INDIAN PETROLEUM & NATURAL GAS STATISTICS

1997-98 and 1998-99

MINISTRY OF PETROLEUM & NATURAL GAS
GOVERNMENT OF INDIA
NEW DELHI

3463PNG F—1-A

GOVERNMENT OF INDIA

MINISTRY OF PETROLEUM AND NATURAL GAS

FOREWORD

The Ministry of Petroleum & Natural Gas has, since 1967, authored and published the annual bulletin ***"Indian Petroleum & Natural Gas Statistics"***. The publication contains comprehensive information that pertains to the Petroleum Sector. The last bulletin covered the period 1995-97. In a bid to shorten the lag in making available data on the Petroleum Sector, the current compilation presents data for 1997-98 and 1998-99 with reference to the calendar year as well as the Indian financial year in step with the requirements of different users. The operating results and the structure of Oil Public Sector Undertakings of this Ministry are also briefly set out. The efforts put in by the Economics & Statistics Division of the Ministry in this compilation are commendable.

Suggestions for re-structuring the report, improving the quality of presentation and expanded coverage of emerging new areas would be welcome.

Shastri Bhawan
New Delhi-110001.
January 2000

(S. NARAYAN)
Secretary to the Government of India

MINISTRY OF PETROLEUM AND NATURAL GAS

ECONOMICS AND STATISTICS DIVISION

PREFACE

The Economics & Statistics Division of the Ministry of Petroleum and Natural Gas has been bringing out a publication "Indian Petroleum & Natural Gas Statistics" since 1967. The publication has been well received over the years. This Ministry updates the information and endeavours to improve the contents periodically so that it is a comprehensive document of current petroleum statistics and the associated aspects of the national economy.

The information has been compiled with input from various Ministries and Departments of the Government of India for which we are indebted to them. Companies in the Hydrocarbon Sector in association with Oil Coordination Committee have been involved in producing this compilation. We appreciate their support.

The efforts put in by the officials of the Economics & Statistics Division, especially by Shri A.P.S. Sawhney, Assistant Director; Shri Khursheed Alam, Research Officer; Shri D.C. Garg, Senior Investigator; Ms. Kanwaljit Kaur, Junior Investigator and Shri Pawan Singh Rajawat, Computor merit commendation.

Suggestions for improvement are welcome.

Saxena

Shastri Bhawan
New Delhi-110001
January 2000

(RAVI SAXENA)
Joint Secretary & Financial Adviser

CONTENTS

S. NO.	SUBJECT	PAGE NO.
1.	Scope & Coverage of Data Published	1
2.	Indian Economy-Selected Indicators	2
3.	Trends in Indian Petroleum Industry at a Glance	3
	PART-I	
	PETROLEUM STATISTICS	
I.	**GENERAL:**	
I.1	Highlights of Indian Petroleum Industry during 1997-99	7-8
I.2	(a) Chronology of important events of Indian Petroleum Industry during the year 1997-98	9-17
	(b) Chronology of important events of Indian Petroleum Industry during the year 1998-99	18-26
I.3	Progress of Indian Petroleum Industry 1947-48 to 1998-99	27
I.4	Commodity balance of Crude Petroleum and Petroleum Products	28
I.5	(a) Growth of Petroleum Industry in India (Calendar Year)	29
	(b) Growth of Petroleum Industry in India (Financial Year)	30
I.6	(a) Petroleum Energy in India: 1984 to 1998 (Calendar Years)	31
	(b) Petroleum Energy in India: 1984-85 to 1998-99 (Financial Years)	32
II.	**EXPLORATION:**	
II.1	Area-wise deployment of deep drilling rigs, wells & metreage drilled by ONGC & OIL from 1970-71 to 1998-99	33
II.2	Exploratory and development drilling by ONGC & OIL	34
II.3	Status of wells as on 1st April of each year.	35
II.4	State-wise achievements of geological surveys in India since inception upto 31.3 1998	36
II.5	(a) State-wise achievements of geophysical Field parties in India since inception upto 31.3.98	37
	(b) State-wise achievements of geophysical Field parties in India since inception upto 31.3.99	38
II.6	Basin-wise/State-wise achievements of drilling since inception upto 1998-99	39
II.7	Basinwise/Statewise oil and gas fields as on 1.4.1999.	40
III.	**CRUDE OIL:**	
III.1	State-wise reserves of crude oil.	41
III.2	Company-wise production of crude oil in India, 1950 to 1998 (calendar year)	42
III.3	Company-wise production of crude oil in India, 1970-71 to 1998-99 (Financial year)	43
III.4	State-wise production of crude oil in India.	44
IV	**NATURAL GAS:**	
IV.1	State-wise reserves of natural gas.	45
IV.2	State-wise production of natural gas in India.	46

S. NO.	SUBJECT	PAGE NO.
IV.3	State-wise gross and net production of natural gas in India.	47-49
IV.4	State-wise utilisation of natural gas in India on financial year basis.	50
IV.5	Industry-wise offtakes of natural gas in India.	51
V.	**REFINING:**	
V.1	Petroleum refining capacity in India as on 1.4.1999.	52
V.2	(a) Refinery crude throughput and production of petroleum products during 1961 to 1998	53
	(b) Refinery crude throughput and production of petroleum products during 1961-62 to 1998-99	54
V.3	Refinery-wise crude run and total production of petroleum products (1980-81 to 1998-99)	55-56
V.4	(a) Production of Petroleum Products/Pattern of Production—1991 to 1998	57
	(b) Production of Petroleum Products/Pattern of Production—1991-92 to 1998-99	58
VI.	**SALES/CONSUMPTION:**	
VI.1	(a) Product-wise sales/consumption of petroleum products during the years 1989 to 1998	59
	(b) Product-wise sales/consumption of petroleum products during the years 1990-91 to 1998-99	60
VI.2	Sales/consumption of petroleum products and market share of oil companies in India from 1970-71 to 1998-99	61
VI.3	Deliveries made to international/coastal bunkers during the years 1987-88 to 1998-99	62
VI.4	(a) State-wise consumption of major petroleum products during 1997-98	63
	(b) State-wise consumption of major petroleum products during 1998-99	64
VI.5	State-wise per capita sales/consumption of petroleum products and per capita consumption of selected petroleum products 1987-88 to 1998-99 (including bunkers)	65
VI.6	Sector-wise (end-use) consumption of selected petroleum products 1996-97 to 1998-99	66—68
VI.7	Consumption of diesel oil in Indian Railways during 1960-61 to 1998-99	69
VI.8	Industry/Plant-wise offtakes of Naphtha 1988-89 to 1998-99	70
VI.9	Plant/customer-wise offtakes of FO/LSHS from 1992-93 to 1998-99	71—74
VI.10	State-wise fuel consumption and power generation in gas turbine and diesel power stations in India during 1996-97	75
VI.11	State-wise consumption of fossil fuels for electricity generation from thermal power stations in India - 1996-97.	76
VII.	**FOREIGN TRADE:**	
VII.1	Imports/Exports of crude oil and petroleum products from 1970-1998	77
VII.2	Imports/Exports of crude oil and petroleum products from 1970-71 to 1998-99	78
VII.3	Imports/Exports of crude oil and petroleum products from 1990 to 1998	79
VII.4	Imports/Exports of crude oil and petroleum products (Financial years).	80
VII.5	Trend in India's overall trade balance and trade balance with OPEC countries.	81
VII.6	India's foreign exchange reserves - 1970-71 to 1998-99	82
VII.7	India's POL imports as a proportion to overall exports from the country-1970-71 to 1998-99	82

S. NO.	SUBJECT	PAGE NO.
VIII.	**MANPOWER EMPLOYED:**	
VIII.1	Manpower employed in the petroleum industry in India 1990-1999	83
VIII.2	Category-wise manpower employed in the petroleum industry in India 1990-1999	83
VIII.3	Category-wise manpower employed in various sectors of petroleum industry in India 1990-1999	84
IX.	**PRICES:**	
IX.1	Wholesale price indices of Crude Oil, Natural Gas, Petroleum Products and all commodities in India.	85
IX.2	Prices of indigenous onshore and offshore crude oil in India	86
IX.3	Development of basic ceiling selling prices (Ex-storage point Mumbai) of Petroleum products	87
IX.4	Price build-up of selected petroleum products in major cities as on 1.4.1999	88—90
IX.5	Trend in retail selling prices of petroleum products in metropolitan towns in India.	91-92
IX.6	Rates of dealers commision for MS, HSDO and LPG in India.	93
X.	**EXCISE/CUSTOM DUTIES AND SALES TAX:**	
X.1	Realisation of excise and custom duties from crude oil and petroleum products	94
X.2	Percentage share of Central Excise on POL to total Central Excise and to Net National Product.	95
X.3	Composite Unit incidence of excise/custom duties on petroleum products.	96
X.4	Royalty and oil development cess paid by oil companies on production of crude oil and natural gas since 1973-74 to 1998-99	97
X.5	Excise duty element included in selling prices of bulk refined petroleum products.	98
X.6	Ex-storage point ceiling selling prices of major petroleum products and rates of excise duty w.e.f. 3.7.1996	99
X.7	Sales Tax rates applicable on crude oil, natural gas and petroleum products in different States as on 1.4.1999	100—105
X.8	Sales Tax payments (inclusive of MST&CST) on crude oil, natural gas and petroleum products made by the oil companies to States/Union Territory Governments during the years 1990-91 to 1998-99	106
XI.	**TRANSPORTATION:**	
XI.1	Tonnage of Indian tanker fleet-1975 to 1999	107
XI.2	Indian Tonnage as on 31.3.1999	108—113
XI.3	Share of traffic of petroleum products in the total traffic handled at major ports.	114—116
XI.4	Movement of POL traffic on Railways since 1970-71.	117
XI.5	Rail freight rates in respect of Petroleum products.	118
XI.6	Crude Oil, Natural Gas and products pipelines in India.	119
XII.	**MARKETING NETWORK:**	
XII.1	Retail outlets in India as on 1st January of each year, Company wise.	120
XII.2	State-wise number of retail outlets, LDO/SKO dealers and LPG distributors as on 1.4.1998 and 1.4.1999.	121
XII.3	State-wise number of retail outlets and those selling ULP.	122

3463PNG F—2-A

S. NO.	SUBJECT	PAGE NO.
XII.4	(a) State-wise number of LPG domestic consumers as on 1.4.1998	123
XII.4	(b) State-wise number of LPG domestic consumers as on 1.4.1999	124
XII.5	CNG Activities in India as on 1.4.99.	125
XII.6	Supply Plan of Green Fuels in India.	126
XIII.	**ENERGY**	
XIII.1	Gross production of energy by various sources in India	127
XIII.2	Trends in production of primary commercial energy.	128
XIII.3	Energy Consumption by fuel and by sector: Percentage share of	
	(a) different fuels in commercial energy consumption and	128
	(b) final energy consumption by different sectors.	128
XIII.4	Gross Domestic product of Crude petroleum and natural gas, coal & Lignite at 1980-81 prices.	128
	PART-II	
XIV.	**INTERNATIONAL PETROLEUM STATISTICS:**	
XIV.1	(a) World proved reserves of crude oil at end 1998	131
	(b) World proved reserves of Natural Gas at end 1998	132
XIV.2	World crude oil production 1991-1998	133
XIV.3	Crude oil production by OPEC member countries	134
XIV.4	World production of natural gas-1991-1998	135
XIV.5	World consumption of natural gas-1991-1998	136
XIV.6	Productivity of producing wells in OPEC member countries-1998	137
XIV.7	World oil refining capacities at end 1991-1998	138
XIV.8	World refinery crude throughput-1991-1998	139
XIV.9	Country-wise world oil consumption 1991-1998	140
XIV.10	Product-wise regional consumption of main petroleum products during 1991-1998	141
XIV.11	World oil production, consumption and relative deficit/surplus in each country/region during 1997 and 1998	142
XIV.12	World crude oil & petroleum products imports and exports 1998	143
XIV.13	Exports of crude oil & refined petroleum products from OPEC member countries.	144
XIV.14	Crude oil imports from OPEC member countries by regions during 1991-1998.	145
XIV.15	Crude oil exports from OPEC member countries by destination 1998.	146
XIV.16	Values of Petroleum Exports from OPEC member countries 1991-1998.	147
XIV.17	Loan assistance from OPEC and other oil supply nations 1990-91 to 1997-98	148
XIV.18	Spot prices of key OPEC crudes since 1987	149
XIV.19	Crude Oil Spot Prices in US $ per Barrel	150
XIV.20	Petroleum Products Spot Prices in US $ per Barrel	150
XIV.21	Natural gas prices in industrial/developed countries	151
XIV.22	Crude Oil Import Costs in US $ per Barrel	152
XIV.23	Development of spot prices of key OPEC crude oils since January 1996	153

3463PNG F—2-B

S. NO.	SUBJECT	PAGE NO.
XIV.24	Development of spot prices of major petroleum products in key trading centres of the world during 1997 and 1998.	154
XIV.25	World survey of selected petroleum products prices 1998.	155
XIV.26	Consumer/retail prices of selected petroleum products in various countries of the world as on 1.1.1998 ✓ To be deleted	156
XIV.27	Posted airfield prices of Jet A-1 Fuel at major international airports as on 1st April of each year.	157
XIV.28	International petroleum price Index during 1990-1998.	158
XIV.29	Tanker Fleet Development in OPEC Member countries 1994-1998	159
XIV.30	World tanker fleet by age, 10000 DWT and over	159
XIV.31	Inter-area total oil movements-1998	160
XIV.32	World primary energy consumption by fuel-1998	161
XIV.33	Per capita primary energy consumption-Some international comparisons-1998	162
XIV.34	Per capita consumption of main petroleum products - Some international comparisons - 1998	163
XIV.35	Trends in world primary energy consumption - 1980-1998	163
XIV.36	Primary energy consumption in selected countries/areas of the world-1991 to 1998	164
XIV.37	Economic indicators of OPEC nations during 1998	165
XIV.38	World Production of Refined Products by country-1991-1998	166
XIV.39	World Consumption of Refined Products by country-1991-1998	167
XIV.40	World Refinery capacity by country-1991-1998	168
XIV.41	World Crude Oil Imports by country-1991-1998	169
XIV.42	World Imports of Natural Gas by country - 1991-1998	170
XIV.43	World Imports of Refined Products by country-1991-1998	171
XIV.44	World Crude Oil Exports by country - 1991-1998	172
XIV.45	World Exports of Refined Products by country -1991-1998	173
	PART-III	
	PLAN STATISTICS	
1.	Eighth Plan Outlay and actual expenditure and revised estimates for 1997-98 and BE 1998-99 of PSUs under the purview of Ministry of Petroleum and Natural Gas.	177
2.	Ninth Plan projection profile for Crude Oil and Natural Gas production.	178
3.	Demand for petroleum products	179
4.	Import availability ratios of crude oil & POL products	179
5.	Value of crude oil & POL products imported during V, VI, VII, VIII & IX Five year plan periods.	180
	PART-IV	
	FINANCIAL PERFORMANCE/STRUCTURE	
	Financial review structure of the Public/Joint Sector Undertakings under the Purview of Ministry of Petroleum and Natural Gas during 1998-99	183—195
1.	Consolidated financial structure-1998-99 (All Undertakings and Categories).	196
2.	Consolidated financial structure-1997-98 (All Undertakings and Categories),	197
3.	Consolidated financial structure-1996-97 (All Undertakings and Categories),	198

S. NO.	SUBJECT	PAGE NO.
4.	Consolidated financial structure-(Exploration & Production) 1996-97 to 1998-99	199
5.	Financial structure-Oil & Natural Gas Corporation Ltd. 1996-97 to 1998-99	200
6.	Financial Structure-ONGC Videsh Ltd. 1996-97 to 1998-99	201
7.	Financial Structure-Oil India Limited 1996-97 to 1998-99	202
8.	Financial Structure Gas Authority of India Ltd. 1996-97 to 1998-99	203
9.	Consolidated financial structure (Refining & Marketing). 1996-97 to 1998-99	204
10.	Financial structure-Indian Oil Corporation Ltd. 1996-97 to 1998-99	205
11.	Financial structure - Bharat Petroleum Corpn. Ltd. 1996-97 to 1998-99	206
12.	Financial structure - Hindustan Petroleum Corpn. Ltd. 1996-97 to 1998-99	207
13.	Financial structure - Cochin Refineries Ltd. 1996-97 to 1998-99	208
14.	Financial structure - IBP Co. Ltd. 1996-97 to 1998-99	209
15.	Financial structure - Madras Refineries Ltd. 1996-97 to 1998-99	210
16.	Financial structure - Lubrizol India Ltd. 1996-97 to 1998-99	211
17.	Financial structure - Indian Oil Blending Ltd. 1996-97 to 1998-99	212
18.	Consolidated financial structure of Petrochemicals 1996-97 to 1998-99	213
19.	Financial structure - Bongaigaon Refinery & Petrochemicals Ltd. 1996-97 to 1998-99	214
20.	Consolidated financial structure of Engg. Services & other Units 1996-97 to 1998-99	215
21.	Financial structure - Engineers India Ltd. 1996-97 to 1998-99	216
22.	Financial structure - Balmer Lawrie & Co. Ltd., 1996-97 to 1998-99	217
23.	Financial structure - Biecco Lawrie Ltd. 1996-97 to 1998-99	218
24.	Capital investment of the public/joint sector undertakings under the purview of Ministry of Petroleum & Natural Gas as on 1.4.1998 and 1.4.1999	219
25.	Glossary of terms used for tables on Financial Statistics.	220
	APPENDIX	I-XV

SCOPE AND COVERAGE OF DATA PUBLISHED

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

2. **Coverage:** The statistics presented in the publication covers 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 is based on various returns submitted by the oil companies in the country to 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 shows gross withdrawal of natural gas from reservoirs less gas used for reinjection into reservoirs for pressuring and 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 onward. Prior to 1983-84, the supplies of products to Nepal have not been included under exports.

8. **Petroleum Imports:** The crude oil and product import figures given in the publication included crude oil/ Pol products imported by the Indian oil companies 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 or 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 ncluded in the publication shows 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	1980-81	1985-86	1990-91	1994-95	1995-96	1996-97	1997-98	1998-99*
1.	**Geographical Area**	M.Sq. Km.	3.29	3.29	3.29	3.29	3.29	3.29	3.29	3.29
2.	**Population**	Million	673	751	835	900	916	936	955	971
3.	**Gross National Product at factor cost:**									
	(i) At current prices	Rs. Crores	122772	232370	470269	930325	1089754	1272177	1413231	..
	(ii) At constant prices+	"	122772	155365	208481	847849	913810	988255	1038692	..
4.	**Net National Product at factor cost:**									
	(i) At current prices	Rs. Crores	110685	206133	418074	833325	975645	1140895	1265167	..
	(ii) At constant prices +	"	110685	139025	186446	758781	817489	884237	926420	..
5.	**Per Capita Net National Product:**									
	(i) At current prices	Rupees	1630	2730	4983	9178	10525	12099	13193	..
	(ii) At constant prices+	"	1630	1841	2222	8357	8819	9377	9660	..
6.	**Foreign Exchange Reserves**									
	(i) Gold ++	Rs. Crores	225.6	274.3	6828.3	13751.8	15658.5	14557.2	13394.0	12624.0
	(ii) SDR	Mn. of SDRs	490.5	115.1	75.9	4.6	55.9	1.4	0.8	6.0
	(iii) Foreign Exchange	Rs. Crores	4822	7384	4388	66006	58446	80368	102507	121116
7.	**Foreign Trade:**									
	(i) Import	Rs. Crores	12549	19658	43198	89971	122678	138920	151553	132447 AD
	(ii) Export	"	6711	10895	32553	82674	106353	118817	126286	101850 AD
	(iii) Balance of Trade	"	-5838	-8763	-10645	-7297	-16325	-20103	-25267	-30597 AD
8.	**Index of Production:**									
	(i) Agriculture	@	102.1	119.5	148.4	165.2	160.7	175.4	164.9	171.0
	(ii) Industrial	1993-94=100				108.4	122.3	129.1	137.6	142.8
9.	**Wholesale Price Index:**	1981-82=100		125.4	182.7	274.7	295.8	314.6	329.8	352.4
10.	**Consumer Priced Index:**									
	(i) Industrial Workers	1982=100		126	193	279	313	342	366	412 A
	(ii) Agricultural Labourers	1960-61=100	395	546	803	1204	234**	256	267	291 A
	(iii) Urban non-manual employees	1984-85=100		107	161	232	259	283	302	335A
11.	**Employment: @@**									
	(i) Public Sector	Million	15.48	17.68	19.06	19.47	19.43	19.56	..	..
	(ii) Private Sector	"	7.40	7.37	7.68	8.06	8.51	8.69	..	..
	Total	"	22.88	25.05	26.73	27.53	27.94	28.25	..	..
	No. of persons on live register of employment exchange	Million	16.20	27.03	34.89	36.64	36.90	37.63	39.19	40.23 N
12.	**Energy Generation (Gross):**									
	Coal	Mn. Tonnes	113.91	154.20	211.73	253.80	270.13	285.66	295.93	154.68 AO
	Lignite	"	5.11	8.05	13.77	19.34	22.14	22.54	23.05	10.77 AO
	Natural Gas	Mn. Cub Mtr.	2358	8134	17998	19381	22308	23255	26401	27428
	Crude Oil	Mn. Tonnes	10.51	30.17	33.02	32.33	35.17	32.90	33.86	32.72
	Petroleum Products	"	25.35	42.37	51.27	57.40	58.32	62.50	64.82	68.24
13.	**Electricity:**									
	(i) Utilities									
	Hydel	B.KWH	46.5	51.0	71.7	82.7	72.6	68.6	74.5	57.6 AN
	Thermal	"	61.3	114.4	186.5	262.1	299.3	316.9	336.1	225.4AN
	Nuclear	"	3.0	5.0	6.1	5.6	8.0	9.0	10.0	7.4 AN
	Total	"	110.8	170.4	264.3	350.4	379.9	394.5	420.6	290.4 AN
	(ii) Non-utilities	"	8.4	13.0	25.1	35.1	38.1	41.0	43.8	..
	GRAND TOTAL	"	119.3	183.4	289.4	385.5	418.0	435.5	464.4	..

*: Provisional.
@: Triennium ending 1981-82
@@: As on 31st March.
Source: Economic Survey.
A: Average on the basis of monthly figures from April to Dec. 98.
..: Not available.
**: The new series of CPI for agricultural labourers with 1986-87 base was introduced w.e.f. Nov. 95.
+: 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 price w.e.f. Oct., 17, 1990.
AD: April-Dec.' 98. N: Nov' 98. AO: April-Oct'98 AN: April-Nov' 98.

TRENDS IN INDIAN PETROLEUM INDUSTRY AT A GLANCE

		Unit	1980-81	1990-91	1995-96	1996-97	1997-98	1998-99*
1.	**Reserves @**							
	(Balance Recoverable)							
	(i) Crude Oil	Mn. Tonnes	366	739	732	727	747	715
	(ii) Natural Gas	Bn. Cub. Mtr.	352	686	660	640	692	675
2.	**Consumption**							
	(i) Crude Oil	Mn. Tonnes	25.84	51.77	58.74	62.87	65.17	68.54
	(in terms of refinery crude throughput)	"	30.90	55.04	74.67	79.17	84.29	89.36
	(ii) Petroleum Products (excl. RBF)							
3.	**Production:**							
	(i) Crude Oil	"	10.51	33.02	35.17	32.90	33.86	32.72
	(ii) Petroleum Products	"	24.12	48.56	55.08	59.01	61.31	64.55
4.	**Imports & Exports**							
	(i) Gross Imports:							
	(a) Qty: Crude Oil	"	16.25	20.70	27.34	33.91	34.49	39.81
	Pol. Products	"	7.29	8.66	20.34	20.26	19.53	18.78
	Total (a)	"	23.54	29.36	47.68	54.17	54.02	58.59
	(b) Value: Crude Oil	Rs. Crores	3349	6118	11517	18538	15897	14876
	Pol. Products	"	1917	4660	12578	15634	12432	9837
	Total (b)	"	5266	10778	24095	34172	28329	24713
	(ii) Exports: @@							
	(a) Qty: Crude Oil	Mn. Tonnes	-	-	-	-	-	-
	Pol. Products	"	0.04	2.65	3.44	3.16	2.93	1.40
	Total (a)	"	0.04	2.65	3.44	3.16	2.93	1.40
	(b) Value:Crude Oil	Rs. Crores	-	-	-	-	-	-
	Pol. Products	"	8	1004	1832	2085	1820	856
	Total (b)	"	8	1004	1832	2085	1820	856
	(iii)Net Imports:							
	(a) Qty: Crude Oil	Mn. Tonnes	16.25	20.70	27.34	33.91	34.49	39.81
	Pol. Products	"	7.25	6.01	16.90	17.10	16.60	17.38
	Total (a)	"	23.50	26.71	44.24	51.01	51.09	57.19
	(b) Value: Crude Oil	Rs. Crores	3349	6118	11517	18538	15897	14876
	Pol. Products	"	1909	3656	10746	13554	10612	8981
	Total (b)	"	5258	9774	22263	32092	26509	23857
	(iv) Unit Value of Crude oil imports(gross)	Rs./MT	2061	2956	4212	5467	4609	3737
5.	**India's Total Exports**	Rs. Crores	6711	32553	106353	118817	130101	141604
6.	**Pol. Imports as percentage of India's total exports**							
	(i) Gross Imports	"	78.5	33.1	23.7	28.8	21.8	17.5
	(ii) Net Imports	"	78.3	30.0	21.9	27.0	20.3	16.8
7.	**Contribution of oil sector to Centre/State Resources**							
	(i) Royalty from crude oil	Rs. Crores	41	2028	1667	1692	1800	1710
	(ii) Royalty from gas	"	3	138	272	273	415	438
	(iii) Oil Development Cess	"	60	2782	2835	2667	2838	2754
	(iv) Excise & Custom duties	"	1570	9179	15612	20600	20971	22223
	(v) Sales Tax	"	628	3653	8472	9900	..	..
	(vi) Dividend	"	44	189	688	833	1054	..
	(vii) Corporate Tax/Others	"	76	646	1653	1910	1913	..
8.	**Natural Gas:**							
	(i) Gross Production	Mn. Cu. Mtrs.	2358	17998	22639	23255	26401	27428
	(ii) Utilisation	"	1522	12766	20930	21331	24544	25705

@: As on 1st Jan. of first year.
@@: Includes supplies of Pol. products to Nepal.

*: Provisional.
..:Not available.

-: Nil

PART-I
PETROLEUM
STATISTICS

I. GENERAL

I.1 HIGHLIGHTS OF INDIAN PETROLEUM INDUSTRY DURING 1997-99

I. Reserves

(a) Crude Oil (MMT)

As on 1.4.1999	660
As on 1.4.1998	715
As on 1.4.1997	747

(b) Natural Gas (BCM)

As on 1.4.1999	648
As on 1.4.1998	675
As on 1.4.1997	692

II. Self-sufficiency in Oil

(a) In 1998-99	34%
(b) In 1997-98	37%
(c) In 1996-97	39%

III. Crude Oil Production (MMT)

(a) In 1998-99	32.723
(b) In 1997-98	33.859
(c) In 1996-97	32.901

IV. Consumption of Petroleum Products (MMT)

(a) In 1998-99	89.36
(b) In 1997-98	84.29
(c) In 1996-97	79.17

V. % age Variation

(a) 1998-99 over 1997-98	
(i) Crude oil production:-	-3.4
(ii) Consumption of Petroleum Products:-	+6.3
(b) 1997-98 over 1996-97	
(i) Crude oil production:-	+2.9
(ii) Consumption of Petroleum Products:-	+6.5

VI. Gross Imports of Crude Oil (MMT)

(a) 1998-99	39.81
(b) 1997-98	34.49
(c) 1996-97	33.91

VII. Refineries Data-

(a) No. of Refineries as on (1.4.98) - 14

(b) Total Refining capacity As on (1.4.98) 61.55 MMT

(c) Crude Oil processed - 68.538 MMT (1998-99)

(d) Capacity Utilisation - 113.5% (1998-99)

VIII. Natural Gas Production (BCM)

	1998-99	1997-98
(a) Total Production	27.428	26.401
(b) (i) Offshore production	20.260	19.717
(ii) Onshore production	7.168	6.684
(c) Gas Flared	1.712	1.879

IX. (a) Production of POL Products (MMT)

(i) In 1998-99	66.388
(ii) In 1997-98	63.096
(iii) In 1996-97	60.785

(b) Refinery Crude Throughput (MMT)

(i) In 1998-99	68.538
(ii) In 1997-98	65.166
(iii) In 1996-97	62.870

(c) Import of Crude Oil & Petroleum Products (including NOC imports)

(i) In 1998-99	58.588 MMT - Rs. 24713 Crores
(ii) In 1997-98	54.024 MMT - Rs. 28329 Crores
(iii) In 1996-97	54.171 MMT - Rs. 34172 Crores

X. Overall Performance of PSUs.

(a) Gross Profit Before Tax (Rs. Crores)

(i) In 1998-99	14803.21
(ii) In 1997-98	12251.14
(iii) In 1996-97	10421.29

(b) Net Profit After Tax (Rs. Crores)

(i) In 1998-99	8734.08
(ii) In 1997-98	7491.58

I.2(a) CHRONOLOGY OF IMPORTANT EVENTS OF INDIAN PETROLEUM INDUSTRY DURING THE YEAR 1997-98

(A). EXPLORATION & PRODUCTION

1. OIL INDIA LIMITED

- Kathaloni OCS was commissioned.
- One no. crude oil tank, capacity 2500 Kls. floating roof type, was commissioned and commercial oil was discovered in the Lower Eocene in Lakadong & Therria sand in well NHK-506 in Deohal structure.
- Hatiali EPS was commissioned.
- Sabotage of OIL's crude oil trunk pipeline at Supariguri village in Bongaigaon Dist and at Soklatinga Tea Estate in Jorhat Dist. of Assam was repaired and pumping resumed in the same month.
- An incidence of crude oil leakage trunk crude oil pipeline at Gharphalia village in Jorhat Dist. of Assam due to miscreant's activities was repaired and pumping resumed.
- Shalmari 2nd OCS was commissioned.
- Multiphase pump was commissioned at Shalmari well No.5 and commercial oil was discovered in the lower Eocene in well No.Bhogpara 1 in the Bhogpara structure and in Sapekhati well No.1.
- Crude oil trunk pipeline was buried under river Chowkhowa by Horizontal deviation drilling.
- SCADA project was commissioned and MOU between OIL and BRPL was signed in connection with the transportation of imported crude oil from Barauni to BRPL.
- A condensate recovery plant of 10 MMSCFD capacity was commissioned at GCS-2.

2. OIL & NATURAL GAS CORPORATION LIMITED

- Object I, IV & V in the Panna Formation produced gas and condensate.
- Kerosene Recovery Unit at Hazira was charged with NGL feed.
- Glass Re-inforced Epoxy (GRE) pipes have been used for the first time at off-shore to replace the frequently leaking carbon steel, produced water line, pipes at NLP, NQP & SHG Platforms.
- Gas supply of GAIL from Nannilam EPS in KG project started with the completion of pH-II of integrated pipeline.

- Effluent injection from Tatipaka ETP to the disposal Well Tatipaka #15 in KG basin commenced.

- Pigging of 26" - 203 Km. long Bombay High-Uran Trunk(BUT) gas pipeline has been carried out successfully for the first time since commissioning of the line.

3. ONGC VIDESH LIMITED (ONGC OVERSEAS)

- MOU with M/s Ispat Karmet signed for co-operation in the petroleum opportunities in Kazakhstan and Exploration licence for Pavlodar Area of Kazakhstan was obtained by ONGC.

- First draft production sharing contract for participation in exploration block # 8, Western Desert, Iraq was approved by the Board to be submitted to Ministry of Oil, Iraq.

- Authorised capital of ONGC-VL was increased to Rs. 500 crores in place of Rs. 50 crores.

- MOU with China National Oil and Gas for exploration and development co-operation was signed.

- In principle participation in the upstream Oil and Gas projects in Iran in participation with Reliance Industries Ltd. was approved in the Board meeting.

- Participation in AGIP offshore block in Azerbaijan (Khurdarsh structure) up to 10% working interest was approved.

4. GAS AUTHORITY OF INDIA LIMITED

- Equity participation in consortium of ONGC-VL, IOC and Ispat group for an exploration venture in Kazakhstan approved by the Board.

- Signed MOU with IGT, USA for mutual co-operation in promoting, marketing, processing and executing research and technology development projects related to all aspects of natural gas utilisation. First on-line CNG mother compressor and dispensing station commissioned at Sarai Kale Khan, New Delhi.

- Interim Tapti gas sales and purchase agreement signed with M/s Enron and Reliance; Tapti gas flowed into GAIL`s system at Hazira.

- First long-term gas sale contract signed with M/s Command Petroleum (Australia), Ravva-Oil (Singapore), Videocon Petroleum (India) for supply of gas up to 0.70 MMSCMD from Ravva gas fields in Krishna-Godavari basin in Andhra Pradesh.

- The Govt. approval accorded for formation of a Joint Venture Company with an equity participation of 50% from GAIL, ONGC, IOC and BPCL for setting up LNG

import terminals at Mangalore, Cochin/Kayamkulam, Hazira/Dahej, Ennore or other suitable identified locations.

- Agreement for supply of additional quantity of 0.15 MMSCMD of gas signed with M/s Vikram Ispat, Salav, Maharashtra.

- The gas processing unit of the U.P. Petrochemicals complex commissioned.

- Gas supply to Gujarat Torrent Energy Corporation commenced. Pilot phase of the Delhi city gas distribution project commissioned for supply of gas to Kaka Nagar, Bapa Nagar and Pandara Park areas of New Delhi and supply of gas commenced.

- Govt. accords "Navaratna" status. 92 Km long spur line to Agra and Ferozabad completed and charged with gas. The gas early delivery facility (GEDF), also commissioned for supply of gas into the city distribution network at Ferozabad.

- MOU signed with GDF International as strategic partner for development of LNG project.

- The ISO-14001 certificate for environment management system received by the LPG recovery plant at Vaghodia. Gas from Panna-Mukta fields flowed into GAIL`s system. Contract signed with KRIBHCO at Hazira for supply of 3 MMSCMD of natural gas.

- "Excellent" MOU target in respect of liquid hydrocarbon production and uninterrupted supply of natural gas on HBT pipeline system achieved.

(B). REFINING

1. BHARAT PETROLEUM CORPORATION LIMITED

- An all time high 7.98 MMT of crude was processed by the Refinery.

- The throughput of the secondary processing units viz. Catalytic Cracking Unit (CCU) and Fluid Catalytic Cracking Unit (FCCU), of 1639.6 TMT were the highest ever achieved.

- Production of LPG, MS, MTO and HSD was the highest ever.

- Total distillates production was at 81.7% wt. on crude.

- Fuel and Loss at 5.41% wt. on crude, was the lowest in the past ten years.

- The Mumbai-Manmad product pipeline commissioned in March 1998 by pumping the product from Mumbai refinery at total cumulative expenditure of Rs.381.29 crores.

- The overall physical progress of the Diesel Hydro-desulphurisation Project was at 27.2% and the total cumulative expenditure is Rs. 55.57 crores.

- The total expenditure on the Product Terminal at CIR, Bina is Rs. 3.22crores and its progress stands at 8.49%.

2. BONGAIGAON REFINERY & PETROCHEMICALS LIMITED

- Highest level of 1.72 MMT crude oil processed and processing in the secondary units of kerosene treater and delayed cocker were also higher than all previous years.

- Achieved highest ever turnover of Rs. 930 crores and a new speciality solvent have been developed by blending streams from refinery and petrochemicals units.

- The company was awarded ISO-9002 quality management system certificate.

3. COCHIN REFINERIES LIMITED

- Capacity utilisation was 103% and for the tenth consecutive year

- Set records in throughput, LPG production, SKO production, ATF, Bitumen and SBPS production.

- The steam turbo generator of 17.8 MW capacity was commissioned in February 1998 and CRL won the safety award 1996 by British Safety Council and the Oil Industry Safety Directorate (OISD) safety award for the year 1995-96.

4. HINDUSTAN PETROLEUM CORPORATION LIMITED

- The Mumbai refinery achieved a capacity utilisation of 116%. Visakh refinery received a setback due to an accident in Sept.97. One of the crude units was re-commissioned on war footing, in Feb.98.

- The corporation signed a lubricant & base oil agreement with ESSO Mauritius Overseas Ltd. in March`98, valid for a period of 3 years.

- Stage-I clearance for Mangalore-Bangalore pipeline project obtained from GOI and handed over to M/s Petronet India Ltd. for implementation.

- HPCL is undertaking construction of the pipeline as prime management consultant of M/s Petronet India Ltd. Government of India clearance obtained for DHDS unit at both the Refineries at a total cost of Rs. 1552 crores in June`97.

5. INDIAN OIL CORPORATION LIMITED.

(a) Refineries Division

All IOC refineries were accredited with ISO-14001 certificate for environmental management system.

(I) ASSAM OIL DIVISION (AOD) DIGBOI, ASSAM

- Stage-I approval for replacement of dewaxing and deoiling unit accorded by Government at updated project cost of Rs. 391 crores.
- Modernisation of Khotkhoti depot with new BG tank wagon gantry completed and depot recommissioned.
- Catalytic Reforming Unit (CRU) commissioned.

(II) GUWAHATI REFINERY

- Stage-I approval for setting up of Hydro treatment facilities was accorded by the Govt. The estimated project cost updated to Rs. 483.2 crores.
- Stock transfer facility for HSD and MS to marketing installation commissioned.
- TG-4 commissioned.
- New Degasser in TPS commissioned.

(III) BARAUNI REFINERY

- Tank truck loading of MS, MTO, SKO, HSD and LDO was completely shifted from refinery to marketing terminal. Catalytic Reformer Unit (CRU) commissioned. Production of unleaded petrol was started from July`97 and despatch started.
- Project to produce "Alpha Olefin" for the first time in the country commissioned and the DFR for Stage-II expansion of the refinery has been submitted to the Government of India at a revised cost of Rs. 1913.1 crores.

(IV) GUJARAT REFINERY, KOYALI

- Refinery received award by World Wide Fund for Nature (WWF) for getting ISO-14001 accreditation.
- New naphtha despatch facility for M/s GIPCL through pipeline was commissioned.
- Facilities for supply of product to new BPCL terminal completed and pumping of HSD and SKO was started.

New grade of LOBS i.e. 500-Neutral production commenced and DFR for setting

(V) HALDIA REFINERY, WEST BENGAL

- up of FCCU at the refinery was submitted to the GOI for stage-II approval.

- Simultaneous unloading of crude oil tankers from both the oil jetties at Haldia Port started and Packinox Heat Exchanger commissioned for energy conservation.

- As a part of first phase of automatic tank gauging system, 47 nos. of SERVO gauges commissioned in crude/product tanks.

(VI) MATHURA REFINERY, U. P.

- Retrofitting of all three TPS boilers to facilitate natural gas firing was completed and commissioned.

- The Government approval for DHDS projects under LSTK methodology was received for commissioning by 1.4.1997 and Natural gas project was completed and permanent facility was commissioned.

- Scheme of additional cooling of LVGO circulating relax commissioned, resulting in better performance of Vacuum column. It has resulted in additional HSD production by around 15 TMT/Month.

- Supply of unleaded petrol to OMC terminal commenced.

- In addition to the continued supply to Taj Trapezium supply of 0.25% wt `S` HSD to Delhi through MJPL commenced on regular basis.

JOINT VENTURE PROJECTS

- The cumulative expenditure on Bharat Oman Refineries Ltd. is Rs.108 crores and the overall physical progress is 4.9%.

- The overall physical progress of the Numaligarh Refinery Ltd. is 83.8% and the cumulative expenditure on the project is Rs.1409 crores.

(b) Pipelines Division

- Branch pipeline to Meerut from Panipat-Delhi section of MJPL at total cost of Rs. 44 crores and pipeline to Saharanpur from Panipat-Ambala section of MJPL at a total cost of Rs. 37 crores; Vadinar-Kandla product pipeline at a total cost of Rs. 343 crores; Koyali-Navgam pipeline and Mathura-Tundal pipeline with a total cost of Rs. 58 crores were under implementation.

- Pipelines have achieved ever highest commutative throughput of 30.61 MMT and they have achieved their respective MOU/Internal target. For the first time SKO Ex-MJPL was delivered to Sangrur and Panipat.

- Pipeline head office has been accredited with ISO-9001 certification. This is the first certificate obtained by any administrative office of IOC/Oil Industry.

6. MADRAS REFINERIES LIMITED

- Moving crude from its refinery at Manali to MRL Cauvery Basin Refinery (CBR) at Panangudi by road tankers. The crude unloading facilities were formally inaugurated at MRL CBR, Panangudi.

- The export of power of about 1.0 MW on a continuous basis to Tamil Nadu Electricity Board grid, Nagapattinam, was commenced.

- The new raw water reservoir was formally commissioned at MRL CBR, Panangudi.

- MRL CBR rectified for ISO-9002 quality system by M/s TUV India Pvt. Ltd. This is valid up to Nov. 2000.

- Donated a sum of Rs. 25 lakhs to the Cancer Institute, Chennai, as part of golden jubilee celebrations of India's independence.

(C). MARKETING

1. BHARAT PETROLEUM CORPORATION LIMITED

- Registered the best growth in the Industry, during the year the growth was 4.54% with a sales volume of 16.43 MMT and a market share of 20.52%.

- New generation Retail Outlets conforming to international standards were commissioned at Chandigarh, Agra, New Delhi, Udaipur, Jaipur, Calcutta Bhubaneswar, Mumbai, Nagpur, Goa, Indore, Chennai and Bangalore.

- 34 retail outlets, 2 SKO/LDO dealerships, 41 LPG distributorships and 32 consumer pumps were commissioned. Extra low sulphur HSD extended to Mumbai, Calcutta and Chennai.

- Two LPG bottling plants at Sultanpur in U.P. and Uluberia in West Bengal and the Mumbai- Manmad Product Pipeline commissioned.

2. HINDUSTAN PETROLEUM CORPORATION LIMITED

- Mumbai - Vashi black oil cross-country pipeline of 1.5 MMTPA capacity completed in March`98 at a cost of Rs. 44.15 crores.
- New terminal with tankage of 30,000 Kl completed at Kakinada, Andhra Pradesh at a cost of Rs.15.15 crores.

→ Add Joint venture Co. (HRPL)

3. IBP CO. LIMITED.

- 5 nos. Retail Outlets and one SKO/LDO dealership commissioned and unleaded MS supplied at 22 ROs in Metros and 39 Ros in State capitals/highways/major towns.

- MOU targets exceeded in case of sales-market share percentage for MS & HSD, lube sales and commencement of LPG marketing during the year.

4. INDIAN OIL CORPORATION LIMITED

- Imported Multi Product Dispensaries (MPDs) at a cost of Rs. 450 lakhs for installation at select retail outlets.

- Acquired new business of Oman AIR at Madras and Druk AIR at all airports in India for supply of Aviation fuels.

- Acquired new business of Northwest and Australian airlines at Delhi and federal Express at Mumbai for supply of Aviation fuels.

- Terminal at a cost of Rs. 4108 lacs and office building at Bhopal at a cost of Rs. 219 lacs were completed.

(D). RESEARCH & DEVELOPMENT ACTIVITIES

1. INDIAN INSTITUTE OF PETROLEUM, DEHRADUN

- Agreement between IIP and Stone & Webster, USA to market IIP-EIL Visbreaking technology outside India; and with UOP-1A, USA for developing PTA technology.

2. INDIAN OIL CORPORATION LTD.

RESEARCH & DEVELOPMENT CENTRE, FARIDABAD

- Commercial production of Servotitex grease invented by R&D commences at world's first Titex grease plant at Vashi, Mumbai.

- Targeted lubricant and grease formulations developed and Record 63 technical activities/projects completed.

- Approvals obtained for A/F proposals worth Rs. 107 crores under R& D's restructuring plan and a total R& D investment worth Rs. 53 crores made during the year.

- High performance new products namely low oil, 3 genuine oils and latest API-SJ performance level gasoline engine oil, 5 globally competitive gasoline engine oils, a fuel efficient universal tractor oil meeting latest international specifications and a low pour high VI cost effective anti-wear hydraulic oil based on indigenous base oils and additives were developed.

- A high performance spin finish oil with relatively less fibre breakage and loss, leading to improved yarn quality and good scourability properties, developed for the first time, in association with North India Textile Research Association, Ghaziabad.

- A new XXXX series of marine engine oil technology developed.

- A new cost effective rust preventive oil with superior rust protection properties and Modified environmentally safe Titex grease technology for the cement plants were developed.

- Catalytic converter in association with ACC for 2/3 wheelers successfully field tried.

- Component based diesel stabiliser technology developed and field tried successfully.

- Demonstration plant for Indmax process technology developed for conversion of the resids/heavy ends to LPG set up at a cost of about Rs. 80 crores.

- A unique procedure for bench-making and efficiency evaluation of FCC developed.

- A steady state hydrocracker simulator based on continuum theory of lumping developed and installed at Gujarat refinery.

- First hydrocracker pilot plant facility in India inaugurated in June, 1997 and commissioned.

- 12 patents in India and 8 in foreign countries filed. One copyright, one Indian patent and one US patent granted.

- ISO-14001 accreditation for Environment Management System (EMS) and ISO-9001 re-certification received.

I.2(b) CHRONOLOGY OF IMPORTANT EVENTS OF INDIAN PETROLEUM INDUSTRY DURING THE YEAR 1998-99

(A). EXPLORATION & PRODUCTION

1. OIL INDIA LIMITED

- Commercial Oil and Gas were discovered within the lower Eocene Palaeocene Formation in Mohanbari, North Balijan, Khagorigan and Hapjan Structures.
- Exploratory Drilling activities commenced in the Ganga Valley basin under Ganga Valley Project (GVP) by spudding in the Ist well, Bilaspur-1 (Loc. GKBA)
- Production level of 11,530 kls. achieved.
- Agreement with NGRI, Hyderabad for use of their seismic recording system for Oil's seismic survey operation in Assam/AP, being the first of its kind.
- trunk pipeline was commissioned for supply of crude oil to Numaligarh refinery and the first batch of delivery to Numaligarh Refinery Limited Started.
- The Coal/Oil CO-processing pilot plant was successfully commissioned and performance test was conducted using Assam Coal and Vacuum Tank Bottom (VTB) as raw material.

2. OIL AND NATURAL GAS CORPORATION LIMITED

- Ignited two wells in WRBC artificially.
- GAIL commenced off-take of gas on 28.6.99 from Lakwa gas grid for commissioning of their LPG plant at Lakwa.
- Hook-up of New Process Complex HRC with Heera process Complex to enhance the processing capacity to 90,000 BOPD.
- MoU with NTPC and IOC was signed to set up power plants at Hazira & Panipat.
- L.P. Compressor in ERBC was commissioned which resulted in reduction of flaring by about 14,000 M3/day.
- First LDST Multilateral well was successfully completed and put on production.
- Gas supply started under direct marketing on "as and where basis" from Dabka field in WRBC to M/s Walsutt Glass & Ceramics Private Ltd. and M/s Prime Ceramics Private Ltd.
- For the first time, surfactunt job for GLV servicing/washing was carried out in 2 wells on ERBC.

- ONGC alongwith GAIL, IOC & BPCL promoted a Rs. 12,000 millions company called "Petronet LNG Ltd." for setting up of LNG terminal at Dahej & Cochin.
- ONGC's rig BI-200-2 spudded its first well in Oman on 1.10.98.
- ONGC ranked as No. 1 company in India, on the basis of market capitalisation as on March 31'98. (Economic Times 500)
- For the first time, Girujan sand in Geleki Field of ERBC produced gas.
- Seismic Data Processing and Interpretation Centre was inaugurated at Panvel, Mumbai.
- National Safety Award of DGMS received for "lowest Injury Frequency Rate per Lakh manshifts" on 31st March 1999.
- ISO 9001 certification received for Institute of Management Development.

3. ONGC VIDESH LIMITED (ONGC OVERSEAS)

In principle, approval received for

- Participation in Soroosh Project in Iran in partnership with M/s Larsen & Toubro Ltd.
- Submission of commercial bid for participation in Exploration Block # 8, Western Desert in Iraq.
- Participation in partnership with M/s Reliance Industries Ltd. in the consortium for carrying out negotiations for the service contract tender.
- IOC's participation to the extent of 10% to 20% of ONGC-VL's share in the exploration ventures in Astrakhan Block with Rosneft and in North Caspian Sea with Lukoil, Russia.

4. GAS AUTHORITY OF INDIA LIMITED

- PetroNet LNG Limited incorporated.
- Under the gas Rehabilitation & Expansion Project (GREP), two Gas Turbine Compressor (GTC) units commissioned at Jhabua and one at Khera.
- LPG extraction plant at Usar commissioned.
- Gas supply to Pondicherry Power Corporation Ltd. commenced.
- Successfully developed 'Diesel smoke scrubber' : a device that slashed diesel emission by 70% in 'Vikram' auto-rickshaws.
- Indraprastha Gas Limited (IGL) incorporated.
- Polymer production commenced in UPPC.

- U.P. Petrochemical Complex commissioned.

(B). REFINING

1. BHARAT PETROLEUM CORPORATION LIMITED

- Award of ISO-14001 Certificate by M/s Det Norske Veritas, Netherlands, for conforming to the Environment Management System Standard ISO-14001 :1996.
- Receipt of the "Best Environmental & ecological Implementation Gold Award" under the Jawaharlal Nehru Memorial 6th National Awards.
- 4 million man-hours without lost time accident completed on 24.02.1999 by BPCL at Mumbai refinery after a gap of more than 12 years and for only the fourth time so far.

2. BONGAIGAON REFINERY & PETROCHEMICALS LIMITED

- 1.65 million tonnes of crude oil was processed during the year 1998-99. Highest processing in the secondary units of Delayed Cokers, and production of LPG, Ceeseven solvent and BRPSOL-100 were achieved.
- Treated effluent processed in the Testing Treatment Plant (TTP) for reuse as cooling water resulting in reduced fresh ground water drawals.
- The company completed 25 years of its existence on February 20 1999.

3. COCHIN REFINERIES LIMITED

- CRL was adjudged first among the large scale industries in the State for 1997-98, in the field of Pollution Control, by Kerala Pollution Control Board.
- Highest Toluene production of 4,176 tonnes during August 1999.
- CRL and IOCL have entered into a five year marketing agreement effective from 1st April 1998 valid until 31st March, 2003.
- Standing Committee on Petroleum and Chemicals visited CRL on 1st Feb. 1999.

4. HINDUSTAN PETROLEUM CORPORATION LIMITED

- Mumbai-Pune product pipeline achieved a thruput of 3.72 MMT during the year exceeding installed capacity of 3.67 MMT.

- Four new LPG bottling plants with a total capacity of 134 TMTPA were commissioned and capacity of four existing LPG plants augmented by 110 TMTPA.
- Integration of CTU/CDU-I to maximise distillates at Visakh Refinery was mechanically completed in September 1998.

5. INDIAN OIL CORPORATION LIMITED

(a) Refineries Division

(I) ASSAM OIL DIVISION (AOD) DIGBOI, ASSAM

- Total MS despatch as ULP commenced.
- New Delayed Coking Unit (NDCU) is mechanically completed in March'99
- Production and Marketing of Indopaste, a product utilized in the tea pruned branches, relaunched.
- LPG Bottling Plant, Silchar received British Safety Council Award for 1997 for the third time.

(II) GUWAHATI REFINERY

- Closed Circuit Television (CCTV) for processing units commissioned.
- MOP&NG award of best performance in reduction of steam leak for the year 1997 received.

(III) BARAUNI REFINERY

- Production of MS with less than 5% v/v Benzene content started.
- Crude receipt through Haldia Barauni Crude Pipeline (HBCPL) commissioned,
- Moulding and Packaging Unit (MPU) for paraffin Wax commissioned.
- Shri Brajesh Kumar Singh Ex-Baraunian and now Operator "B" at Panipat awarded "SHRAM-SHREE" award under the PM's Shram Awards-1997.

(IV) GUJRAT REFINERY, KOYALI

- Unleaded MS storage and despatch facility was completed in record time of three months and was commissioned.
- Gujrat Refinery rated highest at level 5 of International Safety Ratings System (ISRS) in Dec'98 in base line Audit.
- OISD Safety Award for the year 1996-97 received.

(V) HALDIA REFINERY, WEST BENGAL

- ULP produced for the first time and its despatch started.
- Two new Mandatory Crude Oil tanks of 60,000 M3 capacity each commissioned.
- Refinery received second prize under National Energy Conservation Award 1998 of Ministry of Power.

(VI) MATHURA REFINERY, U.P.

- Refinery started producing entire MS as Unleaded.
- Facility for production, storage and despatch of 93 RON MS (ULP) created and despatch commissioned.
- The target of 1,00,000 trees in Agra region under the MOP&NG Ten Point initiative for Taj Trapezium completed with plantation of balance 50,000 trees in Taj Reserve Forest.
- In compliance to Supreme Court order, the construction of 50 bed Hospital in the outskirts of Mathura Town has been completed.
- Mathura Refinery received Occupational Health Safety Management System (OHSMS) certification by M/s Det Norske Veritas (DNV) in Nov'98.
- Refinery received "SEVA SHREE SAMMAN" for Environment Protection & Community Development.

(VII) PANIPAT REFINERY

- Two ambient air monitoring stations and mobile van for air quality monitoring commissioned.
- Sulphur Recovery Unit (SRU) Commissioned.
- Quality Control Laboratory has been approved by ATF testing by Director General of Civil Aviation.

(VIII) EASTERN INDIA REFINERY PROJECT

- Approval of GOI, accorded for setting up a 9 MMTPA grassroots refinery at Abhayachandarpur, Orissa, at an estimated cost of Rs. 8270 crores.

JOINT VENTURE PROJECTS

- The new Joint Venture Company ' Petronet LNG Limited', opened office for the development of Cochin Port at Cochin. Secretary P&NG, inaugurated the corporate office of Petronet LNG at the World Trade Centre, New Delhi
- BPCL incorporated a New joint venture company, Petronet CCK Ltd. at Cochin to implement the pipelines project from Cochin to Karur Via Coimbatore.

- Indraprastha Gas Company Ltd., was incorporated to connect 1200 households in Delhi with piped natural gas and supply of CNG.
- Bharat Shell Limited- BPCL's joint venture with Shell - commissioned their LPG import Terminal at Pipavav.
- BPCL signed a MoU with Gujrat State Petroleum Corporation for working jointly to evolve and integrated plan for development of energy sector projects.

BUSINESS DEVELOPMENT & CONSULTANCY SERVICES

- Joint Collaboration Agreement (JCA) between India combine (IOC,GAIL & IIP) and AMOCO India Development Company, USA has been signed for undertaking Techno-Economic Feasibility Studies for use of DME as power plant fuel, as an alternative of LPG and as transportation fuel in diesel engines.
- MoU with MRL signed for corporation in Hydrocarbon down stream business including take-over and expansion of MRL's existing refinery at Panagudi, Nagapattinam.
- Feasibility report of 8.0 MMTPA expansion of Cauvery Basin Refinery has been approved by the Board of Directors.
- CCEA has approved restructuring of Lubrizol India LTD. (LIL) with 50:50 participation by IOC & Lubrizol Corporation, USA.
- MoU signed between MOP&NG, India and Ministry of Oil, Iraq for co-operation in the Upstream Sector of Oil & gas Industry.
- MoU signed with M/s Premier Oil, UK for upstream activities in the North East, India.
- MoU signed with Petronas Carigali, Malaysia for Joint participation in the NELP round in India.

(b) Pipelines Division

- A devastating cyclone hit the Gujrat coast on 9th June 1998 causing extensive damages to kandla-Bhatinda pipelines at Kandla and Salaya-Mathura Pipelines at Vadinar.
- Mathura-Jalandhar Pipelines submerged crossing the river Sutluj was converted to new Horizontal Directional Drilling crossing of 1.2 Km length.

- Salaya-Mathura Pipeline and Koyali-Ahmedabad Pipelines become the first Oil pipelines in the world to be accredited with ISO-14001 for Environmental Management System.
- Haldia-Barauni crude oil Pipelines Project was approved by GOI.
- Naphtha pumping started for the first time in Kandla-Bhatinda Pipelines and delivered at Panipat tanks.

6. MADRAS REFINERIES LIMITED

- The process of Lube Extraction developed jointly by MRL, IIP and EIL was commercialised.
- Award of 1st Prize in the longest accident free period among Chemical Industries from TamilNadu Government for the year 1996.
- MRL Cauvery Basin Refinery received the ISO 14001 Certificate.

(C). MARKETING

1. BHARAT PETROLEUM CORPORATION LIMITED

- M/s Jaycee Services, the LPG Distributor at Thane near Mumbai, were awarded EN-ISO 9002 : 1994 certification by Bureau Veritas Quality International for 'Distribution of LPG cylinders to domestic and commercial customers' .
- Two new LPG Bottling Plants with a capacity of 22 TMTPA each in Saleempur in U.P. and Cherlapally in Andhra Pradesh were commissioned,
- LPG Rural Mobile Vehicle commenced operation at Village Dirba, District Sangrur to introduce LPG marketing in rural areas. First Multiple Associated Facilities Along Highways (MAFAH) Retail Outlets in Coimbatore was commissioned.
- Product Assistance Agreement & Operating Guidelines were signed with IBP Co. Ltd.
- 4 Bottling Plants with a total capacity of 64 TMTPA commissioned.

2. HINDUSTAN PETROLEUM CORPORATION LIMITED

- Sales volume of 17 MMT during the year 1998-99 achieved reflecting a growth of 6.1%, maintaining the market share at 20%, and sale turnover of Rs. 25994.56 crores reflecting increase of 26.72% over the previous year.

- Four new LPG Bottling Plants with a total capacity of 134 TMTPA were commissioned and capacity of four existing LPG Bottling Plants augmented by 110 TMTPA.

3. IBP Co. LIMITED

- Sales of Petroleum Products for 1998-99 at 3.77 MMT (4.9% higher than previous year).
- 5 RO's and 1 SKO/LDO dealership, 4 Jubilee RO's as per MOP&NG scheme of providing allied facilities for customers and tourists on National Highways commissioned.
- "Green Corridor" was established in Kolkata as an Environment Conservation effort.
- Marketing of Naphtha started.
- IBP - BPC agreement for providing Product Assistance to each other at large number of locations on reciprocal terms and conditions,
- Thruput from Depots and terminals increased by 25.5 Lac Kls (27.7% growth over previous year).

4. INDIAN OIL CORPORATION LIMITED

- Improved LPG TVs with additional security features to enable immediate release of connections against TVs upon transfer of customers introduced.
- LPG Bottling Plant at Mayiladuthurai of capacity 6 TTPA completed.
- Cyclone hit Western Coast on 9.6.98, affecting Kandla Terminal.
- Heavy-cut Residue obtained from ONGC Hazira, after fractionation was introduced in the market.
- Management Contract with Zambia National Oil Company (ZNOC) for operating and managing their Fuel Oil Terminal located at Ndola in Zambia was extended for one more year.
- Created alternative tankage of 2000 Kls at Leh for winter storage on emergency in view of shelling at Kargil.
- First time in India fully automatic Electronic Carousel installed & commissioned at Madurai LPG Bottling Plant.
- First time in India in Bottling Plants, Mounded Storage provided and commissioned at Madurai LPG Bottling Plant with Technology obtained by imparting training for officers at CIS Technology, Ireland.

- Joint Venture Company- India Oil Petronas Pvt. Ltd., incorporated.
- ISO-9002 Accreditation obtained by Jaipur Tap Of Point.

(D). RESEARCH & DEVELOPMENT ACTIVITIES

1. INDIAN INSTITUTE OF PETROLEUM, DEHRADUN

- Joint technology marketing agreement signed between IIP and Mobil, USA.
- ISO 9001 certificate awarded to IIP by DNV.
- Joint Collaborative agreement was signed between Amoco-IOC-GAIL and IIP on DME.
- Seminar on Lubes and Bitumen : Challenges and Opportunities in the 21st century
- International symposium on frontiers in catalysis in the 21st century.
- Workshop cum application on NMR in petroleum and petrochemicals industries.

2. INDIAN OIL CORPORATION LIMITED

RESEARCH & DEVELOPMENT CENTRE, FARIDABAD

- Achievement on MoU projects exceed targets.
- 85 lubricants formulations developed against the target of 80.
- 34 new products developed for commercialisation.
- 11 cost effective formulations developed.
- Servomarine XXXX series approved by major international OEM's and commercialised.
- R&D's component based on diesel stabiliser successfully field tried and introduced in the Refineries.
- New WHO grade hexane technology based on hydrogen route developed.
- 42 product approvals obtained from national/international engine builders.
- 21 internal training programmes organised covering 379 participants.

1.3 PROGRESS OF INDIAN PETROLEUM INDUSTRY 1947-48 to 1998-99

Year	Balance of recoverable Reserves @		Crude oil pro-duction	Natu-ral gas Pro-duc-tion	Refi-nery crude Th Put	Refi-nery pro-duction	Con-sump-tion	Gross Imports		Net Imports		C.I.F. unit value of crude Imports	India's total Imports/ Exports		%age of POL Imports to India's Exports	Central excise & Custom duties on Pol. (Rs. Crores)	Index of Self Reli-ance
	Crude oil	Natu-ral gas						Crude Oil	POL Pro-ducts	Crude Oil	POL Products						
	(MMT)	(Bn.M3)	(MMT)	(Bn.M3)	(MMT)	(MMT)	(MMT)	(MMT/Rs. Crores)		Qty. (MMT)	Value (Rs. Crores)	(Rs/MT)	Imports (Rs. Crores)	Exports (Rs. Crores)			
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	-	2.36	NA	NA	NA	NA	NA	NA	NA	9%
1950-51	4	2	0.26	NA	0.26	0.23	3.46	-	3.11	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	36%
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	30%
1981-82	469	411	16.19	3.9	30.15	28.18	32.52	15.39 (3736)	4.88 (1453)	19.29	4978	2442	13608	7806	66.5%	1693	45%
1982-83	470	420	21.06	4.9	33.16	31.07	34.66	16.95 (4044)	5.03 (1554)	16.83	4401	2386	14293	8803	63.6%	1860	55%
1983-84	526	475	26.02	6.0	35.26	32.89	35.84	15.97 (3541)	4.33 (1271)	13.30	3224	2217	15832	9771	49.2%	2488	66%
1984-85	511	478	28.99	7.2	35.56	33.23	38.80	13.64 (3430)	6.09 (1915)	12.32	3527	2515	17.134	11744	45.5%	2921	70%
1985-86	500	479	30.17	8.1	42.91	39.88	40.87	15.14 (3687)	3.87 (1274)	16.52	4316	2435	19658	10895	45.5%	3766	69%
1986-87	558	497	30.48	9.8	45.70	42.76	43.66	15.48 (2120)	3.05 (653)	16.03	2362	1370	20098	12452	22.3%	4089	65%
1987-88	581	541	30.36	11.5	47.75	44.73	46.42	17.73 (2986)	4.15 (1024)	18.47	3362	1684	22244	15874	25.6%	6105	61%
1988-89	638	579	32.04	13.2	48.80	45.70	50.09	17.81 (2861)	6.50 (1560)	22.02	3897	1606	28235	20231	21.9%	6748	59%
1989-90	726	648	34.09	17.0	51.94	48.69	54.10	19.49 (4090)	6.56 (2255)	23.46	5648	2099	35412	27661	22.9%	8093	59%
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	801	735	26.95	18.1	53.48	50.36	58.90	29.25 (10686)	11.28 (6360)	36.81	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	19.4	56.93	52.93	65.49	27.35 (10316)	13.95 (7522)	38.05	16250	3772	89971	82674	21.6%	12905	46%
1995-96	732	660	35.17	22.6	58.74	55.08	74.67	(27.34) (11517)	20.34 (12578)	44.24	22263	4212	122678	106353	27.3%	15612	44%
1996-97	727	640	32.90	23.3	62.87	59.01	79.16	33.91 (18538)	20.27 (15633)	51.01	32093	5467	138920	118817	28.8%	20600	39%
1997-98	747	692	33.86	26.4	65.13	61.31	84.29	34.49 (15897)	19.53 (12432)	51.09	26509	4609	154176	130101	21.8%	20971	37%
1998-99(P)	715	675	32.73	27.4	68.54	64.55	89.36	39.81 (14876)	18.78 (9837)	57.19	23857	3737	176099	141604	17.5%	22223	34%

NA-Not Available, (P) Provisional, @ As on 1st January of the initial year, *Excluding RBF.

1.4 COMMODITY BALANCE OF CRUDE PETROLEUM AND PETROLEUM PRODUCTS

Item	1950-51+	1960-61+	1970-71+	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99*
I. Crude Oil													
1. Refinery throughput	0.3	6.6	18.4	25.8	51.8	51.4	53.5	54.3	56.5	58.74	62.87	65.13	68.54
2. Domestic Production	0.3	0.5	6.8	10.5	33.0	30.4	27.0	27.0	32.2	35.17	32.90	33.86	32.72
a) Onshore	0.3	0.5	6.8	5.5	11.8	11.4	11.2	11.6	12.0	11.88	11.41	11.52	11.47
b) Offshore	-	-	-	5.0	21.2	19.0	15.8	15.4	20.2	23.29	21.49	22.34	21.25
3. Imports	N.A.	6.0	11.7	16.2	20.7	24.0	29.2	30.8	27.3	27.34	33.91	34.49	39.81
4. Exports	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Net Imports (3-4)	N.A.	6.0	11.7	16.2	20.7	24.0	29.2	30.8	27.3	27.34	33.91	34.49	39.81
II. Petroleum Products													
1. Domestic Consumption @ of which	3.3	7.7	17.9	30.9	55.0	57.0	58.9	60.8	67.4	74.67	79.17	84.29	89.36
a) Naptha	-	-	0.9	2.3	3.4	3.5	3.4	3.2	3.4	3.67	4.02	4.72	6.24
b) Kerosene	0.9	2.0	3.3	4.2	8.4	8.4	8.5	8.7	9.0	9.32	9.65	9.88	10.58
c) High Speed Diesel Oil	0.2	1.2	3.8	10.3	21.1	22.7	24.3	25.9	28.3	32.25	35.02	36.07	36.89
d) Fuel Oil	0.9	1.7	4.7	7.5	9.0	9.2	9.3	9.1	9.9	10.69	10.85	10.97	11.01
2. Domestic Production of which	0.2	5.7	17.1	24.1	48.6	48.3	50.4	51.1	52.9	55.08	59.01	61.31	64.54
a) Naptha	N.A.	-	1.2	2.1	4.9	4.5	4.6	4.7	5.7	5.98	6.12	6.10	6.08
b) Kerosene	N.A.	0.9	2.9	2.4	5.5	5.3	5.2	5.3	5.3	5.27	6.24	6.70	5.34
c) High Speed Diesel Oil	N.A.	1.1	3.8	7.4	17.2	17.4	18.3	18.8	19.6	20.66	22.20	23.35	26.72
d) Fuel Oils	N.A.	1.6	4.1	6.1	9.4	9.6	10.4	10.3	9.8	9.58	10.30	11.08	11.03
3. Imports	3.1	2.5	1.1	7.3	8.7	9.4	11.3	12.1	14.0	20.34	20.27	19.53	18.78
4. Exports @@	N.A.	N.A.	0.3	Neg.	2.7	2.9	3.7	4.0	3.3	3.43	3.16	2.95	1.40
5. Net Imports (3-4)	N.A.	N.A.	0.8	7.3	6.0	6.5	7.6	8.1	10.7	16.90	17.10	16.58	17.38

* : Provisional.
\+ : On a Calender year basis.
: Excludes import by private parties.
@ : Excluding refinery fuel consumption. Including imports by private parties from 1994-95 onwards.
@@ : Including supplies of POL products to Nepal.
Neg : Negligible.
N.A. : Not Available.

1.5a GROWTH OF PETROLEUM INDUSTRY IN INDIA
(Calendar year)

(000 Tonnes)

Year	Crude Oil		Petroleum Products	
	Production	Refineries Crude Throughput	Production	Consumption*
1	2	3	4	5
1960	451	6091	5747	7964
1965	3022	9754	9113	12356
1970	6809	18459	17172	18816
1971	7185	19588	18225	20706
1972	7373	19672	18198	22675
1973	7198	20518	19089	23726
1974	7490	20783	19241	23023
1975	8283	21835	20368	23541
1976	8659	22762	21188	24897
1977	10185	24430	22795	26570
1978	11271	25626	23877	28894
1979	12839	28153	26360	31306
1980	9399	25075	23597	31633
1981	14925	29528	27575	34037
1982	19734	32107	29984	35403
1983	25148	34534	32298	37223
1984	27933	35235	32963	39934
1985	29860	41226	38264	42973
1986	31157	44940	41877	45483
1987	30142	47445	44583	48048
1988	31580	47896	44730	51308
1989	33685	51974	48724	55801
1990	33311	51671	48402	57943
1991	31007	50954	47916	58462
1992	27874	54254	51041	62092
1993	26508	53509	50396	62836
1994	30905	56407	52872	64280
1995	35048	57971	54379	70269
1996	32986	61704	57869	76067
1997	33830	64533	60631	79464
1998	32928	66672	62809	82933

(Rs. Crores)

Year	GROSS IMPORTS			EXPORTS/RE-EXPORTS			NET POL IMPORTS (Col. 8-11)
	Crude Oil	Products	Total	Crude Oil	Products	Total	
	6	7	8	9	10	11	12
1960	40.57	41.02	81.59	-	4.61	4.61	76.98
1965	40.38	44.73	85.11	-	3.92	3.92	81.19
1970	102.36	30.53	132.89	-	5.72	5.72	127.17
1971	139.88	43.49	183.37	-	2.55	2.55	180.82
1972	144.25	56.69	200.94	-	8.94	8.94	192.00
1973	244.56	88.03	332.59	0.42	5.35	5.77	326.82
1974	899.36	209.90	1109.26	-	19.37	19.37	1089.89
1975	992.02	199.46	1191.48	-	13.83	13.83	1177.65
1976	1145.56	219.70	1365.26	-	7.60	7.60	1357.66
1977	1258.92	272.99	1531.91	-	6.50	6.50	1525.41
1978	1243.89	414.13	1658.02	-	4.20	4.20	1653.82
1979	1787.38	727.56	2514.94	-	14.94	14.94	2500.00
1980	3038.66	1788.28	4826.94	-	17.98	17.98	4808.96
1981	3793.83	1638.58	5432.41	-	15.13	15.13	5417.28
1982	4116.89	1551.37	5668.26	1044.71	101.23	1145.94	4522.32
1983	3471.47	1246.60	4718.07	1041.87	286.64	1328.51	3389.56
1984	3525.15	1850.31	5375.46	1598.55	271.63	1870.18	3505.28
1985	3808.74	1440.70	5249.44	503.88	482.06	985.94	4263.50
1986	2069.65	818.06	2887.71	-	389.32	389.32	2498.39
1987	3105.25	884.69	3989.94	-	662.07	662.07	3327.87
1988	2811.28	1273.36	4084.64	-	472.85	472.85	3611.79
1989	3718.63	2106.33	5824.96	-	654.84	654.84	5170.12
1990	5929.62	3541.64	9471.26	-	941.40	941.40	8529.86
1991	6827.57	5533.55	12361.12	-	1041.13	1041.13	11319.99
1992	10432.44	5711.16	16143.60	-	1658.33	1658.33	14485.27
1993	10916.90	7107.23	18024.13	-	1547.22	1547.22	16476.91
1994	9915.10	7438.77	17353.87	-	1580.74	1580.74	15773.13
1995	10856.71	10251.01	21107.72	-	1726.55	1728.55	19379.17
1996	17194.53	15454.63	32649.16	-	2050.49	2050.49	30598.67
1997	17061.19	14131.47	31192.66	-	1926.84	1926.84	30099.07
1998	14513.77	10408.47	24922.24	-	1093.59	1093.59	23828.65

* Including Refinery Fuel, (P) = Provisional

3463PNG F—6-A

1.5b GROWTH OF PETROLEUM INDUSTRY IN INDIA
(Financial Year)

(000 Tonnes)

Financial Year	Crude Oil		Petroleum Products	
	Production	Refineries Crude Throughput	Production	Consumption
1	2	3	4	5
1960-61	448(e)	6130	5777	8285
1965-66	3473	10233	9561	12437
1970-71	6822	18379	17110	19135
1971-72	7299	20042	18639	21299
1972-73	7321	19328	17830	22978
1973-74	7189	20958	19495	23574
1974-75	7684	21094	19603	23302
1975-76	8448	22283	20829	23673
1976-77	8898	22995	21432	25400
1977-78	10763	24898	23219	26990
1978-79	11633	25974	24193	29719
1979-80	11766	27474	25794	31323
1980-81	10507	25836	24123	32261
1981-82	16194	30146	28182	34107
1982-83	21063	33156	31073	36395
1983-84	26020	35263	32926	37776
1984-85	28990	35556	33236	40828
1985-86	30168	42910	39884	43363
1986-87	30480	45699	42761	46274
1987-88	30357	47754	44728	48938
1988-89	32040	48803	45699	52882
1989-90	34037	51942	48690	56789
1990-91	33021	51772	48562	57745
1991-92	30346	51423	48349	59603
1992-93	26950	53482	50359	61655
1993-94	27026	54296	51084	63648
1994-95	32239	56534	52927	68624
1995-96	35168	58741	55081	75756
1996-97	32900	62870	59005	80714
1997-98	33858	65166	61308	83352
1998-99(P)	32723	68538	64544	87266

(Rs./Crores)

Year	Gross Imports			Exports/re-Export			Net pol
	Crude Oil	Products	Total	Crude Oil	Products	Total	Imports
	6	7	8	9	10	11	12
1960-61	39.23	39.84	79.07	—	4.40(e)	4.40	74.67
1965-66	39.62	40.68	80.30	—	4.39	4.39	75.91
1970-71	106.72	29.91	136.63	—	4.67	4.67	131.96
1971-72	147.02	46.98	193.90	—	3.91	3.91	189.99
1972-73	146.37	60.58	206.95	—	8.16	8.16	193.79
1973-74	416.39	124.50	540.89	0.42	8.05	8.47	532.42
1974-75	916.99	195.00	1111.99	—	17.40	17.40	1094.93
1975-76	1051.76	204.34	1256.10	—	13.96	13.96	1242.14
1976-77	1175.91	248.23	1424.14	—	6.89	6.89	1417.25
1977-78	1246.00	305.34	1551.54	—	5.69	5.69	1545.85
1978-79	1251.17	429.99	1681.16	—	4.11	4.11	1677.05
1979-80	2187.53	1082.39	3269.92	—	24.02	24.02	3245.90
1980-81	3448.97	1917.52	5266.49	—	8.41	8.41	5258.08
1981-82	3706.38	1453.16	5189.54	196.23	15.13	211.36	4978.18
1982-83	4043.74	1553.74	5597.68	1063.73	133.79	1197.17	4400.52
1983-84	3541.05	1270.75	4811.80	1231.10	356.96	1588.08	3223.74
1984-85	3430.34	1914.91	5345.25	1563.16	255.03	1818.19	3537.06
1985-86	3686.80	1273.70	4960.40	135.15	509.58	644.73	4315.67
1986-87	2120.19	652.69	2772.68	—	411.23	411.23	2361.66
1987-88	2986.31	1024.32	4010.63	—	648.75	648.75	3361.88
1988-89	2861.08	1559.84	4220.92	—	523.63	523.63	3897.29
1989-90	4089.35	2254.71	6344.06	—	695.56	695.56	5648.50
1990-91	6118.42	4660.21	10778.63	—	1003.92	1003.92	9774.71
1991-92	7820.05	5218.27	13038.32	—	1214.65	1214.65	11823.67
1992-93	10685.86	6359.60	17045.46	—	1606.28	1606.28	15439.18
1993-94	10688.52	7041.43	17729.95	—	1508.81	1508.81	16221.14
1994-95	10316.03	7521.71	17837.74	—	1587.38	1587.38	16250.36
1995-96	11517.00	12577.85	24094.95	—	1831.99	1831.99	22262.92
1996-97	18538.19	15633.49	34171.68	—	2079.65	2079.65	32092.03
1997-98	15897.18	12431.92	28329.07	—	1827.98	1827.98	26501.09
1998-99(P)	14876.46	9836.52	24712.98	—	855.71	855.71	23857.27

*=Including Refinery Fuel (P) = Provisional, (e) = Estimated.

