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नई दिल्ली/New Delhi

INDIAN PETROLEUM & NATURAL GAS STATISTICS

2003-04

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

GOVERNMENT OF INDIA

MINISTRY OF PETROLEUM & NATURAL GAS

FOREWORD

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 with 1967. The current bulletin provides information both in terms of calendar year (2003) and the financial year (2003-04), to cater to the demands of the different users. It also includes in nutshell the chronology of important events and notifications issued during the financial year of the Indian Oil Sector.

The bulletin represents the sustained and immense efforts of the Economics & Statistics Division of the Ministry.

We would appreciate suggestions to restructure the bulletin.

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

Shastri Bhawan
New Delhi-110001
February, 2005

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: contains the Indian Petroleum Statistics, Part-II: International Petroleum Statistics, Part-III: Plan Statistics (including the X Plan figures), Part-IV: focuses on financial performance of the oil companies and Part-V: data on energy.

The 2002-03 Bulletin was published in July, 2004. With efforts, the time-lag has been brought down and the 2003-04 Bulletin is being brought-out. We express our deep sense of gratitude to all the data suppliers and record our appreciation for the officials of the Economics & Statistics Division, Ms. Aditi S. Ray, Joint Advisor, Shri D.P. Singh, Research Officer, Sr. Investigators Shri D.C. Garg and Dr. P.G.S. Rao, Ms. Kanwaljit Kaur, Jr. Investigator and Mrs. Parvesh Goswami, UDC for their efforts and inputs.

Suggestions for its improvment would be duly appreciated.

A K Srivastava

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

Shastri Bhawan
New Delhi-110001
February, 2005

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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 includes 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 include 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	2003-04*
1	2	3	4	5	6	7	8	9
1. Geographical Area	M.Sq.Km.	3.29	3.29	3.29	3.29	3.29	3.29	3.29
2. Population	Million	839	927	1001	1019	1037	1055	1069
3. Gross National Product at factor cost :								
(i) At current prices	Rs.Billion	5034	10598	17464	18857	20789	22303	24977 A
(ii) At constant prices+	"	6837	8870	11372	11870	12598	13068 Q	14130 A
4. Net National Product at factor cost :								
(i) At current prices	Rs.Billion	4501	9419	15640	16878	18611	19952 Q	22382 A
(ii) At constant prices+	"	6142	7878	10081	10509	11173	11567 Q	12537 A
5. Per Capita Net National Product :								
(i) At current prices	Rupees	5365	10149	15625	16564	17947	18912 Q	20860 A
(ii) At constant prices+	"	7321	8489	10071	10313	10774	10964 Q	11684 A
6. Foreign Exchange Reserves								
(i) Gold++	Rs.Billion	68.28	156.59	129.73	127.11	148.68	167.85	182.16
(ii) SDR	Mn. of SDRs.	75.9	55.9	3.0	2.0	8.0	3.0	2.0
(iii) Foreign Exchange	Rs.Billion	43.88	584.46	1529.24	1844.82	2491.18	3414.8	4662.15
Foreign Exchange Rate	Rs./US$	17.943	33.450	43.333	45.684	47.692	48.395	45.952
7. Foreign Trade :								
(i) Import	Rs.Billion	431.98	1226.78	2152.36	2308.73	2452.00	2972.06	3464.74
(ii) Export	"	325.53	1063.53	1595.61	2035.71	2090.18	2551.37	2836.04
(iii) Balance of Trade	"	-106.45	-163.25	-556.75	-273.02	-361.82	-420.69	-628.70
8. Index of Production :								
(i) Agricultural	@	148.4	160.7	176.9	165.7	178.3	150.5	179.6
(ii) Industrial	1993-94=100		123.3	154.9	162.6	167.0	176.6	188.7
9. Wholesale Price Index :	1993-94=100	73.7	121.6	145.3	155.7	161.3	166.8	175.9
10. Consumer Price Index:								
(i) Industrial Workers	1982=100	201	319	434	445	468	487	504
(ii) Agricultural Labourers	1986-87=100		237#	306	300	309	324	332
(iii) Urban non-manual workers	1984-85=100	169	264	357	377	395	410	424
11. Employment : !								
(i) Public Sector	Million	19.06	19.43	19.31	19.14	18.77	N.A.	N.A.
(ii) Private Sector	"	7.68	8.51	8.65	8.65	8.43	N.A.	N.A.
Total	"	**26.73**	**27.94**	**27.96**	**27.79**	**27.21**	N.A.	N.A.
No. of persons on live register of employment exchange	Million	34.89	36.90	40.31	41.23	42.07!!	N.A.	N.A.
12. Energy Generation (Gross) :								
Coal	Mn.Tonne	211.73	270.13	299.97	309.63	327.79	341.27	361.17
Lignite	"	13.77	22.14	22.12	22.95	24.81	26.02	27.96
Natural Gas	Bn.Cub.Mtr.	17.998	22.642	28.446	29.477	29.714	31.389	31.962
Crude Oil	Mn.Tonne	33.02	35.17	31.95	32.43	32.03	33.04	33.37
Petroleum Products	"	51.27	58.32	84.96	102.51	107.28	111.79	121.70
13. Electricity Generated (Gross)								
(i) Utilities								
Hydel	B.KWH	71.7	72.6	80.6	74.5	73.5	63.8	73.3
Thermal	"	186.5	299.3	386.8	408.1	424.4	451.0	466.6
Nuclear	"	6.1	8.0	13.3	16.9	19.5	19.2	17.7
Total	"	264.3	379.9	480.7	499.5	517.4	534.0	558.1
(ii) Non-utilities	"	25.1	38.2	51.5	55.0	61.7	63.5	66.0
Grand Total	"	**289.4**	**418.1**	**532.2**	**554.5**	**579.1**	**597.5**	**624.1**

*: Provisional.
@: Triennium ending 1981-82
!: As on 31 March
!!: January 2002.
#: November-March.
Q: Quick Estimates.
N.A. : 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	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
1	2	3	4	5	6	7	8
1. Reserves !							
(Balance Recoverable)							
(i) Crude Oil	Mn.Tonne	716	660	703	726	741	761
(ii) Natural Gas	Bn.Cub.Mtr.	675	648	760	763	751	854
2. Consumption							
(i) Crude Oil (in terms of refinery crude throughput)	Mn.Tonne	68.54	85.96	103.44	107.27	112.56	121.84
(ii) Petroleum Products (excl. RBF)	"	90.56	97.09	100.07	100.43	104.13	107.75
3. Production :							
(i) Crude Oil	"	32.72	31.95	32.43	32.03	33.04	33.37
(ii) Petroleum Products	"	64.54	79.41	95.61	100.00	104.14	113.46
4. Imports & Exports							
(i) Gross Imports :							
(a) Qty : Crude Oil	Mn.Tonne	39.81	57.80	74.10	78.71	81.99	90.43
Pol. Products	"	23.77	16.61	9.27	7.01	7.23	8.00
Total (a)	"	63.58	74.41	83.37	85.72	89.22	98.43
(b) Value:Crude Oil	Rs.Billion	149.17	400.28	659.32	603.97	761.95	835.28
Pol.Products	"	122.76	141.86	120.93	72.49	88.47	97.23
Total (b)	"	271.93	542.14	780.25	676.46	850.42	932.51
Pol. Imports as per DGCI&S	"	269.19	454.21	714.97	667.70	853.67	945.20
(ii) Exports :							
(a) Qty :							
Pol. Products	Mn.Tonne	0.72	0.75	8.37	10.07	10.29	14.62
(b) Value:							
Pol.Products	Rs.Billion	3.06	6.98	76.72	82.19	108.68	167.81
(iii) Net Imports :							
(a) Qty : Crude Oil	Mn.Tonne	39.81	57.80	74.10	78.71	81.99	90.43
Pol. Products	"	23.05	15.86	0.90	-3.06	-3.06	-6.62
Total (a)	"	62.86	73.66	75.00	75.65	78.93	83.81
(b) Value:Crude Oil	Rs.Billion	149.17	400.28	659.32	603.97	761.95	835.28
Pol.Products	"	119.70	134.88	44.21	-9.70	-20.21	-70.58
Total (b)	"	268.87	535.16	703.53	594.27	741.74	764.70
(iv) Unit Value of Crude oil imports(gross)	Rs./MT	3747	6925	8898	7673	9293	9237
5. India's Total Exports	Rs.Billion	1397.53	1595.61	2035.71	2090.18	2551.27	2836.05
6. Pol. imports as percentage of India's total exports							
(i) Gross Imports	%	19.5	34.0	38.3	32.4	33.3	32.9
(ii) Net Imports	%	19.2	33.5	34.6	28.4	29.1	27.0
7. Contribution of Oil Sector to Centre/State Resources							
(i) Royalty from crude oil	Rs.Billion	17.08	20.49	22.72	24.86	30.67	31.74
(ii) Royalty from gas	"	4.37	5.47	6.08	6.59	7.78	8.54
(iii) Oil Development Cess	"	27.51	27.16	27.28	28.78	50.91	51.43
(iv) Excise & Custom duties	"	215.13	326.62	359.12	361.04	451.27	507.27
(v) Sales Tax	"	134.90	181.06	233.75	200.90	297.41	328.49
(vi) Dividend	"	22.43	25.87	34.82	32.87	67.94	63.10
(vii) Corporate Tax/Others	"	26.21	38.63	53.45	N.A.	N.A.	N.A.
8. Natural Gas :							
(i) Gross Production	Bn.Cub.Mtr.	27.428	28.446	29.477	29.714	31.389	31.962
(ii) Utilisation	"	25.706	26.885	27.86	28.037	29.964	30.906

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

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

PART—I
PETROLEUM STATISTICS

I. GENERAL

I.1 HIGHLIGHTS OF INDIAN PETROLEUM INDUSTRY DURING 2003-04

I.	Reserves			
	(a) Crude Oil (MMT)			
	As on 1.4.2004		739	
	As on 1.4.2003		761	
	(b) Natural Gas (BCM)			
	As on 1.4.2004		923	
	As on 1.4.2003		854	
II.	**Self-sufficiency in Oil**			
	(a) In 2003-04		29%	
	(b) In 2002-03		30%	
III.	**Crude Oil Production (MMT)**			
	(a) In 2003-04		33.373	
	(b) In 2002-03		33.044	
IV.	**Consumption of Petroleum Products (MMT)**			
	(a) In 2003-04		107.751	
	(b) In 2002-03		104.126	
V.	**%age variation 2003-04 over 2002-03**			
	(a) Crude Oil Production		1.0	
	(b) Consumption of Petroleum Products		3.5	
VI.	**Gross Imports of Crude Oil (MMT)**			
	i) In 2003-04		90.434	
	ii) In 2002-03		81.989	
VII.	**Refineries Data**			
	(a) Number of refineries as on 1.4.2004		18	
	(b) Total refining capacity as on 1.4.2004		127.368 MMT	
	(c) Total refining capacity in PSUs as on 1.4.2004		94.368 MMT	
	(d) Total refining capacity in Private as on 1.4.2004		33 MMT	
	(e) Crude Oil processed (2003-04)		121.840 MMT	
	(f) Capacity Utilisation (2003-04)		95.66%	

VIII.	**Natural Gas Production (BCM)**	**2003-04**	**2002-03**	**2001-02**
	(a) Total Production	31.962	31.389	29.714
	(i) Offshore	22.989	22.663	21.747
	(ii) Onshore	8.973	8.726	7.967
	(b) Gas flared	1.056	1.425	1.677
	(c) % Gas flared	(3.3%)	(4.5%)	(5.6%)

IX.	**(a) Production of Petroleum Products (MMT)**		
	i) In 2003-04	115.783	
	ii) In 2002-03	106.510	
	(b) Refinery Crude Throughput (MMT)		
	i) In 2003-04	121.840	
	ii) In 2002-03	112.559	
	(c) Gross Import of Crude Oil & Petroleum Products (Including Private/PMS)		
	i) In 2003-04	98.44 MMT	Rs. 93251 crores
	ii) In 2002-03	89.22 MMT	Rs. 85042 crores

I. 2(a) CHRONOLOGY OF IMPORTANT EVENTS OF INDIAN PETROLEUM INDUSTRY DURING 2003-04

(A) EXPLORATION & PRODUCTION

1. Oil India Limited (OIL)

Commissioned one IBM-6000 Workstation (With DP and ULTRA software) for data processing and interpretation of well logs.

Commercial oil was discovered in Well Sealkati-3 within the Lakadong+Therria formation of lower Eocene.

Oil was discovered in Well Chabua #5 (Loc. DIAO) within Lakadong+Therria formation in addition to gas bearing sands.

A commercial oil/gas reserve was discovered in Well North Chandmari-1 (Loc-TF) within the langpar formation upper Paleocene.

Good quality oil was discovered in Well Borhapjan-5 (Loc.DEA) within the Lakadong +Therria formation of Lower Eocene.

Oil was discovered in Well NHK 542 (Loc.NKI) within the Lakadong+Therria formation of Eocene structure.

The instrumentation system for monitoring of critical parameters of the process (From Control Room) like Crude Oil Storage Tank Levels (using RADAR glauges), emulsion treaters temperature, servo-pressure, manifolds pressure, crude oil delivery pressure etc. was commissioned.

New Electrostatic Emulsion Treater (ET) of Dikon OCS was commissioned. Instrumentation system tested and made operational.

Polymer Formulation based on an imported polymer (HE-100) and cross linker (CX-350) was developed and implemented in Kathaloni well no-8 with reasonable success.

Tracer Injection was carried out in 9 wells covering 4 reservoirs in JRN and NHK fields.

5 nos. of well were converted to Water injection wells.

Awarded of ISO-9000-200 certification to LPG Recovery Plant.

LPG department acquired Internationally acclaimed ISO-9001:2000 certificate from M/s DET NORSKE VERITAS for implementation of Quality Management System for Production, Storage and Filling of LPG in Cylinders and Tankers for distribution to Marketing agency.

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

Project "Sagar Sammridhi", the biggest ever deep-water exploration campaign by a single operator anywhere in the world, was launched on 03.08.2003. Three drill ships deployed for the deep-water exploration. First well G-4-2 spudded on 26.09.2003 in Krishna Godavari Basin was observed to be gas bearing.

Exploratory efforts during the year 2003-04 resulted in six new hydrocarbon finds – East Lakhibari and Sonamura in A&AA Basin, Degam in Western Onshore, Sitarampuram in Krishna-Godavari, NMT-2 in Western Offshore and G-4 in Krishna Godavari Deepwater Basin.

Heera Platform achieved Zero Gas Flaring on 05.7.2003, becoming the first offshore platform to achieve this distinction and saving approx. Rs.300 Crore per annum.

ONGC is the third Indian Company figure in Forbes magazine's list of 2000 biggest corporations worldwide and ranked 273rd in over all ranking, with ranking based on combined performance on sales, profits, assets

and market valuation. ONGC was ranked as second biggest EXP Company globally as per the Platts Energy Business Survey of 2003.

Govt. of India disinvested 10% equity of ONGC at the offer price of Rs. 750 per share, which was fully subscribed. The public issue was the largest in Indian history in terms of size and amount.

Raised ONGC's stake in MRPL to 71.62% making MRPL a subsidiary of ONGC.

Acquired 23% equity at a cost of Rs. 38.341 Crore in 363 kms long Petronet Mangalore-Hassan-Bangalore pipeline. It is designed to transport 5.6 MMTPA finished petroleum products from Mangalore to Bangalore via Hassan.

Promoted Petronet LNG with 12.5% stake (investment Rs.100 Crore), the first LNG Terminal in India Dahej dedicated to nation on 9.2.2004.

3. ONGC Videsh Limited (OVL)

OVL Board approved for Condensate Sales Agreement for Block 06.1, Vietnam.

First shipment of Sudan equity crude received at MRPL.

Agreements for acquisition of stakes in Block NC-188 & NC- 189, Libya signed in June'04.

OVL Board approved forming a consortium for participation in Northern oil Fields Development Project, Kuwait in July'04.

MOU with Government of Sudan for Product Pipeline Project in Khartoum, Sudan signed in Aug.'04

Signed of Sale & Purchase Agreement (SPA) with OMV of Austria for Acquisition of its Stake in Block 5A & 5B

Drilling of well A1 in Block NC-188, Libya.

Discovery of Natural gas in Block A-1, Myanmar

Signed of Contract for Block 24, Syria

Condensate Transportation Agreement signed for Block 06.1, Vietnam.

4. Gas Authority of India Limited (GAIL)

GAIL and Haldia petrochemicals Limited flag off exchange of products to strengthen the marketing alliance between the two companies.

Indications of oil & gas presence in well PK-1 during drill stem testing in onland block CB-ONN-2001/1 in Cambay basin.

Signing of Gas Sales & Transportation Agreement with Mosbacher & HOEC Consortium for Gas from PY-1 fields in Cauvery Basin.

JPL Ph-II System for the upgradation of JLPL capacity (from to 1.7 MMTPA to 2.5 MTPA) commissioned and integrated with PH.I system

Share Purchase Agreement (SPA) signed with Shell Gas B.V. for GAIL's participation in FGC & SCNGE to the level of 19% and 22% respectively.

Gas discovered in Block A-1, Myanmar

GAIL enters into pact with Gujarat State selling up to 1 MMTPA of R-LNG , Ahmedabad.
PLL's Dahej LNG terminal in which GAIL is a Promoter, was commissioned & dedicated to the Nation.

Flaker Pilot Plant commissioned at GAIL, Pata.

Commissioned operation & maintenance of Vizag – Vijaywada section of VSPL Project.

RLNG Supply commenced to Customers.

5. Exploration & Production of Indian Oil Corporation:

On 18th July, 2003, IOC-OVL alliance (10%) has formed a consortium with BP (65% & Operator) and Occidental (25%) for joint bidding for the Kuwait Oilfield Development Project under which 4 North Kuwaiti fields are to be developed.

(B) REFINING AND MARKETING

6. Bharat Petroleum Corporation Ltd. (BPCL)

On 6.6.2003, BPC signed a MoU with ONGC for supply of indigenous crude oil.

Budge Budge Plant was revamped to increase the plant capacity to 45000 MTPA. The project, which entailed total automation of all the existing blenders, introduction of new blenders/settlers and an automatic small filling machine, was inaugurated on 8.4.2003.

Madurai Retail Territory was formed on 9.5.2003, with 46 Retail Outlets in Madurai, Dindigul, Theni, Sivagangai and Ramnad Revenue Districts. On 14.6.2003, the 17 km Cherlpally Ghatkeshwar Pipeline connecting Ghakeshwar terminal to Cherlpally depot was inaugurated. This will aid in maintaining present highest market share of BPCL in the Hyderabad market

On 30.6.2003, the Company launched the 5 kg. 'Janata cylinder' at Jabalpur. This would facilitate use of LPG by people in the hills, far-flung areas and by the economically weaker sections of society.

On 28.8.2003, the Company launched the 'Beyond LPG' scheme, which is a Value-Added Service of BPC along with prestigious companies like Prestige, Hawkins, Nirlep and PKL. These products would be sold at BPC distributorships, priced 10-25% lower than the prevailing market prices.

On 12.9.2003; the Company inaugurated the Mumbai-Manmad-Indore Pipeline and Associated Marketing Facilities. The 358 km long pipeline has capacity to transport 30 lakh kl per year of petroleum products for distribution to Indore, Ujjain, Ratlam, Bhopal, Jabalpur, Gwalior and Itarsi. A state-of-the-art fully automated marketing terminal with a storage capacity of 1.49 lakh kls commissioned simultaneously, will ensure that the products are stored and handled with optimum efficiency.

BPC struck a deal with M/s Samalpatti Power Company Ltd.(SPCL), an independent powe. producer for supply of LNG from its Kochi Port.

BPC launched the e-biz portal of Lubes, which enables customers to directly chat with the technical staff for their various queries, specifications, services etc. and also with the commercial staff for business.

On 26.9.2003 BPC signed a Gas Sales Purchase Agreement (GSPA) with Petronet LNG Ltd.(PLL) for purchasing 2 MMSCMD of Re-gasified LNG ex-Dahej LNG Terminal.

Also BPC has signed long term Gas Sale Agreement with Gujarat State Petroleum Corpn. Ltd. (GSPCL) for 0.5 MMSCMD and Essar Steel Ltd. (ESL) for 0.34 MMSCMD of regasified LNG.

Navagam TOP, inaugurated on 25.3.2004, is fed through dedicated pipelines from an intermediary OMC terminal, which receives product from Koyali refinery. This is a milestone in the company's Logistics infrastructure, to achieve self-sufficiency in meeting the market demand of Ahmedabad and adjoining districts.

For the second consecutive year, BPC won the Greentech Environment Excellence Gold Award in the Refinery sector in the field of Environment Protection for the year 2002-03.

BPC also won the Golden Peacock Eco Innovation Award 2003 for its innovative efforts in introducing 'Speed.

7. Hindustan Petroleum Corporation Limited (HPCL)

HPCL was awarded the "Golden Peacock Award" for Good Corporate Governance.

Refineries:

Automation of Oil Movement & Storage (OM&S): Mumbai Refinery is one of the first refineries in India which implemented automation of Oil Movement & Storage (OM&S) facilities at a cost of Rs.60 crores to optimise blending of various unit streams, tank gauging and product custody transfer. This has resulted in saving of processing time and improvement in quality of products.

Mumbai Refinery commenced production & supply of 93 RON MS for Mumbai Market.

Mumbai Refinery achieved Level-8 ISRS safety rating

Mumbai Refinery commenced mechanical oil recovery from crude oil sludge in April 2003.

Mumbai Refinery commissioned Advance Process Control (APC) for Fuels Refinery units & Yield improvement was observed for ATF, SKO, LPG and Hexane.

Visakh refinery received Jawaharlal Nehru Centenary Award in Energy conservation.

Mumbai and Visakh refinery awarded Greentech Environmental Excellance Award.

Marketing:

Sales volume (Incl. Exports) for 2003-04 is 19.53 MMT. During the year 644 new Retail Outlets, 3 SKO/LDO dealerships and 95 LPG distributorships were commissioned. Further, 21.2 lacs new LPG customers were enrolled during the year.

HPCL formed a joint venture Company with GAIL viz. Bhagayanagar Gas Ltd., to distribute and market environment-friendly fuels such as natural gas, piped gas, Compressed Natural Gas (CNG), Auto LPG in and around the cities of Andhra Pradesh.

HPCL's Mangalore LPG Import Facility achieved the coveted ISO 14001 EMS standard for implementing its environment management system. This is first facility in the country to have achieved the feat.

HPCL carried forward "Rasoi Ghar" initiative and has commissioned 470 number of Community Kitchens as of March'04, covering 125 districts spread across 20 states, benefiting over 8700 families.

HPCL's new Retail Brand "**Club HP**" which assures high-quality personalized "Vehicle and Consumer Care" continued in 2003-04 across the country. A total of 1280 Outlets have been upgraded to "Club HP" status, as of March'04.

"POWER" the Brand name for the new generation petrol that contains specially imported additives, and the new diesel brand, **"TURBOJET"** formulated with specially imported additives to offer a solution for diesel engines has been launched at 742 and 459 Outlets, across the country, respectively.

HPCL launched the first mobile petrol pump in Chhattisgarh.

Projects:

Project for construction of new terminal at Hassan on Managlore-Bangalore pipeline with 65,500 KL tankage along with a augmentation of tankage at Devengonthi by 10,000 KL has been completed within approved cost of Rs.76.24 Crore. Resitement of Ernakulam terminal to Irumpanam with a tankage of 36,210 KL was completed within the revised cost of Rs 46.10 crore.

Clean fuel projects to meet Euro-II norms for MS & HSD products at Visakh refinery has been approved by HPCL Board.

8. Indian Oil Corporation Limited (IOCL)

(i) Gujarat Refinery:

Koyali-Viramgam-Sulphur-Sanganer Pipeline(capacity 4.1 MMTPA) commissioned on 29th Oct'03. With this, HSDS evacuation ex-Koyali has significantly improved.

Two LPG mounded bullets commissioned.

Nitrogen plant commissioned and inaugurated on 4th Jan'04 by Minister of State for MOP & NG.

(ii) Barauni Refinery

Production and despatch of Xtra Premium High Octane Petrol commenced

(iii) Mathura Refinery

Type of approval for ATF (Merox treated and admixture – 80:20 OHCU: Merox) obtained from Centre for military airworthiness and certification (CEMILAC). ATF production from OHCU started w.e.f. 6th Jan'04.

(iv) Haldia Refinery

New furnace with 82% efficiency installed in Lube Hydro Finishing Unit, replacing 30 years old furnace with 55% efficiency.

Hydrogen unit revamped for capacity augmentation from 11.0 to 15.0 TMTPA.

Refinery started supply of premium quality Group-II Lube Oil Base Stock (LOBS) during the year, having very high viscosity index and low pour point and sulphur content. Despatch of 500-N and 70-N Group-II LOBS commenced from Jun'03.

In August refinery started supply of premium quality Group-II Lube Oil Base Stock (LOBS) during the year, having very high viscosity index and low pour point and sulphur content. Despatch of 150-N Group-II LOBS.

HSD export ex Haldia Refinery started from Sep'03 and 143 TMT HSD exported during the year to Maldives, Bangladesh and other countries.

New Sulphur Recovery Unit (SRU-III) commissioned on 14th Oct'03.

Production and despatch of a new grade of Furnace Oil, LSFO (Sulfur < 1.0% Wt) started from Feb'04 for supplying to M/s Hindustan Lever Ltd.

Refinery laid a Bitumen loading line to Oil Jetty No.1 for export/coastal evacuation of Bitumen directly from refinery through tanker. Utilising the same, for the first time, export of Bulk Bitumen to Bangladesh by tanker commenced.

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

SAP was rolled out successfully.

Solvent dewaxing unit commissioned on 12th May'03, thereby Paraffin Wax production increased from 2000 tonnes per month to 3500 tonnes per month.

Gas Turbine-4/HRSG-4 commissioned.

Hydrogen Unit at Digboi Refinery commissioned on 9thOct'04.

Dimapur LPG bottling plant commissioned on 10th Aug'03 and commercial production started from 1st Nov'03.

Diesel Hydrotreater Unit commissioned on 20th Dec'03 respectively.

(vi) Panipat Refinery

Xtra Premium High Octane Petrol despatch commenced on 8th April '2003

(vii) Guwahati Refinery

As a part of stream sharing, FO/Foots oil receiving from Digboi Refinery started from 15th May'03 for upgradation of heavy ends.
INDMAX unit successfully commissioned on 20th Jun'03 based on new technology developed by IOC, R&D for conversion of heavy petroleum stocks to LPG and high-octane gasoline.
First batch of IOC-Premium Gasoline (Xtra Premium High-Octane Petrol) dispatched on 30th Jul'03.

IOC's three refineries namely Gujarat, Panipat and Mathura refineries received National Energy conservation Awrd-2003 in the refining sector, installed by Ministry of Power on 14th Dec'03

Refineries Division was awarded with all the three Corporate awards, i.e. the Best suggestor, best coordinator and best suggestion awards for the year 2002-03 – consecutively for three years.

Gujarat Refinery is the refinery/organisation in country to receive ISRS level-9 under International Safety Rating System by the international expert team of M/s DNV during Sep'03

Refinery bagged the prestigious "Rajiv Gandhi National Quality award" for the year 2003.
For the second time in succession, Barauni refinery won the 'Royal Society for Prevention of Accidents (ROSPA), U.K. – Occupational Health and Safety Award – 2003' in Oil & Gas Sector worldwide. Barauni Refinery is the only Indian company on this list of awards in Oil Sector.

One of the employees of Panipat Refinery received Shram Shree award by Hon'ble Prime Minister for the year 2003 for exemplary job carried out in RFCC unit avoiding shutdown.

MoP&NG had mandated GAIL's Pipeline tariff for the R-LNG customers in Gujarat, out side Gujarat on Dahej-Vijaipur pipeline and beyond Vijaipur on HBJ pipeline in May, 2003.

Indian Oil entered into a Gas Sale purchase Agreement with Petronet LNG Limited, Joint venture company for purchase of 1.5 mmtpa of RLNG in September, 2003.

Pursuant to successful commissioning of Dahej LNG Project by PLL in Feb./March'04 the commercial operation commenced in March'04. IOC started selling R-LNG to their customers since 23rd March, 2004.

IOC entered into a MoU with National Iranian Oil Company of Islamic Republic of Iran in May 2003 for mutual cooperation in the hydrocarbon sector.

An MoU was executed between IOC and National Petrochemical Co. (NPC), Iran for collaboration on petrochemical projects, primarily in Iran and possibly in India/other countries.

Board of Director s approved in February 2004 for implementation of Naphtha Cracker and Downstream Petrochemicals complex at Gujarat/Panipat at an estimated cost of Rs.6300 crore.

During the year 2003-04 lifting of Ravva Crude from Ravva field to Haldia for BRPL started. Total 13,39,282 MT Ravva Crude lifted during the period.

New generation fuels Extra Premium Hi-Octane Petrol and Xtra Mile Diesel lauched. Extra Premium now available in over 750 retail outlets in 200 markets and Xtra Mile Diesele launched. Xtra Premium Diesel available in over 1750 retail outlets in 850 markets. Presently, Extra Premium accounts for 4.4% of All India IOC MS Sales and Extra Mile accounts for 3.5% of IOC Diesel sales.

SERVO ADON P (for Diesel) high performance additives launched through Retail Outlets.

Kissan Mitra – the first mobile Retail Dispenser commissioned. More planned during the current year.

A uniquely designed Floating Consumer Pump, the first of its kind in IOC, commissioned for Mahim Machimar Society, Mumbai. A Mobile Consumer Pump was set up at Gandhidham. The concept of Key Account Management – Single window service for high volume customers launched.

Over 260 Consumer Pumps have been commissioned during the year.
Bulk Bitumen Depot have been commissioned at Udaipur, Bhadli, Bassein, Satara & Jabalpur while packed bitumen depots set up at Parwanoo, Una Somnathpur, Tatanagar & Namkum.

Long Term Agreements for HSD Business with 17 STUs have been signed. Obtained extension of Railway Rate Contract and with Army and Navy for POL supplies.

Aviation:

460 V I P refuellings were successfully carried out during the year.

New airline businesses bagged from Sri Lankan Airways, Thai Airway, Gulf Airways, Eva Air, Air Seychelles and Deccan Air.

Lubes:

Export sales of **SERV0** Lubricants touching a high of 6,000 KL as compared to 2,600 KL for the previous year.

Reorganised distribution structure to enhance penetration in the Lube bazaar market and small Industrial segment – 180 **SERVO** Stockist (Auto & Industrial) commissioned.

"**SERVO** double Suraksha" Campaign accident Insurance Scheme for Mechanic Customers has resulted in sales growth of 12% in the Scheme packs.

LPG

29 Lakh New LPG Customers have been enrolled.

Human Resource:

5 kg cylinders introduced in 25 States across the country covering 1170 Markets; over 73,000 customers enrolled.

25 Community Development Plan proposals amounting to Rs. 1.18 crore processed.

Quality Control:

Average Quality Control Index of 98.21has been achieved on All India basis as against the benchmark of 95, Rs.900 crore approx. foreign exchange earned during the period.

Infrastructure Development:

Grass root LPG Bottling Projects at Gurgaon, Etawah,Una, Chengelpet, Coimbators and Shimoga completed with a capacity addition of 232 TTPA at a cost of Rs.169.45 crore.

New Depot at Gulbarga (Rs. 24.90 crore) and Rourkee TOP (Rs. 24.82 crore) completed during the period. Completed New Port Terminal at Mauritius with a total tankage 20,930 KL at an approved cost of Rs.23.76 crore.

New pipeline for ATAF from Bijwasan to Palam AFS (Rs.2.80 crore) commissioned. Trial commissioning of new pipeline from JNP terminal to Vashi Terminal (Rs. 34 crore) completed. Pipeline hook-up works at Najibabad Depot commissioned for receipt of product through KNPL.

Connection facilities for Pipeline transfer to OMCs at Amousi Terminal commissioned.

Badges of Honour:

Irugur Depot received "Golden Peacock Award – 2003".

Panipat Market Complex bags National Safety Award.

Over 12 locations receive "Certificate of Merit" from Maharashtra Safety Council for accident free operations.

MoU for transportation of 1.5 MMTPA crude oil from Haldia to Barauni for Bongaingaon refinery was signed on 18th April 2003

First tanker Piru Singh carrying 30 TMT Ravva crude berthed at Haldia Barauni crude pipeline, Haldia on 15th April 2003

Heavy crude oil pumping at Vadinar through Salaya-Mathura pipeline (SMPL) with blending in the ratio of 50:50 was commenced on 22.04.03 to achieve cost effectiveness and better product mix. The first heavy crude oil cargo (Ratawi) from Neutral Zone was pumped as mixture with Kuwait Export Crude oil simultaneously from two tanks.

500th tanker received at Haldia Barauni Crude Pipeline, Haldia on 23rd August, 03

Highest monthly throughput of 437.3 TMT (equivalent to 5.7 MMTPA) was achieved in Mathura Jalandhar Pipeline (MJPL) in the month of August, 2003 surpassing previous best of 395.6 TMT (equivalent 4.75 MMTPA) in Oct., 2001.

Viramgam – Koyali of SMPL new crude pipeline (28"dia) has been successfully commissioned on 04.08.2003

SMPL crude oil pipeline has completed 25 years of successful operation on 5th Sept.2003.

HSD transfer facility through Pipeline from Amousi terminal of IOCL to IBP/HP was established.

HBCPL – M/S BVQ International has recommended for ISO-9001-2000 certification accreditation and re certification to IOC 14001-1996 on 30 Sept.'2003

Koyali – Viramgam – Sidhpur Product Pipeline (KVSPL) commissioned on 30.10.03

KURUKSHETRA – ROORKEE – NAJIBABAD PRODUCT PIPELINE (10" DIA & 167 KM length) commissioned with receipt of product at Najibabad on 27.12.2003

10"dia line from Bareja of KVSPL to Navagam was commissioned on 31st Dec. 2003.

SS–01– Tank was commissioned successful after M&I on 3rd January 2004 with BH crude.

SMPL has achieved highest ever-annual throughput of 21.332 MMT during the year 2003-04. Total of 136 tankers (VLCC-63, others-73) were handled during the year

Mathura Jalandhar Pipeline (MJPL) was conferred National Safety Award 2002 by British Safety Council for achieving excellence in All Round Safety Performance.

Research & Development

The following are the topknots of the R&D center during the year 2003-04:

Total expenditure of R&D Rs. 85.50 Crore

25 Indian patents and 9 Foreign patents granted.

8 Indian Patents and 4 Foreign patents filed.

7 National/International awards received

202 lubricant formulations developed including 40 new projects and 103 formulations based on Gr.-II base oil from Haldia Refinery.

14 MoU finalized for the joint development/commercialization of various technologies.

INDMAX plant successfully commissioned at Guwahati Refinery.

Hydro cracking technology for conversion of naphtha to LPG developed.

Process technologies for lubricity additive for HSD developed and commercialized.

IndeTreat Inde Sweet technology (CFC based) for caustic/amine treatment and sweetening of LPG/Gasoline developed and commercialized.

In-house technology for Bio-diesel production developed.

Proprietary offline hydro cracker reactor model-HC MOD with GUI installed at Mathura Refinery.

The DHDS Model with GUI installed at Mathura, Panipat & Gujarat Refineries after tuning for different operating conditions.
The DHDS Model REFMOD installed at Gujarat and Haldia Refineries.

High performance cost effective diesel stabilizer developed and technology ready for commercialization.

9. IBP Co. Limited (IBPCL)

Sales of Petroleum products (excluding sales to OMCs) during the year 2003/04 were 5.19 million Kls as against 4.70 million Kls during 2002-03.

During the year 2003-04, 688 news outlets were commissioned.

With the continued thrust on Consumer business, The company has been successful in executing orders to major parties such as DGBR, Delhi Police, Punjab Roadways, South Eastern Railways., Eastern Railways,

Rifle Factory – Ichapore(WB), Calcutta Municipal Corporation, ONGC – Ankheleswar, CSEB – Korba etc.

During the financial year 2003-04, the company has added 55 new Consumer Pumps. IBP have recorded growth of 35% in MS-D, 21% in HSDS-D.

Registered a positive growth of 35.4% in LPG by commissioning a new dealership during the year.

IBP enrolled 58380 new customers during the year 2003-04 and has 321294 customers as on 31.03.2004.

5 Kg. LPG cylinders introduced in the state of U.P. during August 2003.

During the year 2003-04, IBP along with Industry had implemented unleaded, extra low sulphur MS and HSD with 0.05% max. sulphur in the supply locations of Bangalore, Ahmedabad, Pune, Surat, Kanpur and Agra w.e.f. 01.04.03 and in Solapur and Lucknow w.e.f. from 01.01.04.

CNG facility has been added at three ROs of the company during the year, taking the number of ROs with CNG facility to 7 and identified 11 more locations for addition of CNG facility in various cities of the country during the year 2003-04.

The Cherlapalli Augmentation Project was started in October, 2003. The expansion will be from the existing capacity of 13000 KL to 40000 KL. The scheduled target date of completion of the project is March, 2005.

10. BONGAIGAON REFINERY & PETROCHEMICALS LTD. (BRPL)

Ravva crude oil processing was commenced & established successfully in existing units without modification.

Production of LVFO (a new product of BRPL) was established on sustained basis.

After commercial run on March, 2003, regular operation of LPG bottling plant by IOCL (Mktg.) started from 15.10.2003.

The Company achieved highest ever crude throughput of 2.13 MMT, highest ever production of LPG (48 TMT) and MS (196 TMT) in 2003-04. Also, the Distillate Yield on crude thru'put (85.8%) was the highest ever while Fuel & Loss of 5.60% on crude throughput was the lowest ever.

DMT and PSF plants, which had been kept idle for 2 years on economic reasons, were restarted in December 2003 and are being operated in alliance with M/s. RIL.

Highest ever Reformer throughput of 119 TMT was achieved.

A new value-added product Low Viscosity Furnace Oil (LVFO) from LSHS component viz., CFO & RFO was produced & marketed.

11. CHENNAI PETROLEUM CORPORATION LIMITED (CPCL)

CPCL has signed an MoU with IOC to synergies the capabilities of CPCL and IOC R&D in generation of new knowledge and application of products

Air Fin Coolers of the CDU/VDU Units of 3 MMTPA refinery expansion cum modernisation project was commissioned.

CPCL has signed MoU with Chennai Port Trust (CPT) for Crude Oil Imports.

At CPCL's 3 MMTPA refinery expansion cum modernisation project at Manali per commissioning activities were commissioned.

CPCL has signed Crude Oil Sales Agreement with Hardy exploration and Production (India) Inc. for the sale and purchase of Crude Oil from PY-3 off shore fields.

Fire Water Pump house. Utility Lines at once through Hydrocracker Unit battery limit & Visbreaker Unit and Pelletiser at Sulphur Recovery Unit were commissioned.

New flare lit was commissioned at 3 MMTPA refinery expansion cum modernisation project.

The first process unit-Crude Distillation Unit of the 3 MMTPA refinery exspansion complex was commissioned.

CPCL received the Confederation of Indian Industry (CII) award of Leadership and Excellence Award in Safety Health & Environment.

Hydrogen, Naphtha, Hydro-treating and Catalytic Reformer Units were commissioned at 3 MMTPA refinery expansion complex at Manali.

12. KOCHI REFINERIES LIMITED (KRL)

KRL achieved a record in the production of LPG, MS, MTO and NRMB during the year over the previous records.

KRL and Cochin Port Trust signed a Memorandum of Understanding (MoU) to set up a Crude Oil Receipt facility, including a Single Buoy Mooring, for handling crude oil cargo at Puthuvypeen within the Cochin Port limits. These facilities will help KRL to reduce the crude oil transportation cost.

KRL's LPG Bottling Plant was commissioned on 1st August 2003.

During August 2003, KRL has exported 18000 MT parcel of Fuel Oil to Lanka Marine services on CFR Colombo.

Second KRL operated Retail Outlet under BPCL banner was commissioned on 17th September 2003 at Pananchery, Trichur.

KRL has secured two awards from National Safety Council, Kerala Chapter.

- Best Performance award for Safety Committee, in connection with National Safety Day celebrations 2004.
- Runner up for outstanding performance in Industrial Safety in the category of large size chemical industries.

13. MANGALORE REFINERY AND PETROCHEMICALS LIMITED (MRPL)

Gross Crude processed for the year 2003-04 was 10.069 MMTs, which is record highest processing for any year (103.9% of rated crude capacity).

Ever highest product despatch of 9.229 million metric tons and ever highest exports of 4.26 million metric tons.

ONGC equity crude Nile Blend was received for the first time on 14th May, 2003.

HSD export to Srilanka through IOCL on term contract was given for the first time in March, 2003.

Ever highest crude processed in the month of March 2004 – Qty. 1046.7 TMT.

Direct sales of HSD and MS was started to ESSAR OIL.

LSHS was exported for the first time in March-2004.

Extra premium grade MS (RON-91) was given to IOCL for the first time.

14. RELIANCE INDUSTRIES LIMITED (RIL)

The Jamnagar refinery capacity augmented from 27 MMTPA to 33 MMTPA by way of de-bottle necking, which was completed in January 2004.

The refinery processed 29.6 million tonnes of crude during the period. Recording 109% capacity utilisation based on original nameplate capacity of 27 MMTPA.

The refinery exported 7.61 million tonnes of petroleum products. The value of the exports is Rs.8656.21 crores. RIL continued to be the largest manufacturer-exporter of our country.

RIL commissioned eleven retail outlets for marketing transportation fuels.

RIL commenced the second exploratory drilling campaign in the discovery block RG-DWN-98/3 in the KG basin. Two wells were drilled and both struck gas.

15. MAHANAGAR GAS LIMITED (MGL)

Piped Natural Gas (PNG): Over 27,000 additional domestic consumers were connected during the year alone.

26 Kms of Steel pipelines and 146 Kms of Polyethylene pipelines were laid during the current Financial Year.

Compressed Natural Gas (CNG): During 2003-04 over 51,500 vehicles got converted on CNG as compared to 34,822 vehicles during the year 2002-2003.

Additional 29 CNG Outlets were set up in 2003-04 as compared to cumulative 46 CNG outlets set up during the previous seven years of operations of the Company.

The Company has consistently recorded an all round superior growth during the year 2003-04. Average Gas sales volume increased from 6,28,564 SCM per day in 2002-03 to 8,75,105 SCM per day in 2003-04, in increase of 39%.

In May 2003, MGL was awarded BG Chairman's award for the year 2002 as winner for Safety Performance and Highly Commended for Environmental Initiate.

MGL achieved ISO 9002 and ISO 14001 accreditation.

16. INDRAPRASTHA GAS LIMITED (IGL)

CNG: The total number of CNG stations increased from 107 in March 2003 to 120 in March 2004, which included 56 mother stations, 27 online stations, 33 daughter booster stations and 04 daughter stations. The compression capacity as on 31st March, 2004 was 16.13 lakh kg/day.

PNG: The company has provided PNG connections to about 12910 domestic, 93 small commercial and 17 large commercial customers as on 31st March, 2004.

17. ENGINEERS INDIA LIMITED (EIL)

Major Projects Secured in 2003-04:

Domestic:

- Lump Sum Turn Key (LSTK) Contract for D-1 Well-cum-Water Injection Platform of ONGC.
- LSTK Contract for Laying/Installation of Line Pipes for 3 Pipelines Project in Mumbai High of ONGC.
- EPCC Package 1 & 2 for Integrated Paraxylene Project at Panipat of IOCL on LSTK basis.
- MUT Pipeline Project at Mumbai High of ONGC.
- Vasai East Development Scheme of ONGC
- Phase-1 of Capacity Expansion cum Modernisation Project at Kochi of KRL
- MS quality upgradation Project at Gujarat Refinery of IOCL.
- 1.4 MTPY Alumina Refinry at Lanjigarh of Sterlite Industries (India) Ltd.
- Third Party Inspection & Quality Surveillance Services for Sardar Sarovar Narmada (SSN) Canal Works of SSN Nigam Limited.

Overseas

- Engineering Review and Supervision Services for 9th Olefin Complex Assaluyeh of Arya Sasol Polymer Co., Iran.
- Front End Engineering Design (FEED) for 800 Km length of Inter Refinries Intermediate & Products Pipelines and Associated Facilities for Takreer (ADNOC company) Abu Dhabi.
- Technical Services Contract with OOIEC, Iran Project Management Services for Utilities & Offsites Ph-II of Fair Petrochemical Co., Iran
- Detailed Design Engineering Services for Pipelines & Platform Modification Project of ONGC for IOEC, Iran.
- FEED for New Condensate Disposal Tank at NGL Plants at Messaieed of Qatar Petroleum Qatar,.

Major Projects completed in 2003-04

- LSTK Contract for MNW Offshore Process Platform Project of ONGC
- LSTK Contract for N11,12 Offshore Well Platform Plat form Project of ONGC
- Hydro treating Facilities Project of IOCL at Digboi
- PMC for Refinery Project of CPCL
- Dahej-Vijaipur Pipeline Project of GAIL
- Jamnagar-Loni LPG Pipeline Ph-II of GAIL
- Vizag-Secunderabad LPG Pipeline of GAIL
- Mumbai-Manmad Pipeline Extension of BPCL
- Modernisation of MAA Refinery of KNPC
- Aluminium Smelter Expansion Project of NALCO

Research & Development in 2003-04

- Energy efficient steam traps (International patent application for 'Steam Trap' has been examined and accepted on account of novelty and applicability)
- CFC technology for LPG sweetening
- SULDRY – Fixed bed absorbent/catalyst based dry process for H2S removal from natural gas/acid gases
- C2/C3 and LPG recovery from LNG – EIL's patented process.

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I.2(b) NOTIFICATIONS ISSUED DURING 2003-04

The Gazette of India

Extra Ordinary

Part II – Section 3 – Sub-Section (i)

Ministry of Petroleum and Natural Gas

Notification

New Delhi, the 1st April, 2003

G.S.R. 295(E) – In exercise of the powers conferred by sections 5 and 6 of the Oilfields (Regulation and Development) Act, 1948 (Act No. 53 of 1948), the Central Government hereby makes the following rules further to amend The Petroleum and Natural Gas Rules, 1959, as amended from time to time, namely:—

1.(1) These rules may be called the Petroleum and Natural Gas (Amendment) Rules, 2003.

(2) They shall come into force with effect from the date of their publication in the Official Gazette.

2. In the Petroleum and Natural Gas Rules, 1959 (hereinafter to be referred as the said rules), in rule 3:

i) Clause (aa) shall be omitted;

ii) After the clause so omitted, the following clauses shall be inserted, namely:

"(ab) 'coal bed methane' means natural gas obtained from bore holes occurring in coal or lignite seams and consisting primarily of hydrocarbons.

(ac) 'condensate' means those low vapour pressure hydrocarbons obtained from natural gas through condensation or extraction which are in the form of liquid at normal surface temperature and pressure conditions.

(ad) 'continental shelf' shall have the same meaning as assigned to it in the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976 as amended from time to time.

(ae) 'contract' means an agreement entered into between the Government of India and any other party in relation to exploration and exploitation of hydrocarbon and / or coal bed methane for relevant area.";

iii) for clause(b), the following clause shall be substituted, namely:—

"(b) 'crude oil' means petroleum in its natural state in liquid, viscous or solid form before it has been refined or otherwise treated from which water and foreign substances have been extracted.";

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

"(ca) 'exclusive economic zone' shall have the same meaning as assigned to it in the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976 as amended from time to time.";

v) after clause(e) the following clause shall be inserted, namely:—

"(ea) 'gas hydrates' means naturally occurring solids composed of water molecules forming a rigid lattice of cages each containing a molecule of natural gas.";

vi) after clause (g) the following clause shall be inserted, namely:—

"(ga) 'hydrocarbons' means any organic compound of hydrogen and carbon.";

vii) for clause (l) the following clause shall be substituted, namely:—

"(l) 'natural gas' or 'gas' means gas obtained from bore-holes and consisting primarily of hydrocarbons but does not include helium occurring in association with such hydrocarbons.";

viii)for clause (qq) the following clause shall be substituted, namely:-

"(qq) 'territorial waters' shall have the same meaning as assigned to it in the Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 as amended from time to time."

3. In the said rules, in rule 5 sub-rule (1) clause(i), after the words "territorial waters or the continental shelf" the words "or the exclusive economic zone" shall be inserted.

4. In the said rules, in rule 6 sub-rule(1):—

i) in clause(I), for the figure and words "Rs.10,000/- (Rupees ten thousand)" the figure and words "Rs.25,000/- (Rupees twenty five thousand)" shall be substituted;

ii) in clause(ii), for the figure and words "Rs.25,000/- (Rupees twenty five thousand)" the figure and words "Rs.50,000/- (Rupees fifty thousand)" shall be substituted.

5. In the said rules, in rule 7:—

i) in clause(I), for the word "land" the word "area" shall be substituted.

ii) In clause(ii), for the word "land" the word "area" shall be substituted.

iii) In sub-rule(2), after the word "plants" and "equipment" the word "platform" and the words "and other facilities" shall be inserted respectively.

6. In the said rules, in rule 10, after the words "one year each" the words "till the expiry of the exploration period(s) provided under the agreement if any, or unless otherwise specified by the Central Government in this regard." Shall be inserted.

7. In the said rules, in rule 11:—

i) in sub-rule(1), for the figure and words "Rs.50,000/- (Rupees fifty thousand)" the figure and words "Rs.1,00,000/- (Rupees one lakh) shall be substituted;

ii) in sub-rule(2), the clauses (i) to (v), the following clauses shall be substituted respectively, namely:-

i. Rs.50 (Rupees fifty) for the first year license;

ii. Rs.100 (Rupees one hundred) for the second year license;

iii. Rs. 500 (Rupees five hundred) for the third year license;

iv. Rs. 700 (Rupees seven hundred) for the fourth year license;

v. Rs. 1000 (Rupees one thousand) for the each subsequent year of renewal."

8. In the said rules, in rule 12, after the words 'shall ordinarily be twenty years' the following provision shall be inserted, namely:-

"Provided that the Central Government may, if satisfied that it is necessary in public interest so to do, by notification, relax the condition regarding area aforesaid, in relation to any application for lease."

9. In the said rules, in rule 13:—

a) in sub-rule (1):-

i) in clause(a), for the figure and words Rs.1,00,000/- (Rupees one lakh)" the figure and words Rs.2,00,000 (Rupees two lakh)" shall be substituted;

ii) in clause(b), for the figure and words Rs.10,000/- (Rupees ten thousand)" the figure and words Rs.30,000 (Rupees thirty thousand)" shall be substituted;

b) in sub-rule(2) in clause(a); for "Rs.12.50" the "Rs.25.00" (Rupees twenty five) and for "Rs.25.00" the "Rs.50.00" (Rupees fifty) shall be substituted respectively.

