 Million Kilo Watt Hour
N.A.: Not Available.
*: Crude oil in terms of refinery crude throughput.
**: Includes thermal, hydro & nuclear electricity in utilities.

XVII. 4 DOMESTIC PRODUCTION OF PETROLEUM PRODUCTS IN INDIA

('000' Tonne)

Year	Light Distillates			Middle Distillates			
	LPG @	Petrol	Naphtha	Kerosene	ATF	HSDO	LDO
1970-71	169	1526	1205	2896	710	3840	986
1971-72	195	1615	1217*	2995	808	4356	1065
1972-73	227	1581	1330*	2813	801	4598	1010
1973-74	259	1647	1438*	2613	875	5039	1079
1974-75	278	1298	1720	2052	837	6034	1084
1975-76	331	1275	1910	2439	925	6285	946
1976-77	363	1340	1986	2581	1001	6399	1047
1977-78	383	1423	2120	2450	1077	7129	1224
1978-79	403	1515	2262	2514	1177	7350	1227
1979-80	406	1512	2415	2539	1104	7975	1230
1980-81	366	1519	2115	2396	1001	7371	1108
1981-82	410	1614	3004	2907	1009	9042	949
1982-83	406	1797	2986	3393	1137	9761	1121
1983-84	514	1937	3578	3528	1195	10862	1081
1984-85	596	2144	3470	3364	1297	11086	1253
1985-86	867	2309	4955	4030	1519	14624	1177
1986-87	995	2515	5437	4912	1553	15450	1172
1987-88	1026	2662	5462	5104	1695	16296	1259
1988-89	1034	2822	5378	5201	1753	16656	1468
1989-90	1179	3328	5227	5700	1575	17737	1540
1990-91	1221	3552	4859	5471	1801	17185	1509
1991-92	1250	3420	4546	5339	1539	17404	1482
1992-93	1249	3709	4586	5199	1636	18289	1453
1993-94	1314	3843	4666	5270	1788	18809	1474
1994-95	1432	4129	5662	5261	1968	19593	1364
1995-96	1539	4462	5975	5267	2127	29661	1351
1996-97	1598	4704	6123	6236	2119	22202	1286
1997-98	1666	4849	6103	6701	2147	23354	1246
1998-99	1724	5573	6081	5341	2289	26716	1336
1999-00	2487	6232	8170	5735	2292	34793	1624
2000-01	4088	8070	9908	8714	2513	39015	1481
2001-02	4778	9699	9180	9681	2595	39773	1703
2002-03(p)	4903	10361	9650	10028	3053	40113	2079

(p) : Provisional

@: Excludes LPG production from natural gas.

*: Estimated from calendar year figures.

Cont'd....

XVII. 4 (Concl.)DOMESTIC PRODUCTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Heavy Ends				Others*	Total
	Fuel Oil	Lubricants	Bitumen	Petroleum Coke		
1970-71	4090	231	805	151	501	17110
1971-72	4098	140	1009	142	999	18639
1972-73	3688	304	1109	132	267	17860
1973-74	3931	318	1093	131	1072	19495
1974-75	4243	387	873	137	668	19611
1975-76	5083	342	697	160	436	20829
1976-77	4728	368	945	163	471	21432
1977-78	5332	413	992	155	521	23219
1978-79	5644	490	962	122	527	24193
1979-80	6351	487	1103	99	573	25794
1980-81	6120	426	1082	86	533	24123
1981-82	6908	407	1298	141	493	28182
1982-83	7964	434	1397	149	528	31073
1983-84	8000	470	1069	136	556	32926
1984-85	7886	414	944	181	601	33236
1985-86	7955	501	1107	192	645	39881
1986-87	8011	491	1224	264	737	42761
1987-88	8466	478	1370	257	653	44728
1988-89	8171	497	1548	275	896	45699
1989-90	8952	547	1671	275	959	48690
1990-91	9429	561	1603	229	1142	48562
1991-92	9632	390	1710	216	1416	48439
1992-93	10403	533	1862	221	1219	50359
1993-94	10304	489	1874	233	1020	51084
1994-95	9822	504	1845	259	1088	52927
1995-96	9579	633	2032	256	1199	55081
1996-97	10298	619	2283	246	1291	59005
1997-98	11080	593	2158	282	1129	61308
1998-99	11030	586	2419	286	1163	64544
1999-00	11352	728	2485	465	3048	79411
2000-01	11392	684	2721	2473	4555	95614
2001-02	12227	651	2561	2784	4372	100004
2002-03(p)	12167	684	2941	2659	5502	104140

(p) : Provisional

* : Includes those of light & middle distillates and heavy ends.

XVII. 5 FOREIGN TRADE OF CRUDE OIL AND PETROLEUM PRODUCTS IN INDIA

(000'tonnes)

Year	Crude oil			Petroleum Products		
	Gross Imports	Exports	Net Imports	Gross Imports	Exports	Net Imports
1	2	3	4	5	6	7
1970-71	11683	-	11683	1084	332	752
1971-72	12951	-	12951	2147	136	2011
1972-73	12084	-	12084	3525	126	3399
1973-74	13873	18	13855	3548	161	3787
1974-75	14016	-	14016	2648	175	2473
1975-76	13624	-	13624	2218	170	2048
1976-77	14048	-	14048	2624	74	2550
1977-78	14507	-	14507	2879	47	2832
1978-79	14657	-	14657	3878	44	3834
1979-80	16121	-	16121	4724	88	4636
1980-81	16248	-	16248	7289	36	7253
1981-82	15298	838	14460	4884	55	4829
1982-83	16949	4552	12397	5028	795	4233
1983-84	15967	5522	10445	4328	1472	2856
1984-85	13642	6478	7164	6092	933	5159
1985-86	15144	528	14616	3865	1963	1902
1986-87	15476	-	15476	3047	2491	556
1987-88	17734	-	17734	4151	3412	739
1988-89	17815	-	17815	6495	2295	4200
1989-90	19490	-	19490	6564	2593	3971
1990-91	20699	-	20699	8660	2648	6012
1991-92	23994	-	23994	9445	2936	6509
1992-93	29247	-	29247	11283	3719	7564
1993-94	30822	-	30822	12076	4034	8042
1994-95	27349	-	27349	13951	3254	10697
1995-96	27342	-	27342	20335	3435	16900
1996-97	33906	-	33906	20265	3162	17103
1997-98	34493	-	34493	22970	2381	20589
1998-99	39808	-	39808	23772	720	23052
1999-00	57805	-	57805	16608	746	15862
2000-01	74097	-	74097	9267	8365	902
2001-02	78706	-	78706	7009	10085	-3076
2002-03	81989	-	81989	6737	10289	-3552