I.6(a) PETROLEUM ENERGY IN INDIA 1984 TO 1998 (CALENDAR YEARS)

AVAILABILITY

PRODUCTS	1984	1986	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1	2	3	4	5	6	7	8	9	10	11	12	13	14
IN ORIGINAL UNITS (MILLIONTONNES)													
KEROSENE	5.96	6.77	7.27	8.19	8.64	8.90	8.58	8.97	9.59	10.24	10.28	10.16	11.45
ATF	1.42	1.64	1.66	1.87	1.74	1.68	1.61	1.68	1.99	2.15	2.34	2.19	2.26
HSD	13.42	15.96	17.13	20.94	20.90	22.68	24.59	25.74	28.08	31.18	35.46	37.32	36.77
LDO	1.21	1.17	1.23	1.51	1.53	1.50	1.51	1.41	1.42	1.36	1.29	1.24	1.33
FUEL OILS	7.78	7.91	7.98	8.89	9.31	9.42	9.01	9.80	6.34	6.34	6.65	6.89	6.99
OTHERS*	4.88	6.55	7.02	7.14	8.66	8.70	9.29	9.67	9.22	10.96	12.05	13.90	16.54
TOTAL	**34.67**	**40.00**	**42.28**	**49.54**	**50.78**	**52.88**	**55.00**	**56.55**	**60.10**	**62.23**	**68.07**	**71.70**	**75.34**
MILLIONTONNES OF COAL EQUIVALENT UNIT@													
KEROSENE	11.92	13.54	14.52	16.38	17.28	17.80	17.16	17.90	19.18	20.48	20.56	20.32	22.90
ATF	2.84	3.28	3.32	3.74	3.48	3.36	3.22	3.33	3.98	4.30	4.68	4.38	4.52
HSD	26.84	31.92	34.26	41.88	41.80	45.36	49.18	51.48	56.16	62.36	70.92	74.84	73.54
LDO	2.42	2.34	2.46	3.02	3.06	3.00	3.02	2.82	2.84	2.72	2.58	2.48	2.66
FUEL OILS	15.56	15.82	15.96	17.78	18.62	18.84	18.84	18.16	19.60	12.68	13.30	13.78	13.98
OTHERS*	9.76	13.10	14.04	16.28	17.32	17.40	18.58	19.34	18.44	21.92	24.10	27.80	33.08
TOTAL	**69.34**	**80.00**	**84.56**	**99.08**	**101.56**	**106.76**	**110.00**	**113.03**	**120.20**	**124.46**	**136.14**	**143.40**	**150.68**
IN MILLIONTONNES OF COAL REPLACEMENT UNIT@													
KEROSENE	47.69	54.16	58.08	65.52	69.12	71.20	68.64	71.76	76.72	81.92	82.24	81.28	91.60
ATF	10.02	12.30	12.45	14.02	13.05	12.60	12.08	12.60	14.93	16.12	17.55	16.43	16.95
HSD	120.74	143.64	154.17	188.46	188.10	204.12	221.31	231.66	247.10	280.62	319.14	335.88	330.93
LDO	10.91	10.53	11.07	13.59	13.77	13.50	13.69	12.69	12.78	12.24	11.61	11.16	11.97
FUEL OILS	15.56	15.82	15.96	17.78	18.62	18.84	18.84	18.11	19.60	12.66	13.30	13.78	13.98
OTHERS*	26.61	32.51	36.04	47.44	51.30	52.15	53.46	55.58	55.32	54.78	64.47	74.37	88.49
TOTAL	**232.13**	**268.96**	**287.77**	**346.81**	**353.98**	**372.41**	**387.92**	**402.70**	**426.45**	**445.68**	**508.31**	**532.90**	**553.92**

CONSUMPTION (#)

PRODUCTS	1984	1986	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
IN ORIGINAL UNITS (MILLION TONNES)													
KEROSENE	5.84	6.52	7.59	8.09	8.42	8.41	8.57	8.62	8.93	9.28	9.63	9.74	10.46
ATF	1.30	1.59	1.69	1.75	1.73	1.56	1.56	1.66	1.87	2.01	2.17	2.11	2.10
HSD	13.31	15.70	18.40	20.23	21.18	21.98	24.40	25.32	27.62	30.90	34.28	36.40	36.62
LDO	1.18	1.15	1.38	1.49	1.51	1.43	1.47	1.34	1.40	1.32	1.23	1.21	1.27
FUEL OILS	7.79	8.02	8.32	8.70	9.10	8.95	9.38	9.09	9.73	10.44	10.78	10.92	11.14
OTHERS*	4.93	6.47	7.32	8.23	8.68	8.77	9.23	9.67	10.48	11.46	12.49	13.08	13.89
TOTAL	**34.35**	**39.45**	**44.70**	**48.59**	**50.62**	**51.10**	**54.61**	**55.72**	**60.03**	**65.41**	**70.58**	**73.46**	**75.48**
IN MILLION TONNES OF COAL EQUIVALENT UNITS@													
KEROSENE	11.68	13.04	15.18	16.18	16.84	16.82	17.14	17.24	17.86	18.56	19.26	12.48	20.22
ATF	2.60	3.18	3.38	3.50	3.46	3.12	3.12	3.36	3.74	4.02	4.34	4.22	4.20
HSD	26.62	31.40	36.80	40.66	42.36	43.96	48.80	50.64	55.24	61.84	68.56	72.80	73.24
LDO	2.36	2.30	2.76	2.98	3.02	2.89	2.94	2.68	2.80	2.64	2.40	2.42	2.54
FUEL OILS	15.58	16.04	16.64	1.40	18.20	17.90	18.76	18.18	19.46	20.88	21.56	21.84	22.28
OTHERS*	9.86	12.94	14.64	16.46	17.36	17.54	18.46	19.34	20.96	22.96	24.99	26.16	27.78
TOTAL	**68.70**	**78.90**	**89.40**	**97.18**	**101.24**	**102.20**	**109.22**	**111.44**	**120.06**	**130.82**	**141.16**	**146.92**	**150.96**
IN MILLIONTONNES OF COAL REPLACEMENT UNIT@													
KEROSENE	46.72	52.16	60.72	64.72	67.36	67.26	68.58	68.96	71.44	74.24	77.09	77.92	83.68
ATF	9.75	11.93	12.68	13.13	12.98	11.70	11.72	12.60	14.03	15.08	16.28	15.83	15.75
HSD	119.79	141.30	165.60	182.97	190.62	197.82	219.56	227.88	245.82	278.10	308.52	327.60	329.58
LDO	10.62	10.35	12.42	13.41	13.59	12.87	13.18	12.06	12.60	11.88	11.07	10.89	11.43
FUEL OILS	15.58	16.04	16.64	17.40	18.20	17.90	18.76	18.18	19.46	20.88	21.56	21.84	22.28
OTHERS*	26.38	34.95	38.06	48.08	51.45	52.64	55.31	58.25	62.88	61.31	66.82	69.98	74.31
TOTAL	**228.84**	**266.73**	**306.12**	**339.71**	**354.20**	**360.21**	**387.11**	**397.93**	**426.23**	**461.49**	**431.95**	**524.06**	**537.03**

(P) = Provisional. *:Includes LPG, Gasoline, Refinery Gas and Refinery Fuel.
@based on conversion factors adopted by FPC, 1974
(#): Includes Petroleum Products used for power generation.

I.6 (b) PETROLEUM ENERGY IN INDIA 1984-85 TO 1998-99 (FINANCIAL YEARS)

AVAILABILITY

PRODUCTS	1984-85	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IN ORIGINAL UNITS (MILLION TONNES)														
KEROSENE	5.93	6.76	7.29	7.95	8.30	8.81	8.81	8.56	9.10	9.36	10.27	10.52	10.51	11.16
ATF	1.41	1.64	1.74	1.79	1.84	1.83	1.56	1.62	1.76	2.02	2.22	2.27	2.20	2.29
HSD	13.59	16.13	17.54	19.00	20.79	21.87	22.73	25.30	26.21	28.05	33.51	35.81	37.43	37.20
LDO	1.25	1.16	1.26	1.47	1.54	1.51	1.48	1.45	1.47	1.36	1.35	1.29	1.25	1.34
FUEL OILS	7.89	7.91	7.86	9.31	9.17	9.43	9.64	9.40	9.02	10.06	10.79	10.99	12.15	14.20
OTHERS*	5.15	6.59	7.14	7.82	8.26	8.75	8.75	9.33	9.76	9.26	10.60	11.02	13.15	15.70
TOTAL	**35.22**	**40.19**	**42.83**	**47.34**	**49.90**	**52.20**	**52.87**	**55.66**	**57.32**	**60.11**	**68.74**	**71.90**	**76.69**	**81.89**
IN MILLION TONNES OF COAL EQUIVALENT UNIT@														
KEROSENE	11.86	13.52	14.58	15.90	16.60	17.62	17.42	17.12	18.20	18.72	20.54	21.04	21.02	22.32
ATF	2.82	3.28	3.48	3.58	3.68	3.66	3.12	3.24	3.52	4.04	4.44	4.54	4.40	4.58
HSD	21.18	32.26	35.08	38.00	41.58	43.74	45.46	50.60	52.42	56.10	67.02	71.62	74.86	74.40
LDO	2.50	2.32	2.52	2.94	3.08	3.02	2.96	2.95	2.94	2.72	2.70	2.58	2.50.	2.68
FUEL OILS	15.78	15.82	15.72	18.62	18.34	18.86	19.29	18.80	19.52	20.12	21.58	21.98	24.30	28.40
OTHERS*	10.30	13.18	14.28	15.64	16.52	17.50	17.50	18.86	18.04	18.52	21.20	22.04	26.30	31.40
TOTAL	**70.44**	**85.66**	**80.38**	**94.68**	**99.80**	**104.40**	**105.74**	**111.57**	**114.64**	**120.22**	**137.48**	**143.80**	**153.38**	**163.78**
IN MILLION TONNES OF COAL REPLACEMENT UNIT@														
KEROSENE	47.77	54.08	58.32	63.60	66.40	70.48	69.68	68.48	72.80	74.88	82.16	84.16	84.08	89.28
ATF	10.58	12.30	13.05	13.43	13.80	13.72	11.70	12.15	13.20	15.15	16.65	17.03	16.50	17.18
HSD	122.31	145.17	157.86	171.00	187.11	196.83	204.57	227.70	235.89	246.84	301.59	322.29	336.87	334.80
LDO	11.25	10.44	11.34	13.23	13.86	13.59	13.32	13.05	13.23	12.24	12.15	11.61	11.25	12.06
FUEL OILS	15.78	15.82	15.72	18.62	18.34	18.86	19.28	18.80	18.04	20.12	10.79	21.98	23.40	28.40
OTHERS*	27.95	33.11	36.86	40.35	48.33	51.93	52.54	53.90	56.09	55.56	56.71	58.96	70.35	84.00
TOTAL	**235.31**	**270.92**	**293.15**	**320.23**	**347.84**	**365.41**	**371.09**	**394.08**	**409.25**	**424.79**	**480.05**	**516.03**	**543.35**	**565.72**

CONSUMPTION (#)

PRODUCTS	1984-85	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IN ORIGINAL UNITS (MILLION TONNES)														
KEROSENE	5.96	6.55	7.23	7.73	7.38	8.42	8.38	8.48	8.70	8.96	9.32	9.65	9.88	10.58
ATF	1.34	1.60	1.65	1.71	1.78	1.68	1.56	1.57	1.74	1.90	2.08	2.15	2.11	2.10
HSD	13.70	16.01	17.66	18.80	20.69	21.14	22.68	24.29	25.88	28.26	32.25	35.02	36.07	36.89
LDO	1.20	1.16	1.24	1.44	1.46	1.51	1.46	1.41	1.37	1.37	1.31	1.23	1.24	1.26
FUEL OIL	7.94	8.05	8.14	8.46	8.64	8.99	9.20	9.27	9.19	9.89	10.69	10.85	10.97	11.01
OTHERS*	5.07	6.62	7.14	7.80	8.42	8.68	8.85	9.21	9.79	10.41	11.77	12.63	13.27	14.24
TOTAL	**35.21**	**40.09**	**43.06**	**45.94**	**48.37**	**50.42**	**52.13**	**54.23**	**56.67**	**60.79**	**67.42**	**71.53**	**73.54**	**76.08**
IN MILLION TONNES OF COAL EQUIVALENT UNIT@														
KEROSENE	11.92	13.90	14.46	15.46	14.76	16.84	17.76	16.96	17.40	17.92	18.64	19.30	19.76	21.16
ATF	2.68	3.20	3.30	3.42	3.56	3.36	3.12	3.14	3.48	3.80	4.16	4.30	4.22	4.20
HSD	27.40	32.02	35.32	37.60	41.38	42.28	45.36	48.58	51.76	56.52	64.50	70.04	72.14	73.78
LDO	2.40	2.32	2.48	2.88	2.92	3.02	2.92	2.82	2.74	2.74	2.62	2.46	2.48	2.52
FUEL OILS	15.88	6.10	16.28	18.92	17.28	17.98	18.40	18.54	18.38	19.78	21.38	21.70	21.94	22.02
OTHERS*	10.14	13.24	14.28	15.60	16.84	17.36	17.70	18.42	19.58	20.82	23.54	25.26	26.54	28.48
TOTAL	**70.42**	**80.18**	**86.12**	**91.88**	**96.74**	**100.84**	**104.26**	**108.46**	**113.34**	**121.58**	**134.84**	**143.06**	**147.08**	**152.16**
IN MNILLION TONNES OF COAL REPLACEMENT UNIT@														
KEROSENE	47.67	53.20	57.84	61.84	59.04	67.36	67.04	67.84	69.60	71.68	74.56	77.20	79.04	84.69
ATF	10.02	12.00	12.38	12.83	13.35	12.60	11.70	11.78	13.05	14.25	15.60	16.13	15.83	15.75
HSD	123.26	144.09	158.94	169.20	186.21	190.26	204.12	218.61	232.92	248.69	290.25	315.18	324.63	332.01
LDO	10.78	10.44	11.16	12.96	13.14	13.59	13.14	12.69	12.33	12.33	11.79	11.07	11.16	11.34
FUEL OILS	15.88	16.10	16.28	16.92	17.22	17.98	18.40	18.54	18.38	19.76	21.38	21.70	21.94	22.02
OTHERS*	27.82	38.02	39.85	40.56	43.78	51.41	53.26	55.40	59.33	62.46	70.62	75.62	79.62	85.44
TOTAL	**234.93**	**271.45**	**296.45**	**314.31**	**332.80**	**253.20**	**267.66**	**384.86**	**405.61**	**429.19**	**484.22**	**516.90**	**532.22**	**551.20**

(P)=Provisional. *:Includes LPG, Gasolines, Refinery Gas and Refinery Fuel.
@: Based on Conversion factors adopted by FPC, 1974.
(#): Includes Petroleum Products used for power generation.

II. EXPLORATION

II.1 AREA WISE DEPLOYMENT OF DEEP DRILLING RIGS, WELLS & METREAGE DRILLED BY ONGC & OIL FROM 1970-71 TO 1998-99

YEAR (Nos.)	ONSHORE			OFFSHORE			TOTAL		
	Rigs (Nos.)	Wells ('000')	Metreage (Nos.)	Rigs (Nos.)	Wells ('000')	Metreage (Nos.)	Rigs (Nos.)	Wells ('000')	Metreage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(A) OIL & NATURAL GAS COMMISSION / CORPORATION									
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
1981-82	38	98	211	7	46	111	45	144	322
1982-83	40	114	224	13	64	162	53	178	386
1983-84	43	117	259	14	88	209	57	205	468
1984-85	53	127	280	13	73	161	66	200	441
1985-86	64	190	410	18	77	180	82	267	590
1986-77	82	232	502	19	77	231	101	309	733
1987-88	92	272	577	26	91	266	118	363	843
1988-89	104	319	707	33	146	282	137	465	989
1989-90	115	491	971	33	134	353	148	625	1324
1990-91	108	369	777	32	139	276	140	508	1053
1991-92	110	343	745	25	83	208	135	426	953
1992-93	109	349	755	28	100	251	137	449	1006
1993-94	103	330	777	25	162	360	128	492	1137
1994-95	98	324	778	24	89	204	122	413	982
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
(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
1981-82	5	17	64	-	-	-	5	17	64
1982-83	5	14	60	-	-	-	5	14	60
1983-84	5	23	79	1	3	10	6	26	88
1984-85	7	25	86	1	2	10	8	27	96
1985-86	8	28	110	1	-	9	9	28	119
1986-87	10	26	103	2	2	17	12	28	120
1987-88	12	32	118	1	-	6	13	32	124
1988-89	13	33	128	-	-	-	13	33	128
1989-90	15	28	130	-	-	-	15	28	130
1990-91	13	27	112	-	-	-	13	27	112
1991-92	14	26	110	-	-	-	14	26	110
1992-93	15	19	99	-	-	-	15	19	99
1993-94	15	22	106	-	-	-	15	22	106
1994-95	14	19	88	-	-	-	14	19	88
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
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
1981-82	43	115	275	7	46	111	50	161	386
1982-83	45	128	284	13	64	162	58	192	446
1983-84	48	140	338	15	91	219	63	231	556
1984-85	60	152	366	14	75	171	74	227	537
1985-86	72	218	520	19	77	189	91	295	709
1986-87	92	258	605	21	79	248	113	337	853
1987-88	104	304	695	27	91	272	131	395	967
1988-89	117	352	835	33	134	282	150	498	1117
1989-90	130	519	1101	33	134	353	163	653	1454
1990-91	121	396	889	32	139	276	153	535	1165
1991-92	124	369	855	25	83	208	149	452	1063
1992-93	124	368	854	28	100	251	152	468	1105
1993-94	118	352	883	25	162	360	143	514	1243
1994-95	112	343	866	24	89	204	136	432	1070
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

II.2 EXPLORATORY & DEVELOPMENT DRILLING BY ONGC & OIL

Year	Exploratory		Development		Total	
	Wells (Nos.)	Metreage ('000')	Wells ('000')	Metreage ('000')	Wells (Nos.)	Metreage ('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(A) ON SHORE			
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
1981-82	52+2P	130	63+4P	145	115+6P	275
1982-83	57+3P	128	71+4P	156	28+7P	284
1983-84	61+3P	157	79+2P	181	140+5P	338
1984-85	70+5P	186	82+1P	180	152+6P	366
1985-86	90+4P	237	128+7P	283	218+11P	520
1986-87	78+3P	236	180+8P	369	258+11P	605
1987-88	105+4P	307	199+8P	388	304+12P	695
1988-89	122	362	230	474	353	836
1989-90	204	508	315	593	519	1101
1990-91	176	434	220	455	396	889
1991-92	176	454	193	401	369	855
1992-93	172	413	196	441	368	854
1993-94	147	374	205	509	352	883
1994-95	162	428	181	438	343	866
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
			(B) OFFSHORE			
1970-71	—	1	—	—	—	1
1975-76	10	19	5	9	15	28
1980-81	15+1P	40	18	42	33+1P	82
1981-82	12	39	34	72	46	111
1982-83	17	57	47	105	64	162
1983-84	22+1P	70	68	149	90+1P	219
1984-85	20+1P	62	51	109	71+1P	171
1985-86	33+2P	100	44	89	77+2P	189
1986-87	44+3P	132	35	116	79+3P	248
1987-88	39+3P	111	52	161	91+3P	272
1988-89	63	167	83	114	146	281
1989-90	61	160	73	193	134	353
1990-91	73	184	66	92	139	276
1991-92	61	167	22	41	83	208
1992-93	69	176	31	75	100	251
1993-94	33	96	129	264	162	360
1994-95	48	116	41	88	89	204
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
			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+2P	136	56+2P	113	115+4P	249
1981-82	64+2P	169	97+4P	217	161+6P	386
1982-83	74+3P	185	118+4P	261	192+7P	446
1983-84	83+4P	227	147+2P	330	230	557
1984-85	90+6P	248	133+1P	289	223+7P	537
1985-86	123+6P	337	172+7P	372	295+13P	709
1986-87	122+6P	368	215+8P	485	337+14P	853
1987-88	143+7P	418	251+8P	549	395+15P	967
1988-89	185	529	313	588	498	1117
1989-90	265	668	388	786	653	1454
1990-91	249	618	286	547	535	1165
1991-92	237	621	215	442	452	1063
1992-93	241	589	227	516	468	1105
1993-94	180	470	334	773	514	1243
1994-95	210	544	222	525	432	1070
1995-96	204	504	223	470	427	924
1996-97	199	487	174	403	373	890
1997-98	134	347	173	408	307	755
1998-99	135	333	158	352	293	685

(P): Partly Drilled.

II.3 STATUS OF WELLS
(AS ON 1ST APRIL OF EACH YEAR)

(NUMBERS)

COMPANY YEAR	OIL	GAS	DRY	UNDER TEST	INJE CTION	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
1981	418	9	—	—	6	568	1001
1985	438	4	305	7	7	247	1001
1986	399	2	305	7	6	282	1001
1987	314	2	305	2	8	282	1001
1988	289	2	305	—	7	398	1001
1989	240	1	305	—	10	445	1001
1990	253	1	305	—	7	435	1001
1991	227	1	305	—	6	462	1001
1992	226	1	305	—	5	464	1001
1993	227	1	305	—	6	462	1001
1994	214	1	305	—	6	475	1001
1995	209	1	305	—	6	480	1001
1996	167	1	305	—	2	526	1001
1997	154	1	305	—	—	541	1001
1998	693	—	305	—	—	3	1001
1999	693	—	305	—	—	3	1001
			(B) OIL INDIA LIMITED				
1975	250	18	34	27	20	—	349
1980	273	26	40	48	34	—	421
1981	283	27	42	48	35	—	435
1985	321	42	49	35	50	31	528
1986	327	37	52	12	53	81	562
1987	344	41	56	21	59	74	595
1988	333	44	61	29	62	108	637
1989	337	49	63	38	62	124	673
1990	422	53	66	36	62	70	709
1991	362	59	70	51	44	161	747
1992	365	58	74	68	43	172	780
1993	397	56	81	64	45	166	809
1994	408	58	85	83	49	158	841
1995	418	69	92	79	46	160	864
1996	430	81	98	73	46	164	892
1997	424	90	96	62	48	202	922
1998	642	97	97	—	50	54	940
1999	654	100	100	—	50	60	965
			(C) OIL & NATURAL GAS CORPORATION LTD.				
1975	605	79	320	141	28	—	1173
1980	951	123	487	125	32	—	1718
1981	1008	133	508	137	38	—	1824
1985	1434	170	659	216	67	—	2546
1986	1642	190	740	164	80	—	2816
1987	1836	206	804	177	102	—	3125
1988	2024	219	896	20	125	204	3488
1989	2304	239	984	45	144	237	3953
1990	2579	302	1128	69	198	303	4579
1991	2873	330	1281	128	235	94	5087
1992	3007	324	1436	132	337	400	5636
1993	3138	355	1573	148	387	457	6058
1994	3392	380	1702	121	387	554	6636
1995	3488	410	1797	135	534	535	6899
1996	3592	423	1813	120	544	607	7099
1997	3771	447	1924	94	570	643	7449
1998	3841	488	2090	67	628	627	7741
1999	3799	522	2145	59	634	857	8016
			TOTAL (A+B+C)				
1975	1282	104	354	168	53	612	2523
1980	1641	159	527	173	72	568	3140
1981	1709	169	550	185	79	568	3260
1985	2186	216	1011	258	124	278	4073
1986	2368	229	1097	183	139	363	4379
1987	2494	249	1165	200	169	444	4721
1988	2646	265	1262	49	194	710	5126
1989	2881	289	1352	83	216	806	5627
1990	3254	356	1499	105	267	808	6289
1991	3462	390	1656	325	285	717	6835
1992	3598	383	1816	200	385	1036	7417
1993	3762	412	1959	212	438	1085	7838
1994	4014	439	2092	204	542	1187	8478
1995	4115	480	2194	214	737	1175	8764
1996	4189	505	2216	193	592	1297	8992
1997	4349	538	2325	156	618	1386	9372
1998	5176	585	2492	67	678	684	9682
1999	5146	622	2551	59	684	920	9982

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

II. 4 STATEWISE ACHIEVEMENTS OF GEOLOGICAL SURVEYS IN INDIA SINCE INCEPTION UPTO 31.3.1999

STATES	GEOLOGICAL SURVEYS		OTHER SURVEYS		NATURE OF SURVEY
	31.3.1998	31.3.1999	31.3.1998	31.3.1999	
	(Sq. Km.)				
1	2	3	4	5	6
ANDHRA PRADESH	53427	53427	7330	7330	GM
A.N. ISLANDS	6806	6806	-	-	
ARUNACHAL PRADESH	3692	3692	-	-	
ASSAM	49249	49249	26294	26294	GM
BIHAR	4035	4035	17595	17595	GM
GUJRAT (Gulf of Cambay)	60625	60625	31724	31724	GM
HARYANA	covered	covered			
HIMACHAL PRADESH	9530	9670	8075	8075	GM
JAMMU & KASHMIR	22970	22970	6426	6426	GM
MADHYA PRADESH	44451	44451	11464	13000	GM
MANIPUR	2781	2781	Incl. in Assam	Incl. in Assam	
MAHARASHTRA	-	-	4665	4665	GM
MEGHALAYA	1911	1911	-	-	
MIZORAM	6134	6134	-	-	
NAGALAND	6971	6971	-	-	
ORISSA	-	-	8642	8642	GM
PUNJAB	covered	covered	15578	15578	GM
RAJASTHAN	44691	44691	57062	57062	GM
SIKKIM	720	720			
TAMIL NADU (incl. Pondicherry)	20003	20003	14094	14094	
TRIPURA	21263	21263	1100	1100	PG
UTTAR PRADESH	29797	29797	55945	55945	GM
WEST BENGAL	8806	8806	51285	51285	GM

GM - Gravity Magnetic Surveys
PG - Photo Geology

II. 5(a) STATEWISE ACHIEVEMENTS OF GEOPHYSICAL FIELD PARTIES IN INDIA SINCE INCEPTION UPTO 31.3.1998

STATE/AREA	DEPARTMENTAL								CONTRACTUAL		
	2D*					3D**			2D	3D	
			12/24/48 Fold Refr.								
	Single fold & Refr.	6/12 fold till 1978-79	From 1979-80	to 1996-97	From 1997-98	Till 1996-97	From 1997-98				
	GLK	GLK	SLK	GLK	GLK	SSK	GLK	(Sq. km.)	GLK	GLK	(Sq. km.)
1	2	3	4	5	6	7	8	9	10	11	12
(A) ONSHORE											
ANDHRA PRADESH	4717	2553	67244	19702	535	1115	1649	132	7212	-	-
ASSAM	10593	2782	82638	16650	433	1086	628	59	2474	-	-
ARUNACHAL PRADESH	-	-	34		-	-	-	-	495	-	-
ASSAM	2542	219	7379	3683	122	-	-	-		-	-
BIHAR	38164	7368	146139	41402	1146	3441	6638	280	9037	-	-
GUJRAT	1209	-	7384	1662	59	-	-	-	259	-	-
HIMACHAL PRADESH	109	-	1899	929		-	-	-		-	-
HARYANA	2062	23	214	34	46	-	-	-	303	-	-
JAMMU& KASHMIR	73		13059	5656	791	-	-	-	880	-	-
MADHYA PRADESH	-	-	173	35		-	-	-		-	-
MIZORAM	-	-	2067	468		-	-	-		-	-
NAGALAND	-	47	-	-	-	-	-	-	43	-	-
ORISSA	-	313	-	-	-	-	-	-	17543	-	-
PUNJAB	4078	-	-	-	-	-	-	-	-	-	-
RAJASTHAN	2590	945	47208	11704	692	-	-	-	25811	-	-
TAMIL NADU	8208	1332	39366	15764	18	1049	1962	157	12290	-	-
TRIPURA	-	68	9222	3455	112	-	-	-	468	-	-
UTTAR PRADESH (Ganga Valley)	8860	1754	31383	18066	-	-	-	-	4497	-	-
WEST BENGAL	6410	6033	19349	9434	182	269	867	43	4758		67
TOTAL (A)	**91615**	**23437**			**4136**	**6960**	**11744**	**671**			**67**
(B) OFFSHORE											
BOMBAY HIGH					170621		89834		62856	124347	
KERALA KONKAN					96418		11643		3961	-	
KUTCH					28099				7722	-	
LAKSHDWEEP									3239		
SUARASHTRA					19403				3767	8767	
BENGAL									3032	-	
A.N. ISLANDS					4110				23246	201	
CAUVERY					27070		3239		12096		
K. GODAVARI					21832		6611		18671	3582	
GULF OF CAMBAY					2833				3193		
TOTAL (B)					**370386**		**111327**		**141783**		
TOTAL (A+B)	**91615**	**23437**			**374522**	**6960**	**123071**	**671**	**141783**		**67**

Remarks:-ISP wrok of 7771 LK in Bengal basin not included.
*- Upto 1996-97 the unit SLK equivalent of GLK was in use, but from April, 1997 it was decided to use only GLK seismic work.
** - upto 1996-97 the Unit SSK was in use for 3D Seismic work but from April, 1997 it was decided to use GLK for 3D seismic work alongwith Eq.Sq. km.
Work carried over by multinationals is not included

II. 5(b) STATEWISE ACHIEVEMENTS OF GEOPHYSICAL FIELD PARTIES IN INDIA SINCE INCEPTION UPTO 31.3.1999

STATE/AREA	DEPARTMENTAL					CONTRACTUAL	
	2D		3D				
	Single fold & Refr.	Multi-fold	Till 1996-97	From 1997-98		2D	3D
	GLK	GLK	SSK	GLK	(Eq. SKMS)	GLK	(Sq. km.)
1	2	3	4	5	6	7	8
(A) ONSHORE							
ANDHRA PRADESH	4717	23071	1115	3809	277	7212	-
ASSAM	41693	17570	1086	2826	1192	2474	-
ARUNACHAL PRADESH	1689	-	-	34	-	495	-
BIHAR	2542	4024	-	-	-	-	-
GUJRAT	38164	51049	3441	15024	615	9037	-
HIMACHAL PRADESH	1209	1749	-	-	-	259	-
HARYANA	109	929	-	-	-	-	-
JAMMU& KASHMIR	2062	103	-	-	-	398	-
MADHYA PRADESH	73	7541	-	-	-	880	-
MIZORAM	-	35	-	-	-	-	-
NAGALAND	-	515	-	-	-	43	-
MEGHALAYA	-	0.175	-	-	-	-	-
ORISSA	-	14042	-	-	-	3814	-
PUNJAB	4078	-	-	-	-	-	-
RAJASTHAN	2590	13805	-	-	300	15811	-
TAMIL NADU	8208	17504	1049	3863	230	12290	-
TRIPURA	-	3794	-	-	-	468	-
UTTAR PRADESH (Ganga Valley)	8860	19460	-	-	-	5007	-
WEST BENGAL	8410	15769	269	1643	82	4758	67
TOTAL ONSHORE	**124404**	**190960.2**	**6960**	**27199**	**2696**	**62946**	**67**

(B) OFFSHORE	DEPARTMENTAL		CONTRACTUAL	
	2D (LK)	3D (LK)	2D (LK)	3D (LK)
BOMBAY HIGH	170621	98738	62856	206644
KERALA KONKAN	97999	11643	3961	-
KUTCH	28099	-	7722	-
LAKSHDWEEP	-	-	3239	-
SUARASHTRA	19403	-	12534	-
BENGAL	-	-	3032	-
A.N. ISLANDS	4110	-	23447	-
CAUVERY	27070	3239	12099	-
K. GODAVARI	21832	7718	19630	3582
GULF OF CAMBAY	2833	-	3193	-
TOTAL OFFSHORE	**371967**	**121338**	**151713**	**210226**

Remarks:- ISP wrok of 7771 LK in Bengal basin not included.

II. 6 BASIN-WISE/STATE-WISE ACHIEVEMENTS OF DRILLING SINCE INCEPTION UPTO 1998-99.

	YEAR	1997-98		1998-99	
BASIN	STATE/REGION	WELLS		WELLS	
		NUMBERS	(KM.)	NUMBERS	(KM.)
A. ONSHORE					
CAMBAY	GUJARAT	4274	7400	4417	7648
RAJASTHAN	RAJASTHAN	106	212	111	219
KUTCH-SAURASHTRA	MADHYA PRADESH	3	12	3	12
GULF OF CAMBAY	GULF OF CAMBAY	4	8	4	8
UPPER ASSAM	ASSAM. A.P.	1986	6607	2030	6789
ASSAM-ARAKAN	(Including Nagaland & Meghalaya	54	135	55	136
FOLD BELT	MIZORAM, ORISSA	17	62	16	55
	under ERBC				
ASSAM-ARAKAN	TRIPURA	86	243	88	254
FOLD-BELT	WEST BENGAL	30	122	30	121
GANGA VALLEY	BIHAR, MIZORAM	6	30	6	30
	(under ERBC)	1	3	1	3
HIMALAYA FOOT	HIMACHAL PRADESH	10	38	10	38
HILLS + GANGA VALLEY	PUNJAB	4	16	4	16
	UTTAR PRADESH	7	23	7	26
	JAMMU & KASHMIR	4	12	4	12
KRISHNA-GODAVARI	ANDHRA PRADESH	239	759	264	819
CAUVERY	TAMILNADU	305	786	327	842
	TOTAL ONSHORE	**7136**	**16468**	**7377**	**17028**
B. OFFSHORE					
EAST COAST	East Coast Inc. KG, Cauvery	160	504	160	504
	Andaman Offshore and	3	15	3	15
	Bengal Offshore				
WEST COAST	West Coast including drilling in	3	8	3	8
	deep water, Kerala-Konkan and	1547	3515	1606	3659
	Kutch Saurashtra				
	TOTAL OFFSHORE	**1713**	**4042**	**1772**	**4186**
	TOTAL (A+B)	**8849**	**20510**	**9149**	**21214**

II. 7 BASIN-WISE/STATE-WISE OIL AND GAS FIELDS AS ON 1.4. 1999

(NUMBER)

COMPANY / STATE	BASIN	TYPE OF FIELD		
		OIL	GAS	OIL/GAS
OIL & NATURAL GAS CORPN.LTD.				
ONSHORE				
Gujarat	Cambay	49	9	28
Assam	Upper Assam	17	0	5
	AAFB	1	4	0
Nagaland	AAFB	2	0	1
Rajasthan	Jaisalmer	0	6	0
Andhra Pradesh	K.G. Basin	3	3	29
Tamil Nadu	Cauvery	7	8	9
Tripura	AAFB	0	5	0
OFFSHORE				
East Coast	Andaman	0	0	1
	K.G.Basin	2	2	5
	Cauvery	2	0	1
West Coast	Mumbai	17	28	22
	Cambay	2	0	10
OIL INDIA LTD.				
Assam	Upper Assam	0	0	8
Arunachal Pradesh	Upper Assam	0	0	2
Rajasthan	Jaisalmer	0	3	0
	Bikaner Nagaur	1	0	0
PRIVATE/JVC				
Gujarat	Cambay	9	2	0
Arunachal Pradesh	AAFB	0	0	1
	Godavari	0	0	1
	Cauvery	1	1	0
Maharashtra	Mumbai	1	1	1
TOTAL		114	72	124

AAFB : Assam Arakan Fold Belt.

III. CRUDE OIL

III. 1 STATE WISE RESERVES OF CRUDE OIL @

(Million Tonnes)

Year	On Shore				Off Shore	Grand Total
	Gujarat	Assam	Rajasthan	Total	Bombay High	
1	2	3	4	5	6	7
1966	62.73	90.27	-	153.00	-	153.00
1967	65.88	88.96	-	154.00	-	154.84
1968	64.92	76.08	-	141.00	-	141.00
1969	59.80	72.51	-	132.00	-	132.00
1970	56.38	71.46	-	127.84	-	127.84
1971	51.08	62.70	-	113.78	-	113.78
1972	52.28	72.89	-	125.18	-	125.18
1973	49.45	77.87	-	127.32	-	127.32
1974	48.45	76.05	-	124.50	-	124.50
1975	45.72	84.41	-	130.13	13.77	143.90
1976	45.79	81.99	-	127.78	147.68	275.46
1977	45.62	82.28	-	127.90	175.28	303.18
1978	47.49	78.50	-	125.99	221.04	347.03
1979	45.34	82.81*	-	128.15	226.29	354.44
1980	52.73	82.45*	-	135.38	230.95	399.33
1981	51.83	89.00*	-	140.48	328.29	468.77
1982	53.18	91.52*	-	144.70	325.18	469.88
1983	90.53	97.03*	-	187.61	338.70	526.31
1984	88.00	99.01*	-	187.01	323.81	510.82
1985	86.61	101.80*	-	188.41	311.10	499.51
1986	98.64	113.83*	-	212.47	345.54	558.01
1987	132.05	119.03*	-	251.08	330.35	581.43
1988	143.62	124.38*	-	267.40	371.04	638.44
1989	155.12	140.24*	-	295.36	430.86	726.22
1990	161.69	144.97	-	306.66	432.14	738.80
1991	158.26	156.22*	-	314.48	491.67	806.15
1992	156.55	160.82*	-	317.37	483.68+	801.05
1993	155.09	158.16*	-	313.25	465.81+	779.06
1994	153.40	156.06*	-	309.46	455.17+	764.63
1995	153.20	147.87*	-	301.07	431.08+	732.15
1996	152.08	154.33	-	306.41	422.28+	728.69
1997	150.91	189.63	-	340.54	405.17	745.71
1998	148.02	160.39	-	308.41	404.49	712.90

@ Proved & Indicated Balance Recoverable Reserves.
* Includes crude oil reserves in Nagaland, Tamil Nadu, Andhra Pradesh and Arunachal Pradesh.
+ Includes reserves in Andhra Pradesh, Tamil Nadu and JVC.
Note: For AOC & OIL the figures relate to Ist January of each year but in case of OnGC the data pertains to Ist October upto the year 1974 and thereafter to Ist January of each year upto the year 1992 and from1993 relates to Ist April.

III.2 COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA, 1950 TO 1998 (CALENDAR YEARS)

(000 Tonnes)

Year	On Shore					Off Shore		Grand Total	Cumulative Production
	AOC	OIL	JVC	ONGC	Total	ONGC	JVC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Up to 1950	259	-	-	-	259	-	-	259	6596
1951	269	-	-	-	269	-	-	269	6867
1952	263	-	-	-	263	-	-	263	7130
1953	269	3	-	-	272	-	-	272	7402
1954	278	30	-	-	308	-	-	308	7710
1955	272	75	-	-	347	-	-	347	8057
1956	307	89	-	-	396	-	-	396	8453
1957	277	163	-	-	440	-	-	440	8893
1958	214	226	-	-	440	-	-	440	9333
1959	202	248	-	-	450	-	-	450	9783
1960	179	-	-	-	272	-	-	451	10747
1961	184	319	-	10	513	-	-	513	10747
1962	188	556	-	334	1078	-	-	1078	11825
1963	184	804	-	663	1652	-	-	1652	13477
1964	170	1274	-	768	2212	-	-	2212	15689
1965	158	1742	-	1122	3022	-	-	3022	18711
1966	149	2143	-	2355	4647	-	-	4547	23358
1967	134	2752	-	2781	5667	-	-	5667	29025
1968	117	2771	-	2965	5853	-	-	5853	34878
1969	142	3074	-	3537	6723	-	-	6723	41601
1970	107	3074	-	3632	6809	-	-	6809	48410
1971	98	3164	-	3941	7185	-	-	7185	55595
1972	93	3183	-	4087	7373	-	-	7373	62968
1973	84	3102	-	4012	7198	-	-	7198	70166
1974	72	3080	-	4338	7490	-	-	7490	77656
1975	68	3087	-	5128	8283	-	-	8283	85939
1976	63	3092	-	5276	8431	-	-	8431	85939
1977	58	3120	-	5569	8747	1438	-	10185	104783
1978	55	2698	-	5551	8303	2968	-	11271	116054
1979	47	2848	-	5537	8432	4407	-	12839	128893
1980	41	796	-	4033	4870	4529	-	9299	138292
1981	(a)33	2803	-	5083	7919	7006	-	14925	153127
1982	-	2963	-	5304	8267	11467	-	19734	172951
1983	-	2794	-	6501	8395	16753	-	25148	198099
1984	-	2794	-	6501	8395	16753	-	25148	198099
1985	-	2635		6580	9215	20645	-	29860	255892
1986	-	2713	-	7150	9863	21294	-	31157	287049
1987	-	2408	-	7626	10034	20108	-	30142	317191
1988	-	2439	-	8150	10589	20991	-	31580	348771
1989	-	2612	-	9445	12057	21628	-	33685	382456
1990	-	2697	-	9294	11991	21320	-	33311	415767
1991	-	2580	-	9033	11613	19394	-	31007	446774
1992	-	2486	-	8779	11265	16609	-	27874	474648
1993	-	2738	-	8688	11426	15082	-	26508	501156
1994	-	2898	-	9107	12005	18900	-	30905	532061
1995	-	2867	17	9050	11934	22656	458	35048	567109
1996	-	2858	36	8641	11535	20526	925	32986	600095
1997	-	3040	40	8388	11468	20088	2274	33830	633925
1998	-	3248	41	8378	11667	18606	2655	32928	666853

(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. 3 COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA, 1970-71 TO 1998-99
(Financial Year)

Year	On Shore					Off Shore		Grand	Cumulative
	AOC	OIL	ONGC	JVC	Total	JVC	ONGC	Total	Production
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970-71	104	3084	3684	-	6822	-	-	6822	50303
1971-72	97	3159	4003	-	7299	-	-	7299	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	23 (e)	995	5201	-	8219	-	7975	16194	158005
1982-83	-	2830	5356	-	8186	-	12877	21063	179068
1983-84	-	2873	5755	-	8628	-	17392	26020	205088
1984-85	-	2735	6119	-	8854	-	20136	28990	234078
1985-86	-	2654	6691	-	9345	-	20823	30168	264246
1986-87	-	2621	7241	-	9862	-	20618	30480	294726
1987-88	-	2448	7745	-	10193	-	20164	30357	325083
1988-89	-	2425	8503	-	10928	-	21112	32040	357123
1989-90	-	2704	9667	-	12371	-	21716	34087	391210
1990-91	-	2649	9181	-	11830	-	21191	33021	424231
1991-92	-	2529	8854	-	11383	-	18963	30346	454577
1992-93	-	2523	8681	-	11204	-	15746	26950	481527
1993-94	-	2811	8840	-	11651	-	15375	27026	508553
1994-95	-	2883	9130	-	12013	-	20226	32239	540792
1995-96	-	2882	8971	26	11879	624	22665	35168	576960
1996-97*	-	2870	8504	38	11412	1307	20181	32900	608860
1997-98	-	3094	8387	42	11523	2472	19863	33858	842738
1998-99*	-	3294	8101	77	11472	2965	18286	32723	875461

*Provisional.

(e)= After takeover of AOC by Government in October 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	ON SHORE					OFF SHORE		Grand Total
	Arunachal Pradesh	Tamil Nadu/ Andhra Pradesh	Assam/ Nagaland	Gujarat	Total	Andhra Pradesh	Bombay High	
				A. CALENDAR YEARS				
1970	—	—	3359	3450	6809		—	6809
1971	—	—	3542	3643	7185		—	7185
1972	—	—	3653	3720	7373		—	7373
1973	—	—	3594	3604	7198		—	7198
1974	—	—	3735	3755	7490		—	7490
1975	—	—	4189	4094	8283		—	8283
1976	—	—	4267	4164	8431		228	8659
1977	—	—	4510	4237	8747		1438	10185
1978	—	—	4076	4227	8303		2968	11271
1979	—	—	4563	3869	8432		4407	12839
1980	2	—	1056	3812	4870		4529	9399
1981	2	—	4373	3544	7919		7006	14925
1982	1	—	5124	3142	8267		11467	19734
1983	25	—	4901	3469	8395		16753	25148
1984	42	—	4939	3802	8783		19150	27933
1985	60	—	4879	4576	9215		20645	29850
1986	59	4	5270	4530	9863		21294	31157
1987	40	9	5138	4847	10034		20108	30142
1988	32	23	5309	5225	10589		20991	31580
1989	39	152	5771	6095	12057		21628	33685
1990	41	313	5199	6440	11991		21320	33311
1991	41	311	5097	6162	11613		19393	31006
1992	55	331	4964	5915	11265		16609	27874
1993	55	481	5039	5851	11426		15082	26508
1994	37	639	5108	6222	12006		18900	30906
1995	27	491	5038	6318	11934	458	22656	35048
1996	36	390	4834	6278	11538	925	20526	32989
1997	27	374	5058	6009	11468	2274	20088	33830
1998	29	444	5273	5946	11692	2674	18606	32972
				B. FINANCIAL YEAR				
1970-71	—	—	3367	3455	6822		—	6822
1971-72	—	—	3630	3669	7299		—	7299
1972-73	—	—	3609	3712	7321		—	7321
1973-74	—	—	3589	3600	7189		—	7189
1974-75	—	—	3814	3870	7684		—	7684
1975-76	—	—	4300	4148	8448		—	8448
1976-77	—	—	4305	4187	8492		406	8898
1977-78	—	—	4534	4155	8689		2074	10763
1978-79	—	—	4085	4238	8323		3310	11633
1979-80	—	—	3578	3766	7344		4422	11766
1980-81	2	—	1712	3808	5522		4985	10507
1981-82	2	—	4795	3422	8219		7975	16194
1982-83	1	—	5000	3185	8186		12877	21063
1983-84	31	—	6009	3588	8628		17392	26020
1984-85	51	—	4893	3910	8854		20136	28990
1985-86	60	—	4966	4319	9345		20823	30168
1986-87	51	5	5239	4561	9862		20618	30480
1987-88	36	14	5154	4989	10193		20164	30357
1988-89	35	31	5457	5405	10928		21112	32040
1989-90	38	206	5812	6313	12371		21716	34087
1990-91	43	313	5076	6398	11830		21191	33021
1991-92	42	318	4988	6035	11383		18963	30346
1992-93	59	352	4986	5807	11204		15746	26950
1993-94	49	538	5090	5076	11651		15375	27026
1994-95	35	656	5043	6279	12013		20226	32239
1995-96	28	418	5046	6386	11878	824	22665	35167
1996-97	36	381	5192	6184	11793	1307	20181	33281
1996-97	36	381	4811	6184	11412	1307	20181	32900
1978-98	25	390	5130	5978	11523	2472	19863	33858
1998-99	38	451	5123	5860	11472	2965	18286	32723

IV. NATURAL GAS

IV.1 STATE-WISE RESERVES OF NATURAL GAS

(Bn. Cubic Metres)

Year	ON SHORE				OFF SHORE	Grand
	Gujarat	Assam	Rajasthan	Total	Bombay High	Total
1	2	3	4	5	6	7
1966	23.09	40.06	-	63.15	-	63.15
1967	24.65	42.60	-	67.25	-	67.25
1968	21.80	41.54	-	63.34	-	63.34
1969	22.90	42.70	-	65.60	-	63.60
1970	19.66	42.82	-	62.48	-	62.48
1971	18.84	43.45	-	62.29	-	62.29
1972	16.88	45.25	0.38	62.51	-	62.51
1973	16.35	49.71	0.38	66.44	-	66.44
1974	16.18	51.30	0.38	67.86	-	67.88
1975	15.72	65.24	0.43	81.39	6.28	87.67
1976	16.41	61.42	0.43	78.26	106.62	184.88
1977	16.20	63.76	0.43	80.39	148.08	228.47
1978	15.66	63.62	0.43	79.71	186.15	265.86
1979	15.80	63.25*	0.43	80.95	270.96	351.91
1980	16.39	63.53*	0.43	80.95	270.96	351.91
1981	15.99	65.19*	0.43	81.61	329.04	410.65
1982	18.18	70.66*	0.43	89.27	330.62	419.83
1983	18.95	78.67*	0.43	98.05	374.21	478.26
1984	18.60	81.31*	0.54	100.54	368.55*	478.63
1985	21.67	87.67*	0.54	110.08	368.55*	478.63
1986	26.99	91.83*	0.54	119.36	377.79	497.05
1987	41.26	97.82*	0.74	139.82	400.99	540.81
1988	62.11	105.49*	0.78	168.38	411.09	579.47
1989	85.59	120.49	1.00	207.08	440.47	647.55
1990	92.58	135.47*	1.04	229.09	457.36	686.45
1991	93.39	151.68*	1.22	246.29	483.29	729.79
1992	93.97	160.45*	1.27	255.69	479.77*	735.46
1993	92.87	156.13*	3.82	252.82	465.13 **	717.95
1994	92.13	156.18*	3.82	252.13	454.56 **	706.69
1995	89.88	159.18*	4.11	253.17	406.47 **	659.64
1996	87.95	173.75	4.47	266.17	377.17	643.34
1997	86.51	182.78	4.51	273.80	418.26	692.06
1998	84.24	187.73	4.44	276.41	398.34	674.75

Discovery of major gas field, Gandhar in Gujarat.

@ Proved & Indicated Balance Recoverable Reserves.

* Includes Natural Gas Reserves in Tripura, Nagaland, Tamil Nadu, Arunachal Pradesh & Andhra Pradesh.

** Including natural gas reserve in Andhra Pradesh, Gujarat, Tamil Nadu, Andaman and JVC

Note: For AOC & OIL the figures relate to 1st January of each year but in case of ONGC the data perains to 1st October upto the year 1974 and thereafter to 1st January of each year upto the year 1992 and from 1993 relates to 1st April.

IV. 2 STATE-WISE PRODUCTION OF NATURAL GAS IN INDIA

(Million Cubic Metres)

Year	ON SHORE					OFFSHORE		Grand
	Gujarat	Assam/ Nagaland	Arunachal Pradesh	Tripura/ T. Nadu & Andhra Pradesh	Total	JVC/BH		Total
1	2	3	4	5	6	7	8	9
A. Calendar Years								
1970	458	996	-	-	1424		-	1424
1971	526	993	-	-	1509		-	1509
1972	533	1031	-	-	1564		-	1564
1973	519	1155	-	-	1674		-	1674
1974	590	1328	-	-	1918		-	1918
1975	760	1550	-	-	2310		-	2310
1976	815	1595	-	-	2410		28	2438
1977	888	1677	-	-	2565		161	2726
1978	903	1527	-	-	2430		340	2770
1979	843	1709	-	-	2552		532	3084
1980	868	621	-	-	1489		588	2077
1981	761	1605	-	-	2366		1120	3486
1982	741	1855	-	-	2596		2065	4661
1983	760	1903	1	-	2664		3104	5768
1984	758	2027	1	-	2786		4034	6820
1985	884	2049	4	-	2937		4971	7908
1986	980	2105	12	17	3114		6350	9464
1987	940	2149	13	33	3135		7771	10906
1988	1183	2150	17	53	3403		9381	12784
1989	1559	2172	21	77	3829		12097	15926
1990	1645	2014	27	158	3844		14146	17990
1991	1855	2062	31	251	4199		14450	18649
1992	1957	2054	49	563	4623		13749	18372
1993	2080	1984	49	779	4892		13229	18121
1994	2395	1937	39	829	5200		14223	19423
1995	2791	1861	33	906	5591		15533	21124
1996	2916	1951	25	987	5879		17042	22921
1997	3125	2213	27	1244	6609		18809	25418
1998	3177	2299	29	1579	7084		20573	27657
B. Financial Year								
1970-71	465	980	-	-	1445		-	1445
1971-72	523	1012	-	-	1535		-	1535
1972-73	531	1034	-	-	1565		-	1565
1973-74	518	1195	-	-	1713		-	1713
1974-75	653	1388	-	-	2041		-	2041
1975-76	773	1595	-	-	2368		-	2368
1976-77	822	1558	-	-	2380		48	2428
1977-78	893	1717	-	-	2610		229	2839
1978-79	908	1518	-	-	2426		386	2812
1979-80	840	1385	-	-	2225		542	2767
1980-81	842	843	-	-	1685		673	2358
1981-82	758	1748	-	-	2506		1345	3851
1982-83	750	1829	-	-	2579		2357	4936
1983-84	748	1954	Neg.	-	2702		3259	5961
1984-85	775	2056	2	-	2833		4408	7241
1985-86	919	2029	6	-	2954		5180	8134
1986-87	971	2142	13	22	3184		6705	9853
1987-88	1005	2147	13	43	3208		8259	11467
1988-89	1258	2160	18	50	3486		9731	13217
1990-91	1696	2011	29	180	3916		14082	17998
1991-92	1698	2051	31	271	4251		14394	18645
1992-93	1946	2034	52	676	4708		13352	18060
1993-94	2166	1978	47	788	4979		13354	18335
1994-95	2462	1909	37	835	5243	87	14138	19468
1995-96	2900	1880	32	927	5739	324	16579	24642
1996-97	2967	1945	23	1045	5980	479	16794	23253
1997-98	3324	2024	24	1313	6685	1614	18102	26401
1998-99*	3442	2070	24	1632	7168	2746	17514	27428

*Provisional.

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

(Million Cubic Metres)

Period	Gross Prodn.	Reinjected	Flarred	Net Production
1	2	3	4	5
		ONSHORE		
GUJARAT				
1970-71	465	-	155	310
1975-76	773	-	136	637
1980-81	842	-	146	696
1981-82	758	-	77	681
1982-83	750	-	55	695
1983-84	750	-	67	681
1984-85	775	-	85	690
1985-86	919	-	118	801
1986-87	971	-	184	787
1987-88	1005	-	268	900
1988-89	1258	-	358	1135
1989-90	1613	-	478	1294
1990-91	1696	-	402	1294
1991-92	1898	-	318	1580
1992-93	2166	-	229	1717
1993-94	2166	-	257	1909
1994-95*	2462	-	280	2182
1995-96	2878	-	279	2599
1996-97	2932	-	347	2585
1997-98	3115	-	358	2757
1998-99*	3166	-	397	2769
ASSAM $				
1970-71	980	36	607	337
1975-76	1595	162	946	487
1980-81	843	67	257	519
1981-82	1748	110	768	870
1982-83	1829	91	876	862
1983-84	1954	45	1025	884
1984-85	2058	48	1074	936
1985-86	2035	66	887	1082
1986-87	2155	63	866	1226
1987-88	2160	54	727	1379
1988-89	2178	84	730	1364
1989-90	2182	96	689	1397
1990-91	2040	102	621	1317
1991-92	2083	132	703	1247
1992-93	2086	90	685	1311
1993-94	2025	71	710	1244
1994-95*	1946	23	596	1327
1995-96	1924	17	403	1504
1996-97	1974	-	97	1877
1997-98	2190	-	292	1898
1998-99*	2242	-	313	1929
TRIPURA				
1985-86				
1986-87				
1987-88				
1988-89	26	-	-	26
1989-90	25	-	-	25
1990-91	70	-	-	70
1991-92	80	-	-	80
1992-93	115	-	-	115
1993-94	102	-	-	102
1994-95	97	-	-	97
1995-96	130	-	-	130
1996-97*	154	-	-	154
1997-98	196	-	-	196
1998-99*	307	-	-	307

$: Includes Nagaland and Arunacnal Pradesh.
*: Provisional

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

(Million Cubic Metres)

Period	Gross Prodn.	Re-Injected	Flarred	Net Production
1	2	3	4	5
ANDHRA PRADESH				
1985-86	-	-	-	
1986-87	-	-	-	
1987-88	-	-	-	
1988-89	14	-	-	14
1989-90	26	-	Neg.	26
1990-91	46	-	5	41
1991-92	150	-	6	144
1992-93	507	-	6	501
1993-94	610	-	17	593
1995-96	679	-	-	679
1996-97*	799	-	-	799
1997-98	1022	-	-	1022
1998-99	1218	-	-	1218
TAMIL NADU				
1985-86	-	-	-	-
1986-87	22	-	5	17
1987-88	43	-	11	32
1988-89	10	-	8	2
1989-90	55	-	51	4
1990-91	64	-	55	9
1991-92	41	-	29	12
1992-93	54	-	35	19
1993-94	76	-	56	20
1994-95	98	-	82	16
1995-96	117	-	96	21
1996-97*	92	-	49	43
1997-98	95	-	48	47
1998-99	107	-	67	40
TOTAL ONSHORE				
1970-71	1445	36	762	647
1975-76	2368	162	1082	1124
1976-77	2380	190	809	1381
1980-81	1686	67	403	1215
1981-82	2506	110	845	1551
1982-83	2579	91	931	1557
1983-84	2702	45	1092	1565
1984-85	2833	48	1159	1626
1985-86	2954	66	1005	1883
1986-87	3148	63	1055	2030
1987-88	3206	54	1006	2148
1988-89	3486	84	1096	2306
1989-90	3901	96	1218	2587
1990-91	3916	102	1083	2731
1991-92	4708	90	955	3773
1992-93	4979	71	1040	3868
1993-94	4979	71	1049	3868
1994-95	5243	23	980	4240
1995-96	5728	17	778	4933
1996-97	5951		493	5458
1997-98	6618	-	698	5920
1998-99*	7040	-	777	6263

*: Provisional

Contd....

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

(Million Cubic Metres)

Period	Gross Prodn.	Re-Injected	Flarred	Net Production
1	2	3	4	5
OFFSHORE				
1970-71				
1975-76				
1976-77	48	-	48	
1980-81	673	-	366	307
1981-82	1345	-	674	671
1982-83	2357	-	957	1400
1983-84	3259	-	1425	1834
1984-85	4408	-	1893	2515
1985-86	5180	-	2113	3064
1986-87	6705	-	1663	5042
1987-88	8259	-	2439	5820
1988-89	9731	-	2787	6944
1989-90	13087	-	4502	8585
1990-91	14082	-	4047	10035
1991-92	14394	-	3016	11378
1992-93	13352	-	899	12453
1993-94	13356	-	884	12472
1994-95	14138	-	1040	13098
1995-96	14138	-	613	15966
1996-97*	16794	-	819	15975
1997-98	18102	-	876	17226
1998-99	17514	-	745	16769
GRAND TOTAL				
1970-71	1445	36	762	647
1975-76	2368	162	1082	1124
1976-77	2428	190	857	1381
1980-81	2358	67	769	1522
1982-83	3851	110	1519	2222
1983-84	5961	45	2517	3399
1984-85	7241	48	3052	4141
1985-86	8134	66	3118	4950
1986-87	9853	63	2718	7072
1987-88	11467	54	3445	7968
1988-89	13217	84	3883	9250
1990-91	17998	102	5130	12766
1991-92	18645	132	4072	14441
1992-93	18060	90	1854	16116
1993-94	18335	71	1924	16340
1994-95	19381	23	2020	17339
1995-96	22639	17	1420	21202
1996-97*	23255	-	1760	21495
1997-98	26401	-	1879	24522
1998-99	27428	-	1712	25716
JVC/Pvt				
1994-95	-	-	-	-
1995-96	331	-	318	13
1996-97	510	-	448	62
1997-98	1681	-	305	1376
1998-99	2874	-	190	2684

*Provisional

IV. 4 STATE-WISE UTILISATION NATURAL GAS IN INDIA

(Mn. Cubic Metres)

Year	ON SHORE							OFFSHORE	Grand
	Gujarat	Assam**	Tripura	Andhra Pradesh	Rajasthan	Tamil Nadu	Total	Bombay High	Total
1	2	3	4	5	6	7	8	9	10
1970-71	310	337	-	-		-	647	-	647
1971-71	380	338	-	-		-	718	-	718
1971-72	414	357	-	-		-	414	-	357
1972-73	374	388	-	-		-	762	-	762
1973-74	374	388	-	-		-	762	-	762
1974-75	532	419	-	-		-	951	-	951
1975-96	637	487	-	-		-	1124	-	1124
1976-77	691	690	-	-		-	1381	-	1381
1977-78	746	715	-	-		-	1461	3	1464
1978-79	744	763	-	-		-	1507	204	1711
1979-80	662	642	-	-		-	1304	372	1676
1980-81	696	519	-	-		-	1215	307	1522
1981-82	681	870	-	-		-	1551	671	2222
1982-83	695	862	-	-		-	1557	1400	2957
1983-84	681	884	-	-		-	1565	1834	3399
1984-85	801	1082	-	-		-	1626	2516	4141
1985-86	801	1082	-	-		-	1883	3067	4950
1986-87	787	1226	-	-		17	2030	5042	7072
1987-88	737	1379	-	-		32	2148	5820	7968
1988-89	900	1364	26	14		2	2306	6944	9250
1989-90	1135	1394	25	26		4	2587	8585	11172
1991-92	1580	1247	80	144		12	3063	11378	14441
1992-93	1717	1311	115	501		19	3663	12453	16116
1993-94	1717	1311	115	501		19	3663	12453	16116
1993-94	1909	1244	102	593		20	3868	12472	16340
1994-95	2182	1328	97	617		16	4240	13097	17337
1995-96	2599	1510	130	678	12	21	4950	15966	21202
1996-97	2614	1722	154	799	10	43	5332	15975	21495
1997-98	2757	1898	198	1022		47		17226	24522
1998-99*	2769	1929	307	1218		40		16769	25716

* 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	Total	Fertilizer	Petro-Chemicals	Others	Total	
1	2	3	4	5	6	7	8	9	10	11	12
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	-	-	187	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	366	143	33	13	104	659	463	-	2	465	1124
1976-77	344	155	38	15	142	694	363	-	24	687	1381
1977-78	372	165	39	13	171	760	673	5	22	704	1464
1978-79	560	175	43	13	176	967	721	5	18	744	1711
1979-80	514	158	39	16	174	896	755	7	18	780	1676
1980-81	492	168	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	56	16	572	2083	1283	10	23	1316	3399
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	3711	3335	-	26	3361	7072
1987-88	2721	281	99	34	1313	4448	3490	-	30	3520	7968
1988-89	1823	526	87	42	1329	3807	5334	21	88	5443	9250
1989-90	2140	695	78	41	1526	4480	6578	29	85	6692	11172
1990-91	3634	827	89	50	1775	6375	5612	409	370	6391	12766
1991-92	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

Excludes off takes of natural gas by ONGC.

@ = Provisional Neg.=Negligible

V. REFINING

V.1 PETROLEUM REFINING CAPACITY IN INDIA AS ON 1.4.1999

(Million Tonnes Per Annum)

Sl.No.	Refinery	Year of Commissioning	Installed Capacity as on 1.4.1999	Capacity after expansion under consideration/implementaiton
1	2	3	4	
	A. Refineries in Operation:			
1.	IOC, Digboi	1901	0.65	
2.	BPCL, Bombay	1955	6.90	
3.	HPCL, Bombay	1954	5.50	
4.	HPCL, Visakh	1957	4.50	
5.	IOC, Guwahati	1962	1.00	
6.	IOC, Barauni	1964	3.30	
7.	IOC, Gujarat	1965	9.50	
8.	IOC, Haldia	1974	3.75	
9.	IOC, Mathura	1982	7.50	
10.	Panipat	1998	6.00	
11.	CRL, Madras	1966	7.50	
12.	MRL, Madras	1969	6.50	
13.	BR & PL, Assam	1979	2.35	
14.	MRL, Narimanam	1993	0.50	
15.	MR & PL Mangalore	1996	3.69	
	Total (A)		61.55	
	B. Refinery Projects under Implementation			
16.	Assam (Numaligath) 1999	3.00		

V.2a REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961 TO 1998

('000' Tonnes)

Year	Crude Throughput			Production		
	Public Sector	Private Sector/JVC	Total (2+3)	Public Sector	Private Sector/JVC	Total (5+6)
1	2	3	4	5	6	7
			CALENDAR YEARS			
1961	-	6440	6440	-	6090	6090
1962	241	6762	7003	193	6391	6584
1963	470	7668	8138	407	7243	7650
1964	911	8021	8932	778	7650	8428
1965	1549	8205	9754	1328	7785	9113
1966	3476	8554	12030	3186	8097	11283
1967	6359	8071	14430	5814	7638	13452
1968	7707	8389	16096	7085	7838	14923
1969	9514	7981	17495	8736	7503	16239
1970	10994	7465	18459	10143	7040	17172
1971	11198	8390	19588	10293	7932	18225
1972	11838	7834	19682	10935	7363	18198
1973	11484	9034	20518	10522	8567	19089
1974	15107	5676	20783	13935	5306	19241
1975	16723	5112	21835	15602	4766	20368
1976	21163	1599	22762	19669	1519	21188
1977	23903	527	24430	22297	498	22795
1978	25096	530	25626	23372	505	23877
1979	27649	504	28153	25874	486	26360
1980	24668	407	25075	23213	384	23597
1981	29128	400	29528	27193	382	27575
1982	32107	-	32107	29984	-	29984
1983	34534	-	34534	32298	-	32298
1984	35235	-	35235	32963	-	32963
1985	41226	-	41226	38264	-	38264
1986	44940	-	44940	41877	-	41877
1987	47445	-	47445	44583	-	44583
1988	47896	-	47896	44730	-	44730
1989	51974	-	51974	48724	-	48724
1990	51671	-	51671	48402	-	48402
1991	50954	-	50954	47916	-	47916
1992	54254	-	54254	51041	-	51041
1993	53509	-	53509	50396	-	50396
1994	56407	-	56407	52872	-	52872
1995	57971	-	57971	54379	-	54379
1996*	59688	2016	61704	56117	1752	57869
1997	60796	3737	64533	57185	3446	60631
1998	62572	4100	66672	59015	3794	62809

*Provisional.

V. 2b REFINERY CRUDE THROUGHPUT AND PRODUCTION OF PETROLEUM PRODUCTS DURING 1961-62 TO 1998-99

('000' Tonnes)

Year	Crude Throughput			Production		
	Public Sector	Private Sector/JVC	Total (2+3)	Public Sector	Private Sector/JVC	Total (5+6)
1	2	3	4	5	6	7
			FINANCIAL YEARS			
1961-62	60	6524	6584	11	6184	6195
1962-63	300	6964	7264	274	6627	6901
1963-64	554	7920	8474	493	7492	7985
1964-65	1005	8005	9010	842	7636	8478
1965-66	1966	8267	10233	1733	7828	9561
1966-67	4166	8547	12713	3741	8141	11882
1967-68	6783	8022	14805	6257	7512	13769
1968-69	8088	8459	16547	7457	7932	15389
1969-70	10087	7825	17912	9250	7342	16592
1970-71	10820	7559	18379	9965	7145	17110
1971-72	11575	8467	20042	10823	8016	18839
1972-73	11565	7763	19328	10575	7255	17838
1973-74	11616	9342	20958	10647	8848	19495
1975-76	17045	5238	22283	15895	4934	20829
1976-77	21694	1301	22995	20203	1229	21432
1977-78	24364	534	24898	22712	507	23219
1978-79	25450	524	25974	23692	501	24193
1979-80	27066	408	27474	25403	391	25794
1980-81	25333	503	25836	23646	477	24123
1981-82	29912	234	30146	27931	251	28182
1982-83	33156	-	33156	31073	-	31073
1983-84	35263	-	35263	32926	-	32926
1984-85	35556	-	35556	33236	-	33236
1985-86	42910	-	42910	39881	-	39881
1986-87	45699	-	45699	42761	-	42761
1987-88	47754	-	47754	44729	-	44729
1988-89	48803	-	48803	45699	-	45699
1989-90	51942	-	51942	51942	-	49690
1990-91	51772	-	51772	48562	-	48562
1991-92	51423	-	51423	48349	-	48349
1992-93	53482	-	53482	50359	-	50359
1993-94	54296	-	54296	51084	-	51084
1994-95	56534	-	56534	52927	-	52927
1995-96	58702	39	58741	55058	23	55081
1996-97*	59959	2911	62870	56370	2635	59005
1997-98	61313	3853	65166	57756	3552	61308
1998-99*	64469	4069	68538	60807	3737	64544

*:Provisional

V. 3 REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1980-81 TO 1998-99

('000 Tonnes)

Year	IOC AOD	BPCL Mumbai	HPCL Mumbai	HPCL Visakh	IOC Guwahati	IOC Barauni	IOC Gujarat
1	2	3	4	5	6	7	8
1980-81:							
Total Production	477	4629	2907	1208	577	432	6629
Crude Run	503	4901	3113	1319	639	504	6974
1982-83:							
Total Production	501	4272	2926	1004	733	2861	6667
Crude Run	521	4485	3124	1077	802	3071	7089
1984-85:							
Total Production	511	5230	3021	1157	712	2710	7290
Crude Run	531	5481	3220	1249	761	2896	7777
1985-86:							
Total Production	511	5981	4102	2438	696	2513	7305
Crude Run	529	6389	4375	2659	766	2766	7830
1986-87:							
Total Production	530	5277	4752	3452	738	2604	7384
Crude Run	551	5580	5011	3715	802	2638	7835
1987-88:							
Total Production	468	6178	5170	3351	770	2394	7936
Crude Run	547	6539	5456	3621	815	2638	8444
1988-89:							
Total Production	558	5811	5243	3514	675	2591	8071
Crude Run	574	6132	5506	3762	762	2815	8656
1989-90:							
Total Production	544	6828	5520	3976	801	2709	8544
Crude Run	570	7037	5755	4280	856	2964	9109
1990-91:							
Total Production	**540**	**6603**	**5506**	**3231**	**712**	**2206**	**8791**
Crude Run	**566**	**6957**	**5766**	**3464**	**783**	**2416**	**9334**
1991-92:							
Total Production	524	6630	4496	3676	793	2060	8877
Crude Run	546	6940	4729	3920	856	2262	9379
1992-93:							
Total Production	523	6875	5619	4274	749	2097	9258
Crude Run	547	7233	5849	4527	815	2287	9780
1993-94:							
Total Production	535	6831	5774	4203	840	2051	8830
Crude Run	554	7203	6018	4448	910	2222	9434
1994-95:							
Total Production	509	7071	4913	4759	833	2039	9148
Crude Run	536	7506	5234	5014	884	2220	9888
1995-96:							
Total Production	537	7065	5674	4753	781	2129	9476
Crude Run	559	7460	5965	5037	839	2322	10167
1996-97:							
Total Production	453	7279	6238	4576	778	1720	9722
Crude Run	477	7640	6534	4847	848	1895	10352
1997-98:							
Total Production	479	7591	6053	2308	779	1989	10043
Crude Run	502	7996	6378	2467	856	2181	10694
1998-99:							
Total Production	524	8531	4955	3637	772	2017	10346
Crude Run	553	8878	5203	3861	836	2204	10935

Cont'd----

1999-00							
Production	564	8433	5762	4252	858	3177	10429
Crude Run	603	8967	6007	4555	914	3411	11109
2000-01							
Production	651	8203	5189	5986	653	2889	11269
Crude Run.	679	8683	5575	6405	707	3122	12006

V. 3 Contd. REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION OF PETROLEUM PRODUCTS DURING 1980-81 TO 1998-99

('000 Tonnes)

Year	IOC Haldia	IOC Mathura	IOC Panipat	CRL Cochin	MRL Madras	MRL Narimanam	BRPL Assam	MRPL Mangalore	Total
1	9	10	11	12	13	14	15	16	17
1980-81:									
Total Production	2056	-	-	2795	2376	-	37	-	24123
Crude Run	2308	-	-	2912	2611	-	52	-	25836
1982-83:									
Total Production	2301	3610	-	3048	2735	-	515	-	31073
Crude Run	2503	3844	-	3187	2857	-	596	-	33156
1984-85:									
Total Production	2101	5909	-	826	3139	-	630	-	33236
Crude Run	2365	6239	-	872	3413	-	752	-	35556
1985-86:									
Total Production	2579	5734	-	2560	4723	-	739	-	39881
Crude Run	2822	6075	-	2749	5057	-	893	-	42910
1986-87:									
Total Production	2390	6006	-	3954	4842	-	847	-	42776
Crude Run	2623	6353	-	4166	5192	-	1011	-	45899
1987-88:									
Total Production	2527	6202	-	3946	4651	-	941	-	44634
Crude Run	2808	6535	-	4111	5131	-	1109	-	47754
1988-89:									
Total Production	2405	6162	-	4545	5155	-	969	-	45699
Crude Run	2636	6557	-	4761	5476	-	1166	-	48803
1989-90:									
Total Production	2609	6814	-	4344	5096	-	1005	-	48690
Crude Run	2824	7208	-	5006	5698	-	1139	-	51772
1990-91:									
Total Production	2608	7414	-	4715	5279	-	957	-	48562
Crude Run	2935	7808	-	5006	5698	-	1139	-	51772
1991-92:									
Total Production	2791	7925	-	4554	5147	-	976	-	48349
Crude Run	3021	8231	-	4846	5529	-	1164	-	51423
1992-93:									
Total Production	2810	7430	-	4853	4927	-	944	-	50359
Crude Run	3040	7843	-	5122	5323	-	1116	-	53482
1993-94:									
Total Production	2878	8121	-	4568	5313	120	1020	-	51084
Crude Run	3106	8518	-	4862	5728	126	1167	-	54296
1994-95:									
Total Production	2998	8018	-	4803	6461	370	1005	-	52927
Crude Run	3258	8377	-	5135	6921	382	1179	-	56534
1995-96:									
Total Production	3168	7934	-	7010	5162	358	1011	23	55081
Crude Run	3416	8332	-	7421	5599	370	1215	39	58741
1996-97:									
Total Production	3189	7744	-	6890	6143	332	1306	2635	59005
Crude Run	3451	8113	-	7293	6621	345	1542	2912	62870
1997-98:									
Total Production	4445	8302	-	7312	6437	533	1485	3552	61308
Crude Run	4706	8565	-	7729	6965	556	1718	3853	65166
1998-99:									
Total Production	4432	8665	1908	7304	5652	619	1445	3737	64544
Crude Run	4714	8909	2208	7770	6101	644	1653	4069	68538

*. Provisional.