10. In the said rules, in rule 14 sub-rule(1) clause (a) sub-clause (ii) :-

i) for the words "a royalty for the period beginning on the 1st day of April, 1990 and ending on 31st day of March, 1993, at the rate of four hundred and eighty one rupees per metric tonne of crude oil and casing head condensate and at ten percent of the value at wellhead of natural gas obtained by the lessee" the following shall be substituted, namely:—

"a royalty in respect of any mineral oil mined, quarried, excavated or collected by him from the leased area at the rate specified in schedule of the Act from time to time. The royalty shall be payable on monthly basis, as may be provided for in the lease and shall be paid by the last day of the month succeeding the period in respect of which it is payable.";

ii) after the words "condensate, natural gas" the words "coal bed methane or gas obtained from gas hydrate" shall be inserted.

11. In the said rules, in rule 15, after the words "survey or re-survey" the words and figure "a fee of Rs.10,000/- (Rupees ten thousand) or" shall be inserted.

12. In the said rules, in rule 17, the provision shall be renumbered as sub-rule(1) and after the provision so renumbered the following provision shall be inserted, namely:—

"provided that in case where a Contract has been signed between the licensee / lessee and the Central Government, the transfer or the assignment, as the case may be, shall be governed by the terms and conditions of the Contract, and will be effected in the manner laid down in such Contract."

ii) After sub-rule(1) so renumbered a new sub-rule(2) shall be inserted as follows, namely:-

"(2) Upon receipt of the consent of the Central Government referred to in sub-rule (1) the license or lease, as the case may be, shall be issued in name of the transferee or the assignee, severally or jointly, to the extent of the transfer or the assignment, with effect from the date from which such transfer or assignment is made effective."

13. In the said rules, in rule 19, in clauses (a) and (b), for the word "land" the word "area" shall be substituted.

14. In the said rules, in rule 19, the following new rule 19A shall be inserted, namely:—

19A. Recovery of helium from natural gas – (1) Nothing contained in these rules or the terms of a license or a lease or a contract will give right to a licensee or a lessee to use, sell or otherwise dispose of Helium which may be produced with natural gas and the licensee / lessee shall dispose of such helium in accordance with such directions as may be issued in this behalf by the Central Government or by an officer or an agency duly authorised for this purpose by the Central Government.

(2) If the Central Government desires to extract Helium from natural gas, the licensee / lessee, in order to enable the Government to install and operate equipment and facilities for carrying out helium recovery operations, shall make available to the Central Government or its nominee the area and utilities required for such operations and in such a case the licensee / lessee shall be entitled for compensation based on the internal company accounting practices to be mutually agreed between the licensee / lessee and the Central Government / its nominee."

15. In the said rules, in rule 20:—

i) in sub-rule(1), after the words "the working of the" for the word "land" the word "area" shall be substituted.

ii) In sub-rule(2) for the word "land" the word "area" shall be substituted.

16. In the said rules, in rule 21:—

a) in sub-rule(1)

i) in clause (b) and (c) for the word "land" the word "area" shall be substituted.

ii) After sub-rule(3), the following sub-rule shall be inserted, namely:—

"(4) Where the Central Government has entered into an agreement with the licensee, license and the lease as the case may be shall automatically stand cancelled upon the expiry or termination of such contract."

17. In the said rules, for rule 22, the following rules shall be substituted, namely:—

"22. Delivery of premises upon determination of license or lease – (1) Upon determination or cancellation or relinquishment in part or in full of a license, the licensee shall deliver the area released on account of the determination or cancellation or relinquishment after restoring it in good order and condition in accordance with international practices within six months from the date of such determination or cancellation or relinquishment, or within such further time as the Central Government or the State Government, as the case may be, may allow.

(2) In the event of lessee opting not to continue mining operations and opts to relinquish the leased area in part or in full, or a lease is to be determined, the lessee shall deliver up the area released by such relinquishment or determination of lease after restoring it in good order and condition in accordance with the abandonment plan approved by the Central Government. However, lessee shall have to give prior written notice of at least one year before the date of intended relinquishment or determination as the case may be, to the Central Government alongwith an abandonment plan incorporating all actions and steps necessary to restore the area in accordance with international practices, for approval of the Central Government.

(3) Upon cancellation of a mining lease under these rules, the lessee shall deliver up the area covered by such lease after restoring it in good order and condition in accordance with an abandonment plan, prepared in accordance with established international practices and approved by the Central Government.

(4) Upon determination or cancellation or relinquishment of a license or a lease, the holder of such license or lease, as the case may be, shall take all necessary steps to prevent consequent hazards to human life, property, environment, marine resources or navigation, to the satisfaction of the Central Government or the State Government as the case may be.

(5) The licensee or lessee shall, prior to the determination or cancellation or relinquishment of licensed or leased area, remove and dispose of any petroleum, stores, equipment, tools, machinery from such area within six months of handing over the area.

(6) If such petroleum, stores, equipment, tools, machinery and improvements are not removed or disposed off and the area restored to good order and condition within six months prior to the determination, relinquishment or cancellation of the license or lease, the Central Government or the State Government as the case may be, shall proceed with the removal and disposal of such petroleum, stores, equipment, tools, machinery and restore the area at the risk and cost of the licensee or lessee.

(7) The net proceeds of such sale shall be held by the Central Government, or the State Government, as the case may be, until applied for and obtained by the licensee or the lessee."

18. In the said rules, in rule 23 sub-rule(1), for the words "ten percent for each month or portion of a month during which such fees, royalties or other payments remain unpaid" the words "a penal rate of 200 (two hundred) basis points over the prime lending rate of State Bank of India for the delayed period." shall be substituted.

19. In the said rules, in rule 24, sub-rule(1) in clause (a), for the word "land" the word "area" shall be substituted.

20. In the said rules, in rule 25, for the words "natural gas" the words "oil or gas or coal bed methane or gas hydrate" shall be substituted.

21. In the said rules, in rule 27, for the words "natural gas or both" the words "or oil or gas or coal bed methane or gas from gas hydrate" shall be substituted.

22. In the said rules, in rule 28, the words(I) "or licensee", (ii) "or licensed", (iii) "or licensee or into areas not

covered by any license or lease" and (iv) "or licensee" shall be inserted after the words (I) "operations by a lessee", (ii) "boundary of the leased", (iii) "by other lessees" and (iv) "require the lessee" respectively.

23. In the said rules, in rule 29, for the words "gas bearing strata or to both" the words "oil bearing or to both or gas bearing or coal bed methane bearing or gas hydrate bearing strata" shall be substituted.

24. In the said rules, in rule 30 clause (vi), after the words "such suspension" the words "under intimation to the State Government" shall be inserted.

25. In the said rules, in rule 32A, after the words "Rule 14, Rule 19," the words "Rule 21" shall be inserted.

26. In rule 33 after sub-rule (d) of the said rules, for the words "shall be settled by two arbitrators, one to be nominated by the Government and the other by the licensee or lessee, or, in case of disagreement between the arbitrators, by an umpire appointed by the arbitrators by writing under their hands before proceeding with arbitration. The arbitrators or the umpire shall also determine which party shall bear the expenses of the arbitration or whether such expenditure shall be divided between the two parties and if so, in what proportion. The arbitrators or the umpires, as the case may be, may from time to time, with the consent of all the parties to the contract, enlarge the time, for making the award, subject as aforesaid, the provisions of the Arbitration Act, 1940 and the rules thereunder for the time being in force shall applied to the arbitration proceedings under this clause" the following shall be substituted:-

"shall be settled through arbitration and conciliation proceedings under the provisions of Arbitration and Conciliation Act, 1996 and the rules made thereunder as are applicable to such proceedings.

27. In the said rules, the new rule 35 shall be inserted as follows, namely:-

"35. Power to exempt from operation of certain rules:

i) The Central Government may grant exemption under Section 12 of the said Act, subject to specified conditions to a licensee or lessee from the provisions of Rule 6(I) and (ii), Rule 11 sub-rules (1) and (2) or Rule 13, where it is in the public interest to do so.

ii) The Central Government, may consult the State Government in the matter of granting exemptions in respect of onland areas under sub-rule(I).

[No.O-22013/1/2001-ONG-III]
J.M.Mauskar, Jt. Secy.

Part II – Section 3 – Sub-Section (i)
Notification
New Delhi, the 27th June, 2003

G.S.R. 519(E) – In exercise of the powers conferred by Section 3 of 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 number G.S.R. 843(E), dated 26th December, 2002 published in the Gazette of India Extraordinary, Part II Section 3 Sub-section(I) of 27th December, 2002, the Central Government hereby permits sale of only 5% ethanol-blended petrol by 30th September, 2003 throughout the territories of Andhra Pradesh, Goa, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh and the Union Territories of Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Pondicherry.

[F.No.P-45018/28/2002-CC]
S. Vijayaraghavan, Jt. Secy.

Part II – Section 3 – Sub-Section (i)

Notification

New Delhi, the 29th September, 2003

G.S.R. 778(E) – In exercise of the powers conferred by Section 3 of 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. 519(E), dated the 27th June, 2003 published in Part II, Section 3, Sub-section(I) of the Gazette of India, Extraordinary dated the 27th June, 2003, the Central Government hereby permits the sale of only 5% ethanol-blended petrol in the state of Gujarat and UT of Daman and Diu by the 31st October, 2003, in the state of Karnataka by 30th November, 2003 and in the state of Andhra Pradesh by the 31st December, 2003 and keeps in abeyance the said sale in the state of Tamil Nadu and Union Territory of Pondicherry.

[F.No.P-45018/28/2002-CC]
A.K.Srivastava, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
Notification
New Delhi, the 5th December, 2003

S.O. 1397(E) – In pursuance of clause 11 of the Kerosene (Restriction on Use and Fixation of Ceiling Price) Order, 1993, the Central Government hereby exempt the Government Companies, namely, Indian Oil Corporation Limited, Core-2, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003, Hindustan Petroleum Corporation Ltd., Petroleum House, 17 Jamshedji Tata Road, Post Box No.11041, Mumbai-400020, Bharat Petroleum Corporation Ltd., Bharat Bhawan, 4 & 6 Currimbhoy Road, Ballard Estate, Mumbai-400001 and IBP Co. Ltd., IBP House, 34-A Nirmal Chandra Street, Kolkata-700013 from the provisions of clauses 3A, 7 and 7A of the said Control Order.

[F.No.P-21025/15/2003-Dist.]
A.K.Srivastava, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
Notification
New Delhi, the 1st January, 2004

S.O. 39(E) – In exercise of the powers conferred by Section 3 of 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 permits the sale of only 5% ethanol-blended petrol in Chittoor, Cuddapah, Kurnool, Anantapur, Nellore, Nalgonda, Mahaboobnagar, Hyderabad, Adilabad, Nizamabad, Warangal, Karimnagar, Ranga Reddy, Medak districts of the state of Andhra Pradesh, in Tamil Nadu and the Union Territory of Pondicherry, covering the entire area of the said states and Union Territory in phased manner w.e.f. the 1st day of January, 2004 till the 31st day of January, 2004.

[F.No.P-45018/28/2002-CC]
A.K.Srivastava, Jt. Secy.

Part II – Section 3 – Sub-Section (i)
Notification
New Delhi, the 1st January, 2004

G.S.R. 46(E) – In exercise of the powers conferred by Section 3 of 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 on and from the first day of January, 2004 in the state of Uttaranchal and on and from the first day of March, 2004 in the state of Madhya Pradesh, only 5% ethanol-blended petrol, as per Bureau of Indian Standards specification No.2796, shall be sold.

[F.No.P-45018/28/2002-CC]
A.K.Srivastava, Jt. Secy.

Part II – Section 3 – Sub-Section (i)
Notification
New Delhi, the 30th January, 2004

G.S.R. 146(E) – In exercise of the powers conferred by Section 3 of 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 S.O. 39(E) dated the 1st January, 2004, published in Part II, Section 3, Sub-section(I) of the Gazette of India, Extraordinary dated the 9th January, 2004, the Central Government directs that the programme of sale of ethanol-blended petrol may be kept in abeyance in the Chittore and Nellore districts of Andhra Pradesh, the state of Tamil Nadu and the Union Territory of Pondicherry till further orders.

[F.No.P-45018/28/2002-CC]
A.K.Srivastava, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
ORDER
New Delhi, the 15th January, 2004

S.O. 70(E) – In pursuance of rule 201 of the Petroleum Rules, 2002, (hereinafter referred to as said rules), the Central Government, on the recommendation of the Chief Controller and in consideration of the necessity to import petroleum in public interest, hereby grants exemption from the provisions of sub-rule(1) of the rule 16 of the said rules in respect of import of petroleum into India by sea at the following ports for a period of one year from the date of publication in the Official Gazette namely:—

STATE	PORTS
Gujarat	Jageshwar / Dahej
Gujarat	Muldwarka
Gujarat	Pipavav
Gujarat	Mundra
Gujarat	Hazira
Andhra Pradesh	Kakinada
Karnataka	Karwar
Orissa	Paradeep
Maharashtra	Jawaharlal Nehru Port Trust (Nhava Sheva)

[F.No.P-23011/22/2001-Sup]
Prabh Das, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
ORDER
New Delhi, the 10th February, 2004

S.O. 180(E) – In pursuance of rule 201 of the Petroleum Rules, 2002, the Central Government on the recommendation of the Chief Controller of Explosives makes the following further amendment in the order of the Government of India in the Ministry of Petroleum & Natural Gas number S.O. 169(E) dated the 13th February, 2003, namely:-

In the said order, for the words "one year", the words "two years" shall be substituted.

[F.No.P-23011/49/2000-Sup]
Prabh Das, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
ORDER
New Delhi, the 10th February, 2004

S.O. 181(E) – In pursuance of rule 201 of the Petroleum Rules, 2002, the Central Government on the recommendation of the Chief Controller of Explosives makes the following further amendment in the order of the Government of India in the Ministry of Petroleum & Natural Gas number S.O. 170(E) dated the 13th February, 2003, namely:-

In the said order, for the words "one year", the words "two years" shall be substituted.

[F.No.P-23011/5/2002-Sup]
Prabh Das, Jt. Secy.

Part II – Section 3 – Sub-Section (ii)
ORDER
New Delhi, the 29th March, 2004

S.O. 425(E) – In pursuance of rule 201 of the Petroleum Rules, 2002, the Central Government on the recommendation of the Chief Controller of Explosives makes the following further amendment in the order of the Government of India in the Ministry of Petroleum & Natural Gas number S.O. 374(E) dated the 2nd April, 2003, namely:-

In the said order, for the words "one year", the words "two years" shall be substituted.

[F.No.P-23011/47/98-Sup]
Prabh Das, Jt. Secy.

I.3 PROGRESS OF INDIAN PETROLEUM INDUSTRY 1947-48 TO 2003-04

Year	Balance of recoverable Reserves@		Crude Oil pro-duction	Natu-ral gas pro-duction	Refi-nery crude through put	Refi-nery pro-duction	Con-sump-tion 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 Reli-ance
	Crude Oil	Natu-ral Gas						Crude Oil	POL Pro-ducts	Qty.	Value		Import	Export			
	(MMT)	(BCM)	(MMT)	(BCM)	(MMT)	(MMT)	(MMT)	(MMT)	(MMT)	(MMT)	(Rs.Cr.)	(Rs./MT)	(Rs. Cr.)			(Rs. Cr.)	
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	18.38	17.11	17.91	11.68 (107)	1.09 (30)	12.43	132	92	1634	1535	8.9	638	35
1980-81	366	352	10.51	2.4	25.84	24.12	30.90	16.25 (3349)	7.29 (1917)	23.50	5258	2061	12549	6711	78.5	1570	32
1990-91	739	686	33.02	18.0	51.77	48.57	55.04	20.70 (6118)	8.66 (4660)	26.71	9775	2956	43193	32553	33.1	9179	56
1991-92	806	730	30.35	18.6	51.42	48.35	56.97	24.00 (7820)	9.44 (5218)	30.50	11824	3260	47851	44041	29.6	9337	50
1992-93	301	735	26.95	18.1	53.48	50.36	58.90	29.25 (10686)	11.28 (6360)	26.81	15439	3653	63375	53688	31.8	10322	43
1993-94	779	718	27.03	18.3	54.30	51.08	60.81	30.82 (10689)	12.08 (7041)	38.86	16221	3466	73101	69751	25.4	12223	41
1994-95	765	707	32.24	19.5	56.93	52.93	67.51	27.35 (10316)	13.95 (7522)	38.05	16250	3772	89971	82674	21.6	12905	44
1995-96	732	676	35.17	22.6	58.74	55.08	74.83	27.34 (11517)	20.34 (12578)	44.24	22263	4212	122678	106353	22.7	15612	44
1996-97	729	641	32.90	23.3	62.87	59.01	79.17	33.91 (18538)	20.27 (15633)	51.01	32087	5409	138920	118817	28.8	21493	39
1997-98	747	692	33.86	26.4	65.17	61.31	84.29	34.49 (15872)	22.97 (14309)	55.08	28915	4602	154176	130101	23.2	20973	37
1998-99	716	675	32.72	27.4	68.54	64.54	90.56	39.81 (14917)	23.77 (12276)	62.86	26887	3747	178332	139752	19.5	21513	34
1999-00	660	648	31.95	28.4	85.96	79.41	97.09	57.81 (40028)	16.61 (14185)	73.67	53515	6925	215236	159561	34.0	32662	31
2000-01	703	760	32.43	29.5	103.44	95.61	100.07	74.10 (65932)	9.27 (12093)	75.00	70353	8898	230873	203571	38.3	35912	30
2001-02	726	763	32.03	29.7	107.27	100.00	100.43	78.71 (60397)	7.01 (7249)	75.65	59427	7673	245200	209018	32.4	36105	30
2002-03	741	751	33.04	31.4	112.56	104.14	104.13	81.99 (76195)	7.23 (8847)	78.93	74174	9293	296597	255127	33.3	45126	30
2003-04(P)	761	854	33.37	32.0	121.84	113.46	107.75	90.43 (83528)	8.00 (9723)	83.82	76470	9237	346474	283605	32.9	50727	29

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 upto 1992, thereafter 1st April.
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	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
I. Crude Oil													
1. Refinery Throughput	0.3	6.6	18.4	25.8	51.8	58.7	65.2	68.5	86.0	103.4	107.3	112.6	121.8
2. Domestic Production	0.3	0.5	6.8	10.5	32.2	35.2	33.9	32.7	31.9	32.4	32.0	33.0	33.4
a) On-shore	0.3	0.5	6.8	5.5	11.8	11.9	11.5	11.5	11.3	11.8	11.9	11.5	11.5
b) Off-shore	-	-	-	5.0	20.4	23.3	22.4	21.2	20.6	20.6	20.1	21.5	21.9
3. Imports	N.A.	6.0	11.7	16.2	20.7	27.3	34.5	39.8	57.8	74.1	78.7	82.0	90.4
4. Exports		-	-	-	-	-	-	-	-	-	-	-	-
5. Net Imports (3-4)	N.A.	6.0	11.7	16.2	20.7	27.3	34.5	39.8	57.8	74.1	78.7	82.0	90.4
II. Petroleum Products													
1. Domestic Consumption@ of which	**3.3**	**7.7**	**17.9**	**30.9**	**55.0**	**74.8**	**84.3**	**90.6**	**97.1**	**100.1**	**100.4**	**104.1**	**107.8**
a) Naphtha $	-	-	0.9	2.3	3.4	4.2	6.6	8.9	10.8	11.7	11.7	11.9	11.9
b) Kerosene	0.9	2.0	3.3	4.2	8.4	9.9	11.1	12.2	11.9	11.3	10.4	10.4	10.2
c) High Speed Diesel Oil	0.2	1.2	3.8	10.3	21.1	32.3	36.1	37.2	39.3	37.9	36.5	36.6	37.1
d) Fuel Oils	0.9	1.7	4.7	7.5	9.0	11.2	11.5	12.5	12.5	12.7	13.0	12.7	12.9
2. Domestic Production $$ of which	**0.2**	**5.7**	**17.1**	**24.1**	**48.6**	**55.1**	**61.3**	**64.5**	**79.4**	**95.6**	**100.0**	**104.1**	**113.5**
a) Naphtha	N.A.	-	1.2	2.1	4.9	6.0	6.1	6.1	8.2	9.9	9.2	9.7	11.3
b) Kerosene	N.A.	0.9	2.9	2.4	5.5	5.3	6.7	5.3	5.7	8.7	9.7	10.0	10.2
c) High Speed Diesel Oil	N.A.	1.1	3.8	7.4	17.2	20.7	23.4	26.7	34.8	39.1	39.9	40.2	43.3
d) Fuel Oils	N.A.	1.6	4.1	6.1	9.4	9.6	11.1	11.0	11.4	11.4	12.2	12.2	13.4
3. Imports	3.1	2.5	1.1	7.3	8.7	20.3	23.0	23.8	16.6	9.3	7.0	7.2	8.0
4. Exports @@	N.A.	N.A.	0.3	Neg	2.7	3.4	2.4	0.7	0.8	8.4	10.1	10.3	14.6
5. Net Imports (3-4)	N.A.	N.A.	0.8	7.3	6.0	16.9	20.6	23.1	15.8	0.9	-3.1	-3.1	-6.6

*: 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)

Year	Crude Oil		Petroleum Products		Gross Imports			Exports/Re-exports			Net Pol. Imports (Col. 8-11)
	Production	Refinery Crude Throudhout	Production	Consumption*	Crude Oil	Petroleum Products	Total	Crude Oil	Petroleum	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	32668	51671	48402	57943	5929.62	3541.64	9471.26	-	941.40	941.40	8529.86
1991	31006	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	30970	56407	52872	67373	9915.10	7438.77	17353.87	-	1580.74	1580.74	15773.13
1995	35048	57971	54379	73486	10856.71	10251.01	21107.72	-	1728.55	1728.55	19379.17
1996	32986	61704	57869	79500	17194.53	15454.63	32649.16	-	2050.49	2050.49	30598.67
1997	33831	64533	60631	82982	17061.19	14131.47	31192.66	-	926.84	926.84	30099.07
1998	32806	66672	62809	86507	14513.77	10408.47	24922.24	-	1093.59	1093.59	23828.65
1999	32628	79538	73100	94846	26341.48	10056.27	36397.75	-	827.04	827.04	35570.71
2000	32123	101788	95186	97117	65879.24	7749.82	73629.06	-	1057.80	1057.80	72571.26
2001	31972	106744	98977	106155	59768.00	8179.00	67947.00	-	7941.00	7941.00	60006.00
2002	32894	110148	101840	110053	69522.00	7655.00	77177.00	-	9243.00	9243.00	67934.00
2003(P)	33015	118511	110099	113084	81161.00	9103.00	90264.00	-	15791.00	15791.00	74473.00

(P) = Provisional

Source: PPAC.

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

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

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
1960-61	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	6872	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	34087	51942	48690	46789	4089.35	2254.71	6344.06	0	695.56	695.56	5648.50
1990-91	32160	51772	48562	57745	6118.42	4660.21	10778.63	0	1003.92	1003.92	9774.71
1991-92	30345	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	16221.14
1994-95	32494	56534	52927	70646$	10316.03	7521.71	17837.74	0	1587.38	1587.38	16250.36
1995-96	35168	58741	55081	78069$	11517.00	12577.85	24094.85	0	1831.98	1831.98	22262.87
1996-97	32900	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$	14917.00	12276.00	27193.00	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	32426	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	8219.00	8219.00	59427.00
2002-03	33044	112559	104140	111776$	76195.00	8847.00	85042.00	0	10868.00	10868.00	74174.00
2003-04(P)	33373	121840	113463	115991$	83528.00	9723.00	93251.00	0	16781.00	16781.00	76470.00

(e) Estimated (P) Provisional $ Includes RBF & consumption by pvt. parties.

Source: PSUs & PPAC

1.6(a) PETROLEUM ENERGY IN INDIA 1990 TO 2003 (CALENDAR YEARS)

PRODUCTS	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9	10	11
				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	10.83
ATF	1.74	2.15	2.34	2.19	2.26	2.17	2.52	2.43	2.28	2.50
HSD	20.90	31.18	35.46	37.32	36.77	38.46	37.25	37.14	36.96	36.25
LDO	1.53	1.36	1.29	1.24	1.33	1.50	1.65	1.58	2.09	1.71
FUEL OILS	9.31	6.34	6.65	6.89	6.99	7.37	12.43	8.45	12.54	12.52
OTHERS *	8.66	10.96	12.05	13.90	16.54	14.38	14.68	21.48	23.21	25.29
TOTAL	**50.78**	**62.23**	**68.07**	**71.70**	**75.34**	**74.38**	**78.77**	**81.37**	**87.75**	**89.10**
				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	21.66
ATF	3.48	4.30	4.68	4.38	4.52	4.34	5.04	4.86	4.56	5.00
HSD	41.80	62.36	70.92	74.64	73.54	76.92	74.50	74.28	73.92	72.50
LDO	3.06	2.72	2.58	2.48	2.66	3.00	3.30	3.16	4.18	3.42
FUEL OILS	18.62	12.68	13.30	13.78	13.98	14.74	24.86	16.90	25.08	25.04
OTHERS *	17.32	21.92	24.10	27.90	33.08	28.76	29.36	42.96	46.42	50.58
TOTAL	**101.56**	**124.46**	**136.14**	**143.40**	**150.68**	**148.76**	**157.54**	**162.74**	**175.50**	**178.20**
				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	86.64
ATF	13.05	16.12	17.55	16.43	16.95	16.28	18.90	18.23	17.10	18.75
HSD	188.10	280.62	319.14	335.08	330.93	346.14	335.25	334.26	332.64	326.25
LDO	13.17	12.24	11.61	11.16	11.97	13.50	14.85	11.06	18.81	15.39
FUEL OILS	18.62	12.66	13.30	13.78	13.98	14.74	24.86	16.90	25.08	25.04
OTHERS *	51.31	54.78	64.47	74.37	88.49	77.65	85.87	81.62	88.89	94.58
TOTAL	**353.98**	**458.34**	**508.31**	**532.90**	**553.92**	**552.31**	**561.65**	**544.39**	**567.88**	**566.65**
				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	9.49
ATF	1.73	2.01	2.17	2.11	2.10	2.15	2.24	2.27	2.26	2.39
HSD	21.18	30.90	34.28	36.40	36.62	39.29	38.31	36.89	36.61	36.18
LDO	1.51	1.32	1.23	1.21	1.27	1.46	1.46	1.23	1.35	1.24
FUEL OILS	9.10	10.44	10.78	10.92	11.14	11.65	11.25	11.66	11.80	11.59
OTHERS *	8.68	11.46	12.49	13.08	13.89	16.29	19.89	21.12	22.96	24.65
TOTAL	**50.62**	**65.41**	**70.58**	**73.46**	**75.46**	**81.56**	**83.85**	**78.80**	**84.78**	**85.54**
				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	18.98
ATF	3.46	4.02	4.34	4.22	4.20	4.30	4.47	4.54	4.52	4.78
HSD	42.36	61.84	68.56	72.80	73.24	78.58	76.62	73.78	73.22	72.36
LDO	3.02	2.64	2.40	2.42	2.54	2.92	2.92	2.46	2.70	2.48
FUEL OILS	18.20	20.88	21.56	21.84	22.28	23.30	22.51	14.00	23.60	23.18
OTHERS *	17.36	22.96	24.99	26.16	27.78	32.58	39.78	14.24	45.92	49.30
TOTAL	**101.24**	**130.90**	**141.11**	**146.92**	**150.96**	**163.12**	**167.70**	**157.60**	**169.56**	**171.08**
				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	75.92
ATF	12.98	15.08	16.28	15.83	15.75	16.13	16.77	17.03	16.95	17.93
HSD	190.62	278.10	308.52	327.60	329.58	353.61	344.79	332.01	329.49	325.62
LDO	13.59	11.88	11.07	10.89	11.43	13.14	13.14	8.61	12.15	11.16
FUEL OILS	18.20	20.88	21.56	21.84	22.28	23.30	22.51	14.00	23.60	23.18
OTHERS *	51.45	61.31	66.82	69.98	74.31	87.97	114.77	180.26	87.09	91.97
TOTAL	**354.20**	**461.49**	**501.34**	**524.06**	**537.03**	**579.91**	**597.57**	**634.23**	**547.68**	**545.78**

(P)=Provisonal

@ : Based on conversion factors adopted by FPC, 1974

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

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

1.6(b) PETROLEUM ENERGY IN INDIA 1990-91 TO 2003-04 (FINANCIAL YEARS)

PRODUCTS	1990-91	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8	9	10	11
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	10.99
ATF	1.83	2.22	2.27	2.20	2.29	2.25	2.51	2.40	2.36	2.63
HSD	21.87	33.51	35.81	37.43	37.20	39.92	37.46	37.04	37.14	37.24
LDO	1.51	1.35	1.29	1.25	1.34	1.62	1.48	1.70	2.08	1.66
FUEL OILS	9.43	10.79	10.99	12.15	14.20	7.48	12.61	13.17	12.30	13.02
OTHERS *	8.75	10.60	11.02	13.15	15.70	15.57	15.89	22.21	24.02	25.64
TOTAL	52.20	68.74	71.90	76.69	81.89	77.80	80.58	86.59	88.63	91.18
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	21.98
ATF	3.66	4.44	4.54	4.40	4.58	4.50	5.02	4.82	4.72	5.26
HSD	43.74	67.02	71.62	74.86	74.40	79.84	74.92	73.82	74.28	74.48
LDO	3.02	2.70	2.58	2.50	2.68	3.24	2.96	3.40	4.16	3.32
FUEL OILS	18.86	21.58	21.98	24.30	28.40	14.96	25.22	16.86	24.60	26.04
OTHERS *	17.50	21.20	22.04	26.30	31.40	31.14	31.78	44.42	48.04	51.28
TOTAL	104.40	137.48	143.80	153.38	163.78	155.60	161.16	163.46	177.26	182.36
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	87.92
ATF	13.72	16.65	17.03	16.50	17.18	16.88	18.83	18.08	17.70	19.73
HSD	196.83	301.59	322.29	336.87	334.80	359.28	336.70	332.19	334.26	335.16
LDO	13.59	12.15	11.61	11.25	12.06	14.58	10.36	11.90	18.72	14.94
FUEL OILS	18.86	10.79	21.98	24.30	28.40	14.96	25.22	16.86	24.60	26.04
OTHERS *	51.93	56.71	58.96	70.35	84.00	84.08	76.73	84.40	92.18	95.38
TOTAL	365.41	482.05	516.03	543.35	565.72	577.46	552.88	543.99	573.30	579.17
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	10.23
ATF	1.68	2.08	2.15	2.11	2.11	2.20	2.25	2.26	2.27	2.48
HSD	21.14	32.26	35.02	36.07	37.22	39.30	37.96	36.55	36.64	37.07
LDO	1.51	1.31	1.22	1.24	1.28	1.51	1.40	1.59	2.06	1.62
FUEL OILS	8.99	11.16	11.51	11.49	12.51	12.45	12.65	12.98	12.74	12.95
OTHERS *	8.68	11.84	12.71	13.50	14.56	17.87	20.53	22.01	23.57	25.44
TOTAL	50.42	68.58	72.76	75.48	79.92	85.23	86.10	85.82	87.69	89.79
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	20.46
ATF	3.36	4.16	4.30	4.22	4.22	4.40	4.50	4.52	4.54	4.96
HSD	42.28	64.52	70.04	72.14	74.44	78.60	75.92	73.10	73.28	74.14
LDO	3.02	2.62	2.44	2.48	2.56	3.02	2.80	3.18	4.12	3.24
FUEL OILS	17.98	22.32	23.02	22.98	25.02	24.90	25.30	25.96	25.48	25.90
OTHERS *	17.36	23.68	25.42	27.00	29.12	35.74	41.06	44.02	47.14	50.88
TOTAL	100.84	137.16	145.52	150.96	159.84	170.46	172.20	171.64	175.38	179.58
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	81.84
ATF	12.60	15.60	16.13	15.83	15.83	16.50	16.88	16.95	17.03	18.60
HSD	190.26	290.34	315.18	324.63	334.98	353.70	341.64	328.95	329.76	333.63
LDO	13.59	11.79	10.98	11.16	11.52	13.59	12.60	14.31	18.54	14.58
FUEL OILS	17.98	22.32	23.02	22.98	25.02	24.90	25.30	25.96	25.48	25.90
OTHERS *	51.41	70.62	75.62	79.62	85.44	94.39	76.63	82.04	88.77	94.30
TOTAL	353.20	490.11	522.13	542.78	570.71	598.28	563.53	551.65	562.86	568.85

(P)=Provisonal

@ : Based on conversion factors adopted by FPC, 1974

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

(#) : 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 2003-04

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
2003-04	72	232	508	29	89	229	101	321	737
	(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
2003-04	13	33	109	-	-	-	13	33	10
	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
2003-04	85	265	617	29	89	229	114	354	846

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
2003-04*	107	282	158	330	265	612
		(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
2003-04*	30	87	59	142	89	229
		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	37?	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
2003-04*	137	369	217	472	354	841

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
2003	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
2003	682	95	153	54	47	58	1089
			(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
2003	4465	596	2450	88	867	741	9207
			(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
2003	5840	691	2908	142	914	802	11297

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

II. 4 STATEWISE GEOLOGICAL SURVEYS ACHIEVEMENTS UPTO 31.3.2004

STATES	GEOLOGICAL SURVEYS (Sq. Km)
1	2
Andhra Pradesh	53427
A.N. Islands	6860
Arunachal Pradesh	3692
Assam	48073
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	**401156**

Source: ONGC and OIL.

*: In addition 179.95 LKM of traversing of geological survey has been done in Himachal Pradesh.

II.5 STATEWISE ACHIEVEMENTS OF GEOPHYSICAL FIELD PARTIES IN INDIA SINCE INCEPTION UPTO 31.3.2004

AREA / STATE	2D		3 D
	LK	GLK	SQK
1	2	3	4
OIL INDIA LTD.			
(A) ONSHORE			
Assam / Arunachal Pradesh		21591.19	2023.02
Rajasthan		11923.00	300.00
Orissa		4277.68	0.00
UP & Uttaranchal		6171.35	0.00
Total(A)		**43963.22**	**2323.02**
(B) OFFSHORE			
Orissa	13842		
Andaman	201		
Saurashtra	8767		332
Total(B)	**22810**		**332**
OIL & NATURAL GAS CORPORATION LTD.			
(A) ONSHORE			
		2 D	**3 D**
		GLK/LK	**GLK/LK**
Andhra Pradesh		37565.19	1876.30
Assam		30095.97	2135.30
Bihar including Jharkhand		6566.00	0.00
Gujarat		103850.09	3502.90
Himachal Pradesh		3899.42	0.00
Haryana		1038.00	0.00
Jammu& Kashmir		2563.00	0.00
Madhya Pradesh including Chhattisgarh		9437.76	0.00
Meghalaya		204.55	0.00
Mizoram		35.00	0.00
Nagaland		558.00	0.00
Orissa		313.00	0.00
Punjab		4078.00	0.00
Rajasthan		20489.00	79.27
Tamil Nadu		39947.18	1810.88
Tripura		5005.60	0.00
Uttar Pradesh including Uttaranchal		29222.71	0.00
West Bengal		29243.00	210.00
TOTAL ONSHORE		**324111.47**	**9614.65**
(B) OFFSHORE			
West Coast		451325.83	39758.89
East Coast		128809.60	11386.84
TOTAL OFFSHORE		**580135.43**	**51145.73**
TOTAL ONGC		**904246.90**	**60760.38**

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

II.6 BASINWISE/STATEWISE ACHEIVEMENT OF DRILLING

SINCE INCEPTION UPTO 31.3.2004

BASIN	STATE/REGION	Wells Numbers	Metreage ('000')
A. ONSHORE			
Cambay	Gujarat	5196	9071
Rajasthan	Rajasthan	118	230
Kutch-Saurashtra	Madhya Pradesh	3	12
Gulf of Cambay	Gulf of Cambay	4	8
	Total WRBC	**5321**	**9321**
Upper Assam	Assam (Including Nagaland & Meghalaya)	2338	7605
Assam-Arakan	Arunachal Pradesh	56	137
Fold Belt	Mizoram under ERBC	1	3
	Total ERBC	**2395**	**7745**
Assam-Arakan	Tripura	111	313
Foot hills &	West Bengal	31	125
Ganga Valley	Bihar	6	30
	Orissa	4	9
	Mizoram under CRBC	1	3
	Total CRBC	**153**	**480**
Himalayan Foot-hills,	Himachal Pradesh	11	43
Ganga Valley &	Punjab	4	16
Vindhyan/Gondwana	Uttar Pradesh	8	28
	Madhya Pradesh under NRBC	2	7
	Jammu & Kashmir	4	12
	Total NRBC	**29**	**106**
Krishna-Godavari	Andhra Pradesh	391	1161
Cauvery	Tamil Nadu	449	1144
	Total SBRC	**840**	**2305**
TOTAL ONSHORE		**8738**	**19957**
B. OFFSHORE			
East Coast	East Coast including KG, Cauvery Andaman Offshore and Bengal Offshore	190	611
West Coast	West Coast including drilling in deep water, Kerala-Konkan and Kutch-Saurashtra	1905	4415
B. TOTAL OFFSHORE		**2095**	**5026**
TOTAL (A+B)		**10833**	**24983**

II.7 STATE-WISE/BASIN-WISE OIL AND GAS FIELDS IN INDIA AS ON 1.4.2004

(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	0	5	67	72
Assam	Upper Assam	0	0	27	27
	AAFB	0	3	4	7
Nagaland	AAFB	0	0	0	0
Rajasthan	Jaisalmer	0	7	0	7
Andhra Pradesh	K.G. Basin	0	30	11	41
Tamil Nadu	Cauvery	0	8	17	25
Tripura	AAFB	0	7	0	7
b) OFFSHORE					
East Coast	Andaman	0	0	0	0
	K.G. Basin	0	2	5	7
	Cauvery	0	0	0	0
West Coast	Mumbai Offshore	0	15	52	67
	Cambay	0	0	0	0
	Kutch	0	0	1	1
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	0	14	14
Arunachal Pradesh	AAFB	0	0	1	1
b) OFFSHORE					
East Coast	PY-1/Ravva	0	0	2	2
West Coast	MS Tapti	0	0	2	2
	Panna Mukta	0	0	2	2
	Cambay	0	0	1	1
Grand Total		**1**	**80**	**216**	**297**

AAFB : Assam Arakan Fold Belt. *: Heavy Oil

@: There are around 55 oil and gas fields structures including small structures in OIL's area of operation.

Source: ONGC, OIL and DGH.

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	148.09	173.79	3.77	5.97	348.11	60.82	740.55
2003	146.08	180.85	4.45	7.38	336.69	85.66	761.11

@ : 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 (CALENDER 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	-	-	451	-	-	451	10234
1965	158	1742	-	1122	3022	-	-	3022	18711
1970	107	3070	-	3632	6809	-	-	6809	48410
1975	68	3087	-	5128	8283	-	-	8283	85939
1980	41	796	-	4033	4870	4529	-	9399	138292
1985	-	2635	-	6580	9215	20645	-	29860	255892
1990	-	2692	-	9252	11944	20724	-	32668	415124
1991	-	2578	-	9035	11613	19393	-	31006	446130
1992	-	2486	-	8779	11265	16609	-	27874	474004
1993	-	2738	-	8688	11426	15082	-	26508	500512
1994	-	2899	-	9107	12006	18900	64	30970	531482
1995	-	2867	17	9050	11934	22656	458	35048	566530
1996	-	2858	37	8640	11535	20526	925	32986	599516
1997	-	3040	41	8388	11469	20088	2274	33831	633347
1998	-	3246	66	8215	11527	18605	2674	32806	666153
1999	-	3298	95	7878	11271	17378	3979	32628	698781
2000	-	3269	80	8318	11667	16474	3982	32123	730904
2001	-	3256	72	8612	11940	15991	4041	31972	762876
2002	-	2987	73	8535	11595	17203	4096	32894	795770
2003	-	2946	73	8374	11393	17523	4099	33015	828785

(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

III. 3 COMPANY WISE PRODUCTION OF CRUDE OIL IN INDIA
(Financial Year)

(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
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	-	2647	9137	-	11784	20376	-	32160	423370
1991-92	-	2529	8855	-	11384	18961	-	30345	453715
1992-93	-	2523	8681	-	11204	15746	-	26950	480665
1993-94	-	2811	8840	-	11651	15375	-	27026	507691
1994-95	-	2883	9130	4	12017	20226	251	32494	540185
1995-96	-	2882	8971	26	11879	22665	624	35168	575353
1996-97	-	2870	8504	38	11412	20181	1307	32900	608253
1997-98	-	3094	8387	42	11523	19863	2472	33858	642111
1998-99	-	3295	8100	77	11472	18285	2965	32722	674833
1999-00	-	3283	7921	94	11298	16727	3924	31949	706782
2000-01	-	3286	8428	77	11791	16629	4006	32426	739208
2001-02	-	3182	8636	71	11889	16074	4069	32032	771240
2002-03	-	2951	8445	75	11471	17560	4013	33044	804284
2003-04*	-	3002	8380	74	11456	17677	4240	33373	837657

* 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.

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	Andhra Pradesh/ Tamil Nadu	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	-	1056	3812	4870	-	4529	9399
1985	60	-	4879	4576	9515	-	20645	30160
1990	39	314	5192	6399	11944	-	20724	32668
1991	41	313	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	6378	11934	458	22656	35048
1996	36	389	4832	6278	11535	925	20526	32986
1997	39	374	5058	5998	11469	2274	20088	33831
1998	72	442	5105	5908	11527	2674	18605	32806
1999	100	504	4947	5720	11271	3979	17378	32628
2000	84	631	5183	5769	11667	3982	16474	32123
2001	68	746	5150	5976	11940	4041	15991	31972
2002	72	705	4787	6031	11595	4096	17203	32894
2003	75	662	4535	6121	11393	4099	17523	33015
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	41	316	5070	6357	11784	-	20376	32160
1991-92	41	319	4989	6035	11384	-	18961	30345
1992-93	59	352	4986	5807	11204	-	15746	26950
1993-94	49	537	5089	5976	11651	-	15375	27026
1994-95	34	656	5044	6283	12017	251	20226	32494
1995-96	28	418	5046	6386	11878	624	22665	35167
1996-97	36	381	4811	6184	11412	1307	20181	32900
1997-98	39	390	5116	5978	11523	2472	19863	33858
1998-99	83	449	5080	5860	11472	2965	18285	32722
1999-00	100	523	4972	5703	11298	3924	16727	31949
2000-01	78	699	5199	5815	11791	4006	16629	32426
2001-02	68	724	5095	6002	11889	4069	16074	32032
2002-03	74	695	4660	6042	11471	4013	17560	33044
2003-04	77	656	4592	6131	11456	4240	17677	33373

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
2003	96.22	164.37	42.07	24.76	392.66	133.40	853.48

@ : 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								OFFSHORE			Grand
	Assam/ Nagaland	Gujarat	Rajasthan	Tamil Nadu	Andhra Pradesh	Tripura	Arunachal Pradesh	Total	Eastern Offshore	Bombay High/ Western Offshore	Total	Total
						Calender 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	1985	2082	-	74	603	101	49	4894	-	13229	13229	18123
1994	1937	2395	-	89	646	94	39	5200	4	14231	14235	19435
1995	1861	2796	8	115	660	122	33	5595	18	15813	15831	21426
1996	1939	2935	12	99	732	156	30	5903	42	17430	17472	23375
1997	1987	3118	110	93	975	176	28	6487	235	18574	18809	25296
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	2032	3486	116	390	2023	418	6 $	8471	829	21442	22271	30742
2003*	2210	3537	171	593	1959	506	9 $	8985	892	22329	23221	32206

*: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	1881	2887	12	117	679	130	33	5739	15	16888	16903	22642
1996-97	1942	2956	10	92	800	154	29	5983	80	17193	17273	23256
1997-98	2017	3175	149	95	1023	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	20673	21042	28446
2000-01	2226	3149	160	200	1604	376	10$	7725	369	21383	21752	29477
2001-02	2022	3280	100	349	1797	416	3$	7967	574	21173	21747	29714
2002-03	2076	3531	162	466	2038	446	7$	8726	831	21832	22663	31389
2003-04*	2239	3517	168	605	1927	508	9$	8973	923	22066	22989	31962

*: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	2408	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	3149	2407	436	2713
2001-02	3280	2396	401	2879
2002-03	3531	2829	322	3209
2003-04	3517	2945	128	3389
Rajasthan				
1995-96	12	12	0	12
1996-97	10	10	0	10
1997-98	149	145	0	149
1998-99	164	159	0	164
1999-00	151	147	0	151
2000-01	160	155	0	160
2001-02	100	95	0	100
2002-03	162	158	0	162
2003-04	168	163	2	166
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	622	1316
1995-96	1914	1005	404	1510
1996-97	1971	1206	269	1702
1997-98	2046	1272	270	1776
1998-99	2094	1252	322	1772
1999-00	2128	1351	237	1891
2000-01	2236	1478	219	2017
2001-02	2025	1326	179	1846
2002-03	2083	1363	185	1898
2003-04	2248	1506	201	2047

$: 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	1	307
1999-00	353	352	0	353
2000-01	376	375	0	376
2001-02	416	415	0	416
2002-03	446	445	0	446
2003-04	508	507	0	508
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	125	73	127
2001-02	349	249	98	251
2002-03	466	377	88	378
2003-04	605	535	68	537
Andhra Pradesh				
1990-91	47	42	5	42
1995-96	679	670	0	679
1996-97	800	789	1	799
1997-98	1023	1011	2	1021
1998-99	1218	1197	9	1209
1999-00	1363	1333	16	1347
2000-01	1604	1569	24	1580
2001-02	1797	1770	18	1779
2002-03	2038	2009	18	2020
2003-04	1927	1903	13	1914

$: 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*
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	1084	2731
1995-96	5739	4244	780	4959
1996-97	5983	4584	669	5315
1997-98	6684	5153	681	6003
1998-99	7168	5483	799	6370
1999-00	7404	5781	721	6683
2000-01	7725	6109	752	6973
2001-02	7967	6251	696	7271
2002-03	8726	7181	613	8113
2003-04	8973	7559	412	8561
OFFSHORE				
1980-81	673	292	366	307
1985-86	5180	2520	2113	3067
1990-91	14082	8616	4047	10035
1995-96	16903	13589	930	15973
1996-97	17273	13602	1263	16010
1997-98	19717	15933	1175	18542
1998-99	20260	16678	924	19336
1999-00	21042	17456	840	20202
2000-01	21752	17961	865	20887
2001-02	21747	17940	981	20766
2002-03	22663	18690	812	21851
2003-04	22989	19151	644	22345
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	12766
1995-96	22642	17833	1710	20932
1996-97	23256	18186	1932	21324
1997-98	26401	21086	1856	24545
1998-99	27428	22161	1723	25706
1999-00	28446	23237	1561	26885
2000-01	29477	24070	1617	27860
2001-02	29714	24191	1677	28037
2002-03	31389	25871	1425	29964
2003-04	31962	26710	1056	30906

$: Includes internal consumption

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

(Million Cubic Metres)

Year	Onshore						Offshore			Grand Total
	Gujarat	Assam	Tripura	Andhra Pradesh**	Tamil Nadu	Total	Mumbai High	JVC	Total	
1	2	3	4	5	6	7	8	9	10	11
1970-71	310	337	-	-	-	647	-	-	-	-
1975-76	637	487	-	-	-	1124	-	-	-	1124
1980-81	696	519	-	-	-	1215	307	-	307	1522
1985-86	801	1082	-	-	-	1883	3067	-	3067	4950
1990-91	1294	1316	70	42	9	2731	10035	-	10035	12766
1991-92	1580	1248	81	144	12	3065	11377	-	11377	14442
1992-93	1717	1310	115	501	19	3662	12454	-	12454	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	2619	1510	130	679	21	4959	15966	7	15973	20932
1996-97	2616	1702	154	799	43	5314	15975	35	16010	21324
1997-98	2963	1776	196	1021	47	6003	17227	1315	18542	24545
1998-99	3043	1772	307	1209	39	6370	16769	2567	19336	25706
1999-00	3005	1891	353	1347	87	6683	17058	3144	20202	26885
2000-01	2873	2017	376	1580	127	6973	17705	3182	20887	27860
2001-02	2979	1846	416	1779	251	7271	17439	3327	20766	28037
2002-03	3371	1898	446	2020	378	8113	17643	4208	21851	29964
2003-04*	3555	2047	508	1914	537	8561	17235	5110	22345	30906

*: 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 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
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	408	370	6390	12765
1991-92	4774	766	108	72	2165	-	7885	5509	532	516	6557	14442
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	1204	10461	26886
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	1215	10197	29964
2003-04*	11478	3099	142	93	4865	1263	20940	7889	1128	949	9966	30906

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

V. REFINING

V.1 PETROLEUM REFINING CAPACITY IN INDIA AS ON 1.4.2004

(Million Tonnes per annum)

	Refinery	Year of Commissioning	Installed Capacity as on 1.4.2004
	1	2	3
(a) PUBLIC SECTOR REFINERIES			**94.37**
I.	IOC REFINERIES		41.35
	IOC, Digboi	1901	0.65
	IOC, Guwahati	1962	1.00
	IOC, Barauni	1964	6.00
	IOC, Koyali	1965	13.70
	IOC, Haldia	1974	6.00
	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		10.50
	CPCL, Manali	1969	9.50
	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			33.00
I.	RPL, Jamnagar	1999	33.00
	Total (a+b)		**127.37**

V.2(a) REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961 TO 2003

(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
			(Calender 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
2003	86350	32161	118511	80405	29694	110099

V.2(b) REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961-62 TO 2003-04

(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
2003-04	89495	32345	121840	83397	30066	113463

V. 3 REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1990-91 TO 2003-04

(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
2003-04										
Total Production	584	8259	5707	7145	739	3815	12029	4112	7932	5818
Crude Run	602	8757	6108	7591	891	4304	12758	4518	8248	6338

V. 3 REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1990-91 TO 2003-04

(000 Tonnes)

Year	KRL(CRL) Kochi	CPCL (MRL) Manali	CPCL (MRL) Narimanam	BRPL Assam	NRL Numali-garh	MRPL Mangalore	ONGC Tatipaka	RPL Jam-nagar	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
2003-04									
Total Production	7419	5827	645	1963	1961	9352	90	30066	113463
Crude Run	7854	6387	653	2126	2200	10069	91	32345	121840

V.4(a) PRODUCTION OF PETROLEUM PRODUCTS 1991 TO 2003
CALENDAR YEARS

(000 Tonnes)