XVII.6 AVAILABILITY OF CRUDE OIL AND PETROLEUM PRODUCTS IN INDIA

(000'tonnes)

Year	Crude oil			Petroleum Products		
	Produc-tion	Net Imports	Gross availability	Produc-tion	Net Imports	Gross availability
1	2	3	4	5	6	7
1970-71	6822	11683	18505	17110	752	17862
1971-72	7299	12951	20250	18639	2011	20650
1972-73	7321	12084	19405	17830	3399	21229
1973-74	7189	13855	21044	19495	3387	22882
1974-75	7684	14016	21700	19603	2473	22076
1975-76	8448	13624	22072	20829	2048	22877
1976-77	8898	14048	22946	21432	2550	23982
1977-78	10763	14507	25270	23219	2832	26051
1978-79	11633	14657	26290	24193	3834	28027
1979-80	11766	16221	27887	25794	4636	30430
1980-81	10507	16248	26755	24123	7253	31376
1981-82	16194	14460	30654	28182	4829	33011
1982-83	21063	12397	33460	31073	4233	35306
1983-84	26020	10445	36465	32926	2856	35782
1984-85	28990	7164	36154	33236	5159	38395
1985-86	30168	14614	44784	39881	1902	41783
1986-87	30480	15476	45956	42761	556	43317
1987-88	30357	17734	48091	44728	739	45467
1988-89	32040	17815	49855	45699	4200	49899
1989-90	34087	19490	53577	48690	3971	52661
1990-91	33021	20699	53720	48562	6012	54574
1991-92	30346	23994	54340	48349	6509	54858
1992-93	26950	29247	56197	50359	7564	57923
1993-94	27026	30822	57848	51084	8042	59126
1994-95	32239	27349	59588	52927	10697	63624
1995-96	35167	27342	62509	55081	16900	71981
1996-97	32900	33906	66806	59005	17103	76108
1997-98	33858	34493	68351	61308	20589	81897
1998-99	32722	39808	72530	64544	23052	87596
1999-00	31949	57805	89754	79411	15862	95273
2000-01	32426	74097	106523	95614	902	96516
2001-02	32032	78706	110738	100004	-3076	96928
2002-03	33042	81389	115041	104140	-3552	100588

XVII. 7 CONSUMPTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Light Distillates			Middle Distillates			
	LPG	Petrol	Naphtha	Kerosene	ATF	HSDO	LDO
1970-71	176	1453	904	3283	689	3837	1092
1971-72	212	1527	1164	3517	758	4340	1200
1972-73	244	1592	1297	3516	816	4770	1436
1973-74	269	1507	1534	3294	778	5404	1278
1974-75	289	1264	1713	2828	836	6950	1070
1975-76	336	1275	1836	3104	897	6595	878
1976-77	368	1316	2196	3322	956	7106	1082
1977-78	91	1391	2290	3634	1041	7736	1164
1978-79	408	1499	2515	3952	1154	8638	1216
1979-80	410	1490	2413	3872	1144	9801	1266
1980-81	405	1522	2325	4228	1125	10345	1122
1981-82	492	1599	2963	4693	1128	10832	1036
1982-83	601	1722	2958	5214	1145	12013	1067
1983-84	764	1891	2804	5524	1208	12600	1097
1984-85	953	2084	3125	5959	1336	13696	1198
1985-86	1241	2275	3106	6229	1453	14886	1123
1986-87	1497	2505	3249	6645	1603	16009	1156
1987-88	1686	2810	2852	7231	1654	17657	1245
1988-89	1962	3052	3364	7731	1713	18795	1437
1989-90	2268	3491	3350	8239	1775	20706	1486
1990-91	2415	3545	3446	8423	1677	21139	1506
1991-92	2650	3573	3461	8377	1559	22680	1462
1992-93	2866	3595	3382	8478	1565	24293	1407
1993-94	3113	3834	3191	8704	1741	25872	1370
1994-95	3434	4141	3400	8964	1903	28261	1369
1995-96	3922	4679	4154	9932	2082	32261	1311
1996-97	4267	4955	4030	10153	2154	35019	1223
1997-98	4803	5182	6590	11065	2108	36071	1235
1998-99	5352	5507	8891	12243	2112	37217	1278
1999-00	6421	5909	10801	11898	2197	39295	1512
2000-01	7016	6613	11673	11307	2249	37958	1399
2001-02	7698	7011	11728	10432	2256	36546	1592
2002-03(p)	8351	7570	11929	10405	2269	36644	2063

Cont...