1999-00
Total Production 3794 7875 3688 7326 5870 612 1665 4713
Crude Run 4105 8125 4153 7830 6377 636 1905 5200

2000-01
Production 3502 6863 5206 7039 5524 559 1353 5879
Crude Run. 3873 7133 5707 7520 6046 579 1488 6438

V.4a PRODUCTION OF PETROLEUM PRODUCTS-1991 TO 1998

(000 Tonnes)

	Product	Production								% Variation	
		1991	1992	1993	1994	1995	1996	1997	1998*	1997/1996	1998/1997
	1	2	3	4	5	6	7	8	9	10	11
	(a) From Crude Oil										
1.	**Light Distillates:**	9544	10171	9930	11326	12258	12815	12957	13328	1.1	2.9
	of which										
	LPG@	1229	1254	1295	1394	1533	1566	1661	1676	6.1	0.9
	MS	3453	3646	3803	4097	4367	4597	4878	5247	6.1	7.6
	Naphtha	4423	4786	4533	5466	5924	6157	6015	6006	(-)2.3	(-)0.1
	SBPS/Hexane	133	135	123	121	132	165	157	143	(-)4.8	(-)8.9
2.	***Middle Distillates:***	26295	27354	27156	28788	29560	31661	33587	34989	6.1	4.2
	of which										
	Kerosene	5270	5331	5289	5206	5315	5969	6357	6003	6.5	(-)5.6
	ATF/Jet A-1/RTF	1656	1626	1706	1992	2026	2165	2155	2224	(-)0.5	3.2
	H.S.D.	17259	18482	18289	19676	20348	21643	23304	24984	7.7	7.2
	L.D.O.	1499	1514	1412	1419	1364	1288	1237	1333	(-)4.0	7.8
	J.B.O.	83	68	77	82	92	96	99	77	3.1	(-)22.2
	M.T.O.	148	132	142	157	169	210	197	178	(-)6.2	(-)9.6
3.	**Heavy Ends:**	12076	13516	13319	12758	12561	13393	14087	14492	5.2	2.9
	of which										
	F.O.	4982	6524	6289	5798	5512	5728	6435	6471	12.3	0.6
	LSHS/HHS/RFO	4434	4051	4152	4062	4092	4360	4340	4482	(-)0.5	3.3
	Total Fuel Oils	9416	10575	10441	9860	9604	10088	10775	10953	6.8	1.7
	Lube Oils	410	503	515	529	582	601	588	644	(-)2.2	9.5
	Bitumen	1676	1836	1844	1904	1922	2229	2214	2339	(-)0.7	5.6
	Pet. coke $	229	223	216	258	259	243	266	287	9.5	7.9
	Paraffin wax	45	47	45	43	43	33	32	34	(-)3.0	6.3
	Other waxes	44	56	45	59	61	51	59	50	15.7	(-)15.3
	Total waxes	89	103	90	102	104	84	91	84	8.3	(-)7.7
4.	**Total Production**	47916	51041	50405	52872	54379	57869	60631	62809	4.8	3.6
5.	**Crude Run**	50954	54254	53516	56407	57971	61704	64533	66672	4.6	3.3
	(b) From Natural Gas										
6.	L.P.G.	1173	1312	1367	1408	1599	1811	1755	2182	(-)3.1	24.3

$ Includes Calcined Petroleum Coke

@ Excludes LPG production from Natural Gas.

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991	1992	1993	1994	1995	1996	1997	1998*
Light Distillates	18.7	18.7	18.6	20.1	21.1	20.8	20.1	20.0
Middle Distillates	51.6	50.4	50.7	51.0	51.0	51.3	52.0	52.5
Total Fuel Oils	18.5	19.5	19.5	17.5	16.6	16.3	16.7	16.4
Lubes	0.8	0.9	1.0	0.9	1.0	1.0	0.9	1.0
Bitumen	3.3	3.4	3.4	3.4	3.3	3.6	3.4	3.5
Others	1.1	1.2	1.0	0.8	0.8	0.8	0.8	0.8
Total Productioin	94.0	94.1	94.2	93.7	93.8	93.8	94.0	94.2
RBF & Losses/Inventories	6.0	5.9	5.8	6.3	6.2	6.2	6.0	5.8
Crude Run	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Provisional

V 4b. PRODUCTION OF PETROLEUM PRODUCTS 1991-92 TO 1998-99

(000 Tonnes)

	Product	Production								% Variation	
		1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99*	1997-98 / 1996-97	1998-99 / 1997-98
	1	2	3	4	5	6	7	8	9	10	11
					(A) From Crude Oil						
1.	**Light Distillates:**	9673	9966	10118	11625	12433	12883	13032	13776	1.2	5.7
	of which										
	L.P.G.@	1250	1249	1314	1432	1539	1598	1666	1724	4.3	3.5
	MS	3420	3709	3843	4129	4462	4704	4849	5573	3.1	14.9
	Naphtha	4546	4586	4666	5662	5975	6123	6103	6081	-0.3	-0.4
	SBPS/Hexane	135	129	120	118	150	157	167	127	6.4	(-)24.0
2.	**Middle Distillates:**	26371	27004	27799	28695	29941	32423	33933	36168	4.7	6.6
	of which										
	Kerosene	5339	5199	5270	5261	5267	6236	6701	5341	7.5	(-)20.3
	ATF/JetA-1/RTF	1539	1636	1788	1968	2127	2119	2147	2289	1.3	6.6
	H.S.D.	17404	18289	18809	19593	20661	22202	23354	26716	5.2	14.4
	L.D.O.	1482	1453	1474	1364	1351	1286	1246	1336	(-)3.1	7.2
	J.B.O.	82	72	74	87	95	96	90	81	(-)6.3	(-)10.0
	M.T.O.	143	133	145	156	180	204	195	194	(-)4.4	(-)0.5
3.	**Heavy Ends:**	12305	13389	13167	12607	12707	13698	14343	14600	4.7	1.8
	of which										
	F.O.	5430	6358	6163	5728	5351	5980	6771	6407	13.2	(-)5.4
	LSHS/HHS/RFO	4207	4044	4141	4094	4228	4318	4309	4623	(-)0.2	7.3
	Total Fuel Oils	9637	10402	10304	9822	9579	10298	11080	11030	7.6	-0.5
	Lube Oils	390	583	489	504	633	619	593	586	-4.2	-1.2
	Bitumen	1710	1862	1874	1845	2032	2283	2158	2419	-5.5	12.1
	Pet. coke $	216	221	233	259	256	246	282	286	14.6	1.4
	Paraffin wax	44	47	45	43	43	31	27	40	-12.9	48.1
	Other waxes	46	51	47	58	63	56	45	63	-19.6	40.0
	Total waxes	90	98	92	101	106	87	72	103	-17.2	43.1
	Total Production	48349	50359	51084	52927	55081	59005	61308	64544	3.9	5.3
5.	Crude Run	51423	53482	54296	56534	58741	62870	65166	68538	3.7	5.2
					(b) From Natural Gas						
6.	L.P.G.	1235	1323	1385	1426	1714	1780	1788	1844	0.4	3.1

@ Excludes LPG Production from Natural Gas.
$: Includes Calcined Pet coke

PATTERN OF PRODUCTION (PERCENTAGE)

PRODUCTS	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99*
Light Distillates	18.8	18.6	18.6	20.5	21.2	20.5	20.0	20.1
Middle Distillates	51.3	50.5	51.2	50.7	51.0	51.6	52.1	52.8
Total Fuel Oils	18.7	19.4	19.0	17.4	16.3	16.4	17.0	16.1
Lubes	0.8	1.0	0.9	0.9	1.1	1.0	0.9	0.9
Bitumen	3.3	3.5	3.5	3.3	3.4	3.6	3.3	3.5
Others	1.1	1.2	0.9	0.8	0.8	0.8	0.8	0.8
Total Production	94.0	94.2	94.1	93.6	93.8	93.9	94.1	94.2
RBF & Losses/Inventories	6.0	5.8	5.9	6.4	6.2	6.1	5.9	5.8
Crude Run	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Provisional

VI. CONSUMPTION/SALES

VI.1(a) PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEAR 1989 TO 1988

(Qty. 000' Tonnes)

	PRODUCT	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	% Change 1998 over 1997
	1	2	3	4	5	6	7	8	9	10	11	12
1.	**Light Distillates**	9259	9750	10005	10288	10492	11259	12781	14034	15269	17232	12.9
	L.P. Gas	2181	2396	2565	2848	3035	3346	3741	4121	4451	4887	9.8
	Mogas	3370	3583	3587	3592	3761	4037	4527	4932	5109	5430	6.3
	Naphtha	3421	3397	3418	3380	3310	3258	3685	3795	4453	5973	34.1
	SBP/Haxane	105	127	141	157	149	141	166	212	222	174	-21.6
	Others	181	247	297	311	237	477	686	974	1034	768	-25.7
2.	**Middle Distillates**	31926	33201	33715	36370	37416	40280	43991	47826	49923	50905	2.0
	Kerosene	8089	8423	8412	8573	8618	8931	9276	9627	9743	10460	7.4
	ATF/Jet A-1	1752	1734	1563	1562	1683	1870	2014	2171	2111	2101	-0.5
	HSD	20329	21176	21976	24396	25323	27623	30898	34275	36400	36619	0.6
	LDO/MDO	1491	1512	1432	1464	1343	1396	1318	1233	1212	1266	4.5
	JBO/Wash Oil	74	83	83	70	76	83	94	94	93	81	-12.9
	MTO	118	133	136	131	138	149	162	195	185	186	0.5
	Other	73	140	113	174	235	228	229	231	179	192	7.3
3	**Heavy Ends:**	11938	12296	12121	12641	12048	12741	13497	14207	14272	14796	3.7
	F.O/TDO	4353	4672	4535	5402	4968	5639	6361	6502	6570	6745	2.7
	LSHS/HHS	4347	4424	4415	3980	4122	4086	4080	4282	4346	4390	1.0
	Fuel Oils (total)	8700	9096	8950	9382	9090	9725	10441	10784	10916	11135	2.0
	Lubes & Greases	884	904	877	888	750	657	704	690	786	848	7.9
	Bitumen/Asphalt	1597	1609	1662	1831	1796	1800	1913	2206	2174	2343	7.8
	Petroleum Coke	369	309	281	182	116	199	254	329	227	286	26.0
	Wax	110	120	111	122	119	129	135	122	87	85	-2.3
	Others	278	248	240	236	177	231	50	76	82	99	20.7
	Total (1+2+3)	53123	55237	55841	59299	59956	64280	70269	76067	79464	82933	4.4
	Refinery Fuel@	2678	2706	2621	2793	2880	3093	3217	3433	3518	3574	1.6
	GRAND TOTAL	55801	57943	58462	62092	62836	67373	73486	79500	82982	86507	4.2

@-RBF, Lube Refinery Fuel & TPs Fuel.

VI.1b PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEARS 1990-91 TO 1998-99

(Qty. '000' Tonnes)

PRODUCT	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99*	%Change 1998-99 / 1997-98
1	2	3	4	5	6	7	8	9	10	11
1. Light Distillates	**9801**	**10115**	**10310**	**10570**	**11637**	**13143**	**14384**	**15742**	**17509**	**11.2**
L.P. Gas	2415	2650	2866	3113	3434	3849	4184	4581	5027	9.7
Mogas	3545	3573	3595	3834	4141	4679	4955	5182	5511	6.3
Naphtha	3446	3461	3382	3191	3400	3669	4015	4716	6237	32.3
SBP/Hexane	134	142	155	144	145	175	222	219	154	(-)29.7
Others	261	289	312	288	517	771	1008	1044	580	(-)44.4
2. Middle Distillates:	**33106**	**34404**	**36152**	**38146**	**40976**	**45460**	**48544**	**49716**	**51406**	**3.4**
Kerosene	8423	8377	8478	8704	8964	9317	9646	9878	10583	7.1
ATF/Jet A-1	1677	1559	1565	1741	1903	2082	2154	2108	2097	(-)0.5
HSD	21139	22680	24293	25878	28261	32254	35019	36071	36887	2.3
LDO/MDO	1506	1462	1407	1370	1369	1311	1223	1235	1260	2.0
JBO/Wash Oil	82	75	76	77	87	96	92	91	76	(-)16.5
MTO	140	136	124	144	151	177	188	182	187	2.7
Others	139	115	209	232	241	223	222	151	316	109.3
3. Heavy Ends	**12128**	**12455**	**12440**	**12096**	**12873**	**13915**	**14296**	**14380**	**14651**	**1.9**
F.O./TDO	4462	4937	5273	5026	5837	6496	6534	6651	6482	-2.5
LSHS/HHS	4524	4265	3994	4166	4052	4189	4313	4323	4529	4.8
Fuel Oils (total)	8986	9202	9267	9192	9889	10685	10847	10974	11011	0.3
Lubes & Greases	892	932	846	688	668	712	705	835	929	11.3
Bitumen/Asphalt	1581	1706	1823	1824	1939	2005	2273	2178	2239	2.8
Petroleum Coke	290	266	152	132	197	319	276	227	293	29.1
Wax	117	114	120	119	131	133	114	73	105	43.8
Others	262	235	232	141	49	61	81	93	74	(-)20.4
Total (1+2+3)	**55035**	**56974**	**58902**	**60812**	**65487**	**72518**	**77224**	**79838**	**83566**	**4.7**
Refinery Fuel @	2710	2629	2753	2836	3137	3233	3490	3514	3700	5.3
GRANDTOTAL	**57745**	**59603**	**61655**	**63648**	**68624**	**75756**	**80714**	**83352**	**87266**	**4.7**

@ RBF, Lube Refinery Fuel & TPS Fuel.
* : Provisional

VI. 2 SALES/CONSUMPTION OF PETROLEUM PRODUCTS AND MARKET SHARE OF OIL COMPANIES IN INDIA FROM 1970-71 TO 1998- 99

(Qty. '000' Tonnes)

YEAR		I.O.C.	B. Shell/ BPCL	Esso/ HPCL	Caltex/@ HPCL(VMU)	IBP	Others	TOTAL
1	2	3	4	5	6	7	8	9
1970-71	S/C	9212	4219	2538	1279	291	373	17912
	%	51.4	23.6	14.2	7.1	1.6	2.1	100
1971-72	S/C	10959	4153	2717	1316	404	522	20071
	%	54.6	20.7	13.5	6.6	2.0	2.6	100
1972-73	S/C	12788	4085	2620	1185	474	564	21716
	%	58.9	18.8	12.1	5.4	2.2	2.6	100
1973-74	S/C	13745	3985	2392	1095	536	593	22346
	%	61.5	17.8	10.7	4.9	2.4	2.7	100
1974-75	S/C	14363	3184	2510	972	620	456	22105
	%	65.0	14.4	11.4	4.4	2.8	2.0	100
1975-76	S/C	14525	3151	2647	931	659	534	22447
	%	64.7	14.0	11.8	4.2	2.9	2.4	100
1976-77	S/C	15321	3775	2809	974	702	520	24101
	%	63.6	15.7	11.6	4.0	2.9	2.2	100
1977-78	S/C	15721	4217	3083	1146	826	546	25539
	%	61.5	16.5	12.1	4.5	3.2	2.2	100
1978-79	S/C	17223	4601	3488	1348	938	643	28241
	%	61.0	16.3	12.3	4.8	3.3	2.3	100
1979-80	S/C	18136	4968	3768	1393	1012	1618	29883
	%	60.7	16.6	12.6	4.7	3.4	2.0	100
1980-81	S/C	18494	5297	5596		1034	475	30896
	%	59.9	17.1	18.1		3.3	1.6	100
1981-82	S/C	20155	5317	5687		107	257	32523
	%	62.0	16.3	17.5		3.4	0.9	100
1982-83	S/C	21317	5760	6079		1252	249	34657
	%	61.5	16.6	17.6		3.6	0.7	100
1983-84	S/C	21629	6211	6491		1326	184	35841
	%	60.4	17.3	18.1		3.7	0.5	100
1984-85	S/C	22977	7069	6995		1469	285	38795
	%	59.2	18.2	18.0		3.8	0.8	100
1985-86	S/C	23840	7580	7638		1552	262	40872
	%	58.3	18.6	18.7		3.8	0.7	100
1986-87	S/C	25820	7935	7944		1669	294	43662
	%	59.1	18.2	18.2		3.8	0.7	100
1987-88	S/C	27083	9330	9445		1971	360	50092
	%	58.3	18.6	18.9		3.9	0.7	100
1988-89	S/C	28986	10183	10346		2206	363	54095
	%	57.9	18.8	19.1		4.1	0.7	100
1989-90	S/C	30997	10377	10576		2284	372	55035
	%	57.3	18.9	19.2		4.1	0.7	100
1990-91	S/C	31426	10688	11047		2498	379	56974
	%	57.1	18.8	19.4		4.4	0.6	100
1991-92	S/C	32362	11409	11511		2686	390	58902
	%	56.8	19.4	19.5		4.6	0.6	100
1992-93	S/C	32906	12099	12011		2860	341	60812
	%	55.9	19.9	19.7		4.7	0.6	100
1993-94	S/C	33501	13160	12588		2990	391	65487
	%	55.1	20.1	19.2		4.6	0.6	100
1994-95	S/C	36359	13160	12588		2990	391	65487
	%	55.5	20.4	19.5		4.6	0.6	100
1995-96	S/C	39858	14763	14151		3273	473	72518
	%	55.0	20.1	19.2		4.5	0.6	100
1996-97	S/C	42054	15732	15460		3471	507	77224
	%	54.4	20.4	20.0		4.5	0.7	100.0
1997-98	S/C	43465	16356	16000		3597	420	79838
	%	54.4	20.5	20.0		4.5	0.5	100.0
1998-99*	S/C	45489	17446	16249		3772	611	83566
	%	54.4	20.9	19.4		4.5	0.7	100.0

S/C Sales/Consumption * Provisional

@ Included under ESSO/HPCL from 1980-81 onwards.

Source: M-16 Report of OCC.

VI.3 DELIVERIES* MADE TO INTERNATIONAL/COASTAL BUNKERS DURING THE YEARS 1987-88 TO 1998-99

(Qty. '000' Tonnes)

ITEMs	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99(P)
1	2	3	4	5	6	7	8	9	10	11	12	13
SHIPPING INTERNATIONAL BUNKERS:												
F.O.	165.1	101.9	143.2	107.6	73.8	78.7	116.0	120.1	85.8	87.5	69.8	74.5
H.S.D.	12.0	7.2	8.6	10.7	12.9	14.3	13.3	11.8	18.3	13.7	11.0	9.1
L.D.O	44.7	38.6	36.0	32.2	29.4	27.7	29.1	25.0	20.4	19.7	17.3	15.8
TOTAL	221.8	147.7	187.8	150.5	116.1	120.7	158.4	156.9	124.5	120.9	98.1	99.4
COASTAL BUNKERS:												
F.O.	200.0	200.0	208.4	208.0	194.3	182.9	195.4	214.4	160.7	194.3	174.3	144.3
H.S.D.	140.0	134.3	120.7	129.5	122.3	111.2	120.6	129.5	120.5	157.6	137.7	115.7
L.D.	32.6	38.3	38.0	34.2	34.7	39.8	40.1	38.1	32.1	29.6	26.5	26.5
TOTAL	372.6	372.6	367.1	371.7	351.3	333.9	356.1	382.0	313.3	381.5	338.5	286.5
TOTAL BUNKERS:												
F.O.	365.1	301.9	351.6	315.6	268.1	261.6	311.4	334.5	246.5	281.8	244.1	218.9
H.S.D.	152.0	141.5	129.3	140.2	135.2	125.5	133.9	141.3	138.8	171.3	148.7	124.9
L.D.O	77.3	76.9	74.0	66.4	64.1	67.5	69.2	63.1	52.5	49.3	43.8	42.3
TOTAL	504.4	520.3	554.9	522.2	467.4	454.6	514.5	538.9	437.8	502.4	436.6	386.1

* Excluding Sales to foreign bunkers on KNPC ACCOUNT BY IOC.
Source: M6 report of OCC.
(P): Provisional.

VI. 4a State-wise Consumption of Major Petroleum Products During 1997-98

('000' Tonnes)

State/UT	Naphtha	LPG	MS	SKO	ATF	HSDO	LDO Regular	FO	LSHS/ HHS	Lubes & Greases	Others	TOTAL
A. States												
1. Andhra Pradesh	247	332	370	653	48	3013	32	403	70	48	207	5423
2. Arunachal Pradesh	0	5	13	14	2	48	1	0	0	2	-1	84
3. Assam	0	70	53	277	58	319	2	67	28	9	88	971
4. Bihar	53	136	157	673	9	1625	115	271	66	44	188	3337
5. Delhi	0	365	497	243	593	1213	68	10	182	27	89	3287
6. Goa	281	22	35	28	24	203	5	163	0	5	12	778
7. Gujarat	696	335	442	858	59	2951	184	657	1397	59	1033	8671
8. Haryana	0	150	159	174	35	1581	47	244	178	21	78	2667
9. Himachal Pradesh	0	44	29	48	0	217	3	10	8	4	14	377
10. J & K	0	47	54	134	13	217	9	12	1	7	31	525
11. Karnataka	140	223	350	523	90	2001	23	369	150	35	82	3986
12. Kerala	184	174	250	290	68	1356	6	209	220	28	181	2966
13. Madya Pradesh	96	210	235	544	27	2159	28	337	31	47	231	3945
14.Maharashtra	841	759	777	1577	558	4128	319	1457	945	174	661	12196
15. Meghalaya	0	6	18	21	0	97	0	0	0	1	8	151
16. Manipur	0	9	9	22	2	26	0	0	0	0	7	75
17. Mizoram	0	7	6	9	0	23	0	0	0	0	3	48
18. Nagaland	0	6	10	15	1	27	0	0	0	1	0	60
19. Orissa	113	50	81	246	17	731	17	312	8	16	32	1623
20. Punjab	53	206	354	361	67	2064	20	367	542	29	167	4230
21. Rajasthan	326	185	210	372	40	2420	43	144	87	25	162	4014
22. Sikkim	0	3	4	12	0	11	2	2	0	0	0	34
23. Tamilnadu	373	376	397	692	155	3159	43	892	185	99	388	6759
24. Tripura	0	6	6	32	2	37	0	1	0	1	6	91
25. Uttar Pradesh	1304	576	431	1197	100	4362	106	387	221	60	313	9057
26. West Bengal	9	242	156	808	103	1706	147	278	0	64	263	3778
Total (A)	**4716**	**4544**	**5103**	**9823**	**2071**	**35696**	**1220**	**6692**	**4319**	**906**	**4243**	**79133**
B.Union Territories												
1. Andaman & Nikobar	0	1	3	7	3	55	0	0	0	1	1	71
2. Chandigarh	0	22	49	17	27	64	4	15	4	2	7	211
3. Dadra & Nagar Haveli	0	1	5	3	0	90	4	11	0	24	4	142
4. Daman & Diu	0	1	4	5	0	18	2	4	0	0	5	39
5. Lakshadweep	0	0	0	0	0	6	0	0	0	0	0	6
6. Pondicherry	0	10	15	15	0	126	1	25	0	2	6	200
Total (B)	**0**	**35**	**76**	**47**	**30**	**359**	**11**	**55**	**4**	**29**	**23**	**669**
C. Outside Territories												
1. Bhutan	0	2	3	8	1	16	0	4	0	0	2	36
2. Nepal	0	0	0	0	0	0	0	0	0	0	0	0
Total (C)	**0**	**2**	**3**	**8**	**1**	**16**	**0**	**4**	**0**	**0**	**2**	**36**
Grand Total (A+B+C)	**4716**	**4581**	**5182**	**9878**	**2102**	**36071**	**1231**	**6651**	**4323**	**935**	**4268**	**79838**

VI. 4b State-wise Consumption of Major Petroleum Products During 1998-99*

('000' Tonnes)

State/UT	Naphtha	LPG	MS	SKO	ATF	HSDO	LDO Regular	FO	LSHS/ HHS	Lubes & Greases	Others	TOTAL
A. States												
1. Andhra Pradesh	457	362	395	676	54	3056	34	412	132	45	215	5838
2. Arunachal Pradesh	0	5	14	13	2	52	Neg	Neg	0	2	2	90
3. Assam	1	75	53	281	62	327	3	66	15	7	134	1024
4. Bihar	1	148	161	849	8	1713	92	246	80	45	231	3574
5. Delhi	0	390	517	233	554	1190	73	6	99	40	77	3179
6. Goa	205	23	34	28	21	204	3	139	0	4	9	670
7. Gujarat	1862	381	466	847	63	2913	188	620	1357	81	759	9537
8. Haryana	0	172	174	179	25	1707	43	161	310	25	88	2884
9. Himachal Pradesh	0	49	33	51	Neg	235	4	17	6	5	20	420
10. J & K	0	47	59	137	18	218	8	20	1	7	36	551
11. Karnataka	165	248	355	533	92	1952	27	428	149	35	70	4050
12. Kerala	383	189	259	301	71	1262	6	232	191	30	212	3136
13. Madya Pradesh	139	226	256	658	24	2106	37	343	23	59	103	3974
14.Maharashtra	815	815	825	1584	574	4190	296	1274	850	203	592	12018
15. Meghalaya	0	7	18	21	Neg	110	Neg	0	0	1	8	165
16. Manipur	0	9	9	20	2	28	Neg	0	0	Neg	6	74
17. Mizoram	0	8	6	9	Neg	22	Neg	0	0	Neg	0	45
18. Nagaland	0	6	10	15	1	29	0	0	0	1	8	70
19. Orissa	106	53	88	311	14	715	13	275	2	18	34	1629
20. Punjab	47	225	386	365	63	2194	31	239	640	28	166	4384
21. Rajasthan	258	201	235	442	46	2557	44	170	125	35	156	4269
22. Sikkim	0	3	4	12	Neg	11	1	2	0	Neg	1	34
23. Tamilnadu	483	428	431	712	160	3421	40	1070	254	101	389	7489
24. Tripura	0	7	7	33	2	40	Neg	1	0	Neg	8	98
25. Uttar Pradesh	1314	634	463	1395	101	4433	152	410	286	69	389	9846
26. West Bengal	0	273	165	818	109	1790	147	293	Neg	60	286	3941
Total (A)	**6236**	**4982**	**5423**	**10523**	**2066**	**36475**	**1242**	**6422**	**4520**	**901**	**3999**	**82789**
B.Union Territories												
1. Andaman & Nikobar	0	2	3	7	4	55	0	Neg	0	1	5	77
2. Chandigarh	0	25	56	19	26	70	5	12	8	2	9	232
3. Dadra & Nagar Haveli	0	2	5	3	0	102	4	12	0	22	0	150
4. Daman & Diu	0	2	4	5	0	22	3	4	0	Neg	4	44
5. Lakshadweep	0	0	0	0	0	6	0	0	0	0	0	6
6. Pondicherry	1	11	17	15	0	136	3	29	1	2	4	219
Total (B)	**1**	**42**	**85**	**49**	**30**	**391**	**15**	**57**	**9**	**27**	**22**	**728**
C. Outside Territories												
1. Bhutan	0	3	3	11	1	21	Neg	3	0	0	1	43
2. Nepal	0	0	0	0	0	0	0	0	0	1	5	6
Total (C)	**0**	**3**	**3**	**11**	**1**	**21**	**0**	**3**	**0**	**1**	**6**	**49**
Grand Total (A+B+C)	**6237**	**5027**	**5511**	**10583**	**2097**	**36887**	**1257**	**6482**	**4529**	**929**	**4027**	**83566**

*: Provisional.

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

(Kg)

State/ Territory	1987-88	1988-89	1989-90	1990-91	1991 92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99(P)
A. STATES												
Andhra Pradesh	42.4	46.5	51.1	50.4	52.1	56.4	59.1	63.3	67.6	71.6	73.9	78.7
Arunachal Pradesh				76.9	83.9	86.0	96.3	100.0	100.0	102.1	77.1	79.6
Assam	37.7	40.5	42.9	46.2	44.3	41.6	40.4	42.0	41.6	41.9	38.4	39.9
Bihar	30.0	33.0	33.2	33.1	33.0	35.4	33.6	37.2	36.2	35.6	35.0	36.9
Delhi	229.9	236.0	257.1	243.5	241.3	243.4	258.6	286.4	277.8	289.9	263.6	243.8
Goa			527.1	574.9	563.2	561.5	269.2	589.8	589.8	580.3	532.9	443.7
Gujarat	134.6	139.1	137.4	138.4	147.3	145.3	145.1	162.1	172.5	187.2	186.8	202.2
Haryana	94.4	86.5	99.3	104.2	110.9	112.8	122.8	132.1	136.1	147.9	140.2	149.1
Himachal Pradesh	31.5	35.0	37.1	36.4	40.7	43.1	46.6	48.5	52.9	64.5	60.5	65.4
Jammu & Kashmir	41.1	42.1	41.4	37.7	45.2	46.8	52.2	56.9	53.3	56.6	56.7	57.8
Karnataka	47.5	51.4	52.7	54.9	57.6	60.0	64.2	70.7	75.3	83.5	79.3	79.4
Kerala	54.9	60.3	60.6	65.9	68.0	68.7	75.6	83.1	85.2	91.0	94.3	98.7
Madhya Pradesh	35.0	38.3	39.7	37.2	38.6	40.2	41.9	46.8	48.8	51.6	51.9	51.3
Maharashtra	106.3	117.4	121.4	120.0	118.4	124.1	129.0.	129.9	131.4	139.0	138.2	134.4
Manipur	35.7	41.7	38.1	34.5	36.5	38.6	36.5	44.4	41.4	40.9	32.6	31.0
Meghalaya	43.5	53.4	57.4	57.9	61.3	66.5	66.5	70.0	70.4	79.1	68.0	71.4
Mizoram				58.3	40.8	44.9	56.5	54.2	46.8	59.5	55.2	50.0
Nagaland	44.1	53.9	49.1	43.6	40.3	44.7	43.0	45.8	43.9	46.0	39.2	44.0
Orissa	30.4	33.2	35.1.	35.7	38.6	39.2	40.3	43.7	45.3	47.3	46.4	46.1
Punjab	126.8	115.5	128.3	133.5	145.9	150.5	157.3	168.3	176.3	184.8	185.4	189.8
Rajasthan	43.2	55.9	56.4	51.6	55.4	59.0	64.4	70.9	74.9	81.6	78.6	82.1
Sikkim	26.2	38.1	30.2	37.2	39.4	49.3	49.3	52.5	61.7	70.2	66.7	64.2
Tamil Nadu	77.1	85.2	88.2	86.5	90.2	91.6	93.3	100.7	107.8	111.4	112.1	123.0
Tripura	23.5	27.2	30.4	24.0	22.6	25.8	24.7	26.4	25.9	29.2	26.4	27.4
Uttar Pradesh	35.9	39.7	41.7	40.0	42.9	44.9	46.6	51.9	49.7	55.6	56.4	58.8
West Bengal	47.6	51.2	52.5	50.4	50.1	49.5	49.1	50.9	50.2	52.2	49.6	51.0
B. OTHER AREAS												
Chandigarh	250.8	275.4	261.1	249.7	288.6	272.6	325.5	325.0	251.3	261.5	260.5	276.2
Goa, (Incl. Daman & Diu Dadra & Ngr. Haveli)	400.7	719.7	438.4.	141.7*	146.4*	166.7*	183.3*	285.0	277.8	451.9	603.3	625.8
Others	83.5	92.9	114.5	155.5	158.2	178.9	190.4	180.0	188.2	200.0	195.1	202.7
TOTAL ALL INDIA@	**62.0**	**63.7**	**69.1**	**68.4**	**70.5**	**72.9**	**75.2**	**81.1**	**79.2**	**84.3**	**87.3**	**89.9**

PER CAPITA CONSUMPTION OF SELECTED PETROLEUM PRODUCTS 1987-88 TO 1998-99 (INCL. BUNKERS)

(Kg)

Product	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99(P)
Naphtha	3.6	4.3	4.1	4.1	4.1	4.0	3.8	4.0	4.0	4.4	4.9	6.4
M.S.	3.6	3.9	4.2	4.2	4.2	4.2	4.5	4.9	5.1	5.2	5.4	5.7
SKO	9.1	9.8	10.0	10.0	9.9	10.0	10.3	10.6	10.2	9.6	10.3	10.9
HSDO	22.3	23.8	25.2	25.0	26.9	28.7	30.6	33.4	35.2	36.0	37.8	38.0
LDO	1.6	1.8	1.8	1.8	1.7	1.7	1.6	1.6	1.4	1.3	1.3	1.3
F.O. (Regular)	5.3	5.8	5.5	5.3	5.8	6.2	5.9	6.9	7.1	7.1	7.0	6.7
LSHS/HHS	5.0	4.9	5.3	5.4	5.0	4.7	4.9	4.8	4.6	4.7	4.5	4.7
TOTAL ALL-INDIA@ SALES/CONSUMPTION	**62.0**	**63.7**	**69.1**	**68.4**	**70.6**	**72.9**	**75.2**	**81.1**	**82.7**	**88.1**	**87.3**	**89.9**

Note: (i) Based on Expert Committee's population projection as on 1st March each year and projection on 1971 and 1981 and Mid Year populations taken from RBI's Report on Currency and Finance

@ All India actual consumtpion of all products incl. Ref. Fuel & International Bunkers.

* Figure excluding Goa, Goa has been shown separately

P = Provisional

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

SECTOR	1996-97 consumption	1996-97 % to total	1997-98 consumption	1997-98 % to total	1998-99(P) consumption	1998-99(P) % to total
LPG						
1. Domestic	3343	79.9	3744	81.7	4120	82.0
2. Commercial/Industry	774	18.5	766	16.7	831	16.5
3. Others	66	1.6	71	1.5	76	1.5
Total (1+2+3)	**4183**	**100.0**	**4581**	**100.0**	**5027**	**100.0**
NAPHTHA						
1. Fertilizers	3019	64.3	3404	61.8	3881	56.4
2. Petrochemicals	1272	27.1	1345	24.4	1472	21.4
3. Others	405	8.6	760	13.8	1525	22.2
Total (1+2+3)	**4696**	**100.0**	**5509**	**100.0**	**6878**	**100.0**
HSDO						
1. Transport						
i) Road Transport	2224	6.4	2433	6.7	2343	6.4
ii) Aviation	6	0.0	8	0.0	16	0.0
iii) Shipping	240	0.7	211	0.6	214	0.6
iv) Railways	1498	4.3	1401	3.9	1380	3.7
v) Other Transport (incl. Agri. Retail Trade)	26389	75.4	27053	75.0	27961	75.8
Sub Total (1) :	**30357**	**86.7**	**31106**	**86.2**	**31914**	**86.5**
2. Plantation/Food						
i) Sugar Mills	132	0.4	103	0.3	115	0.3
ii) Other (incl. Plan. of Food)	449	1.3	431	1.2	433	1.2
Sub Total (2) :	**581**	**1.7**	**534**	**1.5**	**548**	**1.5**
3. Power Generation (Utilities)	**226**	**0.6**	**280**	**0.8**	**272**	**0.7**
4. Industry						
i) Iron & Steel	152	0.4	122	0.3	124	0.3
ii) Textile & Fibre	502	1.4	620	1.7	682	1.8
iii) Cement	277	0.8	271	0.8	213	0.6
iv) Ceramic & Glass	77	0.2	72	0.2	67	0.2
v) Chemicals & Allied	381	1.1	387	1.1	367	1.0
vi) Aluminium	8	0.0	8	0.0	11	0.0
vii) Mining & quarrying	636	1.8	623	1.7	617	1.7
viii)Engg. (Mech & Elec)	292	0.8	284	0.8	284	0.8
ix) Fertilizers	26	0.1	30	0.1	35	0.1
x) Other industries & Construction	465	1.3	504	1.4	556	1.5
Sub total	**2816**	**8.0**	**2921**	**8.1**	**2956**	**8.0**
5. Misc. Services (incl. DGS & D)	**1039**	**3.0**	**1230**	**3.4**	**1197**	**3.2**
Total	**35019**	**100.0**	**36071**	**100.0**	**36887**	**100.0**

(P) Provisional

Contd.....

VI. 6 (contd.) SECTOR-WISE (END-USE) CONSUMPTION OF SELECTED PETROLEUM PRODUCTS 1996-97 TO 1998-99

('000' Tonnes)

SECTOR	1996-97		1997-98		1998-99*	
	consump-tion	% to total	consump-tion	% to total	consump-tion	% to total
	LDO (REGULAR)					
1. Transport						
i) Road Transport	2	0.2	2	0.2	2	0.2
ii) Aviation	1	0.1	1	0.1	1	0.1
iii) Shipping	46	3.8	41	3.3	45	3.6
iv) Railways	2	0.2	4	0.3	2	0.2
v) Other Transport (incl.Agri.Retail Trade)	15	1.2	16	1.3	8	0.6
Sub Total (1) :	66	5.4	64	5.2	58	4.6
2. Plantation/Food						
i) Sugar Mills	Neg.	0.0	1	0.1	2	0.2
ii) Other (incl. Plan. of food)	34	2.8	33	2.7	38	3.0
Sub Total (2) :	34	2.8	34	2.8	40	3.2
3. Power Generation (Utilities) 3	184	15.1	189	15.4	170	13.5
4. Industry						
i) Iron & Steel	88	7.2	83	6.7	78	6.2
ii) Textile & Fibre	33	2.7	36	2.9	63	5.0
iii) Cement	16	1.3	13	1.1	18	1.4
iv) Ceramic & Glass	36	3.0	29	2.4	30	2.4
v) Chemicals & Allied	154	12.6	152	12.4	157	12.5
vi) Aluminium	4	0.3	3	0.2	3	0.2
vii) Mining & quarrying	9	0.7	7	0.6	15	1.2
viii)Engg. (Mech & Elec)	114	9.4	112	9.1	96	7.6
ix) Fertilizers	4	0.3	2	0.2	4	0.3
x) Other industries & Construction	175	14.4	184	15.0	196	15.6
Sub total 4.	633	52.0	621	50.5	660	52.5
5. Misc. Services (incl. DGS & D)	301	24.7	322	26.2	329	26.2
Total (1+2+3+4+5)	1218	100.0	1230	100.0	1257	100.0
	F.O.(Regular)					
1. Transport						
i) Road Transport	8	0.1	9	0.1	8	0.1
ii) Aviation	3	0.0	2	0.0	2	0.0
iii) Shipping	249	3.8	214	3.2	221	3.4
iv) Railways	12	0.2	12	0.2	20	0.3
v) Other Transport (incl.Agri.Retail Trade)	79	1.2	78	1.2	32	0.5
Sub Total (1) :	351	5.4	315	4.7	283	4.4
2. Plantation/Food						
i) Sugar Mills	16	0.2	13	0.2	14	0.2
ii) Other (incl. Plan. of food)	234	3.6	261	3.9	274	4.2
Sub Total (2) :	250	3.8	274	4.1	288	4.4

*Provisional.

Contd...

VI. 6 (Concluded) SECTOR-WISE (END-USE) CONSUMPTION OF SELECTED PETROLEUM PRODUCTS 1996-97 TO 1998-99

('000' Tonnes)

SECTOR	1996-97		1997-98		1998-99*	
	consump-tion	% to total	consump-tion	% to total	consump-tion	% to total
3. Power Generation (Utilities) 3	764	11.7	549	8.3	540	8.3
4. Industry						
i) Iron & Steel	507	7.8	492	7.4	441	6.8
ii) Textile & Fibre	455	7.0	495	7.4	537	8.3
iii) Cement	193	3.0	292	4.4	379	5.8
iv) Ceramic & Glass	131	2.0	143	2.2	124	1.9
v) Chemicals & Allied	797	12.2	928	14.0	982	15.1
vi) Aluminium	163	2.5	142	2.1	137	2.1
vii) Mining & quarrying	70	1.1	86	1.3	92	1.4
viii)Engg. (Mech & Elec)	182	2.8	167	2.5	168	2.6
ix) Fertilizers	1374	21.0	1235	18.6	926	14.3
x) Other industries & Construction	819	12.5	885	13.3	863	13.3
Sub total	4691	71.8	4865	73.1	4649	71.7
5. Misc. Services (incl. DGS & D)	478	7.3	648	9.7	722	11.1
Total (1+2+3+4+5)	6534	100.0	6651	100.0	6482	100.0
	LSHS/HHS					
1. Transport	3	0.1	3	0.1	2	0.0
2. Plantation/Food						
i) Sugar Mills	0	0.0	0	0.0	0	0.0
ii) Other (incl. Plan. of Food)	25	0.6	21	0.5	43	0.9
Sub Total (2) :	25	0.6	21	0.5	43	0.9
3. Power Generation (Utilities)	1634	37.9	1614	37.3	1297	28.6
4. Industry						
i) Iron & Steel	54	1.3	43	1.0	41	0.9
ii) Textile & Fibre	240	5.6	142	3.3	170	3.8
iii) Cement	63	1.5	49	1.1	45	1.0
iv) Ceramic & Glass	77	1.8	65	1.5	68	1.5
v) Chemicals & Allied	393	9.1	325	7.5	346	7.6
vi) Aluminium	12	0.3	7	0.2	Neg.	0.0
vii) Mining & quarrying	53	1.2	23	0.5	22	0.5
viii)Engg. (Mech & Elec)	17	0.4	24	0.6	91	2.0
ix) Fertilizers	1354	31.4	1621	37.5	1910	42.2
x) Other industries & Construction	217	5.0	183	4.2	279	6.2
Sub total 4	2480	57.5	2482	57.4	2972	65.6
5. Misc. Services (incl. DGS & D)	171	4.0	203	4.7	215	4.7
Total (1+2+3+4+5)	4313	100.0	4323	100.0	4529	100.0

*: Provisional.

Source : M-S Report.

VI.7 CONSUMPTION OF DIESEL OIL IN INDIAN RAILWAYS DURING 1960-61 TO 1998-99

Year	No. of Diesel Locomotives	Consumption Diesel Oil (in Kls)	Consumption of Diesel per Locomotive (in Kls).
1	2	3	4
1960-61	181	62771	346.8
1961-62	228	59444	260.7
1962-63	349	98481	282.2
1063-64	486	182328	375.2
1964-65	621	245633	395.5
1965-66	727	310813	427.5
1966-67	776	365582	471.1
1967-68	892	427126	478.8
1968-69	996	486084	488.0
1969-70	1091	536301	491.6
1970-71	1169	569025	846.8
1971-72	1288	626983	486.8
1972-73	1431	667414	466.4
1973-74	1610	683140	424.3
1974-75	1702	720047	423.1
1975-76	1803	797610	442.4
1976-77	1903	867330	455.8
1977-78	2025	949077	468.7
1978-79	2126	960545	451.8
1979-80	2243	992060	442.3
1980-81	2403	1067470	442.2
1981-82	2520	1179682	468.1
1982-83	2638	1227236	465.2
1983-84	2800	1313200	459.0
1984-85	2905	1335664	459.8
1985-86	3046	1440269	472.8
1986-87	3182	1536499	482.9
1987-88	3298	1595897	483.9
1988-89	3454	1652555	478.4
1989-90	3610	1678814	465.0
1990-91	3759	1712816	455.7
1991-92	2905	1731473	443.4
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	426.5
1997-98	4496	1874139	416.8
1998-99	4524	1893290	418.5

(P) Provisional Source: Railway Board, New Delhi.

3463PNG F—11-A

VL8 INDUSTRY/PLANT-WISE OFFTAKE OF NAPHTHA
1988-89 TO 1998-99

(Qty. '000 Mts)

Category and Plant	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11	12
I. Fertilizer Plant											
Madras Fertilizers	205	196	201	206	191	164	185	223	193	98	216
HFC, Durgapur	55	41	74	95	70	40	0	74	46	6	0
FCI, Gorakhpur	108	98	22	0	0	0	0	0	0	0	0
HCF, Barauni	99	73	101	71	100	31	75	57	47	51	22
SFC, Kota	152	166	176	169	170	175	169	183	182	181	190
Duncans Ind. Ltd.	292	319	254	294	291	286	356	392	336	358	382
RFP, Rourkela	99	103	105	93	107	129	105	124	126	113	114
GSFC, Baroda	126	132	128	120	78	85	92	75	81	65	114
FACT, Cochin	138	112	129	121	83	130	147	138	143	148	169
ZAC, Goa	212	220	238	266	257	240	253	288	253	281	205
IFFCO, Phulpur	299	264	348	253	312	278	298	262	269	432	657
IFFCO, Kalol	47	44	55	61	51	56	60	57	45	78	106
MCFL, Manglore	151	111	140	137	99	100	124	122	168	140	165
SPIC, Tuticorin	269	270	261	287	281	276	302	290	266	275	265
GNFC, Bharuch	Neg.	Neg.	1	Neg.	Neg.	Neg.	1	Neg.	2	Neg.	Neg.
FACT, Alwaye	76	61	56	55	50	37	41	33	26	36	80
Coromandal Ferts, Vizag	66	64	76	68	58	72	64	78	84	76	60
NFL Nangal	—	16	49	48	57	54	46	50	49	53	47
Others	—	8	2	1	1	99	386	478	703	1013	1090
Sub-Total (Fertilizers)	**2392**	**2298**	**2416**	**2345**	**2256**	**2252**	**2704**	**2924**	**3019**	**3404**	**3882**
II. Petrochemical Plants:											
BRPL, Bongaigaon	16	25	21	17	22	24	—	26	5	0	0
HOC, Rasayani	4	—	—	5	5	5	5	8	8	8	6
IPCL, Baroda	455	417	416	482	449	448	413	477	442	455	412
NOCIL, Bombay	299	287	275	272	293	266	183	140	281	260	221
RCF, (Mathanol) Bombay	15	9	4	0	0	0	0	—	—	—	—
Rama Petro Chemicals	48	41	44	33	26	24	25	33	58	43	23
Reliance Ind. Ltd.	59	179	182	185	232	211	163	222	359	364	516
National Peroxide		2	2	2	2	2	3	4	4	4	4
Oswal Agro		19	71	61	72	19	14	8	53	65	7
Others	1	—	2	2	6	13	38	65	62	146	273
Sub-Total (Petro-Chem.)	**897**	**979**	**1017**	**1059**	**1107**	**1012**	**844**	**983**	**1272**	**1345**	**1472**
III. Others											
HOC, Rasayani	—	5	5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
FCI Talchar	4	2	0.0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DESU	56	59	0.0	1	0	0	0	0	0	0	0
HSL, Bhilai etc.	11	2	0.0	0	0	0	0	0	0	0	0
HCL, Khetri	4	4	4	5	1	7	2	4	5	Neg.	2
Others			5	34	19	19	79	221	400	760	1523
Sub-Total (others)	**75**	**72**	**14**	**40**	**20**	**26**	**81**	**234**	**405**	**760**	**1525**
Grand Total (I+II+III)	**3364**	**3349**	**3447**	**3444**	**3383**	**3290**	**3629**	**4141**	**4696**	**5509**	**6878**

Source: Industry Performance Review, (P) Provisional N.A. = Not Available

VI. 9 PLANT/CUSTOMER-WISE OFFTAKE OF FO/LSHS FROM 1992-93 TO 1998-99

(Qty. '000' Tonnes)

Category and Plant	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
		(i) Power					
A Northern:							
OBRA Thermal	30.4	31.3	34.2	22.9	19.4	11.1	21.3
HSEB Hardwaganj	3.8	11.7	13.8	3.6	4.5	4.5	8.5
BTPS Bhadrapur	5.5	4.3	0	0.0	0.0	1.4	0.0
GNTP Bhatinda	2.7	3.7	2.5	7.6.	0.0	2.9	13.8
TPS Paricha	10.6	10.7	7.3	11.2	6.8	5.9	11.4
TPS Singrauli	0.0	4.2	10.9	2.9	5.4	1.5	1.4
TPS Rihand	2.9	0.0	7.1	12.3	1.5	1.4	1.4
KTPS Kota	9.8	14.0	18.0	18.4	5.5	14.3	7.9
DESU Delhi(BPC+HPC+IOC)	46.3	33.8	24.5	29.3	25.6	21.2	11.4
HSEB Faridabad	3.4	4.3	5.3	5.7	6.1	0.0	0.0
TPS Ropar	23.8	31.8	28.2	24.7	23.1	19.4	14.5
TPS Panipat	39.4	29.4	33.7	48.3	40.3	46.5	33.3
HWP Rawatbhatta	45.2	24.1	46.8	49.3	28.5	30.9	24.5
Sub-Total(A)	**233.8**	**209.0**	**232.3**	**238.9**	**166.7**	**161.0**	**149.4**
B. Eastern:							
ASEB Chandrapura	42.3	31.9	55.4	65.1	43.0	42.6	30.8
CTPS Chandrapur	39.7	34.4	9.7	32.4	42.7	21.8	21.3
NTPC Farrakka	4.1	34.0	34.3	24.4	23.7	28.2	33.0
BTPS Barauni	13.5	11.1	17.8	16.4	17.1	7.1	8.3
TTPS Tacher	6.9	6.7	10.7	15.4	8.9	0.0	3.1
BTPS Salakati	34.2	11.3	3.8	9.0	8.7	10.7	4.9
Sub-Total (B)	**140.7**	**129.4**	**131.7**	**162.7**	**144.1**	**110.4**	**99.4**
C. Western:							
GEB Dhuwaran	691.0	498.5	637.4	745.8	724.9	686.4	507.5
GEB Ukai	34.8	33.0	48.6	63.9	70.4	46.2	18.4
GEB Gandhinagar	14.4	9.8	8.9	24.2	31.8	38.2	39.2
AECO Sabarmati	5.5	6.9	11.1	9.2	10.8	13.7	9.7
GEB Wanakbari	47.3	43.4	61.3	68.2	158.1	12.6	9.9
MPEB Sarani	102.1	66.6	64.6	48.0	30.0	18.4	16.3
MSEB Koradi	26.7	25.3	19.9	13.6	18.5	12.2	20.3
MSEB Chanderpur	29.6	50.9	39.9	23.6	16.1	30.7	27.0
MPEB Dhari	16.8	18.3	13.7	12.2	8.2	7.1	5.7
MSEB Nasik	12.6	13.1	22.0	18.6	31.3	7.4	11.3
MSEB Bhusawal	9.2	5.8	6.6	12.1	3.8	5.6	6.2
MSEB Paras	1.4	3.0	1.6	0.5	1.5	0.9	0.0
MSEB Parli	18.1	5.4	16.8	23.2	33.5	25.6	15.4
NTPC Korba	14.5	11.3	9.7	7.3	6.3	2.8	4.6
MPEB Korba	0.0	17.2	22.4	14.8	13.4	10.3	8.1
TATA Thermal	812.2	767.9	629.1	683.2	594.0	663.3	554.0
MPEB Chachai	17.8	13.5	18.8	17.7	5.8	4.4	4.7
NTPC Waidhan	17.9	5.6	10.1	7.0	2.8	3.0	4.4
MSEB Kaperkada	11.3	5.6	3.0	5.4	2.8	5.7	4.1
Sub-Total(C)	**1883.3**	**1601.1**	**1645.5**	**1771.5**	**1764.0**	**1594.5**	**1268.8**

Contd.....

VI. 9 Contd. PLANT/CUSTOMER-WISE OFFTAKE OF FO/LSHS FROM 1992-93 TO 1998-99

(Qty. '000' Tonnes)

Category and Plant	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
D. Southern:							
TTPS Tuticorin	14.7	14.1	7.2	4.3	3.5	7.8	5.5
KTPS Palancha	14.4	11.9	11.1	13.7	14.6	18.0	24.6
RTPS Raichur	1.2	1.8	6.3	9.4	2.4	2.3	12.2
MTPP Metturdam	5.5	2.0	1.3	9.7	0.0	5.3	35.3
NTPC Ramagundam	13.4	6.6	5.1	4.0	0.0	0.0	1.4
ETPS Ennore	2.9	5.2	3.6	6.8	2.6	0.0	0.0
NLC Neyveli TML	21.0	40.2	27.1	47.5	41.5	21.1	16.0
HWP Manuguru	21.5	11.5	25.7	17.8	16.3	10.3	7.8
KEB Yellahanka					100.0	123.5	117.9
VTPS Ibrahimpatn					3.6	5.6	4.1
RTPS Kalkamall					9.6	4.9	2.3
Sub-Total (D)	**94.6**	**103.90**	**174.4**	**232.7**	**194.1**	**198.8**	**227.1**
Total: Power (A+B+C+D)	**2352.4**	**2043.4**	**2183.9**	**2405.8**	**2268.9**	**2064.7**	**1744.7**
		(II) Fertilizer Plants:					
A. Northern:							
Indo Gulf Jagdis	-	13.7	52.8	49.7	56.2	64.3	49.9
NFL Nangal	271.8	264.7	265.8	332.9	282.3	303.1	297.1
NFL Bhatinda	267.3	280.1	282.7	356.3	267.6	330.2	306.1
NFL Panipat	271.7	293.0	259.2	334.2	294.3	335.9	296.4
IFFCO Phulpur	22.2	21.1	22.8	25.5	18.3	48.5	107.4
SFC Kota	1.8	3.7	8.1	10.6	6.9	1.4	0.0
Sub-Total (A)	**820.8**	**876.3**	**891.4**	**1109.2**	**925.6**	**1083.4**	**1056.9**
B. Eastern:							
HFC Durgapur	16.2	6.2	4.6	9.6	19.1	2.7	0.0
FCI Sindri	194.3	176.1	209.8	212.8	188.6	173.2	183.5
FCI Barauni	20.8	6.7	24.9	19.4	15.9	11.5	6.0
FCI Talcher	9.6	12.6	6.5	7.3	8.3	10.4	8.1
Sub-Total (B)	**240.9**	**291.6**	**245.8**	**249.1**	**231.9**	**197.8**	**197.6**
C. Western:							
ZAC Goa	97.5	97.6	98.7	113.7	110.3	124.1	93.8
IFFCO Kalol	35.7	31.9	43.7	47.0	41.2	39.4	45.1
GSFC Baroda	129.8	122.8	135.5	135.5	144.6	139.4	134.0
GNFC Bharuch	433.6	381.9	449.0	487.2	454.1	406.1	480.5
Sub-Total (C)	**696.6**	**634.2**	**726.9**	**783.5**	**750.2**	**709.0**	**753.4**
D. Southern:							
MFL Madras	73.2	86.4	81.1	91.0	78.1	100.3	145.1
MCFL Mangalore	58.3	63.8	60.8	61.0	82.7	71.7	91.2
FACT Cochin	60.1	77.4	104.5	114.9	126.4	135.7	83.3
NLC Neyveli	65.7	96.4	75.0	80.0	83.8	78.9	55.7
SPIC Tuticorin	166.4	173.5	182.6	184.6	178.0	178.3	170.6
FCI Ramagundam	8.8	11.3	6.6	8.6	9.4	11.4	13.6
Coromandal Fort.	29.2	18.5	20.9	42.5	46.0	46.7	39.9
Sub-Total (D)	**461.7**	**527.3**	**531.5**	**582.6**	**604.4**	**623.0**	**599.4**
Total Fertilizer (A+B+C+D)	**2220.0**	**2239.4**	**2395.6**	**2724.4**	**2512.1**	**2613.2**	**2607.3**

Cont.....

VI. 9 Contd. PLANT/CUSTOMER-WISE OFFTAKE OF FO/LSHS FROM 1992-93 TO 1998-99

(Qty. '000' Tonnes)

Category and Plant	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
			(III) Petrochemical Plant				
C. Western:							
IPCL Baroda	81.0	107.7	215.5	127.7	95.4	76.0	85.8
NOCIL Bombay	0.0	0.2	0.4	1.6	11.0	2.9	0.0
Reliance Industry Bombay	170.5	180.0	161.8	145.4	139.8	67.2	105.3
Sub-Total (C)	**251.5**	**287.9**	**377.7**	**274.7**	**246.2**	**146.1**	**191.1**
D. Southern:							
FACT Udyogmandal	0.9	3.6	6.1	11.3	8.5	9.7	181.8
TNPL Madras	47.0	45.3	47.9	63.0	56.7	45.2	59.7
Sub-Total (D)	**47.9**	**48.9**	**54.0**	**74.3**	**65.2**	**54.9**	**78.5**
Total Petrochemical (C+D)	**299.4**	**336.8**	**431.7**	**349.0**	**311.4**	**201.0**	**269.6**
			(IV) Steel Plant				
B. Eastern:							
TISCO Bumapur	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RSP Rourkela	28.6	58.2	66.3	81.6	47.9	41.7	25.9
DSP Durgapur	28.3	11.8	9.5	0.0	0.0	0.0	0.0
ASP Durgapur	25.6	22.9	13.7	13.4	4.7	14.3	9.6
TISCO Jamshedpur	53.7	43.0	33.9	5.2	0.0	0.0	0.0
BSP Bokaro	96.0	107.5	76.4	72.6	55.0	17.4	11.1
SAIL Patratu	0.2	0.2	9.3	5.7	10.9	9.9	12.3
HCL Ghatsila	-	-	-	-	-	-	-
Sub-Total (B)	**234.4**	**243.6**	**209.1**	**178.5**	**118.5**	**83.3**	**58.9**
C. Western:							
HSL Bhillai	25.7	19.9	27.2	25.7	26.4	14.4	14.4
Sub-Total (C)	**25.7**	**19.9**	**27.2**	**25.7**	**26.4**	**14.4**	**14.4**
D. Southern:							
S. Viscose	-	-	-	-	-	-	
Vizag Steel Plant	4.0	10.2	2.8	7.5	2.8	3.7	12.6
FACT ASCL	-	-	-	-	-	-	
Sub-Total (D)	4.0	10.2	2.8	7.5	2.8	3.7	12.6
Total Fertilizer (B+C+D)	**264.1**	**273.7**	**239.1**	**211.6**	**147.7**	**101.4**	**85.9**
			(V) Others				
A. Northern:							
Hindalco	32.0	31.9	34.2	35.9	34.2	0.0	11.3
Sub-Total (A)	**32.0**	**31.9**	**34.2**	**35.9**	**34.2**	**0.0**	**11.3**
B. Eastern:							
Paradeep Phosph -	0.0	0.8	4.2	0.0	0.0	0.0	0.0
NALCO Angul	159	17.1	20.0	25.5	24.3	22.3	22.1
IRE Chatrapur	0.0	0.0	9.0	14.5	6.9	1.7	3.3
NALCO Damanjodi	68.2	47.4	65.6	65.1	68.8	68.0	65.7
OCL Rajgangapur	18.6	10.9	14.9	17.9	21.4	25.6	19.5
TELCO Jamshedpur	62.4	9.8	15.9	17.0	18.4	8.8	10.8
HCL Ghatsila	9.3	4.4	10.8	9.6	9.6	9.4	4.8
Sub-Total (B)	**174.4**	**90.4**	**140.4**	**149.6**	**149.4**	**135.8**	**126.2**

Contd.....

VI. 9 Concluded PLANT/CUSTOMER-WISE OFFTAKE OF FO/LSHS FROM 1992-93 TO 1998-99

(Qty. '000' Tonnes)

Category and Plant	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
C.Western:							
HOC Rasayani	10.5	9.6	9.3	9.2	10.8	14.0	18.1
HPC Mandovi Pellets	19.7	26.6	17.0	19.5	0.0	0.0	0.0
Sub-total(C)	**30.2**	**36.2**	**26.3**	**28.7**	**10.8**	**14.0**	**18.1**
D.Southern:							
Grasim	-	13.4	12.7	12.9	6.8	7.0	2.8
S.I. Viscose	24.9	23.4	40.6	42.3	31.3	18.8	11.8
Indal Belgaum	5.8	42.5	46.0	54.9	54.6	33.5	38.5
Tex MACO	0.0	3.4	4.1	4.2	7.9	10.0	0.0
Ballarpur Industries	0.0	14.3	13.6	9.1	5.5	6.7	17.6
Nalco Angul	-	-	0.0	-	-	-	-
Chem. Plast	30.5	37.3	41.6	41.5	45.9	53-1	62.1
HOC Cochin	0.6	18.5	19.8	21.2	20.0	22.6	16.5
Kudremuk Iron & Ore Company	36.5	46.5	39.4	44.1	55.5	64.9	70.8
FACT ASCI	20.1	69.2	51.1	61.8	68.2	60.8	60.1
Sub-toal(D)	**118.4**	**268.5**	**278.1**	**292.0**	**295.7**	**277.4**	**280.2**
Total: Others (A+B+C+D)	**[illegible]5.0**	**427.0**	**479.0**	**506.2**	**490.1**	**427.2**	**435.8**
		(VI) General Trade					
A. Nothern Region	673.3	679.4	843.1	810.9	1095.2	1167.1	1348.8
B. Eastern Region	467.1	397.1	461.4	446.5	490.9	509.5	539.9
C. Western Region	1647.6	1871.9	1913.3	2076.7	2232.2	2524.0	2547.9
D. Southern Region	1058.5	838.1	941.0	1149.8	1294.7	1366.1	1779.3
Total: General Trade (A+B+C+D)	**3811.2**	**3786.5**	**4159.1**	**4484.0**	**5113.0**	**5566.7**	**6215.9**
Grand Total (i+ii+iii+IV+V+VI)	**9302.8**	**9106.8**	**9888.4**	**10680.9**	**10843.2**	**10974.2**	**11203.6**

P: Provisional Source: Industry Performance Review.
Note: Separate Figures for some of the plants like Reliance Industries, Patalganga etc. are not available.

VI. 10 STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA DURING 1996-97

STATE/UT	Gas Stations				Diesel Stations		
	Natural Gas (Mn. Cub.Mtrs)	HSD (Kl)	Naphtha (Kl)	Genera-tion (GWH)	Diesel Oil (Kl)	Genera-tion (GWH)	Average Oil Consumption (Lts/KWH)
NORTHERN REGION							
Haryana	0	0	0	0	0	0.00	0.00
Himachal Pradesh	0	0	0	0	0	0.00	0.00
Jammu & Kashmir	0	27992	0	71	0	0.00	0.00
Punjab	0	0	0	0	0	0.00	0.00
Rajasthan	58	0	0	105	0	0.00	0.00
Uttar Pradesh	0	0	0	0	0	0.00	0.00
Chandigarh	0	0	0	0	0	0.00	0.00
Delhi	237	11714	0	752	0	0.00	0.00
WESTERN REGION							
Gujarat	390	25932	0	2620	0	0.00	0.00
Madhya Pradesh	0	0	0	0	0	0.00	0.00
Maharashtra	421376	0	0	5727	0	0.00	0.00
Goa	0	0	0	0	0	0.00	0.00
Daman & Diu	0	0	0	0	0	0.00	0.00
D & N Haveli	0	0	0	0	0	0.00	0.00
SOUTHERN REGION							
Andhra Pradesh	556	0	0	1002	0	0.00	0.00
Karnataka	0	0	0	0	105947	537.00	0.20
Kerala	0	0	0	0	0	0.00	0.00
Tamil Nadu	2	11329	0	84	0	0.00	0.00
Pondicherry	0	0	0	0	0	0.00	0.00
EASTERN REGION							
Bihar	0	0	0	0	0	0.00	0.00
Orissa	0	0	0	0	0	0.00	0.00
West Bengal	0	14642	0	30	85	0.43	0.20
D.V.C.	0	3107	3366	16	0	0.00	0.00
Sikkim	0	0	0	0	187	0.95	0.20
NORTH EASTERN REGION							
Assam	347	0	0	782	0	0.00	0.00
Manipur	0	0	0	0	708	1.90	0.37
Meghalaya	0	0	0	0	0	0.00	0.00
Nagaland	0	0	0	0	59	0.30	0.20
Tripura	184	0	0	210	700	2.00	0.35
Arunachal Pradesh	0	0	0	0	3486	17.67	0.20
Mizoram	0	0	0	0	4022	11.82	0.34
ISLANDS							
Lakshadweep	0	0	0	0	5833	16.80	0.35
A&N Islands	0	0	0	0	25644	89.77	0.29
CENTRAL SECTOR	3370	0	94356	15587	0	0.00	0.00
TOTAL	426520	94716	97722	26985	146671	678.64	0.22

Kl: Kilo Litres. GWH: Gigawatt Hour. Lts/KWH: Litres per Kilowatt Hour.

Source : Central Electricity Authority.

VI. 11 STATE-WISE CONSUMPTION OF FOSSIL FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 1996-97

STATE/UT	Steam Stations								
	Coal (TMT)	Lignite (TMT)	Furnace Oil (KL)	HSD/ LDO (KL)	LSHS/ HHS (KL)	Natural Gas (MCM)	Heat Input (K.Cal X 10^9)	Gross Gene-ration (GWH)	Average Heat Input (K.Cal/KWH)
NORTHERN REGION									
Haryana	2873	0	24402	4286	34715	0	11936	3403	3508
Himachal Pradesh	0	0	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	0	0	0	0	0
Punjab	6801	0	1160	6071	27045	0	26676	9778	2728
Rajasthan	3667	0	11836	375	1986	0	16560	6364	2602
Uttar Pradesh	14319	0	36493	23007	0	0	46303	18423	2513
Chandigarh	0	0	0	0	0	0	0	0	0
Delhi	1277	0	16446	4548	15097	0	4389	1463	2999
WESTERN REGION									
Gujarat	12830	827	38427	7752	881446	105	61191	23494	2605
Madhya Pradesh	13478	0	74935	13765	0	0	48337	16139	2995
Maharashtra	28081	0	182809	15145	1203368	0	119460	43110	2771
Goa	0	0	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0	0	0
D & N Haveli	0	0	0	0	0	0	0	0	0
SOUTHERN REGION									
Andhra Pradesh	14721	0	58597	4243	0	0	53829	16720	3219
Karnataka	3948	0	3813	119	0	0	12023	5152	2334
Kerala	0	0	0	0	0	0	0	0	0
Tamil Nadu	14684	0	91499	4209	1758	0	65782	18597	3537
Pondicherry	0	0	0	0	0	0	0	0	0
EASTERN REGION									
Bihar	1966	0	36261	7002	9071	0	9632	2408	4000
Orissa	1839	0	0	0	10087	0	6778	2029	3341
West Bengal	14697	0	2727	67723	0	0	71555	14577	4909
D.V.C.	4619	0	53631	55329	0	0	22598	6284	3596
Sikkim	0	0	0	0	0	0	0	0	0
NORTH EASTERN REGION									
Assam	284	0	31364	5467	25898	0	2145	550	3901
Manipur	0	0	0	0	0	0	0	0	0
Meghalaya	0	0	0	0	0	0	0	0	0
Nagaland	0	0	0	0	0	0	0	0	0
Tripura	0	0	0	0	0	0	0	0	0
Arunachal Pradesh	0	0	0	0	0	0	0	0	0
Mizoram	0	0	0	0	0	0	0	0	0
ISLANDS			0						
Lakshadweep	0	0	0	0	0	0	0	0	0
A&N Islands	0	0	0	0	0	0	0	0	0
CENTRAL SECTOR	60208	14569	116592	18314	21437	0	265277	100887	2629
TOTAL	200292	15396	780992	237355	2231708	105	844471	289378	2918

TMT: Thousand Metric Tonnes. KL: Kilo Litres. MCM: Million Cubic Metres.
GWH: Gigawatt Hour. KWH: Kilowatt Hour.

Source: Central Electricity Authority.