PRODUCTS	Production							% Variation	
	1991	1995	1999	2000	2001	2002	2003	2002/2001	2003/2002
1	2	3	4	5	6	7	8	9	10
(a) From Crude Oil									
1. Light Distillates	**9544**	**12258**	**16186**	**24836**	**25856**	**27642**	**31098**	**6.9**	**12.5**
of which									
LPG	1229	1533	2045	3993	4530	4831	5185	6.6	7.3
Mogas	3453	4367	5898	7849	9232	10133	10906	9.8	7.6
Naphtha	4423	5924	7423	9966	9267	9363	10782	1.0	15.2
SBPS / Hexane	133	132	116	81	93	87	77	-6.5	-11.5
2. Middle Distillates	**26296**	**29560**	**41377**	**52534**	**54064**	**54872**	**58315**	**1.5**	**6.3**
of which									
Kerosene	5270	5315	5108	8321	9514	10062	9906	5.8	-1.6
ATF/RTF/Jet A-1	1656	2026	2213	2509	2610	2702	4180	3.5	54.7
HSD	17259	20348	32012	39469	39785	39490	41966	-0.7	6.3
LDO	1499	1364	1499	1560	1578	2090	1705	32.4	-18.4
JBO	83	92	76	62	45	44	42	-2.2	-4.5
MTO	148	169	247	227	207	238	232	15.0	-2.5
3. Heavy Ends	**12076**	**12561**	**15537**	**17816**	**19057**	**19326**	**20686**	**1.4**	**7.0**
of which									
Furnace Oil	4982	5512	6704	6250	7435	7602	8107	2.2	6.6
LSHS/HHS/RFO	4434	4092	4734	4995	4752	4644	4661	-2.3	0.4
Total Fuel Oils	9416	9604	11438	11245	12187	12246	12768	0.5	4.3
Lube Oils	410	582	654	700	696	645	667	-7.3	3.4
Bitumen	1676	1922	2459	2697	2512	2847	3268	13.3	14.8
Petroleum Coke	229	259	318	2054	2845	2522	2696	-11.4	6.9
Paraffin Wax	45	43	43	53	44	42	51	-4.5	21.4
Other Waxes	44	61	70	66	45	6	3	-86.7	-50.0
Total Waxes	89	104	113	119	89	48	54	-46.1	12.5
4. Total Production	**47916**	**54379**	**73100**	**95186**	**98977**	**101840**	**110099**	**2.9**	**8.1**
5. Crude Throughput	**50954**	**57971**	**79538**	**101788**	**106744**	**110148**	**118511**	**3.2**	**7.6**
(b) From Natural Gas									
LPG	1173	1599	1986	2040	2116	2350	2366	11.1	0.7

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991	1995	1999	2000	2001	2002	2003
Light Distillates	18.7	21.1	20.4	24.4	24.2	25.1	26.2
Middle Distillates	51.6	51.0	52.0	51.6	50.6	49.8	49.2
Total Fuel Oils	18.5	16.6	14.4	11.0	11.4	11.1	10.8
Lubes	0.8	1.0	0.8	0.7	0.7	0.6	0.6
Bitumen	3.3	3.3	3.1	2.6	2.4	2.6	2.8
Others	1.1	0.8	1.2	3.1	3.4	3.3	3.4
Total Production	**94.0**	**93.8**	**91.9**	**93.5**	**92.7**	**92.5**	**92.9**
RBF & Losses / inventories	6.0	6.2	8.1	6.5	7.3	7.5	7.1
Crude Throughput	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*: Provisional

V.4(b) PRODUCTION OF PETROLEUM PRODUCTS 1991-92 TO 2003-04 FINANCIAL YEARS

('000' Tonne)

PRODUCTS	Production							% Variation	
	1991-92	1995-96	1999-00	2000-01	2001-02	2002-03	2003-04*	2002-03 / 2001-02	2003-04 / 2002-03
1	2	3	4	5	6	7	8	9	10
(a) From Crude Oil									
1. Light Distillates	**9673**	**12433**	**18314**	**25048**	**26539**	**28619**	**31971**	**7.8**	**11.7**
of which									
LPG	1250	1539	2487	4088	4778	4903	5348	2.6	9.1
Mogas	3420	4462	6232	8070	9699	10361	10999	6.8	6.2
Naphtha	4546	5975	8170	9908	9180	9650	11317	5.1	17.3
SBPS / Hexane	135	150	106	93	84	82	89	-2.4	8.5
2. Middle Distillates	**26371**	**29941**	**44995**	**52445**	**54409**	**55937**	**60018**	**2.8**	**7.3**
of which									
Kerosene	5339	5267	5735	8714	9681	10028	10187	3.6	1.6
ATF/RTF/Jet A-1	1539	2127	2292	2513	2595	3053	4289	17.6	40.5
HSD	17404	20661	34793	39052	39899	40207	43316	0.8	7.7
LDO	1482	1351	1624	1481	1703	2079	1659	22.1	-20.2
JBO	82	95	70	57	44	47	43	6.8	-8.5
MTO	143	180	249	214	212	243	242	14.6	-0.4
3. Heavy Ends	**12305**	**12707**	**16102**	**18121**	**19056**	**19584**	**21474**	**2.8**	**9.7**
of which									
Furnace Oil	5430	5351	6559	6479	7488	7529	8737	0.5	16.0
LSHS/HHS/RFO	4207	4228	4793	4913	4739	4638	4635	-2.1	-0.1
Total Fuel Oils	9637	9579	11352	11392	12227	12167	13372	-0.5	9.9
Lube Oils	390	633	728	684	651	684	666	5.1	-2.6
Bitumen	1710	2032	2485	2721	2561	2941	3397	14.8	15.5
Petroleum Coke	216	256	465	2473	2784	2659	2743	-4.5	3.2
Paraffin Wax	44	43	47	51	45	42	53	-6.7	26.2
Others Waxes	46	63	70	61	37	3	-	-91.9	-
Total Waxes	90	106	117	112	82	45	53	-45.1	17.8
4. Total Production	**48349**	**55081**	**79411**	**95614**	**100004**	**104140**	**113463**	**4.1**	**9.0**
5. Crude Throughput	**51423**	**58741**	**85964**	**103444**	**107274**	**112559**	**121840**	**4.9**	**8.2**
(b) From Natural Gas									
LPG	1235	1715	1986	2045	2205	2370	2320	7.5	-2.1

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991-92	1995-96	1999-00	2000-01	2001-02	2002-03	2003-04*
Light Distillates	18.8	21.2	21.3	24.2	24.7	25.4	26.2
Middle Distillates	51.3	51.0	52.3	50.7	50.7	49.7	49.3
Total Fuel Oils	18.7	16.3	13.2	11.0	11.4	10.8	11.0
Lubes	0.8	1.1	0.8	0.7	0.6	0.6	0.5
Bitumen	3.3	3.5	2.9	2.6	2.4	2.6	2.8
Others	1.1	0.8	1.8	3.2	3.4	3.4	3.3
Total Production	**94.0**	**93.8**	**92.4**	**92.4**	**93.2**	**92.5**	**93.1**
RBF & Losses / inventories	6.0	6.2	7.6	7.6	6.8	7.5	6.9
Crude Throughput	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*: Provisional

VI.1(a) PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING 1996 TO 2003

(Qty: '000' Tonnes)

Products	1996	1997	1998	1999	2000	2001	2002	2003	% to total	Change % 2003/ 2002
1	2	3	4	5	6	7	8	9	10	11
1 Light Distillates	**14034**	**15269**	**17232**	**19870**	**21627**	**22851**	**23369**	**24293**	**21.5**	**4.0**
LPG	4121	4451	4887	5640	6596	7179	7849	8828	7.8	12.5
Mogas	4932	5109	5430	5776	6438	6940	7485	7758	6.9	3.6
Naphtha	3795	4453	5973	7921	8089	8261	7465	7116	6.3	-4.7
SBP/Hexane	212	222	174	145	128	111	109	130	0.1	19.3
Others	974	1034	768	388	376	360	461	461	0.4	0.0
2 Middle Distillates	**47826**	**49923**	**50905**	**54141**	**53257**	**51250**	**50631**	**49879**	**44.1**	**-1.5**
SKO	9627	9743	10460	10715	10699	10285	9804	9490	8.4	-3.2
ATF/Jet A-1	2171	2111	2101	2146	2236	2272	2257	2394	2.1	6.1
HSDO	34275	36400	36619	39291	38310	36892	36611	36182	32.0	-1.2
LDO/MDO	1233	1212	1266	1461	1460	1234	1347	1236	1.1	-8.2
JBO/Wash Oil	94	93	81	73	70	48	44	44	0.0	0.0
MTO	195	185	186	232	220	206	235	226	0.2	-3.8
Others	231	179	192	223	262	313	333	307	0.3	-7.8
3 Heavy Ends	**14207**	**14272**	**14796**	**15962**	**15378**	**15549**	**16018**	**16216**	**14.3**	**1.2**
Furnace Oil	6502	6570	6745	7084	6206	7005	7080	7018	6.2	-0.9
LSHS/HHS	4282	4346	4390	4663	5047	4659	4717	4572	4.0	-3.1
Fuel oils (Total)	10784	10916	11135	11747	11253	11664	11797	11590	10.2	-1.8
Lubes/Greases	690	786	848	950	801	794	949	831	0.7	-12.4
Bitumen/Asphalt	2206	2174	2343	2707	2781	2410	2705	3196	2.8	18.2
Petroleum Coke	329	227	286	324	371	409	324	319	0.3	-1.5
Wax	122	87	85	152	107	105	57	60	0.1	5.3
Others	76	82	99	82	65	167	186	220	0.2	18.3
4 Total (PSUs))	**76067**	**79464**	**82933**	**89973**	**90262**	**89650**	**90018**	**90388**	**79.9**	**0.4**
5 Pvt. sales	na	na	na	na	na	9510	12407	14633	12.9	17.9
6 TOTAL	**76067**	**79464**	**82933**	**89973**	**90262**	**99160**	**102425**	**105021**	**92.9**	**2.5**
7 RBF	3433	3518	3574	4873	6855	6995	7628	8063	7.1	5.7
8 Grand Total	**79500**	**82982**	**86507**	**94846**	**97117**	**106155**	**110053**	**113084**	**100.0**	**2.8**

Source: Petroleum Planning & Analysis Cell.

VI.1(b) PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING 1995-96 TO 2003-04

(000'Tonne)

Products	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	%Growth 2003-04/ 2002-03
1	2	3	4	5	6	7	8	9	10	11
1 Light Distillates of which	**13701**	**14544**	**17866**	**20531**	**24531**	**29314**	**29618**	**31755**	**34099**	**7.4**
LPG	3922	4267	4803	5352	6421	7016	7728	8351	9305	11.4
Mogas	4679	4955	5182	5507	5909	6613	7011	7570	7895	4.3
Naphtha	4154	4030	6590	8891	10801	11673	11728	11929	11868	-0.5
NGL	0	682	768	330	91	6	27	32	0	-100.0
Others	946	610	523	451	1309	4006	3124	3873	5031	29.9
2 Middle Distillates of which	**46082**	**49051**	**50903**	**53330**	**55434**	**53467**	**51439**	**52065**	**52024**	**-0.1**
SKO	9932	10153	11065	12243	11898	11307	10432	10405	10230	-1.7
ATF	2082	2154	2108	2112	2197	2249	2256	2269	2481	9.3
HSDO	32261	35019	36071	37217	39295	37958	36546	36644	37074	1.2
LDO	1311	1223	1235	1278	1512	1399	1592	2063	1619	-21.5
Others	496	502	424	480	532	554	613	684	620	-9.4
3 Heavy Ends of which	**15048**	**15573**	**15521**	**16701**	**17121**	**17293**	**19375**	**20306**	**21628**	**6.5**
Furnace Oil @	6971	7194	7168	7973	7690	7664	8451	8027	8312	3.6
LSHS/HHS	4189	4313	4323	4537	4763	4989	4531	4711	4633	-1.7
Lubes/Greases	956	1013	1081	1097	1243	1115	1137	1250	1426	14.1
Bitumen	2005	2273	2178	2412	2879	2774	2584	2986	3373	13.0
Petroleum Coke	319	276	227	393	328	1845	1798	2563	2877	12.3
Paraffin Wax	76	58	28	36	53	43	45	41	42	2.4
Other Waxes	57	57	45	76	89	62	51	13	20	53.8
Others	475	389	471	177	76	330	775	715	945	32.2
TOTAL	**74831**	**79168**	**84290**	**90562**	**97086**	**100074**	**100432**	**104126**	**107751**	**3.5**
Refinery Fuel	3238	3490	3514	3700	5544	6900	7273	7650	8240	7.7
Grand Total	**78069**	**82658**	**87804**	**94262**	**102630**	**106974**	**107705**	**111776**	**115991**	**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

(000'Tonne)

Products	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*	%Change 2003-04/ 2002-03
1	2	3	4	5	6	7	8	9	10	11
					A. PUBLIC SECTOR					
1 Light Distillates	**13143**	**14384**	**15742**	**17958**	**20473**	**21770**	**22916**	**23567**	**24948**	**5.9**
LPG	3849	4184	4581	5041	6029	6613	7310	8143	9089	11.6
Mogas	4679	4955	5182	5507	5909	6613	7011	7570	7895	4.3
Naphtha	3669	4015	4716	6652	7970	8059	8128	7284	7329	0.6
NGL	0	682	768	330	91	6	27	32	0	-100.0
Others	946	548	495	428	474	479	440	538	635	18.0
2 Middle Distillates	**45460**	**48544**	**49716**	**51686**	**54259**	**52854**	**50661**	**50555**	**50549**	**0.0**
SKO	9317	9646	9878	10599	10731	10714	10114	9707	9426	-2.9
ATF	2082	2154	2108	2112	2197	2249	2256	2269	2481	9.3
HSDO	32254	35019	36071	37217	39287	37938	36515	36534	36875	0.9
LDO	1311	1223	1235	1278	1512	1399	1202	1413	1181	-16.4
Others	496	502	424	480	532	554	574	632	586	-7.3
3 Heavy Ends	**13915**	**14296**	**14380**	**15122**	**15919**	**15362**	**15515**	**16002**	**16633**	**3.9**
Furnace Oil	6496	6534	6651	6767	6816	6371	7085	6941	7207	3.8
LSHS/HHS	4189	4313	4323	4537	4763	4989	4531	4711	4633	-1.7
Lubes/Greases	712	705	835	885	915	797	819	938	815	-13.1
Bitumen	2005	2273	2178	2412	2879	2618	2428	2847	3367	18.3
Petroleum Coke	319	276	227	315	328	414	367	335	308	-8.1
Paraffin Wax	76	58	28	36	53	43	45	41	42	2.4
Other Waxes	57	57	45	76	89	62	51	13	20	53.8
Others	61	80	93	94	76	68	189	176	241	36.9
Total (A) (Excl. RBF)	**72518**	**77224**	**79838**	**84766**	**90651**	**89986**	**89092**	**90124**	**92130**	**2.2**
					B. PRIVATE SECTOR					
1 Light Distillates	**558**	**160**	**2124**	**2573**	**4058**	**7544**	**6702**	**8188**	**9151**	**11.8**
LPG	73	83	222	311	392	403	418	208	216	3.8
Naphtha / NGL	485	15	1874	2239	2831	3614	3600	4645	4539	-2.3
Benzene	0	0	0	23	33	8	0	0	0	-
Others	0	62	28	0	802	3519	2684	3335	4396	31.8
2 Middle Distillates	**622**	**507**	**1187**	**1644**	**1175**	**613**	**778**	**1510**	**1475**	**-2.3**
SKO	615	507	1187	1644	1167	593	318	698	804	15.2
HSDO	7	0	0	0	8	20	31	110	199	80.9
LDO	0	0	0	0	0	0	390	650	438	-32.6
Others	0	0	0	0	0	0	39	52	34	-34.6
3 Heavy Ends	**1133**	**1277**	**1141**	**1579**	**1202**	**1931**	**3860**	**4304**	**4995**	**16.1**
Furnace Oil / LSHS	475	660	517	1206	874	1293	1366	1086	1105	1.7
Lubes/Greases	244	308	246	212	328	246	318	312	611	95.8
Bitumen	0	0	0	0	0	96	156	139	6	-95.7
Petroleum Coke	0	0	0	78	0	34	1431	2228	2569	15.3
CBFS	0	*0*	*0*	*83*	*0*	*230*	*75*	*74*	*177*	*139.2*
Others	*414*	*309*	*378*	*0*	*0*	*32*	*514*	*465*	*527*	*13.3*
Total (B)	**2313**	**1944**	**4452**	**5796**	**6435**	**10088**	**11340**	**14002**	**15621**	**11.6**
TOTAL (A+B)	74831	79168	84290	90562	97086	100074	100432	104126	107751	3.5
Refinery Fuel	3238	3490	3514	3700	5544	6900	7273	7650	8240	7.7
Grand Total	**78069**	**82658**	**87804**	**94262**	**102630**	**106974**	**107705**	**111776**	**115991**	**3.8**

*: Provisional

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	106155	9.3	2001-02	107705	0.7
2002	110053	3.7	2002-03	111776	3.8
2003	113084	2.8	2003-04	115991	3.8

Note : i) Consumption includes refinery fuel from 1960/1960-61 onwards. Prior to that refinery fuel not available.

ii) Consumption includes imports by private parties in respect of calender years from 2001 onwards.

Prior to that data was not available for 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 1980-81 TO 2003-04

(Qty. ' 000' Tonnes)

Year	% S/C	IOC	B.Shell/ BPCL	Esso/ HPCL	IBP Pvt.	Other COs	Imports by Pvt. Parties	TOTAL
1980-81	S/C	18494	5297	5596	1034	475	-	30896
	%	59.9	17.1	18.1	3.3	1.5	-	100.0
1985-86	S/C	23840	7580	7638	1552	262	-	40872
	%	58.3	18.5	18.7	3.8	0.6	-	100.0
1990-91	S/C	31426	10377	10576	2284	372	-	55035
	%	57.1	18.9	19.2	4.2	0.7	-	100.0
1991-92	S/C	32362	10688	11047	2498	379	-	56974
	%	56.8	18.8	19.4	4.4	0.7	-	100.0
1992-93	S/C	32906	11409	11511	2686	390	-	58902
	%	55.9	19.4	19.5	4.6	0.7	-	100.0
1993-94	S/C	33501	12099	12011	2860	341	-	60812
	%	55.1	19.9	19.8	4.7	0.6	-	100.0
1994-95	S/C	36359	13160.0	12588	2990	390	2027	67514
	%	53.9	19.5	18.6	4.4	0.6	3.0	100.0
1995-96	S/C	39858	14763	14151	3273	473	2313	74831
	%	53.3	19.7	18.9	4.4	0.6	3.1	100.0
1996-97	S/C	42054	15732	15460	3471	507	1944	79168
	%	53.1	19.9	19.5	4.4	0.6	2.5	100.0
1997-98	S/C	43465	16356	16000	3597	420	4452	84290
	%	51.6	19.4	19.0	4.3	0.5	5.3	100.0
1998-99	S/C	45489	17445	16249	3772	1811	5796	90562
	%	50.2	19.3	17.9	4.2	2.0	6.4	100.0
1999-00	S/C	49391	18894	17497	4133	736	6435	97086
	%	50.9	19.5	18.0	4.3	0.8	6.6	100.0
2000-01	S/C	47812	19368	17887	3959	960	10088	100074
	%	47.8	19.4	17.9	4.0	1.0	10.1	100.0
2001-02	S/C	47151	19047	17499	3747	1648	11340	100432
	%	46.9	19.0	17.4	3.7	1.6	11.3	100.0
2002-03	S/C	46336	19843	18228	3769	1948	14002	104126
	%	44.5	19.1	17.5	3.6	1.9	13.4	100.0
2003-04*	S/C	46778	20297	18577	4162	2316	15621	107751
	%	43.4	18.8	17.2	3.9	2.1	14.5	100.0

S/C : sales/consumption

* = Provisional

Source : M -16 Report of PPAC

Note : Consumption excludes RBF

VI.3 DELIVERIES MADE TO INTERNATIONAL/COASTAL BUNKERS DURING 1990-91 TO 2003-04

(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	2003-04
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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	47.0
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	2.8
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	12.1
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**	**61.9**
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	96.0
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	173.2
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	23.0
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**	**292.2**
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	143.0
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	176.0
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	35.1
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**	**354.1**

Source : M6 Report of PPAC

VI.4 STATE-WISE CONSUMPTION OF MAJOR PETROLEUM PRODUCTS DURING 2003-04*

('000' Tonnes)

State/UT	Naphtha	LPG	Petrol	SKO	ATF HHS	Diesel Greases	LDO	FO	LSHS/	Lubes &	Bitumen	Others	TOTAL
A. States													
Region: North													
Jammu & Kashmir	0	91	80	151	25	311	7	1	1	7	44	0	718
Punjab	15	489	449	252	35	2112	28	205	651	30	118	12	4396
Rajasthan	837	385	333	407	57	2684	30	353	44	25	284	17	5456
Uttar Pradesh	1173	978	673	1238	91	4208	106	471	95	52	305	168	9558
Haryana	71	355	272	149	19	2021	53	263	369	26	172	21	3791
Himachal Pradesh	0	73	58	49	7	285	3	17	8	4	33	2	539
Uttaranchal	0	118	68	95	0	320	12	29	40	5	32	0	719
Chandigarh	0	31	57	11	24	63	2	6	5	2	6	0	207
Delhi	0	550	612	182	623	1128	65	20	3	17	20	53	3273
Total	**2096**	**3070**	**2602**	**2534**	**881**	**13132**	**306**	**1365**	**1216**	**168**	**1014**	**273**	**28657**
Region: North East													
Assam	12	145	89	265	51	411	7	38	29	6	28	151	1232
Manipur	0	18	13	21	2	31	0	0	0	0	11	0	96
Meghalaya	0	11	23	22	0	152	0	0	0	1	9	1	219
Nagaland	0	11	12	13	1	21	0	0	0	0	11	0	69
Tripura	0	18	13	30	2	44	0	1	0	1	12	0	121
Arunachal Pradesh	0	9	11	11	1	39	1	1	0	1	14	0	88
Mizoram	0	17	10	7	0	23	1	0	0	0	9	0	67
Total	**12**	**229**	**171**	**369**	**57**	**721**	**9**	**40**	**29**	**9**	**94**	**152**	**1892**
Region: East													
Bihar	0	223	115	637	5	1046	7	21	0	9	53	95	2211
Orissa	0	113	144	314	15	877	27	263	1	17	64	9	1844
West Bengal	466	455	217	768	110	1831	116	351	0	55	137	128	4634
Jharkhand	0	80	116	214	4	763	49	111	0	24	51	1	1413
Sikkim	0	7	5	14	0	30	1	1	0	0	5	0	63
Andaman & Nikobar	0	4	6	6	7	52	0	0	0	1	5	0	81
Total	**466**	**882**	**603**	**1953**	**141**	**4599**	**200**	**747**	**1**	**106**	**315**	**233**	**10246**

Contd...

VI.4 STATE-WISE CONSUMPTION OF MAJOR PETROLEUM PRODUCTS DURING 2003-04*

('000' Tonnes)

State/UT	Naphtha	LPG	Petrol	SKO	ATF HHS	Diesel Greases	LDO	FO	LSHS/	Lubes	Bitumen	Others	TOTAL
Region: West													
Goa	257	39	59	21	28	264	4	144	0	3	13	22	854
Gujarat	1477	526	661	759	61	2122	209	733	1175	45	312	244	8324
Madhya Pradesh	223	354	296	484	31	1512	44	410	3	26	194	172	3749
Maharashtra	969	1345	1137	1324	758	3416	265	1250	1249	171	360	224	12468
Chhattisgarh	0	79	96	146	4	520	5	99	10	12	67	3	1041
Dadra & Nagarhav.	0	8	7	3	0	112	4	56	0	46	7	3	246
Daman & Diu	0	4	7	3	1	47	2	14	0	0	1	3	82
Total	**2926**	**2355**	**2263**	**2740**	**883**	**7993**	**533**	**2706**	**2437**	**303**	**954**	**671**	**26764**
Regio: South													
Andhra Pradesh	140	727	573	526	87	3457	51	308	104	48	382	99	6502
Kerala	713	411	422	227	87	1320	4	457	144	38	130	157	4110
Tamilnadu	673	838	709	573	227	3036	29	1052	611	103	270	220	8341
Karnataka	303	547	502	483	118	2372	47	493	87	35	195	22	5204
Lakshdeep	0	0	0	1	0	7	0	0	0	0	0	0	8
Pondicherry	0	25	42	13	0	198	2	37	4	2	2	2	327
Total	**1829**	**2548**	**2248**	**1823**	**519**	**10390**	**133**	**2347**	**950**	**226**	**979**	**500**	**24492**
Region: Outside India													
Bhutan	0	4	7	8	0	41	1	2	0	1	6	0	70
Nepal	0	0	0	0	0	0	0	1	0	2	5	1	9
Total	**0**	**4**	**7**	**8**	**0**	**41**	**1**	**3**	**0**	**3**	**11**	**1**	**79**
PSUs Total	**7329**	**9088**	**7894**	**9427**	**2481**	**36876**	**1182**	**7208**	**4633**	**815**	**3367**	**1830**	**92130**
Sales by Private @	4539	216	2	804	0	199	438	1105	@	611	6	7701	15621
Grant Total	**11868**	**9304**	**7896**	**10231**	**2481**	**37075**	**1620**	**8313**	**4633**	**1426**	**3373**	**9531**	**107751**

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	96-97	97-98	98-99	99-00	2000-01	2001-02	2002-03	2003-04
A. States								
1. Andhra Pradesh	71.6	73.9	78.7	86.9	82.9	83.5	84.5	85.9
2. Arunachal Pradesh	102.1	77.1	79.6	92.4	78.8	77.0	79.7	80.0
3. Assam	41.9	38.4	39.9	43.8	44.0	46.4	42.9	46.3
4. Bihar	35.6	35.0	36.9	37.9	39.7	27.8	25.1	26.7
5. Chhattisgarh			44.0	47.2	50.0			
6. Delhi	289.9	263.6	243.8	267.2	235.5	223.9	226.4	237.2
7. Goa	580.3	532.9	443.7	582.1	612.4	595.2	589.3	656.9
8. Gujarat	187.2	186.8	202.2	215.9	190.0	176.3	169.4	164.5
9. Haryana	147.9	140.2	149.1	173.6	172.0	176.7	180.4	179.7
10. Himachal Pradesh	64.5	60.5	65.4	78.1	86.7	87.4	89.8	88.4
11. Jammu & Kashmir	56.6	56.7	57.8	64.2	61.2	65.5	69.3	71.1
12. Jharkhand			13.1	41.1	52.0	52.5		
13. Karnataka	83.5	79.3	79.4	85.7	84.3	92.1	93.4	98.7
14. Kerala	91.0	94.3	98.7	113.3	119.8	107.5	120.8	129.2
15. Madhya Pradesh	51.6	51.9	51.3	57.6	68.1	57.5	57.9	62.1
16. Maharashtra	139.0	138.2	134.4	139.2	129.3	128.4	127.0	128.8
17. Manipur	40.9	32.6	31.0	36.7	32.6	27.6	59.4	40.0
18. Meghalaya	79.1	68.0	71.4	79.0	69.0	72.4	82.0	95.2
19. Mizoram	59.5	55.2	50.0	59.5	62.9	64.0	68.5	74.4
20. Nagaland	46.0	39.2	44.0	39.9	29.2	29.2	32.7	34.5
21. Orissa	47.3	46.4	46.1	45.3	45.2	44.5	49.5	50.2
22. Pondicherry			263.9	260.8	299.8	327.0		
23. Punjab	184.8	185.4	189.8	195.7	173.0	184.2	182.9	180.9
24. Rajasthan	81.6	78.6	82.1	89.5	85.1	88.1	92.4	96.6
25. Sikkim	70.2	66.7	64.2	73.5	72.2	74.1	98.1	126.0
26. Tamilnadu	111.4	112.1	123.0	135.2	135.0	131.1	135.9	134.3
27. Tripura	29.2	26.4	27.4	30.3	33.2	34.2	37.0	37.8
28. Uttar Pradesh	55.6	56.4	58.8	61.6	60.2	53.7	54.7	57.5
29. Uttaranchal			20.9	80.3	80.0	84.6		
30. West Bengal	52.2	49.6	51.0	58.4	58.5	63.6	58.5	57.8
B. Union Territories								
1. Chandigarh	261.5	260.5	276.2	362.8	275.2	225.3	226.4	230.0
2. Daman & Diu and Dadra & Nagar Haveli	451.9	603.3	625.8	634.9	537.0	529.1	754.0	820.0
3. Others	200.0	195.1	202.7	242.0	329.2	172.7	232.6	178.0
Total All India @	**86.2**	**90.1**	**92.2**	**102.0**	**104.2**	**104.9**	**108.1**	**112.9**

PER CAPITA CONSUMPTION OF SELECTED PETROLEUM PRODUCTS

(Unit : Kg)

Product	96-97	97-98	98-99	99-00	2000-01	2001-02	2002-03	2003-04
Naphatha	4.4	4.9	6.4	8.1	7.8	11.4	11.5	7.1
MS	5.2	5.4	5.7	6.0	6.4	6.8	7.3	7.7
SKO	9.6	10.3	10.9	10.9	10.4	10.2	10.1	9.2
HSDO	36.0	37.8	38.0	40.0	36.9	35.6	35.5	35.9
LDO	1.3	1.3	1.3	1.5	1.4	1.6	2.0	1.1
F.O (Regular)	7.1	7.0	6.7	6.9	6.2	8.2	7.8	7.0
LSHS/HHS	4.7	4.5	4.7	4.9	4.9	4.4	4.6	4.5
Total All India Sales @	**86.2**	**90.1**	**92.2**	**102.0**	**104.2**	**104.9**	**108.1**	**112.9**

@ = Includs Ref. fuel & international bunkers upto the year 1995-96, later on pvt. imports also included.
Note : Population figures taken CSO's publication 'Selected Socio-Economic Statistics, India 2002".

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

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03		2003-04*	
	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total
			LPG					
1. Domestic	5432	74.6	6067	76.4	6820	78.8	7589	81.6
2. Commercial/Industry	1009	13.9	1050	13.2	1105	12.8	1109	11.9
3. Transport sector	5	0.1	5	0.1	6	0.1	5	0.1
4. Power Generation	2	0.0	2	0.0	3	0.0	5	0.1
5. Agricultural sector	3	0.0	5	0.1	4	0.0	5	0.1
6. Mining	2	0.0	2	0.0	4	0.0	2	0.0
7. Manufacturing								
i) Chemicals	66	0.9	45	0.6	72	0.8	59	0.6
ii) Engineering	26	0.4	23	0.3	21	0.2	29	0.3
iii) Metallergical	16	0.2	15	0.2	24	0.3	20	0.2
iv) Textiles	2	0.0	3	0.0	4	0.0	4	0.0
v) Consumer & Ind. Goods	22	0.3	23	0.3	29	0.3	31	0.3
Sub Total	**132**	1.8	**109**	1.4	**150**	1.7	**143**	1.5
8.Miscellaneous	160	2.2	179	2.3	201	2.3	231	2.5
9. Private Party sales	**403**	5.5	**418**	5.3	**208**	2.4	**216**	2.3
TOTAL	**7280**	100.0	**7946**	100.0	**8651**	100.0	**9305**	100.0
			SKO (Kerosene)					
1. Domestic	10214	90.3	9666	92.7	9279	89.2	8974	87.7
2. Commercial/Industry	96	0.8	70	0.7	63	0.6	100	1.0
3. Others	404	3.6	378	3.6	365	3.5	352	3.4
9. Private Party sales	**593**	5.2	**318**	3.0	**698**	6.7	**804**	7.9
TOTAL	**11307**	100.0	**10432**	100.0	**10405**	100.0	**10230**	100.0
			NAPHTHA					
1. Fertilizers	3618	31.0	3426	29.2	3027	25.4	3226	27.2
2. Petrochemicals	1989	17.0	2527	21.5	1455	12.2	1280	10.8
3. Power Plants	1298	11.1	994	8.5	1188	10.0	1105	9.3
4. Steel Plants	146	1.3	41	0.3	250	2.1	392	3.3
5. Others	1008	11.1	1140	9.7	1364	11.4	1326	11.2
6. Private Party sales	**3614**	31.0	**3600**	30.7	**4645**	38.9	**4539**	38.2
TOTAL	**11673**	100.0	**11728**	100.0	**11929**	100.0	**11868**	100.0

* : Provisional

Cont'd...

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

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03		2003-04*	
	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total
			HSDO					
1. TRANSPORT								
i) Road Transport	20471	53.9	19755	54.1	19897	54.3	19868	53.6
ii) Aviation	40	0.1	36	0.1	26	0.1	27	0.1
iii) Shipping	247	0.7	285	0.8	239	0.7	246	0.7
iv) Railways	1439	3.8	1586	4.3	1670	4.6	1631	4.4
Sub total (1)	**22197**	58.5	**21662**	59.3	**21832**	59.6	**21772**	58.7
2. PLANTATION/FOOD								
i) Sugar Mills	136	0.4	122	0.3	114	0.3	87	0.2
ii) Others (incl.Plan. of Food)	7361	19.4	7105	19.4	7164	19.6	7123	19.2
Sub total (2)	**7497**	19.8	**7227**	19.8	**7278**	19.9	**7210**	19.4
3. Power Generation (Utilities)	**2596**	6.8	**2509**	6.9	**2497**	6.8	**2526**	6.8
4. Industry								
i) Iron & Steel	102	0.3	87	0.2	92	0.3	81	0.2
ii) Textile & Fibre	416	1.1	266	0.7	140	0.4	96	0.3
iii) Cement	132	0.3	110	0.3	91	0.2	102	0.3
iv) Ceremic & Glass	59	0.2	46	0.1	28	0.1	17	0.0
v) Chemicals & Allied	165	0.4	135	0.4	116	0.3	104	0.3
vi) Aluminium	13	0.0	11	0.0	10	0.0	8	0.0
vii) Mining & Quarrying	642	1.7	629	1.7	641	1.7	664	1.8
viii) Engg. (Mech. & Elec.)	229	0.6	184	0.5	253	0.7	194	0.5
ix) Fertilizers	31	0.1	21	0.1	12	0.0	8	0.0
x) Other Industries & Construction	1343	3.5	1198	3.3	1165	3.2	1168	3.2
Sub total (4)	**3132**	8.3	**2687**	7.4	**2548**	7.0	**2442**	6.6
5. Misc. Services	**2516**	6.6	**2430**	6.6	**2379**	6.5	**2925**	7.9
6. Private Party sales	**20**	0.1	**31**	0.1	**110**	0.3	**199**	0.5
Total	**37958**	100.0	**36546**	100.0	**36644**	100.0	**37074**	100.0

*: Provisional.

Cont'd...

22509*

39655

38091 (PSU)

* excludes private consumption

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

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03		2003-04*	
	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total
			LDO					
1. TRANSPORT								
i) Road Transport	3	0.2	1	0.1	4	0.2	2	0.1
ii) Aviation	4	0.3	10	0.6	2	0.1	2	0.1
iii) Shipping	42	3.0	29	1.8	29	1.4	51	3.2
iv) Railways	3	0.2	4	0.3	3	0.1	2	0.1
v) Other Transport (incl. Agri. Retail Trade)	6	0.4	9	0.6	2	0.1	0	0.0
Sub total (1)	**58**	4.1	**53**	3.3	**40**	1.9	**57**	3.5
2. PLANTATION/FOOD								
i) Sugar Mills	2	0.1	4	0.3	6	0.3	2	0.1
ii) Others (incl.Plan. of Food)	44	3.1	47	3.0	50	2.4	44	2.7
Sub total (2)	**46**	3.3	**51**	3.2	**56**	2.7	**46**	2.8
3. Power Generation (Utilities)	**215**	15.4	**165**	10.4	**173**	8.4	**147**	9.1
4. Industry								
i) Iron & Steel	82	5.9	77	4.8	94	4.6	102	6.3
ii) Textile & Fibre	94	6.7	104	6.5	102	4.9	56	3.5
iii) Cement	36	2.6	31	1.9	31	1.5	17	1.1
iv) Ceremic & Glass	37	2.6	35	2.2	53	2.6	27	1.7
v) Chemicals & Allied	142	10.2	122	7.7	157	7.6	86	5.3
vi) Aluminium	5	0.4	8	0.5	7	0.3	5	0.3
vii) Mining & Quarrying	18	1.3	18	1.1	25	1.2	4	0.2
viii) Engg. (Mech. & Elec.)	80	5.7	76	4.8	88	4.3	66	4.1
ix) Fertilizers	17	1.2	1	0.1	4	0.2	1	0.1
x) Other Industries & Construction	170	12.2	149	9.4	193	9.4	363	22.4
Sub total (4)	**681**	48.7	**621**	39.0	**754**	36.5	**727**	44.9
5. Misc. Services	**399**	28.5	**312**	19.6	**390**	18.9	**250**	15.4
6. Private Party sales	**0**	0.0	**390**	24.5	**650**	31.5	**438**	27.1
Total	**1399**	100.0	**1592**	100.0	**2063**	100.0	**1619**	100.0

*: Provisional

Cont'd...

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

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03		2003-04*		2004-05
	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	
Furnace Oil									
1. TRANSPORT									
i) Road Transport	5	0.1	5	0.1	15	0.2	3	0.0	0
ii) Aviation	26	0.3	58	0.7	56	0.7	71	0.9	0
iii) Shipping	200	2.6	179	2.1	135	1.7	163	2.0	180
iv) Railways	12	0.2	11	0.1	8	0.1	8	0.1	0
v) Other Transport (incl. Agri. Retail Trade)	75	1.0	55	0.7	49	0.6	94	1.1	172
Sub total (1)	**318**	4.1	**308**	3.6	**263**	3.3	**339**	4.1	352
2. PLANTATION/FOOD									
i) Sugar Mills	9	0.1	8	0.1	7	0.1	9	0.1	—
ii) Others (incl.Plan. of Food)	267	3.5	314	3.7	369	4.6	243	2.9	—
Sub total (2)	**276**	3.6	**322**	3.8	**376**	4.7	**252**	3.0	—
3. Power Generation (Utilities)	**481**	6.3	**551**	6.5	**488**	6.1	**371**	4.5	314
4. Industry									
i) Iron & Steel	399	5.2	416	4.9	574	7.2	540	6.5	789
ii) Textile & Fibre	554	7.2	685	8.1	670	8.3	600	7.2	3
iii) Cement	404	5.3	446	5.3	301	3.7	271	3.3	3
iv) Ceremic & Glass	133	1.7	138	1.6	124	1.5	103	1.2	1
v) Chemicals & Allied	959	12.5	1274	15.1	1372	17.1	1166	14.0	208
vi) Aluminium	137	1.8	127	1.5	103	1.3	134	1.6	3
vii) Mining & Quarrying	133	1.7	146	1.7	214	2.7	227	2.7	0
viii) Engg. (Mech. & Elec.)	175	2.3	188	2.2	184	2.3	164	2.0	43
ix) Fertilizers	897	11.7	820	9.7	445	5.5	463	5.6	542
x) Other Industries & Construction	752	9.8	817	9.7	727	9.1	696	8.4	9
Sub total (4)	**4543**	59.3	**5057**	59.8	**4714**	58.7	**4364**	52.5	1562
5. Misc. Services	**753**	9.8	**847**	10.0	**1100**	13.7	**1881**	22.6	5827
6. Private Party sales@	**1293**	16.9	**1366**	16.2	**1086**	13 5	**1105**	13.3	1099
Total	**7664**	100.0	**8451**	100.0	**8027**	100.0	**8312**	100.0	9154

*: Provisional

- Cont'd...

@ LSHS Sales by private Parties is included in FO Sales

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

(Qty.'000'Tonnes)

SECTOR	2000-01		2001-02		2002-03		2003-04*	
	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total	Consum-ption	% to Total
			LSHS/HHS					
1. TRANSPORT	1	0.0	0	0.0	0	0.0	0	0.0
2. PLANTATION/FOOD								
i) Sugar Mills	0	0.0	0	0.0	0	0.0	0	0.0
ii) Others (incl.Plan. of Food)	22	0.4	21	0.5	44	0.9	5	0.1
Sub total (2)	**22**	0.4	**21**	0.5	**44**	0.9	**5**	0.1
3. Power Generation (Utilities)	**1657**	33.2	**1403**	31.0	**1639**	34.8	**1569**	33.9
4. Industry								
i) Iron & Steel	102	2.0	83	1.8	71	1.5	51	1.1
ii) Textile & Fibre	177	3.5	164	3.6	141	3.0	82	1.8
iii) Cement	63	1.3	67	1.5	33	0.7	32	0.7
iv) Ceremic & Glass	96	1.9	95	2.1	111	2.4	99	2.1
v) Chemicals & Allied	260	5.2	328	7.2	259	5.5	221	4.8
vi) Aluminium	6	0.1	6	0.1	2	0.0	2	0.0
vii) Mining & Quarrying	5	0.1	1	0.0	1	0.0	23	0.5
viii) Engg. (Mech. & Elec.)	273	5.5	251	5.5	253	5.4	223	4.8
ix) Fertilizers	1723	34.5	1489	32.9	1422	30.2	1430	30.9
x) Other Industries & Construction	243	4.9	251	5.5	401	8.5	100	2.2
Sub total (4)	**2948**	59.1	**2735**	60.4	**2694**	57.2	**2263**	48.8
5. Misc. Services	**361**	7.2	**372**	8.2	**334**	7.1	**796**	17.2
6. Private Party sales	@	-	@	-	@	-	@	0.0
Total	**4989**	100.0	**4531**	100.0	**4711**	100.0	**4633**	100.0

* : Provisional.

@ : 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 2003-04

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
2003-04	N.A.	N.A.	N.A.

Source: Railway Board, New Delhi.

NA: Not Available.

VI. 8 INDUSTRY/PLANT-WISE OFFTAKES OF NAPHTHA DURING THE YEARS 1997-98 TO 2003-04

(Qty: ' 000' MTs)

Category and Plant	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
I. Fertilizer Plant:							
Madras Fertilizers	98	216	228	233	176	209	203
HFC, Durgapur	6	0	0	0	0	0	0
HCF, Barauni	51	22	0	0	0	0	0
SFC, Kota	181	190	183	142	160	172	159
Duncans Ind. Ltd.	358	382	352	310	297	0	0
RFP, Rourkela	113	114	65	46	18	11	0
GSFC, Baroda	65	114	59	66	104	46	85
FACT, Cochin	148	169	174	136	199	167	158
ZAC, Goa	281	205	243	196	216	185	197
IFFCO, Phulpur	432	657	628	701	656	688	652
IFFCO, Kalol	78	106	116	113	46	99	121
MCFL, Mangalore	140	165	127	152	186	167	150
SPIC, Tuticorin	275	265	308	310	270	259	272
GNFC, Bharuch	neg.	neg.	0	0	0	0	0
FACT, Alwaye	36	80	10	0	0	0	0
Coromandal Ferts. Vizag	76	60	3	0	0	0	0
NFL, Nangal	53	47	13	0	35	25	15
Others	1013	1090	1382	1468	1473	1619	1913
Sub Total	3404	**3882**	**3891**	**3873**	**3836**	**3647**	**3925**
II. Petrochemical Plants:							
BRPL, Bongaigaon	0	0	0	0	0	0	0
HOC, Rasayani	8	6	8	3	5	5	5
IPCL, Baroda	455	412	512	551	515	218	0
Nocil, Mumbai	260	221	186	255	190	11	0
RCF(Mathonal), Mumbai	-	-	-	0	0	0	0
Rama Ptro Chemicals	43	23	6	0	0	0	0
Reliance ind. Ltd.	364	516	486	360	480	423	399
National Peroxide	4	4	4	5	4	5	5
Oswal agro	65	7	0	0	0	0	0
RCF, Thal	-	-	0	0	0	0	0
Others	146	273	130	475	896	585	511
Sub Total	**1345**	**1462**	**1332**	**1649**	**2090**	**1247**	**920**
III. Others :							
Essar Power Ltd.	-	-	232	39	66	132	26
Essar Steel Ltd.	-	-	279	126	12	4	0
Dabhol Power Corpn.	-	-	0	77	47	0	0
L&T Rajoula	-	-	52	62	69	66	73
IPCL, Dahej	-	-	186	282	256	78	0
NTPC, Kayamkulam	-	-	313	343	230	370	369
A.P.Gas Power Corpn.	-	-	193	86	7	12	31
NTPC, Kawas	-	-	127	369	410	500	490
Gujarat Ind. Power Corpn.	-	-	146	68	3	69	5
NTPC, Auriya	0	0	95	140	111	111	157
Gujarat Alkali	0	0	51	57	32	1	0
HCL, Khetri	neg.	2	2	1	1	0	0
others	760	1523	948	905	973	1070	1074
Sub Total	**760**	**1525**	**2624**	**2555**	**2217**	**2413**	**2225**
Grand Total (I+II+III)	**5509**	**6869**	**7846**	**8076**	**8143**	**7307**	**7070**

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

VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1997-98 TO 2003-04

(Qty: '000' MTs)

Category and Plant	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
			(1) POWER				
A.Northern:	**161.0**	**149.4**	**116.5**	**71.8**	**63.1**	**57.6**	**47.9**
NTPC Unchahar	-	-	9.5	2.8	2.7	0.0	0.0
TPS Obra	11.1	21.3	21.0	21.2	20.1	16.4	12.5
TPS Hardwaganj	4.5	8.5	7.6	2.7	2.5	2.4	1.4
BTPS Badarpur	1.4	0.0	1.2	0.3	0.0	0.0	0.0
GNTP Bhatinda	2.9	13.8	2.7	2.6	3.0	2.8	1.4
TPS Paricha	5.9	11.4	10.3	3.1	5.4	8.7	4.0
NTPS Singraull	1.5	1.4	NA	5.6	2.7	1.3	2.9
NTPS Rihand	1.4	1.4	NA	1.4	0.0	0.0	1.4
KTPS Kota	14.3	7.9	1.4	1.3	0.0	1.4	0.0
DVB Delhi	21.2	11.4	7.0	6.8	2.6	2.9	11.3
HSEB Faridabad	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TPS Ropar	19.4	14.5	14.3	10.6	7.5	7.2	5.8
TPS Panipat	46.5	33.3	13.7	8.2	16.6	13.1	7.2
HWP Rawatbhatta	30.9	24.5	27.8	0.0	0.0	0.0	0.0
Lehra Mohabbat, BTI		5.2	0.0	1.4	0.0		
B. Eastern:	**110.4**	**99.4**	**113.0**	**114.7**	**111.6**	**112.9**	**96.8**
NTPC Kahalgaon	-	-	4.6	4.3	1.4	2.9	2.8
ASEB Chandrapura	42.6	30.8	11.2	0.0	0.0	0.0	0.0
CTPS Chandrapura	21.8	21.3	34.2	35.3	29.8	24.1	12.7
NTPC Farakka	28.2	33	19.0	14.1	9.9	15.7	19.8
BTPS Barauni	7.1	6.3	10.3	5.7	4.3	1.4	2.8
TTPS Talchar	0.0	3.1	1.4	0.0	0.0	0.0	0.0
BTPS Salakati	10.7	4.9	3.7	4.2	2.7	0.0	0.0
MCCPTA Haldia				24.1	24.7	23.7	13.5
Others				27.0	38.8	45.1	45.2
C. Wastern:	**1594.5**	**1268.8**	**1229.8**	**1645.2**	**1409.0**	**1447.0**	**1538.1**
GEB Dhuwaran	686.4	507.5	611.1	643.4	472.6	401.4	447.1
GEB Ukai	46.2	18.4	20.3	10.5	15.9	8.1	12.7
GEB Gandhinagar	38.2	39.2	39.6	22.0	1.4	7.5	19.6
AECO Sabarmati	13.7	9.7	5.9	4.2	6.0	1.5	0.0
GEB Wanakbari	12.6	9.9	8.7	7.3	5.8	8.9	12.6
MPEB Sarani	18.4	16.3	8.4	16.0	23.8	16.6	7.6
MSEB Koradi	12.2	20.3	15.4	18.2	14.0	21.6	17.6
MSEB Chandrapur	30.7	27.0	6.6	13.8	17.2	10.4	4.2
MPEB Dhari	7.1	5.7	4.0	0.0	0.0	0.0	0.0
MSEB Nasik	7.4	11.3	7.3	7.5	16.6	10.6	11.0
MSEB Bhusawal	5.6	8.2	4.8	4.8	8.3	11.1	10.3
MSEB Paras	0.9	0.0	0.0	0.2	0.7	0.8	0.0
MSEB Parli	25.6	15.4	15.1	9.8	11.2	15.2	12.3
NTPC Korba	2.8	4.6	5.6	4.2	1.4	0.0	1.4
MPEB Korba	10.3	8.1	9.3	7.1	18.4	7.1	4.3
TATA Thermal	663.3	554	448.6	813.8	746.9	899.4	709.6
MPEB Chachai	4.4	4.7	3.5	5.9	11.6	7.1	10.0
NTPC Waldhan	3.0	4.4	13.0	23.9	4.3	1.3	1.3
MSEB Kaperkheda	5.7	4.1	2.6	15.3	19.4	7.4	5.3
MPEB Birsingpur	-	-	-	17.3	13.5	11.0	4.3

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Source : Industrial Performance Review, IOC Ltd. *= Provisional. NA: Not Available.

VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1997-98 TO 2003-04

(Qty. ' 000' MTs)

Category and Plant	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
D. Southern :	**198.8**	**227.1**	**666.8**	**702.6**	**860.4**	**811.4**	**548.1**
GMR Vasavi	-	-	248.6	230.8	232.8	226.9	159.5
TTPS Tutikorin	7.8	5.5	5.9	8.3	4.6	3.5	2.4
KTPS Palvancha	18.0	24.6	13.1	12.8	9.1	6.6	6.3
RTPS Raichur	2.3	12.2	17.3	12.1	6.8	1.3	2.6
MTPP Metturdam	5.3	35.3	24.1	4.0	0.9	0.0	0.4
NLC Thermal Neyveli	21.1	16.0	20.3	79.7	58.8	34.9	0.0
HWP Manuguru	10.3	7.8	3.1	4.7	2.9	0.2	0.0
KEB Yellahanka	123.5	117.9	129	128.1	151.0	136.4	77.1
VTPS Ibrahimpatnam	5.6	4.1	2.7	4.5	2.6	1.3	1.2
RTPS Kalkamalla	4.9	2.3	2.5	3.6	0.0	1.3	1.4
NMTP Chennai	-	-	69.2	59.1	33.6	12.6	6.1
Samalpatti	-	-	-	0.0	86.0	130.5	96.0
Kerala SEB	-	-	-	89.4	38.3	6.9	0.0
Tata Power	-	-	-	0.0	131.4	56.9	57.4
Balaji power	-	-	-	0.0	57.8	128.5	85.1
Others	-	1.4	131.0	65.5	43.8	63.6	52.6
Total Power (A+B+C+D)	**2064.7**	**1744.7**	**2126.1**	**2534.3**	**2444.1**	**2428.9**	**2230.9**
		(II) Fertilizer Plants					
A. Northern:	**1083.4**	**1056.9**	**1062.1**	**816.9**	**959.0**	**842.6**	**932.9**
IFFCO Anola	-	-	1.5	4.3	0.0	0.0	12.7
Indo Gulf, Jagdishpur	64.3	49.9	37.9	11.3	0.0	0.0	0.0
NFL, Nangal	303.1	297.1	280.0	210.7	291.2	260.9	293.1
NFL, Bhatinda	330.2	306.1	334.0	237.7	310.3	265.0	275.8
NFL, Panipat	335.9	296.4	304.8	290.7	288.5	258.6	292.6
IFFCO, Phulpur	48.5	107.4	103.9	62.2	69.0	58.1	58.7
SFC, Kota	1.4	0.0	0.0	0.0	0.0	0.0	0.0
B. Eastern:	**197.8**	**197.7**	**229.3**	**204.2**	**79.3**	**28.0**	**14.9**
Oswal Fertilizers	NA	NA	0.0	18.2	17.6	8.9	2.5
HFC Durgapur	2.7	0.0	0.0	0.0	0.0	0.0	0.0
FCI Sindri	173.2	183.6	200.8	179.8	58.6	0.0	0.0
FCI Barauni	11.5	6.0	0.0	0.0	0.0	0.0	0.0
FCI Talchar	10.4	8.1	1.5	0.0	0.0	0.0	0.0
Paradeep Phosphate	NA	NA	27.0	6.2	3.1	19.1	12.4
C. Wastern:	**709.0**	**753.4**	**740.5**	**720.3**	**717.8**	**646.8**	**678.0**
RCF Mumbai	-	-	45.6	11.6	0.0	0.0	0.0
ZAC Goa	124.1	93.8	98.6	96.0	105.8	101.3	101.2
IFFCO Kalol	39.4	45.1	38.0	51.6	50.1	44.6	41.9
GSFC Baroda	139.4	134.0	116.6	110.8	115.9	76.1	64.9
GNFC Bharuch	406.1	480.5	441.7	450.3	446.0	424.8	470.0
D. Southern :	**623.0**	**599.4**	**544.4**	**472.3**	**665.7**	**727.8**	**463.4**
MFL Madras	100.3	145.1	139.0	126.6	114.1	125.3	114.1
MCFL Mangalore	71.7	91.2	69.7	73.1	80.9	85.2	78.5
FACT Cochin	135.7	83.3	114.8	120.7	309.0	358.7	156.3
NLC	78.9	55.7	11.2	0.0	0.0	0.0	0.0
SPIC Tuticorin	178.3	170.6	188.3	132.9	139.4	141.4	100.6
FCI Ramagundam	11.4	13.6	0.0	0.0	0.0	0.0	0.0
Coromandal Fertilizers	46.7	39.9	21.4	19.0	22.3	17.2	11.9
Total Fertilizers (A+B+C+D)	**2613.2**	**2607.4**	**2576.3**	**2213.7**	**2421.8**	**2245.2**	**2089.2**

Source : Industrial Performance Review, IOC Ltd. '*= Provisional. NA: Not Available

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VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1997-98 TO 2003-0

(Qty: ' 000' MTs)

Category and Plant	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
(III) Petrochemical Plants							
C. Wastern:							
Herdilla Chemicals Ltd	NA	NA	7.8	9.1	11.7	7.5	0
IPCL Baroda	76.0	85.8	37.3	31.1	24.8	46.6	84.9
NOCIL Mumbai	2.9	0.0	0.0	0.0	1.2	2.4	2.0
Reliance Ind. Mumbai	67.2	105.3	49.2	48.2	90.0	123.5	137.9
Sub Total (C)	**146.1**	**191.1**	**94.3**	**88.4**	**127.7**	**180.0**	**224.8**
D. Southern :							
FACT Udagamandal	9.7	18.8	6.2	0.0	62.2	0.0	0.0
NTPL Chennai	45.2	59.7	68.6	69.7	65.5	83.1	53.0
Sub Total (D)	**54.9**	**78.5**	**74.8**	**69.7**	**127.7**	**83.1**	**53.0**
Total Petrochemicals (C+D)	**201.0**	**269.6**	**169.1**	**158.1**	**255.4**	**263.1**	**277.8**
(IV) Steel Plants							
B.Eastern:							
RSP Rourkela	41.7	25.9	7.1	8.5	8.2	16.2	7.1
ASP Durgapur	14.3	9.6	8.4	7.4	11.3	8.1	3.3
TISCO Jamshedpur	0.0	0.0	1.0	0.0	0.1	0.5	0.0
BSP Bokaro	17.4	11.1	18.4	14.5	16.6	7.1	6.3
SAIL Patratu	9.9	12.3	12.6	2.9	9.3	0.0	0.1
Sub Total (B)	**83.3**	**58.9**	**47.5**	**33.3**	**45.5**	**31.9**	**16.8**
C.Wastern:							
HSL, Bhilai	14.4	14.4	15.7	13.0	8.7	10.0	9.5
Sub Total (C)	**14.4**	**14.4**	**15.7**	**13.0**	**8.7**	**10.0**	**9.5**
D.Southern:							
Essar Steels	NA	NA	20.0	42.0	23.1	37.1	43.6
Jindal Steel	NA	NA	11.5	6.1	7.9	0.0	0.0
Vizag Steel Plant	3.7	12.6	21.8	3.8	0.0	0.9	0.0
VISL Bhadravati	NA	NA	7.9	9.1	7.0	3.0	5.0
Sub Total (D)	**3.7**	**12.6**	**61.2**	**61.0**	**38.0**	**41.0**	**48.6**
Total Steel (B+C+D)	**101.4**	**85.9**	**124.4**	**107.3**	**92.2**	**82.9**	**74.9**

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Source : Industrial Performance Review, IOC Ltd. * Provisional NA : Not Availble

VI. 9 PLANT/CUSTOMER-WISE OFFTAKES OF FO/LSHS DURING 1997-98 TO 2003-04

(Qty: ' 000' MTs)

Category and Plant	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
(V) Others							
A.Northern:	**0.0**	**11.3**	**23.7**	**37.2**	**46.9**	**50.2**	**59.3**
HCI Khetri	NA	NA	6.7	0.0	0.0	0.0	0.0
Hindalco	0.0	11.3	17.0	37.2	46.9	50.2	59.3
B.Eastern:	**135.8**	**126.2**	**130.3**	**128.4**	**173.2**	**189.6**	**119.9**
Indal Muri	NA	NA	3.5	8.3	8.9	4.8	2.7
NALCO Angul	22.3	22.1	19.3	23.6	24.6	23.6	15.7
IRE Chatarpur	1.7	3.3	3.2	0.2	2.0	2.5	4.0
NALCO Damanjodi	68	65.7	62.7	69.9	84.3	118.8	80.7
OCL Rajgangapur	25.6	19.5	17.8	8.7	10.7	8.8	0.0
TELCO Jamshedpur	8.8	10.8	4.8	1.6	0.1	0.0	0.3
HCL Ghatsila	9.4	4.8	1.7	0.0	0.0	3.0	1.2
Phumphar Shipping	-	-	17.3	16.1	30.4	17.8	2.2
Others	-	-	-	-	12.2	10.3	13.1
C.Western:	**14.0**	**18.1**	**59.9**	**82.6**	**59.4**	**60.6**	**32.8**
BALCO Korba	NA	NA	28.2	21.0	0.0	18.7	9.6
Bombai Dye & Mkg. Co.	NA	NA	24.8	37.8	30.0	33.4	23.2
HOC Rasayani	14.0	18.1	6.9	0.3	0.0	0.0	0
HPC Mandovi Pellets	0.0	0.0	0.0	23.5	29.4	8.5	0
D.Southern:	**277.4**	**280.2**	**388.2**	**381.3**	**233.7**	**178.8**	**182.6**
Grasim	7.0	2.8	0.0	0.0	0.0	0.0	0
S.I.Viscose	18.8	11.8	35.0	19.0	8.1	0.0	0
Indal Belgaum	33.5	38.5	44.5	37.9	12.1	21.7	16.8
Tex MACO	10.0	0.0	0.0	6.1	0.0	0.0	0
Ballapur Ind.	6.7	17.6	19.8	17.1	0.8	0.8	0.1
Chem Plast	53.1	62.1	75.0	75.9	82.5	74.3	73.3
HOC Cochin	22.6	16.5	20.9	19.9	19.7	0.0	0
Kudramuk Iron & Ore Co.	64.9	70.8	68.7	60.4	83.2	73.1	81.3
FACT ASCL	60.8	60.1	111.4	108.5	7.0	0.0	0
Zuari	-	-	12.9	16.9	10.8	1.9	0.7
Others	-	-	-	19.6	9.5	7.0	10.4
Total Steel (A+B+C+D)	**427.2**	**435.8**	**602.1**	**629.5**	**513.2**	**563.0**	**470.0**
(VI) General Trade							
A.Northern:	1167.1	1348.8	1153.5	1340.0	1417.1	1447.9	1523.9
B.Eastern:	509.5	539.9	433.6	388.8	391.9	373.2	558.0
C.Wastern:	2524.0	2547.9	2717.5	2374.3	2458.0	2482.7	2763.2
D.Southern:	1366.1	1779.3	1649.0	1589.9	1575.6	1825.4	1801.9
Total General Trade	**5566.7**	**6215.9**	**5953.6**	**5693.0**	**5842.6**	**6129.2**	**6647.0**
Grand Total (I+II+III+IV+V+VI)	**10974.2**	**11359.2**	**11579.3**	**11335.9**	**11583.0**	**11634.0**	**11737.0**

Source : Industrial Performance Review, IOC Ltd. * Provisional NA : Not Available

VI.10(a) STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA DURING 2002-03

State/Union Territories	Gas Stations				Diesel Stations	
	Natural Gas (MCM)	HSD (KL)	Naphtha (KL)	Genera-tion (GWH)	Diesel Oil (KL)	Generation (GWH)
1	2	3	4	5	6	7
NORTHERN REGION						
Haryana	0	0	0	0.0	0	0.0
Himachal Pradesh	0	0	0	0.0	0	0.0
Jammu & Kashmir	0	12726	0	58.0	0	0.0
Punjab	0	0	0	0.0	0	0.0
Rajasthan	49	287	0	221.7	0	0.0
Uttar Pradesh	0	0	0	0.0	0	0.0
Chandigarh	0	0	0	0.0	0	0.0
Delhi	617	0	0	2039.2	0	0.0
Central Sector	3287	388244	0	14943.5	0	0.0
WESTERN REGION						
Gujarat	851	759	426280	5824.3	0	0.0
Madhya Pradesh	0	0	0	0.0	0	0.0
Maharashtra	939	0	0	5043.1	0	0.0
Goa	49	0	0	273.1	0	0.0
Daman & Diu	0	0	0	0.0	0	0.0
D. & N. Haveli	0	0	0	0.0	0	0.0
Central Sector	1666	696250	0	7572.9	0	0.0
SOUTHERN REGION						
Andhra Pradesh	1316	0	0	6878.2	700	2.0
Karnataka	281	0	0	1280.0	129472	1134.0
Kerala	1440	0	0	135.0	196138	802.2
Tamil Nadu	30	274729	116125	3274.4	532400	2420.3
Lakshadweep	0	0	0	0.0	7228	20.9
Pondicherry	63	0	0	264.0	0	0.0
Central Sector	0	393	369371	2118.5	0	0.0
EASTERN REGION						
Bihar	0	0	0	0.0	0	0.0
Orissa	0	0	0	0.0	0	0.0
West Bengal	0	163	0	0.2	85	0.6
D.V.C.	0	3260	0	8.3	0	0.0
A & N Islands	0	0	0	0.0	14720	138.8
Sikkim	0	0	0	0.0	42	0.3
Central Sector	0	0	0	0.0	0	0.0
NORTH EASTERN REGION						
Assam	340	0	0	884.0	0	0.0
Manipur	0	0	0	0.0	0	0.0
Meghalaya	0	0	0	0.0	0	0.0
Nagaland	0	0	0	0.0	14	0.1
Tripura	23	0	0	282.3	700	2.0
Arunachal Pradesh	0	0	0	0.0	3156	17.0
Mizoram	0	0	0	0.0	1078	3.1
Central Sector	567	0	0	1586.0	0	0.0
TOTAL (ALL INDIA)	11518	1376811	911776	52686.7	885733	4541.3

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

Source: Central Electricity Authority

VI.10(b) STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA DURING 2003-04

State/Union Territories	Gas Stations				Diesel Stations		
	Natural Gas (MCM)	HSD (KL)	Naphtha (KL)	Genera-tion (GWH)	LSHS (KL)	Diesel Oil (KL)	Generation (GWH)
1	2	3	4	5	6	7	8
NORTHERN REGION							
Haryana	0	0	0	0.00	0	0	0.00
Himachal Pradesh	0	0	0	0.00	0	0	0.00
Jammu & Kashmir	0	6363	0	29.00	0	0	0.00
Punjab	0	0	0	0.00	0	0	0.00
Rajasthan	163	1841	0	238.53	0	0	0.00
Uttar Pradesh	0	0	0	0.00	0	0	0.00
Uttaranchal	0	0	0	0.00	0	0	0.00
Chandigarh	0	0	0	0.00	0	0	0.00
Delhi	884	9298	0	3620.00	0	0	0.00
Central Sector	2761	223091	188981	14870.14	0	0	0.00
WESTERN REGION							
Gujarat	1574	2166	405808	8764.71	0	0	0.00
Madhya Pradesh	0	0	0	0.00	0	0	0.00
Chhattisgarh	0	0	0	0.00	0	0	0.00
Maharashtra	1217	0	0	5432.23	0	0	0.00
Goa	36	0	0	202.27	0	0	0.00
Daman & Diu	0	0	0	0.00	0	0	0.00
D. & N. Haveli	0	0	0	0.00	0	0	0.00
Central Sector	894	601	676628	7108.91	0	0	0.00
SOUTHERN REGION							
Andhra Pradesh	1560	0	0	6932.84	409	0	2.09
Karnataka	0	0	154061	909.86	129615	4317	674.91
Kerala	0	199	172241	1039.87	132500	3025	654.00
Tamil Nadu	384	226525	23972	2938.06	384927	0	1941.88
Lakshadweep	0	0	0	0.00	0	7561	21.87
Pondicherry	66	0	0	275.42	0	0	0.00
Central Sector	0	257	369420	2117.97	0	0	0.00
EASTERN REGION							
Bihar	0	0	0	0.00	0	0	0.00
Jharkhand	0	0	0	0.00	0	0	0.00
Orissa	0	0	0	0.00	0	0	0.00
West Bengal	0	0	0	0.00	0	0	0.00
D.V.C. (E)	0	2596	0	6.61	0	0	0.00
A & N Islands	0	0	0	0.00	0	38839	150.45
Sikkim (R)	0	0	0	0.00	0	42	0.30
Central Sector	0	0	0	0.0	0	0	0.0
NORTH EASTERN REGION							
Assam (E)	317	0	0	848.27	0	0	0.00
Manipur	0	0	0	0.00	0	0	0.00
Meghalaya	0	0	0	0.00	0	0	0.00
Nagaland (R)	0	0	0	0.00	0	14	0.10
Tripura	254	0	0	436.74	0	0	0.00
Arunachal Pradesh (R)	0	0	0	0.00	0	3156	18.00
Mizoram	0	0	0	0.00	0	261	0.75
Central Sector	675	0	0	2157.00	0	0	0.00
TOTAL (ALL INDIA)	10785	472937	1991111	57928.43	647451	57215	3464.35

KL: Kilo Litres MCM: Million Cubic Metres GWH: Gigawatt Hour
Source: Central Electricity Authority (E): Estimated (R): Repeated

VI.11(a) STATE-WISE CONSUMPTION OF FOSSIL FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 2002-03

State/Union Territories	Steam Stations						Gross Generation (GWH)
	Coal (TMT)	Lignite (TMT)	Furnace Oil (KL)	HSD/ LDO (KL)	LSHS/ HHS (KL)	Natural Gas (MT)	
1	2	3	4	5	6	7	8
NORTHERN REGION							
Haryana	4598	0	0	1367	17633	0	6122.3
Himachal Pradesh	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	0	0	0
Punjab	9001	0	0	3232	11686	0	13650.4
Rajasthan	8535	0	9118	1321	0	0	14726.6
Uttar Pradesh	16286	0	32650	47009	0	0	20948.5
Uttaranchal	0	0	0	0	0	0	0
Chandigarh	0	0	0	0	0	0	0
Delhi	1202	0	0	7282	3442	0	1312.1
Central Sector	28972	0	15898	0	0	0	43602.3
WESTERN REGION							
Gujarat	19298	19311	3111	12996	435312	0	30522
Madhya Pradesh	11798	0	33518	8322	0	0	13680.9
Chhattisgarh	6097	0	6725	0	0	0	7593
Maharashtra	32067	0	74317	25065	1571034	204166	52204
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	22090	0	18115	0	6093	0	33391.9
SOUTHERN REGION							
Andhra Pradesh	16659	0	12308	1465	0	0	23032.1
Karnataka	7890	0	6495	174	0	0	11163.9
Kerala	0	0	0	6768	0	0	0
Tamil Nadu	19409	0	42465	0	0	0	21079.8
Lakshadweep	0	0	0	0	0	0	0
Pondicherry	0	0	0	0	0	0	0
Central Sector	22039	17738	54646	0	0	0	36690.5
EASTERN REGION							
Bihar	556	0	11825	4000	0	0	535.1
Jharkhand	3023	0	0	7586	0	0	3827
Orissa	2228	0	4385	0	0	0	2621.1
West Bengal	14049	0	11438	14210	0	0	21468.1
D.V.C.	6814	0	0	72812	0	0	8653.1
A & N Islands	0	0	0	0	0	0	0
Sikkim	0	0	0	0	0	0	0
Central Sector	18476	0	24862	0	0	0	22638.7
NORTH EASTERN REGION							
Assam	0	0	0	0	0	0	0
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)	**271087**	**37049**	**361876**	**213609**	**2045200**	**204166**	**389463.4**

TMT: Thousand Metric Tonnes

KL: Kilo Litres

GWH: Giga Watt Hour

Source: Central Electricity Authority

VI.11(b) STATE-WISE CONSUMPTION OF FOSSIL FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 2003-04

State/Union Territories	Steam Stations						Gross Generation (GWH)
	Coal (TMT)	Lignite (TMT)	Furnace Oil (KL)	HSD/ LDO (KL)	LSHS/ HHS (KL)	Natural Gas (MT)	
1	2	3	4	5	6	7	8
NORTHERN REGION							
Haryana	5155	0	0	194512	0	0	6744.64
Himachal Pradesh	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	0	0	0
Punjab	9299	0	12897	0	0	0	14235.54
Rajasthan	9272	0	9851	670	0	0	14610.73
Uttar Pradesh	16092	0	0	42781	0	0	20681.23
Uttaranchal	0	0	0	0	0	0	0
Chandigarh	0	0	0	0	0	0	0
Delhi	1269	0	0	8756	2377	0	1543.00
Central Sector	28998	0	20629	8136	0	0	44569.94
WESTERN REGION							
Gujarat	15856	2560	4644	104	423797	0	28394.28
Madhya Pradesh	11567	0	32989	7078	0	0	14015.16
Chhattisgarh	6250	0	12815	2819	0	0	7617.49
Maharashtra	33719	0	1130650	395	0	33884	54197.5
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	21683	0	6115	289	0	0	32685.70
SOUTHERN REGION							
Andhra Pradesh	15820	0	10704	1894	0	0	22455.29
Karnataka	7277	0	0	8596	0	1932274*	13577.51
Kerala	0	0	0	0	0	0	0
Tamil Nadu	14491	1612	36681	2486	2923	0	21959.26
Lakshadweep	0	0	0	0	0	0	0
Pondicherry	0	0	0	0	0	0	0
Central Sector	15397	19143	9104	20055	2387	0	40442.55
EASTERN REGION							
Bihar	376	0	11303	2016	0	0	352.38
Jharkhand	3160	0	0	41538	0	0	4296.54
Orissa	2628	0	0	3609	0	0	3010.48
West Bengal	15436	0	20384	26907	0	0	23007.43
D.V.C.	7220	0	0	88473	0	0	9704.01
A & N Islands	0	0	0	0	0	0	0
Sikkim	0	0	0	0	0	0	0
Central Sector	24392	0	46543	8374	0	0	29183.15
NORTH EASTERN REGION							
Assam	0	0	0	0	0	0	0
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)	**265357**	**23315**	**1365309**	**469488**	**431484**	**33884+ 1932274***	**407283.81**

TMT: Thousand Metric Tonnes
GWH: Giga Watt Hour
* : Unit in knm³ - Corex gas.

KL: Kilo Litres
Source: Central Electricity Authority

VII. FOREIGN TRADE

VII.1 IMPORT/EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS FROM 1970 TO 2003

(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
2003*	87027	81161.00	7374	9103.00	94401	90264.00
			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
2003*	-	-	13915	15791.00	13915	15791.00
			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
2003*	87027	81161.00	-6541	-6688.00	80486	74473.00

*: Provisional.

Source: IOC & PPAC.

VII.2 IMPORT/EXPORT OF CRUDE OIL AND PETROLEUM PRODUCTS FROM 1970-71 TO 2003-04

(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	7228	8847.00	89217	85042.00
2003-04	90434	83528.00	8001	9723.00	98435	93251.00
		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	-	-	10065	8219.00	10065	8219.00
2002-03	-	-	10289	10868.00	10289	10868.00
2003-04	-	-	14620	16781.00	14620	16781.00
		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	-3056	-970.00	75650	59427.00
2002-03	81989	76195.00	-3061	-2021.00	78928	74174.00
2003-04	90434	83528.00	-6619	-7058.00	83815	76470.00

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

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

ITEM	2000		2001		2002		2003	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	4	5	6	7	8	9	10	11
				GROSS IMPORTS				
A. Crude Oil	**70024**	**59456**	**77554**	**61781**	**81907**	**69522**	**87027**	**81161**
B. Pol.Products								
I.Light Distillates	**3890**	**5020**	**3980**	**4575**	**3570**	**4399**	**4172**	**5661**
1. LPG	1037	1449	708	941	672	990	1673	2678
2. Naphtha	2853	3571	3272	3634	2898	3409	2173	2563
3. Propane	0	0	0	0	0	0	326	420
II.Middle Distillates	**4270**	**4106**	**798**	**917**	**664**	**689**	**1000**	**1141**
1.ATF	1	3	2	8	2	9	2	8
2.SKO	3017	3175	773	888	604	606	926	1049
3.HSD	1252	928	23	21	25	26	72	84
4.Others	0	0	0	0	33	48	0	0
III.Heavy Ends	**2943**	**3490**	**2796**	**2970**	**2806**	**2567**	**2202**	**2301**
1.FO / LSHS	1640	1198	1501	1100	1370	1122	876	766
2.Lubes / Others[HEI]	1303	2292	1295	1870	1436	1445	1326	1535
TOTAL(B)	**11103**	**12616**	**7574**	**8462**	**7040**	**7655**	**7374**	**9103**
GRAND TOTAL(A+B)	**81127**	**72072**	**85128**	**70243**	**88947**	**77177**	**94401**	**90264**
				EXPORTS				
Pol. Products								
I.Light Distillates	**3344**	**3866**	**4827**	**4978**	**5052**	**5522**	**5126**	**6527**
1.Naphtha	2307	2585	2622	2543	2571	2602	1967	2316
2.MS	934	1116	2105	2288	2409	2810	2906	3853
3.TAME	103	165	100	147	72	110	122	177
4.Reformate	0	0	0	0	0	0	131	181
II.Middle Distillates	**1318**	**1535**	**2753**	**2572**	**2972**	**2861**	**7468**	**8299**
1.HSD/LDO	1198	1404	2567	2396	2552	2481	5790	6308
2.ATF	120	131	186	176	420	380	1678	1991
III.Heavy Ends	**1798**	**528**	**2077**	**581**	**2031**	**860**	**1321**	**965**
1.FO/LSHS	381	240	489	271	1075	800	1124	831
2.Others[HEE]	1417	288	1588	310	956	60	197	134
TOTAL	**6460**	**5929**	**9657**	**8131**	**10055**	**9243**	**13915**	**15791**
				NET IMPORTS				
A. Crude Oil	**70024**	**59456**	**77554**	**61781**	**81907**	**69522**	**87027**	**81161**
B. Pol.Products	**4643**	**6687**	**-2083**	**331**	**-3015**	**-1588**	**-6541**	**-6688**
GRAND TOTAL	**74667**	**66143**	**75471**	**62112**	**78892**	**67934**	**80486**	**74473**

Source: Petroleum Planning & Analysis Cell, New Delhi.

HEI: Includes Bitumen, Low Sulphur Waxy Residue etc.

TAME: Tertiary Amyl Methyl Ether.

HEE: Includes Coke and Vacuum Gas Oil.

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

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

ITEM	2000-01		2001-02		2002-03		2003-04	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	4	5	6	7	8	9	10	11
			GROSS IMPORTS					
A. Crude Oil	**74097**	**65932**	**78706**	**60397**	**81989**	**76195**	**90434**	**83528**
B. Petroleum Products								
I. Light Distillates	**4018**	**5438**	**3967**	**4287**	**3857**	**5418**	**4529**	**6034**
1. LPG	853	1332	659	810	1073	1867	1708	2558
2. Naphtha	3165	4106	3308	3477	2784	3551	2371	2884
3. Propane	0	0	0	0	0	0	450	592
II. Middle Distillates	**1919**	**2389**	**424**	**425**	**806**	**934**	**906**	**1015**
1.ATF	1	3	2	9	2	7	2	9
2.SKO	1918	2386	391	388	698	808	804	890
3.HSD	0	0	31	28	106	119	100	116
3.Others	0	0	0	0	0	0	0	0
III. Heavy Ends	**3330**	**4266**	**2618**	**2537**	**2565**	**2495**	**2566**	**2674**
1.FO / LSHS	1728	1309	1425	1030	1256	1084	953	810
2.Lubes / Others[HEI]	1602	2957	1193	1507	1309	1411	1613	1864
Total(B)	**9267**	**12093**	**7009**	**7249**	**7228**	**8847**	**8001**	**9723**
Grand Total(A+B)	**83364**	**78025**	**85715**	**67646**	**89217**	**85042**	**98435**	**93251**
			EXPORTS					
Petroleum Products								
I.Light Distillates	**4221**	**4935**	**5008**	**4927**	**4493**	**5475**	**5448**	**7100**
1.Naphtha	2882	3273	2515	2234	2067	2325	2176	2653
2.MS	1202	1442	2406	2570	2336	3011	2979	4021
3.TAME	137	220	87	123	90	139	83	117
4.Reformate	0	0	0	0	0	0	210	309
II. Middle Distillates	**1757**	**2046**	**3084**	**2747**	**3875**	**4337**	**7841**	**8713**
1.HSD/LDO	1597	1872	2890	2571	3178	3547	6181	6763
2.ATF	160	174	194	176	697	790	1660	1950
III. Heavy Ends	**2387**	**691**	**1973**	**545**	**1921**	**1056**	**1331**	**968**
1.FO/LSHS	508	320	482	255	1120	902	1310	928
2.VGO/Lubes	1879	371	272	211	101	109	17	36
3.Coke/Bitumen	0	0	1219	79	700	45	4	4
Total	**8365**	**7672**	**10065**	**8219**	**10289**	**10868**	**14620**	**16781**
			NET IMPORTS					
A. Crude Oil	**74097**	**65932**	**78706**	**60397**	**81989**	**76195**	**90434**	**83528**
B. Pol.Products	**902**	**4421**	**-3056**	**-970**	**-3061**	**-2021**	**-6619**	**-7058**
Grand Total	**74999**	**70353**	**75650**	**59427**	**78928**	**74174**	**83815**	**76470**

TAME: Tertiary Amyl Methyl Ether. *: Provisional.

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

Source: Petroleum Planning & Analysis Cell, New Delhi.

VII.5 TRENDS 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	25.1	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	29.9	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	20.7	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	2.7	6.2	25016	14215	10801	12.6	14.8	12.0	5.8
2002-03	255137	297206	-42069	22.1	21.2	33462	16951	16511	33.8	19.2	13.1	5.7
2003-04*	283604	346474	-62870	11.2	16.6	43971	25905	18066	31.4	52.8	15.5	7.5

*Provisional.

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

VII.6 INDIA'S FOREIGN EXCHANGE RESERVES (1970-71 TO 2003-04)

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
2003-04	2.0	18216.00	466215.00

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 POL IMPORTS AS A PROPORTION TO OVERALL EXPORTS FROM THE COUNTRY 1970-71 TO 2003-04

(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	5258	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	29.7
1993-94	17730	16221	69751	68242	25.4	23.8
1994-95	17838	16250	82674	81087	21.6	20.0
1995-96	24095	22263	106353	104521	22.7	21.3
1996-97	34171	32087	118817	104328	28.8	30.8
1997-98	30181	28915	130101	117058	23.2	24.7
1998-99	27193	26887	139753	127783	19.5	21.0
1999-00	54214	53516	159561	158863	34.0	33.7
2000-01	78025	70353	203571	195899	38.3	35.9
2001-02	67646	59427	209018	200733	32.4	29.6
2002-03	85042	74174	255137	244269	33.3	30.4
2003-04	93251	76470	283604	266823	32.9	28.7

Source: Ministry of Commerce.

VIII. MANPOWER

VIII.1 MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA
(As on 31st March)

(Number)

CATEGORY	1995	1998	1999	2000	2001	2002	2003	2004
1	2	3	4	5	6	7	8	9
1. Exploration & Production	57633	52909	51656	50942	50049	49540	48237	44943
2. Refining	23031	25294	37619	27019	27178	25322	26451	25640
3. Marketing	34270	37943	41806	41110	40852	41865	40561	40232
4. Pipelines	3619	3782	3803	4180	4196	4094	4092	3829
5. R&D	2953	2832	2869	2858	2723	2797	2330	2278
6. Others	14929	15249	13580	13293	9990	9992	8256	9780
Grand Total	**136435**	**138009**	**151333**	**139402**	**134988**	**133610**	**129927**	**126702**

VIII.2 CATEGORY-WISE MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA
(As on 31st March)

(Number)

CATEGORY	1995	1998	1999	2000	2001	2002	2003	2004
1	2	3	4	5	6	7	8	9
1. Executive/ Managerial	40282	42836	43237	43971	44804	45385	45301	45109
2. Supervisory	9245	12908	12142	12551	11807	13138	12610	12348
3. Clerical	16934	15927	14795	13627	14127	13014	12263	11559
4. Workman	64722	61000	61057	60292	57693	54860	52200	50013
5. TOTAL	**131183**	**132671**	**131231**	**130441**	**128431**	**126397**	**122374**	**119029**
6. Expatriates/ Foreign Experts/ on Contract	5252	5338	20102	8961	6557	7213	7553	7673
GRAND TOTAL	**136435**	**138009**	**151333**	**139402**	**134988**	**133610**	**129927**	**126702**

VIII.3 CATEGORY-WISE MANPOWER EMPLOYED IN VARIOUS SECTORS OF PETROLEUM INDUSTRY IN INDIA
(As on 31st March)

(Number)

CATEGORY	1995	1998	1999	2000	2001	2002	2003	2004
1	2	3	4	5	6	7	8	9
				EXPLORATION AND PRODUCTION				
1. Executive/Managerial	17555	17637	17846	17867	18560	19461	19605	19270
2. Supervisory	4279	6513	6005	5824	5087	6601	6349	6055
3. Clerical	4532	4305	4117	3797	3971	3278	3068	2351
4. Workman	30295	24444	23678	23133	22431	20200	19215	17240
5. TOTAL	**56661**	**52899**	**51646**	**50621**	**50049**	**49540**	**48237**	**44916**
6. Expatriates/ Foreign Experts/ on Contract	972	10	10	321	0	0	0	27
GRAND TOTAL	**57633**	**52909**	**51656**	**50942**	**50049**	**49540**	**48237**	**44943**
				PETROLEUM REFINING @				
1. Executive/Managerial	4271	5746	5079	5175	5534	5556	5977	5899
2. Supervisory	1195	2269	1922	1928	2740	2589	2586	2616
3. Clerical	2479	2804	2092	1886	2748	2587	2521	2371
4. Workman	11893	12504	13434	13652	13017	12338	12266	11847
5. TOTAL	**19838**	**23323**	**22527**	**22641**	**24039**	**23070**	**23350**	**22733**
6. Expatriates/ Foreign Experts/ on Contract	3193	1971	15092	4378	3139	2252	3101	2907
GRAND TOTAL	**23031**	**25294**	**37619**	**27019**	**27178**	**25322**	**26451**	**25640**
				MARKETING				
1. Executive/Managerial	8678	9522	10864	10924	11619	11649	11598	11747
2. Supervisory	2314	2524	2584	2605	2188	2274	2320	2334
3. Clerical	5566	5190	5916	5910	5726	5434	5245	5133
4. Workman	17291	17454	18128	18125	18010	17956	17152	16725
5. TOTAL	**33849**	**34690**	**37492**	**37564**	**37543**	**37313**	**36315**	**35939**
6. Expatriates/ Foreign Experts/ on Contract	421	3253	4314	3546	3309	4552	4246	4293
GRAND TOTAL	**34270**	**37943**	**41806**	**41110**	**40852**	**41865**	**40561**	**40232**

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	2003-04
LPG	131.4	150.0	162.0	176.1	248.2	266.6	284.0	285.5
Petrol	131.1	144.5	148.1	148.1	154.2	158.1	163.4	178.7
High Speed Diesel Oil	120.9	145.2	148.7	176.4	228.8	252.3	273.5	300.4
Light Diesel Oil	133.7	141.8	143.4	168.2	232.2	243.8	233.0	284.6
Kerosene	100.8	101.1	100.9	101.9	270.2	304.0	359.7	359.2
Furnace Oil	120.3	118.3	108.6	131.2	203.5	187.5	179.7	227.2
Aviation Turbine Fuel	107.1	109.6	109.6	109.9	144.2	152.1	135.7	149.3
Lubricating Oil	119.0	123.9	130.0	134.9	142.6	147.6	154.7	163.8
Naphtha	119.8	144.8	146.1	191.0	294.7	265.6	256.5	315.6
Bitumen	126.6	145.1	145.6	156.7	203.5	214.2	207.6	251.2
All commodities	127.2	132.8	140.7	145.3	155.7	161.3	166.8	175.9

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

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.

June 1999 — 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

* Long run social marginal cost basis given up. ** Provisional.

Source: Petroleum Planning & Analysis Cell.

Note: Impact of increase in price of crude oil royalty and sales tax w.e.f. 1.4.96 works out to around Rs.975 crores (on production QTY basis) for the year 1996-97.

IX.2(b) CONSUMER AND PRODUCER PRICES OF NATURAL GAS

(Rs./'ooo' cubic metre)

Effective Date	Consumer Prices		Transportation charges along HBJ pipeline	Producer Prices			Calorific Value (K. Cal / SCM)
	Off-shore (Landfall point) and On-shore	For North-Eastern States		ONGC	ONGC (NE states)	OIL (NE states)	
1	2	3	4	5	6	7	8
01.04.2002	2850	1700	1150	2116	1700	1900	10000
01.07.2002	2850	1700	1150	2074	1700	1900	10000
01.10.2002	2850	1700	1150	2118	1700	1900	10000
01.01.2003	2850	1700	1150	2132	1700	1900	10000
01.04.2003	2850	1700	1150	2206	1700	1900	10000
01.07.2003	2850	1700	1150	2176	1700	1900	10000
01.10.2003	2850	1700	1150	2240	1700	1900	10000
01.01.2004	2850	1700	1150	2224	1700	1900	10000
01.03.2004	2850	1700	1150	2224	1700	1900	10000

Note:
1. The consumer prices are exclusive of Royalty, Sales Tax and other Statutory Levies. Producer prices are exclusive of Royalty.
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. W.e.f. 1.10.97, producer price to OIL is Rs.1900 per 1000 SCM, which is being increased by 1% for every 10% increase in CPI.
4. The discount of Rs.400 per 1000 SCM was applicable in case of consumer 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.
5. W.e.f. 1.10.1997, for North-Eastern states, ONGC gets a producers price as indicated in column 5 minus the discount being allowed to the consumers.
6. Other than HBJ pipeline, GAIL/transporters are permitted to negotiate transportation charges with the consumers.
7. 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.

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1.4.2004

	DELHI	KOLKATA	MUMBAI	CHENNAI
	Motor Spirit (Rs./Kl)			
Storage point price	15249.54	15029.54	15249.54	15029.54
State surcharge	4.00	605.00	276.00	795.00
BMC surcharge	0.00	0.00	859.00	0.00
Siding charge	5.94	0.00	0.00	0.00
Rly/ocean/freight	91.96	29.87	0.00	0.00
RPO surcharge	36.00	36.00	36.00	36.00
RPO charge	4.36	4.36	4.36	4.36
PAF (01.03.2002)	0.00	0.00	-227.31	-277.07
Assessable value	**15391.80**	**15704.77**	**16197.59**	**15587.83**
Excise duty amount	4617.54	4711.43	4859.28	4676.35
Sub total	**20009.34**	**20416.20**	**21056.87**	**20264.18**
Assessable value adjusted	0.00	0.00	0.00	0.00
FDZ charges	44.00	44.00	44.00	44.00
Spl. Excise duty	7500.00	7500.00	7500.00	7500.00
Sub total	**27553.34**	**27960.20**	**28600.87**	**27808.18**
Delivery charge beyond FDZ	0.00	13.44	0.00	0.00
RPO price	**27553.34**	**27973.64**	**28600.87**	**27808.18**
Sales tax amount	5510.67	6993.41	8580.26	8342.45
Surcharge on sales amount	0.00	0.00	1000.00	0.00
Cess advalorem amount	0.00	1000.00	0.00	0.00
Dealer commission	639.00	639.00	639.00	639.00
RSP/Kl	**33703.01**	**36606.05**	**38820.13**	**36789.63**
RSP/Ltr	33.71	36.61	38.83	36.79
	High Speed Diesel (Rs./Kl)			
Storage point price	15232.88	15232.88	15232.88	15232.88
State surcharge	2.00	300.00	137.00	120.00
BMC surcharge	0.00	0.00	299.00	0.00
Siding charge	6.45	0.00	0.00	0.00
Rly/ocean/freight	102.68	21.93	0.00	0.00
RPO surcharge	21.00	21.00	21.00	21.00
RPO charge (exciseable)	0.27	0.27	0.27	0.27
Wagon load adjustment	0.00	0.00	0.00	0.00
PAF (01.03.2002)	0.00	0.00	0.00	0.00
Assessable value	**15365.28**	**15576.08**	**15690.15**	**15374.15**
Excise duty amount	2151.14	2180.65	2196.62	2152.38
Sub total	**17516.42**	**17756.73**	**17886.77**	**17526.53**
Assessable value adjusted	0.00	0.00	0.00	0.00
FDZ charges	44.00	44.00	44.00	44.00
Spl. Excise duty	1500.00	1500.00	1500.00	1500.00
Sub total	**19060.42**	**19300.73**	**19430.77**	**19070.53**
Delivery charge beyond FDZ	0.00	13.44	0.00	0.00
RPO price	**19060.42**	**19314.17**	**19430.77**	**19070.53**
Sales tax amount	2287.25	3283.41	6606.46	4767.63
Surcharge on sales amount	0.00	0.00	1000.00	0.00
Cess advalorem amount	0.00	1000.00	0.00	0.00
Dealer commission	385.00	385.00	385.00	385.00
RSP/Kl	**21732.67**	**23982.58**	**27422.23**	**24223.16**
RSP/Ltr	21.74	23.99	27.43	24.23

Cont'd....

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1.4.2004

	DELHI	KOLKATA	MUMBAI	CHENNAI
	ATF (Domestic Airlines)			
Basic price	13810.00	14400.00	13920.00	14220.00
Inland differential	570.00	0.00	0.00	0.00
State surcharge	2.00	1020.00	430.00	1032.00
Freight	344.45	300.73	100.00	122.19
Siding charges	0.00	0.00	0.00	0.00
Marketing cost	900.00	2150.00	800.00	700.00
MSL cost	177.00	177.00	177.00	177.00
Assessable value	**15803.45**	**18047.73**	**15427.00**	**16251.19**
Excise duty	1264.28	1443.82	1234.16	1300.10
Posted airfield price per KL (exclusive of sales tax and other levies)	**17067.73**	**19491.55**	**16661.16**	**17551.28**
	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
Sub total	**8022.79**	**8051.99**	**8034.16**	**8088.68**
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**	**8418.35**	**8387.67**	**8389.19**
Cess / Toll charges / TOT amount	0.00	0.00	120.51	0.00
State Govt. Subsidy	0.00	0.00	0.00	-576.00
Ex-Ml depot price/kl	**8343.70**	**8418.35**	**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**	**8825.65**	**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**	**9299.35**	**9260.02**	**8398.44**
RSP/Ltr	9.01	9.30	9.26	8.40

Contd....

IX.3 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1.4.2004

	DELHI	KOLKATA	MUMBAI	CHENNAI
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**	**176.45**
Excise duty @16%	27.34	28.09	27.76	28.23
Price at bottling plant	**198.22**	**203.65**	**201.27**	**204.68**
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**	**214.68**
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**	**231.86**
Price to dealer (14.2kg/cyl)	224.88	249.97	233.03	231.86
Distributor commission	16.71	16.71	16.71	16.71
Resale tax	0.00	0.00	1.25	0.00
RSP for 14.2kg/cyl	241.59	266.68	250.99	248.57
Furnace Oil (Rs./Kl)				
Ex-storage point price		10680.00	10170.00	10960.00
State surcharge		105.00	191.60	401.63
Notional railway freight		160.00	0.00	0.00
Assessable value		10945.00	10361.60	11361.63
Excise duty @16%		1751.20	1657.86	1817.86
Total inclusive of excise duty		12696.20	12019.46	13179.49
Sales tax		2539.24	1899.07	2108.72
Additional tax on sales tax		0.00	0.00	105.44
Total		**15235.44**	**13918.53**	**15393.64**
Light Diesel Oil (Rs./Kl)				
Ex-storage point price	14080.00	14080.00	14080.00	14080.00
Reduction	0.00	0.00	0.00	0.00
State surcharge	25.00	370.00	121.28	455.00
Notional railway freight	268.27	340.00	0.00	0.00
Siding Dest.	0.00	0.00	0.00	0.00
Assessable value	**14373.27**	**14790.00**	**14201.28**	**14535.00**
Excise duty @16%	2299.72	2366.40	2272.20	2325.60
Additional levy	1500.00	1500.00	1500.00	1500.00
Total inclusive of excise duty	**18172.99**	**18656.40**	**17973.48**	**18360.60**
Sales tax	2180.76	3171.59	2839.81	4590.15
Surcharge on sales tax	0.00	0.00	0.00	0.00
Total	**20353.75**	**21827.99**	**20813.30**	**22950.75**

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

Price 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
01.04.2004	38.83	36.61	33.71	36.79	N.A.
		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
01.04.2004	27.43	23.99	21.73	24.23	N.A.

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

Price as on	Mumbai	Kolkata	Delhi	Chennai	Kanpur
			Superior Kerosene Oil (Rs./Litre)		
01.01.1975	1.01	1.05	1.08	1.10	1.25
08.06.1980	1.39	1.49	1.54	1.55	1.59
17.03.1985	2.10	2.18	2.18	2.08	2.25
26.03.1985	2.03	2.12	2.11	2.08	2.25
01.04.1990	2.17	2.27	2.25	2.29	2.50
01.04.1991	2.66	2.90	2.77	2.95	3.04
01.04.1992	2.44	2.70	2.52	2.80	2.78
01.04.1993	2.44	2.75	2.54	2.80	2.78
01.03.1994	2.53	2.80	2.58	2.80	2.78
08.04.1995	2.55	2.80	2.57	2.80	2.85
01.04.1996	2.55	2.80	2.58	2.80	2.85
01.04.1997	2.55	2.80	2.58	2.80	2.80
01.04.1998	2.55	3.05	2.56	2.80	2.79
01.04.1999	2.63	3.01	2.51	2.76	2.75
01.04.2000	5.37	5.84	5.55	5.64	5.95
01.04.2001	7.57	7.76	7.35	7.00	7.90
01.04.2002	9.01	9.27	8.98	8.40	9.59
01.04.2003	9.26	9.30	9.01	8.40	N.A.
01.04.2004	9.26	9.30	9.01	8.40	N.A.
			Liquefied Petroleum Gas (Rs./Cylinder)		
	14.2 Kg Cyl	15 Kg Cyl	15 Kg Cyl	15 Kg Cyl	15 Kg Cyl
01.01.1975	22.10	27.79	27.36	23.91	27.61
13.01.1981	38.94	49.09	45.53	N.A.	46.26
17.03.1985	49.95	56.34	51.35	50.74	54.89
01.04.1990	56.15	63.20	57.61	57.44	61.56
01.04.1991	56.15	63.20	57.61	57.44	60.64
01.04.1992	66.81	77.20	67.90	71.06	71.43
01.04.1993	81.54	93.81	82.57	86.58	87.01
01.03.1994	91.94	105.52	93.07	97.55	98.00
10.04.1995	91.94	105.27	93.28	97.55	98.37
01.04.1996	94.40	107.00	93.08	98.05	98.90
01.04.1997	118.60	136.65	119.95	124.10	126.25
01.04.1998	137.85	158.55	136.00	145.05	144.38
01.04.1999	147.85	170.00	146.00	155.35	154.95
01.04.2000	199.00	217.20	196.55	202.40	204.50
01.04.2001	225.20	245.65	222.25	228.65	231.20
01.04.2002	244.95	265.55	240.45	247.40	249.90
01.04.2003	250.61	266.30	241.21	248.17	N.A.
01.04.2004	251.00	266.70	241.60	248.55	N.A.

Note: w.e.f. 17.3.1985 the prices shown for LPG cylinder refers to 14.2 Kg for all the metropolitan cities.

IX.5 RATES OF DEALER'S COMMISSION FOR MS, HSDO AND LPG IN INDIA

Effective date	Annual volume of sale (KL)							
	0-360		361-600		601-1080		over 1080	
	MS	HSD	MS	HSD	MS	HSD	MS	HSD
	(Rs./KL)							
17.3.1985	146	83	108	62	95	44	76	38
20.3.1990	250	135	179	92	160	42	138	66
15.10.1990	279	145	204	101	182	77	155	70
25.7.1991	311	145	233	101	206	77	172	70
16.9.1992	321	155	240	111	214	83	180	75
1.4.1993	381	186	277	128	248	101	217	92

	0-600		Above 600	
	MS	HSD	MS	HSD
	(Rs./Kl)		(Rs./Kl)	
1.9.1993#	363	190	224	90
2.2.1994*	363	195	224	90
1.4.1994*	376	196	232	93
1.4.1995*	378	197	233	93
1.4.1996*	380	197	234	93
7.7.1996*	387	200	238	94
1.4.1997*	389	201	239	94
6.11.1997*	409	222	409	168
1.4.1998*	411	223	411	169
1.4.1999*	413	224	413	170
6.10.1999*	413	238	413	184
5.1.2000*	462	271	462	271
1.4.2000*	462	271	462	271
1.10.2000*	478	277	478	277
23.11.2000*	478	277	478	277
1.12.2000*	478	277	478	277
10.11.2001**	613	365	613	365
1.11.2002**	639	385	639	385

	Commission for LPG (Rs./Cylinder) On Sale of LPG refills per month	
	Upto 2500	Over 2500
17.5.1991	5.70	5.70
1.9.1993	7.30	6.50

	On Sale of LPG refills per month		
	(Rs./5 Kg Cylinder)	Upto 3000	Over 3000
		(Rs./14.2 Kg Cylinder)	
1.4.1995	-	7.80	6.95
1.4.1996	-	8.05	7.15
1.4.1997	-	8.30	7.40
6.11.1997	-	10.50	10.50
1.4.1998	-	10.80	10.80
1.4.1999	-	11.10	11.10
5.1.2000	-	13.83	13.83
1.4.2000	-	14.28	14.28
1.10.2000	-	14.57	14.57
23.11.2000	-	14.38	14.38
1.12.2000	-	14.53	14.53
10.11.2001	-	15.55	15.55
1.11.2002	8.40	16.33	16.33
1.10.2003	8.60	16.71	16.71

#: Exclusive of demand draft charges.
*: For dealers on DD an amount of Rs.40/Kl for MS and Rs.16/Kl for HSD shall be paid additionally.
**: For dealers on DD an amount of Rs.58/Kl for MS and Rs.34/Kl for HSD shall be paid additionally.
For dealers on pay order/bank cheque an amount of Rs.29/Kl for MS and Rs.17/Kl for HSD shall be paid additionally.
Licence fee recovery may be recovered for 'A' site @Rs.43/Kl and Rs.36/Kl
and for 'B' site @Rs.13/Kl and @Rs.11/Kl for MS and HSD respectively.
The distinctive rates of MS-87 and MS-93 stand discontinued effective 10.11.2001. The above rates till 9.11.2001 are for MS-87.

X. EXCISE/CUSTOM DUTIES AND SALES TAX

X.1 REALISATION OF EXCISE AND CUSTOM DUTIES FROM CRUDE OIL AND PETROLEUM PRODUCTS

(Rs.Crore)

PRODUCTS	1990-91	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
	(.....ACTUALS.....)							
1	2	3	4	5	6	7	8	9
A. EXCISE DUTIES								
1. Motor Spirit	1202	2942	4442	5018	5426	8501	11563	12589
2. Kerosene Oil	255	227	238	249	725	699	1390	1693
3. Refined Diesel Oil	693	2052	3139	6769	8147	11028	10570	13458
4. Diesel Oil (NES)	35	145	154	1233	1104	1179	1038	991
5. Furnace Oil	49	544	306	616	981	779	971	821
6. Pol. Products (NOS)	421	1900	2202	2715	3378	2878	3483	2907
7. Petroleum Gases	66	397	379	359	1296	1542	2445	2552
8. Cess on crude oil	2757	2740	2634	3243	3606	2731	4501	5134
Total (A)	**5478**	**10947**	**13494**	**20202**	**24663**	**29337**	**35961**	**40145**
B. CUSTOM DUTIES								
1. Crude Petroleum	3145	4867	3230	6257	7794	4818	6820	7491
2. Petroleum Products	920	5159	4789	6203	3455	1949	2346	3091
Total (B)	**4065**	**10026**	**8019**	**12460**	**11249**	**6767**	**9166**	**10582**
Grand Total (A+B)	**9543**	**20973**	**21513**	**32662**	**35912**	**36104**	**45127**	**50727**

Figures rounded to nearest crore.