(p) : Provisional

XVII. 7 CONSUMPTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Heavy Ends						
	Fuel Oil	Lubricants	Bitumen	Petroleum Coke	Refinery Fuel	Others*	Total
1970-71	4664	545	777	107	1223	385	19135
1971-72	5142	362	1011	188	1228	650	21299
1972-73	5661	609	1109	141	1262	525	22978
1973-74	5912	612	1066	139	1229	552	23574
1974-75	5729	475	399	89	1197	463	23302
1975-76	5781	441	690	151	1226	463	23673
1976-77	5733	454	882	175	1299	511	25400
1977-78	5839	478	908	146	1451	521	26990
1978-79	6668	544	943	155	1478	549	29719
1979-80	7081	566	1069	185	1440	586	31323
1980-81	7473	593	1064	137	1365	557	32261
1981-82	7184	592	1292	174	1584	538	34107
1982-83	7301	605	1379	103	1738	549	36395
1983-84	7558	617	1050	114	1935	632	37776
1984-85	7944	664	935	234	2033	667	40828
1985-86	7900	700	1126	163	2491	670	43363
1986-87	8047	755	1309	208	2612	679	46274
1987-88	8144	791	1379	246	2522	721	48938
1988-89	8456	847	1498	316	2790	921	52882
1989-90	8820	926	1695	383	2684	956	56779
1990-91	8986	892	1581	290	2710	1135	57745
1991-92	9202	932	1706	266	2629	1106	59603
1992-93	9267	846	1823	152	2753	1228	61655
1993-94	9192	688	1824	132	2836	1151	63648
1994-95	9889	668	1939	197	3137	3328	70650
1995-96	11160	956	2005	319	3238	2050	78069
1996-97	11507	1013	2273	276	3490	2298	82658
1997-98	11491	1081	2178	227	3514	2259	87804
1998-99	12510	1097	2412	393	3700	1550	94262
1999-00	12453	1243	2879	328	5544	2150	102630
2000-01	12653	1115	2774	1845	6900	3472	106974
2001-02	12982	1137	2584	1798	7273	4668	107705
2002-03(p)	12738	1250	2986	2898	7650	5023	111776

(p) : Provisional

* : Includes those of light & middle distillates and heavy ends and sales through private parties.

XVII. 8 SECTOR-WISE (END USE) CONSUMPTION OF SELECTED PETROLEUM PRODUCTS IN INDIA

(000' Tonnes)

Petroleum Product	Year	Transport	Plantation	Power Generation	Industry	Misce-laneous Services	Private Sales	Total
High Speed Diesel Oil	1984-85	11839	128	140	1122	467	-	13696
	1985-86	12880	149	160	1263	434	-	14886
	1986-87	14008	155	161	1293	392	-	16009
	1987-88	15360	177	209	1500	411	-	17657
	1988-89	16822	146	132	1300	395	-	18795
	1989-90	18341	201	126	1512	457	-	20637
	1990-91	18813	318	104	1431	473	-	21139
	1991-92	20282	346	110	1416	526	-	22680
	1992-93	21726	388	108	1489	582	-	24293
	1993-94	23059	494	115	1512	698	-	25878
	1994-95	24742	621	229	1783	886	-	28261
	1995-96	28034	789	167	2386	878	7	32261
	1996-97	20276	6783	2284	3608	2068	0	35019
	1997-98	20662	6891	2390	3843	2285	0	36071
	1998-99	21367	6750	2576	4254	2270	0	37217
	1999-00	22386	7593	2622	3890	2796	8	39295
	2000-01	22197	7497	2596	3132	2516	20	37958
	2001-02	21362	7227	2509	2687	2430	31	36546
	2002-03(p)	21832	7278	2497	2548	2379	110	36644
Light Diesel Oil	1984-85	95	29	233	377	464	-	1198
	1985-86	86	30	255	397	355	-	1123
	1986-87	86	30	273	433	334	-	1156
	1987-88	101	32	251	520	341	-	1245
	1988-89	96	33	346	604	358	-	1437
	1989-90	98	35	325	577	443	-	1478
	1990-91	86	41	282	638	454	-	1501
	1991-92	80	37	236	644	465	-	1462
	1992-93	85	35	211	647	429	-	1407
	1993-94	82	36	190	625	437	-	1370
	1994-95	83	35	169	641	441	-	1369
	1995-96	68	41	166	700	336	-	1311
	1996-97	66	34	184	633	306	-	1223
	1997-98	64	34	189	626	322	-	1235
	1998-99	63	41	170	646	358	-	1278
	1999-00	59	47	176	769	461	-	1512
	2000-01	58	46	215	681	399	-	1399
	2001-02	90	51	165	621	312	390	1629
	2002-03(p)	40	56	173	754	390	650	2063

(p) : Provisional

Contd..

XVII. 8 SECTOR-WISE (END USE) CONSUMPTION OF SELECTED PETROLEUM PRODUCTS IN INDIA

(000 Tonne)

Petroleum Product	Year	Transport	Plantation	Power Generation	Industry	Misce-llaneous Services	Pvt Sales	Total
1	2	3	4	5	6	7	8	9
Furnace Oil	1984-85	357	125	1032	2444	298	0	4256
	1985-86	290	132	804	2337	243	0	3806
	1986-87	358	125	712	2429	169	0	3793
	1987-88	416	130	636	2765	244	0	4191
	1988-89	460	152	617	3205	171	0	4605
	1989-90	461	147	692	2977	199	0	4476
	1990-91	447	136	531	3150	198	0	4462
	1991-92	343	164	527	3692	211	0	4937
	1992-93	339	190	555	3962	227	0	5273
	1993-94	405	186	490	3603	342	0	5026
	1994-95	440	188	580	3944	685	0	5837
	1995-96	321	214	720	4836	405	475	6971
	1996-97	351	250	764	4691	478	660	7194
	1997-98	315	274	549	4865	648	517	7168
	1998-99	349	319	571	4824	704	1206	7973
	1999-00	351	286	515	4901	763	874	7690
	2000-01	318	276	481	4543	753	1293	7664
	2001-02	308	322	551	5057	847	1366	8451
	2002-03(p)	263	376	488	4714	1100	1086	8027
Low Sulphur Heavy Stock	1984-85	-	25	1462	2014	186	0	3687
	1985-86	4	34	1526	2365	165	0	4094
	1986-87	4	38	1489	2696	27	0	4254
	1987-88	2	36	1659	2242	14	0	3953
	1988-89	4	34	1571	2234	8	0	3851
	1989-90	8	42	1630	2629	19	0	4328
	1990-91	13	49	1835	2605	22	0	4524
	1991-92	22	29	1798	2335	81	0	4265
	1992-93	10	35	1779	2122	48	0	3994
	1993-94	12	40	1676	2366	72	0	4166
	1994-95	2	27	1624	2258	141	0	4052
	1995-96	3	32	1747	2246	161	@	4189
	1996-97	3	25	1634	2480	171	@	4313
	1997-98	3	21	1614	2482	203	@	4323
	1998-99	5	43	1297	2980	212	@	4537
	1999-00	7	27	1363	3036	330	@	4763
	2000-01	1	22	1657	2948	361	@	4989
	2001-02	0	21	1403	2735	372	@	4531
	2002-03(p)	0	44	1639	2694	334	@	4711

(p) : Provisional @ : LSHS sales through pvt. Parties included in FO sales. Break-up not available.