VII. FOREIGN TRADE

VII. 1 IMPORTS/EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS FROM 1970 TO 1998.

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

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
1981	15528	3793.83	5697	1638.58	21225	5423.41
1982	17327	4116.89	4842	1551.37	22269	5668.26
1983	15552	3471.47	4260	1246.60	19812	4718.07
1984	14620	3525.15	6043	1850.31	20663	5375.46
1985	14811	3808.74	4292	1440.70	19103	5249.44
1986	14481	2069.65	3362	818.06	17843	2887.71
1987	17977	3105.25	3659	884.69	21636	3989.94
1988	17712	2811.28	5554	1273.36	23266	4084.64
1989	18919	3718.63	6489	2106.33	25408	5824.96
1990	20793	5829.62	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	38607	14513.77	19602	10408.47	58209	24922.24
			EXPORTS			
1970	—	—	412	5.72	412	5.72
1975	—	—	166	13.83	166	13.83
1980	—	—	70	17.98	70	17.98
1981	—	—	55	15.13	55	15.13
1982	4391	1044.71	648	101.23	5039	1145.94
1983	4723	1041.87	1148	286.23	5871	1328.10
1984	6760	1598.55	1071	271.63	7831	1870.18
1985	2044	503.88	1695	482.06	3739	985.94
1986	—	—	364	389.2	2364	889.32
1987	—	—	3455	662.07	3455	662.07
1988	—	—	2267	472.85	2267	472.85
1989	—	—	2531	654.84	2531	654.84
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	—	—	1916	1093.59	1916	1093.59
			NET IMPORTS			
1970	11665	102.36	558	24.81	12223	127.17
1975	13600	992.02	2125	185.63	15725	1117.65
1980	15976	3038.66	6730	1770.30	22706	4808.96
1981	15528	3793.83	5642	1623.45	21170	5417.28
1982	12936	3072.18	4294	1450.14	17230	4522.32
1983	10829	2429.60	3112	959.96	13941	3389.56
1984	7860	1926.60	4972	1578.68	12832	3505.28
1985	12767	3304.86	2597	958.64	15364	4263.50
1986	14481	2069.65	998	428.74	15479	2498.39
1987	17977	3105.25	204	222.62	18181	3327.87
1988	17712	2811.28	3287	1273.36	20999	3611.79
1989	18919	3718.63	3958	1451.49	22877	5170.12
1990	20793	5829.62	4849	2600.24	25642	8529.88
1991	21813	6827.57	7269	4492.42	29082	11319.99
1992	29977	10423.44	6322	4052.83	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	30099.07
1998	38607	14513.77	17686	9314.88	56293	23828.65

VII.2 IMPORTS/EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS FROM 1970-71 TO 1998-99

(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	2991	12767	136.63
1975-76	13624	1051.76	2218	204.34	15842	1256.10
1980-81	16248	3348.97	7289	1917.34	23537	5266.54
1982-83	16949	4043.74	5028	1553.94	21977	5597.68
1983-84	15967	3541.05	4328	1270.75	20295	4811.80
1984-85	13642	3430.34	6092	1914.91	19734	5345.25
1985-86	15144	3686.80	3865	1273.90	19009	4960.40
1986-87	15476	2120.19	3047	652.69	18523	2772.88
1987-88	17734	2986.31	4151	1024.32	21883	4010.63
1988-89	17815	2861.08	6495	1559.84	24310	4420.92
1989-90	19490	4089.35	6564	2254.71	26054	6344.06
1990-91	20699	6118.42	8660	4660.21	29359	10778.63
1991-92	23994	7820.05	9445	5218.27	33439	13038.32
1992-93	29247	10685.86	11283	6359.60	40530	17045.46
1993-94	30822	10682.52	12076	7041.93	42898	17729.95
1994-95	27349	10316.03	13951	7521.71	41300	17837.74
1995-96	27342	11517.00	20335	12577.85	47677	24094.95
1996-97	33906	18538.19	20265	15633.49	54171	34171.68
1997-98	34494	15897.15	19530	12431.92	54024	28329.07
1998-99	34808	14876.46	18780	9836.52	58588	24712.98
			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
1981-82	838	196.23	55	15.13	893	211.36
1982-83	4552	1063.37	795	133.79	5347	1197.06
1983-84	5522	1231.10	1472	356.96	6994	1588.06
1984-85	6478	1563.16	933	255.03	7411	1818.19
1985-86	528	135.15	1963	509.58	2491	644.73
1986-87	—	—	2491	411.23	2491	411.23
1987-88	—	—	3412	648.75	3412	648.75
1988-89	—	—	2295	523.63	2295	523.63
1989-90	—	—	2593	695.56	2593	695.56
1990-91	—	—	2648	1003.94	2648	1003.92
1991-92	—	—	2936	1214.65	2936	1214.65
1992-93	—	—	3719	1606.28	3719	1606.28
1993-94	—	—	4034	1508.81	4034	1508.81
1994-95	—	—	3254	1587.36	3254	1587.36
1995-96	—	—	3435	1831.98	3435	1831.93
1996-97	—	—	3162	2084.78	3162	2084.78
1997-98	—	—	2950	1822.84	2954	1822.84
1998-99	—	—	1401	855.71	1401	855.71
			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
1981-82	14460	3540.15	4831	1438.03	19289	4978.18
1982-83	12397	2980.37	4233	1420.15	16630	4400.52
1983-84	10445	2309.95	2856	1913.79	13301	3223.74
1984-85	7164	1867.18	5159	1659.88	12323	3527.06
1985-86	14616	3591.65	1902	764.02	16518	4315.67
1986-87	15476	2120.19	556	241.47	16032	2361.66
1987-88	17732	2986.31	739	375.57	18471	3361.88
1988-89	17815	2861.08	4200	1036.21	22015	3897.29
1989-90	19490	4089.35	3971	1559.15	23461	5648.50
1990-91	20699	6118.42	6012	3656.29	26711	9774.71
1991-92	23994	7820.05	6509	4003.62	30503	11823.67
1992-93	29247	10685.86	7564	4753.32	36811	15439.18
1993-94	30822	10688.52	8042	5532.62	38864	16221.14
1994-95	27349	10316.03	10697	5934.33	38046	16250.36
1995-96	27342	11517.00	16900	10745.92	44242	22262.92
1996-97	33906	18538.19	17103	13548.71	51009	32086.90
1997-98	34494	15897.15	16576	10609.08	51070	26506.23
1998-99	39808	14876.46	17379	8990.81	57187	23857.27

3463PNG F—12-B

VII. 3 IMPORTS/EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS (PRODUCT-WISE) 1990 TO 1998

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

ITEM	1990		1995		1996		1997		1998	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7	8	9	10	11
GROSS IMPORTS@										
A. Crude Oil	20793	5929.62	26901	10856.71	32812	17194.53	33573	17061.19	38607	14513.77
B. Petroleum Proucts										
I. Light Distillates	346	147.67	932	702.53	1186	1010.73	1582	1571.53	1792	1319.13
1. Naphtha	—	—	—	—	—	—	—	—	40	23.68
2. Others	346	147.67	932	702.53	1186	1010.73	1582	1571.53	1752	1295.45
II. Middle Distillates	6826	3186.89	16084	9109.40	18520	13886.02	17850	12348.96	17259	8857.46
1. ATF	94	31.09	120	81.50	178	141.92	31	25.36	31	18.86
2. SKO	2953	1549.02	4923	3033.85	4315	3506.75	3803	2853.93	5446	3068.31
3. HSDO	3779	1606.78	11040	5994.06	14028	10237.34	14016	9469.67	11782	5770.29
III Heavy Ends	282	207.08	916	439.08	1058	557.89	407	210.98	532	231.83
1. FO	—	—	850	308.30	1058	557.89	358	136.71	514	182.85
2. Lubes	262	178.56	62	123.58	1009	425.82	29	74.27	18	49.02
3. Waxes	20	28.52	4	7.00	49	132.07	—	—	—	—
4. Others	—	—	—	—	—	—	—	—	—	—
Total (B)	7454	3541.64	17931	10251.01	20764	15454.63	19839	14131.47	19583	10408.42
Grand Total (A+B)	28247	9471.26	44832	21107.72	53576	32649.16	53412	31192.66	58190	24922.19
EXPORTS@										
A. Crude Oil	—	—	—	—	—	—	—	—	—	—
B. Petroleum Products										
I. Light Distillates	2247	840.87	2905	1461.89	2819	1714.35	2221	1475.11	1167	607.21
1. Naphtha	1608	617.27	2372	1219.15	2355	1435.72	1590	1076.82	874	440.22
2. Others	639	223.60	533	242.74	464	278.63	631	398.29	293	166.99
II. Middle Distillates	85	35.44	389	255.64	421	295.32	456	388.66	526	435.17
1. HSD/LDO	43	16.93	206	133.90	212	145.01	237	212.99	261	212.10
2. Others	42	18.51	183	121.74	209	150.31	219	175.67	265	223.07
III. Heavy Ends	273	65.09	24	11.02	86	40.82	156	63.07	223	51.21
1. FO	272	64.82	24	10.88	86	40.59	155	62.90	203	47.99
2. Others	1	0.27	Nil	0.14	Nil	0.23	1	0.17	29	3.22
Total (B)	2605	941.40	3318	1728.55	3326	2050.49	2833	1926.84	1916	1093.59
Grand Total (A+B)	2605	941.40	3318	1728.55	3326	2050.49	2833	1926.84	1916	1093.59
NET IMPORTS										
A. Crude Oil	20793	5929.62	26901	10856.71	32812	17194.53	33573	17061.19	38607	14513.77
B. Petroleum Products	4849	2600.24	14613	8522.46	17438	13404.14	17006	12304.63	17667	9314.83
Total (Net Imports)	25642	8529.86	41514	19379.17	50250	30598.67	50579	29365.82	56274	23828.60

@Includes supplies of POL Products to Nepal w.e.f. 1.4.83 onwards.

VII. 4 IMPORTS/EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS

[Qty: '000' Tonnes, Value: Rs. Crores]

ITEM	1990-91		1995-96		1996-97		1997-98		1998-99 *	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
GROSS IMPORTS @										
A. Crude Oil	20699	6118.42	27342	11517.00	33906	18538.19	34494	15897.15	39808	14876.46
B. Pol. Products										
I. Light Distillates	334	164.26	1117	816.65	1490	1491.83	1422	1162.59	1947	1414.08
1. LPG	329	160.26	678	530.54	1035	1116.86	1087	902.57	1525	1130.35
2. Others	5	4.00	439	286.11	455	374.97	335	260.02	422	283.73
II. Middle Distillates	8047	4253.60	17950	11155.79	18037	13745.76	17942	11149.97	16308	8203.91
1. ATF	27	7.98	97	69.45	150	119.69	55	34.23	—	—
2. SKO	3340	1963.37	5001	3325.56	4279	3538.86	3812	2528.77	5823	3244.11
3. HSD	4680	2282.25	12852	7760.78	13608	10087.21	14075	8586.97	10485	4959.80
III. Heavy Ends	279	242.35	1268	605.41	738	395.90	166	119.36	525	218.53
1. Furnace Oil	—	0.0	1209	474.55	694	277.38	141	55.31	514	182.85
2. Lubes	256	207.91	58	130.18	44	118.52	25	64.05	11	35.68
3. Waxes	23	34.44	0.36	0.68	—	—	—	—	—	—
4. Others	—	—	—	—	—	—	—	—	—	—
TOTAL (B)	8660	4660.21	20365	12577.85	20265	15633.49	19530	12431.92	18780	9836.52
GRAND TOTAL (A+B)	29359	10778.63	47677	24094.85	54171	34171.68	54024	28329.07	58588	24712.98
EXPORTS@@										
A. Crude Oil	0	0	0	0	0	0	0	0	0	0
B. Pol. Products										
I. Light Distillates	2124	847.90	3017	1555.42	2643	1737.07	2098	1276.81	779	417.64
1. Naptha	1520	621.87	2461	1294.26	2184	1443.83	1407	874.30	643	323.62
2 LPG	(Included	in others)	17	17.34	22	23.93	21	27.17	23	25.36
3. Others	604	226.03	539	243.82	437	269.31	670	375.34	113	68.66
II. Middle Distillates	161	65.96	396	265.50	437	307.38	491	442.16	531	411.22
1. HSD/LDO	82	31.54	209	138.30	216	148.57	237	212.99	260	197.64
2. Others	79	34.42	187	127.20	221	158.81	254	229.17	271	213.58
III. Heavy Ends	363	90.06	22	11.01	82	40.33	361	103.87	91	26.85
1. FO/LSHS	357	88.50	22	10.71	82	40.09	360	103.85	91	26.85
2. Others	6	1.56	Neg.	0.30	Neg	0.24	1	0.02	—	—
TOTAL(B)	2648	1003.92	3435	1831.93	3162	2084.78	2950	1822.84	1401	855.71
GRAND TOTAL (A+B)	2648	1003.92	3435	1831.93	3162	2084.78	2950	1822.84	1401	855.71
NET IMPORTS										
A. Crude Oil	20699	6118.42	27342	11517.00	33906	18538.19	34494	15897.15	39808	14876.46
B. Pol. Products	6012	3656.29	16900	10745.92	17103	13548.71	16580	10609.08	17379	8980.81
GRAND TOTAL	26711	9774.71	44242	22262.92	51009	32086.90	51074	26506.23	57187	23857.27

* : Provisional
@ Includes NOC Imports but excludes import by private parties.
@@: Includes supplies of POI Product to Nepal
—: Nil. Neg.: Negligible.

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

(Rs./Crores)

Year	India's Overall Trade					India's Trade with OPEC Countries					% of India 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
1971-72	1608	1825	-217	4.8	11.7	76	182	-106	-23.2	44.4	4.7	10.0
1972-73	1971	1867	104	22.6	2.3	94	200	-106	23.7	9.9	4.8	10.7
1973-74	2523	2955	-432	28.0	58.3	187	532	-345	98.9	166.0	7.4	18.0
1974-75	3329	4519	-1190	32.0	52.9	467	1100	-633	149.7	106.8	14.0	24.3
1975-76	4036	5265	-1229	21.2	16.5	633	1166	(-)533	35.5	6.0	15.7	22.1
1976-77	5142	5074	68	27.4	-3.6	707	1296	(-)589	11.7	11.1	13.8	25.5
1977-78	5408	6020	-612	5.2	18.6	674	1340	(-)666	-4.7	3.4	12.5	22.3
1978-79	5726	6811	-1085	5.9	13.1	733	1382	(-)649	8.8	3.1	12.8	20.3
1979-80	6418	9143	-2725	12.1	34.2	717	2410	(-)1693	-2.2	74.4	11.2	26.4
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	110.4	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	130101	154176	-24075	9.5	11.0	13110	34950	-21840	14.2	-3.3	10.1	22.7
1998-99	141604	176099	-34495	8.8	14.2	14868	32870	-11998	13.4	-6.0	10.5	18.7

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

VII. 6 INDIA'S FOREIGN EXCHANGE RESERVES (1970-71 TO 1998-99)

Year	S.D.R.S. 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
1976-77	187.4	187.80	2862.99
1977-78	161.6	193.00	4499.75
1978-79	364.9	219.50	5219.86
1979-80	529.1	224.71	5163.66
1980-81	490.5	225.58	4822.12
1981-82	425.1	225.58	3354.47
1982-83	270.2	225.58	4265.26
1983-84	216.4	225.58	5497.90
1984-85	146.5	245.76	6818.78
1985-86	115.1	274.28	7384.35
1986-87	139.4	274.28	7645.17
1987-88	69.7	274.28	7287.14
1988-89	79.5	274.28	6604.60
1989-90	81.9	280.70	5787.20
1990-91	75.9	6828.30	4388.10
1991-92	65.7	9038.8	14578.00
1992-93	12.7	10548.80	20140.50
1993-94	76.5	12794.10	47287.00
1994-95	4.6	13751.80	66006.00
1995-96	55.9	15658.5	58446
1996-97	1.4	14557.2	80368
1997-98	0.8	13394.0	102507
1998-99	6.0	12624	121116

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 1998-99

YEAR	POL Imports		India's Total Exports		Gross POL	Net POL
	Gross	Net	Gross	Net of POL Exports	Imports as % age of total Gross Exports	Imports as % age of total Net 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
1976-77	1424	1417	5142	5135	27.7	27.6
1977-78	1552	1546	5408	5393	28.7	28.6
1978-79	1681	1677	5726	5722	29.4	29.3
1979-80	3270	3246	6418	6394	51.0	50.8
1980-81	5266	5258	6711	6703	78.5	78.4
1981-82	5191	4978	7806	7594	66.5	65.6
1982-83	5598	4401	8803	7606	63.6	65.6
1983-84	4812	3224	9771	8183	49.2	39.4
1984-85	5345	3527	11744	9926	45.5	35.5
1985-86	4961	4316	10895	10250	45.5	42.1
1986-87	2773	2362	12452	12041	22.3	19.6
1987-88	4011	3362	15874	15025	25.6	22.4
1988-89	4421	3897	20232	19708	21.9	19.8
1989-90	6344	5648	27681	26962	22.9	20.9
1990-91	10779	9775	32553	31549	33.1	31.0
1991-92	13038	11824	44041	42826	29.6	27.6
1992-93	17046	15439	53688	52062	31.8	29.6
1993-94	17730	16221	69751	68242	25.4	23.8
1994-95	17838	16250	82674	81087	21.6	22.5
1995-96	24095	22263	106353	104521	22.7	21.3
1996-97	34172	32092	118817	116732	28.8	27.5
1997-98	28329	26509	130101	128281	21.8	20.7
1998-99	24713	23857	141604	140750	17.5	16.9

Source: For col. 4; Ministry of Commerce, DGCI & S. Calcutta.

VIII. MANPOWER

VIII.1 MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA 1990-1999
(As on Ist April)

(Number)

CATEGORY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Exploration & Production	56477	58187	58627	58864	58590	57633	50244	48585	52909	51656
2. Refining	25751	26479	29856	23386	22589	23031	24622	20723	25294	37619
3. Marketing	36261	33074	35353	38414	39255	34270	37321	38744	37943	41806
4. Pipelines	3189	3579	3711	3312	3654	3619	3712	3934	3782	3803
5. R & D	-	-	-	3035	3048	2953	2935	2901	2832	2869
6. Others	8268	8359	8446	14340	14359	14929	20770	21958	15249	13580
Grand Total	**129946**	**129678**	**135793**	**141351**	**141495**	**136435**	**139604**	**136845**	**138009**	**151333**

VIII. 2 CATEGORY- WISE MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA 1990-1999
(As on Ist April)

(Number)

CATEGORY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Executive/Managerial	31178	32446	35848	39434	40479	40282	41460	40770	42836	43237
2. Supervisory	12229	12744	11713	9623	9593	9245	8467	12295	12908	12142
3. Clerical	17254	15993	17511	17633	16388	16934	16102	15520	15927	14795
4. Workmen	65475	63795	65479	66201	66656	64722	65045	61174	61000	61057
5. TOTAL	126136	124978	130551	132891	133116	131183	131074	129759	132671	131231
6. Expatriates/ Foreign Experts/ on Contract	3810	4700	5242	8460	8379	5252	8530	7086	5338	20102
GRAND TOTAL	**129946**	**129678**	**135793**	**141351**	**141495**	**136435**	**139604**	**136845**	**138009**	**151333**

VIII. 3 CATEGORY-WISE MANPOWER EMPLOYED IN VARIOUS SECTORS OF PETROLEUM INDUSTRY IN INDIA 1990-1999
(As on Ist April)

(Number)

	CATEGOR	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	9)	(10)	(11)
						EXPLORATION AND PRODUCTION					
1.	Executive /Managerial	15864	17473	18944	17447	17327	17555	17636	17318	17637	17846
2.	Supervisory	5594	6040	1992	4794	4948	4279	3272	4865	6513	6005
3.	Clerical	4749	4728	4689	4625	4281	4532	3870	3526	4305	4117
4.	Workmen	28712	28610	28628	31156	30941	30295	25400	22793	24444	23678
5.	TOTAL	54919	56851	57253	58022	57497	56661	50178	48502	52899	51646
6.	Expatriates/ Foreign Experts/ on Contract	1558	1336	1374	842	1093	972	66	83	10	10
	GRAND TOTAL	**56477**	**58187**	**58627**	**58864**	**58590**	**57633**	**50244**	**48585**	**52909**	**51656**
						PETROLEUM REFINING@					
1.	Executive/Managerial	5009	5287	6261	4527	4437	4271	5450	4236	5746	5079
2	Supervisory	1216	1471	1653	1432	889	1195	642	1719	2269	1922
3.	Clerical	3427	3256	4514	2773	1938	2479	2129	2033	2804	2092
4.	Workmen	14995	14856	15649	12012	12280	11893	12546	11144	12504	13434
5.	TOTAL	24647	24870	28077	20744	19544	19838	20767	19132	23323	22527
6.	Expatriates/ Foreign Experts/ on Contract	1104	1609	1579	2642	3045	3193	3855	1591	1971	15092
	GRAND TOTAL	**25751**	**26479**	**29656**	**23386**	**22589**	**2301**	**24622**	**20723**	**25294**	**37619**
						MARKETING					
1.	Executive/Managerial	8586	7884	8644	8526	9327	8678	8978	9623	9522	10864
2.	Supervisory	2222	2041	1851	2061	2210	2314	2482	2721	2524	2584
3.	Clerical	7030	5746	5984	6085	6214	5566	5392	5428	5190	5916
4.	Workmen	17302	15716	16644	16912	17753	17291	17216	17719	17454	18128
5.	TOTAL	35140	31387	33123	33584	35504	33849	34068	35491	34690	37492
6.	Expatriates/ Foreign Experts/ on Contract	1121	1687	2230	4830	3751	421	3253	3253	3253	4314
	GRAND TOTAL	**36261**	**33074**	**35353**	**38414**	**39255**	**34270**	**37321**	**38744**	**37943**	**41806**

@: Includes IOC's Head Office, Regional Office.

3463PNG F—13-A3

IX. PRICES

IX.I WHOLESALE PRICE INDICES OF CRUDE OIL, NATURAL GAS, PETROLEUM PRODUCTS AND ALL COMMODITIES IN INDIA

(1981-82=100)

Products	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Crude Oil & Natural Gas	99.6	101.0	102.7	120.7	129.1	130.2	132.1	138.1	135.8
LPG	132.1	149.8	185.8	213.6	233.8	233.8	280.4	320.1	345.7
Petrol	187.3	238.8	263.9	275.9	293.5	293.5	361.2	398.3	408.0
High Speed Diesel Oil	155.2	173.0	195.9	216.4	235.2	235.1	261.3	313.6	321.3
Light Diesel Oil	139.1	166.1	197.0	222.3	243.1	242.9	296.9	314.8	318.3
Kerosene	144.3	150.8	146.7	146.7	146.7	146.7	147.9	148.3	148.0
Furnace Oil	134.7	160.5	188.5	207.8	206.8	206.6	250.0	245.8	225.6
Aviation Turbine Fuel	193.7	247.3	278.6	290.5	290.5	289.7	311.2	318.5	318.4
Lubricating Oil	182.1	226.5	275.5	330.0	337.9	342.6	385.6	401.9	420.9
Naphtha	133.3	145.6	178.3	201.9	201.9	201.9	245.5	299.8	320.8
Bitumen	125.8	146.5	172.8	190.7	190.7	190.7	204.4	275.3	276.6
All Commodities	182.7	207.8	228.7	247.8	274.7	295.8	314.6	329.8	352.4

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

IX. 2 PRICES OF INDIGENOUS ONSHORE AND OFFSHORE CRUDE OIL IN INDIA.
34 API GRAVITY

	Item	Unit	Price effective from														
			14.7.75	8.9.76	16.12.77	1.4.81	11.7.81	15.2.83	1.4.84	1.3.87	1.4.87	1.2.89	1.4.90	16.9.92	1.4.93	1.4.96	1.4.98##
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
							(i) Onshore Crude Oil										
1.	Base Price (as fixed by the Govt.)	Rs./Bbl	36.64*	33.30	27.60	27.60	138.54	138.54	138.54	138.54	138.54	138.54	138.54	204.34	236.23	270.15	
2.	Conversion factor	Bbl./MT	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	
3.	Base Price	Rs./MT	270.04**	245.42**	203.41	203.41	203.41	1021.00	1021.00@@	1021.00	1021.00	1021.00	1021.00	1506.00	1741.00	1991.00	
4.	Oil Development Cess	Rs./MT	@	60.00	60.00	60.00	100.00	300.00	300.00	300.00	600.00	600.00	900.00	900.00	900.00	900.00	
5.	Royalty	Rs./MT	@	@.	42.00	61.00	61.00 #	61.00 #	192.00	192.00	314.00	314.00	481.00	481.00	528.00	578.00	
6.	Total Price (including cess & royalty)	Rs./MT	270.04	305.41	305.41	324.41	1182.00 #	1382.00#	1513.00	1813.00	1935.00	2235.00	2402.00	2887.00	3169.00	3469.00	
							(ii) Off shore Crude Oil										
1.	Base Price (as fixed by the Govt.)	Rs./Bbl			45.00	45.00	138.54	138.54	138.54	138.54	138.54	138.54	138.54	204.34	236.23	270.15	
2.	Conversion factor	Bb./MT			7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	7.37	
3.	Base Price	Rs./MT			331.65	331.65	1021.00	1021.00	1021.00	1021.00	1021.00	1021.00	1021.00	1506.00	1741.00	1991.00	
4.	Oil Development Cess	Rs./MT			60.00	60.00	100.00	300.00	300.00	6.00	900.00	900.00	900.00	900.00	900.00	900.00	
5.	Royalty	Rs./MT			42.00	61.00	61.00	61.00	192.00	192.00	314.00	314.00	481.00	481.00	528.00	578.00	
6.	Total Price	Rs./MT			433.65	452.65	1182.00 #	1382.00#	1513.00	1813.00	1935.00	2235.00	2402.00	2887.00	3269.00	3469.00	

* Inclusive of royalty @Rs. 15MT and Oil Development Cess @ Rs. 60/MT **Inclusive of royalty @Rs. 42/MT

@ Included in the base price.

@@ Fixed retrospectively w.e.f. 1.4.1984.

Shows price fixed by the Government inclusive of royalty and Oil Development Cese.

Note: Upto 31.3.84 Applicable sales tax on ex-central tank farm price of crude oil of 34 API was borne by the producer.
The applicable Sales Tax on the increase of Rs. 131/MT and Rs. 122/MT in the rate of royalty w.e.f. 1.4.84 and 1.4.87 respectively and increase of cess of Rs. 300/MT w.e.f. 1.3.87 and Rs. 300/MT w.e.f. 1.2.89 is being borne by pool account.

w.e.f 1.4.1998 price of Indigenous Crude oil has been linked to weighted average FOB price of actual imports of Crude oil with the floor price of Rs. 1991/MT for the basic price payable to ONGC/OIL. The price will be fixed on monthly basis.

3463PNG F—13-B

IX.3. DEVELOPMENT OF BASIC CEILING SELLING PRICES (EX-STORAGE POINT MUMBAI) OF PETROLEUM PRODUCTS

(Rs./Selling unit)

Product	Selling Unit	Ellective Date									
		16.9 1992	2.2 1994	1.3 1991**	7.7 1996	2.9 1997	17.1 1998	1.4 1998	3.6 1998	1.2 1999	28.2 1999
1	2	3	4	5	6	7	8	9	10	11	12
ATF (Domestic)	KL	10838	10838	9352	10838	10838	10838	10838	10838	10838	10759
MS 83/87	*	14413	15413	12344	16055	17055	17055	17055	15495	15495	15399
MS 93	*	17413	18413	15344	19180	20180	20180	20180	18335	18335	18239
HSDO	*	5539	6289	5717	6575	8375	8375	7839	7537	6722	6622
SKO (Domestic)	*	2202	2202	2001	2001	2001	2001	2001	2001	2001	2001
LDO	*	5396	6146	5588	7264	7264	7264	7201	7201	6300	6300
FURNACE OIL											
For non-ferts	*	4989	4989	4535	5896	5143	5053	4801	4801	4810	4050
For ferts*	*	2812	2812	2812	3656	5143	5053	4801	n.a.	n.a.	n.a.
LSHS											
For ferts*	MT	2852	2852	2852	3707	6089	5452	5071	5071	4580	4340
For non-ferts*	*	4804	4804	4804	6245	6089	5452	5071	n.a.	n.a.	n.a.
BITUMEN ST. GR.											
Bulk	MT	4538	4538	4125	5363	5600$	5600$	5600$	5600$	5600$	5600$
Packed	*	5258	5259	4781	6216	7050$	7050$	7050$	7050$	7050$	7050$
NAPHTHA											
For non-ferts*	MT	6076	6076	6076	6683	7624	7444	7072	7072	6820	6820
For ferts*	*	3723	3723	3723	4840	7624	7444	7072	7072	6820	6820
LPG (Packed)											
Domestic	MT	5136	5840	5309	6902	7958	7958	7958	7958	8944	8733
Non-Dom. Ess.	*	12588	12588	11143	$$	$$	$$	$$	$$	$$	$$
Non-Dom. Non-Ess	*	14169	14169	12381	13900	14303	14303	10015	12669	12669	12669

* : Prices are exclusive of Customs and Excise Duties.
** : w.e.f. 1.3.1994, C.E. duty on all petroleum products would be on advalorem basis with only two rates-Motor Spirit and Coal Tar would attract 20% duty. All other petroleum products would be charged at central excise duty at 10%.
$: Prices for Bitumen Grade 60/70.
$$: w.e.f. 17.5.1995, the two categories under non domestic LPG (Packed) for essential and non-essential have been merged together.
n.a. : Not available.

IX. 4 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-99

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
	MOTOR SPIRIT				
STORAGE POINT PRICE	15399.01	15399.01	15399.01	15399.01	15399.01
STATE SURCHARGE	25.00	316.00	575.45	820.00	25.00
SIDING CHARGE	0.00	0.00	0.00	0.00	18.26
RLY/OCEAN/FREIGHT	105.26	29.87	0.00	0.00	166.67
RPO SURCHARGE	60.00	60.00	60.00	60.00	60.00
RPO CHARGE	4.36	4.36	4.36	4.36	4.36
ASSESSABLE VALUE	15593.63	15809.24	16038.82	16283.37	15673.30
EXCISE DUTY AMOUNT	4989.96	5058.96	5132.42	5210.68	5015.46
SUB TOTAL	20583.59	20868.20	21171.24	21494.05	20688.76
RED. TO ARR. CONTROL PRICE	38.04	13.92	4.36	4.36	57.69
RPO CHARGE	11.36	11.36	11.36	11.36	11.36
SPL. EXCISE DUTY	1000.00	1000.00	1000.00	1000.00	1000.00
SUB TOTAL	21556.91	21865.64	22178.24	22501.05	21642.42
DELIVERY CHARGE BEYOND FDZ	0.00	2.88	0.00	0.00	0.00
RPO CHARGE	21556.91	21868.52	22178.24	22501.05	21642.42
SALES TAX AMOUNT	2371.26	2265.58	5988.13	5400.25	4328.48
SURCHARGE ON SALES AMT	0.00%	15.00%	0.00%	0.00%	0.00%
DEALER COMMISSION	80.00	80.00	80.00	80.00	80.00
RSP/KL	24008.17	24553.93	28246.37	27981.30	26050.91
RSP/LTR	24.01	24.56	28.25	27.99	26.06
	HIGH SPEED DIESEL				
STORAGE POINT PRICE	6621.76	6621.76	6621.76	6621.76	6621.76
STATE SURCHARGE	25.00	129.00	226.45	336.00	5.00
SIDING CHARGE	0.00	0.00	0.00	0.00	19.85
RLY/OCEAN/FREIGHT	117.82	21.93	0.00	0.00	187.00
RPO SURCHARGE	20.00	20.00	20.00	20.00	20.00
RPO CHARGE	0.27	0.27	0.27	0.27	0.27
ASSESSABLE VALUE	6784.85	6792.96	6868.48	6978.03	6853.88
EXCISE DUTY AMOUNT	1085.58	1086.87	1098.96	1116.48	1096.62
SUB TOTAL	7870.43	7879.83	7967.44	8094.51	7950.50
RED. TO ARR. CONTROL PRICE	0.27	0.27	0.27	0.27	0.27
RPO CHARGE	7.27	7.27	7.27	7.27	7.27
SPL. EXCISE DUTY	1000.00	1000.00	1000.00	1000.00	1000.00
SUB TOTAL	8877.43	8886.83	8974.44	9101.51	8957.50
DELIVERY CHARGE BEYOND FDZ	0.00	4.00	0.00	0.00	0.00
RPO CHARGE	8877.43	8890.83	8974.44	9101.51	8957.50
SALES TAX AMOUNT	976.52	969.99	2692.33	1638.27	1791.50
SURCHARGE ON SALES AMT	0.00	145.50	0.00	0.00	0.00
DEALER COMMISSION	169.00	169.00	169.00	169.00	169.00
RSP/KL	10022.94	10175.32	11835.77	10908.79	10918.00
RSP/LTR	10.03	10.18	11.84	10.91	10.92

CONT'D....

IX. 4 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-99

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
ATF (DOMESTIC AIRLINES)					
STORAGE POINT PRICE	10759.32	10759.32	10759.32	10759.32	10759.32
STATE SURCHARGE	25.00	192.57	272.82	411.85	0.00
SIDING CHARGE	0.00	0.00	0.00	0.00	0.00
RLY/OCEAN/FREIGHT	109.61	20.38	0.00	0.00	173.19
AIRFIELD CHARGE	24.44	24.44	24.44	24.44	41.94
ASSESSABLE VALUE	10918.37	10996.71	11056.58	11195.01	10974.45
EXCISE DUTY AMOUNT	1746.94	1759.47	1769.05	1791.20	1755.91
SUB TOTAL	12665.31	12756.18	12825.63	12986.21	12730.36
RED. TO ARR. CONTROL PRICE	545.92	549.84	552.83	559.75	548.72
NRF-IRRECOVERABLE	12.06	2.24	0.00	0.00	19.05
SPL. EXCISE DUTY	0.00	0.00	0.00	0.00	0.00
OCTROI AT LOCAL SUPPLY PT	0.00	0.00	0.00	0.00	10.00
PRICE AT LOCAL SUPPLY PT	12107.33	12204.11	12272.80	12426.46	12172.59
PAP PRICES AT AIRFIELD/KL	12107.33	12204.11	12272.80	12426.46	12172.59
SUPERIOR KEROSENE OIL					
STORAGE POINT PRICE	2001.40	2001.40	2001.40	2001.40	2001.40
STATE SURCHARGE	25.00	43.08	29.51	92.01	5.00
SIDING CHARGE	0.64	0.00	0.00	0.00	25.53
RLY/OCEAN/FREIGHT	69.95	20.81	0.00	0.00	108.46
RPO SURCHARGE	0.00	0.00	0.00	0.00	0.00
RPO CHARGE	0.00	0.00	0.00	0.00	0.00
ASSESSABLE VALUE	0.00	0.00	0.00	0.00	0.00
EXCISE DUTY AMOUNT	160.11	160.11	160.11	160.11	160.11
SUB TOTAL	2257.10	2225.40	2191.02	2253.52	2300.50
RED. TO ARR. CONTROL PRICE	0.00	0.00	0.00	0.00	0.00
RPO CHARGE	0.00	0.00	0.00	0.00	0.00
SPL. EXCISE DUTY	0.00	0.00	0.00	0.00	0.00
SUB TOTAL	2257.10	2225.40	2191.02	2253.52	2300.50
DELIVERY CHARGE BEYOND FDZ	0.00	0.00	0.00	0.00	0.00
OCTROI AT DEPOT	0.00	0.00	34.64	0.00	0.00
RPO CHARGE	0.00	0.00	0.00	0.00	0.00
SALES TAX AMOUNT	45.14	101.26	0.00	90.14	230.05
SURCHARGE ON SALES AMT	0.00	15.19	0.00	0.00	0.00
EX-MI DEPOT PRICE/KL	2302.24	2341.85	2225.66	2343.66	2530.55
WHOLESALE MARGIN	14.50	126.00	126.00	8.00	52.70
TRANSPORT CHARGES	98.10	150.60	119.00	44.00	70.00
LEAKAGE AND OTHER EXPENSES	31.00	0.00	19.50	47.85	0.00
ROUNDING UP	0.00	0.00	9.81	0.00	0.00
WHOLESALE PRICE/KL	2445.84	2618.45	2499.97	2443.51	2653.25
RETAILER MARGIN	69.00	100.00	109.00	314.85	100.00
LEAKAGE AND OTHER EXPENSES	0.00	130.00	19.00	0.00	0.00
RETAILER TRANSPORTATION	0.00	157.93		0.00	0.00
ROUNDING UP	0.00	0.00	2.00	0.00	0.00
RETAIL SELLING PRICE/KL	2514.84	3006.38	2629.97	2758.36	2753.25
RSP/LTR	2.51	3.01	2.63	2.76	2.75

SKO PRICES ARE SUBJECT TO IMPLEMENTATION BY STATE GOVERNMENTS

CONT'D.....

IX. 4 PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS IN MAJOR CITIES AS ON 1-4-99

	DELHI	KOLKATA	MUMBAI	CHENNAI	KANPUR
LIQUIFIED PETROLEUM GAS (DOMESTIC)					
BASIC PRICE	130.99	130.99	130.99	130.99	130.99
STATE SURCHARGE	0.38	2.18	0.81	5.64	0.00
ASSE VALUE	131.37	133.17	131.80	136.63	130.99
EXCISE DUTY	10.51	10.65	10.54	10.93	10.48
FREIGHT UPTO BP	1.90	2.37	0.00	0.00	3.05
OCTROI PRICE AT PRICING	143.78	146.19	142.34	147.56	144.52
FRT/LOCAL DEL CH	0.75	0.75	0.75	0.75	0.75
OCTROI /T.TAX			3.18		
SUB TOTAL	144.53	146.94	146.27	148.31	145.27
CST/ST	5.78	24.98	5.85	11.87	11.62
SURCHARGE ON ST	0.00	3.75			2.91
BILLABLE RATE	150.31	175.67	152.12	160.18	159.80
DIST COMM	3.37	3.37	3.37	3.37	3.37
SUB TOTAL	153.68	179.04	155.49	163.55	163.17
RSP FOR 15KG/CYL	153.68	179.04	155.49	163.55	163.17
RSP FOR 14.2KG/CYL	145.48	169.49	147.20	154.83	154.17
INCR IN DC	0.50	0.50	0.50	0.50	0.50
RSP FOR 14.2KG/CYL	145.98	169.99		155.33	154.97
PRICE ROUNDED TO RE 00.05 PAISE	146.00	170.00	147.85	155.35	154.95
FURNACE OIL*					
EX-STORAGE POINT PRICE	5096.23	4304.31	4280.00	4280.00	
STATE SURCHARGE	25.00	105	191.60	272.00	
ASSES. VALUE	5121.23	4409.31	4471.60	4552.00	
EXCISE DUTY@	768.18	661.4	670.74	682.80	
TOTAL INCLUSIVE OF EXCISE DUTY	5889.41	5070.71	5142.34	5234.80	
SALES TAX	647.84	608.49	668.50	837.57	
SURCHARGE ON SALES TAX		91.27	0.00	0.00	
TOTAL	6537.25	5770.47	5810.84	6072.37	
LIGHT DIESEL OIL*					
EX-STORAGE POINT PRICE	6566.12	6322.60	6300.00	6300.00	
STATE SURCHARGE	25.00	82.17	55.20	175.49	
ASSES. VALUE	6591.12	6404.77	6355.20	6475.49	
EXCISE DUTY@	988.67	960.72	953.28	971.32	
TOTAL INCLUSIVE OF EXCISE DUTY	7579.79	7365.49	7308.48	7446.81	
SALES TAX	833.78	803.57	950.10	1340.43	
SURCHARGE ON SALES TAX		120.54	0.00	0.00	
TURNOVER TAX					
TOTAL	8413.56	8289.60	8258.58	8787.24	

* AS ON 1.1.99

IX. 5 TRENDS IN RETAIL SELLING PRICES OF SELECTED PETROLEUM PRODUCTS IN METROPOLITAN TOWNS IN INDIA

PRICES AS ON	BOMBAY	CALCUTTA	DELHI	MADRAS	KANPUR
	MOTOR SPIRIT 83 (RS./LITRE)				
01.01.1973	1.43	1.46	1.44	1.41	1.47
01.01.1974	2.81	2.82	2.78	2.69	2.78
01.01.1975	3.26	3.27	3.27	3.19	3.35
01.01.1976	3.36	3.39	3.39	3.30	3.47
01.01.1977	3.39	3.38	3.39	3.29	3.48
01.01.1978	3.38	3.38	3.39	3.29	3.48
01.01.1979	4.04	4.04	4.04	4.90	4.14
07.08.1979	4.43	4.42	4.41	4.25	4.52
08.06.1980	5.15	5.14	5.11	4.90	5.22
13.01.1981	5.56	5.54	5.50	5.29	5.69
11.07.1981	6.15	6.13	6.07	6.17	6.19
01.04.1982	6.15	6.13	6.07	6.17	6.19
15.02.1993	6.21	6.16	5.90	6.17	6.25
01.04.1993	6.21	6.31	5.99	6.18	6.15
01.04.1984 (Ms-87 on)	6.32	6.24	6.09	6.44	6.26
01.06.1984	6.41	6.24	6.12	6.44	6.26
17.03.1985	7.34	7.16	7.00	7.39	7.16
01.02.1986	7.90	7.71	7.54	7.96	7.85
06.02.1986/01.04.1986	7.79	7.60	7.43	7.84	7.74
01.04.1987	7.79	7.60	7.43	7.84	7.85
01.04.1988	9.14	8.70	8.50	8.98	8.93
01.04.1989	9.14	8.70	8.50	9.43	8.93
01.04.1990 (Ms-87)	10.76	10.07	9.84	11.09	10.31
01.04.1991	13.74	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
	HIGH SPEED DIESEL OIL (RS./LITRE)				
01.01.1973	0.83	0.90	0.86	0.87	0.88
01.01.1974	0.81	0.87	0.84	0.88	0.87
01.01.1975	1.06	1.10	1.11	1.15	1.15
01.01.1976	1.28	1.35	1.36	1.38	1.32
01.01.1977	1.27	1.36	1.34	1.35	1.33
01.01.1978	1.27	1.36	1.34	1.35	1.33
01.04.1979	1.39	1.49	1.47	1.49	1.50
17.08.1979	1.58	1.68	1.66	1.66	1.69
11.09.1979	1.50	1.60	1.58	1.59	1.61
08.06.1980	2.21	2.25	2.28	2.24	2.34
13.01.1981	2.61	2.66	2.67	2.66	2.76
11.07.1981	2.96	3.01	3.02	3.05	3.11
01.04.1982	2.96	3.01	3.02	3.05	3.11
15.02.1983	3.21	3.31	3.18	3.27	3.46
01.04.1983	3.21	3.30	3.19	3.28	3.40
01.04.1984	3.21	3.30	3.20	3.34	3.42
01.06.1984	3.27	3.30	3.22	3.34	3.42
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
01.02.1986	3.64	3.68	3.58	3.73	3.81
06.02.1986/01.04.1986	3.57	3.60	3.50	3.65	3.73
01.04.1987	3.21	3.30	3.19	3.26	3.40
01.04.1988	3.21	3.30	3.19	3.26	3.40
01.04.1989	3.21	3.30	3.19	3.26	3.40
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
1.4.1996	7.84	7.24	6.99	7.80	7.68
1.4.1997	9.00	8.32	8.02	8.86	8.95
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

Contd.....

IX. 5 Contd. TRENDS IN RETAIL SELLING PRICES OF SELECTED PETROLEUM PRODUCTS IN METROPOLITAN TOWNS IN INDIA

PRICES AS ON	BOMBAY	CALCUTTA	DELHI	MADRAS	KANPUR
			SUPERIOR KEROSENE (RS. LITRE)		
01.01.1973	0.61	0.65	0.65	0.65	0.74
01.01.1974	0.82	0.84	0.82	0.85	0.86
01.01.1975	1.01	1.05	1.08	1.10	1.25
01.01.1976	1.21	1.25	1.29	1.31	1.39
01.01.1977	1.21	1.24	1.29	1.31	1.34
04.01.1978	1.18	1.24	1.30	1.31	1.34
01.04.1979	1.29	1.36	1.43	1.43	1.47
01.08.1979	1.46	1.56	1.61	1.62	1.66
01.09.1979	1.39	1.49	1.54	1.55	1.59
08.06.1980	1.39	1.49	1.54	1.55	1.59
13.01.1981	1.49	1.60	1.65	1.67	1.70
11.07.1971	1.60	1.76	1.81	1.84	1.90
01.04.1982	1.66	1.80	1.81	1.78	1.90
15.02.1980/Subsidised	1.70	1.80	1.77	1.78	1.90
Non-subsidised	3.00	3.12	3.10	3.15	3.35
18.03.1983	1.80	1.91	1.88	1.89	2.10
01.04.1983	1.80	1.90	1.88	1.88	2.05
01.04.1984	1.81	1.92	1.89	1.88	2.05
01.06.1984	1.85	1.92	1.92	1.88	2.05
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
01.02.1986	2.66	2.36	2.34	2.34	2.50
06.02.1986/01.04.1986	2.17	2.27	2.25	2.25	2.50
01.04.1987	2.17	2.27	2.25	2.25	2.50
01.04.1988	2.14	2.27	2.25	2.25	2.50
01.04.1989	2.17	2.27	2.25	2.29	2.50
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
			LIQUIFIED PETROLEUM GAS (RS./. CYLINDER)		
	14.2Kg. 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
01.01.1976	26.75	33.31	32.61	29.36	32.85
01.01.1979	26.94	37.06	34.98	38.90	35.42
17.08.1979	33.96	42.93	40.43	37.32	40.82
08.06.1968	33.96	42.93	40.23	37.81	40.82
13.08.1981	38.94	49.09	45.53	-	46.26
11.07.1981	43.52	54.84	50.78	48.74	53.06
01.04.1982	43.52	54.84	50.78	48.74	53.06
01.09.1982	43.14	51.93	44.58@	47.17	49.41
01.04.1983	43.14	51.71	45.09@	47.17	50.41@
01.04.1984	43.14	52.71	45.09@	44.65@	47.72@
01.06.1984	44.41	49.90@	45.47@	44.65@	48.81@
17.03.1985	49.95	56.34@	51.35@	50.74@	54.89@
01.02.1986	60.28	67.77@	61.79@	61.56@	65.90@
06.02.1986/01.04.1986	56.15	63.20@	57.61@	57.24@	61.56@
01.04.1987	56.15	63.20@	57.61@	57.24@	61.56@
01.04.1988	56.15	63.20@	57.61@	57.24@	61.56@
01.04.1989	56.15	63.20@	57.61@	57.24@	61.56@
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@
1.4.1996	94.40	107.00	93.08	98.05	98.90
1.4.1997	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

@: For 14.2 Kg. Cylinder

IX.6 RATES OF DEALERS COMMISSION FOR MS, HSDO AND LPG IN INDIA

Effective from	(.....Motor Spirit.....) (Rs./Kl) Slab of annual volume of sale (Kl Annual)						(.....High Speed Diesel Oil.....) Rs./Kl) Slab of annual volume of sales (Kl Annual)						LPG (Rs./cylinder)		
	Effective from 1.7.1982				Effective from 1.9.1993		Effective from 1.7.1982				Effective from 1.9.1993			Upto 2500 refills p.m.	Above 2500 refills p.m.
	0-360	361-600	601-1080	Over 1080	0-600	Above 600	0-360	361-600	601-1080	Over 1080	0-600	Above 600			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.3.1982	-	-	-	-	-	-	-	-	-	-	-	-	3.62	-	-
1.10.1982	134	98	86	69	-	-	79	58	42	36	-	-	-	-	-
15.2.1983	-	-	-	-	-	-	61	60	43	37	-	-	-	-	-
1.9.1983	135	99	87	70	-	-	-	-	-	-	-	-	-	-	-
17.3.1985	146	108	95	76	-	-	83	62	44	38	-	-	-	-	-
6.2.1986	151	113	99	79	-	-	84	63	45	39	-	-	-	-	-
19.1.1987	-	-	-	-	-	-	-	-	-	-	-	-	5.30	-	-
9.1.1988	164	124	109	87	-	-	-	-	-	-	-	-	-	-	-
21.10.1989	234	165	148	128	-	-	129	87	69	63	-	-	-	-	-
20.3.1990	250	179	160	138	-	-	135	92	42	66	-	-	-	-	-
15.10.1990	279	204	182	155	-	-	145	101	77	70	-	-	-	-	-
17.5.1991	-	-	-	-	-	-	-	-	-	-	-	-	5.70	-	-
25.7.1991	311	233	206	172	-	-	-	-	-	-	-	-	-	-	-
16.9.1992	321	240	214	180	-	-	155	111	83	75	-	-	5.70	-	-
1.4.1993	381	277	248	217	-	-	186	128	101	92	-	-	5.70	-	-
1.9.1993	-	-	-	-	363	224	-	-	-	-	190	90	-	7.30	6.50
2.2.1994*	-	-	-	-	363	224	-	-	-	-	195	90	-	7.30	6.50
1.4.1994*	-	-	-	-	376	232	-	-	-	-	196	93	-	7.30	6.50
1.4.1995*	-	-	-	-	378	233	-	-	-	-	197	93	-	7.80@	6.95@@
1.4.1996*	-	-	-	-	380	234	-	-	-	-	197	93	-	8.05@	7.15@@
7.7.1996*	-	-	-	-	387	238	-	-	-	-	200	94	-	8.05@	7.15@@
1.4.1997*	-				389	239	-	-	-	-	201	94	-	8.30@	7.40@@
6.11.1997*	-	-	-	-	409	409	-	-	-	-	222	168	-	10.50@	10.50@@
1.4.1998*	-	-	-	-	411	411	-	-	-	-	223	169	-	10.80@	10.80@@
1.4.1999*	-	-	-	-	413	413	-	-	-	-	224	170	-	11.10@	11.80@@

© Exclusive of demand draft charges.

Note: The rates of dealership commission fixed at 3 Annas per Imperial Gallon for MS in 1954 and at 1 Anna and 3 Paise per Imperial Gallon for HSDO in 1995 continued upto 30th June 1976. The revised commission rates effective 1.7.1976 were as follows:

Sales per annum (Combined MS/HSDO sales)	MS (Rs./Kl)	HSDO (Rs. Kl)
Up to 360	80	50
36 to 720	35	10
721 and above	25	10

@ up to 3000 Cyl per month

@@ Above 3000 Refills per month

* For Dealers on demand drafts an amount of Rs 40/Kl for MS & Rs. 16/Kl for HSD shall be paid additionally.

X. EXCISE/CUSTOM DUTIES AND SALES TAX

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

(Rs. Crores)

Products	1980-81	1985-86	1990-91	1995-96	1996-97	1997-98	1998-99
	<---------- ACTUALS ---------->						(RE)
A. EXCISE DUTIES							
1. Motor Spirit	493	749	1202	1631	2117	2942	4427
2. Kerosene Oil	124	203	255	258	647	226	409
3. Refined Diesel Oil	280	563	693	1155	1962	2052	2666
4. Diesel Oil (NES)	20	23	35	80	123	145	214
5. Furnace Oil	45	39	49	146	289	544	335
6. Pol.Products (NOS)	196	268	421	733	881	1899	2390
7. Petroleum Gases	0	0	66	276	382	397	417
8. Cess on crude oil	0	0	2757	2880	2675	2740	2556
T O T A L (A)	1158	1845	5478	7159	9076	10945	13414
B. CUSTOMS DUTIES							
1. Crude Petroleum	16	874	3146	4052	5740	4867	3647
2. Petroleum Products	338	176	555	4401	5784	5159	5162
T O T A L (B)	354	1050	3701	8453	11524	10026	8809
GRAND TOTAL (A+B)	1512	2895	9179	15612	20600	20971	22223

Figures rounded to nearest crores.
RE : Revised Estimates.

Source : Budget papers of the Central Govt.

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	14160	416	101	3.1	0.8	24.3
1965-66	22107	898	261	4.4	1.3	29.1
1970-71	36362	1759	608	5.1	1.8	34.6
1971-72	38583	2061	708	5.6	1.9	34.4
1972-73	42382	2324	767	5.8	1.9	33.0
1973-74	52241	2602	874	5.2	1.7	33.6
1974-75	61194	3231	1019	5.4	1.7	31.3
1975-76	64531	3845	1040	6.2	1.7	27.1
1976-77	69408	4221	1168	6.3	1.7	27.6
1977-78	79671	4448	1216	5.9	1.5	27.4
1978-79	85255	5194	1359	6.4	1.6	26.2
1979-80	92314	6148	1477	6.9	1.6	24.0
1980-81	110685	6500	1216	5.9	1.1	18.7
1981-82	128797	7421	1405	5.8	1.1	18.9
1982-83	141875	8059	1604	5.7	1.1	19.9
1983-84	166550	10222	2269	6.2	1.4	22.2
1984-85	185019	11151	2449	6.0	1.3	22.0
1985-86	206133	13008	2718	6.3	1.3	20.9
1986-87	228402	14489	3014	6.3	1.3	20.8
1987-88	258881	16347	3969	6.3	1.5	24.3
1988-89	309286	18828	4435	6.1	1.4	23.6
1989-90	357285	22290	5662	6.2	1.6	25.4
1990-91	418074	24451	5478	5.8	1.3	22.4
1991-92	479612	28121	5262	5.9	1.1	18.7
1992-93	546023	30651	5042	5.6	0.9	16.4
1993-94	638979	31672	5310	5.0	0.8	16.7
1994-95	833325	36900	6696	4.4	0.8	18.1
1995-96	975645	40784	7159	4.2	0.7	17.6
1996-97	1140895	46190	9076	4.0	08	19.6
1997-98	1265167	48070	10945	3.8	0.9	22.8
1998-99 (P)	1466180	57690	13414	3.9	0.9	23.3

Source:— I) Government of India's Economic Survey for N.N.P.
II) Budget Papers of Central Government.
III) National Accounts Statistics.

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 realistion (Rs. Crores)	Custom Duties realisation (Rs. Crores)	Total Central Excise & Custom duties (Rs. Crores)	Composite Unit Incidence of Excise & Custom, duties (Rs.)
1	2	3	4	5	6
1960-61	7985	101	23	124	155.29
1965-66	11917	261	83	344	288.66
1970-71	17912	608	30	638	356.19
1971-72	20071	709	63	772	384.63
1972-73	21715	767	86	853	392.82
1973-74	22346	874	96	970	434.08
1974-75	22105	1011	96	1106	500.34
1975-76	22447	1040	115	1155	514.55
1976-77	24101	1163	112	1275	529.00
1977-78	25539	1216	127	1343	525.90
1978-79	28241	1359	190	1549	548.50
1979-80	29883	1477	213	1690	565.50
1980-81	30896	1684	354	1570	508.20
1981-82	32523	2269	288	1693	520.60
1982-83	34657	2449	256	1850	536.70
1983-84	35841	2718	219	2488	694.20
1984-85	38795	3014	472	2921	752.90
1985-86	40872	3969	1050	3768	921.90
1986-87	43662	4435	1075	4089	936.60
1987-88	46416	5662	2136	6105	1315.30
1988-88	50092	5478	2313	6745	1347.10
1989-90	54095	5662	2431	8093	1496.10
1990-91	56035	5478	3701	9179	1667.80
1991-92	56974	5262	4075	9337	1668.82
1992-93	58902	5042	5280	10322	1752.40
1993-94	60812	5310	6913	12223	2010.00
1994-95	66487	6996	6209	12905	1970.62
1995-96	74670	7159	8453	15612	2117.58
1996-97	79168	9076	11524	20600	2602.06
1997-98	84290	10945	10026	20971	2487.96
1998-99(P)	89362	13414	8809	22223	2486.85

(P)= Provisional

X.4 ROYALTY AND OIL DEVELOPMENT CESS PAID BY OIL COMPANIES ON PRODUCTION OF CRUDE OIL AND NATURAL GAS SINCE 1973-74 TO 1998-99

(Rs./Lakhs)

Year	ROAYALTY PAID ON CRUDE OIL						ROYALTY PAID ON NATURAL GAS					Oil
	Western Region	Eastern Region	Southern Region	Total On Shore	Bombay High/KG Off Shore	Total	Western Region	Eastern Region	Southern Region	B.High/KG Off-Shore	Total	Development Cess
1	2	3	4	5	6	7	8	9	10	11	12	13
1973-74	520	548	-	1068	-	1068	26	5	-	-	31	-
1974-75	576	584	-	1160	-	1160	36	8	-	-	44	-
1975-76	615	645	-	1260	-	1260	43	26	-	-	69	3081
1976-77	1279	1087	-	2366	156	2522	44	59	-	-	103	5289
1977-78	1742	1907	-	3649	1016	4665	102	50	-	-	152	6375
1978-79	1171	1727	-	3498	1349	4847	88	66	-	-	154	6889
1979-80	1566	1771	-	3337	1761	5098	240	65	-	15	320	6970
1980-81	1578	531	-	2109	1997	4106	168	36	-	50	253	6040
1981-82	2075	3155	-	5230	4430	9660	184	69	-	258	511	13897
1982-83	1927	3498	-	5425	7513	12938	32	123	-	593	748	26884
1983-84	2179	3054	-	5233	10305	15538	305	108	-	911	1324	81279
1984-85	7449	9513	-	16962	11931	28893	183	114	-	2109	2406	84434
1985-86	13275	12433	-	25708	12155	37863	242	96	-	1905	2243	86629
1986-87	8590	9395	11	17996	91192	109188	359	95	-	4113	4567	98916
1987-88	9412	9833	26	19271	37724	56995	797	409	-	6594	7800	151331
1988-89	10175	10281	59	20526	39660	60185	1083	405	16	8557	10061	201364
1989-90	11561	13479	397	25437	40118	65555	1154	399	34	10409	12036	291411
1990-91	39424	26074	1291	66789	136037	202826	1283	421	68	12038	13810	278197
1991-92	17723	19385	964	38072	52885	90957	1910	426	216	15859	21413	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	217536
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	64652	115390	180042	4839	675	2065	33956	41535	283757
1998-99	33256	27972	3033	64261	106739	171000	4831	982	2301	35667	43781	275385

Note: 1. Figures for 1984-85 & 1985-86 have undergone due to increase in Royalty rate from Rs. 61/- Per metric tonne to 192/- Per metric tonne.

2. Figures of Royalty in 1987-88 include payments for 1986-87 and advance payments made for 1988-89. While some payments for 1987-88 has made by ONGC in 1988-89. These figures also include royalty on condensate and NGL.

3. Figures of Crude Oil Royalty for 1990-91 include arrears for the period 1.4.1987 to 31.3.90 arising on account of revision in royalty rate from Rs. 192 to Rs. 314 per M.T. w.e.f. 1.4.87 vide notification dated 16.2.91.

4. The total arrears for the period 1.4.87 to 31.3.91 @ Rs. 122 per M.T. amounting to Rs. 985.09 crores have not been paid as the Govt. is contemplating payment by book adjustments out of deposits of OCC in the Public Account of India.

5. Figures of Crude Oil royalty for 1992-93 include arrears of royalty on Crude Oil for the period 1.4.90 to 31.3.92 arisen consequent upon increase in Crude Oil royalty rate.

X.5 EXCISE DUTY ELEMENT INCLUDED IN SELLING PRICES OF BULK REFINED PETROLEUM PRODUCTS (EX-STORAGE POINT)

(RUPEES/SELLING UNIT)
(Rupees/Selling Unit)

PRODUCTS	Selling Unit	w.e.f. 17.8.79	w.e.f. 11.9.79	w.e.f. 8.6.80	w.e.f. 19.1.81	w.e.f. 11.7.81	w.e.f. 15.2.83	w.e.f. 1.4.83	w.e.f. 1.8.83	w.e.f. 1.4.84/ up to 1.3.88/	w.e.f. 1.3.88 upt to 25.7.91	w.e.f. 28.2.93	w.e.f. 1.3.94
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Av. gas 100/130	KL	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2437.59	NA
2. Av. gas 115/145	KL	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2435.85	NA
3. Av. Gas 73	KL	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2326.79	2436.84	NA
4. M. S. 87 @@	KL	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2327.50	2338.82	2568.87
5. M. S. 93	KL	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2328.92	2440.31	3068.87
6. A.T.F.	KL	402.56	402.56	333.52@	333.52	333.52	333.52	333.52	333.32	333.52	352.07	369.83	985.23
7. S.K.O.	KL	402.63	333.59	333.59@	333.59	333.59	333.59	333.59	333.59	333.59	330.44	330.44	200.14
8. H.S.D.O.	KL	399.15	330.00	330.00@	3330.00	330.00	330.00	330.00	330.00	330.00	347.49	347.74	571.73
9. L.D.O.	KL	153.96	153.96	153.96	153.96	153.96	153.96	153.96	153.96	153.96	160.91	173.02	558.76
10. F.O. (Fert. Use)	KL	125.82	125.82	125.82	125.82	125.82	125.82	125.82	125.82	125.82	*	*	*
11. F.O. (Non-Ferts. Use)	KL	125.82	125.82	125.82	125.82	125.82	125.82	125.82	125.82	125.82	150.71	158.38	453.52
12. Bitumen (Bulk)	MT	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30	115.50	175.00	412.50
13. Bitumen' (Packed)	MT	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	168.00	175.00	478.14
14. LPG/Domes. Packed	MT	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	273.50	285.0	530.92
15. LPG (Indust) Bulk	MT	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	273.00	285.0	1160.18
16. Naphtha*- (Fert. Use)	MT	4.50	4.36	4.36	4.36	4.36	-	-	4.40	4.40	4.00	5.50	*
17. Naphtha*- (For Non-Fert. Use)	MT	26.50	26.50	26.50	26.50	26.50	-	-	26.25	26.25	26.25	66.00	*

* Duty at applicable rates will be charged **w.e.f. 1.10.1986.
@@ MS 83 was replaced by MS 87 w.e.f. 1.9.1983.
@ Revision effective from 11.9.1979.

Note: i) No Custom/Excise Duty is chargeable on FO when used as feed stock, the duty @ Rs. 63.46/KL only is chargeable when used in fertilizer industry for purposes other than feed stock.
ii) w.e.f. 1.10.1986, the supply of FO/Naphtha to fertilizers units for purposes other than feedstock will be charged at the rate applicable to General Category.

X. 6 EX-STORAGE POINT CEILING SELLING PRICES OF MAJOR PETROLEUM PRODUCTS AND RATES OF EXCISE DUTY w.e.f. 3.7.1996

(Rs./Selling Unit)

Products	Selling unit	Ex-storage prices Without Excise duty	Rate of duty%
1	2	3	4
MS-87	KL	16055.43	20%
MS-93	KL	19180.43	20%
MS-80	KL	16691.86	20%
HS DO	KL	7432.46@	10%
LSHF (HSD) Bunkering	KL	7432.46	10%
LSHF (HSD) other	KL	11059.31	10%
SKO other than Ind.	KL	2001.40	10%
SKO-Industrial	KL	6518.63	10%
LDO	KL	7263.82	10%
ATF (Domestic)	KL	10837.56	10%
Naphtha-fert $	MT	4839.61	$
Naphtha-other $	MT	6683.26	$
For-fert $	KL	3656.16	$
Fo-other	KL	5895.86	10%
LSHS-Fert $	MT	3707.04	$
LSHS-other $	MT	6245.29	$
LPG-Packed (Domestic)	MT	6901.95	
LPG-Packed (Non-Domestic)	MT	13900.00	10%
LPG-Bulk	MT	11900.00	10%
Bitumen-Bulk	MT	5362.53	10%
Bitumen-Packed	MT	6215.76	10%
Match Wax	MT	15804.74	10%
Paraffin Wax Ist Quality	MT	20030.41	10%
Paraffin Wax-P1grade	MT	20191.57	10%

$- Prices shown against these items are exclusive of duty chargeable extra (applicable as per end use)

@ HSD prices have been reduced to 6574.87 w.e.f. 6.7.1996.

X. 7 SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.1999

S. No.	PRODUCTS	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Goa	Gujarat	Haryana
	1	2	3	4	5	6	7	8
A. CRUDE OIL & GAS								
1.	Crude Oil	4%	No Tax	4%	4%	4%	4%	4%
2.	Natural Gas	16	No Tax	10%	9%	8%	12%	10%
B. PETROLEUM PRODUCTS								
3.	Aviation Spirit	30.55%	No Tax	25%	25%	20%	30% Bonded 9% Duty Paid	10%
4.	Aviation Turbine Fuel	30.55%	No Tax	25%	25%	20%	30% Bonded 23% Duty Paid	10%
5.	Motor Spirit	30.55%	do	17%	16%	17%	20%	10%
6.	H.S.D	19.33%	do	16%	15%	17%	18%	10%
7.	L.D.O.	19.33%	do	16%	15%	17%	8%	10%
8.	M.L.O.	19.33%	do	10%	9%	8%	12%	10%
9.	S.K.O.	8%	do	2%	6%	Exempt	Exempt	10%
10.	I.K.O.	—	do	—	—	—	8%	—
11.	F.O.	12%	do	8%	8%	17%	12%	10%
12.	M.T.O.	16%	do	10%	9%	8%	12%	10%
13.	Lubes	16%	do	12%	16%	8%	15%	10%
14.	Greases	16%	do	12%	16%	8%	15%	10%
15.	Petroleum Naphtha	16%	do	10%	9%	17%	20%	10%
16.	Bitumen/Asphalt	16%	do	10%	9%	8%	12%	10%
17.	Petroleum Coke	4%	do	4%	4%	2%	4%	4%
18.	Indane (LPG)	16%	do	12%	9%	Exempt 2%*	15%	10%
19.	Transformer Oil	16%	do	10%	9%	8%	12%	10%
20.	H.B. Fluid	16%	do	10%	9%	8%	12%	10%
21.	L.S.H.S.	16%	do	10%	9%	17%	15%	10%

*Household/Other Use

Contd.....

X.7 Contd. SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.1999

S. No.	PRODUCTS	Himachal Pradesh	J&K	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Manipur
		9	10	11	12	13	14	15
A. CRUDE OIL & GAS								
1.	Crude Oil	4%	4%	4%	4%	4%	4%	4%
2.	Natural Gas	8%	8%	10%	10%	—	12%	—
B. PETROLEUM PRODUCTS								
3.	Aviation Spirit	6%	8%	22%	20%	20%	—	10%
4.	Aviation Turbine Fuel	6%	8%	22%	20%	20%	Bonded 30% Duty Paid 25%	10%
5.	Motor Spirit	6%	8%	22%	17%	20%	27%	15%
6.	H.S.D	6%	8%	20%	15%	20%	30%	7%
7.	L.D.O.	8%	8%	20%	25%	12%	13	7%
8.	M.L.O.	8%	8%	10%	12.5%	6%	13%	-
9.	S.K.O.	8%	Exempted	4%(PDS)	5%	2%	Exempted	3%
10.	I.K.O.	-	do	8%	—	—	8%	
11.	F.O.	8%	8%	10%	12.5%	8	13%	7%
12.	M.T.O.	8%	8%	10%	12.5%	8%	13%	NA
13.	Lubes	8%	8%	10%	15%	12%	12%	10%
14.	Greases	8%	8%	10%	15%	12%	13%	7%
15.	Petroleum Naphtha	8%	8%	10%	7%	8%	13%	4%
16.	Bitumen/Asphalt	8%	8%	4%	12.5%	8%	13%	7%
17.	Petroleum Coke	4%	4%	4%	4%	4%	4%	4%
18.	Indane (LPG)	8%	8%	10%	10%	12%	4%/13%*	7%
19.	Transformer Oil	8%	8%	10%	12.5%	12%	13%	7%
20.	H.B. Fluid	8%	8%	10%	15%	15%	13%	—
21.	L.S.H.S.	8%	8%	10%	12.5%	6%	13%	—

* Household/Other Use

Contd...

X.7 Contd. SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.1999

S. No.	PRODUCTS	Meghalya	Mizoram	Nagaland	Orissa	Punjab	Rajasthan	Tamil Nadu
		16	17	18	19	20	21	22
A. CRUDE OIL & GAS								
1.	Crude Oil	-	-	-	4%	4%	4%	4%
2.	Natural Gas	-	-	-	-	8%	8%	16%
B. PETROLEUM PRODUCTS								
3.	Aviation Spirit	-	-	-	20%	8%	20%	24%
4.	Aviation Turbine Fuel	-	-	15%	20%	8%	20%	24%
5.	Motor Spirit	10%@	8%	8%	18%	12%	20%	24%
6.	H.S.D	8%@	5%	3.25%	18%	4%	16%	18%
7.	L.D.O.	8%		3.25%	16%	8%	16%	18%
8.	M.L.O.	-	-	-	12%	8%	8%	16
9.	S.K.O.	1%	-	1.15%	Exempted	8%	8%	4%
10.	I.K.O.	-	-	-	-	8%	8%	4%
11.	F.O.	-	-	-	12%	8%	8%	16%
12.	M.T.O.	-	-	-	12%	8%	16%	16%
13.	Lubes	8%	8%	8%	16%	12%	12%	16%
14.	Greases	8%	-	8%	16%	12%	12%	16%
15.	Petroleum Naphtha	-	-	-	12%	8%	8%	16%
16.	Bitumen/Asphalt	-	-	-	8%	8%	8%	11%
17.	Petroleum Coke	-	-	-	4%	4%	4%	4%
18.	Indane (LPG)	10%@	10%	8%	12%	8%	12%	8%
19.	Transformer Oil	-	-	-	12%	8%	8%	16%
20.	H.B. Fluid	-	-	-	-	8%	8%	11%
21.	L.S.H.S.	-	-	-	-	8%	8%	16%

@ : Surcharge 2%

Contd....

X.7 Contd. SALES TAX RATES APPLICABLE ON CRUDE OIL, NATURAL GAS AND PETROLEUM PRODUCTS IN DIFFERENT STATES AS ON 1.4.1999

S.	PRODUCTS	Tripura	Uttar** Pradesh	West Bengal	Chandigarh	Delhi
		23	24	25	26	27
A.	**CRUDE OIL & GAS**					
1.	Crude Oil	4%	4%	4%	4%	4%
2.	Natural Gas	-	10%	-	8%	7%
B.	**PETROLEUM PRODUCTS**					
3.	Aviation Spirit	25%	20%	12.85%	15PPL	11%
4.	Aviation Turbine Fuel	25%	20%	25%	15PPL	11%
5.	Motor Spirit	8%	20%	10.36%	15 PPL	11%
6.	H.S.D	5%	20%	10.91%	10 PPL	11%
7.	L.D.O.	-	20%	10.91%	8%	11%
8.	M.L.O.	-	15%	12%	7%	7%
9.	S.K.O.	5%	10%	4.5%(PDS)	8%	NIL
10.	I.K.O.	-	10%	7.5%	-	10%
11.	F.O.	-	7.5%	12%	8%	7%
12.	M.T.O.	-	15%	12%	8%	11%
13.	Lubes	12%	10%	15%	8%	11%
14.	Greases	12%	10%	15%	8%	11%
15.	Petroleum Naphtha	—	15%	5%	8%	7%
16.	Bitumen/Asphalt	5%	10%	12%	8%	7%
17.	Petroleum Coke	12%	4%	4%	4%	4%
18.	Indane (LPG)	12%	10%	17%	8%	4%
19.	Transformer Oil	-	10%	12%	8%	7%
20.	H.B. Fluid	-	10%	15%	8%	7%
21.	L.S.H.S.	-	7.5%	12%	8%	7%

Note: 1. PPL means Paise per litre.

2. Wherever (-) is shown against any of the product rates, same indicates Sales Tax rate not available.

** : These rates are inclusive of other levies recoverable from the customers as shown on next page.

Cont'd - - -

IN ADDITION TO THE SALES TAX PAYABLE, THE FOLLOWING TAX ARE ALSO PAYABLE/RECOVERABLE AS ON 1.4.99

	STATE	RATES
1	ASSAM	10% Addl. Tax on Sales Tax is payable. This is not recoverable from the costomers.
2.	BIHAR	1. 1% Addl. Tax on gross turnover is payable. (Not applicable on MS, HSD, LDO, SKO, F.O, Av. Gas, ATF and Declared goods) This is recoverable from customers. 2. 10% Surcharge on Sale Tax is payable, but not recoverable from the customers.
3.	CHANDIGARH	Surcharge @ 10% on Sales Tax is payable on all the products except on MS, AV. Gas, ATF and HSD, This is recoverable from the customers.
4.	DAMAN	10% Add. Tax on Sales Tax is payable, but not recoverable from the customers.
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. 20 lacs. but less than Rs. 40 lacs 10% (b) On gross Turnover above Rs. 40 lacs 15%
6	GUJARAT	Additional Tax: @20% on tax on (MST products) i.e. MS, HSD, Av. Spirit Av. Gas ATF This is recoverable from the customers. Turnover Tax: @2% on taxable turnover on MST products excluding exempted sales. This is not recoverable from customers. LC ie. MS, HSD, ATF, AV Spirit, AV Gas)
7	JAMMU & KASHMIR	Surcharge @5% on Sales Tax is payable. This does not apply to products falling under MST (i.e. MS, HSD). This is recoverable from the customers.
8	KARNATAKA	1 CESS: (a) @5% on Sales Tax on all products except Petrol & Diesel. (b) @25% paise per litre on Petrol. (c) @10 paise per litre on Diesel. This CESS is payable by those dealers who are purchasing and selling within the state of Karnataka. This is recoverable from the customers. 2. Turnover Tax: On Total (TOT) at the following rate is payable, but not recoverable from customers. (a) On TOT between Rs. 15 & 500 lacs 1% (b) Between Rs. 500 & 1000 lacs 2% (c) Above Rs. 1000 lacs 3% Second & subsequent sale of MS, SKO, HSD, LPG, exempted.

IN ADDITION TO THE SALES TAX PAYABLE, THE FOLLOWING TAX ARE ALSO PAYABLE/RECOVERABLE AS ON 1.4.99

STATE	RATES
9 KERALA	1. Surcharge: @ 10% on Sales/Purchase Tax is payable. This is not recoverable from the customers. 2. Turnover Tax: @ 4% on Sale/Purchase tax is payable. Sale on Lubricating Oil by dealers other than OMC's is exempt (M.P.) This is not recoverable from the customers.
10. MADHYA PRADESH	Surcharge: @ 15% on Commercial Tax on all products except of Declared goods is payable. This is recoverable from the customers.
11. MAHARASHTRA	1. Turnover Tax: @ 1% on Taxable Turnover on all products except on Pertrol/Diesel/ ATF&Av. Gas. This is recoverable from the customers. 2. Surcharge : @ 10% on Sales Tax on all products except on Petrol Diesel/ATF&AV. Gas. This is recoverable from the customers.
12. MEGHALAYA	Sarcharge: @ 2% on Sale Tax on MS, HSD, LPG & FO. This is recoverable from the customers.
13. ORISSA	Surcharge: @ 15% of Sales Tax is payable. This is not recoverable from the customers.
14. PUNJAB	1. Surcharge: @ 10% of the Sales Tax is payable This is recoverable from the customers. 2. CESS: @ 1% on Advolerem basis for MS.
15. RAJASTHAN	Surcharge: @ 12% of the Sales Tax is payable. This is recoverable from the customers.
16. TAMIL NADU	Additional Tax: @ the following rate is payable on the Taxable Turnover. This is not recoverable from the customers.

	On Taxable Turnover	
(a)	below Rs. 10 lacs	Nil
	between Rs. 10 to 40 lacs	1.25%
	between Rs. 40 to 1crs	1.50%
	between Rs. 1crs to 5crs.	2.00%
	between Rs. 5crs to 10 crs.	2.25%
	between Rs. 10 crs to 300 crs.	2.50%
	above Rs. 300 crs.	3.00%

17. TRIPURA	Additional tax @ 0.50% on taxable turnover payable. This is not recoverable from the customers.
18. UTTAR PRADESH	Additional tax @ 25% on sales tax is payable. This is included in the billable rates shown in rate chart (Not applicable on MS, Av. gas ATF, LDO, HSD & Crude Oil) This is recoverable from the customrs.
19. WEST BENGAL	1 Surcharge @ 10% on S.Tax is payable on all the products except on coke. This is recoverable from the customers. 2. Additional Surcharge @ 5% on S. Tax is payable on all the products except on coke. This is recocerable from the customers. 3. Additional tax @ 20% on Tax (ST/SC/Addl. tax) on MS, HSD, LDO, ATF, Av GAs is payable. This is not recoverable from the customers.