Source: Ministry of Finance.

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
2003-04	2238246	92379	40145	4.1	1.8	43.5

Source : Economic Survey and Budget Papers of Central Government.

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	508.16
1985-86	40872	3969	1050	3768	921.90
1990-91	55035	5478	3701	9179	1667.85
1991-92	56974	5262	4075	9337	1638.82
1992-93	58902	5042	5280	10322	1752.40
1993-94	60812	5310	6913	12223	2009.97
1994-95	67513	6996	6209	12906	1911.63
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	4333.79
2003-04	107767	40145	10582	50727	4707.10

X.4 ROYALTY AND OIL DEVELOPMENT CESS PAID BY OIL COMPANIES ON PRODUCTION OF CRUDE OIL AND NATURAL GAS DURING 1975-76 TO 2003-04

(Rs. Lakhs)

Year	Royalty Paid on Crude Oil						Royalty Paid on Natural Gas					Oil Development Cess
	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	
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	85123	57941	23635	166699	140018	306717	10099	1999	7195	58481	77774	509057
2003-04	82282	69761	27248	179291	138070	317361	10674	2226	8817	63699	85416	514317

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2004

(%)

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
3.	CNG	16		12		8	4	10
B.	**PETROLEUM PRODUCTS**							
4.	MS*							
	MS	30.55	20	20	21.5	19	20	20
5.	HSD*							
	HSD	19.33	12	12	17	17	18	12
6.	ATF Bonded					20	30	
	ATF Duty Paid	30.55		25	25	20	23	20
7.	AV.Spirit Bonded						30	
	AV.Spirit Duty Paid	30.55		25	25	20	9	20
8.	LDO	19.33	12	12	17	17	8	12
9.	Kerosene/IKO (House Hold)	8				1	8	12
	Kerosene/IKO	8		4	6/5*			10
	Kerosene/IKO (Others)	25				4	8	
10.	Furnace Oil	16		20	8	18	4	10
11.	Lube	16	12	12	16	12	15	10
12.	Greases	16		12	16	20	15	10
13.	LPG (House Hold)					1(PDS)	14	
	LPG	16		12	12.5			10
	LPG (Others)					8	15	
14.	Naphtha/Pet. Naphtha	12		12	12	18	16	12
15.	Asphalt/Bitumen	12		20	12.5	20	12	10
16.	MLO	19.33		20	11	8	12	10
17.	HBF/Brake Fluid Oil							
18.	LSHS							
19.	M.T.O.							
20	Pet. Coke(Declared Goods)	4	4	4	4	1	4	4
21.	Transformer Oil	16		12	9	8	12	10

*: Greater Mumbai, New Mumbai, Thane

Contd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2004

(%)

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		4
2.	Natural Gas	8	12	28	8	13	
3.	CNG	8	12	28			
B.	**PETROLEUM PRODUCTS**						
4.	MS*					30	
	MS	20	28	28	25	29	20
5.	HSD*					34	
	HSD	14	17.5	24	25	31	12
6.	ATFBonded					30	
	ATF Duty Paid	25	28	25	25	25	20
7.	AV.Spirit Bonded						
	AV.Spirit Duty Paid	25	28	34	25	24	20
8.	LDO	10	17.5	41	12	13	12
9.	Kerosene/IKO (House Hold)		4	12		4	0
	Kerosene/IKO	8					
	Kerosene/IKO (Others)		16	24	2	20	4
10.	Furnace Oil	8	16	30	8	13	20
11.	Lube	8	16	24	12	13	10
12.	Greases	8	16	24	12	13	10
13.	LPG (House Hold)					8	
	LPG	8	12	16	12		8
	LPG (Others)					13	
14.	Naphtha/Pet. Naphtha	12	12	22	12	13	12
15.	Asphalt/Bitumen	8	16	30	8	13	20
16.	MLO	8	16	30	8	13	
17.	HBF/Brake Fluid Oil						
18.	LSHS						
19.	M.T.O.						
20.	Pet. Coke(Declared Goods)	4	4	4	4	4	4
21.	Transformer Oil	8	15	24	12	13	20

*: Greater Mumbai, New Mumbai, Thane

Contd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2004

(%)

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	4	4	4
2.	Natural Gas	20	12		8	12	8	20
3.	CNG	8	12		8	12	8	20
B. PETROLEUM PRODUCTS								
4.	MS*							
	MS	20	24	20	25	28	30	20
5.	HSD*							
	HSD	12	15	20	8	20	25	12
6.	ATF Bonded							
	ATF Duty Paid	20	15	20	20	28	29	20
7.	AV.Spirit Bonded							
	AV.Spirit Duty Paid	20			20	28	29	20
8.	LDO	12	15	20	20	20	25	8
9.	Kerosene/IKO (House Hold)	4	5	Nil(PDS)			4	
	Kerosene/IKO				20	9		4
	Kerosene/IKO (Others)	12	15	4			25	
10.	Furnace Oil	20		4	8	12	16	20
11.	Lube	12	20	12	12	14	16	20
12.	Greases	12	20	12	8	12	16	20
13.	LPG (House Hold)							
	LPG	8	12	18	8	14	8	12
	LPG (Others)							
14.	Naphtha/Pet. Naphtha	20	12	12	12	14	16	12
15.	Asphalt/Bitumen	20	12	8	20	14	12	20
16.	MLO	12		12	8	12	16	20
17.	HBF/Brake Fluid Oil							
18.	LSHS							
19.	M.T.O.							
20.	Pet. Coke(Declared Goods)		4		4	4	4	4
21.	Transformer Oil	8	12	12	6	12	16	20

*: Greater Mumbai, New Mumbai, Thane

Contd....

X.5 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.2004

(%)

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
3.	CNG						8	20
B.	**PETROLEUM PRODUCTS**							
4.	MS*							
	MS	20	20	20	20	20	20	20
5.	HSD*							
	HSD	15	10	12	20	17	11	8
6.	ATF Bonded							
	ATF Duty Paid	25		20	20	25	20	20
7.	AV.Spirit Bonded							
	AV.Spirit Duty Paid	25		20	20	20	20	
8.	LDO	15	10	12	20	12.55	8	8
9.	Kerosene/IKO (House Hold)					4.55(PDS)		
	Kerosene/IKO	6	12	5	10		8	4
	Kerosene/IKO (Others)					20		
10.	Furnace Oil	8	20	5	20	20	8	
11.	Lube	16	12	12	10	15	8	8
12.	Greases	16	12	12	20	15	8	8
13.	LPG (House Hold)							
	LPG	9	12	12	10	17	8	20
	LPG (Others)							
14.	Naphtha/Pet. Naphtha	12	12	5	20	12		
15.	Asphalt/Bitumen	9	8	5	20	10	8	
16.	MLO	9			20	10	8	
17.	HBF/Brake Fluid Oil							
18.	LSHS							
19.	M.T.O.							
20.	Pet. Coke(Declared Goods)	4	4	4	4	4	4	
21.	Transformer Oil			5	10	10	8	4

*: Greater Mumbai, New Mumbai, Thane

IN ADDITION TO THE SALES TAX PAYABLE, THE FOLLOWING TAX ARE ALSO PAYABLE / RECOVERABLE AS ON 1.4.2004

STATE	RATES
1. Assam	10% Addl. Tax on sales tax is payable. This is recoverable from the customers.
2. Andhra Pradesh	Turnover tax @2% on petroleum products i.e. MS, HSD, ATF, FO, LDO. MLO, Base Oil, Quenching oils, cutting oils, Engine oil, lube oil, greases & break fluid etc. w.e.f. 1.12.01 – cannot be recovered as tax from customers.
3. Bihar	a. 1% on GTO except on pet. Coke (withdrawn w.e.f. 21.7.04 in respect of sales at full rate of sales tax, exempted sales, sale of declared goods, but applicable on sales at concessional rate of sales tax (eg. Sales u/s sec.13 of Bihar Fin Act applicable to Jharkhand – Not NO SO.72 dated 21 July 2004/3032). This is recoverable from the customers. b. 10% surcharge on sales tax is payable, but not recoverable from the customers.
4. Chandigarh	Surcharge @10% on sales tax is payable on all the products. This is recoverable from the customers. Plus 1 ps/per ltr payable on MS and HSD. This is also recoverable.
5. Goa	Addl. Sales tax @ the following rates on sales tax not on declared goods is payable but the same is not recoverable from the customers. a. On gross turnover above Rs. 2 crs, but less than Rs. 7 crs. – 15% b. On gross turnover above Rs. 7 crs, but less than Rs. 15 crs. – 20% c. On gross turnover above Rs. 15 crs. – 25%
6. Gujarat	Additional Tax: @20% on tax on (MST products) i.e. MS, HSD, Av. Spirit, Av. Gas, ATF. And 10% on GST products. This is recoverable from the customers. Turnover Tax: @2% on taxable turnover on MST products excluding exempted sales. This is not recoverable from customers. Cess: (in lieu of Octroi) @2% on MS and @ 3% on HSD.
7. Jammu & Kashmir	a. Surcharge @5% of sales tax is payable. This does not apply to products falling under MST (i.e. MS, HSD). This is recoverable from the customers. b. Cess: @Re.1/ltr on MS w.e.f. 14.8.03 – Recoverable from customers.
8. Karnataka	Resale tax @ 1.5% on second & subsequent sales on all products except LPG & SKO. On MS and HSD re-sale tax is payable by MRPL only. Subsequent sales are exempted. Infra-structure cess @5% and road cess @10% on ST on all products except on MS, HSD, HFHSD, LSHF HSD, LDO, SUPRE LDO, ATF, AV GAS, JP 5/4 LPG and KERO(PDS).
9. Kerala	@15% Addl. Tax. Except on HSD/LPG & Petrol w.e.f. 23.7.01 upto 31.3.2003. Extended upto 31.3.2004 from 1.7.03 (If recovered during 1.4.03 to 30.6.03, same is payable to govt. (same is payable on P. tax also)

Contd. ...

IN ADDITION TO THE SALES TAX PAYABLE, THE FOLLOWING TAX ARE ALS PAYABLE / RECOVERABLE AS ON 1.4.2004

STATE	RATES
10. Madhya Pradesh	@15% on commercial tax on all products except on DGs. Av Gas / ATF, MS, HSD from 5.3.2000 to 31.3.2001. @15% applicable on MS, HSD, ATF, Av. Gas as on 7.3.2002.
11. Maharashtra	a. Resale tax of 0.5% on resale on SchC-II goods. It is not liable on goods which are liable for 4% or less.(w.e.f. 1.4.2001) b. @10% on S.T. on all products except on Petrol / Diesel / ATF & Av. Gas, - surcharge @Re.1/PLT on MS and HSD w.e.f. 1.7.02.
12. Meghalaya	2% on ST on all products.
13. Orissa	Surcharge : @10% of sales tax is payable. This is recoverable from the customers.
14. Punjab	a. Social security cess: @ 10% of the sales tax is payable. This is recoverable from the customers. b. Cess: @1% on advoleram basis for MS.
15. Rajasthan	Surcharge: @15% of the sales tax is payable. This is recoverable from the customers. Turnover tax: @0.25% on turnover is payable on all products. (Dealers of Petrol & Diesel exempted on the condition that they have to pay 0.50% on TOT + 15% s/c on TOT.
16. Tamil Nadu	Additional tax: @ the following rate is payable on the taxable turnover. This is not recoverable from the customers. a. On taxable turnover Below Rs. 10 lacs - Nil Between Rs. 10 to 40 lacs - 1.25% Between Rs. 40 lacs to 1 crs. – 1.50% Between Rs. 1 crs. to 5 crs. – 2.00% Between Rs. 5 crs. to 10 crs. – 2.25% Between Rs. 10 crs. to 300 crs. – 2.50% Above Rs. 300 crs. – 3.00% b. Surcharge @5% on ST – recoverable (Not applicable on Kero(PDS), LPG, ATF, AV GAS, HSD, CNG, NAT.GAS, LDO, LSHS, MS)
17. Tripura	Additional tax @0.50% on taxable turnover payable. This is not recoverable from the customers.
18. West Bengal	a. Additional tax @ 20% on Tax (ST/SC/Addl. Tax) on MS, HSD, LDO, ATF is payable. This is not recoverable from the customers. b. Resale tax @0.5% on re-sale of petroleum products except MS, HSD, ATF, AV. GAS, SKO, LDO, LPG, FO & PET. COKE. Recoverable from customers. c. Surcharge @ 10% on tax on petroleum products including lubes/ greases but excluding MS, ATF, AV. GAS, SKO, HSD, LDO, FO, LPG & PET COKE – This is recoverable from customers.

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	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1. CRUDE OIL									
Andhra Pradesh	0	0	53	86	6	103	4	0	2432
Arunachal Pradesh	23	32	29	27	34	614	60	70	0
Assam	5976	6218	6590	6618	8896	10634	10741	15604	15805
Gujrat	7826	8333	8170	7933	10851	12574	13607	21736	17456
Maharashtra	23441	22814	22486	20311	25765	29321	27925	60303	50292
Tamil Nadu	470	453	447	504	718	957	1009	1627	3
Rajasthan	0	0	0	0	0	0	1	1	1556
TOTAL (1)	**37736**	**37850**	**37775**	**35479**	**46270**	**54203**	**53347**	**99341**	**87544**
2. NATURAL GAS									
Andhra Pradesh	1627	2143	5316	5180	6762	8022	9895	11689	12973
Arunachal Pradesh	0	0	0	0	0	0	0	0	0
Assam	722	1065	1257	1569	2497	3036	2595	2624	2856
Gujrat	7924	26642	31638	35010	38863	44568	44547	46746	43547
Madhya Pradesh	0	2565	2426	7436	6180	6972	5824	3388	10278
Maharashtra	4998	6776	7264	11853	9509	10772	7977	7624	9358
Rajasthan	8	7	1260	107	148	157	184	153	184
Tamil Nadu	39	101	129	97	286	390	744	1050	1501
Tripura	113	127	207	410	629	760	789	790	816
UP	0	5654	7080	8376	10908	12334	12598	10327	9751
TOTAL (2)	**15431**	**45080**	**56577**	**70038**	**75782**	**87011**	**85153**	**84391**	**91264**
3. POI PRODUCTS									
Andhra Pradesh	73029	88786	110110	109847	158452	194146	151883	249820	278210
Arunachal Pradesh	0	0	2	0	0	190	426	532	674
Assam	8150	13011	11866	14801	19298	24568	25714	31717	40821
Bihar	25181	29497	36503	33775	57416	61684	45278	69118	69149
Chhattisgarh	0	0	0	0	0	6763	16673	28668	35720
Delhi	23407	28964	35828	34697	53797	81164	67760	86496	90497
Goa	8187	10137	12256	12338	19026	21944	14999	20092	23693
Gujarat	97801	118159	141668	149204	176193	203068	237604	321224	316319
Harayana	10402	18469	23906	26202	41750	71515	63685	83300	95594
Himachal Pradesh	614	806	876	1379	4155	7625	8031	9876	12964
Jammu & kashmir	2305	2568	3464	4098	7009	11153	9869	14996	17009
Jharkhand	0	0	0	0	0	10988	19460	31959	41532
Karnataka	60135	77274	98126	94173	116533	140413	125237	164918	204290
Kerala	56791	70780	83885	89928	86602	134010	103372	149289	184629
Madhya Pradesh	36178	42813	62255	69222	76902	86495	65876	111293	127421
Maharashtra	128425	152663	184845	176887	285395	386015	278283	506197	524725
Manipur	464	592	535	523	888	1362	1090	1625	1794
Meghyalya	110	277	319	515	796	1380	1093	1848	1854
Mizoram	134	177	197	126	250	339	499	959	1181
Nagaland	155	222	295	182	769	907	1358	1401	1508
Orissa	11802	14974	18456	22283	24359	34861	27587	43654	52986
Punjab	13845	17263	19505	20259	43865	76277	64631	87190	100269
Rajasthan	36759	44588	49755	64911	80114	101883	88392	141074	164383
Sikkim	53	80	107	111	281	613	728	982	1102
Tamil Nadu	93275	117578	134604	148699	206292	236552	188827	267751	302447
Tripura	391	476	599	636	759	1356	1981	2445	2841
Uttar Pradesh	66992	79487	94489	105988	152489	196708	167481	229656	252335
Uttaranchal	0	0	0	0	0	4721	12284	16470	19816
West Bengal	39132	47867	56217	62270	74411	95276	77600	113225	137770
(b) Union Territories									
Daman & Diu	18	29	31	25	38	119	50	67	63
Chandigarh	147	186	171	176	482	1732	2221	1867	1918
Dadra & Nagar Haveli	0	0	2	1	3	5	5	40	14
Pondicherry/Mane	180	221	228	208	237	412	478	592	533
Total (3)	**794062**	**977944**	**1181100**	**1243464**	**1688561**	**2196244**	**1870455**	**2790341**	**3106061**
Grand Total (1+2+3)	**847229**	**1060874**	**1275452**	**1348981**	**1810613**	**2337458**	**2008955**	**2974073**	**3284869**

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

XI. TRANSPORTATION

XI.1 TONNAGE OF INDIAN TANKERS FLEET 1975 TO 2004

(DWT in '000' Tonnes)

Year*	Coastal Oil Tanker						Offshore		Specialised		Overseas								Overseas		Total all	
	Product Carriers		Crude Oil Carriers		Total		Supply Vessels		vessels for offshore		Ore oil bulk carriers		Crude oil carriers		Product carriers		LPG carriers		total		tankers	
	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
2004	12	61.0	2	82.2	14	143.2	76	99.1	32	54.1	2	169.3	46	4744.4	45	1998.0	8	183.2	101	7094.9	223	7391.3

*: 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 31.3.2004

(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	Marine Offshore Service (India) Pvt. Ltd.	1397	3250
10	Oil and Natural Gas Commission	37065	43659
11	Rajamahendri Shipping & Oil Field Services P.Ltd.	189	125
12	Seaspan Shipping	157	66
13	Jayesh Shipping P.Ltd.	69	0
14	Shipping Corporation of India Ltd.	13100	17912
15	VNS Offshore Service Co.	487	737
	Total	**79598**	**99081**
	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	Reliance Industries Ltd.	1206	820
8	Samson Maritime	1493	1810
9	South East Asia Marine Engg. & Construction Ltd.	11211	6135
10	South India Corpn. (Agencies) Ltd.	490	826
11	The Council of Scientific & Industrial Research	2661	800
12	The Department of Ocean Development	4582	1605
13	The Director General of Lighthouses & Lightships	5823	3083
14	The Geological Survey of India	2942	2005
	Total	**90394**	**54085**

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XI.2 INDIAN TONNAGE AS ON 31.3.2004

(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.	462477	848567
3	India Steamship Co.Ltd.	95792	150260
4	Pratibha Shipping Co. Ltd.	36865	62094
5	The Shipping Corporation of India Ltd.	1530420	2764385
	Total	**2605564**	**4744386**
	Oil Tankers (Product Carriers)		
1	ASM Shipping	18101	30990
2	Seven Islands Shipping	3794	6009
3	Essar Shipping Ltd.	24654	39204
4	Great Eastern Shipping Co.Ltd.	443374	755836
5	Mercator Lines	262552	464678
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	**1177235**	**1998023**
	LPG Carriers		
1	Great Eastern Shipping Co. Ltd.	21308	28400
2	Shipping Corpn. Of India Ltd.	35556	35202
3	Varun Shipping Co.Ltd.	92982	119557
	Total	**149846**	**183159**

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
	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	35.80	16.47	46.0
	2003-04	40.98	20.04	48.9
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	30.15	88.5
	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	26.80	16.03	59.8
	2003-04	29.92	18.51	61.9
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
	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
	2003-04	36.71	9.48	25.8
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
	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
	2003-04	13.57	9.96	73.4
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

Contd. ...

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
	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
	2003-04	41.52	23.63	56.9
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
	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
	2003-04	47.74	17.43	36.5
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
	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
	2003-04	27.87	1.32	4.7
J.N.P.T.	1989-90	0.70	0.00	0.0
	1995-96	6.87	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
	2003-04	31.27	1.98	6.3
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
	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
	2003-04	25.31	1.36	5.4

Contd. ...

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
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
	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
	2003-04	13.68	0.56	4.1
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
	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
	2003-04	26.67	17.96	67.3
Ennore	2001-02	3.40	0.00	0.0
	2002-03	8.49	0.00	0.0
	2003-04	9.28	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
	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	313.53	109.59	35.0
	2003-04	344.52	122.22	35.5

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
2003-04*	32020	24498300	584	131.0	765.09

*: Provisional (on originating basis).

XI.5 RAIL FREIGHT RATES IN RESPECT OF PETROLEUM PRODUCTS

(Rs./Tonne)

Effective Date	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
01.04.2004	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	1503.6	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
01.04.2004	200.2	464.2	728.2	1124.2	1388.2	2048.2	2540.2	2900.2

NOTE : Dangerous POL - include Benzene and other dangerous mineral oils.
Non-Dangerous POL includes HSDO 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						
	1998	1999	2000	2001	2002	2003	2004
CRUDE PIPELINES (ONSHORE)							
ONGC	843	888	966	975	1181	1708	2232
OIL	1524	1538	1538	1538	1538	1538	1538
IOC	1689	2210	2373	2373	2352	2791	2791
HPCL	11	11	11	11	11	11	11
Pvt. / JVC							187
SUBTOTAL	**4067**	**4647**	**4888**	**4897**	**5082**	**6048**	**6759**
CRUDE PIPELINES (OFFSHORE)							
ONGC	667	667	667	731	731	798	821
IOC	14	14	14	14	33	33	22
Pvt. / JVC							208
SUBTOTAL	**681**	**681**	**681**	**745**	**764**	**831**	**1051**
GAS PIPELINES (ONSHORE)							
ONGC	654	679	685	687	759	929	1079
GAIL	3938	4017	4077	4205	4476	4591	4756
OIL	90	90	90	213	213	213	213
BPCL	2	2	2	2	2	2	2
Pvt. / JVC							63
SUBTOTAL	**4684**	**4788**	**4854**	**5107**	**5450**	**5735**	**6113**
GAS PIPELINES (OFFSHORE)							
ONGC	638	638	638	660	660	671	671
GAIL							7
Pvt. / JVC							150
SUBTOTAL	**638**	**638**	**638**	**660**	**660**	**671**	**828**
PRODUCT PIPELINES (ONSHORE)							
IOC(AOD)	69	69	69	75	75	75	75
IOC	3981	3981	3981	4136	4142	4346	4687
BPCL	398	415	482	553	576	613	971
HPCL	563	563	585	585	808	812	1174
ONGC	8	8	8	14	14	14	14
RPL			113	113	113	113	113
GAIL				1233	1233	1233	2527
SUBTOTAL	**5019**	**5036**	**5238**	**6709**	**6961**	**7206**	**9561**
PRODUCT PIPELINES (OFFSHORE)							
BPCL	3	3	3	3	3	3	3
ONGC	48	48	48	48	48	48	48
SUBTOTAL	**51**	**51**	**51**	**51**	**51**	**51**	**51**
GRAND TOTAL	**15140**	**15841**	**16350**	**18169**	**18968**	**20542**	**24363**

XII. MARKETING NETWORK

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

(Number)

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	11873
	%	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
2004	Nos.	5274	5204		8762	326	2524	22090
	%	23.9	23.6		39.7	1.5	11.4	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, LDO/SKO DEALERS AND LPG DISTRIBUTORS AS ON 1.4.2004

(Number)

State / UT	Retail Outlets	LDO/SKO Dealers	LPG Distri-butors
1	2	3	4
STATES			
Andhra Pradesh	1977	605	726
Arunachal Pradesh	37	32	28
Assam	380	360	227
Bihar	945	357	255
Chhattisgarh	281	105	100
Delhi	365	116	306
Goa	77	20	51
Gujarat	1343	496	525
Haryana	920	148	269
Himachal Pradesh	154	26	108
Jammu & Kashmir	182	47	139
Jharkhand	462	83	131
Karnataka	1368	325	468
Kerala	1017	242	348
Madhya Pradesh	1049	267	443
Maharashtra	2137	766	947
Manipur	35	35	28
Meghalaya	71	35	32
Mizoram	14	19	23
Nagaland	34	19	23
Orissa	497	179	157
Punjab	1499	243	407
Rajasthan	1493	252	401
Sikkim	18	12	3
Tamil Nadu	1940	464	527
Tripura	33	40	26
Uttar Pradesh	2914	683	1019
Uttaranchal	258	71	144
West Bengal	1295	472	427
UNION TERRITORIES			
Andaman & Nicobar	5	1	2
Chandigarh	40	12	30
Dadra & Nagar Haveli	7	2	1
Daman & Diu	9	5	2
Lakshadweep	0	0	2
Pondicherry	57	8	13
Bhutan	22	2	0
Grand Total	**22935**	**6549**	**8338**

Source: Public Sector Undertakings.

XII.3 STATE-WISE AND COMPANY-WISE RETAIL OUTLETS AS ON 1.4.2004

(Number)

State / UT	IOCL/ AOD	IBP	HPCL	BPCL	TOTAL
1	2	3	4	5	6
STATES					
Andhra Pradesh	686	285	526	480	1977
Arunachal Pradesh	36	0	0	1	37
Assam	318	20	36	6	380
Bihar	380	165	174	226	945
Chhattisgarh	113	14	77	77	281
Delhi	138	44	89	94	365
Goa	15	3	26	33	77
Gujarat	514	214	295	320	1343
Haryana	394	196	173	157	920
Himachal Pradesh	74	9	36	35	154
Jammu & Kashmir	93	4	38	47	182
Jharkhand	164	54	128	116	462
Karnataka	546	144	326	352	1368
Kerala	346	118	293	260	1017
Madhya Pradesh	462	69	243	275	1049
Maharashtra	687	169	627	654	2137
Manipur	34	1	0	0	35
Meghalaya	53	8	7	3	71
Mizoram	14	0	0	0	14
Nagaland	32	1	1	0	34
Orissa	203	36	111	147	497
Punjab	560	346	315	278	1499
Rajasthan	618	99	412	364	1493
Sikkim	11	2	2	3	18
Tamil Nadu	728	153	537	522	1940
Tripura	33	0	0	0	33
Uttar Pradesh	1243	400	602	669	2914
Uttaranchal	112	24	65	57	258
West Bengal	471	175	329	320	1295
UNION TERRITORIES					
Andaman & Nicobar	5	0	0	0	5
Chandigarh	15	4	11	10	40
Dadra & Nagar Haveli	2	1	3	1	7
Daman & Diu	4	0	2	3	9
Lakshadweep	0	0	0	0	0
Pondicherry	22	7	18	10	57
Bhutan	12	0	0	10	22
Grand Total	**9138**	**2765**	**5502**	**5530**	**22935**

Source: Public Sector Undertakings.

XII.4 STATE-WISE AND COMPANY-WISE LPG DOMESTIC CONSUMERS AS ON 1.4.2004

(000' Number)

State / UT	IOCL/ AOD	IBP	HPCL	BPCL	TOTAL
1	2	3	4	5	6
STATES					
Andhra Pradesh	2875	23	3876	1818	8592
Arunachal Pradesh	93	0	0	0	93
Assam	1297	0	9	16	1322
Bihar	1269	0	225	268	1762
Chhattisgarh	342	0	263	111	716
Delhi	2312	0	482	798	3592
Goa	4	0	215	125	344
Gujarat	2565	12	923	902	4402
Haryana	1213	48	424	832	2517
Himachal Pradesh	841	0	119	46	1006
Jammu & Kashmir	309	0	681	108	1098
Jharkhand	565	0	112	85	762
Karnataka	1613	0	1574	1010	4197
Kerala	2196	0	597	1211	4004
Madhya Pradesh	1647	0	854	597	3098
Maharashtra	998	12	4581	4777	10368
Manipur	172	0	0	0	172
Meghalaya	76	0	0	0	76
Mizoram	149	0	0	0	149
Nagaland	97	0	0	0	97
Orissa	379	0	487	187	1053
Punjab	1971	72	711	903	3657
Rajasthan	1327	0	832	926	3085
Sikkim	78	0	0	0	78
Tamil Nadu	4284	78	885	1840	7087
Tripura	176	0	0	0	176
Uttar Pradesh	4626	47	1052	2051	7776
Uttaranchal	1056	1	28	141	1226
West Bengal	2568	28	815	493	3904
UNION TERRITORIES					
Andaman & Nicobar	35	0	0	0	35
Chandigarh	182	0	65	41	288
Dadra & Nagar Haveli	0	0	21	0	21
Daman & Diu	0	0	26	0	26
Lakshadweep	3	0	0	0	3
Pondicherry	82	0	71	28	181
GRAND TOTAL	**37400**	**321**	**19928**	**19314**	**76962**

Source: Public Sector Undertakings.

XII.5 CNG ACTIVITIES IN INDIA AS ON 1.4.2004

Item	Delhi	Maharashtra	Gujarat				Grand Total
	Delhi IGL	Maharashtra MGL	Vadodara GAIL	Surat GGCL	Ankleshwar GGCL	Total	
1	2	3	4	5	6	7	8
Station Type							
Mother	56	4	1@	1	0	2	62
Online	27	56	0	1	0	1	84
Daughter Booster	33	15	0	0	0	0	48
Daughter	4	0	1	0	1	2	6
Total	**120**	**75**	**2**	**2**	**1**	**5**	**200**
No. of Vehicles							
Cars$	16098	48307	89	771	117	977	65382
Autos	59027	73139	0	459	0	459	132625
RTVs	5267	0	0	0	0	0	5267
Buses	10199	50	0	0	0	0	10249
Others	0	85	0	0	0	0	85
Total	**90591**	**121581**	**89**	**1230**	**117**	**1436**	**213608**
Price (Rs./Kg)	16.83	19.71	18.20	21.45	21.45		
Average Consumption							
TPD	886.5	NA	0.775	NA	NA		
MMSCMD	1.148	NA	0.001	NA	NA		

MMSCMD: Million Standard Cubic Metres Per Day
$: Includes taxies.
NA: Not Available.

TPD : Tonnes per day
@: Cascade filling facility only.

Source:
1. IGL : Indraprastha Gas Ltd.
2. MGL : Mahanagar Gas Ltd.
3. GAIL : GAIL (India) Ltd.
4. GGCL : Gujarat Gas Company Ltd.

Conversion factors:
1 Kg = 1.295 SCM of gas

1 Kg = 1.43 SCM of gas

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 Ultra Low Sulphur (0.05%) with 1% Benzene max.		April, 2000 **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 Kwh)			
	Coal	Lignite	Total	Natural Gas (MCM)	Crude Petroleum	Petroleum Products@ ('000' Tonnes)	Thermal	Hydel	Nuclear	Total
	(.....Million Tonnes.....)									
1	2	3	4	5	6	7	8	9	10	11
1960-61	55.23	N.A.	55.23	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	12.80	213.69	16988	34087	52143	178522	61996	4623	245141
1990-91	211.73	13.77	225.50	17998	32160	52201	186452	71535	6244	264231
1991-92	229.28	14.55	243.83	18644	30345	52213	208551	72599	5561	286711
1992-93	238.26	16.62	254.88	18061	26950	54435	224485	69833	6748	301066
1993-94	246.04	18.10	264.14	18336	27026	55305	247618	70311	5394	323323
1994-95	253.80	19.34	273.14	19468	32239	57400	262900	82500	5600	351000
1995-96	270.13	22.14	292.27	22642	35170	58320	299600	72500	8000	380100
1996-97	285.66	22.54	308.20	23256	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	32722	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	327.79	24.81	352.60	29714	32032	107277	422000	73900	16300	515200
2002-03	341.27	26.02	367.29	31389	33044	111790	448526	63833	19235	531594
2003-04*	361.17	27.96	389.13	31962	33373	121703	466618	73796	17720	558134

* = Provisional @ Includes RBF and LPG production from natural gas.

Source = (i) Central Electricity Authority and Economic Survey (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

	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 DIFFERENT 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.

PART–II

INTERNATIONALPETROLEUM STATISTICS

XIV.1(a) WORLD PROVED RESERVES OFCRUDE OIL ATEND 2003

	Thousand Million Tonnes	Thousand Million Barrels	Share of total	R/P ratio
USA	4.2	30.7	2.7%	11.3
Canada	2.3	16.9	1.5%	15.5
Mexico	2.3	16.0	1.4%	11.6
Total North America	8.8	63.6	5.5%	12.2
Argentina	0.4	3.2	0.3%	11.0
Brazil	1.5	10.6	0.9%	18.7
Colombia	0.2	1.5	0.1%	7.3
Ecuador	0.6	4.6	0.4%	29.6
Peru	0.1	1.0	0.1%	28.4
Trinidad & Tobago	0.3	1.9	0.2%	31.1
Venezuela	11.2	78.0	6.8%	71.5
OtherS. & Cent. America	0.2	1.5	0.1%	24.8
TotalS. & Cent. America	14.6	102.2	8.9%	41.5
Azerbaijan	1.0	7.0	0.6%	61.2
Denmark	0.2	1.3	0.1%	9.5
taly	0.1	0.7	0.1%	19.0
Kazakhstan	1.2	9.0	0.8%	22.3
Norway	1.4	10.1	0.9%	8.5
Romania	0.1	0.9	0.1%	20.6
Russian Federation	9.5	69.1	6.0%	22.2
Turkmenistan	0.1	0.5	w	7.1
UnitedKingdom	0.6	4.5	0.4%	5.4
Uzbekistan	0.1	0.6	0.1%	9.8
Other Europe & Eurasia	0.3	2.1	0.2%	11.9
Total Europe & Eurasia	14.5	105.9	9.2%	17.1
Iran	18.0	130.7	11.4%	92.9
Iraq	15.5	115.0	10.0%	*
Kuwait	13.3	96.5	8.4%	*
Oman	0.8	5.6	0.5%	18.5
Qatar	2.0	15.2	1.3%	45.5
SaudiArabia	36.1	262.7	22.9%	73.3
Syria	0.3	2.3	0.2%	10.5
United Arab Emirates	13.0	97.8	8.5%	*
Yemen	0.1	0.7	0.1%	4.2
Other Middle East	^	0.1	w	6.1
Total Middle East	99.0	726.6	63.3%	88.1
Algeria	1.4	11.3	1.0%	16.7
Angola	1.2	8.9	0.8%	27.5
Cameroon	^	0.2	w	9.0
Rep. of Congo (Brazzaville)	0.2	1.5	0.1%	17.1
Egypt	0.5	3.6	0.3%	13.2
Gabon	0.3	2.4	0.2%	27.0
Libya	4.7	36.0	3.1%	66.3
Nigeria	4.6	34.3	3.0%	43.1
Sudan	0.1	0.7	0.1%	7.5
Tunisia	0.1	0.5	w	20.8
Other Africa	0.3	2.3	0.2%	17.5
Total Africa	13.5	101.8	8.9%	33.2

Contd.....

XIV.1(a) WORLD PROVED RESERVES OF CRUDE OIL AT END 2003

	Thousand Million Tonnes	Thousand Million Barrels	Share of total	R/P ratio
Australia	0.6	4.4	0.4%	19.3
Brunei	0.1	1.1	0.1%	14.1
China	3.2	23.7	2.1%	19.1
India	0.7	5.6	0.5%	19.3
Indonesia	0.6	4.4	0.4%	10.3
Malaysia	0.5	4.0	0.3%	12.5
Papua New Guinea	0.1	0.4	w	22.5
Thailand	0.1	0.7	0.1%	8.7
Vietnam	0.3	2.5	0.2%	18.4
Other Asia Pacific	0.1	0.9	0.1%	15.4
Total Asia Pacific	6.4	47.7	4.2%	16.6
TOTAL WORLD	156.7	1147.7	100.0%	41.0
Of which OECD	11.7	85.8	7.5%	11.1
OPEC	120.4	882.0	76.9%	79.5
Non-OPEC£	24.4	178.8	15.6%	13.6
Former Soviet Union	11.9	86.9	7.6%	22.7

* Over 100 years , ^ Less than 0.05, W Less than 0.05%

£ Excludes Former Soviet Union

Notes: Proved reserves of oil - Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and and operating conditions.

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 of data: The estimates in this table have been compiled using a combination of primary official sources, third party data from the OPEC Secretariat, World Oil, Oil & Gas Journal and an independent estimate of Russian and an independen estimate of Russian reserves based on information in the public domain.

The reserves figures shown do not necessarily meet the United States Securities and Exchange Commission definitions and guidelines for determining proved reserves nor necessarily represent BP's view of proved reserves of the country.

The figure for Canadian oil reserves includes an official estimate of Canadian oil sands "under active development". Oil includes gas condensate and natural gas liquids as well as crude oil.

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.1(b)WORLD PROVED RESERVES OF NATURAL GAS ATEND 2003

Country/Region	Trillion cubic feet	Trillion cubic metres	Share oftotal	R/P ratio
USA	184.8	5.23	3.0%	9.5
Canada	58.7	1.66	0.9%	9.2
Mexico	14.7	0.42	0.2%	11.4
Total North America	**258.2**	**7.31**	**4.2%**	**9.5**
Argentina	23.4	0.66	0.4%	16.2
Bolivia	28.7	0.81	0.5%	*
Brazil	8.7	0.25	0.1%	24.3
Colombia	4.0	0.11	0.1%	18.6
Peru	8.7	0.25	0.1%	*
Trinidad & Tobago	26.0	0.74	0.4%	29.7
Venezuela	146.5	4.15	2.4%	*
Other S. & Cent. America	7.7	0.22	0.1%	*
TotalS. & Cent. America	**253.7**	**7.19**	**4.1%**	**60.6**
Azerbaijan	48.4	1.37	0.8%	*
Denmark	3.3	0.09	0.1%	11.8
Germany	7.3	0.21	0.1%	11.7
Italy	7.8	0.22	0.1%	16.0
Kazakhstan	67.1	1.90	1.1%	*
Netherlands	58.8	1.67	0.9%	28.6
Norway	86.9	2.46	1.4%	33.5
Poland	4.1	0.12	0.1%	28.9
Romania	11.0	0.31	0.2%	24.6
Russian Federation	1659.1	47.00	26.7%	81.2
Turkmenistan	102.4	2.90	1.6%	52.6
Ukraine	39.2	1.11	0.6%	62.6
United Kingdom	22.2	0.63	0.4%	6.1
Uzbekistan	65.3	1.85	1.1%	34.5
Other Europe & Eurasia	16.3	0.46	0.3%	43.4
Total Europe & Eurasia	**2199.0**	**62.30**	**35.4%**	**60.8**
Bahrain	3.0	0.09	w	8.8
Iran	942.2	26.69	15.2%	*
Iraq	109.7	3.11	1.8%	*
Kuwait	55.0	1.56	0.9%	*
Oman	33.4	0.95	0.5%	57.3
Qatar	909.6	25.77	14.7%	*
Saudi Arabia	235.7	6.68	3.8%	*
Syria	10.6	0.30	0.2%	47.6
United Arab Emirates	213.9	6.06	3.4%	*
Yemen	16.9	0.48	0.3%	*
Other Middle East	1.8	0.05	w	*
Total Middle East	**2531.8**	**71.72**	**40.8%**	*

XIV.1 (b) WORLD PROVED RESERVES OF NATURAL GAS AT END 2003

Country/Region	Trillion cubic feet	Trillion cubic metres	Share of total	R/P ratio
Algeria	159.7	4.52	2.6%	54.6
Egypt	62.0	1.76	1.0%	70.4
Libya	46.4	1.31	0.7%	*
Nigeria	176.4	5.00	2.8%	*
Other Africa	42.1	1.19	0.7%	*
Total Africa	486.5	13.78	7.8%	97.5
Australia	90.0	2.55	1.4%	76.9
Bangladesh	12.0	0.34	0.2%	27.8
Brunei	12.4	0.35	0.2%	28.3
China	64.4	1.82	1.0%	53.4
India	30.1	0.85	0.5%	28.4
Indonesia	90.3	2.56	1.5%	35.2
Malaysia	84.9	2.41	1.4%	45.0
Myanmar	12.8	0.36	0.2%	52.6
Pakistan	26.5	0.75	0.4%	35.5
Papua New Guinea	15.1	0.43	0.2%	*
Thailand	15.4	0.44	0.2%	22.3
Vietnam	8.1	0.23	0.1%	76.7
Other Asia Pacific	13.7	0.39	0.2%	32.9
Total Asia Pacific	475.6	13.47	7.7%	43.4
TOTAL WORLD	6204.9	175.78	100.0%	67.1
Of which: European Union15	101.8	2.88	1.6%	14.1
OECD	546.5	15.48	8.8%	14.2
Former Soviet Union	1990.7	56.40	32.1%	78.0

*Over 100 years ^ Less than 0.05 w Less than 0.05%

Notes: Proved reserves of oil - Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions.

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 of data: the estimates in this table have been compiled using a combination of primary official sources and third party data from Cedigaz, the OPEC Secretariat and Oil & Gas Journal.

The reserves figures shown do not necessarily meet the United States Securities and Exchange Commission definitions and guidelines for determining proved reserves nor necessarily represent BP's view of proved reserves by country

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.2 WORLD CRUDE OIL PRODUCTION 1998-2003

(Million Tonnes)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	368.1	352.6	352.6	349.2	346.9	341.1	-1.6%	9.2%
Canada	125.1	121.0	126.9	127.5	134.0	141.9	5.9%	3.8%
Mexico	173.5	165.2	171.2	176.6	178.4	188.8	5.8%	5.1%
Total North America	**666.7**	**638.8**	**650.8**	**653.3**	**659.2**	**671.8**	**1.9%**	**18.2%**
Argentina	44.0	41.8	40.4	40.8	39.7	39.0	-1.9%	1.1%
Brazil	49.8	56.3	63.2	66.3	74.4	76.8	3.3%	2.1%
Colombia	38.5	41.6	35.3	31.0	29.7	27.9	-6.2%	0.8%
Ecuador	19.5	19.4	20.9	21.2	20.8	21.7	4.2%	0.6%
Peru	5.8	5.4	5.1	4.8	4.8	4.5	-6.2%	0.1%
Trinidad & Tobago	6.7	7.0	6.8	6.5	7.5	7.9	4.4%	0.2%
Venezuela	181.0	167.0	171.6	166.4	165.4	153.4	-7.2%	4.2%
Other S. & Cent. America	6.2	6.2	6.6	7.0	7.8	8.4	6.8%	0.2%
Total S. & Cent. America	**351.5**	**344.6**	**349.8**	**344.1**	**350.2**	**339.5**	**-3.1%**	**9.2%**
Azerbaijan	11.4	13.8	14.0	14.9	15.4	15.5	0.6%	0.4%
Denmark	11.4	14.7	17.8	16.9	18.1	17.9	-1.3%	0.5%
Italy	5.6	5.0	4.6	4.1	5.5	5.6	0.7%	0.2%
Kazakhstan	25.9	30.1	35.3	40.1	48.2	52.2	8.4%	1.4%
Norway	149.7	149.7	160.1	162.1	157.3	153.0	-2.7%	4.1%
Romania	6.6	6.4	6.3	6.2	6.1	5.9	-2.9%	0.2%
Russian Federation	304.3	304.8	323.3	348.1	379.6	421.4	11.0%	11.4%
Turkmenistan	6.4	7.1	7.2	8.0	9.0	10.4	15.6%	0.3%
United Kingdom	132.1	136.8	125.9	116.7	115.9	105.6	-8.9%	2.9%
Uzbekistan	8.2	8.1	7.5	7.2	7.2	7.1	-0.9%	0.2%
Other Europe & Eurasia	24.3	22.7	22.4	22.3	23.1	23.4	1.2%	0.6%
Total Europe & Eurasia	**686.0**	**699.2**	**724.4**	**746.6**	**785.5**	**818.0**	**4.1%**	**22.1%**
Iran	190.8	178.1	189.4	184.6	168.8	190.1	12.6%	5.1%
Iraq	104.4	124.9	127.3	116.5	99.7	65.9	-33.9%	1.8%
Kuwait	107.2	98.3	104.0	101.9	91.8	110.2	20.0%	3.0%
Oman	44.7	45.0	47.6	47.5	44.5	40.7	-8.6%	1.1%
Qatar	34.3	36.0	38.7	38.4	35.1	41.2	17.3%	1.1%
Saudi Arabia	452.0	419.1	450.6	434.1	417.3	474.8	13.8%	12.8%

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XIV.2 WORLD CRUDE OIL PRODUCTION *1998-2003

(Million Tonnes)

Country	1998	1999	2000	2001	2002	2003	%Change 2003 over 2002	2003 %share of total
Syria	28.6	28.8	27.4	29.0	28.4	29.5	3.9%	0.8%
United Arab Emirates	119.9	107.7	117.3	113.5	100.4	117.8	17.3%	3.2%
Yemen	18.0	19.2	21.3	22.3	21.8	21.4	-1.9%	0.6%
Other Middle East	2.3	2.2	2.2	2.2	2.2	2.2	-	0.1%
Total Middle East	**1102.3**	**1059.2**	**1125.8**	**1090.0**	**1010.1**	**1093.7**	**8.3%**	**29.6%**
Algeria	61.8	63.9	66.8	65.8	70.9	79.0	11.4%	2.1%
Angola	36.0	36.7	36.9	36.6	44.6	43.6	-2.2%	1.2%
Cameroon	5.3	4.8	4.5	4.1	3.7	3.5	-5.5%	0.1%
Chad	-	-	-	-	-	2.1	>100%	0.1%
Rep. of Congo (Brazzaville)	13.6	15.1	14.2	14.0	13.4	12.5	-6.2%	0.3%
Egypt	43.0	41.4	38.8	37.3	37.0	36.8	-0.5%	1.0%
Equatorial Guinea	4.1	5.0	5.6	9.0	11.7	12.3	5.0%	0.3%
Gabon	16.9	17.0	16.4	15.0	14.7	12.0	-18.5%	0.3%
Libya	69.6	67.0	69.5	67.0	64.7	70.0	8.2%	1.9%
Nigeria	105.9	99.2	103.3	107.8	98.6	107.2	8.6%	2.9%
Sudan	0.6	3.1	8.6	10.4	11.5	12.6	9.4%	0.3%
Tunisia	3.9	4.0	3.7	3.4	3.4	3.1	-9.2%	0.1%
Other Africa	3.0	2.7	3.0	3.1	3.1	3.6	14.6%	0.1%
Total Africa	363.6	359.8	371.2	373.2	377.3	398.3	5.5%	10.8%
Australia	27.4	26.7	35.3	31.8	31.6	26.6	-15.6%	0.7%
Brunei	7.6	8.9	9.4	9.9	10.2	10.5	2.1%	0.3%
China	160.2	160.2	162.6	164.8	166.9	169.3	1.5%	4.6%
India	36.7	36.5	36.1	36.0	36.8	36.7	-0.1%	1.0%
Indonesia	74.2	68.6	71.5	68.0	63.0	57.5	-8.6%	1.6%
Malaysia	36.9	35.6	35.5	35.0	36.7	38.8	5.5%	1.0%
Thailand	4.7	5.2	6.6	7.0	7.8	9.0	15.7%	0.2%
Vietnam	12.1	14.6	16.2	17.1	17.3	18.0	4.0%	0.5%
Other Asia Pacific	10.2	10.2	9.3	9.1	9.3	9.4	1.3%	0.3%
Total Asia Pacific	370.0	366.4	382.6	378.6	379.5	375.8	-1.0%	10.2%
TOTAL WORLD	**3540.0**	**3468.0**	**3604.4**	**3585.7**	**3561.7**	**3697.0**	**3.8%**	**100.0%**
Of which OECD	1011.0	988.4	1010.8	1001.0	1004.5	997.5	-0.7%	27.0%
OPEC	1501.0	1429.8	1510.0	1463.9	1375.7	1466.9	6.6%	39.7%
Non-OPEC £	1676.5	1668.3	1701.1	1697.4	1720.5	1717.0	-0.2%	46.4%
Former Soviet Union	362.5	369.9	393.3	424.5	465.6	513.1	10.2%	13.9%

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

£ Excludes Former Soviet Union

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

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.3 CRUDE OIL PRODUCTION BY OPEC MEMBER COUNTRIES

(MillionTonnes)

OPEC Countries	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Algeria	58	57	57	56	57	59	60	62	64	67	66	71	79
Indonesia	78	74	74	74	74	77	76	74	69	72	68	63	58
Iran	173	175	182	183	183	184	185	189	176	188	183	169	190
Iraq	14	26	23	25	27	30	57	104	125	127	117	100	66
Kuwait	10	55	96	104	105	106	105	107	98	104	102	92	110
Libya	74	71	67	69	69	69	70	70	67	70	67	65	70
Nigeria	94	97	98	98	98	105	113	106	99	103	108	99	107
Qatar	20	23	21	21	21	26	32	35	33	37	36	35	41
Suadi Arabia	427	441	431	426	427	444	451	452	419	451	434	417	475
U.A.E	121	115	111	113	111	118	117	120	108	117	114	100	118
Venezuela	129	130	134	142	152	162	171	181	167	172	165	165	153
Total	**1198**	**1262**	**1295**	**1311**	**1324**	**1378**	**1438**	**1499**	**1425**	**1506**	**1458**	**1376**	**1467**