XVII. 9 GROSS AND NET PRODUCTION & UTILISATION OF NATURAL GAS IN INDIA

(Million cubic metres)

Year	Gross Prodn.	Reinjected	Flarred	Net Prodn.
1	2	3	4	5
1970-71	1445	36	762	647
1971-72	1535	49	768	718
1972-73	1565	141	653	771
1973-74	1713	115	836	762
1974-75	2041	139	951	951
1975-76	2368	162	1082	1124
1976-77	2428	190	857	1381
1977-78	2839	184	1191	1464
1978-79	2812	148	953	1711
1979-80	2767	127	964	1676
1980-81	2358	67	769	1522
1981-82	3851	110	1519	2222
1982-83	4936	91	1888	2957
1983-84	5961	45	2515	3401
1984-85	7241	48	3052	4141
1985-86	8134	66	3118	4950
1986-87	9853	63	2715	7075
1987-88	11467	54	3445	7968
1988-89	13217	84	3883	9250
1989-90	16988	96	5720	11172
1990-91	17998	102	5131	12765
1991-92	18645	132	4072	14441
1992-93	18060	90	1854	16116
1993-94	18335	71	1924	16340
1994-95	19381	23	2020	17338
1995-96	22641	0	1709	20932
1996-97	23256	0	1927	21329
1997-98	26401	0	1856	24545
1998-99	27428	0	1714	25714
1999-00	28447	0	1561	26886
2000-01	29477	0	1616	27861
2001-02	29714	0	1677	28037
2002-03	31393	0	1423	29970

$: Includes internal consumption

XVII. 10 INDUSTRY-WISE OFFTAKES OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	Energy Purpose							Non-Energy Purposes				Grand Total
	Power Generation	Industrial fuel	Tea Plantation	Domestic fuel	Captive Use/LPG shrinkage	Others	Total	Fertilizer	Petro-Chemicals	Others	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13
1970-71	261	116	15	-	68	-	460	187	-	-	187	647
1971-72	313	129	19	-	61	-	522	196	-	-	196	718
1972-73	339	148	20	Neg.	63	-	570	201	-	-	201	771
1973-74	323	157	22	Neg.	81	-	583	179	-	-	179	762
1974-75	354	164	29	6	80	-	633	318	-	-	318	951
1975-76	368	143	33	13	104	-	661	463	-	2	465	1126
1976-77	344	155	38	15	142	-	694	663	-	24	687	1381
1977-78	372	165	39	13	171	-	760	673	9	22	704	1464
1978-79	560	175	43	13	176	-	967	721	5	18	744	1711
1979-80	514	158	39	16	174	-	901	755	7	18	780	1681
1980-81	492	163	45	14	176	-	890	611	5	16	632	1522
1981-82	612	166	47	15	364	-	1204	991	8	19	1018	2222
1982-83	1025	185	51	14	499	-	1774	1155	7	21	1183	2957
1983-84	1209	230	58	16	572	-	2085	1283	10	23	1316	3401
1984-85	1454	250	62	18	721	-	2505	1603	10	23	1636	4141
1985-86	1299	223	78	21	795	-	2416	2500	10	24	2534	4950
1986-87	2041	257	96	25	1295	-	3714	3335	-	26	3361	7075
1987-88	2721	281	99	34	1313	-	4448	3490	-	30	3520	7968
1988-89	1823	526	87	42	1329	-	3807	5334	21	88	5443	9250
1989-90	2140	695	78	41	1526	-	4480	6578	29	85	6692	11172
1990-91	3634	827	89	50	1775	-	6375	5612	409	370	6391	12766
1991-92	4774	766	108	72	2165	-	7885	5509	531	516	6556	14441
1992-93	4967	1450	105	187	1916	-	8625	6672	578	241	7491	16116
1993-94	4785	1794	121	189	2277	-	9166	6499	494	181	7174	16340
1994-95	5229	1927	134	190	2230	-	9710	6936	520	171	7627	17337
1995-96@	6836	2301	111	178	589	-	10015	7602	474	-	8076	18091
1996-97@	6935	2631	130	184	618	-	10498	7625	509	-	8134	18632
1997-98@	8114	3106	117	206	569	-	12112	8752	649	-	9401	21513
1998-99@	8714	3005	147	193	911	-	12970	8869	650	-	9519	22489
1999-00	8829	2329	140	250	4840	36	16424	8592	666	1203	10461	26885
2000-01	8801	2870	151	335	5004	38	17199	8480	779	1402	10661	27860
2001-02	9214	2979	147	485	5339	70	18234	7957	909	937	9803	28037
2002-03*	10510	2939	119	654	5409	136	19767	7955	1027	1223	10205	29972

@ : Excludes offtakes of natural gas by ONGC.

*: Provisional.

APPENDIX

APPENDIX

(iii) PREFIXES USED IN METRIC TABLES

Prefix		Meaning
Milli	:	One Thousandth (1/1000=0.001)
Centi	:	One Hundredth (1/100=0.01)
Deci	:	One Tenth (1/10=0.1)
Unit	:	One (1)
Deka	:	Ten (10)
Hecto	:	One Hundred (100)
Kilo	:	One thousand(1,000)
Mega	:	One Million (1,000,000)

(iv) OTHERS

API	:	American Petroleum Institute
AFRA	:	Average Freight Rate Assessment.
CIF	:	Cost, Insurance and Freight.
Crores	:	10 Million/100 Lakhs.
DWT	:	Dead Weight Tonnage.
FOB	:	Free on Board.
GP	:	General Purposes (16,500-24,999 dwt).
LV	:	Low Viscosity.
HV	:	High Viscosity.
HVI	:	High Viscosity Index
KL	:	Kilolitre
LR I	:	Large Range I (45,000-79,999 dwt).
LR II	:	Large Range II (80,000-159,999 dwt).
LVI	:	Medium Range (25,000-49,999 dwt).
MT	:	Metric Ton.
MTPA	:	Million Tonnes Per Annum.
MV	:	Medium Viscosity.
MVI	:	Medium Viscosity Index/
R&D	:	Research & Development.
ULCC	:	Ultra Large Crude Carrier (320,000-549,999 dwt).
VLCC	:	Very Large Crude Carrier (160,000 dwt and more).
NA	:	Not Available
-	:	Nil
Neg	:	Negligible
Billion	:	10 or one thousand Million.
Trillion	:	10 or one million million.
P	:	Provisional.
LOI	:	Letter of Intent.
MMSCMD	:	Million Standard Cubic Metres Per Day.
CNG	:	Compressed Natural Gas.
MOU	:	Memorandum of Understanding.