8. SALES TAX PAYMENTS (INCLUSIVE PF MST AND CST) ON CRUDE OIL CONDENSATES, NATURAL GAS & PETROLEUM PRODUCTS MADE BY THE OIL COMPANIES TO STATE/UNION TERRITORY GOVERNMENTS DURING THE YEARS 1990-91 TO 1998-99

(Rs./lakhs)

STATE/UTs	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10
1. CRUDE OIL									
Assam	4611	4428	5017	6205	6122	5976	6218	6590	6618
Gujrat	6195	5038	6542	7349	7675	7826	8333	8170	7933
Arunachal Pradesh	32	43	50	69	41	23	32	29	27
Nagaland	87	48	65	72	14	0	0	0	0
Andhra Pradesh	0	0	0	0	0	0	0	53	86
Maharashtra*	15500	13950	16368	15207	21312	23441	22814	22486	20311
Tamil Nadu	257	257	365	464	492	470	453	447	504
TOTAL (1)	**26682**	**23764**	**28407**	**29366**	**35656**	**37736**	**37850**	**37775**	**35479**
2. NATURAL GAS									
Assam	429	417	520	497	580	722	1065	1257	1569
Gujrat	9952	13136	17205	8701	5931	7924	26642	31638	35010
Maharashtra (Bombay High)	5628	5361	6505	6602	8775	4998	6776	7264	11853
Rajasthan	0	0	0	0	0	8	7	1260	107
Arunachal Pradesh	82	0	0	0	0	0	0	0	0
Tamil Nadu	17	18	38	40	28	39	101	129	97
Tripura	53	59	93	82	78	113	127	207	410
Uttar Pradesh	0	0	0	0	0	0	5654	7080	8376
Haryana	0	0	0	0	0	0	0	350	0
Madhya Pradesh	0	0	0	0	0	0	2565	2426	7436
Andhra Pradesh	0	317	1097	1368	1374	1627	2143	5316	5180
TOTAL (2)	**16161**	**19308**	**25458**	**17290**	**16766**	**15431**	**45080**	**56927**	**70038**
3. POI PRODUCTS									
Andhra Pradesh	25062	37812	41956	51981	61688	73029	88786	110110	109847
Assam	3654	5228	5292	5581	7030	8150	13011	11866	14801
Arunachal Pradesh	0	0	0	0	0	0	0	2	0
Bihar	11239	16122	18258	19966	22818	25181	29497	36503	33775
Gujrat	39456	54531	62218	71876	88738	97801	118159	141668	149204
Harayana	4584	6123	6874	8339	9488	10402	18469	23906	26202
Himachal Pradesh	261	303	418	489	496	614	806	876	1379
Jammu & Kashmir	759	1065	1261	1564	1742	2305	2568	3464	4098
Karnataka	21801	30930	35426	44452	49346	60135	77274	98126	94173
Kerala	27512	30518	39708	41540	45693	56791	70780	83885	89928
Madhya Pradesh	13168	18784	20824	24364	31365	36178	42813	62255	69222
Maharashtra	52978	72518	83192	92755	116384	128425	152663	184845	176887
Manipur	164	277	338	452	463	464	592	535	523
Meghalaya	1	1	1	1	6	110	277	319	515
Mizoram	19	39	95	108	113	134	177	197	126
Nagaland	69	59	60	99	147	155	222	295	182
Orissa	3958	5540	6553	8272	10003	11802	14974	18456	22283
Punjab	6326	8059	9221	10487	10834	13845	17263	19505	20259
Rajasthan	13508	17136	22033	24963	30236	36759	44588	49755	64911
Tamil Nadu	39450	51775	61016	73144	80939	93275	117578	134604	148699
Tripura	264	293	336	321	354	391	476	599	636
Uttar Pradesh	28995	36339	40387	46152	55540	66992	79487	94489	105988
West Bengal	18991	23671	29452	34294	39183	39132	47867	56217	62270
Goa	2367	3502	4994	6746	8023	8187	10137	12256	12338
Sikkim	0	0	0	37	57	53	80	107	111
(b) Union Territories									
Daman & Diu	0	0	0	0	13	18	29	31	25
Chandigarh	61	62	79	106	130	147	186	171	176
Delhi	7829	8914	10194	12667	15248	23407	28964	35828	34697
Dadra & Nagar Haveli	0	0	0	0	0	0	0	2	1
Pondicherry/Mane	2	39	6	16	105	180	221	228	208
Total (3)	**322478**	**429640**	**500192**	**580772**	**686182**	**794062**	**977944**	**1181100**	**1243464**
Grand Total (1+2+3)	**365321**	**472712**	**554057**	**627428**	**738604**	**847229**	**1060874**	**1275802**	**1348981**

* - Central Government
Source: Oil Companies

XI. TRANSPORTATION

XI.1 TONNAGE OF INDIAN TANKERS FLEET

(DWT In '000 Mts.]

Year	Coastal oil Tanker				Total Coastal Oil Tanker		Offshore Supply Vessels		Specialised Vessels For Offshore		Total Offshore Supply Vessels & Specialised Vessels for Offshore		Overseas								Overseas Total		Total All Tanker	
	Product Carriers		Cruda Oil Carriers										Ore Oil Bulk		Crude Oil Carriers		Product Carriers		LPG Carriers					
	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT	No. of Tanker	DWT
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1975	-	-	-	-	9	137.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	2420.0	40	2557.6
1976	-	-	-	-	9	137.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	3078.0	45	3215.6
1977	-	-	-	-	9	137.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	3108.9	46	3245.1
1978	-	-	-	-	9	128.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	3444.5	48	3571.3
1979	-	-	-	-	9	132.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	3424.0	48	3556.9
1980	-	-	-	-	10	158.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	3335.3	48	3493.8
1981	-	-	-	-	16	247.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	3364.0	55	3611.7
1982	-	-	-	-	18	300.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	3518.8	60	3819.4
1983	-	-	-	-	18	300.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	3482.1	59	3782.7
1984	-	-	-	-	18	300.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	3976.6	67	4277.2
1985	-	-	-	-	18	300.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	3807.0	66	4113.1
1986	-	-	-	-	18	306.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	3592.9	66	3899.0
1987	-	-	-	-	18	306.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	3592.9	66	3899.0
1988	-	-	-	-	18	306.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	3557.6	69	3863.7
1989**	13	185.8	2	82.3	15	267.9	57	73.1	25	49.7	82	122.8	9	988.9	22	2121.2	25	575.5	-	-	56	3685.6	153	4076.3
1990	13	185.6	2	88.2	15	267.8	57	69.7	30	70.5	87	140.2	9	990.5	22	2121.2	25	601.5	-	-	56	3713.2	158	4121.2
1991	14	186.1	2	82.2	16	268.3	63	75.9	31	70.7	94	146.6	9	990.5	23	2206.4	25	601.9	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	95	146.7	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	100	146.8	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	99.9	27	61.2	100	153.1	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	99.9	27	62.8	101	154.7	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	97	148.9	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	98	150.2	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	94	137.5	3	312.0	31	3212.5	36	1231.9	4	71.0	76	4904.3	181	5253.8
1999	10	122.2	2	82.2	12	204.4	69	80.8	26	56.7	95	137.5	3	312.0	31	3212.5	40	1451.3	6	138.1	80	5113.9	187	5455.8

*: As on 31st December of each year.

**: As on 31st March of each year from 1989 onwards.

Source : Directorate General Shipping, Bombay

DWT = Dead Weight Tonnage

XI. 2 INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
COASTAL TRADE			
TANKERS (Product Carriers)			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.t. Jai Narayan Vyas	1975	15035	24529
2. m.t. Rafi Ahmed Kidwai	1975	15035	24439
		30070	48968
B. M/s Essar Shipping Ltd., Bombay			
3. m.t. Nand Prakriti	1975	17237	30465
C. M/s Reliance Industries			
4. m.t. Relcham Arjun	1971	14960	23928
D. The Shipping Credit & Investment Co.of India Ltd., Bombay			
5. m.t. Nand Smiti	1982	4275	6600
E. M/s Jaisu Shiping (P) Ltd.			
6. m.t. Al-Nims	1976	298	508
7. m.t. Kamal XXI	1987	1575	2300
		1873	2808
F. M/s Samson Maritime Ltd.			
8. m.t Ocean Devotee	1978	1090	2052
G. M/s Hede Ferrominas (P) Ltd.			
9. m.t. Hoogli Harvest	1974	493	872
H. M/s Amar Ship Management			
10. m.t. Amar Ganga	1980	3391	6535
Total 10 Vessels		73389	122228
TANKERS (Crude Oil Carriers)			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.t. C.V. Raman	1981	25040	41123
2. m.t. Homi Bhabha	1982	25040	41126
Total 2 vessels		50080	82249
OFFSHORE SUPPLY VESSELS			
A. M/s Garware Shipping Corpn. Ltd., Bombay			
1. m.v. Garware-I	1983	881	1050
2. m.v. Garware-II	1983	881	1050
3. m.v. Garware-III	1984	881	1050
4. m.v. Garware-IV	1984	881	1050
5. m.v. Gaware-V	1984	881	1050
		4405	5250
B. The Great Eastern Shipping Co. Ltd., Bombay			
6. m.v. Malaviya One	1983	869	1073
7. m.v. Malaviya Two	1983	870	1084
8. m.v. Malaviya Three	1984	1084	1251
9. m.v. malaviya Four	1984	1085	1242
10. m.v. Malaviya Five	1980	650	993
11. m.v. Malaviya Six	1981	650	993

Contd...

XI. 2 (Contd.) INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
12. m.v. Malaviya Nine	1983	1351	1517
13. m.v. Malaviya Eleven	1989	810	0
14. m.v. Malaviya Twelve	1989	810	0
15. m.v. Malaviya Fourteen	1989	810	0
		8989	**8153**
C. M/s Essar Shipping Ltd., Bombay			
16. m.v. Nand Panna	1984	1313	1751
17. m.v. Nand Krishna	1984	1313	1751
18. m.v. Nand Heera	1984	1313	1751
		3939	**5253**
D. M/s VNS Offsore Services Co., Bombay			
19. m.v. Kansi Namrata	1969	487	737
E. M/s Hede Ferromina Pvt. Ltd., Goa			
20. m.v. Ferromina Harvest	1971	629	759
F. M/s Varun Shipping Co. Ltd., Bombay			
21. m.v. Neel Kamal	1983	999	1084
22. m.v. Neel Akash	1984	999	1086
		1998	**2170**
G. The Shipping Corpn. of India Ltd., Bombay			
23. m.v. Feroze Gandhi	1984	1310	1758
24. m.v. CP Srivastava	1984	1310	1758
25. m.v. SCI - 01	1984	1310	1775
26. m.v. SCI - 02	1984	1310	1776
27. m.v. SCI - 03	1984	1310	1771
28. m.v. SCI - 04	1984	1310	1812
29. m.v. SCI - 05	1984	1310	1819
30. m.v. SCI - 06	1984	1310	1817
31. m.v. Capt. F.M. Juvale	1985	1310	1809
32. m.v. Dr. Nagendra Singh	1985	1310	1817
		13100	**17912**
H. Oil & Natural Gas Commission, Bombay			
33. m.v. Sindhu - 01	1984	1310	1450
34. m.v. Sindhu - 02	1985	1310	1450
35. m.v. Sindhu - 03	1985	1310	1450
36. m.v. Sindhu - 04	1986	1310	1450
37. m.v. Sindhu - 05	1985	1302	1450
38. m.v. Sindhu - 06	1985	1302	1450
39. m.v. Sindhu - 07	1985	1302	1450
40. m.v. Sindhu - 08	1985	1302	1450
41. m.v. Sindhu - 09	1985	1302	1450
42. m.v. Sindhu - 10	1985	1302	1450
43. m.v. Sindhu - 11	1985	1302	1450
44. m.v. Sindhu - 12	1985	1302	1450
45. m.v. Sindhu - 14	1987	1310	1450
46. m.v. Sindhu - 15	1992	1323	1450
47. m.v. Sindhu - 16	1993	1323	1450
48. m.v. Sindhu - 17	1993	1323	1450
49. m.v. Samudrika - 01	1986	949	950
50. m.v. Samudrika - 02	1986	949	950
51. m.v. Samudrika - 03	1986	949	950
52. m.v. Samudrika - 04	1985	949	950
53. m.v. Samudrika - 05	1986	949	950
54. m.v. Samudrika - 06	1986	949	950

Contd...

343/152

XI. 2 (Contd.) INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
55. m.v. Samudrika - 07	1987	949	950
56. m.v. Samudrika - 08	1986	949	950
57. m.v. Samudrika - 09	1986	949	950
58. m.v. Samudrika - 10	1986	949	950
59. m.v. Samudrika - 11	1986	949	950
60. m.v. Samudrika - 12	1986	949	950
61 m.v. Samudrika - 14	1986	949	950
62. m.v. Samudrika - 15	1985	949	950
63. m.v. Samudrika - 16	1985	949	950
64. m.v. Samudrika - 17	1986	949	950
65. m.v. Samudrika - 18	1986	949	950
		37068	**39350**
I. Admn. of Union Territory of Lakshadweep			
66. m.v. Thinnakara	1993	738	960
J. GAL Offshore Shipping Co.			
67. Gal Amber Sea	1975	640	0
K. M/s Seaspan Shipping			
68. m.v. Seaspan I	1984	157	0
L. M/s Dolphin Offshore			
69. OSV Ganga Dolphin	1982	369	272
Total 69 Vessels		**72519**	**30816**
SPECIALISED VESSELS FOR OFFSHORE SERVICES			
A. M/s Essar Shipping Ltd., Bombay			
1. m.v. Essar Stena -I	1981	4485	2970
B. M/s Peerless Drive Ltd.			
2. m.v. Peerless Stena-I	1983	2248	2001
3. m.v. Peerless Stena-II	1982	3964	1430
4. m.v. Peerless Stena-III	1984	3966	2067
		10178	**5498**
C. M/s Oil & Natural Gas Commission, Bombay.			
5. m.v. Samudra Nidhi (MSV)	1985	2995	2189
6. m.v. Samudra Sarvekshak	1986	4018	2124
7. m.v. Samudra Prabha (NDT)	1986	4018	2124
8. m.v. Samudra Sanchini (Research)	1986	1500	2145
9. m.v. Sagar Vijay (Drillship)	1985	11103	9239
10. m.v. Samudra Suraksha	1982	5006	4348
11. m.v. Sagar Bhushan	1987	11103	9239
12. m.v. Sagarika-IV	1983	4207	1096
13. m.v. Sagar Samrat	1973	4186	6398
14. m.v. Sagar Sandhani	1985	2156	1300
		50292	**40202**
D. M/s Raj Shipping			
15. m.v. Anweshak	1974	715	1469
E. M/s Samson Maritime			
16. m.v. Ocean Pearl (SPM)	1966	482	670
F. M/s Bombay Offshore Suppiles & Services			
17. m.v. Boss - 1 (AHT)	1982	491	407

Contd...

3463/168

XI. 2 (Contd.) INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
G. M/s South India Corpn. (Agencies) Ltd.			
18. m.v. Sagar Sevak	1972	490	860
H. M/s Jaaisu Shipping Co. (P) Ltd.			
19. m.v. Noorani Sea Horse	1970	99	99
I. Director General of Lighthouses & Lightships			
20. m.v. Sagar Deep	1983	2755	1568
21. m.v. Paradeep	1984	602	162
		3357	**1730**
J. The Geological Survey of India.			
22. m.v. Samudra Manthan (S. Research)	1985	2374	1825
23. m.v. Samudra Kaustubh	1985	284	94
24. m.v. Samudra Saudhikama	1985	284	94
		2942	**2013**
K. The Council of Scientific & Industrial Research			
25. m.v. Sagar Sampada	1984	2661	800
L. Department of Ocean Development			
26. M.v. Sagar Paschimi	1996	188	0
Total 26 Vessels		**76380**	**56718**
OVERSEAS			
ORE OIL BULK CARRIERS			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.v. Maharishi Dayanand	1978	66644	123450
2. m.v. Maharishi Karve	1978	66644	123450
		133288	**246900**
B. M/s Essar Shipping Ltd., Bombay			
3. m.v. Nand Shivchand	1982	37813	65075
Total 3 Vessels		**171101**	**311975**
OIL TANKERS (CRUDE CARRIERS)			
A The Shipping Corpn. of India Ltd., Bombay			
1. m.t. Subedar Joginder Singh PVC	1984	37885	67137
2. m.t. major Dhan Singh Thapa PVC	1984	37885	67153
3. m.t. Naik Jadunath Singh PVC	1984	37855	67169
4. m.t. Company havaldar major Piru S. PVC	1984	37855	67161
5. m.t. Capt. Gurbachan Singh Salaria PVC	1984	37855	67167
6. m.t. Lance Naik Karam Singh PVC	1984	37855	67170
7. m.t. Major Saitan Singh PVC	1985	37855	67185
8. m.t. Major Somnath Sharma PVC	1984	37855	67225
9. m.t. Havildar Abdul hamid PVC	1985	37855	67164
10. m.t. Col. Ardshir Burzorji tarapore PVc	1985	37855	67124
11. m.t. Lt. Rama Raghoba Rane, PVC	1984	37855	67227
12. m.t. Vivekananda	1974	51717	89371
13. m.t. Satyamurthi	1975	51533	89351.
14. m.t. Netaji Subhash Bose	1973	51526	89392
15. m.t. Lokmanya Tilak	1975	51535	89411
16. m.t. B.R. Ambedkar	1974	51718	89454
17. m.t. Chattrapati Shivaji	1974	51718	89490
18. m.t. Rajendra Prasad	1975	63460	115723

Contd...

XI. 2 (Contd.) INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
19. m.t. Kanchanjunga	1975	139820	276755
20. m.t. Motilal Nehru	1990	51778	85429
21. m.t. Jawahar Lal Nehru	1992	51778	85429
22. m.t. Ankleswar	1994	80130	139115
23. m.t. Gandhar	1994	80130	139115
24. m.t. Maharaja Agarsen	1995	80130	139020
25. m.t. Gurugobind Singh. PVC	1995	80130	139020
		1353568	**2394957**
B. M/s Ratnakar Shipping Co. Ltd., Calcutta			
26. m.t. Ratna Abha	1982	40614	60300
C. M/s Great Eastern Shipping Co.			
27. m.t. Jag Ladki	1992	78710	145242
D. M/s Essar Shipping Ltd., Bombay			
28. m.t. Shravan	1991	79718	153000
29. m.t. Kamlesh	1991	79718	153000
30. m.t. Ishwari	1991	79718	153000
31. m.t. Kishore	1992	74718	153000
		313872	**612000**
Total 31 Vessels		**1786764**	**3212499**
OIL TANKERS (PRODUCTS CARRIERS)			
A. The Shipping Coprn. of India Ltd., Bombay			
1. m.t. Dadabhai Nauroji	1977	15045	24469
2. m.t. Aurbindo	1976	15045	24411
3. m.t. Kalandia	1976	15045	24490
4. m.t. Major Hoshiar Singh PVC	1985	28704	45421
5. m.t. Lance Naik Albert Ekka	1985	28704	45473
6. m.t. flying Officer Nirmal Jit Singh Shekhawat	1985	28704	45485
7. m.t. Lt. Arun Khetarpal	1985	28704	45453
8. m.t. Rabindranath Tagore	1993	26481	45135
9. m.t. Bankimchandra Chatterjee	1994	26474	45135
10. m.t. Jhulelal	1991	13279	19954
11. m.t. Vasavesware	1982	17199	29990
12. m.t. Bharat Darshan	1991	16515	29775
13. M.t. Suvarna Swarjaya	1998	21827	32901
14. M.t. Sampurna Swarjaya	1999	21827	32940
		303553	**491032**
B. M/s The Great Eastern Shipping Co. Ltd.			
15. m.t. Jag Prakash	1974	15489	25080
16. m.t. Jag Palak	1985	18542	26970
17. m.t. Jag Preeti	1981	21206	28679
18. m.t. Jag Pari	1982	20991	28679
19. m.t. Jag Priya	1975	20415	32360
20. m.t. Jag Prabhat	1985	18542	26967
21. m.t. Jag Pragati	1985	18542	26970
22. m.t. Jag Pranam	1984	28010	50600
23. m.t. Jag Padma	1982	27771	47048
24. m.t. Jag Praja	1982	17199	29990
25. m.t. Jag Prayog	1982	17199	29990
26. m.t. Jag Pratap	1995	27627	45693
27. m.t. Jag Pradip	1996	27627	45684
28. m.t. Jag Prabhu	1978	28010	50600
29. m.t. Jag Puja	1983	25692	39701
30. m.t. Jag Laxmi	1999	58374	105051
		391236	**640062**

Contd...

XI. 2 (Contd.) INDIAN TONNAGE AS ON 31.3.1999

Owner/Name of the Ship	Year of Built	G.R.T (Tonnes)	D.W.T.(Tonnes)
1	2	3	4
C. M/s Varun Shipping Co. Ltd.			
31. m.t. Vishwadoot	1982	18959	29999
32. m.t. Shaktidoot	1982	17751	29999
33. m.t. Jaidoot	1984	22989	34247
		59699	**94245**
D. M/s Essar Shipping Co. Ltd., Bombay			
34. m.t. Nand Kishore	1981	13906	19602
35. m.t. Nand Hari	1981	11135	19604
		25041	**39206**
E. M/s Century Shipping, Bombay			
36. m.t. Aditya Vikram	1981	3850	7070
37. m.t. Aditya Vijay	1981	16899	29990
		20749	**37060**
F. M/s Sanmar Shipping Corporation			
38. m.t. Sanmar Symphony	1985	28017	50600
39. m.t. Sanmar Sentinal	1986	28017	50600
		56034	**101200**
G. M/s Infrastructure Leasing & Financial Services Ltd.			
40. m.t. Sanmar Sonata	1982	29864	48532
Total 40 Vessels		**886176**	**1451337**
LPG CARRIERS			
A. M/s Shipping Corpn. of India Ltd., Bombay			
1. m.t. Nanga Parbat	1991	17778	17601
2. m.t. Anna Purna	1991	17778	17601
		35556	**35202**
B. M/s Varun Shipping Co. Ltd.			
3. m.t. Maharishi Vyas	1975	15092	18165
4. m.t. Maharishi Vashisth	1976	15559	17650
5. m.t. Maharishi Vishwamitra	1976	31223	38705
		61874	**74520**
C. The Great Eastern Shipping Co. Ltd.			
6. M.t. Jag Vayu	1978	21308	28400
Total 6 vessels		**118738**	**138122**

Source: Directorate General of Shipping, Mumbai.

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

(Million Tonnes)

Name of the Port	Year	Total Traffic	POL Traffic	POL as % age of total Traffic at the port
1	2	3	4	5
Calcutta / Haldia	1969-70	6.89	1.53	22.5
	1979-80	8.56	4.58	53.5
	1988-89	14.22	6.47	45.5
	1989-90	14.45	6.44	44.6
	1990-91	15.24	7.26	47.6
	1991-92	16.00	7.69	48.1
	1992-93	18.34	8.94	48.7
	1993-94	18.50	8.70	47.0
	1994-95	20.54	9.73	47.4
	1995-96	21.52	10.74	49.9
	1996-97	23.12	10.98	47.5
	1997-98	28.16	14.34	50.9
	1998-99*	29.39	15.75	53.6
Bombay	1969-70	15.04	8.60	57.2
	1979-80	16.57	7.84	47.3
	1988-89	28.70	18.41	64.2
	1989-90	28.55	18.58	65.1
	1990-91	29.79	19.89	66.8
	1991-92	27.21	19.76	72.6
	1992-93	29.02	20.05	69.1
	1993-94	30.74	20.50	66.7
	1994-95	32.05	20.09	62.7
	1995-96	34.05	30.15	59.2
	1996-97	33.73	18.71	55.5
	1997-98	32.10	16.73	52.1
	1998-99 *	30.95	16.67	53.9
Madras	1969-70	6.44	2.24	34.8
	1979-80	9.99	3.73	37.3
	1988-89	23.86	10.76	45.1
	1989-90	23.94	9.72	40.6
	1990-91	24.52	9.83	40.1
	1991-92	25.05	10.08	40.2
	1992-93	25.33	9.73	38.4
	1993-94	26.54	11.04	41.6
	1994-95	29.46	11.97	40.6
	1995-96	30.72	11.57	37.7
	1996-97	31.85	12.45	39.1
	1997-98	35.53	11.59	32.6
	1998-99 *	35.20	9.23	26.2
Cochin	1969-70	4.79	3.56	74.3
	1979-80	5.47	3.87	70.8
	1988-89	7.82	6.27	80.2
	1989-90	7.13	5.59	78.4
	1990-91	7.28	5.80	79.7
	1991-92	7.48	5.88	78.6
	1992-93	7.98	6.22	77.9
	1993-94	7.62	6.12	80.3
	1994-95	8.63	6.60	76.5
	1995-96	11.50	9.36	81.4
	1996-97	11.74	9.23	78.6
	1997-98	12.17	9.77	80.3
	1998-99 *	12.67	9.86	77.8

Contd.....

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

(Million Tonnes)

Name of the Port	Year	Total Traffic	POL Traffic	POL as % age of total Traffic at the port
1	2	3	4	5
Kandla	1969-70	2.11	0.98	46.4
	1979-80	7.27	5.45	75.0
	1988-89	17.81	13.08	73.4
	1989-90	18.93	14.36	75.9
	1990-91	19.69	15.06	76.5
	1991-92	21.00	16.50	78.6
	1992-93	22.91	17.95	78.4
	1993-94	24.50	18.16	74.1
	1994-95	26.50	19.05	71.9
	1995-96	30.34	22.34	73.6
	1996-97	33.73	25.06	74.3
	1997-98	38.90	29.02	74.6
	1998-99*	40.64	30.47	75.0
J.N.P.T.	1989-90	0.70	—	—
	1990-91	2.03	—	—
	1991-92	2.80	—	—
	1992-93	3.01	—	—
	1993-94	3.39	—	—
	1994-95	5.01	—	—
	1995-96	6.87	—	—
	1996-97	8.07	—	—
	1997-98	8.90	0.68	7.6
	1998-99*	11.72	1.17	10.0
Visakhapatnam	1969-70	8.30	1.94	23.4
	1979-80	10.23	1.94	19.0
	1988-89	20.37	6.99	34.3
	1989-90	21.12	6.83	32.3
	1990-91	19.42	5.60	28.8
	1991-92	21.52	6.38	29.6
	1992-93	22.77	7.59	33.3
	1993-94	25.59	8.90	34.8
	1994-95	30.03	11.24	37.4
	1995-96	32.82	12.54	38.2
	1996-97	34.50	13.38	38.8
	1997-98	36.01	12.12	33.7
	1998-99*	35.65	12.80	35.9
Mormugao	1969-70	9.03	0.15	1.1
	1979-80	14.80	0.73	4.9
	1988-89	15.39	1.30	8.5
	1989-90	14.17	1.04	7.3
	1990-91	14.91	1.37	9.2
	1991-92	15.10	1.87	12.4
	1992-93	16.31	1.79	11.0
	1993-94	18.72	2.10	11.2
	1994-95	18.88	1.94	10.3
	1995-96	18.10	1.91	10.6
	1996-97	17.31	1.23	7.1
	1997-98	21.18	1.13	5.3
	1998-99*	18.02	1.05	5.8
Paradip	1969-70	1.75	—	—
	1979-80	2.31	—	—
	1988-89	6.03	—	—
	1989-90	6.18	—	—
	1990-91	6.88	—	—
	1991-92	7.30	0.02	0.3
	1992-93	7.61	0.20	2.6
	1993-94	8.33	0.34	4.1
	1994-95	10.12	0.38	3.8
	1995-96	11.26	1.07	9.5
	1996-97	11.58	1.69	14.6
	1997-98	13.30	1.74	13.1
	1998-99*	13.11	2.01	15.3

Contd.....

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

(Million Tonnes)

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
	1988-89	5.14	0.48	9.3
	1989-90	5.32	0.48	9.0
	1990-91	5.08	0.47	9.3
	1991-92	5.87	0.50	8.5
	1992-93	6.21	0.51	8.2
	1993-94	6.70	0.46	6.9
	1994-95	8.04	0.42	5.2
	1995-96	9.29	0.44	4.7
	1996-97	9.17	0.43	4.7
	1997-98	9.97	0.42	4.2
	1998-99*	10.15	0.39	3.8
New Mangalore	1977-78	0.38	0.20	52.6
	1979-80	0.90	0.21	23.3
	1988-89	7.08	0.57	7.3
	1989-90	7.66	0.58	7.6
	1990-91	8.03	0.61	7.6
	1991-92	8.27	0.62	7.5
	1992-93	7.09	0.63	8.9
	1993-94	8.63	0.65	7.5
	1994-95	8.01	0.74	9.2
	1995-96	8.88	0.96	10.8
	1996-97	12.45	4.92	39.5
	1997-98	15.28	6.51	42.6
	1998-99*	14.21	6.46	45.5
Grand Total	1969-70	54.35	19.02	35.0
	1977-78	66.23	26.21	39.6
	1979-80	78.49	28.78	36.7
	1988-89	146.43	64.33	43.9
	1989-90	148.14	63.60	42.9
	1990-91	152.86	65.88	43.1
	1991-92	157.60	69.30	44.0
	1992-93	166.58	73.61	44.2
	1993-94	179.26	76.97	42.9
	1994-95	197.26	82.15	41.6
	1995-96	215.34	91.07	42.3
	1996-97	227.26	98.08	43.2
	1997-98	251.51	104.04	41.4
	1998-99*	251.70	105.85	42.1

Source : Ministry of Surface Transport, Port Study Cell.
Note : Traffic handled includes transhipment cargo also.
* : Provisional

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

Year	Tonnes Originating ('000' MTS)	Earnings ('000' Rs.)	Average Lead (Kms)	Earnings (Paise/ Tonnes/Km)	Average Freight Col. 3 Divided Col. 2 (Rs/Tonnes)
1	2	3	4	5	6
1970-71	8857	464081	594	8.8	52.40
1971-72	10063	523049	593	8.8	51.98
1972-73	10181	550982	614	8.8	54.12
1973-74	9994	555560	638	8.7	55.59
1974-75	10751	723192	642	10.5	67.27
1975-76	11663	860925	605	12.2	73.82
1976-77	12395	1038462	609	13.8	83.78
1977-78	13062	1120693	631	13.6	85.80
1978-79	14301	1324332	698	13.3	92.60
1979-80	14266	1497510	729	14.4	104.97
1980-81	14954	1835693	780	15.7	122.76
1981-82	16555	2848050	731	23.5	172.04
1982-83	17342	3588169	647	32.0	206.91
1983-84	17949	4052635	597	37.8	225.79
1984-85	18169	4157626	563	40.6	228.83
1985-86	18635	4705145	588	42.9	252.49
1986-87	19853	5395900	588	46.2	271.79
1987-88	21690	7175776	635	52.1	330.83
1988-89	22598	7639458	626	54.0	338.06
1989-90	24313	9135273	645	58.3	375.74
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	88.4	562.50
1994-95	27724	18009092	655	99.1	649.58
1995-96	28909	19993460	667	103.7	689.56
1996-97	28516	20310003	652	109.2	712.23
1997-98	30727	25212161	640	128.3	820.52

SOURCE Railway Board

XI.5 RAIL FREIGHT RATES IN RESPECT OF PETROLEUM PRODUCTS

(Rs./Kl)

Effective Dates	Distance in Kilometres							
	100	300	500	800	1000	1500	2000	2500
1	2	3	4	5	6	7	8	9
	DANGEROUS (POL-PRODUCTS)							
01.04.1982	71.4	143.3	207.6	357.2	425.5	584.4	729.2	828.0
01.04.1983	78.0	175.2	267.0	393.9	478.5	655.5	796.5	919.5
15.04.1985	78.0	175.2	267.0	433.3	526.4	721.1	876.2	1011.5
01.12.1986	84.3	203.4	326.6	522.1	639.6	814.6	1123.2	1284.2
01.04.1988	89.4	215.6	346.2	553.4	678.0	969.5	1190.6	1361.8
01.04.1989	99.2	239.3	384.3	614.3	752.6	1076.1	1321.6	1511,6
01.04.1990	106.1	256.1	411.2	567.3	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
	NON-DANGEROUS (POL-PRODUCTS)							
01.06.1982	53.5	106.3	153.5	263.6	313.5	430.4	530.5	609.0
01.06.1983	59.2	130.5	197.5	290.9	352.9	482.7	586.1	676.3
01.06.1984	63.9	141.7	215.1	316.6	384.3	525.9	638.7	737.1
15.04.1985	63.9	141.7	215.1	348.3	422.7	578.5	702.6	810.8
11.12.1986	69.1	164.5	263.2	419.7	513.6	733.7	900.6	1029.8
01.04.1988	78.5	188 5	301.4	481.0	588.9	841.6	1033.2	1181.6
01.04.1989	87.2	208.7	334.5	533.9	653.7	934.2	1146.8	1311.6
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	514.5	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

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

Source: Railway Board.

3463PNG F—17-B

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

Type of Pipeline / owner	Length (in Kms.) As on 1st April				
	1995	1996	1997	1998	1999
CRUDE PIPELINES (ONSHORE)					
ONGC	763	791	810	843	888
OIL	1517	1524	1524	1524	1538
IOC	1230	1230	1230	1689	2210
HPCL		11	11	11	11
SUBTOTAL	**3510**	**3556**	**3574**	**4067**	**4646**
CRUDE PIPELINES (OFFSHORE)					
ONGC	525	667	667	667	667
IOC	6	6	6	14	14
SUBTOTAL	**531**	**673**	**673**	**681**	**681**
GAS PIPELINES (ONSHORE)					
ONGC	371	630	644	654	679
GAIL	3038	3116	3829	3938	4017
OIL	90	90	90	90	90
BPCL	2	2	2	2	2
SUBTOTAL	**3500**	**3838**	**4564**	**4683**	**4787**
GAS PIPELINES (OFFSHORE)					
ONGC	622	638	638	638	638
SUBTOTAL	**622**	**638**	**638**	**638**	**638**
PRODUCT PIPELINES (ONSHORE)					
IOC(AOD)	108	69	69	69	69
IOC	2527	3981	3981	3981	3981
BPCL	74	74	77	398	415
HPCL		191	191	563	563
ONGC		8	8	8	8
SUBTOTAL	**2709**	**4324**	**4327**	**5020**	**5037**
PRODUCT PIPELINES (OFFSHORE)					
BPCL	3	3	3	3	3
ONGC	48	48	48	48	48
SUBTOTAL	**51**	**51**	**51**	**51**	**51**
GRAND TOTAL	**10924**	**13080**	**13828**	**15141**	**15841**

XII. MARKETING NETWORK

XII.1 RETAIL OUTLETS IN INDIA AS ON 1ST JANUARY OF EACH YEAR, COMPANY-WISE

(NUMBERS)

Year	Retail/Outlets	B/Shell BPCL	ESSO/ HPCL	CALTEX/ HPCL (VMU)	IOC	IBP	AOC/ AOD	TOTAL
1	2	3	4	5	6	7	8	9
1968	Nos.	3683	1955	1437	1516	229	119	8939
	%	41.2	21.9	16.1	16.9	2.6	1.3	100
1969	Nos.	3700	1948	1396	2131	223	124	9522
	%	38.8	20.5	14.7	22.4	2.3	1.3	100
1970	Nos.	3577	1922	1392	2655	233	129	9908
	%	16.1	19.3	14.0	26.8	2.4	1.4	100
1975	Nos.	3173	1867	1206	3546	525	163	10480
	%	30.3	17.8	11.5	33.8	5.0	1.6	100
1980	Nos.	3296	3198@		4231	975	173	22873
	%	27.8	26.9		35.6	8.2	1.5	100
1981	Nos.	3308	3225@		4333	1001	175	12042
	%	27.5	26.8		36.0	8.3	1.4	100
1982	Nos.	3314	3247@		4413	1019	178	12171
	%	27.2	26.7		36.2	8.4	1.5	100
1983	Nos.	3232	3124@		4504	1024	186	12070
	%	26.8	25.9		37.3	8.5	1.5	100
1984	Nos.	3378	3391@		4654	1051	190	12664
	%	26.7	26.8		36.7	8.3	1.6	100
1985	Nos.	3442	3451@		4707	1062	202	12864
	%	26.7	26.8		36.6	8.3	1.6	100
1986	Nos.	3514	3545		4848	1087	215	13209
	%	26.7	26.8		36.7	8.2	1.6	100
1987	Nos.	3614	3630		5048	1126	225	13643
	%	36.4	26.6		37.0	8.3	1.6	100
1988	Nos.	3690	3717		5191	1174	235	14007
	%	26.3	26.5		37.1	8.4	1.7	100
1989	Nos.	3769	3784		5313	1194	250	14310
	%	26.3	26.5		37.1	8.4	1.7	100
1990	Nos.	3847	3829		5452	1228	268	14264
	%	26.3	26.2		37.3	8.4	1.8	100
1991	Nos.	3907	3910		5542	1258	276	14893
	%	26.2	26.3		37.2	8.4	1.9	100
1992	Nos.	3976	3946		5602	1287	281	15092
	%	26.3	26.2		37.1	8.5	1.9	100
1993	Nos.	4016	3968		5605	1294	283	15166
	%	26.5	26.2		37.0	8.5	1.8	100
1994	Nos.	4045	4009		5637	1315	283	15289
	%	26.5	26.2		36.9	8.6	1.8	100
1995	Nos.	4146	4094		5889	1364	283	15776
	%	26.3	26.0		37.3	8.6	1.8	100
1996	Nos.	4240	4199		6140	1403	291	16273
	%	26.1	25.8		37.7	8.6	1.8	100
1997	Nos.	4332	4279		6375	1426	303	16715
	%	25.9	25.7		38.1	8.5	1.8	100
1998	Nos.	4383	4315		6444	1440	311	16893
	%	25.9	25.5		38.1	0.5	2.0	100
1999	Nos.	4410	4345		6532	1442	311	17040
	%	25.9	25.5		38.3	8.5	1.8	100

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

XII.2 STATE-WISE NUMBER OF RETAIL OUTLETS, LDO/SKO DEALERS AND LPG DISTRIBUTORS AS ON 1.4 . 98 and 1.4.99

(NUMBERS)

	State/Union Territories	Retail Outlets		LDO/SKO Dealers		LPG Distributors	
		1.4.98	1.4.99	1.4.98	1.4.99	1.4.98	1.4.99
	1	2	3	4	5	6	7
	A. STATES						
1.	Andhra Pradesh	1270	1304	606	606	458	482
2.	Arunachal Pradesh	32	32	34	34	18	18
3.	Assam	367	369	360	357	144	147
4.	Bihar	1119	1131	430	430	213	214
5.	Goa	66	69	20	20	33	35
6.	Gujarat	1077	1082	492	492	403	404
7.	Haryana	568	581	145	145	176	176
8.	Himachal Pradesh	91	96	26	26	70	70
9.	Jammu & Kashmir	125	131	41	41	93	100
10.	Karnataka	1010	1020	319	318	295	302
11.	Kerala	747	749	240	240	206	208
12.	Madhya Pradesh	1016	1020	369	369	321	333
13.	Maharashtra	1649	1667	733	733	723	726
14.	Manipur	31	31	35	35	18	18
15.	Meghalaya	58	58	35	35	18	19
16.	Mizoram	14	14	19	19	13	14
17.	Nagaland	30	30	19	19	17	19
18.	Orissa	355	370	175	175	104	105
19.	Punjab	1029	1035	239	239	253	261
20.	Rajasthan	995	1018	246	246	226	233
21.	Sikkim	13	13	12	12	3	3
22.	Tamil Nadu	1514	1546	462	464	390	392
23.	Tripura	32	32	39	39	15	17
24.	Uttar Pradesh	2286	2319	693	694	672	689
25.	West Bengal	1069	1082	459	461	318	319
	Total (A)	**16563**	**16799**	**6248**	**6249**	**5200**	**5304**
	B. UNION TERRITORIES						
26.	A.N. Islands	3	3	1	1	1	1
27.	Chandigarh	39	39	11	11	29	29
28.	D.N. Haveli	4	4	2	2	1	1
29.	Delhi	290	305	107	107	293	299
30.	Daman & Diu	6	4	5	5	2	2
31.	Pondicherry	30	31	8	8	11	11
32.	Lakshdweep	0	0	0	0	1	1
	Total (B)	**372**	**386**	**134**	**134**	**338**	**344**
	TOTAL (A+B)	**16935**	**17185**	**6382**	**6383**	**5538**	**5648**

XII.3. STATE-WISE NUMBER OF RETAIL OUTLETS (ROs) AND THOSE SELLING UNLEADED PETROL(ULP)

(As on 1.4.1999)

STATE/UT	TOTAL NUMBER OF ROs						NUMBER OF ROs SELLING ULP					
	IOC	AOD	BPCL	HPCL	IBP	TOTAL	IOC	AOD	BPCL	HPCL	IBP	TOTAL
NORTH	**2277**	**0**	**1299**	**1250**	**690**	**5516**	**525**	**0**	**235**	**314**	**176**	**1250**
Haryana	241	0	109	134	97	581	121	0	15	69	32	237
Himachal Pradesh	47	0	24	22	3	96	9	0	4	6	1	20
Jammu & Kashmir	65	0	36	26	4	131	13	0	1	7	1	22
Punjab	427	0	221	199	188	1035	80	0	33	43	59	215
Rajasthan	417	0	258	288	55	1018	41	0	14	27	5	87
Uttar Pradesh	967	0	560	490	302	2319	153	0	80	72	38	343
Chandigarh	12	0	11	12	4	39	7	0	8	11	4	30
Delhi	101	0	80	79	37	297	101	0	80	79	36	296
WEST	**1440**	**0**	**1116**	**1038**	**252**	**3846**	**74**	**0**	**111**	**151**	**38**	**374**
Goa	10	0	32	26	1	69	2	0	7	3	0	12
Gujarat	447	0	277	243	115	1082	14	0	7	13	12	46
Madhya Pradesh	439	0	274	256	51	1020	6	0	2	9	2	19
Maharashtra	540	0	531	511	85	1667	51	0	95	126	24	296
Dadra & Nagar Haveli	1	0	1	2	0	4	0	0	0	0	0	0
Daman & Diu	3	0	1	0	0	4	1	0	0	0	0	1
SOUTH	**1700**	**0**	**1304**	**1394**	**252**	**4650**	**105**	**0**	**84**	**81**	**47**	**317**
Andhra Pradesh	475	0	345	382	102	1304	13	0	9	11	5	38
Karnataka	395	0	287	288	50	1020	21	0	6	14	13	54
Kerala	250	0	209	249	41	749	10	0	13	10	21	54
Tamil Nadu	565	0	457	467	57	1546	57	0	56	46	7	166
Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0
Pondicherry	15	0	6	8	2	31	4	0	0	0	1	5
EAST	**1207**	**311**	**694**	**699**	**254**	**3165**	**86**	**6**	**100**	**86**	**43**	**321**
Arunachal Pradesh	13	19	0	0	0	32	1	1	0	0	0	2
Assam	123	194	4	36	12	369	1	1	1	1	1	5
Bihar	455	0	289	268	119	1131	6	0	43	13	11	73
Manipur	12	19	0	0	0	31	1	1	0	0	0	2
Meghalaya	21	27	2	5	3	58	1	1	0	1	1	4
Mizoram	5	9	0	0	0	14	1	0	0	0	0	1
Nagaland	11	19	0	0	0	30	1	1	0	0	0	2
Orissa	152	0	113	95	10	370	2	0	6	8	0	16
Sikkim	8	0	3	0	2	13	1	0	0	0	0	1
Tripura	8	24	0	0	0	32	1	1	0	0	0	2
West Bengal	396	0	283	295	108	1082	69	0	50	63	30	212
Andaman & Nicobar	3	0	0	0	0	3	1	0	0	0	0	1
All India Total	**6624**	**311**	**4413**	**4381**	**1448**	**17177**	**790**	**6**	**530**	**632**	**304**	**2262**
Bhutan	11	0	10	0	0	21	0	0	0	0	0	0

XII. 4 (a) STATEWISE NUMBER OF LPG DOMESTIC CONSUMERS AS ON 1.4.98

(FIGS. IN LAKHS)

	IOC (MD)	IOC (AOD)	IOC TOTAL	BPC	HPC	TOTAL
STATES						
ANDHRA PRADESH	9.23	0.00	9.23	4.40	13.25	26.87
ARUNACHAL PRADESH	0.12	0.35	0.47	0.00	0.00	0.47
ASSAM	2.08	2.85	4.93	0.00	0.00	4.93
BIHAR	7.71	0.00	7.71	1.08	1.02	9.80
DELHI	12.90	0.00	12.90	4.71	2.69	20.29
GOA	0.01	0.00	0.01	0.77	1.25	2.02
GUJARAT	14.68	0.00	14.68	5.14	5.41	25.23
HARYANA	5.36	0.00	5.36	3.25	1.72	10.32
HIMACHAL PRADESH	4.98	0.00	4.98	0.16	0.66	5.80
JAMMU & KASHMIR	1.85	0.00	1.85	0.45	2.80	5.10
KARNATAKA	6.12	0.00	6.12	3.99	7.49	17.60
KERALA	8.02	0.00	8.02	3.26	1.54	12.82
MADHYA PRADESH	8.44	0.00	8.44	2.92	5.53	16.89
MAHARASHTRA	3.18	0.00	3.18	26.95	24.10	54.23
MANIPUR	0.23	0.60	0.84	0.00	0.00	0.84
MEGHALAYA	0.26	0.24	0.50	0.00	0.00	0.50
MIZORAM	0.41	0.34	0.75	0.00	0.00	0.75
NAGALAND	0.17	0.26	0.44	0.00	0.00	0.44
ORISSA	1.67	0.00	1.67	0.50	2.15	4.32
PUNJAB	8.59	0.00	8.59	3.08	2.27	13.94
RAJASTHAN	6.18	0.00	6.18	3.56	3.60	13.33
SIKKIM	0.30	0.00	0.30	0.00	0.00	0.30
TAMILNADU	17.88	0.00	17.88	5.43	3.22	26.53
TRIPURA	0.23	0.35	0.58	0.00	0.00	0.58
UTTAR PRADESH	30.27	0.00	30.27	8.64	4.13	43.04
WEST BENGAL	12.33	0.00	12.33	1.76	3.85	17.94
TOTAL	**163.19**	**5.01**	**168.19**	**80.02**	**86.68**	**334.89**
UNION TERRITORIES						
ANDAMAN & NICOBAR	0.10	0.00	0.10	0.00	0.00	0.10
CHANDIGARH	1.05	0.00	1.05	0.22	0.35	1.62
DADRA & NAGAR HAVELI	0.00	0.00	0.00	0.00	0.06	0.06
DAMAN & DIU	0.00	0.00	0.00	0.00	0.12	0.12
LAKSHADWEEP	0.01	0.00	0.01	0.00	0.00	0.01
PONDICHERRY	0.30	0.00	0.30	0.09	0.22	0.61
TOTAL	**1.47**	**0.00**	**1.47**	**0.31**	**0.75**	**2.54**
ALL INDIA	**164.66**	**5.01**	**169.66**	**80.33**	**87.43**	**337.43**

XII. 4 (b) STATEWISE NUMBER OF LPG DOMESTIC CONSUMERS AS ON 1.4.99

(FIGS. IN LAKHS)

	IOC (MD)	IOC (AOD)	IOC TOTAL	BPC	HPC	TOTAL
STATES						
ANDHRA PRADESH	10.33	0.00	10.33	5.02	15.66	31.01
ARUNACHAL PRADESH	0.12	0.42	0.55	0.00	0.00	0.55
ASSAM	2.26	3.39	5.65	0.00	0.00	5.65
BIHAR	8.39	0.00	8.39	1.19	1.20	10.78
DELHI	17.22	0.00	17.22	6.57	3.67	27.46
GOA	0.01	0.00	0.01	0.86	1.35	2.22
GUJARAT	16.12	0.00	16.12	5.52	5.87	27.51
HARYANA	5.90	0.00	5.90	3.56	1.90	11.36
HIMACHAL PRADESH	5.65	0.00	5.65	0.18	0.73	6.61
JAMMU & KASHMIR	2.07	0.00	2.07	0.65	3.44	6.16
KARNATAKA	7.27	0.00	7.27	4.39	8.15	19.80
KERALA	9.12	0.00	9.12	3.70	1.75	14.57
MADHYA PRADESH	9.42	0.00	9.42	3.26	5.72	18.40
MAHARASHTRA	3.77	0.00	3.77	29.80	25.56	59.12
MANIPUR	0.25	0.70	0.95	0.00	0.00	0.95
MEGHALAYA	0.25	0.27	0.52	0.00	0.00	0.52
MIZORAM	0.46	0.44	0.90	0.00	0.00	0.90
NAGALAND	0.17	0.30	0.47	0.00	0.00	0.47
ORISSA	1.76	0.00	1.76	0.60	2.34	4.71
PUNJAB	9.41	0.00	9.41	3.44	2.49	15.34
RAJASTHAN	6.70	0.00	6.70	3.98	3.99	14.67
SIKKIM	0.31	0.00	0.31	0.00	0.00	0.31
TAMILNADU	20.48	0.00	20.48	6.31	3.60	30.39
TRIPURA	0.25	0.41	0.66	0.00	0.00	0.66
UTTAR PRADESH	32.36	0.00	32.36	9.50	5.18	47.04
WEST BENGAL	13.56	0.00	13.56	2.10	4.41	20.06
TOTAL	**183.63**	**5.93**	**189.56**	**90.61**	**97.04**	**377.21**
UNION TERRITORIES						
ANDAMAN & NICOBAR	0.17	0.00	0.17	0.00	0.00	0.17
CHANDIGARH	1.50	0.00	1.50	0.34	0.55	2.38
DADRA & NAGAR HAVELI	0.00	0.00	0.00	0.00	0.09	0.09
DAMAN & DIU	0.00	0.00	0.00	0.00	0.19	0.19
LAKSHADWEEP	0.02	0.00	0.02	0.00	0.00	0.02
PONDICHERRY	0.36	0.00	0.36	0.12	0.48	0.96
TOTAL	**2.04**	**0.00**	**2.04**	**0.46**	**1.30**	**3.80**
ALL INDIA	**185.67**	**5.93**	**191.60**	**91.06**	**98.34**	**381.01**

XII. 5 CNG ACTIVITIES IN INDIA (AS ON 1.4.1999)

STATE	CITY	COMPANY	STATION TYPE					NO. OF VEHICLES			PRICE (Rs./Kg.)	AVERAGE CONSUMPTION JAN 99 (TPD)
			MOTHER	ONLINE	DAUGHTER BOOSTER	DAUGHTER	TOTAL	CARS	BUSES	TOTAL		
Delhi	Delhi	IGL	1	3	0	5	9	1654	2	1656	11.3	2.91
Maharashtra	Mumbai	MGL	1	4	3	2	10	9759	10	9769	14.5	38.07
Gujarat	Vadodara	GAIL	1	0	0	2	3	118	0	118	11.2	0.19
	Surat	GGCL	1	1	0	1	3	670	0	670	18.66	0.73
	Ankleshwar	GGCL	0	0	0	1	1	89	0	89	19.28	0.13
		TOTAL	**4**	**8**	**3**	**11**	**26**	**12290**	**12**	**12302**		**42.03**

NOTE:
1 Kg. Of CNG = 1.244 Standard Cubic Metres of Gas = 1.391 litres of Petrol on energy equivalent basis.
GAIL: Gas Authority of India Limited IGL: Indraprastha Gas Limited MGL: Mahanagar Gas Limited
GGCL: Gujarat Gas Company Limited TPD: Tonnes Per Day.

XII. 6 SUPPLY PLAN OF GREEN FUELS IN INDIA
LOW LEAD/UNLEADED PETROL

Specification	Metros		Taj Trapezium		State/UT Capitals and Major Cities		All India	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
Petrol								
Low Lead (0.15 gm./ltr.)	Dec, 1996	Apr, 1994	---	Sep, 1996	---	---	Dec, 1996	Dec, 1996
Unleaded (ULP)	Dec, 1997 in Delhi & Mumbai	Apr, 1995 in all Metros & radial routes	---	Apr, 1995	Dec, 1998	Jun, 1998	Apr, 2000	---

Effective 1st Sept, 1998 only ULP is being supplied in NCT of Delhi and effective 1.1.1999 in National Capital Region.

EXTRA LOW SULPHUR HSD

Specification	Metros		Taj Trapezium		State/UT Capitals		All India	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
HSD								
Low Sulphur (0.5%)	Apr, 1996	Apr, 1996	Apr, 1996	Apr, 1996	---	---	---	---
Extra Low Sulphur (0.25%)	Apr, 1999	Aug, 1997 (Inner Delhi) Apr, 1998 (Other Metros & whole Delhi)	Sep, 1996	Sep, 1996	---	---	1.1.2000	---

Source: Ready Reckoner, May 1999.

XIII. ENERGY

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

YEAR	Coal & Lignite			Hydro-carbon			Power (Million Kwh)			
	Coal	Lignite (—(Million Tonnes)—)	Total	Natural Gas (MM3)	Crude Petroleum	Petroleum Products (—'000' Tonnes)—)	Thermal	Hydel	Nuclear	Total
1	2	3	4	5	6	7	8	9	10	11
1960-61	55.67	0.05	55.72	-	448	6077	9100	7837	-	16937
1965-66	67.73	2.57	70.30	507	3473	10081	19641	16734	-	36375
1970-71	72.95	3.39	76.34	1445	6822	18333	28162	25248	2417	55827
1971-72	72.42	3.72	76.14	1535	7299	19867	31713	28024	1189	60926
1972-73	77.22	2.89	80.11	1565	7321	19092	36217	27196	1133	64546
1973-74	78.17	3.32	81.49	1713	7189	20724	35321	28972	2396	66689
1974-75	88.41	2.94	91.35	2041	7684	20800	40109	27875	2206	70190
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	187610
1987-88	179.72	11.16	190.88	11467	30357	47808	149464	47396	5034	201894
1988-89	194.60	12.64	213.69	16988	34087	52143	178522	61996	4623	245141
1989-90	200.89	12.64	213.69	16988	34087	52143	178522	61996	4623	245141
1990-91	211.73	14.11	225.50	17998	33021	52201	186452	71535	6244	264231
1991-92	229.28	15.97	243.83	18645	30346	52213	208551	72599	5561	286711
1992-93	238.26	16.62	254.88	18060	26950	54435	224485	69833	6748	301066
1993-94	246.04	16.90	262.94	18335	27026	55305	247618	70311	5394	323323
1994-95	253.80	17.20	271.00	19381	32239	57400	262900	82500	5600	351000
1995-96	270.13	22.14	292.27	22308	35170	58320	299600	72500	8000	380100
1996-97	285.66	22.54	308.20	23255	32901	62500	316870	68610	9010	394490
1997-98	295.93	23.05	318.98	26401	33858	64820	336100	74480	10040	420620
1998-99*				27428	32723	68240	353800	82620	11890	448410

*: Provisional. @ : Includes RBF and LPG production from Natural Gas

kwh : Kilowatt Hour.

Source : (i) Central Electricity Authority and Economic Survey

(ii) Coal Statistics — Coal Controls Organisation, Ministry of Coal

XIII. 2 TRENDS IN PRODUCTION OF PRIMARY COMMERCIAL ENERGY

Energy From	Unit	Production				
		1950-51	1960-61	1970-71	1980-81	1990-91
Coal	Million Tonnes	33	55.67	72.95	114.01	211.73
Lignite	"	-	0.05	3.39	4.80	14.07
Crude Oil	"	0.26	0.45	6.82	10.51	33.02
Natural Gas	MCM	-	-	1445	2358	17998
Hydro Power	Bkwh	2.52	7.84	25.25	46.54	71.54
Nuclear Power	"	"	"	2.42	3.00	6.24

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*
Coal	79.6	74.1	59.1	52.6	39.0
Oil & Gas	17.1	20.9	31.3	35.7	43.4
Electricity	3.3	5.0	9.6	11.7	17.6
Total	100.0	100.0	100.0	100.0	100.0

*Provisional

b. PERCENTAGE SHARE IN FINAL ENERGY CONSUMPTION BY DIFFERENT SECTOR

Sector	Percentage share in Consumption				
	1953-54	1960-61	1970-71	1980-81	1990-91
Industry	39.8	40.7	51.6	57.0	50.4
Transport	46.2	44.9	29.4	23.5	24.5
Household	9.9	10.6	14.3	12.3	13.8
Agriculture	1.7	1.8	3.8	6.1	9.0
Others	2.4	2.0	0.9	1.1	2.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Eighth five year plan Document 1992-97.

XIII.4 GROSS DOMESTIC PRODUCT OF CRUDE PETROLEUM & NATURAL GAS, COAL AND LIGNITE AT 1980-81 PRICES

(Rs./Lakhs)

Year	Crude Petroleum & Natural Gas	Coal & Lignite
1980-81	403	1458
1986-87	1448	2092
1987-88	1511	2317
1988-89	1641	2485
1989-90	1868	2521
1990-91	1933	2680
1991-92	1943	2813
1992-93	1948	3050
1993-94	2016	3145

Source: Central Statistical Organisation.

PART - II

INTERNATIONAL PETROLEUM STATISTICS

XIV. 1 (a) WORLD PROVED RESERVES OF CRUDE OIL AT END 1998

COUNTRY	Thousand million barrels	Thousand million tonnes	Share of total %	R/P ratio
USA	30.5	3.8	2.9	10.3
Canada	6.8	0.8	0.6	9.1
Mexico	47.8	6.9	4.5	39.3
Total North America	**85.1**	**11.5**	**8.1**	**18.1**
Argentina	2.6	0.4	0.2	8.2
Brazil	7.1	1.0	0.7	19.8
Colombia	2.6	0.4	0.2	9.3
Ecuador	2.1	0.3	0.2	15.2
Peru	0.8	0.1	0.1	18.4
Trinidad & Tobago	0.5	0.1	0.0	11.6
Venezuela	72.6	10.5	6.9	60.9
Other S. & Cent. America	1.2	0.2	0.1	28.6
Total S. & Cent. America	**89.5**	**13.0**	**8.5**	**37.4**
Denmark	0.9	0.1	0.1	10.6
Italy	0.6	0.1	0.1	15.0
Norway	10.9	1.4	1.0	9.4
Romania	1.4	0.2	0.1	29.8
United Kingdom	5.2	0.7	0.5	5.2
Other Europe	1.7	0.2	0.2	12.8
Total Europe	20.7	2.7	2.0	8.4
Azerbaijan	7.0	1.0	0.7	84.1
Kazakhstan	8.0	1.1	0.8	42.3
Russian Federation	48.6	6.7	4.6	21.9
Turkmenistan	0.5	0.1	0.0	13.6
Uzbekistan	0.6	0.1	0.1	10.0
Other Former Soviet Union	0.7	0.1	0.1	15.4
Total Former Soviet Union	**65.4**	**9.1**	**6.2**	**24.8**
Iran	89.7	12.3	8.5	65.3
Iraq	112.5	15.1	10.7	*
Kuwait	96.5	13.3	9.2	*
Oman	5.3	0.7	0.5	16.0
Qatar	3.7	0.5	0.4	13.3
Saudi Arabia	261.5	35.8	24.8	80.7
Syria	2.5	0.4	0.2	12.2
United Arab Emirates	97.8	12.6	9.3	*
Yemen	4.0	0.5	0.4	28.7
Other Middle East	0.2	†	0.0	9.7
Total Middle East	**673.7**	**91.2**	**64.0**	**83.2**
Algeria	9.2	1.2	0.9	19.8
Angola	5.4	0.7	0.5	19.5
Cameroon	0.4	0.1	0.0	10.4
Rep. of Congo (Brazzaville)	1.5	0.2	0.1	16.8
Egypt	3.5	0.5	0.3	11.4
Gabon	2.5	0.3	0.2	19.2
Libya	29.5	3.9	2.8	56.4
Nigeria	22.5	3.1	2.1	28.8
Tunisia	0.3	†	0.0	13.9
Other Africa	0.6	0.1	0.1	11.8
Total Africa	**75.4**	**10.1**	**7.2**	**28.0**
Australia	2.9	0.4	0.3	13.5
Brunei	1.4	0.2	0.1	24.2
China	24.0	3.3	2.3	20.5
India	4.0	0.5	0.4	14.5
Indonesia	5.0	0.7	0.5	9.2
Malaysia	3.9	0.5	0.4	14.8
Papua New Guinea	0.3	†	0.0	11.5
Vietnam	0.6	0.1	0.1	6.6
Other Asia Pacific	1.0	0.1	0.1	11.6
Total Asia Pacific	**43.1**	**5.8**	**4.1**	**15.9**
Total World	**1052.9**	**143.4**	**1.00**	**41.0**
Of which: OECD #	107.2	14.4	10.2	14.7
OPEC	800.5	108.8	76.0	73.5
Non-OPEC ‡	187.1	25.3	17.8	15.4

† Less than 0.05

* Over 100 years

@ Excludes Former Soviet Union

Source: B.P. AMOCO Statistical Review of World Energy, 1999

XIV. 1(b) WORLD PROVED RESERVES OF NATURAL GAS AT END 1998

COUNTRY	Trillion cubic metres	Trillion cubic metres	Trillion cubic feet	Share of total	R/P ratio
USA	4.71	4.74	167.2	3.2%	8.8
Canada	1.84	1.81	63.9	1.2%	11.3
Mexico	1.81	1.80	63.5	1.2%	51.7
Total North America	8.36	8.35	294.6	5.6%	11.4
Argentina	0.69	0.68	24.1	0.5%	23.3
Bolivia	0.13	0.12	4.3	0.1%	37.9
Brazil	0.16	0.23	8.0	0.2%	35.2
Colombia	0.40	0.20	6.9	0.1%	31.4
Ecuador	0.11	0.10	3.7	0.1%	*
Trinidad & Tobago	0.45	0.52	18.3	0.3%	60.0
Venezuela	4.05	4.04	142.5	2.8%	*
Other S. & Cent. America	0.31	0.32	11.2	0.2%	*
Total S. & Cent. America	6.30	6.21	219.0	4.3%	71.5
Denmark	0.11	0.11	3.9	0.1%	14.7
Germany	0.34	0.35	12.3	0.2%	20.6
Hungary	0.09	0.09	3.1	0.1%	24.4
Italy	0.30	0.23	8.1	0.2%	12.2
Netherlands	1.74	1.79	63.1	1.2%	24.5
Norway	1.48	1.17	41.4	0.8%	24.5
Romania	0.40	0.37	13.2	0.3%	26.7
United Kingdom	0.76	0.77	27.0	0.5%	8.5
Other Europe	0.35	0.33	11.8	0.2%	26.7
Total Europe	5.57	5.21	183.9	3.6%	18.3
Azerbaijan	0.85	0.85	30.0	0.6%	*
Kazakhstan	1.84	1.84	65.0	1.3%	*
Russian Federation	48.14	48.14	1700.0	32.9%	82.7
Turkmenistan	2.86	2.86	101.0	1.9%	*
Ukraine	1.12	1.12	39.6	0.8%	63.6
Uzbekistan	1.87	1.87	66.2	1.3%	34.7
Other Former Soviet Union	0.02	0.02	0.8	†	62.1
Total Former Soviet Union	56.70	56.70	2002.6	38.8%	83.4
Bahrain	0.15	0.12	4.2	0.1%	15.0
Iran	22.94	23.00	812.3	15.7%	*
Iraq	3.11	3.11	109.8	2.1%	*
Kuwait	1.50	1.49	52.7	1.0%	*
Oman	0.78	0.80	28.4	0.5%	*
Qatar	8.49	8.49	300.0	5.8%	*
Saudi Arabia	5.39	5.79	204.5	4.0%	*
United Arab Emirates	5.80	6.00	212.0	4.1%	*
Yemen	0.48	0.48	16.9	0.3%	*
Other Middle East	0.24	0.25	8.8	0.2%	*
Total Middle East	48.88	49.53	1749.6	33.8%	*
Algeria	3.70	3.69	130.3	2.5%	50.7
Egypt	0.78	0.89	31.5	0.6%	72.9
Libya	1.31	1.31	46.4	0.9%	*
Nigeria	3.25	3.51	124.0	2.4%	*
Other Africa	0.83	0.82	28.9	0.6%	*
Total Africa	9.87	10.22	361.1	7.0%	*
Australia	0.55	1.26	44.6	0.9%	41.4
Bangladesh	0.31	0.30	10.6	0.2%	38.4
Brunei	0.40	0.39	13.8	0.3%	35.6
China	1.16	1.37	48.3	0.9%	62.1
India	0.49	0.54	19.0	0.4%	22.9
Indonesia	2.05	2.05	72.3	1.4%	29.9
Malaysia	2.26	2.31	81.7	1.6%	56.0
Pakistan	0.59	0.61	21.6	0.4%	38.8
Papua New Guinea	0.26	0.15	5.4	0.1%	*
Thailand	0.20	0.35	12.5	0.2%	23.8
Vietnam	0.17	0.19	6.8	0.1%	*
Other Asia Pacific	0.64	0.65	22.9	0.4%	68.3
Total Asia Pacific	9.08	10.17	359.5	6.9%	41.4
Total World	144.76	146.39	5170.3	100.0%	63.4
Of which OECD #	14.09	14.44	509.9	9.7%	13.9
European Union 15	3.33	3.31	116.8	2.3%	15.6

* Over 100 years.
† Less than 0.05.
1978 & 1988 exclude Central European members
Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV. 2 WORLD CRUDE OIL* PRODUCTION 1991-1998

(Million Tonnes)

COUNTRY / REGION	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	423.4	413.5	397.5	388.0	384.0	382.5	380.4	367.9	-3.3	10.5
Canada	92.7	96.6	101.7	106.1	111.5	115.1	120.3	124.7	3.6	3.5
Mexico	154.5	154.5	154.6	155.2	151.3	163.4	170.6	174.4	2.2	5.0
Total North America	670.6	664.7	653.8	649.2	646.9	661.0	671.3	667.0	-0.6	19.0
Argentina	26.3	29.6	31.6	35.1	38.1	41.6	44.1	44.9	1.7	1.3
Brazil	32.2	32.4	33.0	34.3	35.5	40.2	43.0	50.0	16.2	1.4
Colombia	22.0	22.6	23.4	23.5	30.2	32.4	33.7	38.9	15.5	1.1
Ecuador	15.7	16.8	18.0	19.8	20.2	20.1	20.2	19.6	-3.3	0.6
Peru	5.9	5.9	6.4	6.5	6.2	6.1	6.0	5.8	-2.8	0.2
Trinidad & Tobago	7.5	7.2	6.7	7.0	7.0	6.9	6.6	6.5	-0.8	0.2
Venezuela	129.3	129.6	134.0	142.0	152.4	162.2	173.5	171.8	-0.9	4.9
Other S. & Cent. America	3.6	3.6	4.0	4.3	4.7	4.8	5.2	5.8	10.2	0.2
Total S. & Cent. America	242.4	247.7	257.0	272.4	294.2	314.3	332.3	343.3	3.3	9.8
Denmark	7.0	7.8	8.3	9.1	9.2	10.1	11.4	11.7	2.8	0.3
Italy	4.3	4.5	4.6	4.9	5.2	5.5	6.0	5.9	-0.5	0.2
Norway	93.3	106.9	114.1	129.4	138.5	155.5	156.9	150.0	-4.4	4.3
Romania	7.0	6.8	6.9	7.0	7.0	6.9	6.8	6.5	-3.3	0.2
United Kingdom	91.3	94.3	100.2	126.5	129.9	129.7	128.0	132.6	3.6	3.8
Other Europe	24.7	24.1	22.4	22.9	21.4	19.9	18.9	18.3	-3.1	0.5
Total Europe	227.5	244.4	256.6	299.8	311.2	327.6	327.8	325.1	-0.8	9.2
Azerbaijan	11.7	11.1	10.3	9.6	9.2	9.1	9.0	11.4	26.4	0.3
Kazakhstan	26.6	25.8	23.0	20.3	20.6	23.0	25.8	25.9	0.5	0.7
Russian Federation	461.9	398.8	354.9	317.6	310.8	302.9	307.4	304.3	-1.0	8.6
Turkmenistan	5.4	5.2	4.4	4.2	4.1	4.6	4.5	5.5	22.2	0.2
Uzbekistan	2.8	3.3	4.0	5.5	7.6	7.6	7.9	8.1	2.5	0.2
Other Former Soviet Union	7.4	7.0	6.6	6.5	6.2	6.4	6.4	6.1	-4.2	0.2
Total Former Soviet Union	515.9	451.2	403.1	363.6	358.4	353.5	361.0	361.3	0.1	10.3
Iran	173.4	174.7	182.2	182.6	182.7	183.8	184.0	187.7	2.0	5.3
Iraq	13.7	25.9	22.6	25.2	27.3	29.9	58.1	105.3	81.4	3.0
Kuwait	9.9	54.7	96.4	104.1	105.3	105.6	105.3	107.6	2.2	3.1
Oman	35.5	37.2	38.9	40.6	43.0	44.5	45.2	44.9	-0.8	1.3
Qatar	19.9	23.0	21.3	20.8	21.3	26.4	33.6	36.9	9.7	1.0
Saudi Arabia	426.7	440.7	431.1	426.1	426.7	434.6	442.1	443.2	0.2	12.6
Syria	24.5	26.9	29.5	29.4	31.1	30.6	30.0	29.3	-2.5	0.8
United Arab Emirates	121.1	115.3	111.3	113.1	113.6	120.0	119.5	121.4	1.6	3.4
Yemen	9.4	8.7	9.9	16.4	16.6	16.8	17.6	18.3	3.6	0.5
Other Middle East	2.5	2.5	2.5	2.4	2.4	2.3	2.4	2.3	-2.1	0.1
Total Middle East	836.5	909.6	945.7	960.8	970.0	994.6	1037.9	1096.8	5.7	31.2
Algeria	57.7	56.6	56.7	56.4	56.8	59.3	60.2	58.9	-2.2	1.7
Angola	24.5	27.2	24.8	27.4	31.2	35.4	36.5	37.5	2.7	1.1
Cameroon	7.2	6.8	6.6	5.8	5.4	5.6	6.3	5.3	-15.3	0.2
Rep. of Congo (Brazzaville)	8.1	8.6	9.5	9.6	9.3	10.4	12.5	12.2	-2.4	0.3
Egypt	45.4	46.0	47.5	46.5	46.6	45.1	43.8	42.9	-1.9	1.2
Gabon	14.7	14.5	15.2	16.8	17.8	18.3	18.6	17.8	-4.0	0.5
Libya	73.8	70.8	67.2	68.6	69.0	69.6	70.8	69.2	-2.3	2.0
Nigeria	93.7	96.9	97.8	97.6	98.1	105.4	113.4	106.2	-6.3	3.0
Tunisia	5.2	5.2	4.7	4.4	4.3	4.2	3.8	2.9	-24.8	0.1
Other Africa	1.7	1.6	2.1	2.4	2.8	4.8	6.7	7.2	7.6	0.2
Total Africa	332.1	334.1	332.0	335.4	341.2	357.9	372.5	360.1	-3.3	10.2
Australia	26.9	26.5	24.9	26.9	25.4	26.6	28.8	27.2	-5.4	0.8
Brunei	8.0	9.0	8.6	8.8	8.6	8.1	8.0	7.7	-3.8	0.2
China	141.0	142.0	144.0	146.1	149.0	158.5	160.1	159.9	-0.2	4.5
India	33.1	30.2	29.0	33.2	37.1	36.2	37.1	36.4	-1.8	1.0
Indonesia	78.3	74.1	74.3	74.3	73.9	74.1	73.2	71.9	-1.8	2.0
Malaysia	31.1	31.7	31.1	31.7	34.0	34.4	34.2	34.5	0.8	1.0
Papua New Guinea	-	2.5	5.9	5.7	4.7	5.0	3.6	3.7	3.9	0.1
Vietnam	4.0	5.5	6.3	7.1	7.7	8.9	10.1	12.6	24.9	0.4
Other Asia Pacific	10.1	10.9	10.8	10.3	9.8	10.7	12.0	11.7	-2.8	0.3
Total Asia Pacific	332.4	332.4	334.8	344.0	350.1	362.6	367.0	365.4	-0.4	10.4
TOTAL WORLD	**3157.5**	**3184.0**	**3183.1**	**3225.2**	**3272.0**	**3371.5**	**3469.8**	**3518.9**	**1.4**	**100.0**
Of which: OECD	917.4	927.7	927.5	968.2	975.7	1008.2	1021.6	1012.8	-0.9	28.8
OPEC	1197.4	1262.3	1294.7	1310.9	1327.0	1370.8	1433.6	1480.0	3.2	42.1
Non-OPEC ‡	1444.2	1470.6	1485.3	1550.7	1586.6	1647.1	1675.1	1677.6	0.1	47.7

* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids – the liquid content of natural gas where this is recovered separately).

Excludes liquid fuels from other sources such as coal derivatives.

‡Excludes Former Soviet Union

Source: B.P. Amoco Statistical Review of World Energy, 1999.