Source : B.P. Amoco Statistical Review of World Energy, June 2004

XIV.4 WORLD PRODUCTION OF NATURAL GAS *1998-2003

(Million tonnes oil equivalent)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	494.3	487.4	495.5	508.2	490.8	494.5	0.7%	21.0%
Canada	154.1	159.7	164.9	168.1	169.0	162.5	-3.9%	6.9%
Mexico	30.9	33.5	32.2	31.8	31.8	32.7	3.0%	1.4%
Total North America	**679.3**	**680.6**	**692.6**	**708.1**	**691.6**	**689.7**	**-0.3%**	**29.3%**
Argentina	26.6	31.1	33.7	33.4	32.5	36.9	13.7%	1.6%
Bolivia	2.5	2.0	2.9	4.2	4.4	4.6	5.2%	0.2%
Brazil	5.6	6.1	6.5	6.8	8.3	9.1	9.2%	0.4%
Colombia	5.6	4.7	5.3	5.5	5.5	5.5	-1.5%	0.2%
Trinidad & Tobago	7.8	10.6	12.6	13.7	15.6	22.3	43.4%	0.9%
Venezuela	29.1	24.7	25.1	26.6	25.6	26.4	3.4%	1.1%
OtherS. & Cent. America	2.3	1.9	1.9	2.0	1.8	1.9	2.3%	0.1%
TotalS. & Cent. America	**79.6**	**81.0**	**88.0**	**92.3**	**93.7**	**106.7**	**13.9%**	**4.5%**
Azerbaijan	4.7	5.0	4.7	4.7	4.3	4.3	-0.3%	0.2%
Denmark	6.8	7.0	7.3	7.5	7.5	7.1	-5.3%	0.3%
Germany	15.0	16.1	15.2	15.3	15.3	15.9	4.1%	0.7%
Italy	17.1	15.7	14.6	13.7	13.2	12.4	-6.0%	0.5%
Kazakhstan	6.7	8.4	9.7	9.7	9.5	11.7	22.7%	0.5%
Netherlands	57.2	53.3	51.6	55.7	54.6	52.5	-3.8%	2.2%
Norway	39.8	43.6	44.8	48.5	59 0	66.0	12.0%	2.8%
Poland	3.2	3.1	3.3	3.5	3.6	3.6	1.2%	0.2%
Romania	12.6	12.6	12.4	12.2	11.9	11.4	-4.4%	0.5%
Russian Federation	496.2	495.9	490.5	488.2	499.9	520.8	4.2%	22.1%
Turkmenistan	11.2	19.1	39.5	43.1	44.9	49.6	10.4%	2.1%
Ukraine	15.1	15.2	15.0	15.4	15.7	16.0	1.8%	0.7%
United Kingdom	81.2	89.2	97.6	95.3	93.3	92.5	-0.9%	3.9%
Uzbekistan	46.0	46.7	47.4	48.2	48.4	48.3	-0.3%	2.0%
Other Europe & Eurasia	11.1	10.3	10.1	10.1	10.0	9.6	-4.8%	0.4%
Total Europe & Eurasia	**823.9**	**841.3**	**863.5**	**871.0**	**891.0**	**921.5**	**3.4%**	**39.1%**
Bahrain	7.5	7.8	7.9	8.2	8.5	8.7	2.0%	0.4%
Iran	45.0	50.7	54.2	59.4	67.5	71.1	5.3%	3.0%
Kuwait	8.5	7.8	8.6	7.7	7.2	7.5	3.8%	0.3%
Oman	4.7	4.9	7.8	12.6	13.5	14.9	10.0%	0.6%
Qatar	17.6	19.8	21.3	24.3	26.6	27.7	4.4%	1.2%
Saudi Arabia	42.1	41.6	44.8	48.3	51.0	54.9	7.6%	2.3%
Syria	3.8	4.0	3.8	3.7	4.5	5.7	25.0%	0.2%
United Arab Emirates	33.4	34.6	34.5	35.4	39.1	40.0	2.3%	1.7%
Other Middle East	2.9	3.1	3.1	2.7	2.4	1.6	-32.7%	0.1%
Total Middle East	**165.6**	**174.4**	**186.1**	**202.3**	**220.2**	**231.9**	**5.3%**	**9.8%**

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XIV.4 WORLD PRODUCTION OF NATURAL GAS *1998-2003

(Million tonnes oil equivalent)

Country	1998	1999	2000	2001	2002	2003	Change 2003 over 2002	2003 share of total
Algeria	68.9	77.4	76.0	70.4	72.3	74.5	3.1%	3.2%
Egypt	11.0	13.2	16.5	19.3	20.4	22.5	10.1%	1.0%
Libya	5.2	4.2	4.9	5.0	5.1	5.7	12.7%	0.2%
Nigeria	4.6	5.4	11.3	13.4	12.8	17.3	35.2%	0.7%
Other Africa	4.5	4.9	5.3	6.0	7.2	7.3	1.0%	0.3%
Total Africa	**94.3**	**105.2**	**114.0**	**114.2**	**117.8**	**127.3**	**8.1%**	**5.4%**
Australia	27.3	27.7	28.0	29.2	29.3	29.8	1.7%	1.3%
Bangladesh	7.0	7.5	9.0	9.7	10.3	11.0	6.9%	0.5%
Brunei	9.7	10.1	10.2	10.3	10.3	11.1	7.8%	0.5%
China	20.1	21.9	24.5	27.3	28.7	30.7	6.8%	1.3%
India	22.2	23.3	24.2	24.5	25.8	27.1	4.8%	1.1%
Indonesia	57.8	63.9	61.7	59.7	63.3	65.3	3.2%	2.8%
Malaysia	34.6	36.8	40.7	42.2	43.7	48.1	10.1%	2.0%
Myanmar	1.6	2.4	3.9	5.6	5.8	6.2	7.2%	0.3%
New Zealand	4.0	4.7	4.9	5.2	4.9	4.8	-2.2%	0.2%
Pakistan	14.4	15.6	17.0	17.9	18.5	19.0	2.5%	0.8%
Thailand	14.7	16.0	16.8	16.2	17.0	17.6	3.7%	0.7%
Other Asia Pacific	3.9	4.2	4.6	5.1	7.0	8.6	22.8%	0.4%
Total Asia Pacific	**217.3**	**233.8**	**245.5**	**252.8**	**264.8**	**279.5**	**5.5%**	**11.9%**
TOTAL WORLD	**2059.9**	**2116.3**	**2189.7**	**2240.7**	**2279.2**	**2356.6**	**3.4%**	**100.0%**
Of which European Union15	182.1	185.7	190.6	192.0	188.1	184.1	-2.1%	7.8%
OECD	941.7	951.0	969.7	991.8	981.9	983.7	0.2%	41.7%
Former Soviet Union	580.1	590.6	607.1	609.6	623.0	650.8	4.5%	27.6%
Other EMEs	538.0	574.7	612.9	639.4	674.4	722.1	7.1%	30.6%

* Excluding gas flared or recycled

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, June 2004

XIV.5 WORLD CONSUMPTION OF NATURAL GAS *1998-2003

(Million Tonnes Oil Equivalent)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	578.0	579.9	602.7	576.1	595.7	566.8	-4.9%	24.3%
Canada	76.5	74.8	74.7	74.5	77.0	78.7	2.2%	3.4%
Mexico	31.9	33.6	34.6	35.1	38.4	40.8	6.3%	1.8%
Total North America	**686.4**	**688.3**	**712.1**	**685.8**	**711.2**	**686.3**	**-3.5%**	**29.4%**
Argentina	27.5	29.1	29.9	28.1	27.2	31.1	14.2%	1.3%
Brazil	5.6	6.4	8.4	10.5	13.0	14.3	10.4%	0.6%
Chile	2.9	4.1	4.7	5.7	5.9	6.3	7.4%	0.3%
Colombia	5.6	4.7	5.3	5.5	5.5	5.4	-2.0%	0.2%
Ecuador	0.1	0.1	0.1	0.1	0.1	0.1	-	w
Peru	0.4	0.4	0.3	0.3	0.4	0.5	18.3%	w
Venezuela	29.1	24.7	25.1	26.6	25.6	26.4	3.4%	1.1%
Other S. & Cent. America	9.0	10.2	10.7	12.2	13.0	14.4	10.7%	0.6%
Total S. & Cent.America	**80.2**	**79.6**	**84.6**	**89.2**	**90.7**	**98.6**	**8.7%**	**4.2%**
Austria	6.8	6.9	6.6	7.0	7.0	7.7	11.3%	0.3%
Azerbaijan	4.7	5.0	4.9	7.0	7.0	7.2	2.5%	0.3%
Belarus	13.5	13.8	14.6	14.5	14.3	14.8	3.1%	0.6%
Belgium & Luxembourg	12.4	13.3	13.4	13.2	13.4	14.4	8.0%	0.6%
Bulgaria	3.1	2.7	2.9	2.7	2.6	2.6	-	0.1%
Czech Republic	7.7	7.7	7.5	8.0	7.8	8.1	4.3%	0.3%
Denmark	4.3	4.5	4.4	4.6	4.6	4.7	1.1%	0.2%
Finland	3.3	3.3	3.4	3.7	3.6	4.0	11.2%	0.2%
France	33.3	33.9	35.7	37.5	37.5	39.4	5.1%	1.7%
Germany	71.7	72.1	71.5	74.6	74.3	77.0	3.6%	3.3%
Greece	0.7	1.2	1.7	1.7	1.8	2.1	13.6%	0.1%
Hungary	9.8	9.9	9.7	10.7	10.7	11.7	8.7%	0.5%
Iceland	-	-	-	-	-	-	-	-
Republic of Ireland	2.8	3.0	3.4	3.6	3.7	3.7	-0.1%	0.2%
Italy	51.5	56.0	58.4	58.5	59.0	64.5	9.3%	2.8%
Kazakhstan	6.5	7.1	8.7	9.1	10.0	11.3	13.3%	0.5%
Lithuania	2.1	2.2	2.5	2.5	2.6	2.8	8.2%	0.1%
Netherlands	34.9	34.1	35.3	35.2	36.0	35.4	-1.9%	1.5%
Norway	3.4	3.2	3.6	3.4	3.6	3.9	8.5%	0.2%
Poland	9.5	9.3	10.0	10.4	10.1	11.3	11.3%	0.5%
Portugal	0.7	2.0	2.1	2.3	2.5	2.7	7.8%	0.1%
Romania	16.8	15.5	15.4	14.9	15.5	16.6	7.3%	0.7%
Russian Federation	328.3	327.3	339.5	335.4	350.0	365.2	4.3%	15.7%
Slovakia	5.7	5.8	5.8	6.2	6.5	6.4	-1.9%	0.3%
Spain	11.8	13.5	15.2	16.4	18.8	21.5	14.4%	0.9%
Sweden	0.8	0.8	0.7	0.6	0.7	0.7	-0.3%	w
Switzerland	2.4	2.4	2.4	2.5	2.5	2.6	5.9%	0.1%
Turkey	8.9	10.8	12.7	14.4	15.6	18.9	20.8%	0.8%
Turkmenistan	9.2	10.2	11.3	11.6	11.9	13.2	10.6%	0.6%
Ukraine	61.9	65.7	65.8	63.8	63.1	60.8	-3.6%	2.6%
United Kingdom	79.1	83.2	87.1	86.7	85.6	85.7	0.2%	3.7%
Uzbekistan	42.3	44.3	42.4	46.0	47.2	42.5	-10.0%	1.8%
Other Europe & Eurasia	13.1	11.6	11.8	13.3	12.0	12.4	2.8%	0.5%
Total Europe &Eurasia	**863.2**	**882.5**	**910.6**	**922.1**	**941.5**	**975.7**	**3.6%**	**41.8%**

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XIV.5 WORLD CONSUMPTION OF NATURAL GAS *1998-2003

(Million Tonnes Oil Equivalent

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
Iran	46.6	52.5	56.6	63.2	71.3	72.4	1.5%	3.1%
Kuwait	8.5	7.8	8.6	8.6	7.2	7.5	3.8%	0.3%
Qatar	13.3	12.6	8.7	9.9	10.0	10.4	4.5%	0.4%
Saudi Arabia	42.1	41.6	44.8	48.3	51.0	54.9	7.6%	2.4%
United Arab Emirates	27.4	28.3	28.3	29.1	32.8	33.7	2.9%	1.4%
Other Middle East	18.5	19.4	19.9	20.7	20.3	21.5	5.5%	0.9%
Total Middle East	**156.4**	**162.1**	**166.9**	**179.7**	**192.7**	**200.4**	**4.0%**	**8.6%**
Algeria	18.8	19.2	17.9	18.5	18.2	19.3	5.9%	0.8%
Egypt	10.8	12.9	16.5	19.3	20.4	22.1	8.5%	0.9%
SouthAfrica	-	-	-	-	-	-	-	-
Other Africa	13.4	13.7	15.3	15.4	16.9	18.7	10.5%	0.8%
Total Africa	**42.9**	**45.8**	**49.7**	**53.2**	**55.5**	**60.1**	**8.3%**	**2.6%**
Australia	20.1	20.9	21.3	21.6	22.7	23.7	4.5%	1.0%
Bangladesh	7.0	7.5	9.0	9.7	10.3	11.0	6.9%	0.5%
China	17.4	19.3	22.1	25.0	26.7	29.5	10.6%	1.3%
China Hong Kong SAR	2.2	2.4	2.2	2.2	2.1	1.4	-35.7%	0.1%
India	22.2	23.3	24.2	24.5	25.8	27.1	4.8%	1.2%
Indonesia	25.0	28.7	29.1	30.1	31.1	32.0	3.2%	1.4%
Japan	62.5	67.1	68.6	71.1	64.7	68.9	6.5%	3.0%
Malaysia	15.7	14.5	21.9	23.2	24.1	25.6	6.1%	1.1%
New Zealand	4.0	4.7	4.9	5.2	4.9	4.1	-16.2%	0.2%
Pakistan	14.4	15.6	17.0	17.9	18.5	19.0	2.5%	0.8%
Philippines	^	^	^	0.1	1.6	2.4	52.4%	0.1%
Singapore	1.4	1.4	1.6	4.1	4.4	4.8	8.6%	0.2%
SouthKorea	13.8	16.8	18.9	20.8	23.1	24.2	4.7%	1.0%
Taiwan	5.7	5.6	6.2	6.7	7.7	7.8	2.1%	0.3%
Thailand	14.3	15.6	18.4	20.3	21.9	23.9	9.1%	1.0%
Other Asia Pacific	4.1	4.4	4.4	4.5	4.7	5.5	17.6%	0.2%
Total Asia Pacific	**229.9**	**247.6**	**269.7**	**287.0**	**294.3**	**310.9**	**5.7%**	**13.3%**
TOTAL WORLD	**2058.9**	**2105.9**	**2193.5**	**2216.8**	**2285.8**	**2331.9**	**2.0%**	**100.0%**
Of which European Union15	314.3	327.9	339.0	345.5	348.5	363.5	4.3%	15.6%
OECD	1148.5	1174.9	1216.5	1205.6	1231.8	1233.5	0.1%	52.9%
Former Soviet Union	476.5	482.6	496.7	497.8	512.9	524.4	2.3%	22.5%
Other EMEs	433.9	448.4	480.3	513.4	541.1	574.0	6.1%	24.6%

^Less than 0.05
w Less than 0.05%
Source: BP Amoco Statistical Review of World Energy,2004.

XIV.6 PRODUCTIVITY OF PRODUCING WELLS IN OPEC MEMBER COUNTRIES DURING 2003

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	10305	1049	367	1416	942.0	90.8
Indonesia	3305	1390	7683	9073	1140	17.1
I.R.Iran	7571	1469	-	1469	3742	347.5
Iraq	N.A.	N.A.	N.A.	N.A.	1379.0	N.A.
Kuwait	7796	821	-	821	2108	350.3
Sp.Libya A.J.	7959	1010	563	1573	1432	124.2
Nigeria	9104	2139	675	2814	2166	105.0
Qatar	9646	361	195	556	676	165.9
Suadi Arabia	8100	1664	125	1789	8410	641.3
U.A.E	9064	1240	436	1676	2248	183.0
Venezuela	6310	490	11843	12333	2643	29.2
Total OPEC	**7243**	**11848**	**22277**	**34125**	**26885**	**107.5**
Total World	**5156**	**56610**	**886910**	**943520**	**67090**	**9.7**

t/w/d = tonne/well/day
N.A. = not available
- = negligible
Source : OPEC Annual Statistical Bulletin, 2003

XIV.7 WORLD OIL REFINING CAPACITY AT END 1998-2003

(Thousand barrels daily *)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	16261	16512	16595	16785	16757	16894	0.8%	20.2%
Canada	1844	1861	1861	1917	1923	1928	0.3%	2.3%
Mexico	1449	1449	1481	1481	1463	1463	-	1.7%
Total North America	**19554**	**19822**	**19937**	**20183**	**20143**	**20285**	**0.7%**	**24.2%**
Argentina	650	650	657	657	657	657	-	0.8%
Brazil	1750	1845	1863	1823	1868	1913	2.4%	2.3%
Neth. Antilles & Aruba	520	535	535	590	590	625	5.9%	0.7%
Venezuela	1183	1183	1183	1183	1199	1199	-	1.4%
Other S. & Cent. America	2189	2219	2225	2213	2287	2237	-2.2%	2.7%
Total S. &. Cent. America	**6292**	**6432**	**6463**	**6466**	**6601**	**6631**	**0.5%**	**7.9%**
Belgium	732	736	770	785	803	805	0.2%	1.0%
France	1918	1933	1984	1961	1987	1967	-1.0%	2.4%
Germany	2206	2240	2262	2274	2286	2304	0.8%	2.8%
Greece	403	403	403	412	412	412	-	0.5%
Italy	2269	2292	2292	2292	2292	2292	-	2.7%
Netherlands	1196	1212	1212	1233	1233	1233	-	1.5%
Norway	310	323	318	307	310	310	-	0.4%
Russian Federation	5673	5539	5451	5404	5472	5512	0.7%	6.6%
Spain	1247	1247	1247	1247	1333	1333	-	1.6%
Sweden	422	422	422	422	422	422	-	0.5%
Turkey	643	643	643	643	643	643	-	0.8%
United Kingdom	1848	1777	1778	1769	1785	1785	-	2.1%
Other Europe and Eurasia	6456	6144	6045	6084	6169	6239	1.1%	7.5%
Total Europe and Eurasia	**25323**	**24911**	**24827**	**24833**	**25147**	**25257**	**0.4%**	**30.2%**
Iran	1392	1484	1484	1484	1484	1494	0.7%	1.8%
Iraq	634	634	639	644	644	644	-	0.8%
Kuwait	895	895	690	745	770	905	17.5%	1.1%
Saudi Arabia	1762	1838	1846	1861	1861	1911	2.7%	2.3%
United Arab Emirates	235	290	440	674	711	645	-9.3%	0.8%
Other Middle East	1169	1175	1173	1164	1254	1255	0.1%	1.5%
Total Middle East	**6087**	**6316**	**6272**	**6572**	**6724**	**6854**	**1.9%**	**8.2%**
Total Africa	**2885**	**2987**	**3033**	**3197**	**3284**	**3317**	**1.0%**	**4.0%**
Australasia	916	919	937	931	945	873	-7.6%	1.0%
China	4592	5401	5407	5643	5479	5487	0.1%	6.6%
India	1356	2190	2219	2261	2289	2333	1.9%	2.8%
Indonesia	1025	1048	1056	1056	1056	1056	-	1.3%
Japan	5088	5109	5029	4811	4721	4683	-0.8%	5.6%
Singapore	1246	1246	1255	1255	1255	1255	-	1.5%
South Korea	2316	2316	2316	2316	2316	2316	-	2.8%
Taiwan	732	732	732	874	1159	1159	-	1.4%
Thailand	863	872	872	846	848	860	1.4%	1.0%
Other Asia Pacific	1154	1233	1292	1386	1351	1292	-4.4%	1.5%
Total Asia Pacific	**19288**	**21066**	**21115**	**21379**	**21419**	**21314**	**-0.5%**	**25.5**
TOTAL WORLD	**79429**	**81534**	**81647**	**82630**	**83318**	**83658**	**0.4%**	**100.0%**
Of which: European Union 15	13237	13265	13382	13421	13592	13592	-	16.2%
OECD	43104	43443	43614	43666	43834	43866	0.1%	52.4%
Former Soviet Union	8823	8473	8358	8280	8350	8390	0.5%	10.0%
Other EMEs	27502	29618	29675	30684	31134	31402	0.9%	37.5%

* 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: BP Amoco Statistical Review of World Energy, 2004.

XIV.8 WORLD REFINERY CRUDE THROUGHPUT 1998 - 2003

(Thousand barrels daily)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	14889	14804	15067	15128	14947	15303	2.4%	21.5%
Canada	1709	1714	1765	1812	1862	1885	1.2%	2.7%
Mexico	1451	1389	1364	1398	1387	1436	3.5%	2.0%
S. & Cent. America	5120	5188	5366	5361	4933	4933	-	6.9%
Europe & Eurasia	19645	19088	19340	19618	19647	20071	2.2%	28.2%
Middle East	5659	5698	5488	5807	6107	5973	-2.2%	8.4%
Africa	2412	2343	2234	2411	2451	2406	-1.8%	3.4%
Australasia	866	880	851	847	855	815	-4.7%	1.1%
China	3060	3686	4218	4215	4395	4871	10.8%	6.9%
Japan	4212	4149	4145	4107	3986	4118	3.3%	5.8%
Other Asia Pacific	8010	8309	8914	9054	8827	9280	5.1%	13.1%
TOTAL WORLD	**67033**	**67248**	**68752**	**69758**	**69397**	**71091**	**2.4%**	**100.0%**
Of which: European Union 15	12828	12410	12505	12479	12313	12553	1.9%	17.7%
OECD	39937	39455	39802	39823	39144	39944	2.0%	56.2%
Former Soviet Union	4519	4471	4583	4883	5163	5295	2.6%	7.4%
Other EMEs	22576	23322	24366	25052	25090	25852	3.0%	36.4%

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

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.9 COUNTRY-WISE WORLD OIL CONSUMPTION* 1998 - 2003

(Million tonnes)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	863.8	888.9	897.6	896.1	897.4	914.3	1.9%	25.1%
Canada	86.7	87.2	88.1	90.5	92.2	96.4	4.5%	2.6%
Mexico	82.9	82.4	85.7	84.9	81.4	82.6	1.5%	2.3%
Total North America	**1033.4**	**1058.5**	**1071.4**	**1071.5**	**1071.0**	**1093.2**	**2.1%**	**30.1%**
Argentina	22.1	21.0	20.3	19.0	17.1	17.5	2.4%	0.5%
Brazil	83.2	85.7	85.8	87.5	85.5	84.1	-1.7%	2.3%
Chile	11.4	11.6	10.9	10.6	10.6	10.4	-1.6%	0.3%
Colombia	12.0	10.6	10.5	11.1	10.0	10.0	-0.1%	0.3%
Ecuador	6.6	6.0	5.8	5.9	5.9	6.1	2.6%	0.2%
Peru	7.4	7.5	7.4	7.0	6.9	7.4	6.4%	0.2%
Venezuela	21.6	21.3	22.5	24.8	27.0	23.9	-11.5%	0.7%
Other S. & Cent. America	55.3	55.2	55.1	55.6	56.2	57.3	2.1%	1.6%
Total S. & Cent. America	**219.6**	**219.0**	**218.2**	**221.5**	**219.2**	**216.6**	**-1.2%**	**6.0%**
Austria	12.3	12.1	11.8	12.8	13.0	14.3	9.3%	0.4%
Azerbaijan	7.5	7.4	6.2	3.7	3.6	4.4	22.7%	0.1%
Belarus	8.3	7.0	6.6	5.9	5.2	6.1	17.3%	0.2%
Belgium & Luxembourg	31.6	32.4	33.9	32.2	33.5	34.8	3.7%	1.0%
Bulgaria	4.8	4.5	3.9	4.0	4.2	4.3	3.0%	0.1%
Czech Republic	8.3	8.2	7.9	8.3	8.2	8.6	4.7%	0.2%
Denmark	10.7	10.6	10.4	9.8	9.6	9.3	-3.1%	0.3%
Finland	10.5	10.7	10.7	10.5	10.9	11.4	4.4%	0.3%
France	95.0	96.4	94.9	95.5	92.9	94.2	1.5%	2.6%
Germany	136.6	132.4	129.8	131.6	127.4	125.1	-1.8%	3.4%
Greece	18.2	18.7	19.9	20.0	20.1	20.9	4.0%	0.6%
Hungary	7.4	7.1	6.8	6.7	6.4	6.2	-2.4%	0.2%
Iceland	0.9	0.9	0.9	0.9	0.9	0.9	-1.0%	w
Republic of Ireland	7.4	8.3	8.2	9.0	8.8	8.4	-3.9%	0.2%
Italy	94.7	94.4	93.5	92.8	92.9	92.1	-0.9%	2.5%
Kazakhstan	8.5	7.0	7.4	8.9	10.0	9.5	-4.7%	0.3%
Lithuania	3.8	3.1	2.4	2.7	2.5	2.5	0.5%	0.1%
Netherlands	39.4	40.6	41.7	43.9	43.8	44.5	1.6%	1.2%
Norway	10.0	10.1	9.4	9.7	9.4	9.6	1.5%	0.3%
Poland	19.9	19.9	20.0	19.2	19.4	20.5	5.9%	0.6%
Portugal	15.5	15.9	15.5	15.8	16.2	16.6	2.4%	0.5%
Romania	12.0	9.5	10.0	10.6	10.6	11.0	3.0%	0.3%
Russian Federation	123.7	126.2	123.5	122.3	123.5	124.7	0.9%	3.4%
Slovakia	3.8	3.4	3.4	3.2	3.5	3.7	4.6%	0.1%
Spain	66.4	68.4	70.0	72.7	73.8	75.5	2.4%	2.1%
Sweden	16.2	16.1	15.2	15.2	15.2	15.8	4.2%	0.4%
Switzerland	13.0	12.6	12.2	13.1	12.4	12.1	-2.7%	0.3%
Turkey	29.6	29.5	31.6	30.5	31.3	31.9	2.0%	0.9%
Turkmenistan	2.8	2.8	3.1	3.9	4.0	3.7	-7.5%	0.1%
Ukraine	14.3	12.7	12.0	12.7	12.4	13.1	5.4%	0.4%
United Kingdom	81.2	80.1	78.6	77.9	78.3	76.8	-1.8%	2.1%
Uzbekistan	7.0	7.2	6.8	7.0	6.8	6.5	-4.4%	0.2%
Other Europe & Eurasia	21.7	21.4	21.1	21.9	22.6	23.5	4.2%	0.6%
Total Europe & Eurasia	**942.7**	**937.4**	**929.4**	**934.9**	**933.1**	**942.3**	**1.0%**	**25.9%**

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XIV.9 COUNTRY-WISE WORLD OIL CONSUMPTION* 1998 - 2003

(Million tonnes)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
Iran	55.9	57.3	56.1	54.0	53.2	54.0	1.5%	1.5%
Kuwait	9.1	10.3	10.4	10.5	11.4	13.7	19.8%	0.4%
Qatar	1.2	1.1	1.2	1.4	2.0	1.7	-14.1%	w
Saudi Arabia	58.8	60.9	62.4	62.7	63.4	67.0	5.6%	1.8%
United Arab Emirates	14.4	13.5	12.2	13.8	14.4	15.0	4.2%	0.4%
Other Middle East	62.6	63.6	65.8	67.2	68.6	63.4	-7.6%	1.7%
Total Middle East	**202.1**	**206.8**	**208.1**	**209.7**	**213.1**	**214.9**	**0.8%**	**5.9%**
Algeria	8.2	8.1	8.5	8.8	9.7	10.0	2.7%	0.3%
Egypt	27.3	27.8	27.2	26.1	25.2	25.9	2.7%	0.7%
South Africa	21.3	21.8	22.5	23.0	23.6	24.2	2.5%	0.7%
Other Africa	55.6	57.4	57.5	58.5	59.3	60.3	1.8%	1.7%
Total Africa	**112.4**	**115.1**	**115.7**	**116.3**	**117.9**	**120.5**	**2.2%**	**3.3%**
Australia	37.0	38.0	37.7	38.1	38.0	38.1	0.3%	1.0%
Bangladesh	3.7	3.3	3.2	3.8	4.0	4.2	5.0%	0.1%
China	190.3	207.2	230.1	232.2	246.9	275.2	11.5%	7.6%
China Hong Kong SAR	8.8	9.3	9.7	11.7	12.9	13.1	1.4%	0.4%
India	92.5	100.3	106.1	107.0	111.3	113.3	1.9%	3.1%
Indonesia	43.5	46.8	50.2	51.9	53.1	53.9	1.5%	1.5%
Japan	253.6	257.3	255.5	247.5	243.6	248.7	2.1%	6.8%
Malaysia	19.0	20.3	20.4	20.6	22.5	23.9	6.4%	0.7%
New Zealand	6.1	6.3	6.3	6.5	6.6	6.9	5.0%	0.2%
Pakistan	17.6	18.2	18.8	18.3	18.0	17.0	-5.1%	0.5%
Philippines	19.1	18.0	16.6	16.5	15.6	15.6	-0.1%	0.4%
Singapore	33.3	31.6	33.5	36.4	35.5	34.1	-3.9%	0.9%
South Korea	93.9	100.7	103.2	103.1	104.7	105.7	1.0%	2.9%
Taiwan	37.2	39.9	39.8	39.2	40.0	41.7	4.2%	1.1%
Thailand	35.4	35.4	34.8	33.1	36.4	38.7	6.2%	1.1%
Other Asia Pacific	15.6	15.9	17.5	18.4	19.4	19.0	-2.5%	0.5%
Total Asia Pacific	**906.6**	**948.3**	**983.3**	**984.3**	**1008.3**	**1049.1**	**4.0%**	**28.8%**
TOTAL WORLD	**3416.9**	**3485.1**	**3526.1**	**3538.2**	**3562.6**	**3636.6**	**2.1%**	**100.0%**
Of which European Union 15	635.6	637.1	634.2	639.7	636.3	639.7	0.5%	17.6%
OECD	2152.5	2189.5	2200.5	2197.9	2191.6	2225.8	1.6%	61.2%
Former Soviet Union	181.1	178.2	172.6	171.7	172.7	175.4	1.6%	4.8%
Other EMEs	1083.2	1117.4	1153.0	1168.6	1198.4	1235.4	3.1%	34.0%

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

w Less than 0.05%

Note: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.10 PRODUCT-WISE REGIONAL CONSUMPTION OF MAIN PETROLEUM PRODUCTS DURING 1998 - 2003

(Thousand barrels daily)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
North America								
Gasolines	9849	9998	10106	10211	10523	10667	1.4%	44.3%
Middle distillates	6450	6628	6811	6812	6655	6855	3.0%	28.5%
Fuel oil	1506	1415	1518	1411	1209	1270	5.1%	5.3%
Others	4869	5246	5113	5135	5277	5291	0.3%	21.9%
Total North America	22675	23287	23549	23569	23663	24083	1.8%	100.0%
of which: USA								
Gasolines	8579	8716	8813	8890	9167	9273	1.1%	46.2%
Middle distillates	5545	5700	5852	5884	5735	5880	2.5%	29.3%
Fuel oil	869	814	893	794	686	762	11.0%	3.8%
Others	3924	4290	4143	4082	4172	4156	-0.4%	20.7%
Total USA	18917	19519	19701	19649	19761	20071	1.6%	100.0%
S. & Cent. America								
Gasolines	1274	1387	1274	1256	1234	1197	-3.0%	25.9%
Middle distillates	1700	1684	1680	1720	1719	1703	-0.9%	36.8%
Fuel oil	850	740	788	755	735	752	2.3%	16.3%
Others	859	896	919	1009	1005	972	-3.2%	21.0%
Total S. & Cent. America	4683	4705	4661	4739	4692	4624	-1.5%	100.0%
Europe								
Gasolines	4315	4325	4213	4111	4045	3962	-2.1%	24.4%
Middle distillates	6630	6700	6746	6990	6947	7132	2.7%	44.0%
Fuel oil	2194	2093	1972	1982	1999	1975	-1.2%	12.2%
Others	2959	2958	3063	3078	3110	3157	1.5%	19.4%
Total Europe	**16098**	**16076**	**15994**	**16160**	**16101**	**16226**	**0.8%**	**100.0%**
Middle East								
Gasolines	828	842	846	856	916	925	0.9%	20.6%
Middle distillates	1458	1485	1496	1547	1570	1568	-0.2%	35.0%
Fuel oil	1219	1265	1264	1259	1220	1228	0.7%	27.4%
Others	702	712	710	710	740	759	2.5%	17.0%
Total Middle East	**4207**	**4304**	**4317**	**4372**	**4446**	**4480**	**0.7%**	**100.0%**
Africa								
Gasolines	568	574	577	589	595	604	1.6%	23.5%
Middle distillates	949	984	1007	1034	1059	1087	2.6%	42.2%
Fuel oil	491	494	470	449	436	445	1.8%	17.3%
Others	375	385	393	405	425	438	3.1%	17.0%
Total Africa	**2383**	**2437**	**2447**	**2476**	**2515**	**2573**	**2.3%**	**100.0%**
Asia Pacific incl. China and Japan								
Gasolines	5057	5331	5588	5650	5958	6190	3.9%	27.4%
Middle distillates	7224	7621	7815	7967	8070	8267	2.4%	36.6%
Fuel oil	3576	3551	3517	3352	3239	3430	5.9%	15.2%
Others	3463	3744	4136	4193	4476	4716	5.4%	20.8%
Total Asia Pacific	**19320**	**20246**	**21056**	**21161**	**21743**	**22601**	**4.0%**	**100.0%**

Contd.....

XIV.10 PRODUCT-WISE REGIONAL CONSUMPTION OF MAIN PETROLEUM PRODUCTS DURING 1998 - 2003

(Thousand barrels daily)

Country	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
China								
Gasolines	1098	1164	1313	1252	1387	1527	10.1%	25.5%
Middle distillates	1277	1455	1633	1709	1786	1948	9.1%	32.6%
Fuel oil	725	694	725	728	705	826	17.2%	13.8%
Others	946	1103	1314	1342	1500	1680	12.0%	28.1%
Total China	**4047**	**4416**	**4985**	**5030**	**5379**	**5982**	**11.2%**	**100.0%**
Japan								
Gasolines	1611	1702	1735	1720	1759	1777	1.0%	32.6%
Middle distillates	1949	1978	1958	1957	1930	1919	-0.6%	35.2%
Fuel oil	879	861	804	690	649	762	17.5%	14.0%
Others	1086	1078	1079	1067	1021	993	-2.8%	18.2%
Total Japan	**5525**	**5618**	**5577**	**5435**	**5359**	**5451**	**1.7%**	**100.0%**
World excl. FSU								
Gasolines	21892	22457	22605	22673	23271	23543	1.2%	31.6%
Middle distillates	24412	25101	25556	26069	26020	26612	2.3%	35.7%
Fuel oil	9837	9558	9530	9207	8838	9099	3.0%	12.2%
Others	13226	13941	14334	14528	15032	15333	2.0%	20.5%
Total World excl. FSU	**69367**	**71056**	**72024**	**72478**	**73161**	**74587**	**1.9%**	**100.0%**
European Union 15								
Gasolines	3607	3622	3545	3462	3391	3311	-2.3%	24.5%
Middle distillates	5677	5761	5827	6041	5990	6146	2.6%	45.5%
Fuel oil	1736	1663	1558	1544	1597	1565	-2.0%	11.6%
Others	2409	2429	2446	2470	2457	2474	0.7%	18.4%
Total European Union 15	**13429**	**13474**	**13376**	**13516**	**13434**	**13496**	**0.5%**	**100.0%**
OECD								
Gasolines	16728	17028	17070	17066	17384	17482	0.6%	36.2%
Middle distillates	15751	16110	16279	16527	16308	16696	2.4%	34.5%
Fuel oil	4831	4671	4642	4408	4178	4316	3.3%	8.9%
Others	9293	9698	9702	9718	9837	9854	0.2%	20.4%
Total OECD	**46603**	**47507**	**47693**	**47719**	**47707**	**48347**	**1.3%**	**100.0%**
Other EMEs								
Gasolines	5163	5429	5535	5607	5886	6062	3.0%	23.1%
Middle distillates	8661	8992	9276	9542	9713	9916	2.1%	37.8%
Fuel oil	5006	4886	4888	4799	4660	4783	2.6%	18.2%
Others	3934	4243	4632	4810	5196	5479	5.5%	20.9%
Total Other EMEs £	**22764**	**23549**	**24331**	**24759**	**25454**	**26240**	**3.1%**	**100.0%**

£ Excludes Former Soviet Union

Source: BP Amoco Statistical Review of World Energy, 2004.

XIV.11 WORLD OIL PRODUCTION, CONSUMPTION AND RELATIVE DEFICIT/SURPLUS IN EACH COUNTRY/REGION DURING 2002 AND 2003

(Million Tonnes)

Country/Region	2002				2003*			
	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	659.2	1071.0	-411.8	-38.5	671.8	1093.2	-421.4	-38.5
South & Central America	350.2	219.2	131	59.8	339.5	216.6	122.9	56.7
Middle East	1010.1	213.1	797	374.0	1093.7	214.9	878.8	408.9
Africa	377.3	117.9	259.4	220.0	398.3	120.5	277.8	230.5
Asia pacific	379.5	1008.3	-628.8	-62.4	375.8	1049.1	-673.3	-64.2
Of which India	36.8	111.3	-74.5	-66.9	36.7	113.3	-76.6	-67.6
Japan	N.A.	243.6	N.A.	N.A.	N.A.	248.7	N.A.	N.A.
China	166.9	246.9	-80	-32.4	169.3	275.2	-105.9	-38.5
Australia	31.6	38.0	-6.4	-16.8	26.6	38.1	-11.5	-30.2
OECD	1004.5	2191.6	-1187.1	-54.2	997.5	2225.8	-1228.3	-55.2
Europe & Eurasia	785.5	933.1	-147.6	-15.8	818.0	942.3	-124.3	-13.2
Former Soviet Union	465.6	172.7	292.9	169.6	513.1	175.4	337.7	192.5
Total World	3561.7	3562.6	-0.9	0.0	3697.0	3636.6	60.4	1.7

Source : BP Amoco Statistical Review of World Energy, June 2004.

* : provisional

XIV.12 WORLD CRUDE OIL AND PETROLEUM PRODUCTS IMPORTS AND EXPORTS 2003

Country / Area	Imports		Exports		Imports		Export	
	Crude	Product	Crude	Product	Crude	Product	Crude	Product
	(Million Tonnes)				(Thousand barrels daily)			
USA	480.3	124.8	1.1	43.0	9645	2609	22	899
Canada	45.1	10.8	77.2	26.1	906	226	1550	546
Mexico	-	9.5	99.7	5.4	0	199	2002	113
South & Central America	37.7	17.3	96.1	48.4	757	362	1930	1012
Europe	488.5	104.4	52.2	48.7	9810	2182	1048	1018
Former Soviet Union	-	5.3	229.9	66.3	-	111	4617	1386
Middle East	10.5	6.4	831.8	107.1	211	134	16704	2239
North Africa	8.5	6.5	99.6	34.2	171	136	2000	715
West Africa	2.7	8.5	175.6	4.1	54	178	3526	86
East & Southern Africa	25.0	5.4	10.3	0.6	502	113	207	13
Australasia	24.2	7.8	12.9	4.7	486	163	259	98
China	91.1	37.2	7.8	12.8	1829	778	157	268
Japan	213.2	49.4	-	3.8	4282	1033	-	79
Other Asia Pacific	343.2	97.2	50.8	58.5	6892	2032	1020	1223
Unidentified *	-	-	25.0	26.8	-	-	502	560
TOTAL WORLD	1770.0	490.5	1770.0	490.5	35545	10253	35545	10253

* Includes changes in the quantity 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 2004.

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

(1,000 bbl/day)

Country	1997	1998	1999	2000	2001	2002	2003*
			Crude Oil				
Algeria	373.1	549.4	414.6	461.1	441.5	566.2	741.0
Indonesia	709.7	678.0	781.9	622.5	599.2	609.9	650.2
I.R. Iran	2,587.0	2,512.0	2,291.0	2,492.2	2,184.6	2,093.6	2,396.3
Iraq	746.6	1,417.6	2,130.9	2,039.8	1,710.2	1,494.6	388.6
Kuwait	1,134.2	1,190.2	948.2	1,230.7	1,214.1	1,138.0	1,242.9
S.P.Libyan AJ	1,115.7	1,161.0	991.7	1,005.0	987.6	983.6	1,126.5
Nigeria	1,855.5	1,832.8	1,705.1	1,986.4	2,089.4	1,798.2	2,303.5
Qatar	465.0	572.4	580.5	617.6	605.5	580.8	540.7
Saudi Arabia	6,184.5	6,390.4	5,719.7	6,253.1	6,035.9	5,284.6	6,522.9
UAE	1,949.0	2,039.0	1,919.0	1,814.9	1,786.7	1,614.0	2,048.0
Venezuela	2,210.8	2,243.9	1,923.0	2,003.5	1,964.7	1,572.0	1;535.0
O P E C	**19,331.1**	**20,586.9**	**19,405.5**	**20,526.7**	**19,619.4**	**17,735.6**	**19,495.7**
			Refined Petroleum Products				
Algeria	462.3	461.9	599.7	544.3	555.8	527.2	528.3
Indonesia	257.3	220.8	191.9	188.8	196.3	152.4	155.3
I.R. Iran	225.9	277.8	362.9	347.3	307.7	328.0	333.2
Iraq	18.9	23.0	23.0	23.0	25.0	22.5	10.5
Kuwait	848.0	795.0	838.6	674.5	642.3	572.2	623.1
S.P.Libyan AJ	147.9	168.6	201.2	237.0	225.0	221.1	145.4
Nigeria	25.3	3.8	14.1	47.3	65.7	78.2	67.7
Qatar	125.0	95.1	75.3	75.3	78.1	67.3	61.5
Saudi Arabia	1,392.9	1,368.9	1,279.7	1,228.1	1,082.6	993.5	1,128.6
UAE	323.1	319.1	331.0	391.7	398.2	485.5	513.6
Venezuela	841.5	846.2	828.0	779.6	761.1	569.7	485.0
O P E C	4,668.0	4,580.2	4,745.3	4,536.8	4,337.8	4,017.6	4,052.2

Note: Data includes re-exports and exports of petroleum products from gas plants.
Source: OPEC Annual Statistical Bulletin 2003.

XIV.14 CRUDE OIL IMPORTS FROM OPEC MEMBER COUNTRIES BY REGIONS 1994 TO 2003

(Million Tonnes)

IMPORT REGION	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003*
North America	187.6	183.1	185.4	212.0	236.5	221.8	239.5	245.6	212.8	205.8
Of which : USA	177.0	171.3	174.0	199.2	222.2	209.0	226.6	229.4	195.5	186.8
Latin America	40.7	33.6	40.0	35.2	37.3	41.1	45.6	45.7	37.7	39.9
Western Europe	262.3	253.6	252.1	264.3	292.4	248.0	255.1	215.9	195.3	203.0
Of which :										
France	44.4	44.0	42.2	42.7	49.9	41.1	39.9	35.7	31.5	34.4
Germany	37.1	29.8	28.8	27.3	28.0	23.8	24.8	20.8	18.7	18.3
Italy	46.8	49.4	53.8	60.2	64.0	59.2	61.8	51.0	51.3	51.3
U.K	11.5	10.1	9.2	6.6	7.3	4.3	3.9	4.1	6.3	5.6
Middle East	15.6	15.1	15.6	15.3	15.7	14.6	13.6	13.5	11.9	11.7
Africa	14.7	25.2	23.6	26.1	27.9	27.8	31.0	27.8	24.4	34.2
Asia and Pacific	358.7	369.9	371.3	380.5	377.8	393.3	413.0	401.1	389.5	446.4
Of which:										
Japan	179.2	179.2	177.2	186.5	177.5	175.0	177.9	198.2	190.2	190.5
Oceania	9.2	9.6	10.8	10.6	12.8	N.A.	N.A.	N.A.	N.A.	N.A.
Eatern Europe	8.7	9.8	9.2	11.7	13.8	9.0	10.2	7.6	6.3	7.6
Unspecified	-	0.5	2.8	0.3	0.8	10.5	15.4	17.0	4.2	19.4
OECD Area	631.4	570.3	618.1	663.2	721.3	N.A.	N.A.	N.A.	N.A.	N.A.
TOTAL WORLD	**897.2**	**900.5**	**910.7**	**955.8**	**1015.2**	**966.2**	**1023.4**	**974.1**	**882.1**	**968.0**

Sorce : OPEC Annual Statistical Bulletin, 2003

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 2003

(1,000 b/d)

Destination/Country	Algeria Arabia	Indonesia	IR Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi	UAE	Venezuela
1	2	3	4	5	6	7	8	9	10	11	12
North America	263.9	37.3	-	277.3	164.7	-	951.3	3.0	1635.4	7.0	804.6
Latin America	65.2	-	52.5	-	-	-	204.5	-	65.3	-	416.0
Eatern Europe	0.7	-	124.9	-	-	4.4	23.9	-	-	-	-
Western Europe	383.4	10.7	708.8	87.6	108.4	1048.2	464.3	2.9	1191.4	-	82.0
Middle East	-	-	26.5	10.4	-	-	-	-	199.1	-	-
Africa	-	-	166.4	0.0	-	20.1	210.5	-	263.9	28.0	-
Asia and Pasific	28.0	567.2	1202.6	13.4	961.2	53.9	449.0	534.8	3167.7	2013.0	-
Unspecified	-	-	114.6	-	8.6	-	-	-	-	-	232.4
TOTAL WORLD	**741.0**	**650.2**	**2396.3**	**388.6**	**1242.9**	**1126.5**	**2303.5**	**540.7**	**6522.9**	**2048.0**	**1535.0**

Source : OPEC Annual Statistical Bulletin, 2003

- = Nil or Negligible

XIV.16 VALUE OF PETROLEUM EXPORTS@ FROM OPEC MEMBER COUNTRIES DURING 1993 TO 2003

(Billion US $)

Countries	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003*
1	2	3	4	5	6	7	8	9	10	11	12
Algeria	6.90	6.36	6.90	9.16	8.35	5.69	7.55	12.92	13.29	12.37	16.48
Indonesia	5.69	6.00	6.44	7.87	7.24	4.60	6.58	10.94	8.94	8.58	9.69
I.R.Iran	14.25	14.80	14.94	17.96	17.66	11.10	16.09	25.44	21.42	19.22	26.12
Iraq	0.42	0.42	0.46	0.68	4.28	5.11	12.10	18.15	12.68	12.59	7.52
Kuwait	9.70	10.48	12.05	14.09	13.46	8.96	10.99	19.20	15.91	14.06	18.78
Sp.Libya A.J.	7.69	7.17	7.76	9.54	8.90	5.61	7.73	13.25	10.87	10.48	13.57
Nigeria	10.85	11.04	11.51	14.88	15.84	9.84	12.45	20.04	17.19	17.08	22.18
Qatar	2.81	2.62	2.98	3.80	4.65	3.17	4.77	7.83	6.96	6.89	8.81
Suadi Arabia	38.62	38.12	42.50	50.04	52.12	33.39	44.93	74.59	65.21	63.81	84.91
U.A.E	12.11	11.68	12.82	14.98	15.26	11.13	15.02	26.15	22.41	21.77	25.15
Venezuela	11.03	11.47	13.73	18.52	18.18	11.51	16.46	25.60	20.18	20.94	21.84
Total OPEC	**120.07**	**120.16**	**132.09**	**161.52**	**165.94**	**110.14**	**154.71**	**254.10**	**215.07**	**207.80**	**255.05**

@= 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	22.60	21.90	24.02	-	26.30	22.90	21.67	20.00	20.07	22.75
2002	23.61	24.96	25.05	24.36	14.88	23.38	24.87	-	25.38	23.52	23.09	23.02	22.63	23.94
2003	26.89	29.00	28.65	27.52	N.A.	26.43	28.29	-	29.58	26.89	26.33	26.72	27.22	27.13
2003														
Jan	28.08	31.86	30.72	28.83	N.A.	27.78	29.44	N.A.	31.83	29.13	28.42	27.47	27.71	28.54
Feb	30.02	32.89	32.26	30.43	N.A.	29.86	31.52	N.A.	33.67	29.89	29.22	29.63	29.10	30.31
Mar	27.81	31.21	30.69	28.07	N.A.	27.33	29.32	N.A.	31.35	27.94	27.22	24.76	24.86	28.06
Apr	23.78	25.35	25.10	24.33	N.A.	23.50	25.34	N.A.	27.20	22.85	22.28	N.A.	N.A.	24.14
May	24.35	25.72	25.51	24.88	N.A.	24.19	25.91	N.A.	26.41	23.06	22.63	N.A.	N.A.	24.53
Jun	25.50	27.29	27.32	26.41	N.A.	25.37	26.95	N.A.	26.47	24.43	24.11	N.A.	N.A.	25.64
Jul	26.70	28.21	28.28	26.91	N.A.	26.68	28.05	N.A.	27.91	26.03	25.71	N.A.	N.A.	26.80
Aug	27.78	29.53	29.73	27.92	N.A.	27.63	28.69	N.A.	29.91	28.62	28.25	26.64	N.A.	27.96
Sep	25.78	27.29	27.39	26.73	N.A.	24.92	26.71	N.A.	28.72	26.66	26.19	24.68	N.A.	26.09
Oct	27.67	30.05	29.48	28.70	N.A.	26.87	29.00	N.A.	30.80	28.79	28.29	25.95	N.A.	27.97
Nov	27.76	28.98	28.82	28.53	N.A.	26.88	29.35	N.A.	30.48	27.64	27.04	26.75	N.A.	27.93
Dec	28.25	30.02	29.56	28.69	N.A.	27.10	29.93	N.A.	31.02	28.55	27.56	27.91	N.A.	28.43

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, 2003.

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

(Average Unit Value, FOB)

Crude	Country	1995	1996	1997	1998	1999	2000	2001	2002	2003*
1	2	5	6	7	8	9	10	11	12	13
Brent	U.K	17.03	20.66	19.12	12.76	17.85	28.37	24.46	24.98	28.84
WTI	U.S.A	18.41	21.77	20.62	14.40	19.25	30.30	25.89	26.09	31.11
WTS	U.S.A	17.41	20.91	18.81	12.84	17.95	28.29	23.17	24.65	28.36
Louisiana Light	Louisiana	18.59	22.34	20.73	14.20	19.03	30.45	25.95	26.14	31.20
Dubai	UAE	16.10	18.57	18.15	12.18	17.20	26.15	22.81	23.80	26.79
Iranian Light	Iran	16.35	20.04	17.78	11.27	16.57	26.64	22.61	23.48	26.90
Iranian Heavy	Iran	15.94	19.40	17.32	10.82	16.13	26.05	22.08	23.05	26.35
Urals	Russia	16.52	20.81	18.33	11.83	17.18	26.97	23.12	23.76	27.07
Minas	Indonesia	17.63	20.63	19.30	12.36	17.79	28.75	24.06	25.54	29.55
Tapis	Malaysia	18.28	21.53	21.00	13.84	18.84	29.74	25.33	25.64	30.10

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

(Average Unit Value, FOB)

Product	1996	1997	1998	1999	2000	2001	2002	2003*
1	5	6	7	8	9	10	11	12
NW EUROPE								
Gasoline	23.22	23.33	16.76	23.11	34.27	28.91	28.53	34.89
Gas Oil	25.74	23.39	16.19	20.85	34.28	29.15	27.77	34.00
Jet/Kero	27.05	24.58	17.16	22.04	36.89	30.82	29.21	35.85
Naphtha	21.70	21.43	14.64	18.68	28.97	23.73	24.22	29.99
LSFO	17.52	15.47	11.73	14.75	23.66	19.54	21.74	25.78
HSFO	16.30	14.59	10.20	14.41	21.33	17.80	20.61	23.33
U.S.A								
Gasoline	25.81	25.22	17.8	22.71	35.95	30.96	30.25	..
Gas Oil	26.35	23.64	16.43	20.45	36.41	29.78	28.50	35.62
Jet/Kero	27.57	24.58	18.03	21.74	38.10	31.12	29.76	36.40
Naphtha	..	..	..	..	..	..	..	..
LSFO	19.22	16.91	12.32	15.47	25.03	20.68	22.46	27.52
HSFO	16.03	15.26	10.25	13.96	20.65	17.35	20.90	24.44
SINGAPORE								
Gasoline	23.58	24.57	17.19	21.02	32.51	27.50	28.00	34.74
Gas Oil	27.07	24.28	15.47	19.13	32.44	27.29	27.45	32.41
Jet/Kero	27.57	24.58	18.03	21.74	34.27	28.31	27.99	33.00
Naphtha	20.22	21.93	14.84	19.39	28.28	23.78	24.89	30.03
LSFO	17.95	16.93	10.98	15.50	25.73	21.83	23.74	28.22
HSFO	15.90	15.10	10.09	15.14	24.12	20.37	22.88	26.28

.. = Not Avaialble

Source : Energy Prices and Taxes, 1st Quarter of 2004. International Energy Agency Publication.