METRIC UNITS

LINEAR

10 Millimetres	—	1 Centimetre.
10 Centimetres	—	1 Decimetre
10 Decimetres	—	1 Metre
10 Metres	—	1 Decametre
10 Decametres	—	1 Hectometre
10 Hectometres	—	1 Kilometre
100 Sq. Milimetres	—	1 Sq. Centimetre
100 Sq. Centimetres	—	1 Sq. Metre
100 Sq. Decimetres	—	1 Decimetre
100 Sq. Metres	—	1 Sq. Decametre—1 Acre.
100 Sq. Acres	—	1 Sq. Hectometre—Hectare.
100 Hectares	—	1 Sq. Kilometre.

WEIGHT

10 Milligrams	—	1 Centigram
10 Centigrams	—	1 Decigram
10 Decigrams	—	1 Gram
10 Grams	—	1 Decagram
10 Decagrams	—	1 Hectogram
10 Hectograms	—	1 Kilogram.
100 Kilograms	—	1 Quintal
1000 Kilograms	—	1 Metric Tonne.

CAPACITY

10 Mililitres	—	1 Centilitre
10 Centilitres	—	1 Decilitre.
10 Decilitres	—	1 Litre
10 Litres	—	1 Decalitre
10 Decilitres	—	1 Hectolitre
10 Hectolitres	—	1 Kilolitre

VOLUME

1000 Cubic Milimetres	—	1 Cubic Centimetre
1000 Cubic Centimetres	—	1 Cubic Decimetre.
1000 Cubic Decimetres	—	1 Cubic Metre.

METRIC UNITS

LINEAR

10 Millimetres	—	1 Centimetre.
10 Centimetres	—	1 Decimetre
10 Decimetres	—	1 Metre
10 Metres	—	1 Decametre
10 Decametres	—	1 Hectometre
10 Hectometres	—	1 Kilometre
100 Sq. Milimetres	—	1 Sq. Centimetre
100 Sq. Centimetres	—	1 Sq. Metre
100 Sq. Decimetres	—	1 Decimetre
100 Sq. Metres	—	1 Sq. Decametre—1 Acre.
100 Sq. Acres	—	1 Sq. Hectometre—Hectare.
100 Hectares	—	1 Sq. Kilometre.

WEIGHT

10 Milligrams	—	1 Centigram
10 Centigrams	—	1 Decigram
10 Decigrams	—	1 Gram
10 Grams	—	1 Decagram
10 Decagrams	—	1 Hectogram
10 Hectograms	—	1 Kilogram.
100 Kilograms	—	1 Quintal
1000 Kilograms	—	1 Metric Tonne.

CAPACITY

10 Mililitres	—	1 Centilitre
10 Centilitres	—	1 Decilitre.
10 Decilitres	—	1 Litre
10 Litres	—	1 Decalitre
10 Decilitres	—	1 Hectolitre
10 Hectolitres	—	1 Kilolitre

VOLUME

1000 Cubic Milimetres	—	1 Cubic Centimetre
1000 Cubic Centimetres	—	1 Cubic Decimetre.
1000 Cubic Decimetres	—	1 Cubic Metre.

CONVERSION FACTORS USED IN THE OIL TRADE LINEAR AND SQUARE MEASURES

LENGTH

1 Inch	—	25.4 Millimetres (mm)
	—	0.0254 Metre.
1 Foot	—	12 inches.
	—	0.333333 Yard
	—	0.3048 Metre (m).
1 yard	—	36 inches.
	—	3 Feet
	—	0.9144 Metre (m)
1 Metre	—	39.3701 inches.
	—	3.28084 Feet
	—	1.09731 Yards
	—	0.001 Kilometre (km.)
1 Kilometre	—	1000 Metre (m)
	—	0.621371 Mile
1 Mile	—	1760 Yard
	—	1,60934 Kilometre (km.)
1 International Nautical Mile	—	6076.12 Feet.
	—	1.852 Kilometres (km)
	—	1.5152 Statute mile

AREA

1 Square Inch	—	645.16 Square Milimetres (mm2)
1 Square Foot	—	0.0929030 Square Metre (m2)
1 Square Yard	—	9 Square Feet.
1 Square Metre	—	0.836127 Square Yards
	—	10,7639 Square Feet.
	—	1.19599 Square Yards.
1 Acre	—	4840 Square Yards
	—	4046.86 Sq. Metres (m2)
	—	0.404686 Hectares.
1 Hectare	—	10,000 Square Metre (m2).
	—	2,47105 Acres.
	—	0.01 Square Kilometre (Km2)
1 Square Kilometre	—	100 Hectares.
	—	0.386102 Square Mile.
91 Square Mile	—	640 Acres
	—	258.999 hectares
	—	2.58999 Square Kilometres (Km2).