XIV. 3 CRUDE OIL PRODUCTION BY OPEC MEMBER COUNTRIES

(Million Tonnes)

OPEC Countries	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998
ALGERIA	52	48	58	58	57	57	56	57	59	60	59
INDONESIA	78	65	72	78	74	74	74	74	74	73	72
IRAN	74	110	161	173	175	182	183	183	184	184	188
IRAQ	130	71	105	14	26	23	25	27	30	58	105
KUWAIT	72	54	62	10	55	96	104	105	106	105	108
LIBYA	88	53	69	74	71	67	69	69	70	71	69
NIGERIA	102	73	90	94	97	98	98	98	105	113	106
QATAR	22	16	21	20	23	21	21	21	26	30	37
SUADI ARABIA	493	182	341	427	441	431	426	427	435	442	443
U.A.E.	112	49	105	121	115	111	113	114	120	120	121
VENEZUELA	116	90	116	129	130	134	142	152	162	174	172
TOTAL	1339	811	1199	1198	1262	1295	1311	1327	1371	1430	1480

Source: B.P. Amoco Statistcial Review of World Energy, 1999

3463PNG F—19-B

XIV.4 WORLD PRODUCTION OF NATURAL GAS* 1991-1998

Million tonnes oil equivalent

COUNTRY/REGION	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	459.4	463.1	468.3	487.6	481.4	486.4	488.8	489.4	0.1	23.9
Canada	94.8	104.5	112.9	122.3	133.4	138.2	140.6	144.4	2.7	7.1
Mexico	25.1	25.0	25.0	25.8	25.3	28.1	28.9	31.3	8.3	1.5
Total North America	579.3	592.6	606.2	635.7	640.1	652.7	658.3	665.1	1.0	32.5
Argentina	17.9	18.1	19.4	20.0	22.5	23.9	24.6	26.4	7.3	1.3
Bolivia	2.7	2.7	2.7	3.0	2.8	2.9	2.9	2.9	0.0	0.1
Brazil	3.5	3.6	4.0	4.1	4.3	4.9	5.5	5.8	5.5	0.3
Colombia	3.7	3.6	3.8	3.7	4.0	4.2	5.3	5.6	5.7	0.3
Trinidad & Tobago	5.1	5.4	5.3	5.6	5.5	6.4	6.7	7.8	16.4	0.4
Venezuela	19.7	19.5	21.0	22.2	27.0	26.8	27.8	26.9	-3.2	1.3
Other S. & Cent. America	2.0	2.3	2.2	2.5	2.5	2.5	2.7	2.6	-3.7	0.1
Total S. & Cent. America	54.6	55.2	58.4	61.1	68.6	71.6	75.5	78.0	3.3	3.8
Denmark	3.6	3.7	4.1	4.4	4.8	5.8	7.1	6.8	-4.2	0.3
Germany	13.2	13.4	13.4	14.0	14.5	15.7	15.4	15.2	-1.3	0.7
Hungary	3.8	3.6	3.9	3.7	3.7	3.6	3.3	3.0	-9.1	0.1
Italy	15.7	16.3	17.5	18.6	18.3	18.0	17.3	16.8	-2.9	0.8
Netherlands	62.1	62.2	63.0	59.7	60.3	68.2	60.4	57.2	-5.3	2.8
Norway	24.6	26.5	26.0	27.7	28.0	36.9	42.0	43.1	2.6	2.1
Romania	22.0	19.6	18.5	16.8	16.2	15.5	13.5	12.6	-6.7	0.6
United Kingdom	45.7	46.4	54.8	58.5	64.1	75.5	77.6	81.3	4.8	4.0
Other Europe	12.9	12.5	13.6	13.0	13.2	12.0	11.5	10.9	-5.2	0.5
Total Europe	203.6	204.2	214.8	216.4	223.1	251.2	248.1	246.9	-0.5	12.1
Azerbaijan	7.2	6.6	5.7	5.4	5.5	5.3	5.0	4.7	-6.0	0.2
Kazakhstan	6.6	6.8	5.6	3.8	5.0	5.5	6.8	6.9	1.5	0.3
Russian Federation	539.8	537.6	518.8	509.8	499.9	505.0	479.3	496.2	3.5	24.3
Turkmenistan	70.8	50.5	54.8	30.0	27.1	29.6	14.5	10.5	-27.6	0.5
Ukraine	20.5	17.6	16.1	15.3	15.3	15.4	15.2	15.0	-1.3	0.7
Uzbekistan	35.2	35.9	37.8	39.6	40.8	41.1	43.0	46.0	7.0	2.2
Other Former Soviet Union	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.3	50.0	0.0
Total Former Soviet Union	680.6	655.5	639.2	604.2	593.9	602.2	564.0	579.6	2.8	28.3
Bahrain	5.0	5.8	6.2	6.4	6.5	6.7	6.9	7.1	2.9	0.3
Iran	23.2	22.5	24.4	28.6	31.8	36.2	42.3	45.0	6.4	2.2
Kuwait	0.5	2.4	4.9	5.4	8.4	8.4	8.3	8.4	1.2	0.4
Oman	2.4	2.6	2.5	2.6	3.6	3.9	4.5	4.7	4.4	0.2
Qatar	6.9	11.4	12.2	12.2	12.2	12.3	15.8	18.0	13.9	0.9
Saudi Arabia	28.8	30.6	32.3	33.9	34.2	40.0	40.8	41.4	1.5	2.0
United Arab Emirates	21.4	20.0	20.7	23.2	28.2	30.4	32.3	32.8	1.5	1.6
Other Middle East	3.1	3.6	3.8	4.4	4.1	4.5	4.7	5.5	17.0	0.3
Total Middle East	91.3	98.9	107.0	116.7	129.0	142.4	155.6	162.9	4.7	8.0
Algeria	47.8	49.5	49.5	45.5	51.5	55.0	61.0	65.5	7.4	3.2
Egypt	7.0	7.6	9.0	9.5	9.9	10.4	10.5	11.0	4.8	0.5
Libya	5.7	5.9	5.6	5.6	5.5	5.6	5.8	5.6	-3.4	0.3
Nigeria	3.5	3.8	4.4	4.0	4.4	4.9	4.6	4.7	2.2	0.2
Other Africa	0.6	0.6	2.1	2.3	2.4	3.5	3.9	4.3	10.3	0.2
Total Africa	64.6	67.4	70.6	66.9	73.7	79.4	85.8	91.1	6.2	4.5
Australia	19.5	21.1	22.0	25.3	26.8	27.5	27.0	27.5	1.9	1.3
Bangladesh	4.7	5.2	5.5	6.0	6.6	6.8	6.8	7.0	2.9	0.3
Brunei	8.2	8.8	9.3	9.4	10.4	10.2	10.2	9.9	-2.9	0.5
China	13.4	13.6	14.6	14.9	15.8	17.9	20.0	19.8	-1.0	1.0
India	12.8	14.3	14.5	15.6	16.9	18.4	18.6	21.2	14.0	1.0
Indonesia	46.4	48.9	50.6	56.6	57.4	60.4	59.8	61.6	3.0	3.0
Malaysia	18.3	20.5	22.4	23.5	26.0	31.3	34.6	37.2	7.5	1.8
Pakistan	10.0	10.3	10.8	11.8	13.1	13.7	13.8	14.2	2.9	0.7
Thailand	6.3	6.8	7.6	8.6	9.1	10.6	12.7	13.4	5.5	0.7
Other Asia Pacific	7.9	8.2	8.5	8.5	8.3	9.2	9.8	9.5	-3.1	0.5
Total Asia Pacific	147.5	157.7	165.6	180.2	190.4	206.0	213.3	221.3	3.8	10.8
TOTAL WORLD	1821.5	1831.5	1862.0	1881.2	1918.8	2005.6	2000.6	2044.9	2.2	100.0
Of which: OECD	783.7	802.1	827.7	864.1	876.5	919.8	924.0	930.5	0.7	45.5
European Union 15	147.5	149.3	159.6	162.1	168.6	189.1	183.3	182.0	-0.7	8.9
Other EMEs ‡	332.5	351.7	373.3	393.6	429.1	465.4	496.5	519.6	4.7	25.4

* Excluding gas flared or recycled

‡ Excludes Central Europe and Former Soviet Union.

Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV. 5 WORLD CONSUMPTION OF NATURAL GAS 1990-1998*

Million tonnes oil equivalent

COUNTRY	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	494.1	507.3	524.9	536.5	558.5	568.5	568.1	551.2	-3.0	881.9
Canada	56.7	60.2	61.6	63.8	63.8	66.9	67.3	63.3	-5.9	101.3
Mexico	24.9	24.9	25.4	26.5	26.7	28.1	29.5	32.6	10.5	52.2
Total North America	**575.7**	**592.4**	**611.9**	**626.8**	**649.0**	**663.5**	**664.9**	**647.1**	**-2.7**	**1035.4**
Argentina	19.9	20.1	21.2	21.9	24.3	25.7	25.7	26.7	3.9	42.7
Brazil	3.5	3.6	4.0	4.1	4.3	5.0	5.5	5.8	5.5	9.3
Chile	1.3	1.5	1.4	1.5	1.5	1.5	2.4	2.5	4.2	4.0
Colombia	3.7	3.6	3.8	3.7	4.0	4.2	5.3	5.6	5.7	9.0
Venezuela	19.7	19.5	21.0	22.2	27.0	26.8	27.8	26.9	-3.2	43.0
Other S. & Cent. America	6.4	6.9	6.8	7.5	7.5	8.4	8.7	9.8	12.6	15.7
Total S. & Cent. America	**54.5**	**55.2**	**58.2**	**60.9**	**68.6**	**71.6**	**76.4**	**77.3**	**2.5**	**123.7**
Austria	5.4	5.4	5.7	5.8	6.1	6.6	6.9	6.9	0.0	11.0
Belgium & Luxembourg	9.0	9.0	9.9	9.7	10.6	11.8	11.3	12.4	9.7	19.8
Bulgaria	4.5	3.9	3.7	3.7	4.5	4.6	3.7	2.7	-27.0	4.3
Czech Republic	5.3	5.2	5.3	5.4	5.9	7.0	7.0	6.8	-2.9	10.9
Denmark	2.1	2.2	2.5	2.7	3.1	3.7	3.9	4.3	10.3	6.9
Finland	2.4	2.5	2.6	2.8	2.9	3.0	2.9	3.3	13.8	5.3
France	27.5	28.3	29.0	27.8	29.6	32.5	31.2	33.7	8.0	53.9
Germany	56.6	56.7	59.8	61.1	67.0	75.2	71.3	71.6	0.4	114.6
Greece	0.1	0.1	0.1	†	†	†	†	†	†	†
Hungary	8.6	7.4	8.1	8.4	9.2	10.2	9.7	9.7	0.0	15.5
Iceland	-	-	-	-	-	-	-	-	-	-
Republic of Ireland	1.9	1.9	2.2	2.2	2.3	2.7	2.8	2.8	0.0	4.5
Italy	41.5	41.1	42.1	40.8	44.9	46.4	47.9	51.5	7.5	82.4
Netherlands	34.2	33.0	34.1	33.2	34.0	37.5	35.2	34.9	-0.9	55.8
Norway	2.2	2.3	2.4	2.6	2.7	2.9	3.3	3.4	3.0	5.4
Poland	7.9	7.8	8.1	8.2	8.9	9.5	9.4	9.4	0.0	15.0
Portugal	-	-	-	-	-	-	0.1	0.7	600.0	1.1
Romania	22.3	22.8	22.7	21.8	21.6	21.8	18.0	16.4	-8.9	26.2
Slovakia	4.6	4.2	4.5	4.3	4.7	4.9	5.1	5.1	0.0	8.2
Spain	5.5	5.9	5.8	6.5	7.5	8.4	11.1	11.8	6.3	18.9
Sweden	0.6	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.0	1.1
Switzerland	1.8	1.9	2.0	2.0	2.2	2.4	2.3	2.4	4.3	3.8
Turkey	4.0	4.1	4.5	5.9	6.2	8.1	8.5	8.9	4.7	14.2
United Kingdom	51.1	51.0	58.1	60.5	65.4	76.4	77.0	79.9	3.8	127.8
Other Europe	6.0	5.1	4.8	3.7	3.8	5.3	5.4	5.2	-3.7	8.3
Total Europe	305.1	302.5	318.7	319.8	343.8	381.7	374.7	384.5	2.6	615.2
Azerbaijan	13.6	10.6	7.8	7.3	7.2	5.3	5.0	4.7	-6.0	7.5
Belarus	13.0	15.1	14.0	12.3	11.1	11.7	13.3	13.5	1.5	21.6
Kazakhstan	11.8	12.2	11.7	9.2	9.7	8.1	6.4	6.5	1.6	10.4
Russian Federation	388.0	375.5	374.4	351.8	340.0	341.9	315.3	328.3	4.1	525.3
Turkmenistan	8.6	8.4	8.4	9.2	7.2	9.0	9.1	8.6	-5.5	13.8
Ukraine	109.3	93.2	83.6	73.2	68.6	74.2	66.8	61.9	-7.3	99.0
Uzbekistan	33.4	33.6	36.6	37.2	38.1	39.0	40.9	42.3	3.4	67.7
Other Former Soviet Union	21.2	16.8	11.5	10.2	10.3	8.5	9.1	10.3	13.2	16.5
Total Former Soviet Union	**598.9**	**565.4**	**548.0**	**510.4**	**492.2**	**497.7**	**465.9**	**476.1**	**2.2**	**761.8**
Iran	20.5	22.5	23.9	28.6	31.5	36.1	42.3	46.5	9.9	74.4
Kuwait	0.5	2.4	4.9	5.4	8.4	8.4	8.3	8.4	1.2	13.4
Saudi Arabia	28.8	30.6	32.3	33.9	34.2	40.0	40.8	41.4	1.5	66.2
United Arab Emirates	18.3	16.9	17.7	19.5	22.3	24.4	25.7	26.8	4.3	42.9
Other Middle East	17.3	23.4	24.6	25.6	26.6	27.5	29.6	31.5	6.4	50.4
Total Middle East	**85.4**	**95.8**	**103.4**	**113.0**	**123.0**	**136.4**	**146.7**	**154.6**	**5.4**	**247.4**
Algeria	15.3	16.0	16.7	17.6	18.9	19.3	18.0	19.4	7.8	31.0
Egypt	6.9	7.5	8.7	9.4	9.9	10.4	10.5	11.0	4.8	17.6
South Africa	-	-	-	-	-	-	-	-	-	-
Other Africa	9.0	9.7	9.4	10.3	10.6	11.8	13.1	13.4	2.3	21.4
Total Africa	31.2	33.2	34.8	37.3	39.6	41.5	41.6	43.8	5.3	70.1
Australia	15.3	15.2	15.7	17.5	17.6	17.9	17.6	18.3	4.0	29.3
Bangladesh	4.8	5.2	5.5	6.0	6.6	6.8	6.8	7.0	2.9	11.2
China	13.4	13.6	14.6	14.9	15.9	15.9	17.4	17.4	0.0	27.8
China Hong Kong SAR	-	-	-	-	†	1.5	2.4	2.3	-4.2	3.7
India	12.7	14.3	14.7	15.7	17.7	18.5	19.1	20.9	9.4	33.4
Indonesia	19.5	20.3	21.5	24.6	27.0	28.2	27.6	28.7	4.0	45.9
Japan	49.2	50.4	50.7	54.3	55.0	59.5	58.6	62.5	6.7	100.0
Malaysia	8.1	9.5	11.7	12.3	12.4	14.3	15.3	18.4	20.3	29.4
New Zealand	4.2	4.4	4.3	4.0	3.7	4.3	4.6	3.9	-15.2	6.2
Pakistan	10.0	10.3	10.8	11.8	13.1	13.7	13.8	14.2	2.9	22.7
Philippines	-	-	-	†	†	†	†	†	†	†
Singapore	-	1.0	1.4	1.4	1.4	1.4	1.4	1.4	0.0	2.2
South Korea	3.5	4.6	5.7	7.6	9.2	12.2	15.0	14.1	-6.0	22.6
Taiwan	2.7	2.8	2.7	3.6	3.9	4.0	4.6	5.7	23.9	9.1
Thailand	6.3	6.8	7.6	8.6	9.0	10.7	13.1	14.1	7.6	22.6
Other Asia Pacific	2.3	2.4	2.7	2.9	3.0	3.4	3.8	4.1	7.9	6.6
Total Asia Pacific	**152.0**	**160.8**	**169.6**	**185.2**	**195.5**	**212.3**	**221.1**	**233.0**	**5.4**	**372.8**
TOTAL WORLD	**1802.8**	**1805.3**	**1844.6**	**1853.4**	**1911.7**	**2004.7**	**1990.3**	**2016.4**	**1.3**	**3226.2**
Of which: OECD	915.7	933.6	971.4	996.5	1043.7	1102.5	1103.2	1101.0	-0.2	1761.6
European Union 15	237.9	237.8	252.6	253.8	274.1	305.0	302.3	314.5	4.0	503.2
Other EMEs ‡	250.9	270.4	289.6	313.0	341.2	367.9	389.0	409.9	5.4	655.8

† Less than 0.05.

‡ Excludes Central Europe and Former Soviet Union.

Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV.6 PRODUCTIVITY OF PRODUCING WELLS IN OPEC MEMBER COUNTRIES- 1998 (AS AT YEAR END)

Country	Average Depth (Feet)	WELLS			AV-Daily production (000'bbl)	AV-Daily production (tonnes)	t/w/d
		Flowing	Artifical Lift	Total			
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Algeria	9130	865	310	1175	827.3	95.510609	95.7
Indonesia	4502	1184	7653	8837	1315.4	20.192005	20.2
I.R. Iran	7543	1152	-	1121	3713.2	449.3339	450.1
Iraq	9000	n.a.	n.a.	n.a.	2181.1	n.a	n.a
Kuwait	10473	810	-	788	2051.5	353.1602	353.7
SP. Libyan A.J.	7724	912	513	1425	1444.4	137.49885	137.7
Nigeria	9583	1760	365	2125	1939.3	123.79768	124.0
Qatar	7300	348	64	412	612.9	201.79893	202.1
Saudi Arabia	8176	1430	105	1535	8280.2	731.74355	732.9
U.A..E	11045	1069	382	1451	2244.1	209.79795	210.1
Venezuela	6080	1245	13845	15090	3120	28.047348	28.1
Total OPEC	6448	10957	23510	34467	27729.4	109.13485	109.3
Total World	5466	50206	721083	771289	62995	11.079378	11.1

t/w/d = Tonne/Well/Day

n.a. = Not Available

- = Negligible

Source: OPEC Annual Statistical Bulletin, 1998

XIV.7 WORLD OIL REFINING CAPACITIES AT END 1991 TO 1998

(Million Tonnes Per Annum)

Country/Area	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	780	753	746	766	761	769	780	802	2.9	20.1
Canada	95	95	91	91	89	90	89	89	0.0	2.2
Mexico	72	72	72	72	72	72	72	72	0.0	1.8
Total North America	946	920	909	929	922	931	941	963	2.4	24.1
Argentina	35	35	35	33	33	33	33	33	-1.5	0.8
Brazil	72	72	71	73	73	74	86	86	0.0	2.2
Netherlands Antilles & Aruba	23	23	23	24	25	26	27	27	0.0	0.7
Trinidad & Tobago	13	13	13	13	13	8	8	8	0.0	0.2
Venezuela	61	61	59	59	59	59	64	64	0.4	1.6
Other S. & Cent. America	99	102	103	101	106	106	107	103	-3.9	2.6
Total S. &. Cent. America	302	306	303	302	308	306	325	321	-1.4	8.0
Belgium	35	34	34	34	34	34	35	35	0.0	0.9
France	84	85	84	84	86	87	93	95	2.7	2.4
Germany	110	111	112	113	105	105	108	109	1.6	2.7
Greece	18	18	18	18	18	18	18	18	0.0	0.5
Italy	114	121	117	117	117	118	117	117	0.0	2.9
Netherlands	61	62	59	59	59	58	59	59	0.0	1.5
Norway	16	16	16	16	15	14	15	15	1.7	0.4
Portugal	14	14	14	14	14	14	14	14	0.0	0.4
Spain	62	61	62	60	60	61	63	63	0.8	1.6
Sweden	21	21	21	21	21	21	21	21	0.0	0.5
Turkey	34	33	34	34	34	33	34	32	-4.4	0.8
United Kingdom	91	91	92	93	92	93	91	92	1.4	2.3
Other Europe	158	161	156	153	154	150	148	138	-7.2	3.4
Total Europe	818	829	818	816	809	808	816	810	-0.7	20.3
Total Former Soviet Union	611	503	502	508	513	515	518	497	-4.1	12.4
Bahrain	12	12	12	12	12	12	12	12	0.0	0.3
Iran	47	48	54	54	61	66	69	72	5.1	1.8
Iraq	16	29	26	26	26	26	26	26	0.0	0.7
Kuwait	8	17	30	39	39	39	42	42	0.0	1.1
Saudi Arabia	87	77	77	83	83	83	84	86	1.8	2.1
Other Middle East	50	50	50	50	54	55	56	56	0.0	1.4
Total Middle East	221	233	249	265	276	282	290	295	1.7	7.4
Total Africa	135	137	141	140	141	143	143	146	1.6	3.6
Australasia	38	39	39	39	41	42	44	45	2.2	1.1
China	143	152	166	177	199	210	226	249	10.1	6.2
India	56	52	53	53	56	60	61	61	0.0	1.5
Indonesia	39	39	39	44	44	44	46	46	0.0	1.2
Japan	224	231	238	241	248	249	251	253	0.7	6.3
Singapore	54	56	58	58	63	62	62	62	0.0	1.5
South Korea	49	68	79	80	86	95	115	115	0.0	2.9
Other Asia Pacific	80	90	92	99	112	126	125	131	4.8	3.3
Total Asia Pacific	682	725	764	792	850	889	931	963	3.4	24.1
TOTAL WORLD	3715	3653	3686	3752	3817	3873	3964	3994	0.7	100.0
Of which: OECD	1992	2001	2003	2031	2029	2055	2096	2127	1.5	53.3
Other EMEs ‡	1029	1063	1100	1137	1199	1232	1279	1311	2.5	32.8

* As on 1st April each year

Source : B.P. Amoco Statistical Review of World Energy 1999.

XIV.8 WORLD REFINERY CRUDE THROUGHPUT 1991-1998

(Million Tonnes Per Annum)

COUNTRY	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	660	678	676	688	694	730	728	737	1.2	22.0
Canada	74	77	76	78	78	84	84	85	0.6	2.5
Mexico	75	77	76	72	74	72	71	72	0.3	2.1
South & Central Americ	232	241	240	244	238	261	260	266	2.5	7.9
Europe	685	709	707	713	716	738	737	758	2.9	22.6
Former Soviet Union	438	295	294	252	243	236	235	222	-5.4	6.6
Middle East	188	239	239	244	264	281	280	284	1.3	8.5
Africa	117	116	116	113	117	121	121	121	-0.4	3.6
Australasia	37	38	37	39	39	43	43	43	-0.6	1.3
China	113	128	128	127	135	154	153	160	4.4	4.8
Japan	181	198	198	207	207	215	214	209	-2.5	6.2
Other Asia Pacific	262	301	300	314	339	407	406	395	-2.9	11.8
TOTAL WORLD	**3063**	**3096**	**3088**	**3092**	**3144**	**3342**	**3334**	**3351**	**0.5**	**100.0**
Of which: OECD	1732	1819	1814	1842	1858	1969	1964	1982	0.9	59.2
Other EMEs ‡	856	951	949	965	1007	1105	1102	1113	1.0	33.2

‡ Excludes Central Europe and Former Soviet Union

Source : B.P. Amoco Statistical Review of World Energy, 1999

XIV. 9 COUNTRY-WISE WORLD OIL CONSUMPTION* 1991-1998

(Million tonnes)

COUNTRY	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
USA	765.6	782.2	789.3	809.8	807.7	836.5	848.0	852.4	0.5	25.2
Canada	74.8	74.9	77.0	78.7	76.3	78.6	82.1	83.2	1.3	2.5
Mexico	70.4	71.2	71.0	77.9	71.4	73.9	77.9	81.9	5.1	2.4
Total North America	910.8	928.3	937.3	966.4	955.4	989.0	1008.0	1017.5	0.9	30.0
Argentina	19.3	19.6	19.5	20.0	20.1	21.3	22.0	23.1	5.0	0.7
Brazil	59.0	62.1	62.9	65.7	69.2	74.1	79.9	83.2	4.1	2.5
Chile	6.8	7.4	8.0	8.8	9.7	10.5	11.2	11.6	3.6	0.3
Colombia	9.6	10.6	11.0	11.3	12.0	12.4	12.5	12.3	-1.6	0.4
Venezuela	18.6	19.7	19.4	19.6	20.0	19.0	18.7	18.4	-1.6	0.5
Other S. & Cent. America	55.5	56.8	58.5	61.7	63.8	65.5	67.4	68.1	1.0	2.0
Total S. & Cent. America	168.8	176.2	179.3	187.1	194.8	202.8	211.7	216.7	2.4	6.4
Austria	11.6	11.3	11.4	11.3	11.3	11.6	11.9	12.3	3.4	0.4
Belgium & Luxembourg	26.5	27.1	26.5	27.0	26.4	29.4	30.3	31.5	4.0	0.9
Bulgaria	5.9	5.4	5.6	5.8	5.6	5.3	5.6	5.2	-7.1	0.2
Czech Republic	7.1	6.8	6.9	7.1	8.0	8.3	8.3	8.4	1.2	0.2
Denmark	9.1	9.0	9.5	10.1	10.5	11.4	11.1	10.8	-2.7	0.3
Finland	10.6	10.3	9.9	10.4	9.9	10.3	10.2	10.6	3.9	0.3
France	94.6	94.4	91.1	88.2	89.0	91.0	91.7	94.5	3.1	2.8
Germany	133.1	134.3	136.3	135.1	135.1	137.4	136.5	136.6	0.1	4.0
Greece	15.8	16.1	16.7	16.9	17.6	18.2	18.4	18.7	1.6	0.6
Hungary	8.0	8.1	7.7	8.1	7.7	7.1	7.1	7.2	1.4	0.2
Iceland	0.6	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.0	0.0
Republic of Ireland	4.9	5.1	5.1	5.6	5.7	6.0	6.6	7.4	12.1	0.2
Italy	92.4	94.5	92.6	92.5	95.5	94.2	94.6	94.7	0.1	2.8
Netherlands	35.8	36.5	36.4	36.4	38.0	37.4	39.5	39.3	-0.5	1.2
Norway	8.7	9.0	9.5	9.6	9.6	10.1	10.3	10.1	-1.9	0.3
Poland	14.9	13.6	14.0	14.8	14.9	17.2	18.2	18.7	2.7	0.6
Portugal	11.5	12.8	12.0	12.0	12.9	12.1	13.0	14.1	8.5	0.4
Romania	15.6	12.7	12.1	11.2	13.5	13.0	13.7	12.1	-11.7	0.4
Slovakia	4.3	3.8	3.0	3.3	3.2	3.4	3.6	3.6	0.0	0.1
Spain	49.4	52.8	51.3	53.5	56.3	58.7	62.0	66.4	7.1	2.0
Sweden	15.5	16.4	16.1	17.0	16.1	17.4	16.1	16.2	0.6	0.5
Switzerland	13.0	13.1	12.3	12.7	11.8	12.2	12.8	13.0	1.6	0.4
Turkey	22.1	23.5	27.0	25.8	28.4	29.8	30.0	30.1	0.3	0.9
United Kingdom	82.7	83.7	84.1	83.4	81.7	83.8	81.3	80.5	-1.0	2.4
Other Europe	16.9	12.3	13.4	12.9	13.6	14.6	15.4	16.7	8.4	0.5
Total Europe	710.6	713.3	711.2	711.4	723.1	740.7	749.1	759.6	1.4	22.4
Azerbaijan	8.2	8.1	8.2	8.1	8.5	7.0	6.0	5.9	-1.7	0.2
Belarus	24.0	21.2	14.0	12.8	12.3	9.3	9.6	9.9	3.1	0.3
Kazakhstan	21.7	20.3	15.7	12.3	12.0	10.2	10.3	12.6	22.3	0.4
Russian Federation	243.4	224.4	188.6	162.7	146.1	130.1	129.1	122.3	-5.3	3.6
Turkmenistan	5.0	4.9	3.2	3.7	3.9	3.0	3.0	3.6	20.0	0.1
Ukraine	57.5	42.6	24.8	19.8	18.9	14.2	13.8	14.3	3.6	0.4
Uzbekistan	11.0	9.1	8.1	7.2	6.7	7.4	6.7	7.0	4.5	0.2
Other Former Soviet Union	26.6	17.4	13.1	9.6	8.5	7.2	8.2	8.8	7.3	0.3
Total Former Soviet Union	397.4	348.0	275.7	236.2	216.9	188.4	186.7	184.4	-1.2	5.4
Iran	49.0	50.0	51.8	54.3	59.6	62.2	60.8	58.0	-4.6	1.7
Kuwait	3.7	5.2	4.9	6.0	5.9	7.3	8.0	8.2	2.5	0.2
Saudi Arabia	55.4	51.4	52.1	53.5	51.4	53.7	55.4	59.1	6.7	1.7
United Arab Emirates	16.5	16.9	17.2	18.0	18.0	17.7	17.9	17.7	-1.1	0.5
Other Middle East	44.8	48.8	50.4	51.9	55.5	57.1	59.7	61.2	2.5	1.8
Total Middle East	169.4	172.3	176.4	183.7	190.4	198.0	201.8	204.2	1.2	6.0
Algeria	8.9	8.8	9.4	8.9	8.7	8.3	8.3	8.4	1.2	0.2
Egypt	23.4	22.7	21.6	21.5	23.3	24.6	26.0	27.3	5.0	0.8
South Africa	16.7	17.3	18.0	18.8	20.1	20.7	21.0	21.3	1.4	0.6
Other Africa	46.6	48.6	50.1	52.2	52.7	53.3	54.1	55.0	1.7	1.6
Total Africa	95.6	97.4	99.1	101.4	104.8	106.9	109.4	112.0	2.4	3.3
Australia	30.8	30.9	32.7	34.0	35.3	35.9	37.0	37.4	1.1	1.1
Bangladesh	1.7	1.9	2.1	2.3	2.6	2.7	2.8	2.9	3.6	0.1
China	117.9	129.0	140.5	149.5	160.7	174.4	185.6	190.3	2.5	5.6
China Hong Kong SAR	6.3	8.1	8.3	8.9	9.5	9.3	9.2	8.9	-3.3	0.3
India	58.9	62.1	62.7	67.4	73.0	79.4	83.3	86.1	3.4	2.5
Indonesia	32.2	35.1	37.6	37.0	39.1	42.4	46.0	43.7	-5.0	1.3
Japan	252.1	258.5	252.7	268.4	268.6	269.9	266.3	255.0	-4.2	7.5
Malaysia	13.9	14.0	15.6	17.4	17.9	19.0	20.2	19.0	-5.9	0.6
New Zealand	4.9	5.2	5.2	5.6	5.8	5.9	6.1	6.1	0.0	0.2
Pakistan	11.4	12.4	13.5	14.5	15.8	16.6	16.5	17.5	6.1	0.5
Philippines	11.1	13.7	14.1	14.9	16.8	17.5	18.8	18.2	-3.2	0.5
Singapore	20.6	21.7	23.0	26.8	27.9	27.5	29.1	29.2	0.3	0.9
South Korea	59.9	72.3	79.3	87.0	94.8	101.4	110.3	93.3	-15.4	2.8
Taiwan	27.6	28.4	30.2	32.3	34.7	34.8	36.0	37.2	3.3	1.1
Thailand	21.4	23.6	26.8	29.8	34.7	37.5	37.8	34.5	-8.7	1.0
Other Asia Pacific	10.3	10.8	11.3	11.8	12.1	13.6	14.6	15.3	4.8	0.5
Total Asia Pacific	681.0	727.7	755.6	807.6	849.3	887.8	919.6	894.6	-2.7	26.4
TOTAL WORLD	3133.6	3163.2	3134.6	3193.8	3234.7	3313.6	3386.3	3389.0	0.1	100.0
Of which: OECD	1926.4	1974.3	1984.3	2039.6	2047.1	2106.5	2138.5	2131.3	-0.3	62.9
European Union 15	593.5	604.3	599.0	599.4	606.0	618.9	623.2	633.6	1.7	18.7
Other EMEs ‡	767.0	806.7	840.5	884.6	934.8	982.6	1023.1	1035.8	1.2	30.6

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

†Less than 0.05.

‡ Excludes Central Europe and Former Soviet Union.

Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV.10 PRODUCT-WISE REGIONAL CONSUMPTION OF MAIN PETROLEUM PRODUCTS DURING 1991-1998

(Million tonnes)

COUNTRY	1991	1992	1993	1994	1995	1996	1997	1998	%Change 1998/1997	% share of total 1998
Gasolines	373.6	376.9	383.1	388.4	397.5	405.2	412.2	422.5	2.5	41.5
Middle distillates	260.7	266.6	273.3	287.6	287.4	300.7	309.6	309.0	-0.2	30.4
Fuel oil	93.3	89.5	86.6	86.6	73.2	74.0	73.9	78.4	6.1	7.7
Others	183.2	195.3	194.5	203.7	197.4	209.1	212.3	207.7	-2.2	20.4
Total North America	910.8	928.3	937.5	966.3	955.5	989.0	1008.0	1017.6	1.0	100.0
Of which: USA										
Gasolines	324.2	331.2	335.5	339.3	345.5	352.6	358.4	367.0	2.4	43.1
Middle distillates	225.3	228.9	234.7	246.3	248.6	259.4	266.5	265.4	-0.4	31.1
Fuel oil	63.0	59.4	58.3	55.1	45.8	45.7	42.7	43.7	2.3	5.1
Others	153.1	162.7	160.8	169.1	167.8	178.8	180.4	176.3	-2.3	20.7
Total USA	765.6	782.2	789.3	809.8	807.7	836.5	848.0	852.4	0.5	100.0
S. & Cent. America										
Gasolines	42.3	42.6	44.6	48.0	50.1	51.9	54.7	55.2	0.9	25.5
Middle distillates	59.0	62.2	64.0	68.1	71.9	75.1	78.5	81.7	4.1	37.7
Fuel oil	38.5	36.8	37.2	37.9	38.8	40.4	42.6	42.6	0.0	19.7
Others	29.0	34.6	33.4	33.1	34.0	35.6	36.0	37.2	3.3	17.2
Total S. & Cent. America	168.8	176.2	179.2	187.1	194.8	203.0	211.8	216.7	2.3	100.0
Europe										
Gasolines	179.6	180.9	178.1	177.8	180.2	181.6	183.1	184.0	0.5	24.2
Middle distillates	279.6	281.8	284.2	284.7	292.4	308.2	310.8	320.4	3.1	42.2
Fuel oil	133.5	129.9	128.3	124.3	124.4	123.4	120.8	119.9	-0.7	15.8
Others	118.0	120.9	120.7	124.7	126.2	127.4	134.0	135.1	0.8	17.8
Total Europe	710.7	713.5	711.3	711.5	723.2	740.6	748.7	759.4	1.4	100.0
Middle East										
Gasolines	23.6	26.7	27.5	30.4	32.7	33.5	35.1	35.3	0.6	17.3
Middle distillates	56.8	56.4	58.8	63.5	68.5	70.8	71.3	71.4	0.1	34.9
Fuel oil	65.9	62.3	61.0	62.0	62.8	66.0	67.0	68.3	1.9	33.4
Others	23.1	26.9	29.2	27.9	26.4	27.7	28.5	29.3	2.8	14.3
Total Middle East	169.4	172.3	176.5	183.8	190.4	198.0	201.9	204.3	1.2	100.0
Africa										
Gasolines	21.7	22.3	22.6	23.2	23.8	23.8	24.1	24.4	1.2	21.8
Middle distillates	37.7	38.6	39.5	40.4	41.7	43.0	43.9	45.0	2.5	40.2
Fuel oil	23.3	23.6	23.0	23.2	24.4	25.0	25.9	26.7	3.1	23.9
Others	12.8	12.9	14.0	14.5	14.8	15.1	15.4	15.8	2.6	14.1
Total Africa	95.5	97.4	99.1	101.3	104.7	106.9	109.3	111.9	2.4	100.0
Asia Pacific(incl.China & Japan)										
Gasolines	137.3	149.3	156.9	162.9	175.0	185.1	201.8	201.5	-0.1	22.5
Middle distillates	251.6	271.3	289.1	300.8	323.0	344.8	356.3	344.6	-3.3	38.5
Fuel oil	188.8	196.1	194.4	218.1	216.3	215.5	212.3	200.7	-5.5	22.4
Others	103.1	111.0	115.2	125.6	135.0	142.6	149.3	148.1	-0.8	16.5
Total Asia Pacific	680.8	727.7	755.6	807.4	849.3	888.0	919.7	894.9	-2.7	100.0
China										
Gasolines	27.6	30.6	34.5	30.5	32.3	36.0	40.8	38.6	-5.4	20.3
Middle distillates	33.1	38.4	43.5	42.6	48.3	52.5	58.2	61.9	6.4	32.5
Fuel oil	36.0	36.8	39.5	45.2	45.6	48.5	46.1	47.3	2.6	24.9
Others	21.3	23.3	22.9	31.3	34.4	37.4	40.5	42.4	4.7	22.3
Total China	118.0	129.1	140.4	149.6	160.6	174.4	185.6	190.2	2.5	100.0
Japan										
Gasolines	52.8	55.9	56.4	60.1	64.5	65.9	68.6	67.1	-2.2	26.3
Middle distillates	86.5	88.4	89.6	92.1	95.3	98.2	96.2	94.2	-2.1	37.0
Fuel oil	68.9	68.4	60.0	69.7	61.2	57.7	52.7	47.4	-10.1	18.6
Others	43.9	45.9	46.7	46.4	47.5	48.1	48.7	46.2	-5.1	18.1
Total Japan	252.1	258.6	252.7	268.3	268.5	269.9	266.2	254.9	-4.2	100.0
World excl. FSU										
Gasolines	778.2	798.7	812.7	830.7	859.3	881.1	911.1	922.8	1.3	28.8
Middle distillates	945.4	976.9	1008.7	1045.0	1084.9	1142.6	1170.5	1171.9	0.1	36.6
Fuel oil	543.3	538.2	530.6	552.1	539.9	544.3	542.5	536.7	-1.1	16.7
Others	469.3	501.7	507.0	529.7	533.7	557.4	575.5	573.1	-0.4	17.9
Total World excl. FSU	2736.2	2815.5	2859.0	2957.5	3017.8	3125.4	3199.6	3204.5	0.2	100.0
OECD										
Gasolines	624.8	638.1	644.5	655.5	672.6	685.2	702.6	713.3	1.5	33.5
Middle distillates	649.5	663.4	677.5	698.8	714.0	749.4	760.3	757.9	-0.3	35.6
Fuel oil	302.4	301.7	289.5	299.3	277.8	274.2	266.5	257.5	-3.4	12.1
Others	349.8	371.3	372.9	386.0	382.8	397.6	408.8	402.3	-1.6	18.9
Total OECD	1926.5	1974.5	1984.4	2039.6	2047.2	2106.4	2138.2	2131.0	-0.3	100.0
European Union 15										
Gasolines	153.7	156.0	153.0	151.2	152.2	153.1	153.5	153.7	0.1	24.3
Middle distillates	239.8	241.7	243.6	244.5	250.6	264.0	266.7	275.1	3.1	43.4
Fuel oil	101.1	103.1	100.3	97.9	97.6	95.9	92.8	94.1	1.4	14.9
Others	98.9	103.7	102.1	105.7	105.7	105.9	110.0	110.5	0.5	17.4
Total European Union 15	593.5	604.5	599.0	599.3	606.1	618.9	623.0	633.4	1.7	100.0
Other EMEs										
Gasolines	145.7	154.4	162.1	168.4	179.0	188.2	200.3	201.4	0.5	19.4
Middle distillates	285.5	303.1	321.3	337.1	361.0	382.4	399.3	403.1	1.0	38.9
Fuel oil	224.2	224.2	228.1	241.1	249.7	257.6	263.6	266.9	1.3	25.8
Others	111.5	125.0	128.9	138.0	145.0	154.4	159.9	164.3	2.8	15.9
Total Other EMEs ‡	766.9	806.7	840.4	884.6	934.7	982.6	1023.1	1035.7	1.2	100.0

†Less than 0.05. ‡Excludes Central Europe and Former Soviet Union

Gasolines' consists of aviation and motor gasolines and light distillate feedstock (LDF).

'Middle distillates' consists of jet and heating kerosines, and gas and diesel oils (including marine bunkers).

'Others' consists of refinery gas, LPGs, solvents, petroleum coke, lubricants, bitumen, wax and refinery fuel and loss.

Source: B.P. Amoco Statistical Review of World Energy, June 1999

XIV.11 WORLD OIL PRODUCTION,CONSUMPTION AND RELATIVE DEFICIT/SURPLUS IN EACH COUNTRY/REGION DURING 1997 AND 1998

(Million Tonnes)

Country/Region	1997				1998			
	Production	Consumption	Deficit /Surplus	%extent of depen dence	Production	Consumption	Deficit /Surplus	%extent of depen dence
1	2	3	4	5	6	7	8	9
North America	671.3	1008.0	-336.7	-33.4	667.0	1017.5	-350.5	-34.4
S. & Cent America	332.3	211.7	120.6	57.0	343.3	216.7	126.6	58.4
Middle East	1037.9	201.8	836.1	414.3	1096.8	204.2	892.6	437.1
Africa	372.5	109.4	263.1	240.5	360.1	112.0	248.1	221.5
Asia Pacific	367.0	919.6	-552.6	-60.1	365.4	894.6	-529.2	-59.2
Of which India	37.1	83.3	-46.2	-55.5	36.4	86.1	-49.7	-57.7
Japan		266.3	-266.3	-100.0		255.0	-255.0	-100.0
China	160.1	185.6	-25.5	-13.7	159.9	190.3	-30.4	-16.0
Australia	28.8	37.0	-8.2	-22.2	27.2	37.4	-10.2	-27.3
OECD	1021.6	2138.5	-1116.9	-52.2	1012.8	2131.3	-1118.5	-52.5
Europe	327.8	749.1	-421.3	-56.2	325.1	759.6	-434.5	-57.2
Former Soviet Union	361.0	186.7	174.3	93.4	361.3	184.4	176.9	95.9
Total World	**3469.8**	**3386.3**	**83.5**	**2.5**	**3519.0**	**3389.0**	**130.0**	**3.8**

Source : BP Amoco Statistical Review of World Energy June 1999

XIV.12 WORLD CRUDE OIL PETROLEUM PRODUCTS IMPORTS AND EXPORTS- 1998

COUNTRY/AREA	IMPORTS		EXPORTS		IMPORTS		EXPORTS	
	Crude	Products	Crude	Products	Crude	Products	Crude	Products
	<----------Million Tonnes---------->				<----------Thousand barrels daily---------->			
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
USA	425.8	87.6	8.1	40.6	8551	1831	163	849
Canada	38.3	8.6	63.5	15.7	769	180	1275	328
Mexico	-	16.0	85.2	2.8	-	334	1711	59
South & Central America	53.1	11.7	115.1	44.4	1066	245	2311	928
Western Europe	417.9	75.5	39.8	34.5	8392	1578	799	721
Former Soviet Union	-	4.9	123.3	52.3	-	102	2476	1093
Central Europe	51.6	14.7	0.1	5.7	1036	307	2	119
Middle East	4.2	3.1	817.0	109.8	84	65	16407	2295
North Africa	7.5	5.2	100.9	32.8	151	109	2026	686
West Africa	2.2	7.4	152.5	1.5	44	155	3063	31
East & Southern Africa	24.7	3.8	-	0.1	496	79	-	2
Australasia	25.8	3.0	10.2	4.9	518	63	205	102
China	27.3	21.7	14.3	3.3	548	454	287	69
Japan	218.7	41.5	-	4.8	4392	868	-	100
Other Asia Pacific	269.8	84.8	45.9	43.3	5418	1773	922	905
Unidentified *	18.0	20.0	9.0	13.0	361	418	181	272
TOTAL WORLD	1584.9	409.5	1584.9	409.5	31828	8560	31828	8560

* 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 Western Europe) are excluded.

Source: B.P. Amoco Statistical Review of World Energy, 1999

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

(Million Tonnes)

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
CRUDE OIL									
Algeria	13.9	17.1	13.9	15.3	16.4	16.6	19.5	18.5	20.3
Indonesia	34.0	39.7	32.6	33.9	39.5	37.0	35.2	35.4	33.7
Iran, IR	110.2	120.1	126.2	129.5	132.0	130.5	131.0	12.9	12.5
Iraq	79.2	2.1	3.0	2.9	3.0	3.2	4.4	36.7	76.2
Kuwait	32.0	4.2	34.7	71.7	62.9	59.1	62.7	56.4	59.2
Libya	54.1	60.6	58.7	55.3	56.0	54.9	55.7	54.0	56.6
Nigeria	76.9	79.9	78.9	77.5	79.2	82.9	84.6	87.0	76.9
Qatar	17.3	16.7	18.1	17.0	16.1	16.6	18.3	23.1	28.5
Saudi Arabia	223.4	324.0	328.6	313.4	310.4	313.2	304.2	308.0	318.2
U.A.E.	94.1	109.0	102.9	98.1	97.3	95.9	96.8	97.0	101.2
Venezuela	61.7	68.6	71.4	76.7	84.5	90.6	98.4	110.1	111.7
TOTAL	**796.8**	**842.0**	**869.0**	**891.3**	**897.3**	**900.5**	**910.8**	**839.1**	**895.0**
REFINED PETROLEUM PRODUCTS									
Algeria	22.5	19.9	20.9	18.7	19.1	19.7	20.2	23.0	23.0
Indonesia	11.9	11.5	12.7	11.8	12.4	14.6	14.8	12.9	10.9
Iran, IR	3.0	4.4	3.5	3.5	3.7	5.5	4.5	4.8	11.7
Iraq	4.0	-	0.8	0.9	1.0	0.9	1.0	1.0	1.0
Kuwait	18.9	2.0	12.8	20.9	31.0	39.5	35.7	42.2	4.5
Libya	7.5	7.0	8.5	7.1	6.5	6.1	5.6	7.1	6.8
Nigeria	1.5	1.5	1.5	1.6	1.2	1.0	1.1	1.2	0.9
Qatar	3.7	4.1	5.2	5.8	5.1	4.9	5.3	6.2	4.7
Saudi Arabia	64.8	60.9	64.3	69.0	67.7	65.8	74.3	69.3	68.1
U.A.E.	8.2	8.5	8.6	8.0	7.7	13.4	13.5	16.1	15.8
Venezuela	30.7	35.3	30.7	31.6	31.5	34.3	36.9	41.9	42.1
TOTAL	**177.8**	**156.3**	**169.8**	**179.2**	**187.9**	**205.7**	**212.9**	**236.5**	**230.2**

Note: Ecuador and Gabon withdraw their membership of OPEC

Source: OPEC Annual Statistical Bulletin, 1998

XIV.14 CRUDE OIL IMPORTS FROM OPEC MEMBER COUNTRIES BY REGIONS 1991-1998

(Million Tonnes)

IMPORT RGION	1991	1992	1993	1994	1995	1996	1997	1998
North America	189.6	176.5	189.8	187.6	183.1	185.4	212.0	236.5
Of which USA	179.6	172.2	182.0	177.0	171.3	174.0	199.2	222.2
Latin America	33.7	43.0	38.9	40.7	33.6	40.0	35.2	37.3
Western Europe	279.0	278.4	279.6	262.3	253.6	252.1	264.3	292.4
Of which :								
France	44.9	44.5	52.4	44.4	44.0	42.2	42.7	49.9
Germany	36.8	36.9	31.2	37.1	29.8	28.8	27.3	28.0
Italy	61.3	56.9	55.8	46.8	49.4	53.8	60.2	64.0
U.K.	14.2	13.5	17.3	11.5	10.1	9.2	6.6	7.3
Middle East	14.2	15.4	14.8	15.6	15.1	15.6	15.3	15.7
Africa	17.8	14.1	14.0	14.7	25.2	23.6	26.1	27.9
Asia and Far East	299.6	331.3	346.3	358.7	369.9	371.3	380.5	377.8
Of which :								
Japan	155.6	162.6	169.3	179.2	179.2	177.2	186.5	177.5
Oceania	6.5	8.4	10.6	9.2	9.6	10.8	10.6	12.8
Eastern Europe	11.4	12.0	7.1	8.7	9.8	9.2	11.7	13.8
Unspecified	3.6	-	5.0	-	0.5	2.8	0.3	0.8
OECD Area	624.1	635.0	662.3	631.4	570.3	618.1	663.2	721.3
TOTAL WORLD	**855.6**	**879.1**	**906.1**	**897.2**	**900.5**	**910.7**	**955.8**	**1015.2**

Source : OPEC Annual Statistical Bulletin 1998.
Note : Figures Converted to million tonnes using conversion factor : 1 barrel = 0.136 Metric tonnes
- = Nill or Negligible

XIV. 15 CRUDE OIL EXPORTS FROM OPEC MEMBER COUNTRIES BY DESTINATION 1998

(000' bbl/Day)

DESTINATION/COUNTRY	Algeria	Indonesia	Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
North America	204.8	68.1	-	355.7	219.5	-	849.2	1.4	1491.1	2.5	1558.2
Latin America	3.4	-	50.0	-	-	-	70.0	-	86.1	7.5	532.4
Eastern Europe	11.2	-	150.0	110.0	-	5.0	1.5	-	-	-	-
Western Europe	326.8	-	1104.6	719.0	186.0	1106.6	497.4	-	1769.1	13.0	150.3
Middle East	-	0.6	25.0	80.0	-	-	-	-	209.6	-	-
Africa	3.3	-	190.0	50.0	53.8	20.0	50.0	-	135.9	57.0	-
Asia and Far East	-	465.6	989.8	210.0	716.6	5.0	74.5	538.1	2661.2	1924.1	3.0
Oceania	-	143.7	2.6	6.8	7.5	-	2.0	22.9	37.4	34.9	-
Unspecified	-	-	-	-	6.8	-	-	10.0	-	-	-
OECD Area	528.7	519.5	1487.4	1098.8	801.4	1104.0	1361.4	415.1	4205.1	1255.4	1708.6
TOTAL WORLD	549.4	678.0	2512.0	735.8	1190.2	1136.6	1747.5	572.4	6390.4	2039.0	2243.9

Source : OPEC Annual Statistical Bulletin 1998
- = NIL or Negligible

XIV.16 VALUE OF PETROLEUM EXPORTS@ FROM OPEC MEMBER COUNTRIES 1991-1998

(Billion US$)

COUNTRIES	1991	1992	1993	1994	1995	1996	1997	1998
1	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Algeria	8.46	7.89	6.90	6.36	6.90	9.16	8.35	5.69
Indonesia	6.70	6.61	5.69	6.00	6.44	7.87	7.24	4.60
Iran	15.76	16.80	14.25	14.80	14.94	17.96	17.66	11.10
Iraq	0.35	0.48	0.42	0.42	0.46	0.68	4.28	5.11
Kuwait	0.87	6.22	9.70	10.48	12.05	14.09	13.46	8.96
Libya	10.21	9.32	7.69	7.17	7.76	9.54	8.90	5.61
Nigeria	11.79	11.64	10.85	11.04	11.51	14.88	15.84	9.84
Qatar	2.82	2.87	2.81	2.62	2.98	3.80	4.65	3.17
Saudi Arabia	43.70	44.75	38.62	38.12	42.50	50.04	52.12	33.39
U.A.E.	14.35	14.25	12.11	11.68	12.82	14.98	15.26	11.13
Venezuela	12.31	11.20	11.03	11.47	13.73	18.52	18.18	11.51
TOTAL	**127.32**	**132.03**	**120.07**	**120.16**	**132.09**	**161.52**	**165.94**	**110.14**

@ Where applicable, petroleum product exports are included.
Data for some countries may include export of condensates and other NGLs.
Source: OPEC Annual Statistical Bulletin, 1998

XIV.17 LOAN ASSISTANCE FROM OPEC AND OTHER OIL SUPPLYING NATIONS 1990-91 TO 1997-98

(Rs. Crores)

COUNTRY/REGION	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1	2	3	4	5	6	7	8	9
U.S.S.R								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	295.3	137.4	34.8	-(0.6)	-	-	-	-
OPEC								
Abu Dhabi Fund								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	-	-	-	-	-	-	-	-
OPEC Fund Loans								
Authorisation	11.6	-	-	-	-	-	-	37.1
Utilisation	9.8	18.1	10.1	5.3	2.0	-	2.4	11.1
U.A.E. Loans								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	-	-	-	-	-	-	-	-
Saudi Arab Fund for Dev.								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	29.7	26.5	2.2	5.2	1.3	-	26.0	4.9
Kuwait Fund for Arab								
Economic Development								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	1.3	-	5.6	8.8	3.9	16.9	22.2	9.0
Iraq - Loans								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	-	-	-	-	-	-	-	-
Iran-Loans								
Authorisation	-	-	-	-	-	-	-	-
Utilisation	-	-	-	-	-	-	-	-
TOTAL OPEC								
ASSISTANCE								
Authorisation	11.6	-	-	-	-	-	-	37.1
Utilisation	40.8	44.6	17.9	14.0	5.2	16.9	48.2	25.0

Note :1. Figures of authorisation of assistance include agreements signed by Government and Non-Government assistance.

2. Uitlization of assistance is on Government and Non-Government accounts.

3. Utilization figures are exclusive of suppliers credit and commercial borrowings.

SOURCE : Economic Survey 1997-98 - = Nil

XIV. 18 SPOT PRICES OF KEY OPEC CRUDE SINCE 1987

(US $/bbl)

Period	Country/Crude Name													
	Kuwait	S.P. Libyan A.I	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	Attaka	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/.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
1987	16.48	18.08	18.40	17.40	16.57	16.10	17.54	16.42	18.46	17.03	16.57	16.90	17.23	17.25
1988	12.61	14.72	15.00	13.63	12.71	12.13	13.92	12.90	15.40	13.26	12.85	13.66	13.79	13.53
1989	15.23	18.21	18.29	16.18	15.39	14.93	16.61	15.85	18.54	16.04	15.54	16.33	16.90	16.07
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	-	19.54	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	12.9	12.62	12.55	11.53	10.9	12.67		13.53	11.97	11.45	10.77	10.79	12.06
1997														
Jan	21.37	23.81	24.16	22.86	21.53	20.68	23.51	20.76	25.68	22.26	21.32	20.81	22.18	22.18
Feb	18.88	21.39	21.64	20.39	18.98	18.13	21.00	19.51	22.65	19.81	18.81	18.03	18.61	19.73
Mar	18.04	19.33	19.06	19.55	18.10	17.25	20.26	17.24	21.08	18.89	17.98	17.38	17.34	18.93
Apr	16.77	17.68	17.44	18.37	16.87	16.02	18.95	15.81	19.98	17.69	16.64	16.39	15.97	17.76
May	18.25	19.30	19.31	19.51	18.35	17.50	20.27	16.33	20.12	18.93	18.37	17.47	17.19	19.10
Jun	16.95	17.87	17.78	18.11	17.05	16.20	18.79	..	19.31	17.51	17.16	..	..	17.78
Jul	16.93	18.75	18.77	17.83	17.03	16.22	18.53	..	18.58	17.25	17.25	..	..	17.52
Aug	17.09	19.04	19.03	18.18	17.29	16.59	18.59	..	19.44	17.17	17.51	16.15	16.29	17.84
Sep	17.55	18.98	18.94	18.55	17.81	17.11	19.11	..	19.21	17.48	17.86	16.97	16.98	18.13
Oct	18.72	20.18	19.91	19.66	19.22	18.52	20.28	..	20.81	18.82	19.27	17.79	17.93	19.24
Nov	18.19	19.54	19.34	19.07	18.46	17.76	19.61	..	20.45	18.22	18.65	16.73	17.05	18.64
Dec	15.98	17.53	17.31	16.88	15.98	15.08	17.32	..	18.18	16.03	16.17	..	..	16.45
1998														
Jan	12.80	15.45	15.15	14.02	13.01	12.11	14.12	..	15.42	13.40	12.90	12.86	13.35	13.59
Feb	11.69	14.29	14.04	13.09	12.15	11.10	12.90	..	14.63	12.34	11.79	11.54	12.13	12.66
Mar	10.61	13.34	12.95	12.14	10.82	9.77	11.96	..	13.07	11.31	10.71	10.95	11.37	11.78
Apr	10.99	13.64	13.29	12.85	11.18	10.53	12.70	..	14.25	11.98	11.23	11.13	11.63	12.43
May	11.55	14.59	14.24	13.22	11.88	11.33	13.54	..	14.17	12.53	11.78	11.13	11.72	12.71
Jun	10.73	12.20	11.58	12.49	11.03	10.48	12.48	..	13.13	11.68	10.97	10.26	9.69	11.96
Jul	10.97	12.25	11.75	12.49	11.02	10.47	12.73	..	13.35	11.67	11.17	10.34	9.81	12.01
Aug	11.33	12.05	11.99	12.54	11.91	11.36	12.85	..	12.78	12.28	11.66	10.26	9.76	12.11
Sep	12.39	13.54	13.41	13.04	12.72	12.17	13.58	..	13.16	12.97	12.63	11.61	11.72	12.65
Oct	12.01	12.71	12.65	12.77	12.27	11.82	13.04	..	14.18	12.52	12.22	11.07	10.91	12.15
Nov	11.24	11.26	11.14	12.13	11.42	11.07	12.26	..	13.37	11.72	11.37	9.53	9.13	11.46
Dec	9.31	10.13	9.91	10.38	9.5	9.15	10.41	..	10.74	9.8	9.51	8.56	8.27	9.78

Notes : The number below crude names indicate the API gravities content in weight percentage T.J. Medium Quotations are posted prices

Source : OPEC Annual Statistical Bulletin 1998

XIV.19 CRUDE OIL SPOT PRICES IN US$/BBL
(Average Unit Value, FOB)

Crude	Country	1993	1994	1995	1996	1997	1998
Brent	U.K.	17.00	15.81	17.03	20.66	19.12	12.76
WTI	U.S.A.	18.44	17.20	18.41	21.77	20.62	14.40
WTS	U.S.A.	16.86	16.27	17.41	20.91	18.81	12.84
Louisiana Light	Louisiana	18.55	17.25	18.59	22.34	20.73	14.20
Dubai	UAE	14.92	14.75	16.10	18.57	18.15	12.18
Iranian Light	Iran	15.38	15.13	16.35	20.04	17.78	11.27
Iranian Heavy	Iran	14.48	14.74	15.94	19.40	17.32	10.82
Urals	Russia	15.39	15.23	16.62	20.81	18.33	11.83
Minas	Indonesia	17.89	16.20	17.63	20.63	19.30	12.36
Tapis	Malaysia	18.85	17.14	18.28	21.53	21.00	13.84

XIV.20 PETROLEUM PRODUCT SPOT PRICES IN US$/BBL
(Average Unit Value, FOB)

Product	1993	1994	1995	1996	1997	1998
NW EUROPE						
Gasoline	22.46	20.16	21.25	24.62	24.77	18.24
Gas Oil	22.28	19.81	20.47	25.91	23.39	16.19
Jet/Kero	23.36	20.95	21.60	27.11	24.58	17.16
Naphtha	18.47	17.30	18.15	22.72	21.43	14.64
LSFO	13.50	14.00	15.76	17.56	15.47	11.73
HSFO	10.22	13.01	14.82	16.30	14.59	10.20
U.S.A.						
Gasoline	21.58	20.53	22.58	25.99	25.22	17.80
Gas Oil	22.03	20.69	20.73	25.80	23.51	16.32
Jet/Kero	23.31	22.21	21.76	27.41	24.58	18.03
Naphtha	..	..	..	..	..	..
LSFO	14.64	15.05	16.06	19.12	16.91	12.32
HSFO	11.21	12.24	14.47	15.97	15.26	10.25
SINGAPORE						
Gasoline	24.02	21.08	20.83	23.81	24.57	17.19
Gas Oil	24.02	20.88	21.60	27.01	24.28	15.47
Jet/Kero	24.42	21.75	22.72	28.29	24.97	16.36
Naphtha	17.23	16.35	17.54	20.36	21.92	14.84
LSFO	17.23	16.35	16.00	17.97	16.93	10.98
HSFO	10.81	12.37	14.30	15.91	15.10	10.09

.. - Not Available

Source: Energy Prices and Taxes, 1st Quarter 1999, International Energy Agency Publication

XIV.21 NATURAL GAS PRICES IN INDUSTRIAL/DEVELOPED COUNTRIES

US$ 10 K. Cal (GCV)

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
A. FOR INDUSTRIAL USE									
Australia	123.1	136.0	127.0	121.4	127.2	132.4	144.9	135.8	na
Austria	176.4	188.7	183.8	169.4	172.0	194.5	194.7	186.0	175.0
Belgium	144.4	159.2	144.5	129.3	124.3	141.5	132.6	131.3	na
Canada	83.7	87.0	83.7	74.7	78.5	69.8	71.1	72.5	70.5
Czech Republic	34.3	138.6	135.9	131.4	137.2	157.5	164.1	152.2	159.8
Finland	146.8	140.3	129.5	105.4	120.2	145.9	148.7	143.7	137.8
France	155.2	151.3	152.8	142.8	141.8	161.0	161.9	152.8	na
Germany	187.5	201.2	200.5	187.3	184.7	207.1	201.6	189.9	na
Hungary	131.2	166.7	153.1	127.9	111.9	105.6	105.8	117.5	117.3
Ireland	330.9	321.9	340.5	291.9	296.4	318.3	317.8	300.9	171.6
Italy	157.2	170.6	177.2	150.1	157.5	173.7	197.9	191.7	171.4
Japan	412.6	424.7	436.2	464.9	466.2	490.4	423.1	463.3	na
Mexico	101.1	80.2	83.9	99.9	87.6	70.2	102.7	114.2	93.6
Netherlands	125.2	126.0	120.1	120.2	118.6	148.7	141.8	132.8	123.0
New Zealand	170.8	176.7	164.4	163.6	180.4	203.0	217.2	222.0	209.3
Poland	81.5	130.7	118.1	115.9	115.4	129.7	138.4	130.6	133.6
Spain	163.7	149.9	150.2	127.1	135.5	159.0	168.7	155.8	137.8
Switzerland	253.1	262.3	276.5	265.3	267.7	296.9	272.8	237.5	238.8
Turkey	126.6	135.7	133.6	155.9	140.6	157.6	187.8	199.3	172.3
United Kingdom	158.5	158.8	163.5	137.5	141.6	127.1	92.0	99.6	106.4
United States	111.4	101.0	106.3	113.8	113.8	100.8	129.2	135.7	118.7
OECD Europe	154.9	166.1	165.9	149.7	150.7	166.7	164.7	158.6	na
OECD	129.5	129.4	132.3	131.1	131.6	130.4	143.7	146.3	na
B. FOR HOUSEHOLD USE									
Australia	268.8	287.6	283.4	276.6	312.2	317.9	332.8	332.3	na
Austria	391.8	397.9	420.1	396.3	405.8	459.7	468.3	430.8	415.1
Belgium	415.6	418.6	430.5	406.5	435.3	487.1	451.8	413.3	409.8
Canada	185.5	181.6	184.4	176.9	175.6	162.2	169.7	170.6	169.8
Czech Republic	17.9	89.8	93.6	95.4	111.4	125.5	131.6	128.7	177.3
Finland	148.9	147.0	132.0	112.4	131.1	177.9	181.4	170.3	168.2
France	474.5	462.0	500.0	456.5	459.6	500.5	470.4	426.6	na
Germany	396.5	424.6	455.1	425.3	436.3	476.8	438.9	416.6	na
Hungary	79.0	99.2	116.9	117.0	104.5	137.2	136.3	165.8	164.0
Ireland	481.3	476.0	505.1	432.7	441.0	473.6	472.8	447.7	420.3
Italy	642.3	760.4	793.8	636.1	666.3	667.2	733.2	698.2	na
Japan	946.0	1016.4	1072.5	1204.1	1307.9	1410.7	1294.1	1287.8	na
Luxembourg	246.9	259.4	268.3	249.2	261.5	298.0	319.4	296.7	na
Mexico	na	na	na	na	na	na	na	na	na
Netherlands	335.5	367.3	383.5	309.8	323.8	360.9	363.4	360.0	357.1
New Zealand	231.3	254.6	238.2	254.1	297.2	363.4	415.9	437.7	380.2
Poland	15.7	65.7	137.2	153.9	159.5	208.7	236.1	227.7	246.7
Spain	612.4	660.4	688.0	553.8	540.9	609.5	613.4	548.0	533.2
Switzerland	431.7	440.2	457.3	429.0	448.3	537.8	505.7	437.7	439.6
Turkey	214.3	242.2	268.5	263.2	207.8	210.6	209.3	237.5	235.1
United Kingdom	329.1	349.3	346.8	285.4	308.9	328.8	325.7	338.2	330.6
United States	233.8	237.8	227.3	237.2	246.5	244.3	264.3	267.3	262.6
OECD Europe	409.2	452.5	471.4	402.8	416.0	446.3	442.3	427.1	na
OECD	323.8	350.0	353.1	334.1	346.6	363.6	368.9	363.6	na

0.95 tonne of oil approximate 10 K. Calories of natural gas na = Not Available , GCV= Gross Calorific Value

Source: International Energy Agency's "Energy Prices and Taxes" Ist Quarter of 1999

XIV.22 CRUDE OIL IMPORT COSTS IN US$/BBL (AVERAGE UNIT VALUE, CIF)

Country	1993	1994	1995	1996	1997	1998
IEA*	16.37	15.65	17.19	20.52	19.11	12.64
IEA Europe	16.14	15.63	17.06	20.67	18.88	12.30
Australia	17.91	16.76	18.53	21.81	21.78	14.60
Belgium	15.84	15.41	16.94	20.53	18.65	11.97
Canada	17.19	16.30	17.76	21.26	20.59	13.78
France	16.05	15.76	17.14	20.82	18.99	12.43
Germany	16.88	15.81	17.07	20.68	19.01	12.48
Greece	15.09	15.17	16.54	20.08	18.45	11.66
Italy	15.87	15.49	16.90	20.53	18.83	12.21
Japan	17.47	16.48	18.02	20.55	20.55	13.68
Netherlands	15.53	15.20	16.92	20.39	18.37	11.98
Spain	15.13	15.24	16.96	20.45	18.34	11.80
Sweden	16.60	15.81	17.23	20.86	18.90	12.61
Turkkey	16.05	15.52	16.78	20.25	18.79	11.99
U.K.	16.58	15.83	17.29	21.08	19.32	12.64
USA	15.87	15.06	16.74	20.16	18.34	12.02

* = Computed across all countries of the region using import volumes as current weights.For reasons as confidentiality, data for some countries are not listed seperately.

Source: Energy Prices and Taxes, 1st Quarter, 1999, International Energy Agency Publication

XIV. 23 DEVELOPMENT OF SPOT PRICES OF KEY OPEC CRUDE OILS SINCE JANUARY 1996

Year/Month	IR Iran	Kuwait	Nigeria	Saudi Arabia		UAE
	Light 33.9	(Export) 31.4	Bonny Light 36.7	Light 34.2	Heavy 28.0	Dubai 32.4
1996						
January	16.92	16.51	..	17.39	16.24	..
February	16.51	15.96	..	17.34	16.19	..
March	17.26	16.79	..	19.10	17.95	..
April	18.11	17.56	..	20.67	19.37	..
May	17.58	16.96	..	18.85	17.55	..
June	17.51	17.08	..	18.02	16.72	..
July	18.32	17.47	20.04	18.66	16.96	17.76
August	19.14	18.26	21.14	19.53	17.71	18.64
September	20.72	19.87	22.95	21.12	19.37	20.30
October	21.94	21.34	24.74	22.54	20.87	21.70
November	21.24	20.73	23.11	21.91	20.26	20.89
December	22.41	21.69	24.53	23.05	21.15	21.82
1997						
January	22.26	21.37	24.04	22.58	20.68	21.35
February	19.81	18.88	21.65	20.03	18.13	18.84
March	18.89	18.04	19.39	19.11	17.25	18.09
April	17.69	16.77	17.82	17.87	16.02	16.77
May	18.93	18.25	19.60	19.35	17.50	18.60
June	17.51	16.95	17.95	17.95	16.20	17.34
July	17.25	16.93	18.95	17.85	16.22	17.38
August	17.17	17.09	19.04	17.79	16.59	17.74
September	17.48	17.55	18.89	18.21	17.11	18.05
October	18.82	18.72	19.98	19.42	18.52	19.20
November	18.22	18.19	19.36	18.81	17.76	18.58
December	16.03	15.98	17.34	16.58	15.08	16.30
1998						
January	13.40	12.80	15.25	13.61	12.11	13.41
February	12.34	11.69	14.11	12.80	11.10	12.41
March	11.31	10.61	13.14	11.67	9.77	11.53
April	11.98	10.99	13.51	12.18	10.53	12.23
May	12.53	11.55	14.46	12.73	11.33	12.75
June	11.68	10.73	11.89	11.88	10.48	11.80
July	11.67	10.97	12.01	11.87	10.47	12.11
August	12.28	11.33	12.14	12.48	11.36	12.25
September	12.97	12.39	13.59	13.17	12.17	13.08
October	12.52	12.01	12.66	12.72	11.82	12.69
November	11.72	11.24	11.15	11.92	11.07	11.96
December	9.80	9.31	9.96	9.90	9.15	10.11
1999						
January	10.25	9.78	11.33	10.43	9.53	10.70
February	9.80	9.35	10.24	10.05	9.20	10.03
March	11.99	11.54	12.56	12.11	11.31	12.39
April	14.67	14.17	15.44	14.92	13.72	14.9
May	15.37	14.82	15.45	15.6	14.6	15.46
June	15.24	14.73	15.86	15.41	14.51	15.46

Source: OPEC Monthly Bulletin.

XIV.24 DEVELOPMENT OF SPOT PRICES OF MAJOR PETROLEUM PRODUCTS IN KEY TRADING CENTRES OF THE WORLD DURING 1997 AND 1998

(US$/barrel)

Market/Product	1997					1998				
	Jan.	March	June	Sept.	Dec.	Jan.	March	June	Sept.	Dec.
NAPHTHA :										
North European Market, FOB Rotterdam	25.12	21.80	20.16	21.53	19.42	17.63	15.57	13.28	14.15	12.00
South European Market, FOB Italy	23.50	20.29	18.82	20.17	18.23	16.53	14.48	12.23	12.92	10.56
Caribbean Cargoes	25.87	22.85	19.43	19.03	18.09	16.91	14.41	14.45	15.69	11.03
Singapore Cargoes	24.60	23.79	20.73	20.51	19.03	17.14	14.99	14.09	14.16	12.59
Middle East FOB	23.93	22.92	20.53	20.58	18.44	16.53	14.65	13.88	13.66	12.39
GASOLINE (Premium 0.15g/Litre)										
North European Market, FOB Rotterdam	25.87	24.80	22.96	25.04	21.34	19.85	17.92	18.20	17.15	13.34
South European Market, FOB Italy	27.22	20.89	19.69	20.48	20.17	17.28	15.93	13.47	15.02	12.87
US East Coast, New York Unl. regular 87	28.21	25.51	22.89	25.58	21.72	19.94	18.17	18.24	17.62	12.75
Singapore Cargoes	26.05	28.55	23.77	23.15	20.78	20.04	17.46	18.34	15.39	13.56
JET KERO										
North European Market, FOB Rotterdam	30.99	23.60	22.61	23.28	22.83	19.93	17.85	16.47	17.41	13.94
South European Market, FOB Italy	28.82	21.54	20.11	20.75	20.68	18.00	15.29	13.96	15.30	11.69
US East Coast, New York	30.13	24.24	22.61	23.65	21.75	20.73	18.51	17.48	18.49	13.60
Caribbean Cargoes	29.82	23.93	21.81	23.12	21.15	20.18	17.27	16.49	17.58	12.70
Singapore Cargoes	30.86	27.29	23.67	22.51	21.12	18.17	15.63	15.41	17.58	14.23
Middle East FOB	28.96	25.62	22.23	21.29	19.60	16.65	14.08	14.14	16.23	12.83
GAS OIL										
North European Market, FOB Rotterdam	29.07	22.11	21.59	21.92	21.17	18.88	17.07	15.52	16.09	12.76
South European Market, FOB Italy	27.22	20.89	19.69	20.48	20.17	17.28	15.93	13.47	15.02	11.90
US East Coast, New York	29.32	22.92	21.82	22.18	21.33	19.44	17.58	15.89	16.71	12.98
Caribbean Cargoes	27.82	22.30	21.53	22.17	20.46	18.79	16.89	15.73	16.35	12.07
Singapore Cargoes	27.95	27.35	22.87	23.16	20.52	17.69	15.99	15.16	15.19	12.74
Middle East FOB	25.94	25.60	21.35	21.87	18.92	16.07	14.36	13.81	13.76	11.26
FUEL OIL										
North European (1% s)	17.88	14.38	14.32	14.79	14.42	12.82	11.69	11.88	10.58	10.06
North European (3.5% s)	15.92	13.12	12.73	14.39	13.01	10.41	9.82	9.79	9.83	7.72
South European (1%s)	16.94	14.87	14.66	14.82	14.21	12.63	11.05	11.34	10.24	8.73
South European (3.5% s)	15.52	11.40	11.57	12.96	11.34	9.55	8.75	8.80	8.96	7.57
US East Coast, New York (1% s)	18.58	15.64	16.13	16.63	15.90	13.67	11.72	13.32	11.54	10.09
US East Coast, New York (2.2% s)	16.79	13.89	14.73	16.21	14.34	12.41	10.41	11.58	10.57	8.96
Caribbean Cargoes (2.0%s)	15.69	12.77	13.85	15.20	13.59	11.61	9.60	10.68	9.67	8.06
Caribbean Cargoes (2.8% s)	15.13	12.39	13.22	14.71	12.52	10.28	8.71	9.85	8.27	6.34
Singapore Cargoes (0.3% s)	21.86	17.55	14.95	15.83	15.73	12.11	11.20	10.39	10.91	9.06
Singapore Cargoes (180 C)	15.63	14.57	14.55	16.02	13.38	9.54	9.89	9.39	11.07	9.13
Singapore Cargoes (380 C)	15.34	14.20	14.25	16.02	13.26	9.22	9.92	8.97	11.18	9.12
Middle East FOB (180C)	14.28	13.31	13.62	14.80	12.06	8.34	8.75	8.32	10.07	8.26

Source : Monthly OPEC Bulletin

XIV.25 WORLD SURVEY OF SELECTED PETROLEUM PRODUCTS PRICES 1998

Country	US$ Exchange Rate in National Currencies	Gasoline	Automotive Diesel Oil	Heavy Fuel Oil for Industry	Light Fuel Oil	
					For Household Use	For Industry Use
		(US$/Litre)	(US$/Litre)	(US$/tonnes)	(US$/1000Litre)	
1	*2*	*3*	*4*	*5*	*6*	*7*
Australia	1.59	0.443	0.422	..	..	..
Austria	12.38	..	0.702	..	301.70	219.50
Belgium	36.30	1.049	0.690	118.30	198.20	163.80
Canada	1.50	..	..	..	..	118.00
Czech Republic	32.28	0.705	0.559	79.70	262.70	215.30
Denmark	6.70	..	0.770	..	630.40	275.40
Finland	5.34	..	0.710	109.50	286.50	234.90
France	5.90	1.066	0.715	..	335.10	229.30
Germany	1.80	..	0.647	114.80	230.20	199.00
Greece	295.30	0.749	0.512	163.00	372.20	315.50
Hungary	214.30	..	..	80.00	..	518.00
Ireland	0.70	0.983	0.789	..	348.00	232.60
Italy	1736.00	1.072	0.792	..	777.50	647.90
Japan	130.90	..	0.595	..	341.80	..
Korea	1400.00	..	..	..	357.00	218.50
Luxembourg	36.30	0.795	0.568	..	211.10	188.50
Mexico	9.15	..	0.312	64.00	..	117.80
Netherlands	1.98	..	0.724	..	376.30	..
New Zealand	1.86	..	0.238	..	..	182.60
Norway	7.54	1.237	1.036	..	462.00	357.10
Poland	3.49	0.530	0.418	73.60	261.00	158.60
Portugal	180.10	0.933	0.625	69.00	561.3	534.60
Spain	149.40	0.781	0.591	150.30	283.8	244.70
Sweden	7.94	1.061	0.793	..	507.5	213.80
Switzerland	1.45	0.869	0.836	..	188.7	146.60
Turkey	260500.00	0.747	..	153.20	492.6	..
U.K.	0.60	1.179	1.083	114.60	206.4	179.00
USA	1.00	..	0.274	86.70	240	110.60

Source: Energy Prices and Taxes 1st Quarter, 1999 International Energy Agency Publication

XIV.26 CONSUMER RETAIL PRICES OF SELECTED PETROLEUM PRODUCTS IN VARIOUS COUNTRIES OF THE WORLD AS ON 1.1.1998

Sl. No.	Country	LPG	MOGAS	ATF	KEROSENE	DIESEL	FUEL ÓIL 1US$	EXCHANGE RATE
		(.....U.S. Cents/litre.....)						
1	Singapore*	26.95	78.57	N.A.	30.11	39.36	N.A.	1.40 cents
2	Thailand	13.00	22.61	N.A.	23.42	20.83	12.60	40.215 baht
3	HongKong	56.49	125.37	31.41	42.78	87.37	28.18	7.737 HK$
4	Malaysia	13.84	24.20	n.a.	11.11	14.32	N.A.	4.545 Mal. cents
5	Philippines	26.19	35.72	38.38	20.49	23.12	13.34	33.87 pessos
6	S. Korea	24.58	77.37	N.A.	9.92	47.17	2.88	1572.90 won
7	Taiwan	17.89	61.36	36.20	50.23	47.00	16.58	27.87 Taiwan$
8	India	17.10	57.99	33.20	10.39	26.38	14.14	39.3843 Rs.
9	Australia	N.A.	49.66	N.A.	N.A.	50.67	N.A.	1.494 Aus. cents
10	Indonesia	N.A.	8.10	4.05	2.70	3.66	2.31	10.375 Ru.