XIV. 20 NATURAL GAS PRICES FOR INDUSTRY AND HOUSEHOLD USE

US $ 10^7 kcal (GCV Basis) (Using PPPs)

Country	1996	1997	1998	1999	2000	2001	2002	2003*
A. FOR INDUSTRIAL USE								
Austria	172.0	155.5	148.0	145.9	N.A.	N.A.	N.A.	N.A.
Belgium	132.6	131.4	c	c	c	c	c	c
Canada	79.7	83.1	88.0	99.1	109.9	140.6	164.7	N.A.
Czech Repubic	377.9	382.6	374.4	350.8	403.5	413.9	384.7	385.3
Finland	118.3	130.5	128.2	122.4	143.1	142.3	132.7	140.0
France	132.8	146.4	141.0	136.9	196.4	229.1	199.9	222.4
Germany	153.5	167.2	159.1	151.1	205.2	N.A.	N.A.	N.A.
Hungary	227.1	324.5	334.5	320.3	324.6	406.3	409.4	425.5
Ireland	305.3	303.4	175.4	168.0	128.3	160.5	192.4	N.A.
Italy	198.2	208.9	191.8	c	c	c	c	c
Japan	267.7	331.3	279.1	271.2	313.5	329.9	307.3	N.A.
Mexico	180.0	180.9	150.2	149.7	229.1	237.6	178.3	321.8
Netherlands	130.0	140.0	131.6	118.5	193.0	210.5	183.8	205.0
New Zealand	214.0	231.1	268.6	286.7	270.0	263.3	278.2	N.A.
Poland	284.5	289.2	282.1	278.7	314.0	378.5	375.2	367.7
Spain	178.7	187.6	168.5	168.4	253.1	258.6	229.1	230.9
Switzerland	167.0	177.5	180.9	166.1	194.1	257.9	228.9	230.6
Turkey	383.5	422.3	361.6	354.8	398.7	572.3	527.0	454.2
U.K	93.9	99.7	103.6	98.8	108.0	154.1	150.0	N.A.
U.S.A	129.2	136.2	119.0	118.7	171.0	198.6	153.8	221.3
OECD Europe	165.8	178.3	161.7	122.9	157.0	N.A.	N.A.	N.A.
OECD	144.9	155.1	136.4	122.2	161.8	167.6	145.7	143.6
B. FOR HOUSEHOLD USE								
Austria	382.5	407.6	397.4	396.7	408.3	441.4	428.5	410.8
Belgium	377.7	394.9	396.6	382.6	474.0	N.A.	N.A.	N.A.
Canada	191.0	195.5	211.9	265.0	244.0	380.1	310.3	N.A.
Czech Repubic	303.0	323.5	415.5	454.6	585.2	618.3	609.1	610.5
Denmark	500.9	522.7	506.2	543.6	698.6	696.9	655.6	679.1
Finland	144.3	154.8	156.4	149.4	174.5	249.6	210.8	221.5
France	385.9	417.2	423.5	392.5	406.9	493.0	494.8	506.4
Germany	334.3	366.9	362.5	357.4	407.6	N.A.	N.A.	N.A.
Hungary	292.5	370.5	467.9	439.3	432.3	469.7	467.3	479.6
Ireland	454.2	451.5	429.8	443.5	388.6	394.8	393.8	N.A.
Italy	733.1	698.6	690.7	639.0	c	c	c	c
Japan	818.7	920.8	837.7	841.0	896.2	948.3	935.1	N.A.
Netherlands	340.1	385.5	389.5	374.5	416.4	481.3	511.0	555.5
New Zealand	409.7	455.8	487.8	500.2	494.1	479.9	507.0	N.A.
Poland	485.3	504.3	530.7	559.0	584.2	664.1	730.3	710.4
Spain	649.8	659.9	652.3	615.9	709.3	746.4	687.9	672.4
Switzerland	309.6	327.2	333.1	318.5	358.2	426.7	402.9	402.7
Turkey	427.5	505.6	457.3	493.5	590.7	692.7	622.8	526.5
U.K	332.3	331.2	315.3	308.2	302.1	314.4	335.4	337.7
U.S.A	264.3	266.8	262.2	257.2	321.5	369.1	324.0	394.0
OECD Europe	417.2	444.4	450.2	441.3	400.3	N.A.	N.A.	N.A.
OECD	344.2	361.1	366.0	361.6	369.2	414.7	387.1	414.8

NA = Not Available; GCV = Gross Caloific Value; 0.95 tonne of oil is approximatly 10^7 kcal. of Gas
Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2004.
c = price is confidential

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

(Aver age Unit Value, CIF)

Country	1994	1995	1996	1997	1998	19999	2000	2001	2002	2003*
IEA**	15.65	17.19	20.52	19.11	12.52	17.26	28.00	23.65	24.19	28.38
IEA Europe	15.63	17.06	20.67	18.88	12.30	17.32	27.89	23.92	24.27	28.39
Australia	16.76	18.53	21.81	21.78	14.60	18.38	30.79	26.61	25.80	31.24
Belgium	15.41	16.94	20.53	18.65	11.97	17.33	27.87	24.20	24.35	27.72
Canada	16.30	17.76	21.26	20.59	13.15	17.85	29.10	24.87	24.97	29.53
France	15.76	17.14	20.82	18.99	12.43	17.45	28.18	24.13	24.63	28.87
Germany	15.81	17.07	20.68	19.01	12.48	17.51	28.09	24.15	24.40	28.44
Greece	15.17	16.54	20.08	18.45	11.66	16.64	26.95	23.22	24.08	27.01
Italy	15.49	16.90	20.53	18.83	12.21	17.10	27.77	23.87	24.34	28.58
Japan	16.48	18.02	20.55	20.55	13.68	17.38	28.72	25.01	24.96	29.26
Netherlands	15.20	16.92	20.39	18.37	11.98	16.97	27.59	23.48	23.99	27.67
Spain	15.24	16.96	20.45	18.34	11.80	16.99	27.16	23.32	23.95	28.13
Sweden	15.81	17.23	20.86	18.90	12.61	17.68	28.13	24.03	23.86	28.60
Turkey	15.52	16.78	20.25	18.79	11.99	16.07	26.61	N.A.	N.A.	N.A.
U.K	15.83	17.29	21.08	19.32	12.64	18.01	28.45	24.45	24.58	29.13
U.S.A	15.06	16.74	20.16	18.34	12.02	17.06	27.54	22.07	23.58	27.65

** = Computed across all countries of the region using import volumes as current weights.
For reasons as confidentially,data for some countries are not listed seperatly.
Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2004.
* = Provisional

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
2001						
January	22.63	21.08	25.43	22.31	20.74	22.56
February	24.65	23.10	27.40	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	20.60	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	29.10	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
April	22.85	23.78	25.27	24.70	23.50	23.59
May	23.06	24.35	25.78	24.92	24.19	24.31
June	24.43	25.50	27.46	26.15	25.37	25.46
July	26.03	26.70	28.39	27.24	26.68	26.66
August	28.62	27.78	29.79	28.36	27.63	27.66
September	26.66	25.78	27.47	26.41	24.92	25.52
October	28.79	27.67	29.59	28.26	26.87	27.42
November	27.64	27.76	28.93	28.63	26.88	27.62
December	28.55	28.25	29.64	29.20	27.10	28.06
2004						
January	29.31	29.16	30.94	29.83	27.49	28.93
February	28.00	28.61	30.47	29.18	26.93	28.49
March	30.78	30.97	33.34	31.62	29.42	30.77

Source : OPEC Monthly Bulletins

XIV.23 DEVELOPMENT OF SPOT PRISES OF MAJOR PETROLEUM PRODUCTS IN KEY TRADING CENTRES OF THE WORLD DURING 2002, 2003 AND 2004

(US $/Bl)

Market/Product	2002					2003					2004	
	Jan	Mar	June	Sept	Dec	Jan	Mar	June	Sept	Dec	Jan	Mar
NAPHTHA:												
North Europeon Market, FOB Rotterdam	21.42	28.27	24.33	33.46	34.20	40.35	40.60	32.26	32.66	39.45	43.00	42.65
South Europeon Market, FOB Italy	17.55	23.43	22.05	27.95	27.71	33.02	32.05	26.31	26.78	31.90	34.41	34.24
Carribean Cargoes	19.63	25.86	26.85	32.16	31.49	37.00	36.78	28.91	30.23	35.64	39.72	40.69
Singapore Cargoes	18.97	24.92	23.84	27.52	29.57	32.21	33.78	26.66	27.88	34.67	39.49	36.03
Middle East FOB	18.55	24.27	23.82	27.13	28.14	30.36	32.26	26.01	26.86	32.88	36.84	35.04
GASOLINE (Premium Unl. 95)												
North Europeon Market, FOB Rotterdam	20.93	25.74	29.02	32.63	31.34	35.31	36.06	33.15	33.70	33.84	37.73	41.68
South Europeon Market, FOB Italy	19.89	24.07	26.23	31.79	30.57	34.20	33.75	31.51	32.23	33.08	37.04	40.92
US East Coast, NewYork (Unl.regular 87)	22.53	28.94	29.78	32.61	33.59	36.60	39.86	33.58	37.51	36.97	41.77	45.56
Singapore Cargoes	21.00	27.93	28.54	30.49	30.25	34.34	37.51	31.59	33.11	39.52	44.25	44.10
JET KERO												
North Europeon Market, FOB Rotterdam	23.46	26.73	28.04	34.19	33.21	36.66	42.75	31.72	32.33	39.08	40.35	40.55
US East Coast, New York	23.35	27.00	28.34	34.11	34.67	38.17	40.92	32.21	31.67	38.28	42.83	40.47
Carribean Cargoes	22.24	26.72	27.66	33.67	34.27	37.87	37.94	31.79	31.21	37.44	42.44	40.74
Singapore Cargoes	22.93	25.16	26 49	32.92	32.10	34.37	35.33	28.48	31.40	37.50	30.60	37.72
Middle East FOB	21.62	23.65	25.09	31.19	29.77	31.79	32.74	26.44	29.11	35.43	37.49	35.02
GAS OIL												
North Europeon Market, FOB Rotterdam	21.55	25.05	25.97	31.54	32.63	35.22	39.61	30.57	29.84	35.02	36.58	37.77
South Europeon Market, FOB Italy	22.37	24.15	25.48	30.56	32.02	35.05	39.45	29.88	29.46	33.87	35.80	36.94
US East Coast, New York	22.23	26.48	26.89	32.25	34.21	37.78	40.82	31.69	30.52	37.06	40.88	37.87
Carribean Cargoes	21.49	25.77	26.49	31.91	33.64	37.44	37.87	31.30	30.28	35.89	40.21	37.93
Singapore Cargoes	21.66	25.71	27.82	31.43	31.88	34.23	37.87	29.33	32.42	36.67	41.42	38.42
Middle East FOB	19.50	23.28	25.89	28.90	28.53	30.66	34.22	26.56	28.8	32.91	37.13	34.84
FUEL OIL												
North Europeon Market (1%s)	16.20	17.25	19.32	24.33	26.11	26.83	26.86	25.14	23.84	20.63	22.05	23.33
South Europeon Market,(1%s) FOB italy	17.26	17.99	20.21	25.07	24.07	29.15	28.10	25.01	22.91	21.60	23.16	23.63
US East Coast, New York (1%s)	16.08	19.43	22.70	26.02	26.68	31.53	31.71	25.18	24.88	25.76	28.05	24.67
Carribean Cargoes (2%s)	14.50	18.25	20.79	24.55	23.58	29.31	26.05	20.95	21.60	20.34	19.99	19.11
Singapore Cargoes (380 Cst)	16.24	19.73	21.99	25.34	24.24	26.97	26.65	24.51	23.8	23.79	24.96	24.57
Singapore Cargoes (180 Cst)	16.07	19.37	21.66	24.70	23.95	26.51	26.19	24.20	23.13	23.38	24.73	24.31
Middle East (180 Cst)	14.95	18.41	20.64	23.66	21.95	24.57	23.73	22.88	21.67	21.32	22.42	21.96

Source : OPEC Monthly Statistical Bulletin

XIV. 24 WORLD SURVEY OF SELECTED PETROLEUM PRODUCTS PRICES IN 2003

Country	US $ Exchange Rate in N.A.tional Currencies	Premium Leaded Gasoline (US$/Ltr)	Automotive Diesel Oil Non-commercial (US$/Ltr)	Heavy Fuel Oil For Industry use (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	1.54	0.601	0.591	..	..	..
Austria	0.89	N.A.	0.821	..	445.0	..
Belgium	0.89	N.A.	0.835	N.A.	354.8	294.6
Canada	1.40	N.A.	..	211.4	406.9	248.9
Czech Repubic	28.13	N.A.	0.778	146.8	405.8	280.4
Denmark	6.58	N.A.	1.03	..	864.6	452.6
Finland	0.89	N.A.	0.913	..	442.2	362.2
France	0.89	1.24	0.896	209.3	440.0	332.4
Germany	0.89	N.A.	1.002	..	399.3	344.3
Greece	0.89	0.891	0.719	242.2	702.3	595.2
Hungary	224.30	N.A.	0.938	..	N.A.	938.4
Ireland	0.89	N.A.	0.908	302.3	515.1	385.8
Italy	0.89	N.A.	0.991	..	960.0	800.0
Japan	115.90	N.A.	0.729	237.9	412.6	283.2
Korea	1191.00	..	..	301.6	536.3	537.4
Luxembourg	0.89	N.A.	0.721	N.A.	346.2	309.1
Mexico	10.79	N.A.	0.458	139.6	..	261.4
Netherlands	0.89	N.A.	0.898	..	677.8	..
New Zealand	1.72	N.A.	0.362	353.2	..	272.0
Norway	7.08	1.41	1.185	..	773.6	623.8
Poland	3.89	N.A.	0.729	160.0	416.2	307.6
Portugal	0.89	N.A.	0.802	N.A.	N.A.	N.A.
Slovak Republic	36.76	N.A.	0.814	N.A.	..	294.1
Spain	0.89	1.001	0.784	230.9	437.2	376.9
Sweden	8.08	N.A.	1.004	N.A.	860.3	339.2
Switzerland	1.35	N.A.	1.008	N.A.	326.1	268.3
Turkey*	1502.50	..	0.932	307.7	874.2	..
U.K	0.61	1.311	1.277	N.A.	304.6	..
U.S.A	1.00	N.A.	0.398	195.8	365.4	228.3

.. = not available na = not applicable

* = Exchange rates for Turkey are per 1000 Lira.

Source = International Energy Agency's "Energy Prices and Taxes" 1st Quarter of 2004.

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	1999	2000	2001	2002	2003	2004
Australia										
Perth	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	65.75	74.75	N.A.	N.A.
France										
Paris	66.24	60.94	77.62	70.42	54.20	91.99	86.79	68.30	99.46	108.26
Germany										
Frankfurt	67.96	62.29	78.21	66.87	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Netherlands										
Amesterdam	65.22	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Italy										
Rome	68.48	82.03	71.97	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Kenya										
Nairobi	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	94.14	76.71	N.A.	N.A.
Malaysia										
Kualalampur	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	76.00	59.90	N.A.	N.A.
Singapore										
Paya Lebar/Changi	63.10	57.87	71.33	66.99	46.81	78.23	73.86	60.45	80.95	97.2
Switzerland										
Geneva	67.93	64.71	78.53	73.56	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
U.A.E										
Abu Dhabi	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	92.00	82.00	N.A.	N.A.
Dubai	78.11	80.00	92.00	91.00	63.00	108.25	89.45	78.30	106.04	110.98
U.K										
London (Heathrow)	66.37	57.00	73.68	63.55	46.98	87.65	83.06	62.42	95.12	104.43
Kuwait	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	85.00	74.00	N.A.	N.A.
New York (1)	64.98	52.74	67.63	62.07	48.29	N.A.	81.63	61.04	85.01	104.32
Japan										
Tokyo	85.75	72.03	82.63	87.20	64.48	100.70	71.02	71.02	91.96	111.82
India										
Mumbai	89.59	93.00	110.40	119.40	75.60	120.00	113.34	94.43	152.98	156.73
Delhi	91.28	62.93	99.36	107.46	69.30	120.00	115.86	97.00	156.10	160.79
Madras	N.A.	N.A.	N.A.	N.A.	78.12	124.00	111.31	92.95	160.57	166.41

(1) = Air India contact Price NA : Not Available

Source : Air India

XIV. 26 INTERNATIONAL PETROLEUM PRICE INDEX DURING 1995 TO 2003

(US$/bbl))

Petroleum Spot	Price 1990	1995	1996	1997	1998	1999	2000	2001	2002	2003
					(1990=100)					
U.K. BRENT 38.0/0.26	20.89	66.92	87.67	80.73	53.83	75.86	120.46	117.09	119.82	137.91
USA WEST TAXAS INTERMEDIATE 40.0/0.4	24.46	75.31	90.76	84.06	58.71	78.90	124.16	106.30	106.83	127.11
UAE DUBAI FATEH 32.5/1.43	20.38	79.00	91.17	88.81	59.62	84.59	127.88	110.69	116.93	131.35
USA ANS 27.0/1.06	21.92	78.38	93.66	86.36	57.03	81.07	129.56	106.48	112.91	135.17
IRAN LIGHT 33.9/1.4	20.64	78.34	92.2	88.37	57.99	83.58	129.60	110.95	113.95	130.28
IRAN HEAVY 31.0/1.6	19.91	81.67	92.87	90.41	57.51	85.03	130.69	108.84	115.97	132.24
INDONESIA MINAS 33.0/0.1	23.26	75.84	88.99	82.80	52.92	76.70	123.56	106.36	110.06	126.91
NIGERIA BONNY LIGHT 36.7/0.1	24.16	71.77	87.91	80.30	52.86	74.79	117.92	101.41	104.10	119.04
MEXICO ISTHUMAS 31.8/1.51	22.05	75.87	93.65	82.81	54.78	78.41	126.08	100.77	109.39	128.12
RUSSIA URALS 36.1/2.52	22.54	73.74	89.22	81.10	52.26	76.49	117.92	101.91	105.68	119.92
MALAYSIA TAPIS 44.3/0.2	26.91	75.96	91.40	86.88	57.35	78.49	123.50	85.36	88.52	100.45
AUSTRALIA GIPPSLAND 46.0/0.13	23.62	73.37	89.03	84.04	56.44	78.32	124.47	106.77	107.83	126.38
SAUDI ARABIA ARAB HEAVY 28.0/3.0	18.77	83.00	98.24	91.48	58.07	87.59	134.47	116.68	124.56	140.81

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, 2003.

XIV.27 TANKER FLEET DEVELOPMENT IN OPEC MEMBERS, 1999 - 2003 (1,000 DWT)

	1999		2000		2001		2002		2003	
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	31	904.2	32	988.9	32	988.9	32	988.9	32	988.9
Iran	20	3523.6	21	3699.6	24	3070.6	23	4169.6	27	5644.5
Iraq	9	534.3	9	534.3	9	534.3	9	534.3	9	534.3
Kuwait	17	2890.3	16	2862.9	26	3329.6	17	2898.0	29	3625.3
Libya	5	526.8	6	775.3	6	775.3	6	775.3	6	775.3
Nigeria	2	413.0	2	413.0	2	413.0	2	408.8	2	408.8
Qatar	5	465.8	4	368.6	4	368.6	4	368.6	4	368.6
Saudi Arabia	11	481.3	12	578.6	12	578.6	12	578.6	12	578.6
UAE	13	659.4	10	291.6	10	291.6	9	291.6	7	275.4
Venezuela	7	373.8	6	320.3	6	320.3	6	320.3	13	557.5
Total OPEC	**121**	**10795**	**119**	**10856**	**132**	**10693**	**121**	**11357**	**142**	**13780**
Total World	**3313**	**289358**	**3329**	**292059**	**3336**	**291110**	**3368**	**293571**	**3524**	**306578**
OPEC %		3.7		3.7		3.7		3.9		4.5

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, 2003.

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

	1989-93		1994-98		1999-2003		Total	
	No.	DWT	No.	DWT	No.	DWT	No.	DWT
10,000-19,999	49	707.8	118	1666.5	146	2257.3	598	8956.2
20,000-29,999	47	1330.2	18	515.5	33	787.4	306	8231.7
30,000-39,999	31	1125.1	65	2303.2	148	5238.8	506	17931.3
40,000-49,999	72	3133	105	4734.7	171	7756.2	475	21211.9
50,000-59,999	3	170.1	1	55.2	1	59.7	65	3564.1
60,000-69,999	31	2082.9	8	543.3	29	1958.8	179	11713.8
70,000-79,999	4	300	1	74	32	2304.3	48	3507.4
80,000-89,999	43	3964.3	7	607.9	10	838.1	171	14968.8
90,000-99,999	60	5819.9	49	4753.3	26	2528.2	182	17538.7
100,000-109,999	17	1756.4	45	4760.9	118	12467.5	197	20776.9
110,000-119,999	6	685.3	2	220.5	43	4850.4	61	6897.5
120,000-129,999	9	1164.3	7	878.2	6	756.4	40	5070.9
130,000-139,999	25	3517.7	7	937.6	2	274.1	44	6076.4
140,000-149,999	31	4569.3	29	4299	21	3097.9	87	12832.3
150,000-159,999	17	2529.5	15	2312.4	57	8941.7	98	15269.3
160,000-199,999	-	-	-	-	16	2611.8	25	4231.7
200,000-229,999	-	-	-	-	-	-	3	654.5
230,000-259,999	41	10392.7	17	4405.9	9	2330	95	24091.4
260,000-299,999	60	16966.9	41	11880.9	62	18036.4	183	52389.7
300,000-349,999	10	3041.1	35	10643.3	100	30698.0	150	46022.6
350,000 and over	-	-	-	-	4	1769.4	11	4641.1
Total World	**556**	**63356.6**	**570**	**55592.5**	**1034**	**109562.3**	**3524**	**306578.2**

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, 2003.
DWT : Deadweight Tonnage - = Nil or negligible.

XIV.29 INTER-AREA TOTAL OIL MOVEMENTS DURING 2003

(Thousand barrels daily)

To / From	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
Imports								
USA	10382	10550	11092	11618	11357	12254	7.9%	26.8%
Europe #	11017	10670	11070	11531	11895	11993	0.8%	26.2%
Japan	5259	5346	5329	5202	5070	5314	4.8%	11.6%
Rest of World *	13432	14157	14911	15401	15306	16238	6.1%	35.5%
TOTAL WORLD	**40090**	**40723**	**42402**	**43752**	**43628**	**45799**	**5.0%**	**100.0%**
Exports								
USA	1011	956	890	910	904	921	1.9%	2.0%
Canada	1603	1520	1703	1804	1959	2096	7.0%	4.6%
Mexico	1770	1739	1814	1882	1966	2115	7.6%	4.6%
South & Central America	3240	3145	3079	3143	2965	2942	-0.8%	6.4%
Europe	1344	1851	1967	1947	2234	2066	-7.5%	4.5%
Former Soviet Union @	3569	4019	4273	4679	5370	6003	11.8%	13.1%
Middle East	18702	18341	18944	19098	18062	18943	4.9%	41.4%
North Africa	2712	2726	2732	2724	2620	2715	3.6%	5.9%
West Africa	3094	2985	3293	3182	3134	3612	15.3%	7.9%
Asia Pacific £	2490	2650	2767	2879	2863	3025	5.6%	6.6%
Rest of World *	556	791	940	1506	1551	1361	-12.2%	3.0%
TOTAL WORLD	**40091**	**40723**	**42402**	**43754**	**43628**	**45799**	**5.0%**	**100.0%**

* Includes unidentified trade
£ Excludes Japan
Prior to 1993, excludes Central Europe (Albania, Bulgaria, Czech Republic, Former Republic of Yugoslavia, Hungary, Poland, Romania, Slovakia).
n/a not available
@ Prior to 1993, includes Central Europe and excludes movements between Former Soviet Union and Central Europe
Note: For the purposes of this table, annual changes and shares of total are calculated using thousand barrels daily figures.

XIV.30 WORLD PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2003

(Million tonnes oil equivalent)

Country/Region	2003					
	Oil	Natural	Coal	Nuclear	Hydro	Total
USA	914.3	566.8	573.9	181.9	60.9	2297.8
Canada	96.4	78.7	31.0	16.8	68.6	291.4
Mexico	82.6	40.8	7.8	2.4	4.5	138.1
Total North America	**1093.2**	**686.3**	**612.7**	**201.1**	**133.9**	**2727.3**
Argentina	17.5	31.1	0.6	1.7	7.8	58.7
Brazil	84.1	14.3	11.0	3.0	68.9	181.4
Chile	10.4	6.3	2.4	-	5.1	24.2
Colombia	10.0	5.4	2.6	-	8.1	26.2
Ecuador	6.1	0.1	-	-	1.7	7.8
Peru	7.4	0.5	0.4	-	4.2	12.5
Venezuela	23.9	26.4	0.1	-	13.7	64.1
Other S. & Cent. America	57.3	14.4	0.7	-	18.4	90.8
Total S. & Cent. America	**216.6**	**98.6**	**17.7**	**4.7**	**127.8**	**465.5**
Austria	14.3	7.7	3.0	-	6.9	31.9
Azerbaijan	4.4	7.2	^	-	0.6	12.1
Belarus	6.1	14.8	0.3	-	^	21.1
Belgium & Luxembourg	34.8	14.4	6.5	10.8	0.5	66.9
Bulgaria	4.3	2.6	8.1	3.9	0.5	19.4
Czech Republic	8.6	8.1	20.5	5.9	0.4	43.4
Denmark	9.3	4.7	5.7	-	^	19.6
Finland	11.4	4.0	5.8	5.5	2.1	28.9
France	94.2	39.4	12.4	99.8	14.8	260.6
Germany	125.1	77.0	87.1	37.3	5.7	332.2
Greece	20.9	2.1	10.3	-	1.2	34.4
Hungary	6.2	11.7	3.3	2.5	^	23.7
celand	0.9	-	0.1	-	1.6	2.6
Republic of Ireland	8.4	3.7	1.6	-	0.2	13.9
Italy	92.1	64.5	15.3	-	10.0	181.9
Kazakhstan	9.5	11.3	26.9	-	1.9	49.6
Lithuania	2.5	2.8	0.1	3.5	0.2	9.2
Netherlands	44.5	35.4	9.2	0.9	^	90.0
Norway	9.6	3.9	0.5	-	24.0	38.0
Poland	20.5	11.3	58.8	-	0.7	91.3
Portugal	16.6	2.7	3.9	-	3.6	26.7
Romania	11.0	16.6	8.0	1.1	3.1	39.8
Russian Federation	124.7	365.2	111.3	34.0	35.6	670.8
Slovakia	3.7	6.4	4.1	4.1	0.8	19.0
Spain	75.5	21.5	20.6	14.0	9.9	141.5
Sweden	15.8	0.7	2.2	15.5	12.1	46.4
Switzerland	12.1	2.6	0.1	6.2	8.3	29.4
Turkey	31.9	18.9	15.5	-	8.0	74.3
Turkmenistan	3.7	13.2	-	-	-	16.9

Contd....

XIV.30 WORLD PRIMARY ENERGY CONSUMPTION BY FUEL DURING 2003

(Million tonnes oil equivalent)

Country/Region	2003					
	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electric	Total
Ukraine	13.1	60.8	39.0	18.4	2.1	133.3
United Kingdom	76.8	85.7	39.1	20.1	1.3	223.2
Uzbekistan	6.5	42.5	1.0	-	1.7	51.7
Other Europe & Eurasia	23.5	12.4	15.7	1.6	16.4	69.7
Total Europe & Eurasia	**942.3**	**975.7**	**535.9**	**285.3**	**174.3**	**2913.4**
Iran	54.0	72.4	0.7	-	2.0	129.1
Kuwait	13.7	7.5	-	-	-	21.2
Qatar	1.7	10.4	-	-	-	12.2
Saudi Arabia	67.0	54.9	-	-	-	121.9
United Arab Emirates	15.0	33.7	-	-	-	48.8
Other Middle East	63.4	21.5	7.9	-	0.9	93.7
Total Middle East	**214.9**	**200.4**	**8.6**	**-**	**3.0**	**426.8**
Algeria	10.0	19.3	0.6	-	0.1	29.9
Egypt	25.9	22.1	0.7	-	3.2	52.0
South Africa	24.2	-	88.9	3.0	0.8	116.9
Other Africa	60.3	18.7	7.0	-	14.8	100.8
Total Africa	**120.5**	**60.1**	**97.2**	**3.0**	**18.8**	**299.6**
Australia	38.1	23.7	50.2	-	3.7	115.6
Bangladesh	4.2	11.0	0.4	-	0.2	15.8
China	275.2	29.5	799.7	9.8	64.0	1178.3
China Hong Kong SAR	13.1	1.4	6.6	-	-	21.0
India	113.3	27.1	185.3	4.1	15.6	345.3
Indonesia	53.9	32.0	18.9	-	2.3	107.0
Japan	248.7	68.9	112.2	52.2	22.8	504.8
Malaysia	23.9	25.6	3.2	-	1.7	54.4
New Zealand	6.9	4.1	1.8	-	5.5	18.4
Pakistan	17.0	19.0	2.7	0.4	5.6	44.8
Philippines	15.6	2.4	5.6	-	1.8	25.4
Singapore	34.1	4.8	-	-	-	38.9
South Korea	105.7	24.2	51.1	29.3	1.6	212.0
Taiwan	41.7	7.8	35.0	8.8	1.6	94.8
Thailand	38.7	23.9	9.7	-	1.7	74.0
Other Asia Pacific	19.0	5.5	23.9	-	9.6	58.0
Total Asia Pacific	**1049.1**	**310.9**	**1306.2**	**104.7**	**137.5**	**2908.4**
TOTAL WORLD	**3636.6**	**2331.9**	**2578.4**	**598.8**	**595.4**	**9741.1**
Of which European Union 15	639.7	363.5	222.7	204.0	68.3	1498.1
OECD	2225.8	1233.5	1153.7	505.3	279.6	5397.9
Former Soviet Union	175.4	524.4	179.3	56.4	51.4	987.0
Other EMEs	1235.4	574.0	1245.4	37.1	264.3	3356.2

* 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, June 2004.

XIV.31 PER CAPITA PRIMARY ENERGY CONSUMPTION DURING 2003 SOME INTERNATIONAL COMPARISIONS

(Kg oil equivalent)

Country/Region	2003					
	Oil	Natural Gas	Coal	Nuclear	Hydro Electric	Total
USA	3,137	1,944	1,969	62	209	7,883
Canada	3,051	2,491	981	532	2,171	9,222
Mexico	787	389	74	23	43	1,316
Total North America	**3,385**	**2,125**	**1,897**	**623**	**415**	**8,444**
Argentina	474	843	16	46	211	1,591
Brazil	476	81	62	17	390	1,028
Chile	658	399	152	-	323	1,532
Colombia	226	122	59	-	183	593
Ecuador	484	8	-	-	135	619
Peru	273	18	15	-	155	461
Venezuela	956	1,056	4	-	548	2,564
Other S. & Cent. America	350	88	4	-	112	554
Total S. & Cent. America	**431**	**196**	**35**	**9**	**255**	**927**
Austria	1,744	939	366	-	841	3,890
Azerbaijan	537	878	-	-	73	1,476
Belarus	616	1,495	30	-	-	2,131
Belgium & Luxembourg	3,193	1,321	596	991	46	6,138
Bulgaria	573	347	1,080	520	67	2,587
Czech Republic	843	794	2,010	578	39	4,255
Denmark	1,722	870	1,056	-	-	3,630
Finland	2,192	769	1,115	1,058	404	5,558
France	1,575	659	207	1,669	247	4,358
Germany	1,515	932	1,054	452	69	4,022
Greece	1,900	191	936	-	109	3,127
Hungary	614	1,158	327	248	-	2,347
Iceland	3,000	-		5,333	8,667	
epublic of Ireland	2,100	925	400	-	50	3,475
Italy	1,610	1,128	267	-	175	3,180
azakhstan	642	764	1,818	-	128	3,351
Lithuania	714	800	29	1,000	57	2,629
Netherlands	2,747	2,185	568	56	-	5,556
Norway	2,087	848	109	-	5,217	8,261
Poland	531	293	1,523	-	18	2,365
Portugal	1,596	260	375	-	346	2,567
Romania	509	769	370	51	144	1,843
Russian Federation	857	2,510	765	234	245	4,610
Slovakia	685	1,185	759	759	148	3,519
Spain	1,828	521	499	339	240	3,426
Sweden	1,756	78	244	1,722	1,344	5,156
Switzerland	1,658	356	14	849	1,137	4,027
Turkey	448	265	218	-	112	1,044
Turkmenistan	649	2,316	-	-	-	2,965

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XIV.31 PER CAPITA PRIMARY ENERGY CONSUMPTION DURING 2003 SOME INTERNATIONAL COMPARISIONS

(Kg oil equivalent)

Country/Region	2003					
	Oil	Natural Gas	Coal	Nuclear	Hydro Electric	Total
Ukraine	274	1,272	816	385	44	2,789
United Kingdom	1,297	1,448	660	340	22	3,770
Uzbekistan	253	1,654	39	-	66	2,012
Other Europe & Eurasia	27	14	18	2	19	81
Total Europe & Eurasia	**950**	**983**	**540**	**288**	**176**	**2,937**
Iran	811	1,087	11	-	30	1,938
Kuwait	5,708	3,125	-	-	-	8,833
Qatar	2,833	17,333	-	-	-	20,333
Saudi Arabia	2,780	2,278	-	-	-	5,058
United Arab Emirates	3,846	8,641	-	-	-	12,513
Other Middle East	785	266	98	-	11	1,160
Total Middle East	**1,205**	**1,123**	**48**	**-**	**17**	**2,392**
Algeria	315	609	19	-	3	943
Egypt	359	307	10	-	44	721
South Africa	550	-	2,020	68	18	2,657
Other Africa	85	26	10	-	21	141
Total Africa	**140**	**70**	**113**	**3**	**22**	**348**
Australia	1,915	1,191	2,523	-	186	5,809
Bangladesh	29	75	3	-	1	108
China	214	23	621	8	50	914
China Hong Kong SAR	1,926	206	971	-	-	3,088
India	106	25	173	4	15	323
Indonesia	244	145	86	-	10	485
Japan	1,951	540	880	409	179	3,959
Malaysia	952	1,020	127	-	68	2,167
New Zealand	1,725	1,025	450	-	1,375	4,600
Pakistan	114	127	18	3	38	300
Philippines	191	29	69	-	22	311
Singapore	8,119	1,143	-	-	-	9,262
South Korea	2,207	505	1,067	612	33	4,426
Taiwan	1,845	345	1,549	389	71	4,195
Thailand	613	379	154	-	27	1,173
Other Asia Pacific	34	10	43	-	17	105
Total Asia Pacific	**274**	**81**	**341**	**27**	**36**	**759**
TOTAL WORLD	**576**	**369**	**408**	**95**	**94**	**1,543**
Of which OECD	1,644	911	852	373	206	3,986
European Union	1,682	956	585	536	180	3,938

* 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: BP Amco Statistical Review of World Energy, June 2004.

Note: Papulation (Mid 2003 in Millions) data has been taken from 'Papulation Reference Bureau' .

XIV.32 PER CAPITA CONSUMPTION OF MAIN PETROLEUM PRODUCTS SOME INTERNATIONAL COMPARISIONS DURING 2003

Kg./Per Capita

Country/Area	Gasoline Distillates	Middle	Fuel Oil	Others	Total
USA	1579	1002	130	708	3419
Europe	271	487	135	216	1108
Middle East	257	436	342	211	1247
China	59	75	32	65	230
Japan	692	747	297	387	2123
OECD	641	612	158	361	1772

Source : 1) B.P Amoco Statistical Review of World Energy, June 2004.
2) Per World population UN population division's publication 'World population Prospects, 2003.

XIV.33 TRENDS IN WORLD PRIMARY ENERGY CONSUMPTION (1980 - 2003)

(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	3522.5	2282.0	2397.9	592.1	610.6	9405.1
2003 (P)	3636.6	2331.9	2578.4	595.4	598.8	9741.1

Source : B.P Amoco statistical review of world Energy, June 2004.
(P) : Provisional

XIV.34 PRIMARY ENERGY CONSUMPTION* IN SELECTED COUNTRIES OF THE WORLD DURING 1998 - 2003

(Million tonnes oil equivalent)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
USA	2220.9	2258.9	2310.7	2254.8	2296.7	2297.8	w	23.6%
Canada	282.6	284.2	289.8	288.1	289.0	291.4	0.8%	3.0%
Mexico	128.3	131.7	135.9	135.2	135.2	138.1	2.1%	1.4%
Total North America	**2631.8**	**2674.7**	**2736.3**	**2678.1**	**2721.0**	**2727.3**	**0.2%**	**28.0%**
Argentina	58.1	57.5	58.9	57.7	54.5	58.7	7.7%	0.6%
Brazil	166.9	171.2	176.9	174.1	177.6	181.4	2.1%	1.9%
Chile	21.6	22.3	23.8	23.3	24.0	24.2	0.6%	0.2%
Colombia	27.3	25.0	24.9	26.9	25.2	26.2	3.8%	0.3%
Ecuador	8.2	7.7	7.7	7.7	7.7	7.8	1.6%	0.1%
Peru	11.3	11.7	11.9	11.7	11.8	12.5	5.3%	0.1%
Venezuela	63.8	59.8	61.9	65.2	66.1	64.1	-3.0%	0.7%
Other S. & Cent. America	82.1	83.7	84.8	85.3	87.6	90.8	3.6%	0.9%
Total S. & Cent. America	**439.4**	**438.8**	**450.8**	**452.0**	**454.5**	**465.5**	**2.4%**	**4.8%**
Austria	30.9	31.6	31.5	32.5	31.7	31.9	0.7%	0.3%
Azerbaijan	12.6	12.8	11.4	11.0	11.0	12.1	9.8%	0.1%
Belarus	22.2	21.0	21.5	20.7	19.8	21.1	6.8%	0.2%
Belgium & Luxembourg	63.0	64.1	66.4	64.0	64.9	66.9	3.2%	0.7%
Bulgaria	20.7	18.0	17.8	18.4	19.1	19.4	1.9%	0.2%
Czech Republic	39.9	38.5	40.0	41.5	41.2	43.4	5.2%	0.4%
Denmark	20.6	19.9	18.8	18.6	18.4	19.6	6.6%	0.2%
Finland	25.6	25.7	26.0	26.4	26.7	28.9	8.0%	0.3%
France	247.2	251.5	254.9	257.8	256.5	260.6	1.6%	2.7%
Germany	334.5	328.5	330.5	335.7	330.0	332.2	0.7%	3.4%
Greece	28.6	30.1	31.8	31.6	32.5	34.4	5.8%	0.4%
Hungary	23.8	23.7	23.0	24.1	23.4	23.7	1.3%	0.2%
Iceland	2.2	2.3	2.4	2.5	2.6	2.6	0.7%	w
Republic of Ireland	12.4	13.2	13.9	14.6	14.5	13.9	-3.6%	0.1%
Italy	168.5	173.7	176.4	177.2	176.8	181.9	2.9%	1.9%
Kazakhstan	39.4	35.4	41.0	42.3	44.6	49.6	11.1%	0.5%
Lithuania	9.2	7.8	7.0	8.1	8.6	9.2	6.8%	0.1%
Netherlands	84.5	83.2	86.5	88.5	89.7	90.0	0.3%	0.9%
Norway	40.4	41.5	45.9	41.0	42.9	38.0	-11.5%	0.4%
Poland	94.1	91.1	88.4	88.6	87.1	91.3	4.9%	0.9%
Portugal	22.7	23.3	24.8	25.0	24.6	26.7	8.8%	0.3%
Romania	41.3	36.9	37.0	37.3	38.6	39.8	3.0%	0.4%
Russian Federation	611.4	621.1	636.0	637.5	646.6	670.8	3.7%	6.9%
Slovakia	17.6	17.5	18.1	18.6	19.3	19.0	-1.7%	0.2%
Spain	118.1	122.7	129.2	133.0	134.7	141.5	5.1%	1.5%
Sweden	51.6	51.6	48.6	52.1	48.5	46.4	-4.4%	0.5%
Switzerland	29.1	30.1	29.4	31.5	29.5	29.4	-0.5%	0.3%
Turkey	70.6	68.9	73.7	70.8	71.6	74.3	3.8%	0.8%
Turkmenistan	12.0	13.0	14.4	15.5	15.9	16.9	6.0%	0.2%
Ukraine	133.7	136.5	136.7	135.9	133.6	133.3	-0.2%	1.4%
United Kingdom	224.0	222.4	223.6	226.4	222.1	223.2	0.5%	2.3%
Uzbekistan	51.8	53.7	51.6	55.4	56.7	51.7	-8.7%	0.5%
Other Europe & Eurasia	69.1	64.5	64.7	66.9	66.8	69.7	4.4%	0.7%
Total Europe & Eurasia	**2773.2**	**2775.8**	**2822.8**	**2851.0**	**2850.5**	**2913.4**	**2.2%**	**29.9%**

Contd.....

XIV.34 PRIMARY ENERGY CONSUMPTION* IN SELECTED COUNTRIES OF THE WORLD DURING 1998 - 2003

(Million tonnes oil equivalent)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003 over 2002	2003 % share of total
Iran	105.2	112.1	114.6	118.9	127.1	129.1	1.6%	1.3%
Kuwait	17.7	18.1	19.0	19.1	18.6	21.2	13.6%	0.2%
Qatar	14.5	13.7	9.8	11.2	12.0	12.2	1.4%	0.1%
Saudi Arabia	101.0	102.5	107.2	111.0	114.4	121.9	6.5%	1.3%
United Arab Emirates	41.8	41.8	40.5	42.9	47.2	48.8	3.3%	0.5%
Other Middle East	88.0	89.4	92.7	95.8	97.4	93.7	-3.8%	1.0%
Total Middle East	**368.0**	**377.5**	**383.9**	**399.0**	**416.8**	**426.8**	**2.4%**	**4.4%**
Algeria	27.5	27.9	26.9	27.8	28.5	29.9	5.0%	0.3%
Egypt	41.9	44.7	47.6	49.4	49.5	52.0	4.9%	0.5%
South Africa	108.8	107.9	108.4	107.0	111.0	116.9	5.4%	1.2%
Other Africa	88.2	91.3	93.3	95.5	98.0	100.8	2.9%	1.0%
Total Africa	**266.5**	**271.8**	**276.2**	**279.6**	**286.9**	**299.6**	**4.4%**	**3.1%**
Axsia	80.0	89.1	95.0	101.1	104.4	107.0	2.5%	1.1%
Japan	502.2	508.8	515.9	514.8	506.6	504.8	-0.4%	5.2%
Malaysia	37.3	38.3	45.7	48.0	51.9	54.4	4.7%	0.6%
New Zealand	16.8	17.4	17.9	18.0	18.2	18.4	1.0%	0.2%
Pakistan	39.6	40.8	42.0	42.9	43.9	44.8	2.0%	0.5%
Philippines	22.9	22.7	22.6	22.7	23.5	25.4	8.0%	0.3%
Singapore	34.7	32.9	35.0	40.5	39.9	38.9	-2.5%	0.4%
South Korea	165.5	180.5	191.1	195.9	205.0	212.0	3.4%	2.2%
Taiwan	77.5	81.1	85.6	86.8	90.8	94.8	4.5%	1.0%
Thailand	58.2	59.7	62.4	63.6	69.2	74.0	7.0%	0.8%
Other Asia Pacific	44.9	47.0	50.6	54.3	56.2	58.0	3.2%	0.6%
Total Asia Pacific	**2374.4**	**2329.6**	**2389.5**	**2496.7**	**2734.8**	**2908.4**	**6.3%**	**29.9%**
TOTAL WORLD	**8853.3**	**8868.2**	**9059.5**	**9156.3**	**9464.5**	**9741.1**	**2.9%**	**100.0%**
Of which European Union 15	1432.2	1441.4	1462.8	1483.6	1471.5	1498.1	1.8%	15.4%
OECD	5174.1	5246.9	5355.9	5321.7	5356.2	5397.9	0.8%	55.4%
Former Soviet Union	916.0	923.0	940.8	947.9	958.0	987.0	3.0%	10.1%
Other EMEs	2763.2	2698.3	2762.8	2886.7	3150.3	3356.2	6.5%	34.5%

* 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
w Less than 0.05% ^ Less than 0.05

Source : B.P Amoco Statistical Review of World Energy, June, 2004.

XIV. 35 ECONOMIC INDICATORS OF OPEC NATIONS DURING 2003

Country	Mid Year Population 2003 (Million)	GDP* 2003 (Bn. $)	Per capita GDP* 2003 (US $)	Petroleum* Exports 2003 (m $)	Total* Exports (m $)	Petroleum* Exports as % of total Exports	Oil Reseves* Dec.2003 (Bn.bbls)	Gas Reserves Dec.2003 (Bn. CM)	Producing Oil wells Dec.2003	Refining Capacity Dec.2003 (000/bbls/day)	Exports of Refined Products (000/bbls/day)
1	2	3	4	5	6	7	8	9	10	11	12
Algeria	31.84	56.22	1766	16476	24105	68.4	11.80	4545	1416	462.2	528.3
Indonesia	216.95	208.29	960	9685	62631	15.5	4.72	2557	9073	1057.0	155.3
Iran	67.05	134.74	2010	26124	33899	77.1	133.25	27570	1469	1474.0	333.2
Iraq	25.15	19.85	789	7519	7587	99.1	115.00	3170	N.A.	603.0	10.5
Kuwait	2.43	43.60	17942	18780	20287	92.6	99.00	1572	821	831.0	623.1
Libya	5.66	23.00	4064	13567	14344	94.6	39.13	1491	1573	380.0	145.4
Nigeria	124.39	55.77	448	22184	24047	92.3	35.26	4997	2814	445.0	67.7
Qatar	0.62	20.43	32945	8814	12613	69.9	15.21	25783	556	80.0	61.5
Saudi Arabia	22.67	211.44	9327	84908	92029	92.3	262.73	6754	1789	1864.0	1128.6
U.A.E	3.12	75.64	24244	25153	56833	44.3	97.80	6060	1676	466.3	513.6
Venezuela	25.71	89.03	3463	21838	25800	84.6	77.23	4219	12333	1003.8	485.0
Total	**525.59**	**938.01**	**1785**	**255047**	**374175**	**68.2**	**891.12**	**88718**	**34125**	**8666.3**	**4052.2**

Note : Total includes figures for Saudi arabia-Kuwait Divided Zone. * = Provisional or estimated figures, as of May 27, 2004. na = Not available
Source : OPEC Annual Statistical Bulletin, 2003.

XIV.36 WORLD IMPORTS OF NATURAL GAS BY COUNTRY, 1998 - 2003

(Min. Standard Cubic Metres)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003/02
North America	**91375**	**102090**	**109208**	**118324**	**119070**	**119219**	**0.1**
Canada	1270	1200	2060	4730	5350	7820	46.2
USA	90105	100890	107148	113594	113720	111399	-2.0
Latin America	4970	6690	9560	14220	18700	21480	14.9
Argentina	2200	1200	-	-	-	-	-
Brazil	-	370	2120	4420	5260	5320	1.1
Chile	1240	3390	4070	5140	5340	6060	13.5
Dominican Republic	-	-	-	-	-	300	300.0
Mexico	1530	1730	2980	3990	7450	9000	20.8
Puerto Rico	-	-	350	630	630	740	17.5
Uruguay	20	40	40	20	60	200.0	
Eastern Europe	**39760**	**39350**	**40850**	**40800**	**42250**	**44730**	**5.9**
Bulgaria	3600	3350	3200	2900	2800	2800	0.0
Former Czechoslovakia	16260	16600	17300	17600	17630	17220	-2.3
Hungry	8500	8700	9200	9300	10290	10300	0.1
Poland	7600	7500	7750	8000	7830	8710	11.2
Romania	3800	3200	3400	3000	3700	5700	54.1
Western Europe	**219910**	**242380**	**265470**	**265324**	**285125**	**305718**	**7.2**
Austria	6200	6120	6120	6550	6730	7800	15.9
Belgium	15500	16210	16300	16039	16200	17800	9.9
Demark	-	-	-	-	100	200	100.0
Finland	4200	4200	4300	4500	4400	4840	10.0
France	36800	41120	42620	41590	43110	40597	-5.8
Germany	73800	75230	76200	78200	83790	85980	2.6
Greece	900	1500	2140	1980	2020	2450	21.3
Ireland	1500	2100	2600	3500	3430	3700	7.9
Italy	42600	49410	58500	54750	57725	61977	7.4
Luxembourg	760	700	700	800	900	1200	33.3
Netherlands	5300	7340	12600	8530	12270	14230	16.0
Portugal	800	2150	2350	2460	2680	3350	25.0
Spain	12600	15450	16930	18985	20900	23994	14.8
Sweden	860	840	840	950	1280	1250	-2.3
Switzerland	2700	3040	3050	3030	2770	2920	5.4
Turkey	10380	12300	14300	16380	17720	21520	21.4
United Kingdom	900	1370	2200	3000	5100	7510	47.3
Former Yugoslavia	4110	3390	3720	4080	4000	4400	10.0
Middle East	**1750**	**2000**	**2650**	**4500**	**4900**	**5731**	**17.0**
Iran	1750	2000	2650	4500	4900	5731	17.0
Africa	**450**	**800**	**1730**	**1580**	**2290**	**2290**	**0.0**
Morocco	-	-	-	-	600	600	0.0
Tunisia	450	800	1730	1580	1690	1690	0.0
Asia & Pacific	**87410**	**93790**	**101080**	**108716**	**113150**	**125670**	**11.1**
Japan	66300	69360	72590	74306	72770	79770	9.6
South Korea	14310	17520	19680	21830	24320	26230	7.9
Singapore	1500	1500	1500	1270	2660	5320	100.0
Taiwan	5300	5320	5980	6400	7200	7480	3.9
Thailand	-	90	1330	4910	6200	6870	10.8
Total World	**445625**	**487100**	**530548**	**553464**	**585485**	**624838**	**6.7**
OPEC	1750	2000	2650	4500	4900	5731	17.0
OPEC Percentage	0.4	0.4	0.5	0.8	0.8	0.9	12.5

Source : OPEC Annual Statistical Bulletin, 2003.