CONVERSION FACTORS USED IN THE OIL TRADE LINEAR AND SQUARE MEASURES

LENGTH

1 Inch	—	25.4 Millimetres (mm)
	—	0.0254 Metre.
1 Foot	—	12 inches.
	—	0.333333 Yard
	—	0.3048 Metre (m).
1 yard	—	36 inches.
	—	3 Feet
	—	0.9144 Metre (m)
1 Metre	—	39.3701 inches.
	—	3.28084 Feet
	—	1.09731 Yards
	—	0.001 Kilometre (km.)
1 Kilometre	—	1000 Metre (m)
	—	0.621371 Mile
1 Mile	—	1760 Yard
	—	1,60934 Kilometre (km.)
1 International Nautical Mile	—	6076.12 Feet.
	—	1.852 Kilometres (km)
	—	1.5152 Statute mile

AREA

1 Square Inch	—	645.16 Square Milimetres (mm2)
1 Square Foot	—	0.0929030 Square Metre (m2)
1 Square Yard	—	9 Square Feet.
1 Square Metre	—	0.836127 Square Yards
	—	10,7639 Square Feet.
	—	1.19599 Square Yards.
1 Acre	—	4840 Square Yards
	—	4046.86 Sq. Metres (m2)
	—	0.404686 Hectares.
1 Hectare	—	10,000 Square Metre (m2).
	—	2,47105 Acres.
	—	0.01 Square Kilometre (Km2)
1 Square Kilometre	—	100 Hectares.
	—	0.386102 Square Mile.
91 Square Mile	—	640 Acres
	—	258.999 hectares
	—	2.58999 Square Kilometres (Km2).

CUBIC MEASURES
VOLUMES

1 Cubic Inch	—	16.3871 Cubic Centimetres (cm3)
1 Pint	—	0.568261 Cubic Decimetres (dm3) or Litres.
1 Litre	—	61.024 Cubic Inches
	—	1.75975 Pints
	—	1 Cubic Decimetre (dm3)
	—	0.0353147 Cubic Foot
	—	0.264172 American Gallons.
	—	0.219963 Imperial Gallons.
	—	100 Cubic Decimetres (dm3) or
1 Hectolitre	—	100 Litres
1 American Gallon	—	231 Cubic Inches.
	—	3.78541 Cubic Decimetres or Litres.
	—	0.133681 Cubic Foot.
	—	0.832674 Imperial Gallon.
	—	0.0238095 American Barrel.
	—	0.00378541 Cubic Metre (M3).
1 Imperial Gallon	—	277.420 Cubic Inches.
	—	4.54609 Cubic Decimetres (dm3) or Litres.
	—	1.20095 American Gallon.
	—	0.160544 Cubic Foot.
	—	0.02894 American Barrel.
	—	0.00454609 Cubic Metre (m3).
1 Cubic Foot	—	28,3168 Cubic Decimetres (dm3) or litres.
	—	7.48052 American Gallons.
	—	6.22883 Imperial Barrle.
	—	0.17811 American Barrel.
	—	0.0283168 Cubic Metre (m3)
1 American Barrel	—	9702 Cubic Inches.
	—	158.987 Cubic Decimetres (dm3) or Litres.
	—	42 American Gallons.
	—	34.9726 Imperial Gallons.
	—	5.6146 Cubic Feet.
	—	0.158987 Cubic Metre (m3).
1 Cubic Metre	—	1000 Litres.
	—	264.172 American Gallons
	—	219.969 Imperial Gallons.
	—	35.3147 Cubic Feet.
1 Kilolitre	—	1000 Cubic Decimetres (dm3) or 1000 Litres.
	—	6.28981 American Barrels.
1 Gross Ton (Shippng)	—	2.83168 Cubic Metres or 100 Cubic Feet or Permanently Enclosed Space.
1 Ton of Liquified	—	Approx. 16 Barrels.
Methane	—	Approx. 1400 Cubic Metres of Natural Gas Depending upon Methane Content

PRODUCT CONVERSION FACTOR
(Conversion Factor From Volume to Tonnes at natural Temp.)

Product	Litres to Metric Tonnes	Tonnes per K.L.	American Barrels to Metric Tonnes
1	2	3	4
Aviation Spirit 100/130	1421	0.7034	8.94
Aviation Spirit	1449	0.6901	9.11
Aviation Spirit 73 ON	1432	0.6983	9.01
Motor Spirit 79 ON/80 ON	1427	0.7008	8.98
Motor Spirit 93 ON	1386	0.7215	8.72
Motor Spirit 95 ON	1359	0.7358	8.55
Motor Spirit 83 ON/87 ON	1411	0.7087	8.88
JP-4	1384	0.7225	8.71
JP-5	1273	0.7855	8.01
Aviation Turbine Fuel	1288	0.7764	8.10
Naphtha	1467	0.6817	9.23
Power Alcohol	1286	0.7776	8.09
Benzol	1154	0.8666	7.26
SBP/Hexane	1457	0.6863	9.16
Mineral Turpentine (Laws 140/205)	1302	0.7680	8.19
Liquified Petroleum Gas	1785	0.5602	11.23
Superior Kerosene	1285	0.7782	9.08
Inferior Kerosene	1265	0.7905	7.96
Power Kerosene (Vap.Oil)	1251	0.7994	7.84
High Speed Diesel	1210	0.8263	7.61
Light Speed Diesel	1172	0.8532	7.37
Malaria Oil	1172	0.8532	7.37
Special Larvicides	1175	0.8511	7.39
Furnace Oil	1071	0.9337	6.74
Tea Drier Oil	1071	0.9337	6.74
Hot Heavy Stock/LSHS	1017	0.9833	6.40
Refinery Gas/Ref. Boiler Fuel	1071	0.9337	6.74
Lublicants/Greases	1114	0.8977	7.01
Jute Batching Oil/Wash Oils	1167	0.8569	7.34
Bitumen	1002	0.9980	6.30
SBP/Alcool Mixture	1414	0.7072	8.89
Methanol Mixture	1106	0.9042	6.96
Carbon Block Feed Stock	1134	0.8818	7.13
Carburetter Testing Fluid	1388	0.7205	8.73
Benzene	1131	0.8812	7.05
Toluene	1148	0.8711	7.19
Deminerralised Water	1002	0.9930	6.30
S. Glass Kleanzit	1003	0.9970	6.31
Miscellaneous	1114	0.8977	7.01
Wax/P. Coke/Chemicals	1114	0.8977	7.01
Aromex	1221	0.8190	7.68