*: Price as on 1.1.1997 N.A. : Not Available
Source: PEL, London

XIV. 27 POSTED AIRFIELD PRICES OF JETA-1 FUEL AT MAJOR INTERNATIONAL AIRPORTS AS ON 1ST APRIL OF EACH YEAR

(U.S.C./U.S. Gallon)

Countries / Port	Prices of Jet A.I. Fuel as on Ist April											
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10	11	12	13
Australia												
Perth	114.88	1114.02	N.A.	N.A.	N.A.	52.90$	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sydney	114.88	114.02	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Bahrain	153.40	148.46	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Belgium												
Brussels	159.00	128.00	N.A.	N.A.	N.A.	140.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Egypt												
Cairo	155.20	121.13	74.93	119.10	76.80	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
N.A.												
Ethopia												
Addisababa	156.06	150.32	N.A.	N.A.	N.A.	129.13	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
France												
Pairs	147.90	117.24	66.24	73.37	61.56	65.28	59.88	60.94	77.62	70.42	54.20	54.20
Germany												
Frankfurt	147.32	107.69	67.96	74.95	65.07	66.19	60.00	62.29	78.21	66.87	N.A.	N.A.
Netherland												
Amserdam	142.60	115.00	65.22	68.95	63.41	150.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Itlay												
Rome	165.00	135.00	68.48	75.81	68.70	71.22	63.87	82.03	71.97	N.A.	N.A.	N.A.
Kenya												
Nairobi	144.00	168.10	N.A.	N.A.	N.A.	95.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Lebanon												
Beirut	185.00	165.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Malaysia												
Kualalumpur	137.00	135.00	N.A.	N.A.	N.A.	64.95	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Mauritius												
Plaisance	140.00	126.00	N.A.	N.A.	N.A.	98.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Singapore												
Paya lebqr/Chan-gi	137.00	128.50	63.10	69.07	60.61	61.85	58.42	57.87	71.33	66.99	41.98	46.81
Switzerland												
Geneve	155.73	105.58	67.93	70.51	62.31	137.30	59.77	64.71	78.53	73.56	N.A.	N.A.
U.A.E.												
Abu Dhabi	154.88	100.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sharjah/Dubai	154.88	147.58	78.11	99.31	75.32	120.00	76.32	80.00	92.00	91.00	63.50	63.00
United Kingdom												
London (h)	154.76	129.89	66.37	72.71	65.98	64.98	56.80	57.00	73.68	63.55	47.31	46.98
Karachi	123.28	175.50	N.A.	N.A.	N.A.	135.00	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Kuwait	113.96	98.15	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
New York (2)	112.00	77.75	64.98	65.00	59.03	58.41	53.07	52.74	67.63	62.07	49.92	48.29
Tehran (1)	100.96	122.13	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Japan												
Tokyo	118.96	95.00	85.75	95.49	82.68	90.82	79.59	72.03	82.63	87.20	60.58	64.48
India												
Mumbai	145.22	106.07	89.59	128.22	88.06	N.A.	78.00	93.00	110.40	119.40	81.60	75.60
Delhi	150.22	108.92	91.28	133.31	88.30	N.A.	78.00	82.93	99.36	107.46	74.80	69.30
Madras	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	84.32	78.12

(1) Monopoly Price
© As on 1st January, 1988,

(2) Air India Contract Price.
©© : Relates to averate price.

$ Australian cents per litre.
N.A.: Not Available.

XIV. 28 INTERNATIONAL PETROLEUM PRICE INDEX DURING 1990-1998
(US$/BARREL)

(1990=100)

YEAR	Petroleum Spot											
	U.K. BRENT	WEST TEXAS INTERMEDIATE	DUBAI FATEH	ALASKAN NORTH SLOPE	I.R. IRAN LIGHT	I.R. IRAN HEAVY	INDONESIA MINAS	NIGERIA BONNY LIGHT	MEXICO ISTHUMUS	RUSSIA URALS	MALAYSIA TAPIS	AUSTRALIA GIPPSLAND
1990	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1991	84.96	88.10	81.40	84.22	84.01	82.02	83.40	85.06	83.81	84.43	88.58	88.61
1992	81.87	84.14	84.45	82.85	86.09	83.98	82.72	82.57	81.86	80.30	86.25	85.56
1993	72.00	75.43	73.26	74.68	72.97	70.72	76.91	72.72	72.20	68.28	78.28	74.77
1994	66.92	70.28	72.33	71.76	71.90	73.13	69.69	67.09	69.66	67.39	71.18	68.16
1995	72.05	75.31	79.00	78.38	78.34	81.67	75.84	71.77	75.87	73.74	75.96	73.37
1996	87.67	90.76	91.17	93.66	92.20	92.87	88.99	87.91	93.65	89.22	91.40	89.03
1997	80.73	84.06	88.81	86.36	88.37	90.41	82.80	80.30	82.81	81.10	86.88	84.04
1998	53.83	58.71	59.62	57.03	57.99	57.51	52.92	52.86	54.78	52.26	57.35	56.44

SOURCE: OPEC Annual Statistical Bulletin, 1998

XIV. 29 TANKER FLEET DEVELOPMENT IN OPEC MEMBER COUNTRIES, 1994-1998

(As at year End - In Thousand DWT)

	1994		1995		1996		1997		1998	
	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
Algeria	1	22.3	1	22.3	1	22.3	1	22.6	1	22.6
Indonesia	22	583.6	24	642.4	25	726.7	25	739.1	25	739.1
I.R.Iran	28	5536	14	2083.1	12	3301.0	25	3996.1	23	3488
Iraq	17	1493	17	1493	17	1493.0	17	1517	16	1364.2
Kuwait	28	3441.5	28	3441.5	28	3441.5	27	3156.9	26	3343
S,P, Libyan A.J.	11	1321.7	11	1321.7	10	1234.7	10	1254.5	9	1113.5
Nigeria	3	427.5	3	417	2	406.5	3	423.7	2	413
Qatar	3	325.7	2	190.2	2	190.7	5	479	5	479
Saudi Arabia	12	680.6	13	717.1	15	796.5	14	719.3	10	521.8
UAE	17	1151.8	15	778.3	15	785.5	10	509.4	13	659.4
Venezuela	15	681.5	14	675.5	11	559.9	10	521.8	10	521.8
TOTAL OPEC	**157**	**15665.2**	**142**	**11782.1**	**138**	**12958.3**	**147**	**13339.4**	**140**	**12665.4**
TOTAL WORLD	**3192**	**278181.2**	**3200**	**277361.9**	**3255**	**283742.0**	**3323**	**292397.5**	**3333**	**297795.7**
OPEC Percentage		5.6		4.2		4.6		4.6		4.3

a) Including commercial units, government-owned vessels and tankers for purpose other than transportation.
Total may not add up, due to independent rounding
Sources: OPEC Annual Statistical Bulletin, 1998

XIV. 30 WORLD TANKER FLEETa) by AGE, 10,000 DWT AND OVER

(As at year End - In Thousand DWT)

	1983 & earlier		1984-1988		1989-1993		1994-1998		Total	
	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
10,000/16,499	172	2292.9	51	681.8	34	442.8	82	1066.1	339	4483.6
16,500/24,999	203	4182.1	48	924.9	23	433.8	31	568.5	305	6109.3
25,000/29,999	140	3936.0	46	1322.7	36	1064.2	20	582.7	242	6905.6
30,000/34,999	210	6667.7	13	407.5	8	248.3	24	783.3	255	8106.8
35,000/39,999	154	5825.7	38	1481.1	22	828	40	1481.2	254	9616
40,000/44,999	45	1862.7	32	1322.7	45	1688.5	27	1138.8	149	6212.7
45,000/49,999	28	1325.9	35	1635.2	28	1298.9	74	3428.7	165	7688.7
50,000/59,999	77	4242.7	14	747.4	3	170.1	1	54.1	95	5214.3
60,000/69,999	96	6148.1	37	2401.1	34	2304	10	668.3	177	11521.5
70,000/79,999	19	1422.4	5	385.0	4	296.2	1	72	29	2175.6
80,000/89,999	156	13385.2	49	4209.7	17	1460.8	8	699.1	230	19754.8
90,000/99,999	46	4368.8	14	1329.2	80	7710.1	49	4756.7	189	18164.8
100,000/124,999	56	6565.8	25	2706.3	31	3347.7	53	5625.6	165	18245.4
125,000/139,999	62	8277.4	5	653.7	24	3281.6	13	1696.5	104	13909.2
140,000/159,999	53	7916.1	5	760.2	54	7990.8	44	6643.9	156	23311
160,000/199,999	17	3075.4	1	164.0	2	324.3	-	-	20	3563.7
200,000/249,999	27	6311.1	14	3330.0	14	3396	-	-	55	13037.3
250,000/279,999	105	28245.6	14	3631.5	46	12089.1	23	6060.1	188	50026.3
280,000/319,999	34	10077.5	-	-	53	15460.6	70	21024.5	157	46562.5
320,000/349,999	12	3974.6	-	-	-	-	-	-	12	3974.6
350,000 & over	47	19222.0	-	-	-	-	-	-	47	19222
TOTAL	**1759**	**149325.7**	**446**	**28094.0**	**558**	**64035.8**	**570**	**56350.1**	**3333**	**297805.6**
TOTAL WORLDb)									**3424**	**300460.4**

a) Commercial fleet as well as tankers converted for purposes otherthan transportation b) Includes vessels mentioned under a) and government-owned tankers
Sources: OPEC Annual Statistical Bulletin, 1998

XIV.31 INTER-AREA TOTAL OIL MOVEMENTS 1998

Million tonnes

TO FROM	USA	Canada	Mexico	S. & C. America	Western Europe	Central Europe	Africa	Australasia	China	Japan	Other Pacific@	Rest of World	Unidentified	Total
USA	-	9.4	12.6	8.7	9.4	-	0.4	0.7	1.1	1.3	4.3	0.8	-	**48.7**
Canada	77.9	-	-	0.5	0.5	-	-	0.2	-	-	0.1	-	-	**79.2**
Mexico	66.4	1.6	-	7.3	9.6	-	1.0	-	-	1.9	-	0.2	-	**88.0**
South & Central America	134.3	6.6	1.2	-	12.8	-	1.7	0.2	1.1	0.2	1.4	-	-	**159.5**
Western Europe	30.5	17.4	0.7	1.7	-	10.5	8.2	-	0.5	0.3	2.7	1.8	-	**74.3**
Former Soviet Union	1.1	-	-	2.2	92.8	35.6	0.8	-	1.3	0.3	4.2	2.3	35.0	**175.6**
Central Europe	0.1	-	-	-	3.8	-	-	-	-	-	-	1.9	-	**5.8**
Middle East	104.4	4.2	0.7	28.4	213.4	16.1	32.8	8.3	16.2	209.6	290.9	1.8	-	**926.8**
North Africa	14.4	3.7	0.8	1.5	98.9	4.0	4.3	-	-	0.9	2.0	3.2	-	**133.7**
West Africa	70.3	1.2	-	14.2	38.4	0.1	1.6	-	1.5	1.0	25.7	-	-	**154.0**
East & Southern Africa	-	-	-	-	-	-	-	-	-	-	0.1	-	-	**0.1**
Australasia	2.8	-	-	-	-	-	-	-	0.4	3.4	5.5	-	3.0	**15.1**
China	2.1	-	-	0.2	0.1	-	-	0.3	-	7.6	7.3	-	-	**17.6**
Japan	0.1	-	-	0.1	-	-	-	0.1	1.9	-	2.4	0.2	-	**4.8**
Other Asia Pacific	6.6	0.2	-	-	2.5	-	-	17.4	22.4	33.7	6.4	-	-	**89.2**
Unidentified *	2.4	2.6	-	-	11.2	-	-	1.6	2.6	-	1.6	-	-	**22.0**
TOTAL IMPORTS	**513.4**	**46.9**	**16.0**	**64.8**	**493.4**	**66.3**	**50.8**	**28.8**	**49.0**	**260.2**	**354.6**	**12.2**	**38.0**	**1994.4**

* Includes changes in the quantity of oil in transit, movements not otherwise shown, unidentified military use, etc.
@ Includes South Asia
Source : B.P. Amoco Petroleum Statistical Review of World Energy, 1999

XIV.32 WORLD PRIMARY ENERGY CONSUMPTION BY FUEL*-1998

(Million tonnes oil equivalent)

COUNTRY/REGION	Oil	Natural gas	Coal	Nuclear energy	Hydro-electric	Total
USA	852.4	551.2	533.7	183.0	26.7	**2146.9**
Canada	83.2	63.3	25.9	18.5	28.6	**219.3**
Mexico	81.9	32.6	6.0	2.4	2.1	**125.1**
Total North America	1017.5	647.1	565.6	203.9	57.4	**2491.3**
Argentina	23.1	26.7	0.9	1.9	2.5	**55.0**
Brazil	83.2	5.8	11.1	0.8	25.0	**126.1**
Chile	11.6	2.5	2.8	-	1.5	**18.3**
Colombia	12.3	5.6	2.8	-	2.6	**23.4**
Venezuela	18.4	26.9	0.2	-	5.0	**50.4**
Other S. & Cent. America	68.1	9.8	0.8	-	8.8	**87.5**
Total S. & Cent. America	216.7	77.3	18.6	2.7	45.4	**360.7**
Austria	12.3	6.9	3.3	-	3.1	**25.6**
Belgium & Luxembourg	31.5	12.4	7.2	11.7	0.2	**63.0**
Bulgaria	5.2	2.7	7.6	5.0	0.2	**20.7**
Czech Republic	8.4	6.8	19.4	3.4	0.2	**38.2**
Denmark	10.8	4.3	5.6	-	†	**20.7**
Finland	10.6	3.3	3.4	5.7	1.3	**24.3**
France	94.5	33.7	15.1	100.0	5.7	**249.1**
Germany	136.6	71.6	84.7	41.7	1.8	**336.3**
Greece	18.7	†	7.6	-	0.4	**26.7**
Hungary	7.2	9.7	3.5	3.6	†	**24.0**
Iceland	0.9	-	0.1	-	0.5	**1.4**
Republic of Ireland	7.4	2.8	2.0	-	0.1	**12.3**
Italy	94.7	51.5	11.8	-	4.1	**162.1**
Netherlands	39.3	34.9	9.4	0.6	†	**84.1**
Norway	10.1	3.4	0.7	-	10.0	**24.2**
Poland	18.7	9.4	60.9	-	0.4	**89.4**
Portugal	14.1	0.7	3.8	-	1.1	**19.7**
Romania	12.1	16.4	6.4	1.4	1.6	**37.8**
Slovakia	3.6	5.1	4.7	2.9	0.4	**16.8**
Spain	66.4	11.8	17.6	15.2	3.4	**114.4**
Sweden	16.2	0.7	2.0	18.2	6.3	**43.4**
Switzerland	13.0	2.4	0.1	6.3	3.0	**24.7**
Turkey	30.1	8.9	20.2	-	3.6	**62.8**
United Kingdom	80.5	79.9	40.7	25.8	0.6	**227.5**
Other Europe	16.7	5.2	12.7	1.3	2.3	**38.2**
Total Europe	759.6	384.5	350.5	242.8	50.3	**1787.4**
Azerbaijan	5.9	4.7	-	-	0.1	**10.7**
Belarus	9.9	13.5	0.4	-	†	**23.8**
Kazakhstan	12.6	6.5	22.9	†	0.7	**42.8**
Russian Federation	122.3	328.3	102.8	26.9	13.6	**593.8**
Turkmenistan	3.6	8.6	-	-	-	**12.2**
Ukraine	14.3	61.9	36.8	19.4	1.4	**133.7**
Uzbekistan	7.0	42.3	1.8	-	0.6	**51.7**
Other Former Soviet Union	8.8	10.3	1.8	3.9	3.2	**28.0**
Total Former Soviet Union	184.4	476.1	166.5	50.2	19.6	**896.7**
Iran	58.0	46.5	1.0	-	0.6	**106.1**
Kuwait	8.2	8.4	-	-	-	**16.6**
Saudi Arabia	59.1	41.4	-	-	-	**100.5**
United Arab Emirates	17.7	26.8	-	-	-	**44.6**
Other Middle East	61.2	31.5	5.8	-	0.4	**98.9**
Total Middle East	204.2	154.6	6.8	-	1.0	**366.7**
Algeria	8.4	19.4	0.4	-	†	**28.2**
Egypt	27.3	11.0	1.0	-	1.1	**40.3**
South Africa	21.3	-	87.9	3.7	0.2	**113.1**
Other Africa	55.0	13.4	6.6	-	5.3	**80.3**
Total Africa	112.0	43.8	95.9	3.7	6.6	**261.9**
Australia	37.4	18.3	45.8	-	1.4	**103.0**
Bangladesh	2.9	7.0	-	-	0.1	**10.0**
China	190.3	17.4	615.4	3.9	17.1	**844.0**
China Hong Kong SAR	8.9	2.3	4.4	-	-	**15.5**
India	86.1	20.9	153.6	2.8	7.2	**270.6**
Indonesia	43.7	28.7	7.6	-	0.8	**80.8**
Japan	255.0	62.5	88.4	84.0	9.3	**499.2**
Malaysia	19.0	18.4	1.5	-	0.4	**39.2**
New Zealand	6.1	3.9	1.2	-	2.0	**13.3**
Pakistan	17.5	14.2	2.3	0.1	2.1	**36.2**
Philippines	18.2	†	2.7	-	0.4	**21.4**
Singapore	29.2	1.4	-	-	-	**30.6**
South Korea	93.3	14.1	36.1	23.1	0.5	**167.1**
Taiwan	37.2	5.7	23.8	9.4	0.9	**77.1**
Thailand	34.5	14.1	7.3	-	0.4	**56.4**
Other Asia Pacific	15.3	4.1	25.4	-	3.5	**48.3**
Total Asia Pacific	894.6	233.0	1015.5	123.3	46.1	**2312.7**
TOTAL WORLD	3389.0	2016.4	2219.4	626.6	226.4	**8477.4**
Of which OECD	2131.3	1101.0	1056.2	543.2	116.4	**4947.8**
European Union 15	633.6	314.5	214.2	218.9	28.1	**1409.2**
Other EMEs ‡	1035.8	409.9	965.3	22.6	85.9	**2519.4**

Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV.33 PER CAPITA PRIMARY ENERGY CONSUMPTION SOME INTERNATIONAL COMPARISON (1998)

(Kg. Oil Equivalent)

Country/Areas	Oil	Natural Gas	Coal	Nuclear Energy	Hydro-electricity	Total
USA	3104	2007	1943	666	97	7817
Canada	2712	2063	844	602	932	7153
Mexico	828	329	60	24	21	1262
Total North America	3972	1600	1399	504	142	7617
Austria	1483	832	398	-	373	3086
Belgium & Luxembourg	3070	1208	701	1140	19	6138
Czech	824	667	1903	333	19	3746
Denmark	2030	808	1052	-	ng	3890
Finland	2046	637	656	1100	250	4689
France	1600	570	255	1693	96	4214
Germany	1652	865	1024	504	21	4066
Greece	1764	ng	716	-	37	2517
Hungary	733	988	356	366	ng	2443
Iceland	ng	-	120	-	177	297
Republicm of Ireland	1994	854	539	-	26	3413
Italy	1647	896	205	-	71	2819
Netherlands	2487	2199	592	37	ng	5315
Norway	2290	770	158	-	226	3444
Portugal	1910	71	388	-	112	2481
Poland	482	87	1572	-	10	2151
Spain	1668	2964	442	381	854	6309
Slovakia	670	949	875	540	74	3108
Sweden	1820	786	224	2044	707	5581
Switzerland	1754	323	13	850	404	3344
Turkey	457	135	307	-	54	953
United Kingdom	1354	1343	684	433	10	3824
Others	253	122	213	27	12	627
Total Europe	1432	725	661	457	94	3369
Ex-USSR	705	1820	636	191	74	3426
Total Middle East	1633	1236	54	-	8	2931
Australia	1985	971	2430	-	74	5460
China	149	136	482	3	13	783
India*	85	207	152	2	7	453
Indonesia	205	135	35	-	4	379
Japan	2016	494	699	664	73	3946
Malaysia	852	825	670	-	17	2364
New Zealand	1605	1026	315	-	526	3472
Philippines	242	ng	35	-	5	282
Singapore	7392	354	-	-	-	7746
Thailand	570	233	120	-	6	929
Others	323	78	148	-	15	564
Total Asia & Australasia	318	72	350	42	15	797
Total World	782	354	418	97	42	1693
of which OECD	1905	984	944	485	104	4422

* - Estimated on the basis of financial year data ng - Negligible

Source: (i) BPAmoco Statistical Review of World Energy, June 1999

(ii) World Development Report 1999 for population projections

XIV. 34 PER CAPITA CONSUMPTION OF MAIN PETROLEUM PRODUCTS SOME INTERNATIONAL COMPARISONS -1998

Kg./per capital

Country/Area	Gasoline	Middle Distillates	Fuel Oil	Others	Total
USA	1336	966	159	641	3102
Europe	347	604	226	254	1431
Middle East	3443	6965	6663	2858	19929
China	302	484	370	332	1488
Japan	530	745	374	365	2014
OECD	637	677	230	359	1903

Source: (1) BPAmoco Statistical Review of World Energy, June 1999
(2) World Development Report 1999 for Population

XIV. 35 TRENDS IN WORLD PRIMARY ENERGY CONSUMPTION (1980 TO 1998)

(Million Tonnes Oil Equivalent)

Year	Oil	Natural Gas	Coal	Hydro Electricity	Nuclear Energy	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
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 (P)	3389.0	2016.4	2219.4	226.4	626.6	8477.8

Source: B.P. Amoco Statistical Review of World Energy June 1999

XIV. 36 PRIMARY ENERGY* CONSUMPTION IN SELECTED COUNTRIES/AREAS OF THE WORLD 1991-1998

Million tonnes oil equivalent

COUNTRY/REGION	1991	1992	1993	1994	1995	1996	1997	1998	% Change 1998/1997	% share of total 1998
USA	1923.3	1954.2	1992.9	2034.2	2069.2	2134.0	2146.2	2146.9	†	25.3
Canada	205.4	209.2	214.2	222.9	219.4	225.6	225.4	219.3	-2.7	2.6
Mexico	101.7	102.8	103.8	111.6	107.5	112.6	118.4	125.1	5.7	1.5
Total North America	2230.4	2266.2	2310.9	2368.7	2396.1	2472.2	2490.0	2491.3	0.1	29.4
Argentina	43.7	44.2	45.8	47.7	49.6	51.9	53.1	55.0	3.6	0.6
Brazil	91.8	95.2	97.4	100.9	106.7	113.8	121.4	126.1	3.9	1.5
Chile	11.3	12.1	12.7	13.8	15.0	16.6	17.7	18.3	3.4	0.2
Colombia	19.4	19.8	20.9	21.4	22.1	22.9	23.7	23.4	-1.3	0.3
Venezuela	42.4	43.4	44.6	46.4	51.6	50.6	51.6	50.4	-2.3	0.6
Other S. & Cent. America	68.3	70.0	72.4	76.9	79.2	81.9	85.2	87.5	2.7	1.0
Total S. & Cent. America	276.9	284.7	293.8	307.1	324.2	337.7	352.7	360.7	2.3	4.3
Austria	23.5	22.7	22.8	22.7	23.1	24.1	25.1	25.6	2.0	0.3
Belgium & Luxembourg	57.5	57.7	55.9	55.7	57.7	60.2	61.5	63.0	2.4	0.7
Bulgaria	21.6	19.8	21.3	21.1	22.5	23.2	21.9	20.7	-5.5	0.2
Czech Republic	46.1	40.7	39.3	38.0	38.2	40.5	40.0	38.2	-4.5	0.5
Denmark	19.5	17.9	19.2	20.7	20.2	24.1	21.7	20.7	-4.6	0.2
Finland	22.6	21.8	21.8	23.2	21.9	23.4	24.1	24.3	0.8	0.3
France	233.0	234.2	235.2	229.7	236.9	247.5	244.1	249.1	2.0	2.9
Germany	342.7	338.2	335.4	332.8	334.6	346.0	340.3	336.3	-1.2	4.0
Greece	23.9	24.8	24.9	25.5	26.2	26.4	26.5	26.7	0.8	0.3
Hungary	26.0	23.7	23.3	23.8	24.0	24.7	24.1	24.0	-0.4	0.3
Iceland	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.4	0.0	0.0
Republic of Ireland	9.0	9.0	9.3	9.8	10.1	10.7	11.5	12.3	7.0	0.1
Italy	151.6	151.9	148.6	148.1	156.5	155.8	157.4	162.1	3.0	1.9
Netherlands	79.2	78.2	79.8	79.6	82.8	85.3	84.8	84.1	-0.8	1.0
Norway	20.8	21.8	22.7	22.6	23.5	22.5	23.8	24.2	1.7	0.3
Poland	100.8	94.7	96.5	95.7	95.9	100.2	98.1	89.4	-8.9	1.1
Portugal	15.3	16.3	16.1	16.4	17.8	17.3	17.8	19.7	10.7	0.2
Romania	48.7	46.8	45.5	43.5	46.2	46.0	42.9	37.8	-11.9	0.4
Slovakia	18.4	17.3	16.5	16.1	16.5	16.5	16.8	16.8	0.0	0.2
Spain	90.5	94.0	92.0	94.7	98.8	100.8	108.2	114.4	5.7	1.3
Sweden	43.8	42.1	41.3	43.8	42.8	43.9	42.9	43.4	1.2	0.5
Switzerland	23.9	24.2	23.7	24.6	23.7	23.4	24.4	24.7	1.2	0.3
Turkey	50.1	54.8	58.6	54.9	58.8	62.1	62.0	62.8	1.3	0.7
United Kingdom	218.1	216.9	219.8	218.2	219.3	230.6	224.8	227.5	1.2	2.7
Other Europe	44.1	37.6	36.1	31.9	33.0	35.5	36.8	38.2	3.8	0.5
Total Europe	1731.7	1708.2	1706.8	1694.3	1732.2	1792.0	1782.9	1787.4	0.3	21.1
Azerbaijan	22.0	18.8	16.2	15.6	15.9	12.4	11.2	10.7	-4.5	0.1
Belarus	38.1	37.1	28.6	25.3	23.6	21.4	23.5	23.8	1.3	0.3
Kazakhstan	72.5	73.1	64.6	56.9	50.0	44.8	39.9	42.8	7.3	0.5
Russian Federation	842.4	800.4	749.6	681.3	646.4	629.1	595.6	593.8	-0.3	7.0
Turkmenistan	14.0	13.5	11.6	12.9	11.1	12.0	12.1	12.2	0.8	0.1
Ukraine	249.3	219.5	185.1	158.1	148.6	142.9	140.1	133.7	-4.6	1.6
Uzbekistan	48.9	46.1	47.2	46.8	46.7	48.1	50.0	51.7	3.4	0.6
Other Former Soviet Union	61.8	44.5	34.0	27.6	27.1	25.2	26.6	28.0	5.3	0.3
Total Former Soviet Union	1349.0	1253.0	1136.9	1024.5	969.4	935.9	899.0	896.7	-0.3	10.6
Iran	71.2	74.4	77.8	84.9	93.1	100.1	104.7	106.1	1.3	1.3
Kuwait	4.1	7.5	9.8	11.4	14.2	15.7	16.4	16.6	1.2	0.2
Saudi Arabia	84.2	82.0	84.4	87.4	85.7	93.6	96.3	100.5	4.4	1.2
United Arab Emirates	34.9	33.8	34.9	37.5	40.3	42.2	43.5	44.6	2.5	0.5
Other Middle East	64.8	75.6	78.8	81.5	86.6	90.1	95.1	98.9	4.0	1.2
Total Middle East	259.2	273.3	285.7	302.7	319.9	341.7	356.0	366.7	3.0	4.3
Algeria	24.7	25.3	26.7	26.9	28.0	28.0	26.7	28.2	5.6	0.3
Egypt	31.9	31.9	32.2	32.9	35.1	36.9	38.4	40.3	4.9	0.5
South Africa	89.6	87.2	89.9	95.2	100.7	105.9	109.0	113.1	3.8	1.3
Other Africa	66.6	69.4	71.2	73.8	75.2	76.9	79.5	80.3	1.0	0.9
Total Africa	212.8	213.8	220.0	228.8	239.0	247.7	253.6	261.9	3.3	3.1
Australia	84.9	86.4	86.2	91.6	95.3	99.1	101.4	103.0	1.6	1.2
Bangladesh	6.6	7.2	7.7	8.3	9.3	9.6	9.7	10.0	3.1	0.1
China	677.0	703.7	738.2	788.8	831.6	887.0	872.1	844.0	-3.2	10.0
China Hong Kong SAR	12.2	14.4	15.6	14.1	15.1	15.0	15.0	15.5	3.3	0.2
India	193.6	205.0	210.7	220.8	237.1	254.6	263.8	270.6	2.6	3.2
Indonesia	56.3	60.2	63.8	66.9	72.2	79.2	82.4	80.8	-1.9	1.0
Japan	443.2	450.8	455.7	478.2	491.7	502.0	506.0	499.2	-1.3	5.9
Malaysia	23.6	25.2	28.9	31.4	32.3	35.3	37.4	39.2	4.8	0.5
New Zealand	12.1	12.7	12.7	12.9	13.1	13.5	13.9	13.3	-4.3	0.2
Pakistan	25.1	26.7	28.5	30.6	33.1	34.7	34.2	36.2	5.8	0.4
Philippines	12.8	15.2	15.8	16.7	18.8	20.2	21.7	21.4	-1.4	0.3
Singapore	20.6	22.7	24.4	28.1	29.3	28.9	30.4	30.6	0.7	0.4
South Korea	102.9	115.5	126.4	136.8	149.9	165.4	180.4	167.1	-7.4	2.0
Taiwan	52.0	55.0	58.0	62.2	65.5	68.8	72.7	77.1	6.1	0.9
Thailand	32.6	35.5	40.1	44.8	51.4	57.4	60.2	56.4	-6.3	0.7
Other Asia Pacific	46.6	44.7	43.8	42.8	43.0	45.2	47.4	48.3	1.9	0.6
Total Asia Pacific	1802.1	1880.9	1956.5	2075.0	2188.7	2315.9	2348.7	2312.7	-1.5	27.3
TOTAL WORLD	7862.1	7880.1	7910.6	8001.1	8169.5	8443.1	8482.9	8477.4	-0.1	100.0
Of which OECD	4472.4	4518.3	4579.3	4669.9	4760.1	4923.0	4956.2	4947.8	-0.2	58.4
European Union 15	1330.2	1325.7	1322.1	1320.9	1348.7	1396.1	1390.7	1409.2	1.3	16.6
Other EMEs ‡	1907.9	1987.3	2075.0	2194.1	2321.8	2463.0	2509.3	2519.4	0.4	29.7

† Less than 0.05.

‡ Excludes Central Europe and Former Soviet Union.

Source: B.P. Amoco Statistical Review of World Energy, 1999

XIV. 37 ECONOMIC INDICATORS OF OPEC NATIONS DURING 1998

COUNTRY	mid year population 1998 (million)	GDP* 1998 (Bn.$)	per capita GDP 1998 (US$)	Petroleum* exports 1998 (Bn. $)	Total* exports FOB (Bn.$)	Petroleum exports as % of total exports	Oil reserves* Dec. 1998 (Bn. bbls)	Gas reserves* Dec. 1998 (Bn. CM)	Producing oil wells Dec. 1998	Refining capacity Dec. 1998 (000/bbls/day)	Exports of products (000/bbls/day)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Algeria	29.70	47.40	1596	5.69	10.13	56.17	11.31	4077	1175	462.20	461.90
Indonesia	204.40	98.72	483	4.60	48.10	9.56	4.98	4150	8837	929.70	220.80
I.R. Iran	61.30	117.87	1923	11.10	16.03	69.25	92.60	24200	1152	1447.80	235.30
Iraq	21.70	..	..	5.11	5.50	92.91	112.50	3188		603.00	21.00
Kuwait	1.80	28.53	15853	8.96	9.52	94.12	96.50	1480	810	829.60	897.00
Libya	6.00	22.30	3717	5.61	6.00	93.50	29.50	1315	1425	342.00	137.30
Nigeria	121.80	36.17	297	9.84	12.40	79.35	22.50	3485	2125	424.00	20.00
Qatar	0.58	9.80	16909	3.17	4.78	66.32	3.70	10900	412	63.00	95.10
Saudi Arabia	20.14	134.55	6681	33.39	39.39	84.77	261.54	6068	1535	1780.00	1368.90
U.A.E.	2.72	42.10	15478	11.13	26.70	41.69	97.80	6063	1451	291.00	319.10
Venezuela	23.44	95.26	4064	11.51	16.99	67.75	74.93	4148	15090	1183.20	846.20
TOTAL	**494.09**	**634.90**	**1285**	**110.11**	**195.54**	**56.31**	**807.86**	**69074**	**34012**	**8355.50**	**4622.60**

Note: Total includes figures for Saudi Arabian-Kuwaiti Divided Zone

Source: OPEC Annual Statistical Bulletin, 1998

*= Provisional or estimated figures s of July 11, 1998

.. = Not Reported

XIV. 38 WORLD PRODUCTION OF REFINED PRODUCTS BY COUNTRY -1991-1998

(Thousand Barrels per Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%98/97
NORTH AMERICA	16911	17014	17522	17641	17787	18336	18779	18988	1.1
Canada	1695	1657	1725	1766	1778	1876	1896	1902	0.3
United States	15217	15356	15798	15875	16009	16460	16883	17086	1.2
LATIN AMERICA	5747	5813	5930	6126	6141	6318	6384	6541	2.5
Argentina	467	492	493	483	486	497	472	480	1.8
Brazil	1195	1236	1258	1333	1306	1322	1382	1439	4.2
Mexico	1315	1354	1392	1492	1423	1429	1375	1405	2.2
Venezuela	1088	1051	1069	1127	1201	1335	1327	1323	-0.3
Virgin Islands	227	209	213	217	219	223	228	234	2.7
Others	1455	1473	1506	1474	1506	1512	1600	1659	3.7
EASTERN EUROPE	9196	7755	6842	5980	6004	5781	5900	5689	-3.6
Bulgaria	76	42	119	135	150	138	128	124	-2.9
Romania	285	259	267	299	296	266	262	263	0.7
Former USSR	8216	6825	5795	4888	4882	4681	4793	4548	-5.1
Others	620	629	662	658	676	696	718	754	5.0
WESTERN EUROPE	13437	13829	13930	14254	14246	14613	14871	15229	2.4
Belgium	657	649	631	660	601	727	757	785	3.7
France	1703	1657	1714	1682	1731	1784	1889	1955	3.5
Germany	2170	2312	2416	2538	2432	2452	2356	2485	5.4
Italy	1853	1946	1890	1876	1841	1829	1947	2027	4.1
Netherlands	1487	1508	1567	1627	1705	1734	1730	1733	0.2
Norway	264	299	293	314	282	306	324	312	-3.7
Portugal	209	238	231	292	285	261	276	296	7.3
Spain	1115	1145	1086	1144	1157	1111	1179	1266	7.4
United Kingdom	1908	1997	1999	1969	1965	2051	2053	1980	-3.5
Others	2072	2079	2104	2151	2248	2358	2360	2390	1.3
MIDDLE EAST	3694	4192	4442	4843	4913	5130	5217	5530	6.0
Iran, I.R.	806	851	912	917	942	994	974	1338	37.3
Iraq	272	432	451	460	462	452	474	489	3.3
Kuwait	106	313	449	782	822	788	880	876	-0.4
Qatar	53	58	49	57	58	62	57	62	8.5
Saudi Arabia	1417	1448	1482	1511	1450	1641	1584	1600	1.0
United Arab Emirates	184	185	193	208	230	235	298	222	-25.5
Others	856	903	906	906	950	959	950	943	-0.8
AFRICA	2184	2169	2183	2130	2206	2276	2443	2278	-6.8
Algeria	429	435	426	430	441	429	436	410	-5.8
Egypt	468	454	485	504	519	539	588	567	-3.5
Gabon	15	15	15	15	16	16	20	19	-1.5
Libya, S.P.A.J.	282	282	280	287	293	297	342	276	-19.3
Nigeria	243	219	220	108	125	150	193	114	-41.0
Others	748	765	756	785	812	844	865	892	3.1
ASIA AND FAR EAST	10991	11690	12456	12891	13687	14338	15128	15028	-0.7
China	2061	2215	2406	2339	2548	2805	2820	2943	4.4
India	1017	1052	1072	1128	1153	1179	1242	1235	-0.6
Indonesia	678	650	771	767	897	941	888	884	-0.4
Japan	3814	4015	4142	4326	4361	4339	4514	4446	-1.5
Philippines	206	220	233	243	252	262	276	268	-3.0
Singapore	959	992	1056	1126	1171	1218	1246	1212	-2.8
Korea, South	1130	1391	1492	1572	1779	1985	2395	2355	-1.6
Taiwan	419	417	472	475	553	576	612	594	-3.0
Others	707	738	812	914	973	1035	1135	1092	-3.8
OCEANIA	768	784	820	832	852	865	900	887	-1.5
Australia	670	683	717	723	751	767	795	777	-2.3
New Zealand	98	101	104	109	101	98	105	110	4.3
TOTAL WORLD	62928	63245	64126	64697	65836	67656	69620	70169	0.8
Total OPEC	5557	5925	6303	6656	6920	7323	7453	7595	1.9
OPEC Percentage	8.8	9.4	9.8	10.3	10.5	10.8	10.7	11	

1) Data exclude production of gas plants. Note:Totals may not add up due to independent rounding.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.39 WORLD CONSUMPTION OF REFINED PRODUCTS BY COUNTRY, 1991-1998

(THOUSAND BARRELS PER DAY)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%change 98/97
NORTH AMERICA	17115	17511	17946	18210	18154	18595	19281	19608	1.7
CANADA	1523	1603	1646	1679	1714	1762	1837	1878	2.2
UNITED STATES	15590	15906	16298	16529	16438	16831	17444	17730	1.6
OTHERS	2	3	3	3	3	3	3	3	0.0
LATIN AMERICA	5082	5193	5306	5530	5563	5725	6000	6233	3.9
ARGENTINA	400	422	447	442	433	447	452	466	3.1
BRAZIL	1364	1379	1427	1515	1588	1676	1776	1850	4.2
COLOMBIA	202	217	241	246	251	256	263	266	1.1
ECUADOR	101	98	93	100	109	117	119	121	1.4
MEXICO	1803	1837	1810	1893	1778	1811	1930	2058	6.6
VENEZUELA	380	402	420	412	417	404	411	285	-30.8
OTHERS	832	837	867	923	988	1016	1049	1088	3.7
EASTERN EUROPE	9279	7619	6571	5619	5590	5221	5353	5241	-2.1
CZECHOSLOVAKIA	226	220	209	216	243	260	246	239	-2.9
ROMANIA	265	260	265	243	276	241	247	255	3.2
EX-USSR	8227	6577	5504	4572	4480	4131	4227	4052	-4.1
OTHERS	561	562	593	589	591	588	636	696	9.4
WESTERN EUROPE	12548	12671	12605	12620	12888	13181	13288	13549	2.0
FRANCE	1815	1828	1766	1764	1794	1857	1889	1950	3.2
GERMANY	2668	2697	2734	2707	2688	2743	2734	2741	0.2
ITALY	1677	1702	1704	1671	1735	1713	1716	1722	0.3
NETHERLANDS	432	442	426	419	450	421	450	447	-0.6
SPAIN	995	1034	987	1028	1124	1111	1126	1216	8.0
UNITED KINGDOM	1730	1742	1749	1746	1753	1762	1727	1717	-0.5
OTHERS	3231	3228	3240	3285	3346	3574	3650	3755	2.9
MIDDLE EAST	2647	2951	3162	3260	3278	3365	3398	3565	4.9
I.R.IRAN	893	941	960	920	945	984	982	1027	4.6
IRAQ	309	440	564	624	613	595	601	621	3.2
KUWAIT	66	101	95	106	118	114	132	159	20.5
QATAR	13	14	14	16	17	19	22	23	7.6
SAUDI ARABIA	676	729	768	792	751	807	815	866	6.3
SYRIAN ARAB REP.	199	197	212	223	231	239	248	251	1.3
UN. ARAB EMIRATES	119	125	133	132	126	123	115	130	13.0
OTHERS	372	403	417	447	478	483	484	488	0.8
AFRICA	1748	1797	1799	1791	1898	1919	1979	2025	2.3
ALGERIA	162	191	187	177	173	169	164	171	4.6
EGYPT	400	404	370	365	400	408	423	429	1.4
S.P.LIBYAN A.J.	106	108	126	154	174	175	174	173	-0.6
NIGERIA	235	245	211	160	186	200	206	203	-1.2
TUNISIA	72	70	73	67	64	66	67	69	3.1
OTHERS	773	780	832	868	901	901	946	981	3.7
ASIA AND FAR EAST	12376	13214	13902	14615	15442	16384	17311	16723	-3.4
CHINA	2427	2626	2963	3041	3218	3542	3964	4031	1.7
INDIA	1187	1273	1301	1393	1552	1696	1778	1835	3.2
INDONESIA	661	701	711	752	775	865	947	900	-5.0
JAPAN	4747	4895	4877	5064	5175	5279	5286	5156	-2.5
SOUTH KOREA	1189	1446	1580	1734	1889	2012	2185	1851	-15.3
THAILAND	389	424	483	534	611	689	702	630	-10.3
OTHERS	1775	1850	1987	2098	2221	2345	2450	2321	-5.3
OCEANIA	847	826	798	784	813	788	797	789	-1.1
AUSTRALIA	687	656	638	624	612	614	625	619	-0.9
NEW ZEALAND	111	120	111	108	149	122	120	119	-0.9
OTHERS	49	49	49	52	52	53	52	51	-1.0
TOTAL WORLD	61639	61780	62088	62428	63627	65176	67407	67732	0.5
TOTAL OPEC	3620	3997	4188	4246	4294	4455	4568	4657	2.0
OPEC PERCENTAGE	5.9	6.5	6.7	6.8	6.7	6.8	6.8	7	

Note: Revisions have been made throughout the time series.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV. 40 WORLD REFINERY CAPACITY BY COUNTRY 1991-1998

(Thousand Barrels per Calendar Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%change 98/97
NORTH AMERICA	17705	17038	16980	17419	17359	17324	17628	17803	1.0
Canada	1905	1918	1880	1908	1849	1852	1852	1873	1.1
USA	15800	15120	15109	15511	15511	15473	15776	15930	1.0
LATIN AMERICA	7539	7605	7444	7388	7447	7458	7923	7585	-4.8
Argentina	686	686	686	665	661	665	667	653	-2.1
Brazil	1406	1403	1253	1253	1256	1256	1662	1772	6.6
Colombia	254	259	259	270	270	249	249	249	0.0
Mexico	1524	1524	1520	1520	1520	1520	1520	1525	0.3
Netherland Antilles	470	470	477	490	490	490	525	250	-52.4
Trinidad&Tobago	260	260	260	260	260	245	245	160	-34.7
Venezuela	1224	1224	1181	1181	1181	1183	1183	1183	0.0
Virgin Islands	545	545	545	545	545	545	545	545	0.0
Others	1170	1234	1263	1204	1264	1305	1327	1248	-5.9
EASTERN EUROPE	12203	12205	12184	12305	12194	12125	11976	11308	-5.6
Former USSR 1/	10118	10118	10109	10242	10324	10341	10171	9749	-4.1
Others	2085	2087	2075	2063	1870	1785	1806	1559	-13.7
WESTERN EUROPE	14974	15056	14887	14758	14699	14672	14864	15065	1.3
Belgium	602	607	607	614	610	630	630	715	13.5
France	1816	1851	1861	1768	1782	1786	1865	1947	4.4
Germany	2206	2233	2265	2317	2126	2108	2184	2246	2.9
Italy	2386	2420	2262	2260	2286	2262	2453	2446	-0.3
Netherlands	1219	1231	1184	1187	1187	1187	1188	1188	0.0
Spain	1321	1301	1283	1283	1327	1296	1294	1316	1.7
United Kingdom	1856	1843	1867	1869	1888	1941	1826	1854	1.5
Others	3568	3570	3558	3460	3495	3464	3425	3354	-2.1
MIDDLE EAST	5267	5080	5260	5559	5565	5528	5781	6058	4.8
I.R.Iran	957	957	1092	1092	1092	1092	1208	1448	19.9
Iraq	550	550	595	603	603	603	603	603	0.0
Kuwait	670	670	670	820	820	797	875	830	-5.1
Qatar	63	63	63	63	63	63	63	63	0.0
Saudi Arabia	1750	1550	1550	1670	1670	1670	1693	1780	5.1
U.A.E.	193	193	205	205	211	246	291	291	0.0
Others	1084	1097	1085	1106	1106	1057	1049	1044	-0.4
AFRICA	2820	2819	2746	2781	2796	2833	2888	2945	1.9
Algeria	475	475	475	469	462	462	462	462	0.0
Egypt	523	523	523	532	532	546	546	578	5.8
Gabon	20	20	20	20	20	20	17	17	0.0
S.P.Libyan A.J.	342	342	342	342	342	342	342	342	0.0
Nigeria	401	401	401	401	424	424	424	424	0.0
Others	1060	1059	986	1018	1016	1039	1097	1122	2.2
ASIA AND FAR EAS	12409	13348	13629	14198	15077	15737	16052	17677	10.1
China	2500	2700	2700	2867	2867	2967	2967	4347	46.5
India	1122	1047	1086	1086	1086	1086	1086	1142	5.1
Indonesia	783	783	783	895	886	886	930	930	0.0
Japan	4505	4636	4802	4862	4998	4989	4966	5060	1.9
Korea, South	981	1508	1508	1530	2130	2211	2450	2450	0.0
Singapore	968	1029	1055	1091	1170	1157	1157	1172	1.3
Taiwan	543	543	543	543	543	770	770	770	0.0
Others	1008	1103	1153	1325	1397	1670	1726	1807	4.7
OCEANIA	798	782	798	794	824	863	853	905	6.1
Australia	703	698	705	705	733	771	762	807	5.9
Others	95	84	93	89	91	91	91	98	7.5
Total World	73715	73931	73936	75201	75961	76541	77965	79346	1.8
OPEC	7406	7206	7356	7740	7755	7769	8074	8356	3.5
OPEC Percentage	10	9.7	9.9	10.3	10.2	10.1	10.4	11	

1/ Downward changes as of 1990 reflect more accuarte statistics from the former Soviet Union.
Pre Gulf-Crisis capacity for Iraq in years 1991 and 1992. and for Kuwait in years 1991 to 1993..
According to direct communications,refinery capacity for Kuwait was 336,000 b/cd in 1992 and 552,000 b/cd in 1993.
Notes: As at December 31 of the corresponding year. Some figures were converted from barrels per stream day.
Totals may not add up due to independent rounding
SOURC E: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.41 WORLD CRUDE OIL IMPORTS BY COUNTRY. 1991-1998

(Thousand Barrels per Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%change 98/97
NORTH AMERICA	6320	6589	7376	7686	8041	8383	8989	9480	5.5
Canada	540	509	592	622	591	684	762	774	1.5
United States	5780	6080	6784	7064	7450	7699	8227	8706	5.8
LATIN AMERICA	1671	1710	1679	1739	1773	1792	1817	1847	1.6
Brazil	526	528	508	558	506	494	519	515	-0.8
Chile	111	120	126	140	151	155	160	165	2.9
Cuba	84	85	86	89	93	95	98	115	17.7
Netherland Antilles	244	266	290	291	291	290	291	287	-1.5
Puerto Rico	120	116	118	118	120	121	124	125	0.4
Virgin Islands	321	293	317	321	325	325	326	333	2.1
Others	265	302	235	223	288	313	300	308	2.9
EASTERN EUROPE	812	739	1007	971	1034	967	1046	963	-7.9
Bulgaria	89	44	178	139	148	114	108	104	-3.7
Czechoslovakia	208	200	217	225	247	259	270	241	-10.7
Romania	173	132	152	163	174	115	120	126	4.8
Ex USSR	-	-	72	85	100	95	100	50	-50.0
Others	342	362	388	359	365	385	448	442	-1.3
WESTERN EUROPE	10040	10400	10473	10595	10542	11042	11362	11889	4.6
Belgium	574	580	552	569	527	631	657	700	6.5
France	1462	1419	1496	1496	1546	1672	1766	1806	2.3
Germany	1778	1980	1995	2129	2021	2069	2013	2209	9.7
Greece	242	273	231	253	300	342	351	375	6.7
Italy	1368	1457	1446	1409	1377	1460	1559	1691	8.5
Netherlands	925	988	964	982	1019	1050	1036	1064	2.7
Spain	1045	1106	1054	1104	1127	1107	1142	1226	7.3
Sweden	348	332	352	357	340	359	379	372	-2.0
Turkey	345	377	430	422	460	436	450	458	1.7
United Kingdom	926	945	1032	873	836	891	915	870	-4.9
Others	1026	945	920	1002	989	1026	1093	1119	2.3
MIDDLE EAST	468	573	569	491	552	549	648	531	-18.0
Bahrain	213	219	206	205	209	195	212	213	0.3
Syrian Arab Rep.	-	-	-	-	-	-	-	-	-
Yemen	38	77	62	2	38	35	34	30	-11.8
Others	217	278	300	284	304	319	402	288	-28.3
AFRICA	532	570	585	539	685	681	720	676	-6.0
Ivory Coast	60	60	61	61	61	60	58	60	3.4
Kenya	41	45	46	44	34	38	39	36	-8.5
Morocco	107	134	132	138	132	107	121	127	4.8
Others	325	332	346	297	457	476	502	454	-9.5
ASIA AND FAR EAST	7819	8698	9234	9459	9967	10671	11620	10959	-5.7
India	448	613	622	572	615	690	695	680	-2.2
Indonesia	114	168	156	161	189	180	181	212	17.0
Japan	4078	4211	4300	4599	4547	4465	4599	4284	-6.8
Philippines	210	243	229	229	308	343	360	340	-5.6
Singapore	902	926	1055	1021	1025	1060	1155	1095	-5.2
South Korea	1093	1391	1535	1571	1711	1973	2393	2315	-3.3
Taiwan	419	455	493	476	578	632	642	636	-0.8
Thailand	220	258	302	349	428	633	645	630	-2.3
Others	335	433	543	482	566	695	950	766	-19.3
OCEANIA	209	240	303	360	372	435	451	497	10.2
Australia	138	171	225	274	289	353	368	407	10.5
New Zealand	70	69	78	86	83	81	83	90	8.9
Others	-	-	-	-	-	-	-	-	-
TOTAL WORLD	27871	29520	31226	31840	32966	34519	36653	36841	0.5

Note: Revisions have been made throughout the time-series.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.42 WORLD IMPORTS OF NATURAL GAS BY COUNTRY, 1991-1998

(Million Standard Cubic Metres)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%change 98/97
NORTH AMERICA	49940	60836	67545	74163	81136	84584	86051	90237	4.9
Canada	320	1660	810	1040	670	1290	1270	1270	0.0
United States	49620	59176	66735	73123	80466	83294	84781	88967	4.9
LATIN AMERICA	3910	4920	3200	3310	3710	2970	3750	4930	31.5
Argentina	2220	2200	2070	1980	1980	2040	1830	2160	18.0
Chile	-	-	-	-	-	-	670	1240	85.1
Mexico	1690	2720	1130	1330	1730	930	1250	1530	22.4
EASTERN EUROPE	39760	33940	34400	34400	40560	45000	41300	39860	-3.5
Bulgaria	5730	5500	4800	4700	5850	6040	5100	3800	-25.5
Former Czechoslovakia	13010	12220	13300	13800	14910	16640	16000	16260	1.6
Hungary	6120	5060	5300	5200	6300	7940	8000	8500	6.3
Poland	6610	6300	5900	6200	7250	7140	7700	7500	-2.6
Romania	5280	4860	4800	4500	6150	7140	4500	3800	-15.6
Former USSR	3010		500		100	100	-	-	
WESTERN EUROPE	169050	172401	174933	176690	187040	210070	213390	220380	3.3
Austria	5220	5130	5390	5620	6740	6790	6030	6250	3.6
Belgium	10850	11771	12026	11560	13086	15600	14300	15490	8.3
Denmark	-	-	-	-	-	-	-	-	
Finland	2840	2950	3100	3400	3600	4040	3700	4200	13.5
France	31260	32924	30364	32230	33354	36020	35150	35730	1.7
Germany	59380	60420	66440	67690	67840	77860	75380	73590	-2.4
Greece	-	-	-	-	-	-	160	900	462.5
Ireland	-	-	-	-	-	130	830	1240	49.4
Italy	33630	34739	33260	29870	35291	37290	39150	42600	8.8
Luxembourg	630	650	680	680	680	730	710	760	7.0
Netherlands	1960	2900	3020	3290	3450	4630	5890	5800	-1.5
Portugal	-	-	-	-	-	-	500	830	66.0
Spain	5460	5685	5729	7310	8103	9000	12470	13640	9.4
Sweden	530	720	850	840	820	860	860	860	0.0
Switzerland	2110	2360	2280	2540	2570	2770	2620	2700	3.1
Turkey	4030	4440	5000	5270	6958	8160	9750	10380	6.5
United Kingdom	6680	5300	4210	3030	1710	1710	1320	900	-31.8
Former Yugoslavia	4470	2412	2584	3360	2838	4480	4570	4510	-1.3
MIDDLE EAST	-	-	-	-	-	-	100	1750	1650.0
I.R. Iran	-	-	-	-	-	-	100	1750	1650.0
Kuwait	-	-	-	-	-	-	-	-	
AFRICA	650	721	718	1670	1479	1100	910	450	-50.5
Tunisia	650	721	718	1670	1479	1100	910	450	-50.5
ASIA AND FAR EAST	56250	60630	62650	69260	73320	80140	85320	86680	1.6
Hong Kong	-	-	-	-	-	220	-	-	
Japan	50640	52710	53030	56800	58970	61940	63750	66220	3.9
Korea, South	3630	4580	5800	7900	9530	12950	15710	14310	-8.9
Singapore		1100	1500	1500	1500	1500	1500	1500	0.0
Taiwan	1980	2240	2320	3060	3320	3530	4360	4650	6.7
OCEANIA	-	-	-	-	-	-	-	-	
TOTAL WORLD	319560	333448	343446	359493	387245	423864	430821	444287	3.1

Note: Totals may not add up due to independent rounding.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.43 WORLD IMPORTS OF REFINED PRODUCTS BY COUNTRY, 1991-1998

(Thousand Barrels per Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998*	%change 97/96
NORTH AMERICA	1556	1477	1401	1549	1254	1482	1538	1506	-2.1
Canada	145	145	135	124	134	134	161	166	3.2
United States	1405	1327	1262	1420	1116	1344	1373	1335	-2.7
Others	5	5	4	4	4	4	4	4	0.0
LATIN AMERICA	797	870	1205	1212	1197	1260	1415	1449	2.4
Brazil	99	124	381	306	317	350	382	368	-3.8
Cuba	80	71	70	69	70	64	70	70	0.6
Mexico	143	171	176	189	140	177	297	328	10.7
Netherland Antilles	47	35	38	37	39	37	35	36	2.6
Panama	8	6	9	22	26	28	15	18	24.5
Puerto Rico	69	81	92	96	91	91	97	99	2.1
Others	352	383	439	492	516	512	520	530	2.0
EASTERN EUROPE	158	194	219	276	293	306	349	331	-5.2
Bulgaria	41	55	33	19	3	1	1	2	69.2
Ex USSR	30	31	41	75	85	95	115	105	-8.7
Hungary	16	29	37	44	31	43	33	31	-4.3
Poland	54	34	41	49	58	50	84	85	2.0
Others	18	45	67	89	116	117	116	107	-7.9
WESTERN EUROPE	4479	4394	4415	4306	4342	4485	4551	4617	1.5
Belgium	242	262	260	264	276	284	275	286	4.2
France	574	533	507	454	459	426	355	364	2.4
Germany	1008	970	962	870	911	966	1057	956	-9.6
Italy	421	449	470	451	489	500	431	423	-1.8
Netherlands	781	684	694	672	668	689	793	769	-3.1
United Kingdom	214	207	184	193	180	165	178	243	36.5
Others	1239	1289	1339	1401	1359	1456	1462	1577	7.8
MIDDLE EAST	276	278	248	238	245	256	265	252	-4.7
Syrian Arab Rep.	7	14	11	11	11	12	12	12	3.4
Others	270	264	238	226	234	244	253	240	-5.1
AFRICA	291	275	297	328	323	351	343	395	15.4
Egypt	10	4	5	2	1	2	4	4	10.3
Morocco	20	10	22	32	25	24	25	26	2.4
Nigeria	15	15	15	50	48	65	37	85	129.7
Senegal	7	7	7	7	7	8	8	8	0.0
Tunisia	46	46	49	44	37	39	39	40	2.6
Others	194	192	199	193	204	214	230	232	1.1
ASIA AND FAR EAST	3140	3458	3603	3991	4341	4694	5013	4798	-4.3
China	124	193	204	269	364	431	596	587	-1.4
Hong Kong	170	224	244	286	335	375	385	389	1.1
India	203	231	248	291	315	403	420	440	4.7
Japan	1225	1207	1113	1169	1220	1353	1350	1190	-11.8
Singapore	339	400	415	461	465	465	466	451	-3.1
Others	1080	1203	1379	1515	1643	1667	1797	1740	-3.2
OCEANIA	136	127	147	157	168	192	178	162	-9.0
Australia	52	41	53	55	62	79	65	56	-14.1
New Zealand	9	11	11	13	20	26	25	18	-27.5
Others	76	76	84	89	86	87	87	88	0.2
TOTAL WORLD	10833	11072	11535	12057	12163	13025	13650	13509	-1.0

Note: Data includes imports of petroleum products from gas plants. Revisions have been made throughout the time-series.

SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.44 WORLD CRUDE OIL EXPORTS1) BY COUNTRY, 1991-1998

(Thousand Barrels per Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998*	%change 98/97
NORTH AMERICA	879	926	1016	1081	1153	1182	1151	1271	10.4
Canada	762	837	917	982	1058	1072	1043	1158	11.1
United States	116	89	99	99	95	110	108	112	3.9
LATIN AMERICA	3220	3340	3482	3721	4070	4518	5003	5074	1.4
Columbia	170	181	200	189	311	317	343	369	7.6
Ecuador	179	203	225	245	252	241	212	207	-2.3
Mexico	1375	1373	1357	1307	1309	1544	1730	1744	0.8
Trinidad and Tobago	70	76	56	64	57	59	58	57	-1.6
Venezuela	1381	1429	1540	1696	1820	1976	2211	2244	1.5
Others	45	77	105	220	321	381	450	453	0.8
EASTERN EUROPE	1215	1480	1802	1878	1885	1987	2178	2428	11.5
Ex USSR	1215	1479	1719	1874	1880	1985	2174	2425	11.6
Others	-	1	84	4	5	2	4	3	-20.5
WESTERN EUROPE	2936	3179	3476	4172	4419	4637	4571	4532	-0.8
Norway	1718	1940	2099	2381	2625	2955	2833	2721	-4.0
United Kingdom	1071	1110	1230	1600	1634	1517	1502	1607	7.0
Others	147	129	147	191	160	165	235	205	-12.8
MIDDLE EAST	12679	13422	13977	13851	13877	13898	14576	15776	8.2
Iran	2420	2528	2600	2650	2621	2630	2587	2512	-2.9
Iraq	39	61	59	60	64	88	714	1532	114.5
Kuwait	85	696	1440	1264	1186	1224	1134	1190	4.9
Oman	643	689	732	743	781	809	830	830	0.0
Qatar	337	362	341	323	333	367	465	572	23.1
Saudi Arabia	6526	6582	6293	6234	6291	6109	685	6390	833.6
Syrian Arab Rep.	224	236	271	266	292	295	283	275	-2.7
United Arab Emirates	2195	2060	1970	1955	1925	1943	1949	2039	4.6
Others	209	209	272	358	385	433	430	435	1.2
AFRICA	4698	4601	4515	4532	4640	4865	5016	4980	-0.7
Algeria	345	279	308	329	333	391	373	549	47.3
Angola	471	497	480	478	506	633	690	705	2.1
Cameroon	134	113	101	87	75	68	104	103	-1.1
Congo	150	162	185	177	180	207	228	220	-3.4
Egypt	392	401	383	334	331	298	288	274	-4.8
Gabon	279	273	297	311	345	354	376	365	-2.9
S.P.Libyan A.J.	1220	1180	1110	1125	1103	1119	1091	1137	4.1
Nigeria	1610	1585	1557	1590	1665	1699	1779	1545	-13.2
Others	99	111	94	101	102	97	88	82	-6.4
ASIA AND FAR EAST	1970	1855	1830	1889	1873	1831	1810	1679	-7.3
Brunei	156	170	164	167	169	161	153	150	-1.7
China (P.R.)	453	430	391	373	378	407	398	313	-21.3
Indonesia	799	652	682	793	744	707	708	678	-4.2
Malaysia	476	480	448	406	403	375	352	339	-3.7
Vietnam	79	109	123	139	170	173	191	190	-0.7
Others	7	14	21	11	9	10	9	9	0.0
OCEANIA	275	275	298	288	337	302	315	328	4.2
Australia	155	151	168	154	188	177	205	219	6.4
Others	120	124	130	134	150	125	109	109	-0.1
TOTAL WORLD	27870	29078	30396	31413	32254	33221	34620	36068	4.2
OPEC	16957	17414	17900	18018	18084	18254	19195	20388	6.2
OPEC percentage	60.8	59.9	58.9	57.4	56.1	54.9	55.4	57	

1) Including re-exports. 2) The years 1990 and 1991 correspond to a fiscal period ending March 20.
Note: Revisions have been made throughout the time series.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN, 1998

XIV.45 WORLD EXPORTS1) OF REFINED PRODUCTS BY COUNTRY, 1991-1998

(Thousand Barrels per Day)

COUNTRY/AREA	1991	1992	1993	1994	1995	1996	1997	1998	%change 98/97
NORTH AMERICA	1231	1188	1124	1124	1189	1271	1327	1231	-7.2
Canada	383	361	365	338	416	484	498	471	-5.4
United States	848	827	758	786	772	787	829	760	-8.3
Others	0	0	0	0	0	0	0	0	0.0
LATIN AMERICA	1660	1560	1701	1613	1639	1698	1796	1837	2.3
Argentina	91	90	84	80	83	91	87	87	0.7
Ecuador	25	8	20	29	30	33	32	34	6.6
Mexico	81	110	150	113	122	96	98	129	31.4
Netherland Antilles	201	198	214	216	216	215	218	219	0.3
Trinidad and Tobago	69	73	86	77	81	101	85	83	-2.2
Venezuela	712	615	635	634	688	742	842	846	0.6
Virgin Islands	191	187	189	185	189	187	186	187	0.6
Others	291	280	323	280	231	234	248	251	1.2
EASTERN EUROPE	996	760	913	1001	1028	1200	1205	1103	-8.5
Romania	55	56	59	90	91	69	72	78	8.4
Former USSR	882	646	746	755	789	995	993	872	-12.2
Others	59	57	108	157	148	136	140	153	8.8
WESTERN EUROPE	3668	3860	4047	4041	3983	4184	4311	4316	0.1
Belgium	358	356	339	337	320	362	359	368	2.5
France	285	291	316	338	319	381	391	329	-16.0
Germany	178	269	303	319	296	288	260	302	15.9
Italy	374	426	456	410	342	374	421	461	9.6
Netherlands	1165	1112	1136	1111	1224	1236	1302	1301	-0.1
United Kingdom	403	422	480	465	459	496	559	531	-5.1
Others	904	984	1017	1061	1023	1046	1018	1025	0.7
MIDDLE EAST	1999	2291	2561	2729	3000	3080	3305	3319	0.4
Bahrain	260	270	240	242	254	213	249	251	0.7
Iran	88	70	70	90	110	90	213	235	10.7
Iraq*	11	17	18	20	19	21	21	21	-0.5
Kuwait	40	256	419	622	794	752	848	897	5.8
Qatar	82	104	116	103	98	107	125	95	-23.9
Saudi Arabia	1226	1288	1386	1360	1322	1492	1393	1369	-1.7
United Arab Emirates	170	173	160	155	269	272	323	319	-1.2
Others	123	114	152	136	134	134	133	131	-1.2
AFRICA	743	778	697	712	715	720	811	799	-1.5
Algeria	400	419	375	384	396	406	462	462	-0.1
Egypt	114	102	96	127	130	141	138	135	-2.5
Gabon	5	5	6	6	7	1	1	1	0.0
Nigeria	31	30	33	25	20	23	25	20	-20.9
S.P.Libyan A.J.	140	170	142	130	122	113	142	137	-3.3
Others	54	51	46	40	40	36	42	44	4.8
ASIA AND FAR EAST	1572	1720	1857	1979	2204	2486	2835	2805	-1.1
China	121	144	76	78	107	115	198	189	-4.9
Indonesia	230	254	239	250	294	297	257	221	-14.2
Japan	83	111	122	141	171	156	172	132	-23.4
Malaysia	61	54	71	82	86	149	153	142	-7.4
Singapore	756	772	876	972	953	980	1078	1003	-7.0
Others	321	385	473	455	594	788	976	1119	14.7
OCEANIA	91	101	101	89	78	110	122	120	-2.1
Australia	77	92	89	82	74	103	114	112	-2.0
Others	14	9	12	7	4	7	8	8	-3.7
TOTAL WORLD	11959	12258	13000	13288	13836	14750	15712	15529	-1.2
OPEC	3129	3396	3592	3773	4132	4314	4651	4623	-0.6
OPEC percentage	26.2	27.7	27.6	28.4	29.9	29.3	29.6	30	

1)Data includes re-exports and exports of petroleum products from gas plants.
Note: Revisions have been made throughout the time series.
SOURCE: OPEC ANNUAL STATISTICAL BULLETIN,1998

PART-III
PLAN STATISTICS

EIGHTH PLAN/ NINTH PLAN

1. EIGHTH PLAN OUTLAY AND ACTUAL EXPENDITURE, RE FOR 1997-98 AND B.E. FOR 1998-99 OF PUBLIC SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS

(Rs Crores)

Undertakings	Eighth Plan Outlays	ACTUAL EXPENDITURE					Eighth Plan Total Expenditure	1997-98 (R.E.)	1998-99 (B.E.)
		1992-93	1993-94	1994-95	1995-96	1996-97			
1	2	3	4	5	6	7	8	9	10
A. Exploration & Production	**20000**	**4726**	**8148**	**6511**	**5386**	**4911**	**29682**	**5899**	**6083**
1 ONGC	17511	4249	7722	6004	4250	3973	26198	4406	4766
2 OIL	1063	285	311	295	331	353	1555	412	570
3 GAIL	1426	212	115	212	805	585	1929	1081	747
B. Refining & Marketing	**4000**	**972**	**1442**	**2133**	**2737**	**3097**	**10381**	**5016**	**8649**
1 IOC	2404	366	673	1537	2079	1604	6259	1807	3056
2 BPCL	130	55	75	48	131	226	535	730	1524
3 HPCL	380	171	229	202	185	570	1357	1155	1530
4 MRL	266	201	137	43	20	35	436	173	696
5 CRL	436	86	155	86	54	103	484	81	320
6 BRPL	200	42	75	63	35	21	236	9	33
7 LIL	30	5	11	16	5	1	38	2	3
8 EIL	15	4	7	2	3	6	22	7	13
9 IBP CO. LTD.	139	42	47	31	35	117	272	252	295
10 NRL	0	0	33	105	190	414	742	800	1179
C. Petrochemicals	2427	83	161	256	606	766	1872	551	**474**
1 BRPL	47	3	7	4	8	12	34	41	60
2 BPCL	250	1	2	7	19	0.5	29.5	2	60
3 CRL	400	9	3	10	0	0	22		5
4 MRL	190	3	2	1		0	6	106	109
5 HPCL	40	8	1	0	0		9	0	0
6 GAIL	1200	51	133	218	575	752	1729	394	175
7 IOC	300	8	13	16	4	2	43	8	65
D Engineering	125	17	10	22	26	27	102	94	184
1 IBP CO. LTD & OTHERS	125	17	10	22	26	27	102	94	184
GRAND TOTAL (A+B+C+D)	**26552**	**5798**	**9761**	**8922**	**8755**	**8801**	**42037**	**11560**	**15390**

2. NINTH PLAN PROJECTION PROFILE FOR CRUDE OIL AND NATURAL GAS PRODUCTION

Company/areas	1997-98	1998-99	1999-2000	2000-2001	2001-2002	1997-2002
CRUDE OIL PRODUCTION (Mn.Tonnes)						
A. ONGC						
1. ONSHORE						
WRBC	6.880	7.060	7.260	7.300	7.360	35.860
ERBC	2.458	2.602	2.698	2.837	2.904	13.499
SRBC	0.235	0.192	0.184	0.172	0.165	0.948
TOTAL ONSHORE	**9.573**	**9.854**	**10.142**	**10.309**	**10.429**	**50.307**
2. OFFSHORE						
MRBC	18.160	18.238	18.898	19.422	19.449	94.167
SRBC	-	-	0.140	0.140	0.140	0.420
TOTAL OFFSHORE	**18.160**	**18.238**	**19.038**	**19.562**	**19.589**	**94.587**
TOTAL ONGC	**27.733**	**28.092**	**29.180**	**29.871**	**30.018**	**144.894**
B. OIL						
Assam & Arunachal P.	3.100	3.200	3.290	3.380	3.500	16.470
C. JV/PRIVATE OPERATORS	**3.590**	**4.400**	**4.080**	**3.930**	**3.460**	**19.460**
GRAND TOTAL (A+B+C)	**34.423**	**35.692**	**36.550**	**37.181**	**36.978**	**180.824**
NATURAL GAS PRODUCTION (BASE CASE) (MMSCMD)						
A. ONGC						
1. ONSHORE						
WRBC	10.080	10.330	9.790	9.260	9.050	17.716
ERBC	1.664	1.752	1.897	1.935	1.942	3.356
CRBC	0.903	0.903	0.903	0.903	0.903	1.490
SRBC	2.530	2.564	2.609	2.616	2.616	4.724
TOTAL ONSHORE	**15.177**	**15.549**	**15.199**	**14.714**	**14.511**	**27.286**
2. OFFSHORE						
MRBC	47.577	48.264	50.193	50.479	54.432	91.645
SRBC	-	-	0.100	0.100	0.100	0.110
TOTAL OFFSHORE	**47.577**	**48.264**	**50.293**	**50.579**	**54.532**	**91.755**
TOTAL ONGC	**62.754**	**63.813**	**65.492**	**65.293**	**69.043**	**119.041**
B. OIL	**5.600**	**6.330**	**7.190**	**7.810**	**8.280**	**12.859**
C. JV/PRIVATE OPERATORS	**6.730**	**7.260**	**6.980**	**6.820**	**6.790**	**12.629**
GRAND TOTAL (A+B+C)	**75.084**	**77.403**	**79.662**	**79.923**	**84.113**	**144.528**

Source : Draft Report - Ninth Five Year Plan.