XIV.37 WORLD IMPORTS OF REFINED PRODUCTS BY COUNTRY, 1998 - 2003

(1,000 Barrels/Day)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003/02
North America	**1404.5**	**1509.1**	**1761.9**	**1765.0**	**1643.6**	**2042.6**	**24.3**
Canada	184.9	173.8	163.9	210.4	188.5	230.4	22.2
USA	1215.4	1331.0	1593.7	1550.3	1450.7	1807.7	24.6
Others	4.2	4.3	4.3	4.3	4.4	4.5	2.3
Latin America	**1476.8**	**1486.3**	**1548.1**	**1418.3**	**1352.1**	**1354.6**	**0.2**
Brazil	301.6	304.7	288.4	297.2	292.8	306.8	4.8
Cuba	132.3	135.0	131.0	130.0	130.5	132.2	1.3
Mexico	324.7	354.8	437.1	309.0	242.0	199.0	-17.8
Netherlands Antiles	33.3	33.5	33.2	33.8	33.5	33.6	0.3
Panama	23.8	21.0	17.0	18.1	17.6	17.7	0.6
Puerto Rico	98.7	99.0	99.0	100.0	99.5	99.9	0.4
Others	562.5	538.4	542.4	530.1	536.3	565.4	5.4
Eastern Europe	**359.2**	**269.0**	**199.6**	**221.0**	**226.7**	**230.3**	**1.6**
Bulgaria	6.0	6.0	12.0	9.7	10.9	11.0	0.9
Former USSR	105.0	40.0	10.0	10.0	10.0	9.8	-2.0
Hungry	30.2	26.8	21.1	24.3	39.4	40.4	2.5
Poland	98.4	92.3	62.7	63.0	66.6	67.6	1.5
Others	119.6	103.9	93.8	114.0	99.8	101.5	1.7
Western Europe	**4651.2**	**4843.5**	**5166.7**	**5247.6**	**4960.6**	**5384.1**	**8.5**
Belgium	287.6	291.4	302.0	322.1	299.6	314.1	4.8
France	372.6	574.2	556.8	543.3	568.9	589.2	3.6
Germany	961.4	879.1	915.8	945.9	729.8	766.8	5.1
Italy	414.2	368.0	359.4	324.2	315.1	340.4	8.0
Netherlands	771.1	813.0	957.4	1000.1	1028.3	1086.8	5.7
United Kingdom	245.8	257.2	293.8	340.7	270.1	296.0	9.6
Others	1598.6	1660.5	1781.5	1771.2	1748.7	1990.8	13.8
Middle East	**347.1**	**342.0**	**347.7**	**362.8**	**345.2**	**384.5**	**11.4**
Syrian Arab Republic	23.0	20.0	20.2	21.0	20.6	20.8	1.0
Others	324.2	322.0	327.5	341.8	324.6	363.7	12.0
Africa	**469.3**	**480.6**	**533.1**	**447.2**	**532.7**	**575.0**	**7.9**
Egypt	47.7	49.3	50.7	53.2	52.0	52.1	0.2
Morocco	25.7	27.0	28.5	29.6	29.1	29.2	0.3
Nigeria	44.5	52.6	106.3	93.3	102.0	123.9	21.5
Senegal	9.4	9.5	9.6	9.9	9.8	9.8	0.0
Tunisia	52.6	53.1	51.4	50.0	50.7	50.8	0.2
Others	289.4	289.1	286.6	291.8	289.2	309.3	7.0
Asia & Pacific	**5179.3**	**5232.6**	**5205.1**	**5196.1**	**5303.7**	**6093.4**	**14.9**
Australia	64.6	76.9	86.2	85.1	99.4	106.3	6.9
China	587.3	631.9	522.4	601.7	660.1	826.6	25.2
Hong Kong	409.1	411.0	393.1	387.6	390.4	419.0	7.3
India	**437.8**	**441.2**	**449.0**	**462.0**	**455.5**	**508.8**	**11.7**
Japan	1074.8	1013.7	1015.3	945.8	970.6	1228.8	26.6
New Zealand	20.0	31.0	25.6	23.5	29.6	30.1	1.7
Singapore	649.4	643.2	632.7	626.3	629.5	633.8	0.7
Others	1936.2	1983.7	2080.7	2064.2	2068.6	2340.4	13.1
Total World	**13887.6**	**14163.1**	**14762.2**	**14738.5**	**14364.7**	**16064.5**	**11.8**

Source : OPEC Annual Statistical Bulletin, 2003.

XIV.38 WORLD CRUDE OIL EXPORTS BY COUNTRY, 1998 - 2003

(1,000 Barrels/Day)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003/02
North America	1258.7	1168.0	1226.7	1150.4	1447.4	1575.7	8.9
Canada	1146.4	1047.4	1175.2	1130.2	1426.8	1553.6	8.9
USA	112.2	120.6	51.5	20.2	20.6	22.1	7.3
Latin America	**5188.5**	**4715.5**	**5039.5**	**5060.9**	**4610.8**	**4768.6**	**3.4**
Colombio	444.4	515.4	608.0	576.0	566.5	564.1	-0.4
Ecuador	242.8	226.4	219.4	243.0	239.6	238.2	-0.6
Mexico	1807.4	1671.7	1848.5	1882.5	1902.7	2102.9	10.5
Trinidad & Tobago	52.4	58.0	60.2	62.7	60.3	60.2	-0.2
Venezuela	2243.9	1923.0	2003.5	196.7	1572.0	1535.0	-2.4
Others	397.6	320.9	300.0	331.9	269.8	268.2	-0.6
Eastern Europe	**2428.2**	**2565.0**	**3058.3**	**3346.1**	**5583.7**	**6482.2**	**16.1**
Former USSR	2425.1	2562.8	3056.3	3344.4	5581.7	6479.5	16.1
Others	3.1	2.2	2.0	1.7	2.0	2.7	35.0
Western Europe	**4525.7**	**4670.5**	**4985.2**	**4904.9**	**4763.5**	**4371.5**	**-8.2**
Norway	2713.9	2696.0	2902.8	2978.8	2833.0	2694.2	-4.9
United Kingdom	1606.7	1707.0	1735.4	1645.9	1624.2	1345.4	-17.2
Others	205.1	267.4	347.1	280.3	306.3	331.9	8.4
Middle East	**15597.9**	**15147.0**	**16016.5**	**15129.2**	**13781.9**	**14707.7**	**6.7**
Iran	2512.0	2291.0	2492.2	2184.6	2093.6	2396.3	14.5
Iraq	1417.6	2130.9	2039.8	1710.2	1494.6	388.6	-74.0
Kuwait	1190.2	948.2	1230.7	1214.1	1138.0	1242.9	9.2
Oman	842.6	891.5	905.0	917.0	908.0	901.9	-0.7
Qatar	572.4	580.5	617.6	605.5	580.8	540.7	-6.9
Saudi Arabia	6390.4	5719.7	6253.1	6035.9	5284.6	6522.9	23.4
Syrian Arab Republic	340.3	347.1	338.0	346.0	337.0	335.9	-0.3
UAE	2039.0	1919.0	1814.9	1786.7	1614.0	2048.0	26.9
Others	293.3	319.2	325.3	329.3	331.3	330.6	-0.2
Africa	**5226.1**	**4863.0**	**5172.4**	**5261.5**	**5153.4**	**5968.1**	**15.8**
Algeria	549.4	414.6	461.1	441.5	566.2	741.0	30.9
Angola	698.1	699.3	668.9	660.2	697.6	698.2	0.1
Cameroon	120.8	107.2	107.9	111.2	121.7	120.7	-0.8
Congo	238.2	256.2	249.8	250.0	256.0	253.5	-1.0
Egypt	55.5	56.1	51.6	53.6	56.6	56.4	-0.4
Gabon	336.1	314.4	308.2	315.0	314.9	312.7	-0.7
Libya	1161.0	991.7	1005.0	987.6	983.6	1126.5	14.5
Nigeria	1832.8	1705.1	1986.4	2089.4	1798.2	2303.5	28.1
Others	234.2	318.3	333.5	352.4	358.5	355.7	-0.8
Asia & Pacific	**2210.7**	**2222.1**	**2266.2**	**2214.8**	**2214.1**	**2191.8**	**-1.0**
Australia	216.7	205.3	383.6	356.3	351.1	282.1	-19.7
Brunei	146.3	168.4	171.9	176.2	177.2	177.1	-0.1
China	312.9	143.7	209.3	164.7	144.6	163.1	12.8
Indonesia	678.0	781.9	622.5	599.2	609.9	650.2	6.6
Malaysia	401.7	395.5	380.2	397.6	401.6	397.9	-0.9
Vietnam	248.0	300.9	286.9	303.2	305.2	302.3	-1.0
Others	207.2	226.3	211.7	217.6	224.6	219.4	-2.3
Total World	**36435.8**	**35351.0**	**37764.9**	**37067.8**	**37554.8**	**40065.8**	**6.7**
OPEC	20586.9	19405.5	20526.7	19619.4	17735.6	19495.7	9.9
OPEC %	56.5	54.9	54.4	52.9	47.2	48.7	3.2

Source : OPEC Annual Statistical Bulletin, 2003.

XIV.39 WORLD EXPORTS OF REFINED PRODUCTS BY COUNTRY, 1998 - 2003

(1,000 Barrels/ Day)

Country/Region	1998	1999	2000	2001	2002	2003	% Change 2003/02
North America	**1174.2**	**1171.2**	**1360.3**	**1374.5**	**1414.6**	**1482.1**	**4.8**
Canada	352.6	366.9	370.9	411.4	407.8	415.7	1.9
USA	821.6	804.3	989.3	963.1	1006.8	1066.3	5.9
Others	-	-	-	-	-	0.1	-
Latin America	2130.5	2079.2	2063.9	2131.7	2002.4	2068.6	3.3
Argentina	110.3	81.1	109.0	119.6	206.0	213.0	3.4
Ecuador	34.6	33.9	35.0	40.0	36.3	37.4	3.0
Mexico	106.8	100.5	89.2	96.2	101.7	153.4	50.8
Netherlands Antilles	220.5	193.6	205.0	220.0	206.2	213.1	3.3
Trinidad & Tobago	134.6	133.3	142.6	145.0	140.3	142.3	1.4
Venezuela	846.2	828.0	779.6	761.1	569.7	485.0	-14.9
Virgin Islands	385.0	382.1	385.9	397.2	388.4	390.5	0.5
Others	292.4	326.6	317.6	352.6	353.8	433.9	22.6
Eastern Europe	**1112.8**	**1143.8**	**1325.8**	**1512.3**	**1800.7**	**1879.1**	**4.4**
Romania	69.6	44.6	50.4	54.3	57.9	66.0	14.0
Former USSR	872.0	913.1	1086.3	1246.5	1582.0	1657.7	4.8
Others	171.2	186.1	189.1	211.5	160.8	155.4	-3.4
Western Europe	**4263.2**	**4252.7**	**4436.1**	**4454.1**	**4222.0**	**4566.0**	**8.1**
Belgium	387.4	400.2	414.1	407.1	401.2	406.3	1.3
France	332.2	366.9	396.1	399.1	354.2	418.1	18.0
Germany	305.6	352.0	393.3	388.6	373.4	401.6	7.6
Italy	458.6	409.2	430.8	451.5	421.2	444.7	5.6
Netherlands	1304.5	1298.7	1371.2	1416.8	1314.0	1316.5	0.2
United Kingdom	518.6	479.8	443.2	416.9	455.1	471.9	3.7
Others	956.3	946.0	987.2	974.1	902.8	1106.9	22.6
Middle East	**3284.2**	**3302.1**	**3140.3**	**2962.6**	**2876.0**	**3096.7**	**7.7**
Bahrain	248.0	260.2	260.0	274.0	264.7	269.4	1.8
Iran	277.8	362.9	347.3	307.7	328.0	333.2	1.6
Iraq	23.0	23.0	23.0	25.0	22.5	10.5	-53.3
Kuwait	795.0	838.0	674.5	642.8	572.2	623.1	8.9
Qatar	95.1	75.3	75.3	78.1	67.3	61.5	-8.6
Saudi Arabia	1368.9	1279.7	1228.1	1082.6	993.5	1128.6	13.6
UAE	319.1	331.0	391.7	398.2	485.5	513.6	5.8
Others	157.3	131.5	140.4	154.7	142.2	156.8	10.3
Africa	**957.6**	**1162.2**	**1172.7**	**1213.6**	**1193.8**	**1113.9**	**-6.7**
Algeria	461.9	599.7	544.3	555.8	527.2	528.3	0.2
Egypt	103.3	93.6	87.3	96.3	92.4	90.8	-1.7
Gabon	5.7	6.9	7.0	7.7	7.2	7.3	1.4
Nigeria	3.8	14.1	47.3	65.7	78.2	67.7	-13.4
Libya	168.6	201.2	237.0	225.0	221.1	145.4	-34.2
Others	214.2	246.7	249.8	263.1	267.7	274.5	2.5
Asia & Pacific	**2936.4**	**2852.7**	**2844.1**	**2869.8**	**2569.8**	**2739.2**	**6.6**
Australia	121.9	122.9	122.8	122.7	86.3	79.3	-8.1
China	188.6	264.8	292.0	246.9	267.9	336.4	25.6
Indonesia	220.8	191.9	188.8	196.3	152.4	155.3	1.9
Japan	133.7	109.3	90.1	96.1	82.2	69.2	-15.8
Malaysia	139.9	146.1	143.7	153.0	147.6	214.6	45.4
Singapore	969.8	940.6	892.6	942.0	925.1	880.2	-4.9
Others	1161.7	1077.0	1114.1	1112.8	908.4	1004.1	10.5
Total World	**15858.9**	**15963.9**	**16343.0**	**16518.5**	**16079.3**	**16945.5**	**5.4**
OPEC	4580.2	4745.3	4536.8	4337.8	4017.6	4052.3	0.9
OPEC %	28.9	29.7	27.8	26.3	25.0	23.9	-4.4

Source : OPEC Annual Statistical Bulletin, 2003.

PART-III

PLAN STATISTICS

XV.1 TENTH PLAN OUTLAY OF PUBLIC SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS

(Rs.Crore)

Undertaking	Tenth Plan Outlay	2002-03 (Actual)	2003-04 (RE)	2004-05 (BE)
1	2	3	4	5
A. EXPLORATION & PRODUCTION	**59468.95**	**12149.37**	**19177.47**	**18038.9**
1. ONGC	33418.95	6063.39	10624.70	10000.00
2. OIL	5000.00	606.90	940.00	975.00
3. GAIL (INDIA) Ltd.	7500.00	510.80	3741.56	3461.00
4. ONGC Videsh Ltd.	13550.00	4968.28	3871.21	3602.90
B. REFINING & MARKETING	**37302.24**	**3656.30**	**4395.89**	**5536.90**
1. IOC	18001.44	1760.60	2220.54	2805.00
2. HPCL	7500.00	139.64	240.00	1098.00
3. BPCL	3998.80	618.80	724.90	550.00
4. CPCL	2400.00	1010.17	850.00	209.90
5. KRL	2500.00	7.20	64.00	212.00
6. BRPL	100.00	6.12	2.45	14.00
7. IBP Co. Ltd.	1762.00	113.21	125.00	158.00
8. Numaligarh Refinery Ltd.	310.00	0.56	24.00	110.00
9. MRPL	730.00*	0.00	145.00	380.00
C. PETROCHEMICALS	**7443.81**	**463.36**	**806.86**	**1406.20**
1. BRPL	131.00	2.87	2.05	6.00
2. BPCL	1.20	0.00	0.10	0.10
3. KRL	0.00	0.00	0.00	0.00
4. IOC	6398.09	436.51	690.27	1117.00
5. CPCL	0.00	0.00	0.00	0.10
6. GAIL (INDIA) Ltd.	913.52	23.98	114.44	283.00
D. ENGINEERING UNIT	**171.00**	**10.48**	**13.00**	**18.00**
1. IBP Co.Ltd.	21.00	0.00	0.00	0.00
2. Balmer Lawrie & Co. Ltd.	120.00	10.48	10.00	13.00
3. Biecco Lawrie Limited	30.00	0.00	3.00	5.00
Total (A+B+C+D)	**104386.00**	**16279.51**	**24393.22**	**25000.00**

RE : Revised Estimates BE : Budget Estimates

*: MRPL was acquired by ONGC during 2003-04, hence plan allocation of Rs.730 crore was not included in the 10th Plan outlay of Rs.103656 crore approved by Planning Commission.

Source: Performance Budget, Ministry of Petroleum & Natural Gas.

XV. 2 DEMAND FOR PETROLEUM PRODUCTS

Items	1990-91	1995-96	1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8
Demand for Petroleum Products(MMT)	55.04	74.67	97.09	100.07	100.43	104.13	107.77
Annual Growth Rate %	1.70	10.80	7.20	3.00	0.40	3.00	3.5
Share of Middle Distillates (%)	60.20	61.70	57.10	53.40	51.20	50.00	48.3

Source : Plan Document

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

Items	1990-91	1995-96	1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8
A. CRUDE OIL							
(i) Production	33.02	35.17	31.95	32.43	32.03	33.04	33.37
(ii) Imports	20.70	27.34	57.81	74.10	78.71	81.99	90.43
(iii) Availability (Net)	53.72	62.51	89.76	106.53	110.74	115.03	123.80
(iv) Item (ii) as % of Item (iii)	38.53	43.74	64.41	69.56	71.08	71.28	73.05
B. PETROLEUM PRODUCTS							
(i) Production*	49.49	56.8	81.4	97.696	102.21	106.51	115.78
(ii) Imports(Net)	8.66	20.34	15.86	0.902	-3.056	-3.061	-6.619
(iii) Availability (Gross)	58.15	77.14	97.26	96.79	99.15	103.45	109.16
(iv) Item (ii) as % of Item (iii)	14.89	26.37	16.3	0.9	3.1	3.4	6.2

*: 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 (Rs./Crores)	Value
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	74174
2003-04	76470

*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.7 REFINERY-WISE CAPACITY ADDITION DURING THE TENTH PLAN

Year	Refinery	PSU/PVT.	MMT
2002-03	IOC, Haldia	PSU	1.40
		Sub total	**1.40**
2003-04	IOC, Barauni	PSU	1.80
	CPCL, Narimanam	PSU	0.50
	RIL, Jamnagar	PVT	6.00
		Sub total	**8.30**
2004-05	CPCL, Channai	PSU	3.00
	BPCL, Mumbai	PSU	5.10
		Sub total	**8.10**
2005-06	IOC, Panipat	PSU	6.00
	HPCL, Mumbai	PSU	2.40
		Sub total	**8.40**
2006-07	HPCL, Visakh	PSU	0.83
		Sub total	**0.83**
		Total	**27.03**

XV.8 REFINING CAPACITY ADDITION DURING THE TENTH PLAN

(MMT)

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	Total
Capacity addition	Base year	1.4	8.3	8.1	8.4	0.83	27.03
Total capacity	114.668	116.068	124.368	132.468	140.868	141.698	

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 2003-04

(Rs. Crore)

Name of Company	Total amount of dividend paid by Oil PSUs	
	Total	Paid to Govt.
1. Oil & Natural Gas Corp. Ltd. (ONGC)	3422.20	2735.84
2. Oil India Ltd. (OIL)	299.60	299.61
3. GAIL (INDIA) Ltd.	676.52	445.60
4. Indian Oil Corp. Ltd. (IOCL)	2452.83	2011.96
5. Hindustan Petroleum Corp. Ltd. (HPCL)	842.46	416.00
6. Bharat Petroleum Corp. Ltd. (BPCL)	525.00	347.55
7. IBP Co. Ltd. (IBP)	77.52	20.63
8. Engineers India Ltd. (EIL)	36.49	33.00
Total	**8332.62**	**6310.19**

2004-05

38.07

IGL 1.40

XVI.2 EQUITY CAPITAL OF PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS AS ON 31st MARCH 2004

(Rs. Crore)

	Name of the PSU	Authorised Capital	Paid up Equity Capital	% Govt. holding as on 31.3.2004
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.	GAIL (INDIA) Ltd.	1000.00	845.65	57.35
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	0.00
12.	Biecco Lawrie Ltd.	50.00	42.00	0.00
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 2003-04

S.No	N.A.me of PSUs	Profit after tax during						
		1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	Indian Oil Corporation Ltd.	1706.5	2213.52	2443.4	2720.33	2884.66	6114.89	7004.02
2	Bharat Petroleum Corporation Ltd.	532.7	701.23	703.86	832.66	849.83	1250.03	1694.57
3	Hindustan Petroleum Corporation Ltd.	701.16	901.26	1057.41	1088.01	787.98	1537.36	1903.94
4	Oil & Natural Gas Corporation Ltd.	2677.78	2754.49	3629.48	5228.78	6197.9	10529.3	8664.43
5	Oil India Ltd.	288.84	291.6	409.79	467.36	525.22	916.73	949.70
6	GAIL (INDIA) Ltd.	1020.31	1059.92	861.27	1126.16	1185.84	1639.11	1869.00
7	Kochi Refineries Ltd.	220.41	338.23	235.2	109.46	68.77	456.02	555.09
8	Bongaigaon Refinery & Petrochemicals Ltd.	67.99	34.26	32.24	-57.44	-198.61	178.45	303.74
9	Engineers India Ltd.	73.24	117.77	126.2	123.85	24.71	64.16	80.18
10	Chennai Petroleum Corporation Ltd.	129.28	204.93	143.14	122.43	63.71	302.89	400.05
11	IBP Co. Ltd.	31.56	35.23	41.71	54.22	195.79	87.75	214.66
12	Balmer Lawrie & Co. Ltd.	16.41	16.83	14.32	6.01	8.01	16.49	18.58
13	Numaligarh Refineries Ltd.	*	*	*	21.6	122.98	174.63	214.95
14	Biecco Lawrie Co. Ltd.	-4.88	0.45	0.17	-8.67	-10.9	-9.2	-2.96
15	Mangalore Refinery & Petrochemicals Ltd.					-492.27	-411.8	459.42

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

XVI.4 PERFORMANCE OF PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY OF PETROLEUM & NATURAL GAS DURING 2003-04

Sl. No.	Performance parameters	Unit	ONGC	OIL	GAIL	IOCL	HPCL	BPCL	EIL	BRPL	CPCL	IBP	NRL	Balmer Lawrie	Biecco Lawrie	KRL	MRPL
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	2000.00
2	Paid up Capital	Rs. Crores	1425.93	214.00	845.65	1168.01	338.90	300.00	56.16	199.82	149.00	22.15	16.29	42.00	138.47		1761.79
3	% Shareholding by																
	(a) Government	%	74.15	98.13	57.34	82.03	51.01	66.20	90.40	0.00	0.00	0.00	0.00	0.00	57.37	0.00	0.00
	(b) Financial Institution/bodies	%	1.61	0.00	6.53	5.36	16.45	29.74	4.23	9.35	13.23	15.32	12.34	14.52	0.01	13.09	0.11
	(c) Holding Co./Other CPSUs	%	12.02	0.00	9.66	9.11	0.00	0.00	0.00	74.46	51.88	53.58	75.31	61.80$	0.47	54.95	88.57
	(d) Employees	%	0.30	1.87	0.00	1.31	0.19	0.95	5.37	0.09	0.13	0.06	0.00	5.43	0.00	0.07	0.00
	(e) State Govt.	%	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	12.35	0.02	0.00	5.06	0.00
	(f) Public	%	3.24	0.00	26.47	2.07	0.32	3.11	0.00	11.44	10.11	31.04	0.00	8.89	0.30	26.83	11.32
	(g) Others	%	8.68	0.00	0.00	0.00	32.03	0.00	0.00	4.66	24.65	0.00	0.00	9.34	41.85	0.00	0.00
4	Gross Turnover	Rs. Crores	32927.00	3145.02	12452.97*	130202.95	56332.57	52515.99	1069.32	2848.67	9475.97	10666.87	3220.26	85.44	29.73	11513.00	12612.22
5	Net worth	Rs. Crores	40002.40	4028.66	7410.70	23047.41	7742.81	5849.72	790.24	550.07	1609.91	626.01	1135.38	176.12	-23.09	1805.00	1422.67
6	Reserves and surplus	Rs. Crores	39117.20	3854.60	6599.50	21879.40	7403.91	5549.72	734.08	353.12	1460.91	603.86	399.75	159.84	0.31	1667.00	349.05
7	Gross Block (fixed assets and producing property)	Rs. Crores	86712.24	2326.30	13584.73	36388.30	1387.43	11158.10	127.52	927.58	3769.10	1067.26	2515.93	266.24	15.64	2261.00	6721.95
8	Capital employed	Rs. Crores	39529.90	4583.48	9219.75	28434.45	8353.13	9361.84	790.24	622.14	3455.61	709.57	2483.99	335.94	17.26	2545.00	5676.50
9	Profit after tax (PAT)	Rs. Crores	8664.40	949.70	1869.34	7004.82	1903.94	1694.57	80.18	303.74	400.05	214.66	214.95	18.58	-2.96	555.00	459.41
10	Debt-Equity ratio		0.01:1	1:13.79	0.29:1	0.53:1	0.05:1	0.46	0.00	1:12.87	1.47	0.00	0.86:1	0.72	1.15	0.26	2.26
11	Earning Per Share	Rs.	60.80	44.38	22.11	59.97	56.18	56.49	14.28	15.20	26.86	96.92	2.92	11.41	- N.A.	40.09	2.62
12	Book value	Rs.	281.00	188.25	87.63	197.32	228.47	194.99	135.80	28.00	108.09	282.62	15.43	108.14	10.00	130.38	8.46
13	Total dividend	Rs. Crores	3422.20	299.60	676.52	2452.83	842.46	525.00	36.49	153.86	74.46	77.52	73.03	5.70	N.A.	166.00	-
14	Dividend as a % of	%	39.50	31.55	36.00	35.02	39.22	30.98	45.52	50.86	18.61	36.11	30.12	30.68	N.A.	30.00	-

*: Includes excise duty but excludes other income.

$: Held by M/s Balmer Lawrie Investments Ltd. in which Govt. hold 59.67% of share capital.

PART-V

TIME SERIES DATA ON ENERGY

XVII.1: PRODUCTION OF PRIMARY SOURCES OF CONVENTIONAL ENERGY IN INDIA

Year	Coal & Lignite (TMT)	Crude Petroleum (TMT)	N.A.tural Gas (MCM)	Electricity Hydro & Nuclear (GWH)
1	2	3	4	5
1970-71	76340	6822	1445	27665
1971-72	76140	7299	1535	29214
1972-73	80110	7321	1565	28329
1973-74	81490	7189	1713	31368
1974-75	91350	7684	2041	30081
1975-76	102660	8448	2368	35928
1976-77	105010	8898	2428	38088
1977-78	104560	10763	2839	39701
1978-79	105250	11633	2812	49908
1979-80	106840	11766	2767	48370
1980-81	119020	10507	2358	49543
1981-82	130540	16194	3851	52618
1982-83	137430	21063	4936	50331
1983-84	145520	26020	5961	53361
1984-85	155210	28990	7241	57863
1985-86	162250	30168	8134	55918
1986-87	175200	30480	9853	58780
1987-88	190880	30357	11467	52430
1988-89	207000	32040	13217	63615
1989-90	213690	34087	16988	66619
1990-91	225500	32160	17998	77779
1991-92	243830	30345	18644	78160
1992-93	254880	26950	18061	76581
1993-94	264140	27026	18336	75705
1994-95	273140	32494	19468	88100
1995-96	292270	35168	22642	80500
1996-97	308200	32900	23256	77620
1997-98	318980	33858	26401	84520
1998-99	315689	32722	27428	94510
1999-00	322090	31949	28446	93785
2000-01	332580	32426	29477	91409
2001-02	352601	32032	29714	90200
2002-03	367290	33044	31389	83068
2003-04(p)	378139	33373	31962	91516

(p) - Provisional
TMT: Thousand Metric Tonnes
MCM: Million Cubic Metres
N.A.: Not Available.
GWH: Giga Watt Hour=1 Million Kilo Watt Hour

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

Year	Coal & Lignite (TMT)	Crude Petroleum (TMT)	N.A.tural 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	52859	12766	77782
1991-92	232338	54339	14442	78281
1992-93	245255	56197	16116	76596
1993-94	256327	57848	16340	75860
1994-95	269180	59843	17337	88360
1995-96	284043	62510	20932	80561
1996-97	298621	66806	21324	77972
1997-98	306824	68352	24545	84665
1998-99	310738	72530	25706	94845
1999-00	315047	89754	26885	93795
2000-01	341220	106523	27860	91409
2001-02	349740	110738	28037	90200
2002-03	360708	115033	29964	83068
2003-04(p)	N.A.	123807	30906	91516

(p) - Provisional
TMT: Thousand Metric Tonnes
Thermal electricity is not considered as primary source of energy.

MCM: Million Cubic Metres
GWH: Giga Watt Hour=1 Million Kilo Watt Hour
NA : Not Available

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

Year	Coal & Lignite (TMT)	Crude * Petroleum (TMT)	N.A.tural 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	14442	207645
1992-93	241750	53482	16116	220674
1993-94	256320	54296	16340	238567
1994-95	269174	56534	17337	259630
1995-96	284037	58741	20932	277029
1996-97	298620	62870	21324	280206
1997-98	306824	65166	24545	296749
1998-99	313476	68538	25706	309734
1999-00	315047	85964	26885	312841
2000-01	341220	103444	27860	316600
2001-02	349740	107274	28037	321048
2002-03	360708	112559	29964	N.A.
2003-04(p)	N.A.	121840	30906	N.A.

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

XVII.4: DOMESTIC PRODUCTION OF PETROLEUM PRODUCTS IN INDIA

('000' Tonne)

Year	Light Distillates			Middle Distillates			
	LPG @	Petrol	N.A.phtha	Kerosene	ATF	HSDO	LDO
1	2	3	4	5	6	7	8
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	20661	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	1246
1999-00	2487	6232	8170	5735	2292	34793	1624
2000-01	4088	8070	9908	8714	2513	39052	1481
2001-02	4778	9699	9180	9681	2595	39899	1703
2002-03	4903	10361	9650	10028	3053	40207	2079
2003-04(p)	5348	10999	11317	10187	4289	43316	1659

(p) : Provisional
@: Excludes LPG production from natural gas.
*: Estimated from calendar year figures.

Cont...

XVII.4 DOMESTIC PRODUCTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Heavy Ends				Others*	Total
	Fuel Oil	Lubricants	Bitumen	Petroleum Coke		
1	2	3	4	5	6	7
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	511	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	9637	390	1710	216	1416	48349
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	1253	64544
1999-00	11352	728	2485	465	3048	79411
2000-01	11392	684	2721	2473	4518	95614
2001-02	12227	651	2561	2784	4246	100004
2002-03	12167	684	2941	2659	5408	104140
2003-04(p)	13372	666	3397	2743	6170	113463

(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	3387
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	10065	-3056
2002-03	81989	-	81989	7228	10289	-3061
2003-04(p)	90434	-	90434	8001	14620	-6619

(p): Provisional.

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

('000' Tonnes)

Year	Crude oil			Petroleum Products		
	Production	Net Imports	Gross availability	Production	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	16121	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	14616	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	32160	20699	52859	48562	6012	54574
1991-92	30345	23994	54339	48349	6509	54858
1992-93	26950	29247	56197	50359	7564	57923
1993-94	27026	30822	57848	51084	8042	59126
1994-95	32494	27349	59843	52927	10697	63624
1995-96	35168	27342	62510	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	-3056	96948
2002-03	33044	81989	115033	104140	-3061	101079
2003-04(p)	33373	90434	123807	113463	-6619	106844

(p): Provisional.

XVII.7 CONSUMPTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Light Distillates			Middle Distillates			
	LPG	Petrol	N.A.phtha	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	7728	7011	11728	10432	2256	36546	1592
2002-03	8351	7570	11929	10405	2269	36644	2063
2003-04(p)	9305	7895	11868	10230	2481	37074	1619

Contd...

(p) : Provisional

XVII.7 CONSUMPTION OF PETROLEUM PRODUCTS IN INDIA

(000' Tonne)

Year	Heavy Ends						
	Fuel Oils	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	688	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	4638	107705
2002-03	12738	1250	2986	2898	7650	5023	111776
2003-04(p)	12945	1426	3373	2877	8240	6537	115991

(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	Misc. Services	Private Sales	Total
High	1984-85	11839	128	140	1122	467	-	13696
Speed	1985-86	12880	149	160	1263	434	-	14886
Diesel Oil	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	21662	7227	2509	2687	2430	31	36546
	2002-03	21832	7278	2497	2548	2379	110	36644
	2003-04(p)	21772	7210	2526	2442	2925	245	37120
Light	1984-85	95	29	233	377	464	-	1198
Diesel Oil	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	40	56	173	754	390	650	2063
	2003-04(p)	57	46	147	727	250	438	1619

(p) : Provisional

Contd..

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

(000' Tonne)

Petroleum Product	Year	Transport	Plantation	Power Gene-ration	Industry	Misce-llaneous Services	Pvt. Sales	Total
1	2	3	4	5	6	7	8	9
Furnace	1984-85	357	125	1032	2444	298	0	4256
Oil	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	263	376	488	4714	1100	1086	8027
	2003-04(p)	339	252	371	4364	1881	1088	8295
Low Sulphur	1984-85	-	25	1462	2014	186	0	3687
Heavy Stock	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	0	44	1639	2694	334	@	4711
	2003-04(p)	0	5	1569	2263	796	@	4633

(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. (Utilisation)
1	2	3	4	5
1970-71	1445	36	742	667
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	160	1084	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	43	793	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	18644	132	4072	14440
1992-93	18061	90	1854	16117
1993-94	18336	71	1924	16341
1994-95	19468	23	2108	17337
1995-96	22642	0	1710	20932
1996-97	23256	0	1932	21324
1997-98	26401	0	1856	24545
1998-99	27428	0	1722	25706
1999-00	28446	0	1561	26885
2000-01	29477	0	1617	27860
2001-02	29714	0	1677	28037
2002-03	31389	0	1425	29964
2003-04(p)	31962	0	1056	30906

(p) : Provisional

XVII.10 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
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	408	371	6391	12766
1991-92	4774	766	108	72	2165	-	7885	5509	532	516	6557	14442
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	1215	10197	29964
2003-04*	11478	3099	142	93	4865	1263	20940	7889	1128	949	9966	30906

@ : Excludes offtakes of natural gas by ONGC.

*: Provisional.

APPENDIX

ABBREVIATIONS

(I) COMPANIES/ORGANISATIONS

AOC	:	Assam Oil Company
AOD	:	Assam Oil Division
BPCL	:	Bharat Petroleum Corporation Limited
BRPL	:	Bongaigaon Refinery & Petrochemicals Limited
B/Shell	:	Burmah Shell Oil Storage & Distributing Co. Ltd.
BSR	:	Burmah Shell Refineries Ltd.
Caltex/CIL	:	Caltex (India) Limited.
CORIL	:	Caltex Oil Refining (India) Limited.
KRL	:	Kochi Refineries Limited
EIL	:	Engineers India Limited.
ESSO	:	ESSO Standard Eastern Inc.
ESRC	:	ESSO Standard Refining Company of India Limited.
GAIL	:	GAIL (India) Ltd.
HPCL	:	Hindustan Petroleum Corporation Limited.
IBP Co. Ltd.	:	IBP Co. Limited.
CASTROL	:	Castrol Lubricants & Specialities Limited.
IIP	:	Indian Institute of Petroleum.
IPE	:	Institute of Petroleum Exploration.
IOBL	:	Indian Oil Blending Limited
IOC	:	Indian Oil Corporation Limited.
Lubrizol	:	Lubrizol India Limited.
CPCL	:	Chennai Petroleum Corporation Limited.
POCL	:	Petrosil Oil Company Limited.
OIL	:	Oil India Limited.
ONGC	:	Oil & Natural Gas Commission/Corporation Ltd.
ONGCVL	:	ONGC Videsh Limited
OPEC	:	Organisation of Petroleum Exporting Countries.
TWOC	:	Tide Water Oil Company.
WIODC	:	Western India Oil Distributing Company Limited.
OECD	:	Organisation for Economic Co-operation & Development.
NCW	:	Non Communist World.
EME	:	Emerging Market Economies.

(II) PETROLEUM PRODUCTS

ATF	:	Aviation Turbine Fuel.
AVGAS	:	Aviation Gasoline/Spirit.
CBFS	:	Carbon Black Feed Stock.
HHS	:	Hot Heavy Stock.
HSDO	:	High Speed Diesel Oil.
JBO	:	Jute Batching Oil.
LDO	:	Light Diesel Oil.
LSHS	:	Low Sulphur Heavy Stock.
LPG	:	Liquified Petroleum Gas.
MS/Mogas	:	Motor Spirit/Motor Gasoline.
FO	:	Furnace Oil.
MTO	:	Mineral Turpentine Oil.
Pet-coke	:	Petroleum Coke.
SBP-Spirit	:	Special Boiling Point Spirit.
SKO	:	Superior Kerosene Oil.
TDO	:	Tea Drier Oil.
NGL	:	N.A.tural Gas Liquid.

Light Distillates(including Gases): Gasolines, Naphtha, SBP Spirit, Solvent Oils, Hexane, Benzene, Toluene, LPG, Refinery Gas and W.D. Mixtures.

Middle Distillates: Kerosene, ATF/Jet-A1, Vaporising Oil, Aromex/Iomex, HSDO, LDO/MLO and JBO, Mineral Turpentine Oils, Chemisperse & LABFS.

(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 Purpose (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 I I (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).
N.A.	:	Not available.
-	:	Nil
Neg	:	Negligible
Billion	:	10^9 or one thousand Million.
Trillion	:	10^{12} 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

AREA

100 Sq. Millimetres	-	1 Sq. Centimetre
100 Sq. Centimetres	-	1 Sq. Decimetre
100 Sq. Decimetres	-	1 Sq. Metre
100 Sq. Metres	-	1 Sq. Decametre-1 Acre.
100 Sq. Acres	-	1 Sq. Hectometre-1 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 Millilitres	-	1 Centilitre
10 Centilitres	-	1 Decilitre
10 Decilitres	-	1 Litre
10 Litres	-	1 Decalitre
10 Decalitres	-	1 Hectolitre
10 Hectolitres	-	1 Kilolitre

VOLUME

1000 Cubic Millimetres	-	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 Metres.
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
	-	1.09361 Yards
	-	0.001 Kilometre (km.)
1 Kilometre	-	1000 Metre (m)
		0.621371 Mile
1 Mile	-	1760 Yard
	-	1.60934 Kilometre (km.)
1 International	-	6076.12 Feet
Nautical Mile	-	1.852 Kilometres (km)
	-	1.5152 Statute mile
	AREA	
1 Square Inch	-	645.16 Square Millimetres (mm^2).
1 Square Foot	-	0.0929030 Square Metre (m^2).
1 Square Yard	-	9 Square Feet.
		0.836127 Square Metre (m^2).
1 Square Metre	-	10.7639 Square Feet.
	-	1.19599 Square Yards.
1 Acre	-	4840 Square Yards
	-	4046.86 Sq. Metres (m^2)
	-	0.404686 Hectares.
1 Hectare	-	10,000 Square Metres (m^2).
	-	2.47105 Acres.
	-	0.01 Square Kilometre (km^2)
1 Square Kilometre	-	100 Hectares.
	-	0.386102 Square Mile.
1 Square Mile	-	640 Acres.
	-	258.999 Hectares
	-	2.58999 Square Kilometres (km^2).

MASS AND WEIGHTS

1 Ounce	-	28.3495 Grams (g).
1 Pound	-	0.453592 Kilogram (Kg.)
	-	0.00892857 Hundred Weight
1 Kilogram	-	2.20462 Pounds.
	-	0.01 Quintal
1 Hundred Weight (Cwt)	-	112 Pounds.
	-	50.8023 Kilograms (Kg.)
1 American (Short) Ton	-	2000 Pounds.
	-	0.892857 Long Ton
	-	0.97185 Tonnes
1 Tonne (Metric Ton)	-	2204.62 Pounds
	-	1000 Kilograms (Kg.)
	-	1.10231 Short tons
	-	0.984207 Long Ton
1 Imperial (Long) Ton	-	2240 Pounds
	-	1.12 Short Tons.
	-	1.01605 Tonnes.

ENERGY AND POWER

1 International Table (IT) Calorie	-	4.1868 Joules (J).
115 C calorie	-	4.1855 Joules (J)
1 Thermochemical Calorie	-	4.184 Joules (J)
1 Kilo Calories (IT)	-	1000 Calories
	-	3.96832 British Thermal Units
	-	1.163 Watt Hours
	-	1 Thermie
1 Kilowatt Hour	-	3412.14 British Thermal Units
	-	859.845 Kilo Calories
	-	3.6 Megajoules (MJ)
	-	1.34102 Horse Power Hours.
1 Therm	-	100,000 British Thermal Units (BTU)
	-	105.506 Megajoules (MJ)
	-	29.3071 Kilowatt Hours
	-	25.1996 Thermies
	-	25200 Kilocalories
1Metric Horsepower	-	735.499 watts (W).
(Pferdestaerke or Cheval Vapeur)	-	542.476 Foot Pounds Force/Second.
	-	0.986320 Imperial Horse Power
1 Imperial Horsepower	-	745.700 Watts (W)
	-	550 Foot Pounds Force/Second
	-	1.01387 Metric Horse Power.
1 Kilowatt	-	737.562 Foot Pounds Force/Second
	-	1.35962 Metric Horsespower
	-	1.34102 Imperial Horsepower.
	-	1000 Watts.
1 BTU	-	0.252 Kilocalories
	-	1.055 Kilojoules

CUBIC MEASURES
VOLUME

1 Cubic Inch	-	16.3871 Cubic Centimetres (cm^3)
1 Pint	-	0.568261 Cubic Decimetres (dm^3) or Litres.
1 Litre	-	61.024 Cubic Inches.
	-	1.75975 Pints.
	-	1 Cubic Decimeter (dm^3)
	-	0.264172 American Gallons.
	-	0.219963 Imperial Gallons.
	-	0.0353147 Cubic Foot..
1 Hectolitre	-	100 Cubic Decimetres (dm^3) or
	-	100 Litres
1 American Gallon	-	231 Cubic Inches.
	-	3.78541 Cubic Decimetres or Litres
	-	0.832674 Imperial Gallon.
	-	0.133681 Cubic Foot.
	-	0.0238095 American Barrel.
	-	0.00378541 Cubic Metre (M^3)
1 Imperial Gallon	-	277.420 Cubic Inches.
	-	4.54609 Cubic Decimetres (dm^3) or Litres
	-	1.20095 American Gallon.
	-	0.160544 Cubic Foot,
	-	0.02894 American Barrel.
	-	0.00454609 Cubic Metre (m^3)
1 Cubic Foot	-	28.3168 Cubic Decimetres (dm^3) or Litres
	-	7.48052 American Gallons.
	-	6.22883 Imperial Gallons.
	-	0.17811 American Barrel.
	-	0.0283168 Cubic Metre (m^3).
1 Americal Barrel	-	9702 Cubic Inches.
	-	158.987 Cubic Decimetres (dm^3) or Litres.
	-	42 American Gallons.
	-	34.9726 Imperial Gallons.
	-	5.6146 Cubic Feet.
	-	0.158987 Cubic Metre (M^3).
1 Cubic Metres	-	1000 Litres.
	-	264.172 American Gallons
	-	219.969 Imperial Gallons.
	-	35.3147 Cubic Feet.
1 Kilolitre	-	1000 Cubic Decimetres (dm^3) or Litres
	-	6.28981 Americal Barrels.
1 Gross Ton (Shipping)	-	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 144/145	1449	0.6901	9.11
Aviation Spirit 73 ON	1432	0.6983	9.01
Motor Spirit 79 ON	1427	0.7008	8.98
Motor Spirit 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 Spirit/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	8.08
Inferior Kerosene	1265	0.7905	7.96
Power Kerosene (Vap. Oil)	1251	0.7994	7.87
High Speed Diesel	1210	0.8263	7.61
Light Diesel Oil	1172	0.8532	7.37
Malarial 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
Lubricants/Greases	1114	0.8977	7.01
Jute Batching Oil/Wash Oils	1167	0.8569	7.34
Bitumen	1002	0.9980	6.30
SBP/Alcohol Mixture	1414	0.7072	8.89
Methanol Mixture	1106	0.9042	6.96
Carbon Black 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
Demineralised 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
Linear Alkyl Benzene Feed Stock	1205	0.8239	7.88

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	1.1494	252.415	293.522	6.988
Lubricating Oil	1.1111	252.845	303.647	7.231
Fuel Oil N.O.S.	1.0939	241.727	290.301	6.911
Residual 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 T0 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	0.9864
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

Degrees 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 degrees C or 60 degree F.

PRODUCT SPECIFIC GRAVITY RANGES

Products	Specific Gravity	Barrels Per tonne
Crude Oils	0.80-0.97	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
Asphaltic Bitumens	1.00-1.10	6.4-5.8

CRUDE OIL CONVERSIONS@

To convert these into	Metric Tons	Barrels	Kilolitres	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	3.25	23.8	3.79	0.833	1

@ = Based on World Average Gravity (Excluding Natural Gas liquids)

TO CONVERT ONE METRIC TONNE OF PETROLEUM PRODUCT TO ONE TONNE OF OIL EQUIVALENT MULTIPLY BY

PRODUCT	MULTIPLIER
L.P.G.	1.130
N.A.phtha	1.075
Aviation Gasoline	1.070
Motor Gasoline	1.070
Jet Fuel	1.065
Kerosene	1.045
Gas/diesel	1.035
Residual Fuel Oils	0.985
Others	0.960

AVERAGE INTERNATIONAL CALORIFIC VALUE OF DIFFERENT FUELS

Products	K Cals./Kg. M. Cals/Tonne	BTUs/Kg.
1	2	3
A. Oil Equivalence		
Average Crude Oil/NGLS(a)	10,300	40,870
United Nations	10,175	40,375
B. Oil 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	916
Firewood@	4,750	18,848
Charcoal@	6,900	27,379
E. N.A.tural Gas-Production: (Average) India		**K cals/Cu. Metre**
		8,000-9,480
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) Caloritic value of 1kwh 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 KJoules.

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	0.385	0.333
2	India	0.714	0.330	
B.	**OTHER HYDROCARBONS**			
1	Petroleum Crude	1.454		
2	N.A.tural Gas Liquids (wt.av.)	1.542		
3	Gasolines	1.500		
4	Kerosene & Jet Fuel	1.474		
5	Gas-Diesel Oil	1.450		
6	Residual Fuel Oil	1.416		
7	Liquified Petroleum Gases	1.554		
8	N.A.tural Gasoline	1.532		
9	Condensate	1.512		
10	Other Natural Gas Liquids	1.512		
11	N.A.tural Gas (inTerajoules)*	34.121		
12	Other Gases(in Terajoules)*	34.121		
13	Hydro, Nuclear and Geothermal Electricity (In 1,000 kwh)	0.123		

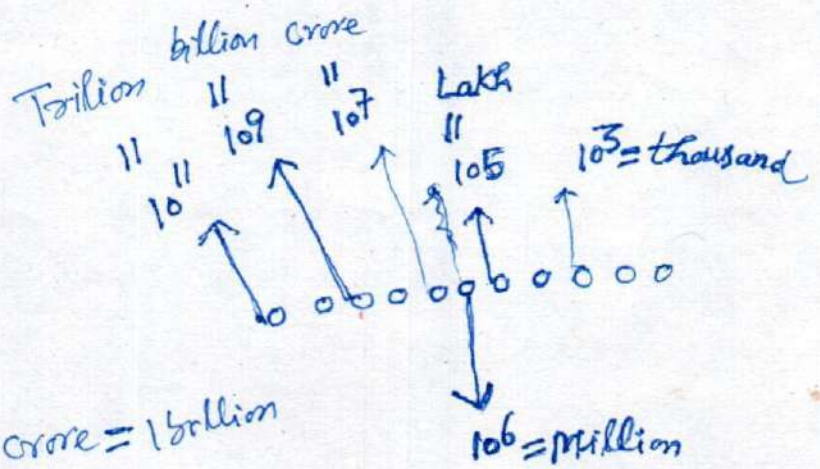
*= The average calorific value of gas is measured in Kcal/m^3 (st.) i.e. in Kcal per cubic metre of gas under standard conditions of 15° C, 013.25 mbar, dry.

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			
Generation (5000 Kcal/kg.)	1mt	1.0	1.0
Hard Coke	1mt	1.3	1.3
Soft Coke	1mt	1.5	1.3
Firewood (4750 Kcal/Kg.)	1mt	0.95	0.95
Char Coal (6900 Kcal/Kg.)	1mt	1.0	1.0
2. Oil Products: 10,000 Kcal/Kg.			
Black Products:(Fuel Oil, FO,			
Refinery,Fuel,LSHS&HHS)	1mt	2.0	2.0
Kerosene & LPG	1mt	2.0	8.0
HSDO & LDO	1mt	2.0	9.0
Motor Spirit & Jet Fuel	1mt	2.0	7.5
Natural Gas(9000k CAL/kg)	$109m^3$	1.8	3.6
Electricity	109 kwh	1.0	1.0

m : Million
mtce : Million Tonnes of Coal Equivalent
Source : Fuel Policy Committee 1974

mt : Million Tonnes
mtcr : Million Tonnes of Coal Replacement



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	N.A.tural Gas	=	(1 Cub metre = 9000 K cal).
	(1 cub.ft.=1000 BTU)	=	1.111 thousand million cub 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
	(1 Kwh=860 KCal)		

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
2	**Solid Fuels**	
	1 million tonnes of coal	0.67
	1 million tonnes of lignite	0.33
	approximates to	
3	**N.A.tural Gas**	
	1 thousand million cub, metres(BCM)	0.9
4	**Town Gas**	
	1 thousand million cub. Metres (BCM)	0.42
5	**Electricity**	
	12 thousand million KWH	0.86

One million tonne of oil produces about 4000 million units (KWH) of electricity in a modern power station.

Source:BP Statistical Review of World Energy.

EXCHANGE RATES

1971-2003 and 1971-72 to 2003-04

(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	7.4495
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	17.9485
1991	18.309	20.526	25.757	25.878	22.742	1991-92	24.51125
1992	25.914	25.890	25.89	25.979	25.918	1992-93	27.5525
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	48.56	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
2003	47.77	47.06	46.00	45.50	46.58	2003-04	45.95

Notes: (1) A new value of the Indian Re. of 7.50 U.S. Dollar 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 8, 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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