VOLUME PER METRIC TON OF PETROLEUM PRODUCTS

Products	Kilolitre	Imperial Gallon	U.S. Gallon	Barrel
Liquified Petroleum Gas	1.8519	407.365	489.213	11.648
Aviation Spirit	1.3699	301.332	361.873	8.613
Natural Gasoline	1.3514	297.265	356.990	8.496
Motor Spirit	1.3514	297.265	356.990	8.496
Kerosene	1.2346	271.569	326.137	7.764
Jet Fuel	1.2346	271.569	326.137	7.764
Distillate Fuel Oil	11,1494	252.415	293.522	6.988
Lubricating Oil	1.111	252.845	303.647	7.231
Fuel Oil N.O.S.	1.0939	241.727	290.301	6.911
Residuel Fuel Oils	1.0526	231.551	278.071	6.623
Asphalt and Bitumen	0.9615	211.515	254.013	6.050
Crude Oil	1.1856	260.910	313.340	7.441

CONVERSION FACTORS FOR DUTY REDUCTION FROM 15°C TO 29.5°C

	Product	Conversion Factor
1.	Aviation Spirit 100/130	0.9827
2.	Aviation Spirit 114/145	0.9820
3.	Aviation Spirit 73 Clear	0.9824
4.	Aviation Turbine Fuel	0.9862
5.	Motor Spirit 83	0.9830
6.	Motor Spirit 93	0.9836
7.	High Speed Diesel Oil	0.9879
8.	Kerosene	0.9964
9.	Light Diesel Oil	0.9877
10.	Furnace Oil	0.9899
11.	Special Boiling Point Spirit 55/115	0.9820
12.	Special Boiling Point Spirit 64/69	0.9806
13.	Solvent 1425	0.9820
14.	Hexane	0.9806

PETROLEUM SPECIFIC GRAVITIES

Degree A.P.I.	Specific Gravity	Barrels per tonne*	Long Ton*
25	0.9042	6.98	7.09
26	0.8984	7.02	7.13
27	0.8927	7.06	7.18
28	0.8871	7.10	7.22
29	0.8816	7.15	7.27
30	0.8762	7.19	7.31
31	0.8708	7.24	7.36
32	0.8654	7.28	7.40
33	0.8602	7.33	7.45
34	0.8550	7.37	7.49
35	0.8499	7.42	7.54
36	0.8448	7.46	7.58
37	0.8398	7.51	7.63
38	0.8348	7.55	7.67
39	0.8299	7.60	7.72
40	0.8251	7.64	7.76
41	0.8203	7.69	7.81
42	0.8156	7.73	7.85

*Approximate figure at 15.6 degree C or 60 degree F.

PRODUCT SPECIFIC GRAVITY RANGES

Products	Specific Gracity	Barrels Per tonnes
Crude Oils	0.80-0.90	8.0-6.6
Aviation gasolines	0.70-0.78	9.1-8.2
Motor gasolines	0.71-0.79	9.0-8.1
Kerosene	0.78-0.84	8.2-7.6
Gas Oil	0.82-0.90	7.8-7.1
Diesel Oils	0.82-0.92	7.8-6.9
Lubricating Oils	0.85-0.95	7.5-6.7
Fuel Oils	0.92-0.99	6.9-6.5
Asphalt Bitumens	1.00-1.10	6.4-5.8

CRUDE OIL CONVERSIONS@

To convert these into	Metric Tons	Barrels	Kilo liters	1,000 Imp. Gallon	1,000 U.S. Gallon
Metric Tons	1	7.33	1.16	0.256	0.308
Barrels	0.136	1	0.159	0.035	0.042
Kilolitres	0.863	6.29	1	0.220	0.264
1,000 Imp. Gallons	3.91	28.6	4.55	1	1.201
1,000 U.S. Gallons	3.252	3.8	3.79	0.833	1

@=Based on World Average gravity (Excluding Natural Gas liquids)

TO CONVERT ONE METRIC TONNE OF PETROLEUM PRODUCTS TO ONE TONNE OF OIL EQUIVALENT MULTIPLY BY

PRODUCT	MULTIPLIER
L.P.G.	1.130
Naphtha	1.075
Aviation gasoline	1.070
Motor gasoline	1.070
Jet Fuel	1.065
Kerosene	1.045
Gas/diesel oils	1.035
Residuel Fuel Oils	0.985
Others	0.960

AVERAGE INTERNATIONAL CALORIFIC VALUE OF DIFFERENT FUELS

		K. Cals./Kg M Cals./Tonne	BTUS/Kg.
	1	2	3
A.	Oil Equivalence		
	Average Crude Oil/NGLS(a)	10,300	40870
	United Nations	10,175	40375
B.	Oils Products:		
	NGL	12,135	48,150
	Motor Gasoline	11,135	44,190
	Kerosene	10,638	42,210
	Jet Fuel	11,790	46,790
	Gas Oil	10,790	42,820
	Fuel Oil	10,440	41,430
C.	Coal Equivalence:		
	Average Hard Coal (b)	7,000	27,775
D.	INDIA:		
	Hard Coal	5,000	19,840
	Lignite-Brown Coal	2,310	9,16
	Firewood@	4,750	18,848
	Charcoal @	6,900	27,379
E.	Natural Gas-Production: (Average) India		
	K cals/Cu. Metre		80,00-9480
F.	Electricity:		
	Output basis (c)		860
	Fuel Input basis (d)		2,500-2,700

(a) Represent average global factor for crude Oil/NGL production. For a specific crude oil relevant conversion factor may have to be used.

(b) Factor used by United Nations to represent average calorific value of hard coals for purposes of standardising coal production to hard coal equivalent base.

(c) Calorific value of 1 kwh of electricity.

(d) Represents K cals of hydro-carbon energies required to produce 1 kwh of electricity.

@ : as per Report of Fuel Policy Committee 1974.

Conversion Factor: 1 K cal= 4.19 k Joules.

COEFFICIENTS USED TO CONVERT FROM ORIGINAL UNITS INTO STANDARD COAL EQUIVALENTS

	Products	Hard Coal	Lignite Brown Coal	Fuel Wood
	1	2	3	4
A.	**PRIMARY SOLIDS**			
1.	Standard Factor	1.000	0.385	0.333
2.	India	0.714	0.330	
B.	**OTHERS HYDROCARBONS**			
1.	Petroleum Crude	1.454		
2.	Natural Gas Liquids (wt.av.)	1.542		
3.	Gasolines	1.500		
4.	Kerosene & Jet Fuel	1.474		
5.	Gas-Diesel Oil	1.450		
6.	Residuel Fuel Oil	1.416		
7.	Liquified Petroleum Gases	1.554		
8.	Natural Gasoline	1.532		
9.	Condensate	1.512		
10.	Other Natural Gas Liquids	1.512		
11.	Natural Gas (in Terajouls)*	34.121		
12.	Other Gases (***)	34.121		
13.	Hydro, Nuclear and Geothermal Electricity (In 1,000 kwh)	0.123		

*= The average calorific value of gas is measured in Kcal/m3 (st.) i.e., in Kcal percubic metre of gas under standard condition of 15°C, 013.25 mbar, dry.

COAL REPLACEMENT AND EQUIVALENTS OF DIFFERENT FUELS

Fuels	Original Unit	Unit million tonnes of coal Equivalent (mtce)	Unit million tonnes of coal Replacement (mtcr)
1	2	3	4
Coal coking			
6640 K cal/Kg.,			
Non-coking coal			
Used in steam			
Generaton (5000 Kcal/kg.)	1 mt	1.0	1.0
Hard Coke	1 mt	1.3	1.3
Soft Coke	1 mt	1.5	1.3
Firewood (4750 Kcal/Kg)	1 mt	0.95	0.95
Char Coal (6900 Kcal/Kg)	1 mt	1.0	1.0
2. Oil Products:			
Black Products (i.e.			
Fuel Oil., F.O.			
Refinery Fuel,			
LSHS, HHS).	1 mt	2.0	2.0
Kerosene & LPG	1 mt	2.0	8.0
HSDO & LDO	1 mt	2.0	9.0
Motor Spirit & Jet Fuel	1 mt	2.0	7.5
Natural Gas			
(9000K cal/Kg.)	109 m3	1.8	3.6
Electricity	109 kwh	1.0	1.0

m = Million
mtce = Million Tonnes of Coal Equivalent
mt = Million Tonnes
mtcr = Million Tonnes of Coal Replacement
Source = Fuel Policy Committee 1974

APPROXIMATE CALORIFIC EQUIVALENTS
(Oil = 10,000 K Cal/Kg.)

	Items		Million Tonnes of Oil equals
1.	Heat Units	=	40 million BTU
		=	397 million therms
		=	10,000 teracalories
2.	Solid Fuels	=	1.5 million tonnes of Coal
		=	3.0 million tonnes of lignite
3.	Natural Gas (1 cub. ft. =	=	(1 Cub metre = 9000 K cal).
	1000 BTU)	=	1.111 thousand million cubic metres
		=	39.2 thousand million cubic feet
		=	107 million cubic feet per day of a year
4.	Electricity		
	(1 Kwh=3412 BTU)	=	12 thousand million KWH

HEAT UNITS AND OTHERS EXPRESSED IN TERMS OF MILLION TONNES OF OIL

	Items	Million Tonnes of Oil equals
1.	**Heat Units**	
	10 million million BTU	0.25
	100 million therms	0.25
	10.000 teracalories	1.00
2.	**Solid Fuels**	
	1 million tonnes of coal	0.67
	1 million tonnes of lignite	0.33
	approximates to	
3.	**Natural Gas**	
	1 thousand million cub. metres (BCM)	0.90
4.	**Town Gas**	
	1 thousand million cub. metres (BCM)	0.42
5.	**Electricity**	
	12 thousand million KWH	0.86

One million tonnes of oil produces about 4000 million units (KWH) of electricity in a modern power station.
Source: BP Statistical Review of World Energy.

EXCHANGE RATE
1971-2002 and 1971-72 to 2002-03

(Rs. per U.S. Dollar)

Year	Calender Year					Financial Year	
	1st. Qr.	2nd Qr.	3rd Qr.	4th Qr.	Average for the year	year	Average for the year
1	2	3	4	5	6	7	8
1971	7.500	7.500	7.500	7.500	7.500	1971-72	7.44950
1975	7.821	8.053	8.716	8.913	8.376	1975-76	8.65325
1980	7.993	7.921	7.747	7.791	7.863	1980-81	7.89278
1985	12.838	12.498	12.048	12.091	12.369	1985-86	12.23725
1990	17.029	17.344	17.554	18.087	17.504	1990-91	17.94850
1991	18.309	20.526	25.757	25.878	22.742	1991-92	24.51125
1992	25.914	25.890	25.890	25.979	25.918	1992-93	27.55250
1993	27.887	31.345	31.371	31.370	30.493	1993-94	31.36425
1994	31.371	31.310	31.371	31.388	31.375	1994-95	31.40
1995	31.401	31.411	32.045	34.745	32.401	1995-96	33.45
1996	34.649	34.743	35.643	35.740	35.193	1996-97	35.50
1997	35.811	35.813	36.029	37.560	36.321	1997-98	37.16
1998	39.257	40.790	42.596	42.358	41.250	1998-99	42.07
1999	42.50	42.877	43.426	43.544	43.084	1999-00	43.33
2000	43.58	44.10	45.78	46.62	45.02	2000-01	45.77
2001	46.56	47.57	47.30	47.98	47.35	2001-02	47.69
2002	48.58	48.96	48.60	48.26	48.60	2002-03	47.50

Notes: (1) A new value of the Indian Re. of 7.50 U.S. Dolllar was agreed upon with the Fund effective June 6, 1966. Previously the year value was 4.7619 rupees per U.S. Dollar from September 22, 1949 to June, 5, 1966 and 3.30852 rupees per U.S. Dollar from December 18, 1946 to September 21, 1949.

(2) Exchange rate for the year 1970 and 1971 are based on Trade conversion Factors.

(3) Exchange rate for the year 1972 onwards are based on par rates/market rates.

Source: International Financial Statistics, Economic Survey.

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