- : Nil.

3. DEMAND FOR PETROLEUM PRODUCTS

Items	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11
Demand for Petroleum Products (MMT)	54.10	55.04	56.97	58.90	60.81	67.37	74.67	79.17	84.29	89.36
Annual Growth Rate%	8.0	1.7	3.5	3.4	3.2	10.8	10.8	6.0	6.5	6.0
Share of Middle Distillates (%)	60.0	60.2	60.4	61.4	62.7	60.8	60.9	61.5	60.0	57.5

Source : Five Year Plan Document.

MMT: Million Metric Tonnes.

4. IMPORT AVAILABILITY RATIOS OF CRUDE OIL & PETROLEUM PRODUCTS

(Million tonnes)

Items	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11
A. CRUDE OIL										
(i) Production	34.09	33.02	30.34	26.95	27.03	32.24	35.17	32.90	33.86	32.72
(ii) Imports	19.49	20.70	23.99	29.25	30.82	27.35	27.34	33.91	34.49	39.81
(iii) Availability (Net)	53.58	53.72	54.33	56.20	57.85	59.59	62.51	66.81	68.35	72.53
(iv) Item (ii) as % of Item (iii)	36.38	38.53	44.16	52.05	53.28	45.90	43.74	50.76	50.46	54.89
B. PETROLEUM PRODUCTS										
(i) Production†	49.46	49.49	49.59	51.68	52.47	54.35	56.80	60.79	63.10	66.39
(ii) Imports	6.56	8.66	9.45	11.28	12.08	13.95	20.34	20.26	19.53	18.78
(iii) Availability (Gross)	56.02	58.15	59.04	62.96	64.55	68.30	77.14	81.05	82.63	85.17
(iv) Item (ii) as % of Item (iii)	11.71	14.89	16.00	17.92	18.71	20.42	26.37	25.00	23.64	22.05

†Includes LPG Production from Natural Gas.

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

PLAN/ PERIOD	VALUE* (Rs./Crores)
(1)	(2)
Vth Plan (1974-79)	6977
VIth Plan (1980-85)	21388
VIIth Plan (1985-90)	19585
Annual Plan (1990-91)	9775
Annual Plan (1991-92)	11824
VIIIth Plan (1992-97)	102265
1997-98	26501
1998-99	23857

*Net of POL Imports.

PART-IV

FINANCIAL

PERFORMANCE/STRUCTURE

FINANCIAL REVIEW/STRUCTURE OF THE PUBLIC/JOINT SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS

FINANCIAL STRUCTURE/REVIEW 1998-99

The Financial structure of the Public Sector Undertakings for three years upto 1998-99 is given in the attached statements. The glossary of the terms used is given at the end. The Public Sector Undertakings have been divided into four categories viz; (A) Oil Exploration and Production (B) Refining and marketing (C) Petro Chemicals and (D) Engineering Units. In the review that follows, overall financial position of all undertakings has been given followed by an analysis of the consolidated position under each of the above mentioned categories.

OVERALL FINANCIAL POSITION

(Rs.Crores)

	Particulars	1996-97	1997-98	1998-99
1	Paid up Capital	3722.47	3809.59	3813.77
2	Reserves	38569.18	45361.64	51717.48
3	Loans	29669.18	30179.44	25838.90
4	Net worth	41891.86	48748.57	55069.07
5	Capital Employed	55065.85	51580.25	58559.67
5.1	Net fixed Asset	36676.55	42364.09	48977.33
5.2	Working Capital	18389.38	9216.16	9582.34
6.1	Sales Turnover	115912.20	119763.41	146692.64
6.2	Other Income	2551.62	3764.51	3405.56
	Total	**118463.82**	**123527.92**	**150098.20**
7	Adjusted Gross Profit	10421.29	12251.14	14803.21
8	Net Profit	5603.54	7491.58	8734.08
9	Dividend Paid	824.32	1055.15	2242.72
10	Corporate Tax	1873.28	1925.07	2621.02

CAPITAL INVESTMENT

The Capital investment defined as the sum total of paid up capital and loans has decreased by 12.76% from Rs.33989.03 Crores in 1997-98 to Rs.29652.67 Crores in 1998-99. The decrease in the capital investment in 1998-99 was on account of decrease in loans from Rs.30179.46 Crores to Rs.25838.90 Crores. However, the paid up capital has increased from Rs.3809.59 Crores in 1997-98 to Rs.3813.77 Crores in 1998-99. The position of changes in paid up capital and total loans is as under :-

PAID UP CAPITAL

(Rs./Crores)

Sl. No.	Name of the Undertakings	1997-98	1998-99	% Increase Decrease
1	Oil and Natural Gas Commission	1425.93	1425.93	0.00
2	Oil India Limited	142.67	142.67	0.00
3	Indian Oil Corporation Limited	389.28	389.31	0.00
4	Bharat Petroleum Corporation Limited	150.00	150.00	0.00
5	Madras Refinery Limited	147.10	147.10	0.00
6	Hindustan Petroleum Corporation Limited	221.44	225.59	1.87
7	IBP Company Limited	22.15	22.15	0.00
8	Balmer Lawrie & Company Limited	16.29	16.29	0.00
9	Engineers India Limited	18.72	18.72	0.00
10	Biecco Lawriee Limited	42.00	42.00	0.00
11	Gas Authority of India Ltd.	845.65	845.65	0.00
12	Cochin Refinery Ltd.	68.94	68.94	0.00
13	India Oil Blending Ltd.	0.40	0.40	0.00
14	Lubrizol India Ltd.	19.20	19.20	0.00
15	Bongaigaon Refinery and Petrochemicals Ltd.	199.82	199.82	0.00
16	ONGC-Videsh	100.00	100.00	0.00

LOANS

(Rs.crores)

Sl. No.	Name of the Undertaking	1997-98	1998-99	% increase/ decrease
1	Oil & Natural Gas Commission	9273.40	8150.14	-12.11
2	Oil India Limited	365.30	308.41	-15.57
3	Gas Authority of India Ltd.	1477.89	1977.49	33.80
4	Indian Oil Corporation Ltd.	14204.63	10042.08	-29.30
5	Bharat Petroleum Corporation Ltd.	1460.90	1664.44	13.93
6	Madras Refinery Ltd.	914.05	928.88	1.62
7	Hindustan Petroleum Corporation Ltd.	1254.93	1393.64	10.26
8	IBP Co. LTD	492.42	555.00	12.71
9	Cochin Refineries Ltd.	301.49	434.77	40.89
10	Indian Oil Blending Ltd.	0.00	0.00	0.00
11	Lubrizol India LTD	22.50	4.35	-80.67
12	Bongaigaon Refineries & Petrochemicals	62.56	61.76	-1.28
13	Balmer lawrie & Co. LTD	259.27	227.98	-12.07
14	Engineers India Ltd.	0.00	0.00	0.00
15	Biecco Lawrie Ltd.	13.40	16.72	24.78
16	ONGC-V	76.70	73.24	-4.51

The position of the foreign loans during three years 1996-97, 1997-98, 1998-99 is given below:-

(Rs./Crores)

Sl. No.	PARTICULARS	1996-97	1997-98	1998-99
1	Foreign Loans	18951.31	20813.87	15331.57
2	Total Loans	29669.18	30179.44	25838.90
	% of Foreign Loan to Total Loan	63.88	68.97	59.34

The total loans to net worth ratio of all undertakings together decreased from 0.62 in 1997-98 to 0.47 in 1998-99.

CAPITAL EMPLOYED

Capital employed defined as the sum total of net fixed assets (net block) and working capital (excluding capital work in progress and capital goods) increased from Rs. 51580.25 Crores in 1997-98 to Rs. 58559.67 Crores in 1998-99. This was on account of the increase in net fixed assets from Rs. 42364.09 Crores in 1997-98 to Rs. 48977.33 Crores in 1998-99 and working capital from Rs. 9216.16 Crores to Rs. 9582.34 Crores during the same period. Details of changes in Capital employed is given below :--

(A) NET FIXED ASSETS

(Rs./Crores)

Sl. No.	Name of the Undertaking	1997-98	1998-99	% increase/ decrease
1	Oil & Natural Gas Commission	22113.54	22406.72	1.33
2	Oil India Limited	1472.87	1650.66	12.07
3	Gas Authority of India Ltd.	3087.63	5292.31	71.40
4	Indian Oil Corporation Ltd.	7910.88	10746.27	35.84
5	Bharat Petroleum Corporation Ltd.	2593.32	3147.83	21.38
6	Madras Refinery Ltd.	853.09	790.24	-7.37
7	Hindustan Petroleum Corporation Ltd.	2726.24	3194.40	17.17
8	IBP Co. LTD	315.04	404.27	28.32
9	Cochin Refineries Ltd.	680.06	703.42	3.43
10	Indian Oil Blending Ltd.	23.73	22.68	-4.42
11	Lubrizol India LTD	75.46	79.81	5.76
12	Bongaigaon Refineries & Petrochemicals	346.30	364.96	5.39
13	Balmer lawrie & Co. LTD	110.91	117.26	5.73
14	Engineers India Ltd.	46.52	47.51	2.13
15	Biecco Lawrie Ltd.	8.29	8.67	4.58
16	ONGC-V	0.21	0.32	52.38

(B) WORKING CAPITAL

(Rs./Crores)

Sl. No.	Name of the Undertaking	1997-98	1998-99	% increase/ Decrease
1	Oil & Natural Gas Commission	3338.70	4595.94	-37.66
2	Oil India Limited	524.67	603.22	14.97
3	Gas Authority of India Ltd.	-629.56	-348.46	44.66
4	Indian Oil Corporation Ltd.	3636.59	1588.46	-56.32
5	Bharat Petroleum Corporation Ltd.	-39.28	407.75	1138.06
6	Madras Refinery Ltd.	696.39	758.18	-8.87
7	Hindustan Petroleum Corporation Ltd.	305.65	604.19	97.87
8	IBP Co. LTD	186.95	124.73	-3
9	Cochin Refineries Ltd.	387.56	418.30	7.93
10	Indian Oil Blending Ltd.	19.89	29.47	48.16
11	Lubrizol India LTD	105.32	111.59	5.95
12	Bongaigaon Refineries & Petrochemicals	176.31	183.32	3.98
13	Balmer lawrie & Co. Ltd.	189.42	140.02	-26.08
14	Engineers India Ltd.	240.17	291.20	21.25
15	Biecco Lawrie Ltd.	13.08	16.00	22.32
16	ONGC-V	64.30	57.77	-10.16

SALES TURNOVER

The sales turnover of all the Undertakings clubbed together increased by 22.49% from Rs.119763.41 Crores in 1997-98 to Rs. 146692.64 Crores in 1998-99 The company wise share of sales turnover showing the amount is as under :--

(Rs./Crores)

SL No.	Name of the Undertaking	1997-98	% Share	1998-99	% Share
1	Oil & Natural Gas Commission	15224.33	12.71	14962.79	10.20
2	Oil India Limited	1146.59	0.96	1231.51	0.84
3	Gas Authority of India Ltd.	5453.38	4.55	6193.11	4.22
4	Indian Oil Corporation Ltd.	59743.67	49.88	63580.67	43.34
5	Bharat Petroleum Corporation Ltd.	11833.01	9.88	21599.77	14.72
6	Madras Refinery Ltd.	2718.62	2.27	3746.60	2.55
7	Hindustan Petroleum Corporation Ltd.	14382.75	12.01	23910.30	16.30
8	IBP Co. LTD	2530.48	2.11	4865.12	3.32
9	Cochin Refineries Ltd.	4374.15	3.65	4170.91	2.84
10	Indian Oil Blending Ltd.	34.16	0.03	41.23	0.03
11	Lubrizol India LTD	363.12	0.30	392.36	0.27
12	Bongaigaon Refineries & Petrochemicals	930.12	0.78	939.36	0.64
13	Balmer lawrie & Co. LTD	636.12	0.53	610.55	0.42
14	Engineers India Ltd.	312.40	0.26	376.67	0.26
15	Biecco Lawrie Ltd.	80.42	0.07	71.69	0.05
16	ONGC-V	0.00	0.00	0.00	0.00
		119763.41	**100.00**	**146692.64**	**100.00**

PROFITABILITY

The adjusted gross profit which stood at Rs. 12251.14 Crores during the year 1997-98 increased to Rs.14803.21 Crores in 1998-99. The adjusted gross profit expressed as a percentage of sales turnover decrease from 10.23% in 1997-98 to 10.09% in 1998-99. The net profit, also increased from Rs. 7491.58 Crores in 1997-98 to Rs. 8734.08 Crores in 1998-99. The net profit expressed as a percentage of paid-up Capital increased from 196.65% in 1997-98 to 229.01% in 1998-99 while that of net profit to net worth increased from 15.37% to 15.86%.

DIVIDENDS

There has been an increase in the quantum of dividends paid by the Public Sector Undertakings over the last year. The total dividend increased from Rs. 1055.15 Crores in 1997-98 to Rs. 2242.72 Crores in 1998-99. The highest amount of dividend was paid by Oil & Natural Gas Corporation Limited which paid Rs. 784.26 Crores in 1998-99. The Indian Oil Corporation Limited paid a dividend of Rs.506.14 Crores in 1998-99. Biecco Lawrie Limited and ONGC's Videsh Ltd. did not declare any dividend during the year under review.

CORPORATE TAX

The contribution made to the National Exchequer by the Public Sector Undertakings by way of Corporate taxes was Rs. 2621.02 Crores in 1998-99 as against Rs. 1925.07 Crores in 1997-98.

(A) EXPLORATION & PRODUCTION

This category includes the following four enterprises and the data in respect of each undertaking is given below.

1. Oil & Natural Gas Corporation Ltd. (ONGC)
2. ONGC's Videsh Limited (ONGC-V)
3. Oil India Limited (OIL)
4. Gas Authority of India Limited (GAIL)

Summary position of these undertakings for three years is as under :--

(Rs./Crores)

SL. No.	Particulars	1996-97	1997-98	1998-99
1	Paid up Capital	2444.24	2514.25	2514.25
2	Loans	11779.80	11193.29	10509.28
3	Net worth	24483.47	27886.83	30669.01
4	Capital Employed	28966.19	29972.36	34258.54
4.1	Net fixed Asset	24487.54	26674.25	29350.01
4.2	Working Capital	4478.65	3298.11	4908.53
5	Sales Turnover	18599.64	21824.30	22387.41
6	Adjusted Gross Profit	5032.83	6282.37	6862.51
7	Net Profit	2801.65	3989.12	4113.40
8	Dividend Paid	449.41	568.41	1158.71
9	Corporate Tax	815.40	1083.71	1117.49

The salient points of analysis are given as under:-

1. CAPITAL INVESTMENT

There has been an decrease of 4.99% in the capital investment from Rs.13707.54 Crores in 1997-98 to Rs. 13023.53 Crores in 1998-99 The decrease in the capital on account of changes in loans of the undertakings noted below :-

(Rs./Crores)

SL. No.	PARTICULARS	1997-98	1998-99	% increase/ decrease
	(A) PAID-UP CAPITAL			
1	OIL INDIA LIMITED	142.67	142.67	0.00
2	GAS AUTHORITY OF INDIA LIMITED	845.65	845.65	0.00
3	ONGC	1425.93	1425.93	0.00
4	ONGC-V	100.00	100.00	0.00
	(B) LOANS			
1	OIL & NATURAL GAS LIMITED	9273.40	8150.14	-12.11
2	ONGC-V	76.70	73.24	-4.51
3	OIL INDIA LIMITED	365.30	308.41	-15.57
4	GAS AUTHORITY OF INDIA LIMITED	1477.89	1977.49	33.80

2. CAPITAL EMPLOYED

The capital employed registered an increase of 14.30% from Rs. 29972.36 Crores in 1997-98 to Rs. 34258.54 Crores in 1998-99. The increase in capital employed comprised of the increase in the Net Fixed Assets and Working Capital is as under :-

(Rs./Crores)

SL. No.	PARTICULARS	1997-98	1998-99	% increase/ Decrease
	(A) NET FIXED ASSETS			
1	OIL & NATURAL GAS LIMITED	22113.54	22406.72	1.33
2	GAS AUTHORITY OF INDIA LIMITED	3087.63	5292.31	71.40
3	OIL INDIA LIMITED	1472.87	1650.66	12.07
4	ONGC-V	0.21	0.32	52.38
	(B) WORKING CAPITAL			
1	OIL & NATURAL GAS LIMITED	3338.70	4595.94	37.66
2	GAS AUTHORITY OF INDIA LIMITED	-629.56	-348.40	44.66
3	OIL INDIA LIMITED	524.67	603.22	14.97
4	ONGC-V	64.30	57.77	-10.16

3. SALES TURNOVER

The sales turnover under this category increased from Rs. 21824.30 Crores in 1997-98 to Rs. 22387.41 Crores in 1998-99 showing an increase of 2.58%. The sales of Oil & Natural Gas Corporation went down from Rs.15224.33 Crores in 1997-98 to

Rs. 14962.79 Crores in 1998-99 and that of GAIL increased from Rs.5453.38 Crores to Rs. 6193.11 Crores in the same period. The sales turnover of Oil India Limited increased from Rs. 1146.59 Crores to Rs.1231.51 Crores during the same period .

4. PROFITABILITY

The adjusted gross profit increased by 9.23% from Rs. 6282.37 Crores in 1997-98 to Rs.6862.51 Crores in 1998-99. The gross profit expressed as a percentage of sales turnover increased from 28.79% in 1997-98 to 30.65% in 1998-99. The ratios of net profit to paid-up capital and net worth were 163.60% and 13.41% in 1998-99 against 158.66% and 14.30% respectively in 1997-98.

5. DIVIDEND

ONGC GAIL and OIL have been paying dividend continuously. The dividend paid by the companies under this group during 1998-99 was Rs. 1158.71 Crores against Rs. 568.41 Crores paid during 1997-98.

6. CORPORATE TAX

The contribution made by companies of this group by way of taxes to the national exchequer has increased from Rs. 1083.71 Crores in 1997-98 to Rs. 1117.49 Crores in 1998-99.

(B) REFINING AND MARKETING

Financial structure and performance of the individual undertakings have been provided in the Table .

1. Indian Oil Corporation Ltd.
2. Hindustan Petroleum Corporation Ltd.
3. Bharat Petroleum Corporation Ltd.
4. Madras Refinery Ltd.
5. IBP Co. Ltd.
6. Cochin Refineries Ltd.
7. Indian Oil Blending Ltd.
8. Lubrizol India Ltd.

Summary position of the undertaking for three years is as under :--

(Rs./Crores)

SL. No.	Particulars	1996-97	1997-98	1998-99
1	Paid up Capital	1002.12	1018.51	1022.69
2	Loans	17645.85	18650.92	15023.16
3	Net worth	16347.15	19671.10	23094.77
4	Capital Employed	25024.13	20476.80	23132.19
4.1	Net fixed Asset	11688.69	15177.82	19088.92
4.2	Working Capital	13335.44	5299.07	4043.27
5	Sales Turnover	95537.62	95979.96	122306.96
6	Adjusted Gross Profit	5200.13	5720.31	7650.05
7	Net Profit	2689.25	3349.71	4451.08
8	Dividend Paid	355.58	453.64	1040.76
9	Corporate Tax	1012.54	794.54	1431.8

An analysis of salient features is given below:-

1. CAPITAL INVESTMENT

During the year the capital investment decreased by 18.42% from Rs. 19669.43 Crores in 1997-98 to Rs.16045.85 Crores in 1998-99. The decrease was mainly due to decrease in loans. However, the paid up capital of the companies under this group has marginally increased by 0.41% from Rs.1018.51 Crores in 1997-98 to Rs. 1022.69 Crores in 1998-99. The details of changes in the paid up capital and total loans of the companies under this group are given below :--

(Rs./Crores)

SL. No.	PARTICULARS	1997-98	1998-99	% increase/ decrease
	(A) PAID-UP CAPITAL			
1	IOC	389.28	389.31	0.00
2	HPCL	221.44	225.59	1.87
3	IBP	22.15	22.15	0.00
4	BPCL	150.00	150.00	0.00
5	CRL	68.94	68.94	0.00
6	MRL	147.10	147.10	0.00
7	LIL	19.20	19.20	0.00
8	IOBL	0.40	0.40	0.00
	(B) LOANS			
1	IOC	14204.63	10042.08	-29.30
2	BPCL	1460.90	1664.44	13.93
3	HPCL	1254.93	1393.64	10.26
4	CRL	301.49	434.77	40.89
5	MRL	914.05	928.88	1.62
6	IBP	492.42	555.00	12.71
7	LIL	22.50	4.35	-80.67
8	IOBL	0.00	0.00	0.00

The total loans to net worth of the companies under the refining group has decreased from 0.95 in 1997-98 to 0.65 in 1998-99.

2. CAPITAL EMPLOYED

The capital employed in the Refining and Marketing category increased by 12.97% from Rs. 20476.89 Crores in 1997-98 to Rs.23132.19 Crores in 1998-99. This was due to increase in Net Fixed Assets from Rs. 15177.82 Crores to Rs. 19088.92 Crores during the period. However, Working Capital decreased from Rs. 5299.07 crores to Rs. 4043.27 Crores in the same period.

(Rs./Crores)

SL. No.	PARTICULARS	1997-98	1998-99	% increase/ Decrease
	(A) NET FIXED ASSETS			
1	IOC	7910.88	10746.27	35.84
2	HPCL	2726.24	3194.40	17.17
3	IBP	315.04	404.27	28.32
4	BPCL	2593.32	3147.83	21.38
5	CRL	680.06	703.42	3.43
6	MRL	853.09	790.24	-7.37
7	LIL	75.46	79.81	5.76
8	IOBL	23.73	22.68	-4.42
	(B) WORKING CAPITAL			
1	IOC	3636.59	1588.46	-56.32
2	BPCL	-39.28	407.75	1138.06
3	HPCL	305.65	604.79	97.87
4	CRL	387.56	418.30	7.93
5	MRL	696.39	758.18	8.87
6	IBP	186.95	124.73	-33.28
7	LIL	105.32	111.59	5.95
8	IOBL	19.89	29.47	48.16

3. SALES TURNOVER

The sales turnover of the companies under this category has increased by 27.43% from Rs. 95979.96 Crores to Rs.122306.96 in the same period. The details of sales turnover in respect of companies under this category are as under :--

(Rs./Crores)

	PARTICULARS	1997-98	1998-99	% increase/ decrease
1	IOC	59743.67	63580.67	6.42
2	BPCL	11833.01	21599.77	82.54
3	HPCL	14382.75	23910.30	66.24
4	CRL	4374.15	4170.91	-4.65
5	MRL	2718.62	3746.60	37.81
6	IBP	2530.48	4865.12	92.26
7	LIL	363.12	392.36	8.05
8	IOBL	34.16	41.23	20.70

4. PROFITABILITY

The %age of adjusted gross profit to sales turnover was 6.25% during 1998-99 as against 5.96% in 1997-98. The adjusted gross profit and net profits were Rs. 7650.05 Crores and Rs. 4451.08 Crores in 1998-99 against Rs. 5720.31 Crores and Rs.3349.71 Crores respectively in 1997-98. The net profit to paid up capital and net profit to net worth were 435.23% and 19.27% in 1998-99 against 328.88% and 17.03% respectively in 1997-98.

5. DIVIDEND

During 1998-99, the companies under Refining and Marketing paid out Rs. 1040.76 Crores as dividend as against Rs. 453.64 Crores in 1997-98. The amount paid in 1996-97 was Rs. 355.58 Crores. IOC paid out the highest dividend amounting to Rs. 506.14 Crores followed by HPCL amounting to Rs.248.71 Crores.

6. CORPORATE TAX

The taxes paid by this group of companies was Rs. 1431.81 Crores in 1998-99 against Rs. 794.54 Crores in 1997-98.

(C) PETRO-CHEMICAL

There is only one undertaking in this category viz., Bongaigaon Refinery & Petrochemicals Ltd. The financial structure and performance of BRPL for three years is as under :--

(RS./Crores)

SL. No.	Particulars	1996-97	1997-98	1998-99
1	Paid up Capital	199.82	199.82	199.82
2	Loans	73.63	62.56	61.76
3	Net worth	528.48	574.15	597.04
4	Capital Employed	515.03	522.61	548.28
4.1	Net fixed Asset	358.81	346.30	364.96
4.2	Working Capital	156.22	176.31	183.32
5	Sales Turnover	838.57	930.21	939.36
6	Adjusted Gross Profit	35.18	89.10	44.69
7	Net Profit	29.08	67.99	34.26
8	Dividend Paid	8.72	20.40	10.28
9	Corporate Tax	1.47	3.02	0.00

The analysis of the salient features is as under:-

1. CAPITAL INVESTMENT

The capital investment decreased from Rs.262.38 Crores in 1997-98 to Rs.261.58 Crores in 1998-99. This is due to decrease in loans from Rs.62.56 Crores in 1997-98 to Rs.61.76 Crores in 1998-99. The total loans to net worth ratio of the sector during 1998-99 has decreased from 0.11 in 1997-98 to 0.10 in 1998-99.

2. CAPITAL EMPLOYED

The capital employed increased by 4.91% from Rs.522.61 Crores in 1997-98 to Rs.548.28 Crores in 1998-99. The increase in capital employed was due to 5.39% increase in net fixed assets and 3.98% increase in the working capital, the sector as compared to those in 1997-98.

3. SALES TURNOVER

The Sales Turnover increased only by 0.98% from Rs.930.21 Crores in 1997-98 to Rs.939.36 Crores in 1998-99.

4. PROFITABILITY

The percentage of adjusted gross profit to sales turnover stood at 4.76% in 1998-99 as against 9.58% in 1997-98. The net profit to paid up capital and net profit to net worth were 17.15% and 5.74% in 1998-99 against 34.03% and 11.84% respectively in 1997-98.

5. DIVIDEND

The dividend paid by this sector is Rs.10.28 Crores during 1998-99 as against Rs. 20.40 Crores in 1997-98.

6. CORPORATE TAX

The sector paid nil corporate tax in 1998-99 as against Rs.3.02 Crores in 1997-98.

(D) ENGINEERING UNITS

There are at present 3 undertakings under this category, which are:-

1. Engineers India Limited
2. Balmer Lawriee & Co. Limited
3. Biecco Lawrie Limited

Summery position of these Undertakings for three yeas is as under:-

(Rs./Crores)

SL. No.	Particulars	1996-97	1997-98	1998-99
1	Paid up Capital	76.29	77.01	77.01
2	Loans	169.90	272.67	244.70
3	Net worth	532.76	616.49	708.25
4	Capital Employed	560.50	608.39	620.66
4.1	Net fixed Asset	141.51	165.72	173.44
4.2	Working Capital	418.99	442.67	447.22
5	Sales Turnover	936.37	1028.94	1058.91
6	Adjusted Gross Profit	153.15	159.36	245.96
7	Net Profit	83.56	84.76	135.34
8	Dividend Paid	10.61	12.70	32.97
9	Corporate Tax	43.87	43.80	71.72

1. CAPITAL INVESTMENT

The Capital Investment under this category decreased by 8.00% from Rs.349.68 Crores in 1997-98 to Rs.321.71 Crores in 1998-99. This was due to 10.26% decrease in total loans. However, the paid up capital of the companies under this category was remained same at 77.01 crore in 1998-99.

The details of the changes in Paid up capital and loans are given below:-

(Rs./Crores)

Sl.No.	Name of the Company	1997-98	1998-99	%Increase/ Decrease
	(A) PAID UP CAPITAL			
1	Balmer Lawrie Company Ltd.	16.29	16.29	0.00
2	Bieeco Lawrie Ltd.	42.00	42.00	0.00
3	Engineers India Ltd.	18.72	18.72	0.00
	(B) LOANS			
1	Balmer Lawrie Company Ltd.	259.27	227.98	-12.23
2	Bieeco Lawrie Ltd.	13.40	16.72	24.78
3	Engineers India Ltd.	0.00	0.00	0.00

The total loans/net worth ration has increased from 0.44 in 1997-98 to 0.35 during 1998-99.

1. CAPITAL EMPLOYED

The Capital Employed by the engineering units increased by 2.02% from Rs.608.39 Crores in 1997-98 to Rs.620.66 Crores in 1998-99. The net fixed assets and working capital of the companies under this category was as under:-

(Rs./Crores)

Sl.No.	Name of the Company	1997-98	1998-99	% increase/ decrease
	(A) NET FIXED ASSETS			
1	Balmer Lawrie Company Ltd.	110.91	117.26	5.73
2	Biecco Lawrie Ltd.	8.29	8.67	4.71
3	Engineers India Ltd.	46.52	47.51	2.13
	(B) WORKING CAPITAL			
1	Balmer Lawrie Company Ltd.	189.42	140.02	-26.08
2	Biecco Lawrie Ltd.	13.08	16.00	22.42
3	Engineers India Ltd.	240.17	291.20	21.25

3. SALES TURNOVER

The sales turnover of the Undertakings in this category increased from Rs. 1028.94 Crores in 1997-98 to Rs. 1058.91 Crores in 1998-99. The sales during the year has increased by 2.91%.

4. PROFITABILITY

The adjusted gross profit has increased from Rs.159.36 Crores in 1997-98 to Rs.245.96 Crores in 1998-99. The ratio of adjusted gross profit to sales increased from 15.49% to 23.23% in the same period. The ratio of net profit to paid up capital increased from 110.06% to 175.74% in the period and the ratio of net profit to net worth increased from 13.75% to 19.11%.

5. DIVIDEND

The companies under this category paid a dividend of Rs.32.97 Crores in 1998-99 as against Rs. 12.70 Crores in 1997-98.

6. CORPORATE TAX

The contribution made by the companies to National Exchequer by way of taxes was Rs.71.72 Crores in 1998-99 as against Rs. 43.80 Crores in 1997-98.

****

1. CONSOLIDATED FINANCIAL STRUCTURE 1998-99

(Rs./lakhs)

PARTICULARS	Exploration & Production	Refining & Marketing	Petro Chemicals	Engineering & Serv. Units	TOTAL
1. Authorised Capital	1675000	334460	20000	13000	**2042460**
2. i) Paid-up Capital	251425	102269	19982	7701	**381377**
ii) Preference Capital	0	0	0	0	**0**
iii) Reserves & Surpluses	2854945	2209583	39757	67463	**5171748**
3. Total loans	1050928	1502316	6176	24470	**2583890**
i) of which foreign	890559	642598	0	0	**1533157**
ii) of which Cash credits & advanc from banks & others	160369	859725	6176	24470	**1050740**
4. Net worth	3066901	2309517	59704	70825	**5506947**
5. i) Gross Block	6912531	3181516	74050	27938	**10196035**
ii) Less Depreciation	3977530	1272624	37554	10594	**5298302**
iii) Net fixed assets	2935001	1908892	36496	17344	**4897733**
iv) Working Capital	490853	404327	18332	44722	**958234**
v) Capital Empl(iii + iv)	3425854	2313219	54828	62066	**5855967**
6. i) Sales	2238741	12230696	93936	105891	**14669264**
ii) Other income	148099	177555	3166	11736	**340556**
T O T A L	2386840	12408251	97102	117627	**15009820**
7. i)Total emoluments (incl.perks)	165269	150510	4790	23906	**344475**
ii) of which bonus	3026	5744	0	28	**8798**
iii) Average Emol. per person	3.06	2.33	2.57	3.28	**2.70**
8. Inventories	202923	987529	16711	10216	**1217379**
9. Gross profit (PBIT)					
a)Gross Profit before Intt.&Tax	618840	761221	4365	23656	**1408082**
b) Adjusted gross profit	686251	765005	4469	24596	**1480321**
10. Net Profit					
a)Net Profit after intt.& taxes	411340	445108	3426	13534	**873408**
b) Adjusted net profit	469193	448027	3530	13455	**934205**
11. Dividends declared	115871	104076	1028	3297	**224272**
12. Corporate Tax	111749	143181	0	7172	**262102**
13. % age of					
a) NP to paid-up capital	163.60	435.23	17.15	175.74	**229.01**
Adj.NP to paid-up capital	186.61	438.09	17.67	174.72	**244.96**
b) NP to Net Worth	13.41	19.27	5.74	19.11	**15.86**
Adj.NP to Net Worth	15.30	19.40	5.91	19.00	**16.96**
c) GP to capital emp.	18.06	32.91	7.96	38.11	**24.05**
Adj.GP to capital emp.	20.03	33.07	8.15	39.63	**25.28**
d) Sales to Capital Employed	65.35	528.73	171.33	170.61	**250.50**
e) GP to Sales	27.64	6.22	4.65	22.34	**9.60**
Adj.GP to Sales	30.65	6.25	4.76	23.23	**10.09**
f) Loans/Net Worth Ratio	0.34	0.65	0.10	0.35	**0.47**

SOURCE: 1. Annual Reports of the Companies and data supplied by them.
2. Adjusted/Gross Profits, Net Profits and other terms are as defined in the glossary of terms.

2. CONSOLIDATED FINANCIAL STRUCTURE 1997-98

(Rs./lakhs)

PARTICULARS	Exploration & Production	Refining & Marketing	Petro Chemicals	Engineering & Serv. Units	TOTAL
1. Authorised Capital	1675000	329460	20000	13000	**2037460**
2. i) Paid-up Capital	251425	101851	19982	7701	**380959**
ii) Preference Capital	0	0	0	0	**0**
iii) Reserves & Surpluses	2572933	1868138	37460	57633	**4536164**
3. Total loans	1119329	1865092	6256	27267	**3017944**
i) of which foreign	956801	1124586	0	0	**2081387**
ii) of which Cash credits & advances from banks & others	162528	740506	6256	27267	**936557**
4. Net worth	2788683	1967110	57415	61649	**4874857**
5. i) Gross Block	6207413	2590041	69672	25968	**8893094**
ii) Less Depreciation	3539988	1072259	35042	9396	**4656685**
iii) Net fixed assets	2667425	1517782	34630	16572	**4236409**
iv) Working Capital	329811	529907	17631	44267	**921616**
v) Capital Empl(iii + iv)	2997236	2047689	52261	60839	**5158025**
6. i) Sales	2182430	9597996	93021	102894	**11976341**
ii) Other income	156446	211673	950	7382	**376451**
T O T A L	2338876	9809669	93971	110276	**12352792**
7. i)Total emoluments (incl.perks)	152656	142071	4161	21527	**320415**
ii) of which bonus	3591	5635	0	44	**9270**
iii) Average Emol. per person	2.81	2.21	2.22	2.86	**2.50**
8. Inventories	225992	750900	17915	12075	**1006882**
9. Gross profit (PBIT)					
a)Gross Profit before Intt.&Tax	589373	572141	8820	15598	**1185932**
b) Adjusted gross profit	628237	572031	8910	15936	**1225114**
10. Net Profit					
a)Net Profit after intt.& taxes	398912	334971	6799	8476	**749158**
b) Adjusted net profit	425103	335790	7190	8662	**776745**
11. Dividends declared	56841	45364	2040	1270	**105515**
12. Corporate Tax	108371	79454	302	4380	**192507**
13. % age of					
a) NP to paid-up capital	158.66	328.88	34.03	110.06	**196.65**
Adj.NP to paid-up capital	169.08	329.69	35.98	112.48	**203.89**
b) NP to Net Worth	14.30	17.03	11.84	13.75	**15.37**
Adj.NP to Net Worth	15.24	17.07	12.52	14.05	**15.93**
c) GP to capital emp.	19.66	27.94	16.88	25.64	**22.99**
Adj.GP to capital emp.	20.96	27.94	17.05	26.19	**23.75**
d) Sales to Capital Employed	72.81	468.72	177.99	169.13	**232.19**
e) GP to Sales	27.01	5.96	9.48	15.16	**9.90**
Adj.GP to Sales	28.79	5.96	9.58	15.49	**10.23**
f) Loans/Net Worth Ratio	0.40	0.95	0.14	0.44	**0.62**

SOURCE: 1. Annual Reports of the Companies and data supplied by them.
2. Adjusted/Gross Profits, Net Profits and other terms are as defined in the glossary of terms.

3. CONSOLIDATD FINANCIAL STRUCTURE 1996-97

(Rs./lakhs)

PARTICULARS	Exploration & Production	Refining & Marketing	Petro Chemicals	Engineering & Serv. Units	TOTAL
1. Authorised Capital	1630000	329460	20000	13000	**1992460**
2. i) Paid-up Capital	244424	100212	19982	7629	**372247**
ii) Preference Capital	0	0	0	0	**0**
iii) Reserves & Surpluses	2236734	1538140	32904	49146	**3856924**
3. Total loans	1177980	1764585	7363	16990	**2966918**
i) of which foreign	991466	903665	0	0	**1895131**
ii) of which Cash credits & advances from banks & others	186514	860920	7363	16990	**1071787**
4. Net worth	2448347	1634715	52848	53276	**4189186**
5. i) Gross Block	5543237	2050124	68479	22264	**7684104**
ii) Less Depreciation	3094483	881255	32598	8113	**4016449**
iii) Net fixed assets	2448754	1168869	35881	14151	**3667655**
iv) Working Capital	447865	1333544	15622	41899	**1838930**
v) Capital Empl(iii + iv)	2896619	2502413	51503	56050	**5506585**
6. i) Sales	1859964	9553762	83857	93637	**11591220**
ii) Other income	118757	129372	906	6127	**255162**
TOTAL	1978721	9683134	84763	99764	**11846382**
7. i)Total emoluments (incl.perks)	106372	117018	3565	16937	**243892**
ii) of which bonus	3378	5618	2	64	**9062**
iii) Average Emol. per person	1.91	1.83	1.88	2.23	**1.89**
8. Inventories	224832	857716	14907	8921	**1106376**
9. Gross profit (PBIT)					
a)Gross Profit before Intt.&Tax	457229	517964	4163	15000	**994356**
b) Adjusted gross profit	503283	520013	3518	15315	**1042129**
10. Net Profit					
a)Net Profit after intt.& taxes	280165	268925	2908	8356	**560354**
b) Adjusted net profit	320472	273464	2409	8356	**604701**
11. Dividends declared	44941	35558	872	1061	**82432**
12. Corporate Tax	81540	101254	147	4387	**187328**
13. % age of					
a) NP to paid-up capital	114.62	268.36	14.55	109.53	**150.53**
Adj.NP to paid-up capital	131.11	272.89	12.06	109.53	**162.45**
b) NP to Net Worth	11.44	16.45	5.50	15.68	**13.38**
Adj.NP to Net Worth	13.09	16.73	4.56	15.68	**14.43**
c) GP to capital emp.	15.78	20.70	8.08	26.76	**18.06**
Adj.GP to capital emp.	17.37	20.78	6.83	27.32	**18.93**
d) Sales to Capital Employed	64.21	381.78	162.82	167.06	**210.50**
e) GP to Sales	24.58	5.42	4.96	16.02	**8.58**
Adj.GP to Sales	27.06	5.44	4.20	16.36	**8.99**
f) Loans/Net Worth Ratio	0.48	1.08	0.14	0.32	**0.71**

SOURCE: 1. Annual Reports of the Companies and data supplied by them.
2. Adjusted/Gross Profits, Net Profits and other terms are as defined in the glossary of terms.

CONSOLIDATED FINANCIAL STRUCTURE
4. EXPLORATION & PRODUCTION

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	1630000	1675000	1675000
2. i) Paid-up Capital	244424	251425	251425
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	2236734	2572933	2854945
3. Total loans (i+ii)	1177980	1119329	1050928
i) of which foreign	991466	956801	890559
ii) of which Cash credits & advances from banks & others	186514	162528	160369
4. Net worth	2448347	2788683	3066901
5. i) Gross Block	5543237	6207413	6912531
ii) Less Depreciation	3094483	3539988	3977530
iii) Net fixed assets	2448754	2667425	2935001
iv) Working Capital	447865	329811	490853
v) Capital Empl(iii + iv)	2896619	2997236	3425854
6. i) Sales	1859964	2182430	2238741
ii) Other income	118757	156446	148099
TOTAL	1978721	2338876	2386840
7. i)Total emoluments (incl.perks)	106372	152656	165269
ii) of which bonus	3378	3591	3026
iii) Average Emol. per person	1.91	2.81	3.06
8. Inventories	224832	225992	202923
9. Gross profit (PBIT)			
a)Gross Profit before Intt.&Tax	457229	589373	618840
b) Adjusted gross profit	503283	628237	686251
10. Net Profit			
a)Net Profit after intt.& taxes	280165	398912	411340
b) Adjusted net profit	320472	425103	469193
11. Dividends declared	44941	56841	115871
12. Corporate Tax	81540	108371	111749
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	114.62	158.66	163.60
Adj.NP to paid-up capital	131.11	169.08	186.61
b) NP to Net Worth	11.44	14.30	13.41
Adj.NP to Net Worth	13.09	15.24	15.30
c) GP to capital emp.	15.78	19.66	18.06
Adj.GP to capital emp.	17.37	20.96	20.03
d) Sales to Capital Employed	64.21	72.81	65.35
e) GP to Sales	24.58	27.01	27.64
Adj.GP to Sales	27.06	28.79	30.65
f) Loans/Net Worth Ratio	0.48	0.40	0.34

FINANCIAL STRUCTURE

5. OIL & NATURAL GAS CORPORATION LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	1500000	1500000	1500000
2. i) Paid-up Capital	142592	142593	142593
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	1865318	2093886	2282287
3. Total loans (i+ii)	1067018	927340	815014
i) of which foreign	932370	867063	767509
ii) of which Cash credits & advances	134648	60277	47505
from banks & others	0	0	0
4. Net worth	2001892	2230682	2415521
5. i) Gross Block	4905762	5418335	5831590
ii) Less Depreciation	2801036	3206981	3590918
iii) Net fixed assets	2104726	2211354	2240672
iv) Working Capital	522861	333870	459594
v) Capital Empl(iii + iv)	2627587	2545224	2700266
6. i) Sales	1323549	1522433	1496279
ii) Other income	61071	72486	98838
TOTAL	1384620	1594919	1595117
7. i)Total emoluments (incl.perks)	86309	126307	134310
ii) of which bonus	2765	2974	2428
iii) Average Emol. per person	1.99	3.00	3.27
8. Inventories	194751	187855	157175
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	339958	402960	440505
b) Adjusted gross profit	383617	442247	509411
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	203366	267778	275450
b) Adjusted net profit	241916	294396	335079
11. Dividends declared	28519	35648	78426
12. Corporate Tax	49916	63399	82015
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	142.62	187.79	193.17
Adj.NP to paid-up capital	169.66	206.46	234.99
b) NP to Net Worth	10.16	12.00	11.40
Adj.NP to Net Worth	12.08	13.20	13.87
c) GP to capital emp.	12.94	15.83	16.31
Adj.GP to capital emp.	14.60	17.38	18.87
d) Sales to Capital Employed	50.37	59.82	55.41
e) GP to Sales	25.69	26.47	29.44
Adj.GP to Sales	28.98	29.05	34.05
f) Loans/Net Worth Ratio	0.53	0.42	0.34

FINANCIAL STRUCTURE

6. ONGC-VIDESH LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	5000	50000	50000
2. i) Paid-up Capital	3000	10000	10000
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	8823	8823	8823
3. Total loans (i+ii)	7670	7670	7324
i) of which foreign	0	0	0
ii) of which Cash credits & advances	7670	7670	7324
from banks & others	0	0	0
4. Net worth	-13949	-10042	-10337
5. i) Gross Block	32	36	50
ii) Less Depreciation	12	15	18
iii) Net fixed assets	20	21	32
iv) Working Capital	2523	6430	5777
v) Capital Empl(iii + iv)	2543	6451	5809
6. i) Sales	0	0	0
ii) Other income	597	648	775
TOTAL	597	648	775
7. i)Total emoluments (incl.perks)	147	83	109
ii) of which bonus	5	5	5
iii) Average Emol. per person	3.34	1.84	2.27
8. Inventories	0	0	0
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	-6361	986	1206
b) Adjusted gross profit	-6441	322	448
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	-7170	219	738
b) Adjusted net profit	-7254	-445	-19
11. Dividends declared	0	0	0
12. Corporate Tax	0	0	87
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	-239.00	2.19	7.38
Adj.NP to paid-up capital	-241.80	-4.45	-0.19
b) NP to Net Worth	51.40	-2.18	-7.14
Adj.NP to Net Worth	52.00	4.43	0.18
c) GP to capital emp.	-250.14	15.28	20.76
Adj.GP to capital emp.	-253.28	4.99	7.71
d) Sales to Capital Employed	0.00	0.00	0.00
e) GP to Sales	N.A.	N.A.	N.A.
Adj.GP to Sales	N.A.	N.A.	N.A.
f) Loans/Net Worth Ratio	-0.55	-0.76	-0.71

FINANCIAL STRUCTURE

7. OIL INDIA LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	25000	25000	25000
2. i) Paid-up Capital	14267	14267	14267
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	189236	213412	233862
3. Total loans (i+ii)	19838	36530	30841
i) of which foreign	3600	0	0
ii) of which Cash credits & advances	16238	36530	30841
from banks & others	0	0	0
4. Net worth	203503	227679	248129
5. i) Gross Block	244714	270775	304014
ii) Less Depreciation	109040	123488	138948
iii) Net fixed assets	135674	147287	165066
iv) Working Capital	47034	52467	60322
v) Capital Empl(iii + iv)	182708	199754	225388
6. i) Sales	104129	114659	123151
ii) Other income	11955	17072	23382
TOTAL	116084	131731	146533
7. i)Total emoluments (incl.perks)	15790	20675	23000
ii) of which bonus	608	612	593
iii) Average Emol. per person	1.56	2.15	2.33
8. Inventories	17590	19610	23406
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	34626	39967	44434
b) Adjusted gross profit	35217	40194	44514
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	22014	28884	29160
b) Adjusted net profit	22605	29111	29240
11. Dividends declared	3741	4280	7847
12. Corporate Tax	10700	8000	12100
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	154.30	202.45	204.39
Adj.NP to paid-up capital	158.44	204.04	204.95
b) NP to Net Worth	10.82	12.69	11.75
Adj.NP to Net Worth	11.11	12.79	11.78
c) GP to capital emp.	18.95	20.01	19.71
Adj.GP to capital emp.	19.28	20.12	19.75
d) Sales to Capital Employed	56.99	57.40	54.64
e) GP to Sales	33.25	34.86	36.08
Adj.GP to Sales	33.82	35.06	36.15
f) Loans/Net Worth Ratio	0.10	0.16	0.12

FINANCIAL STRUCTURE

8. GAS AUTHORITY OF INDIA LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	100000	100000	100000
2. i) Paid-up Capital	84565	84565	84565
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	173357	256812	329973
3. Total loans (i+ii)	83454	147789	197749
i) of which foreign	55496	89738	123050
ii) of which Cash credits & advances	27958	58051	74699
from banks & others	0	0	0
4. Net worth	256901	340364	413588
5. i) Gross Block	392729	518267	776877
ii) Less Depreciation	184395	209504	247646
iii) Net fixed assets	208334	308763	529231
iv) Working Capital	-124553	-62956	-34840
v) Capital Empl(iii + iv)	83781	245807	494391
6. i) Sales	432286	545338	619311
ii) Other income	45134	66240	25104
T O T A L	477420	611578	644415
7. i)Total emoluments (incl.perks)	4126	5591	7850
ii) of which bonus	0	0	0
iii) Average Emol. per person	1.93	2.12	2.57
8. Inventories	12491	18527	22342
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	89006	145460	132695
b) Adjusted gross profit	90890	145474	131878
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	61955	102031	105992
b) Adjusted net profit	63205	102041	104893
11. Dividends declared	12681	16913	29598
12. Corporate Tax	20924	36972	17547
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	73.26	120.65	125.34
Adj.NP to paid-up capital	74.74	120.67	124.04
b) NP to Net Worth	24.12	29.98	25.63
Adj.NP to Net Worth	24.60	29.98	25.36
c) GP to capital emp.	106.24	59.18	26.84
Adj.GP to capital emp.	108.49	59.18	26.67
d) Sales to Capital Employed	515.97	221.86	125.27
e) GP to Sales	20.59	26.67	21.43
Adj.GP to Sales	21.03	26.68	21.29
f) Loans/Net Worth Ratio	0.32	0.43	0.48

CONSOLIDATED FINANCIAL STRUCTURE

9. REFINING & MARKETING

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	329460	329460	334460
2. i) Paid-up Capital	100212	101851	102269
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	1538140	1868138	2209583
3. Total loans (i+ii)	1764585	1865092	1502316
i) of which foreign	903665	1124586	642598
ii) of which Cash credits & advances from banks & others	860920	740506	859725
4. Net worth	1634715	1967110	2309517
5. i) Gross Block	2050124	2590041	3181516
ii) Less Depreciation	881255	1072259	1272624
iii) Net fixed assets	1168869	1517782	1908892
iv) Working Capital	1333544	529907	404327
v) Capital Empl(iii + iv)	2502413	2047689	2313219
6. i) Sales	9553762	9597996	12230696
ii) Other income	129372	211673	177555
TOTAL	9683134	9809669	12408251
7. i)Total emoluments (incl.perks)	117018	142071	150510
ii) of which bonus	5618	5635	5744
iii) Average Emol per person	1.83	2.21	2.33
8. Inventories	857716	750900	987529
9. Gross profit (PBIT)			
a)Gross Profit before Intt.&Tax	517964	572141	761221
b) Adjusted gross profit	520013	572031	765005
10. Net Profit			
a)Net Profit after intt.& taxes	268925	334971	445108
b) Adjusted net profit	273464	335790	448027
11. Dividends declared	35558	45364	104076
12. Corporate Tax	101254	79454	143181
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	268.36	328.88	435.23
Adj.NP to paid-up capital	272.89	329.69	438.09
b) NP to Net Worth	16.45	17.03	19.27
Adj.NP to Net Worth	16.73	17.07	19.40
c) GP to capital emp.	20.70	27.94	32.91
Adj.GP to capital emp.	20.78	27.94	33.07
d) Sales to Capital Employed	381.78	468.72	528.73
e) GP to Sales	5.42	5.96	6.22
Adj.GP to Sales	5.44	5.96	6.25
f) Loans/Net Worth Ratio	1.08	0.95	0.65

FINANCIAL STRUCTURE

10. INDIAN OIL CORPORATION LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	250000	250000	250000
2. i) Paid-up Capital	38927	38928	38931
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	873181	1022487	1187951
3. Total loans (i+ii)	1315629	1420463	1004208
i) of which foreign	903398	1124586	642598
ii) of which Cash credits & advances	412231	295877	361610
from banks & others	0	0	0
4. Net worth	911274	1060520	1225725
5. i) Gross Block	1039666	1331320	1722597
ii) Less Depreciation	437498	540232	647970
iii) Net fixed assets	602168	791088	1074627
iv) Working Capital	908207	363659	158846
v) Capital Empl(iii + iv)	1510375	1154747	1233473
6. i) Sales	6207357	5974367	6358067
ii) Other income	89390	138660	106726
T O T A L	6296747	6113027	6464793
7. i)Total emoluments (incl.perks)	60731	75646	75893
ii) of which bonus	3794	3701	3804
iii) Average Emol. per person	1.83	2.26	2.26
8. Inventories	490132	458642	561037
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	284200	309089	393530
b) Adjusted gross profit	285343	302053	394038
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	140823	170650	221352
b) Adjusted net profit	141966	163614	221860
11. Dividends declared	15573	19467	50614
12. Corporate Tax	35800	25824	51900
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	361.76	438.37	568.58
Adj.NP to paid-up capital	364.70	420.30	569.88
b) NP to Net Worth	15.45	16.09	18.06
Adj.NP to Net Worth	15.58	15.43	18.10
c) GP to capital emp.	18.82	26.77	31.90
Adj.GP to capital emp.	18.89	26.16	31.95
d) Sales to Capital Employed	410.98	517.37	515.46
e) GP to Sales	4.58	5.17	6.19
Adj.GP to Sales	4.60	5.06	6.20
f) Loans/Net Worth Ratio	1.44	1.34	0.82

3463/PNG-28A

FINANCIAL STRUCTURE

11. BHARAT PETROLEUM CORPORATION LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	15000	15000	15000
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	193495	237385	287181
3. Total loans (i+ii)	136019	146090	166444
i) of which foreign	267	0	0
ii) of which Cash credits & advances	135752	146090	166451
from banks & others	0	0	0
4. Net worth	208415	252305	302095
5. i) Gross Block	346645	463469	558197
ii) Less Depreciation	167286	204137	243414
iii) Net fixed assets	179359	259332	314783
iv) Working Capital	97658	-3928	40775
v) Capital Empl(iii + iv)	277017	255404	355558
6. i) Sales	1056483	1183301	2159977
ii) Other income	15594	22119	18011
TOTAL	1072077	1205420	2177988
7. i)Total emoluments (incl.perks)	21139	24360	28244
ii) of which bonus	1383	1409	1437
iii) Average Emol. per person	1.81	2.01	2.30
8. Inventories	78356	79334	136837
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	75166	83194	115276
b) Adjusted gross profit	75227	83948	115441
10. Net Profit			
a)Net Profit after intt.& taxes	40760	52140	70601
b) Adjusted net profit	43312	53985	70286
11. Dividends declared	4950	7500	18750
12. Corporate Tax	26200	19830	27222
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	271.73	347.60	470.67
Adj.NP to paid-up capital	288.75	359.90	468.57
b) NP to Net Worth	19.56	20.67	23.37
Adj.NP to Net Worth	20.78	21.40	23.27
c) GP to capital emp.	27.13	32.57	32.42
Adj.GP to capital emp.	27.16	32.87	32.47
d) Sales to Capital Employed	381.38	463.31	607.49
e) GP to Sales	7.11	7.03	5.34
Adj.GP to Sales	7.12	7.09	5.34
f) Loans/Net Worth Ratio	0.65	0.58	0.55

3463/PNG-288

FINANCIAL STRUCTURE

12. HINDUSTAN PETROLEUM CORPORATION LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	25000	25000	25000
2. i) Paid-up Capital	20855	22144	22559
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	306600	407154	481162
3. Total loans (i+ii)	141121	125493	139364
i) of which foreign	0	0	0
ii) of which Cash credits & advances	141121	125493	139364
from banks & others	0	0	0
4. Net worth	325937	428230	503100
5. i) Gross Block	377632	486122	571036
ii) Less Depreciation	177269	213498	251596
iii) Net fixed assets	200363	272624	319440
iv) Working Capital	196240	30565	60479
v) Capital Empl(iii + iv)	396603	303189	379919
6. i) Sales	1394144	1438275	2391030
ii) Other income	17015	33463	28001
T O T A L	1411159	1471738	2419031
7. i)Total emoluments (incl.perks)	22854	25004	27535
ii) of which bonus	1	1	0
iii) Average Emol. per person	1.97	2.18	2.45
8. Inventories	154023	107246	157651
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	103921	101294	139944
b) Adjusted gross profit	104357	105247	141666
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	61222	70116	90126
b) Adjusted net profit	61658	73910	91468
11. Dividends declared	8355	10889	24871
12. Corporate Tax	32948	22680	37930
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	293.56	316.64	399.51
Adj.NP to paid-up capital	295.65	333.77	405.46
b) NP to Net Worth	18.78	16.37	17.91
Adj.NP to Net Worth	18.92	17.26	18.18
c) GP to capital emp.	26.20	33.41	36.84
Adj.GP to capital emp.	26.31	34.71	37.29
d) Sales to Capital Employed	351.52	474.38	629.35
e) GP to Sales	7.45	7.04	5.85
Adj.GP to Sales	7.49	7.32	5.92
f) Loans/Net Worth Ratio	0.43	0.29	0.28

FINANCIAL STRUCTURE

13. COCHIN REFINERIES LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	7500	7500	7500
2. i) Paid-up Capital	6894	6894	6894
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	59760	79374	110442
3. Total loans (i+ii)	30783	30149	43477
i) of which foreign	0	0	0
ii) of which Cash credits & advances	30783	30149	43477
from banks & others	0	0	0
4. Net worth	66653	86267	117335
5. i) Gross Block	97714	106379	113801
ii) Less Depreciation	33526	38373	43459
iii) Net fixed assets	64188	68006	70342
iv) Working Capital	22827	38756	41830
v) Capital Empl(iii + iv)	87015	106762	112172
6. i) Sales	391775	437415	417091
ii) Other income	1585	3732	9562
T O T A L	393360	441147	426653
7. i)Total emoluments (incl.perks)	2242	3089	3459
ii) of which bonus	0	0	0
iii) Average Emol. per person	1.41	1.87	1.90
8. Inventories	41207	36227	44599
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	14154	33388	54658
b) Adjusted gross profit	14217	34965	55654
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	9293	22041	33823
b) Adjusted net profit	9356	23618	34819
11. Dividends declared	1930	2206	2482
12. Corporate Tax	1600	7150	15800
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	134.80	319.71	490.62
Adj.NP to paid-up capital	135.71	342.59	505.06
b) NP to Net Worth	13.94	25.55	28.83
Adj.NP to Net Worth	14.04	27.38	29.67
c) GP to capital emp.	16.27	31.27	48.73
Adj.GP to capital emp.	16.34	32.75	49.61
d) Sales to Capital Employed	450.24	409.71	371.83
e) GP to Sales	3.61	7.63	13.10
Adj.GP to Sales	3.63	7.99	13.34
f) Loans/Net Worth Ratio	0.46	0.35	0.37

FINANCIAL STRUCTURE
14. IBP CO. LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	5000	5000	10000
2. i) Paid-up Capital	2215	2215	2215
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	23761	26310	28782
3. Total loans (i+ii)	44476	49242	55500
i) of which foreign	0	0	0
ii) of which Cash credits & advances	44476	49242	55500
from banks & others	0	0	0
4. Net worth	25505	28054	30527
5. i) Gross Block	31110	38118	48621
ii) Less Depreciation	5358	6614	8194
iii) Net fixed assets	25752	31504	40427
iv) Working Capital	21413	18695	12473
v) Capital Empl(iii + iv)	47165	50199	52900
6. i) Sales	214729	253048	486512
ii) Other income	3492	5078	4880
T O T A L	218221	258126	491392
7. i)Total emoluments (incl.perks)	4532	6030	6380
ii) of which bonus	283	287	287
iii) Average Emol. per person	1.69	2.25	2.38
8. Inventories	9575	11201	15808
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	8162	10313	10828
b) Adjusted gross profit	8363	10346	10862
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	2554	3156	3523
b) Adjusted net profit	2755	3187	3552
11. Dividends declared	481	554	952
12. Corporate Tax	524	618	611
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	115.30	142.48	159.05
Adj.NP to paid-up capital	124.38	143.88	160.36
b) NP to Net Worth	10.01	11.25	11.54
Adj.NP to Net Worth	10.80	11.36	11.64
c) GP to capital emp.	17.31	20.54	20.47
Adj.GP to capital emp.	17.73	20.61	20.53
d) Sales to Capital Employed	455.27	504.09	919.68
e) GP to Sales	3.80	4.08	2.23
Adj.GP to Sales	3.89	4.09	2.23
f) Loans/Net Worth Ratio	1.74	1.76	1.82

FINANCIAL STRUCTURE

15. MADRAS REFINERIES LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	14361	14710	14710
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	65745	76745	91576
3. Total loans (i+ii)	93702	91405	92888
i) of which foreign	0	0	0
ii) of which Cash credits & advances	93702	91405	92888
from banks & others	0	0	0
4. Net worth	79373	91091	106286
5. i) Gross Block	141410	147622	149211
ii) Less Depreciation	54147	62313	70187
iii) Net fixed assets	87263	85309	79024
iv) Working Capital	77018	69639	75818
v) Capital Empl(iii + iv)	164281	154948	154842
6. i) Sales	249319	271862	374660
ii) Other income	1909	8153	9927
TOTAL	251228	280015	384587
7. i)Total emoluments (incl.perks)	2885	4612	5196
ii) of which bonus	83	164	144
iii) Average Emol. per person	1.59	2.61	2.97
8. Inventories	76410	48472	63703
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	24904	28634	38765
b) Adjusted gross profit	24983	28996	39071
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	10218	12928	20493
b) Adjusted net profit	10296	13289	20799
11. Dividends declared	3587	3970	5149
12. Corporate Tax	1517	1520	7071
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	71.15	87.89	139.31
Adj.NP to paid-up capital	71.69	90.34	141.39
b) NP to Net Worth	12.87	14.19	19.28
Adj.NP to Net Worth	12.97	14.59	19.57
c) GP to capital emp.	15.16	18.48	25.04
Adj.GP to capital emp.	15.21	18.71	25.23
d) Sales to Capital Employed	151.76	175.45	241.96
e) GP to Sales	9.99	10.53	10.35
Adj.GP to Sales	10.02	10.67	10.43
f) Loans/Net Worth Ratio	1.18	1.00	0.87

FINANCIAL STRUCTURE
16. LUBRIZOL INDIA LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	1920	1920	1920
2. i) Paid-up Capital	1920	1920	1920
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	11789	14127	16878
3. Total loans (i+ii)	2855	2250	435
i) of which foreign	0	0	0
ii) of which Cash credits & advances	2855	2250	435
from banks & others	0	0	0
4. Net worth	13709	16047	18798
5. i) Gross Block	11691	12109	12878
ii) Less Depreciation	4010	4563	4897
iii) Net fixed assets	7681	7546	7981
iv) Working Capital	8711	10532	11159
v) Capital Empl(iii + iv)	16392	18078	19140
6. i) Sales	36757	36312	39236
ii) Other income	238	223	174
TOTAL	36995	36535	39410
7. i)Total emoluments (incl.perks)	1496	2028	2297
ii) of which bonus	3	0	1
iii) Average Emol. per person	2.11	2.86	3.29
8. Inventories	7991	9759	7874
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	6313	5071	6573
b) Adjusted gross profit	6370	5326	6625
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	3384	3182	4124
b) Adjusted net profit	3441	3437	4176
11. Dividends declared	672	768	1248
12. Corporate Tax	2195	1432	2066
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	176.25	165.73	214.79
Adj.NP to paid-up capital	179.22	179.01	217.50
b) NP to Net Worth	24.68	19.83	21.94
Adj.NP to Net Worth	25.10	21.42	22.22
c) GP to capital emp.	38.51	28.05	34.34
Adj.GP to capital emp.	38.86	29.46	34.61
d) Sales to Capital Employed	224.24	200.86	204.99
e) GP to Sales	17.17	13.97	16.75
Adj.GP to Sales	17.33	14.67	16.89
f) Loans/Net Worth Ratio	0.21	0.14	0.02

FINANCIAL STRUCTURE

17. INDIAN OIL BLENDING LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	40	40	40
2. i) Paid-up Capital	40	40	40
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	3809	4556	5611
3. Total loans (i+ii)	0	0	0
i) of which foreign	0	0	0
ii) of which Cash credits & advances	0	0	0
from banks & others	0	0	0
4. Net worth	3849	4596	5651
5. i) Gross Block	4256	4902	5175
ii) Less Depreciation	2161	2529	2907
iii) Net fixed assets	2095	2373	2268
iv) Working Capital	1470	1989	2947
v) Capital Empl(iii + iv)	3565	4362	5215
6. i) Sales	3198	3416	4123
ii) Other income	149	245	274
T O T A L	3347	3661	4397
7. i)Total emoluments (incl.perks)	1139	1302	1506
ii) of which bonus	71	73	71
iii) Average Emol. per person	1.86	2.20	2.49
8. Inventories	22	19	20
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	1144	1158	1647
b) Adjusted gross profit	1153	1150	1648
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	671	758	1066
b) Adjusted net profit	680	750	1067
11. Dividends declared	10	10	10
12. Corporate Tax	470	400	581
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	1677.50	1895.00	2665.00
Adj.NP to paid-up capital	1700.00	1875.00	2667.50
b) NP to Net Worth	17.43	16.49	18.86
Adj.NP to Net Worth	17.67	16.32	18.88
c) GP to capital emp.	32.09	26.55	31.58
Adj.GP to capital emp.	32.34	26.36	31.60
d) Sales to Capital Employed	89.71	78.31	79.06
e) GP to Sales	35.77	33.90	39.95
Adj.GP to Sales	36.05	33.67	39.97
f) Loans/Net Worth Ratio	0.00	0.00	0.00

CONSOLIDATED FINANCIAL STRUCTURE
18. PETROCHEMICALS

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	19982	19982	19982
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	32904	37460	39757
3. Total loans (i+ii)	7363	6256	6176
i) of which foreign	0	0	0
ii) of which Cash credits & advances from banks & others	7363	6256	6176
4. Net worth	52848	57415	59704
5. i) Gross Block	68479	69672	74050
ii) Less Depreciation	32598	35042	37554
iii) Net fixed assets	35881	34630	36496
iv) Working Capital	15622	17631	18332
v) Capital Empl(iii + iv)	51503	52261	54828
6. i) Sales	83857	93021	93936
ii) Other income	906	950	3166
TOTAL	84763	93971	97102
7. i)Total emoluments (incl.perks)	3565	4161	4790
ii) of which bonus	2	0	0
iii) Average Emol. per person	1.88	2.22	2.57
8. Inventories	14907	17915	16711
9. Gross profit (PBIT)			
a)Gross Profit before Intt.&Tax	4163	8820	4365
b) Adjusted gross profit	3518	8910	4469
10. Net Profit			
a)Net Profit after intt.& taxes	2908	6799	3426
b) Adjusted net profit	2409	7190	3530
11. Dividends declared	872	2040	1028
12. Corporate Tax	147	302	0
13. % age of			
a) NP to paid-up capital	14.55	34.03	17.15
Adj.NP to paid-up capital	12.06	35.98	17.67
b) NP to Net Worth	5.50	11.84	5.74
Adj.NP to Net Worth	4.56	12.52	5.91
c) GP to capital emp.	8.08	16.88	7.96
Adj.GP to capital emp.	6.83	17.05	8.15
d) Sales to Capital Employed	162.82	177.99	171.33
e) GP to Sales	4.96	9.48	4.65
Adj.GP to Sales	4.20	9.58	4.76
f) Loans/Net Worth Ratio	0.14	0.14	0.10

3963/PNC-294

FINANCIAL STRUCTURE

19. BONGAIGAON REFINERY & PETROCHEMICALS LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	19982	19982	19982
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	32904	37460	39757
3. Total loans (i+ii)	7363	6256	6176
i) of which foreign	0	0	0
ii) of which Cash credits & advances	7363	6256	6176
from banks & others	0	0	0
4. Net worth	52848	57415	59704
5. i) Gross Block	68479	69672	74050
ii) Less Depreciation	32598	35042	37554
iii) Net fixed assets	35881	34630	36496
iv) Working Capital	15622	17631	18332
v) Capital Empl(iii + iv)	51503	52261	54828
6. i) Sales	83857	93021	93936
ii) Other income	906	950	3166
TOTAL	84763	93971	97102
7. i)Total emoluments (incl.perks)	3565	4161	4790
ii) of which bonus	2	0	0
iii) Average Emol. per person	1.88	2.22	2.57
8. Inventories	14907	17915	16711
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	4163	8820	4365
b) Adjusted gross profit	3518	8910	4469
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	2908	6799	3426
b) Adjusted net profit	2409	7190	3530
11. Dividends declared	872	2040	1028
12. Corporate Tax	147	302	0
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	14.55	34.03	17.15
Adj.NP to paid-up capital	12.06	35.98	17.67
b) NP to Net Worth	5.50	11.84	5.74
Adj.NP to Net Worth	4.56	12.52	5.91
c) GP to capital emp.	8.08	16.88	7.96
Adj.GP to capital emp.	6.83	17.05	8.15
d) Sales to Capital Employed	162.82	177.99	171.33
e) GP to Sales	4.96	9.48	4.65
Adj.GP to Sales	4.20	9.58	4.76
f) Loans/Net Worth Ratio	0.14	0.11	0.10

3463|PNG-298

CONSOLIDATED FINANCIAL STRUCTURE

20. ENGINEERING & SERVICE UNITS

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	13000	13000	13000
2. i) Paid-up Capital	7629	7701	7701
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	49146	57633	67463
3. Total loans (i+ii)	16990	27267	24470
i) of which foreign	0	0	0
ii) of which Cash credits & advances from banks & others	16990	27267	24470
4. Net worth	53276	61649	70825
5. i) Gross Block	22264	25968	27938
ii) Less Depreciation	8113	9396	10594
iii) Net fixed assets	14151	16572	17344
iv) Working Capital	41899	44267	44722
v) Capital Empl(iii + iv)	56050	60839	62066
6. i) Sales	93637	102894	105891
ii) Other income	6127	7382	11736
T O T A L	99764	110276	117627
7. i)Total emoluments (incl.perks)	16937	21527	23906
ii) of which bonus	64	44	28
iii) Average Emol. per person	2.23	2.86	3.28
8. Inventories	8921	12075	10216
9. Gross profit (PBIT)			
a)Gross Profit before Intt.&Tax	15000	15598	23656
b) Adjusted gross profit	15315	15936	24596
10. Net Profit			
a)Net Profit after intt.& taxes	8356	8476	13534
b) Adjusted net profit	8356	8662	13455
11. Dividends declared	1061	1270	3297
12. Corporate Tax	4387	4380	7172
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	109.53	110.06	175.74
Adj.NP to paid-up capital	109.53	112.48	174.72
b) NP to Net Worth	15.68	13.75	19.11
Adj.NP to Net Worth	15.68	14.05	19.00
c) GP to capital emp.	26.76	25.64	38.11
Adj.GP to capital emp.	27.32	26.19	39.63
d) Sales to Capital Employed	167.06	169.13	170.61
e) GP to Sales	16.02	15.16	22.34
Adj.GP to Sales	16.36	15.49	23.23
f) Loans/Net Worth Ratio	0.32	0.44	0.35

FINANCIAL STRUCTURE

21. ENGINEERS INDIA LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	5000	5000	5000
2. i) Paid-up Capital	1800	1872	1872
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	36809	44228	52918
3. Total loans (i+ii)	0	0	0
i) of which foreign	0	0	0
ii) of which Cash credits & advances	0	0	0
from banks & others	0	0	0
4. Net worth	38409	45900	54590
5. i) Gross Block	9028	9493	10081
ii) Less Depreciation	4203	4841	5330
iii) Net fixed assets	4825	4652	4751
iv) Working Capital	29529	24017	29120
v) Capital Empl(iii + iv)	34354	28669	33871
6. i) Sales	27452	31240	37667
ii) Other income	3375	4139	6997
TOTAL	30827	35379	44664
7. i)Total emoluments (incl.perks)	11647	15879	17989
ii) of which bonus	8	7	7
iii) Average Emol. per person	3.09	4.29	4.83
8. Inventories	1691	1588	3083
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	11161	11424	18778
b) Adjusted gross profit	11274	11432	18818
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	7204	7324	11806
b) Adjusted net profit	7204	7324	11806
11. Dividends declared	540	749	2808
12. Corporate Tax	4197	4100	6972
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	400.22	391.24	630.66
Adj.NP to paid-up capital	400.22	391.24	630.66
b) NP to Net Worth	18.76	15.96	21.63
Adj.NP to Net Worth	18.76	15.96	21.63
c) GP to capital emp.	32.49	39.85	55.44
Adj.GP to capital emp.	32.82	39.88	55.56
d) Sales to Capital Employed	79.91	108.97	111.21
e) GP to Sales	40.66	36.57	49.85
Adj.GP to Sales	41.07	36.59	49.96
f) Loans/Net Worth Ratio	0.00	0.00	0.00

FINANCIAL STRUCTURE

22. BALMER LAWRIE & CO. LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	3000	3000	3000
2. i) Paid-up Capital	1629	1629	1629
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	12306	13374	14514
3. Total loans (i+ii)	16068	25927	22798
i) of which foreign	0	0	0
ii) of which Cash credits & advances	16068	25927	22798
from banks & others	0	0	0
4. Net worth	13908	14976	15417
5. i) Gross Block	12134	15219	16491
ii) Less Depreciation	3554	4128	4765
iii) Net fixed assets	8580	11091	11726
iv) Working Capital	11289	18942	14002
v) Capital Empl(iii + iv)	19869	30033	25728
6. i) Sales	54686	63612	61055
ii) Other income	2691	3231	4726
TOTAL	57377	66843	65781
7. i)Total emoluments (incl.perks)	4339	4428	4942
ii) of which bonus	39	18	11
iii) Average Emol. per person	1.53	1.61	1.82
8. Inventories	6571	9323	6407
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	4060	4559	4724
b) Adjusted gross profit	4180	4629	5611
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	1421	1641	1683
b) Adjusted net profit	1338	1567	1592
11. Dividends declared	521	521	489
12. Corporate Tax	190	280	200
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	87.23	100.74	103.31
Adj.NP to paid-up capital	82.14	96.19	97.73
b) NP to Net Worth	10.22	10.96	10.92
Adj.NP to Net Worth	9.62	10.46	10.33
c) GP to capital emp.	20.43	15.18	18.36
Adj.GP to capital emp.	21.04	15.41	21.81
d) Sales to Capital Employed	275.23	211.81	237.31
e) GP to Sales	7.42	7.17	7.74
Adj.GP to Sales	7.64	7.28	9.19
f) Loans/Net Worth Ratio	1.16	1.73	1.48

FINANCIAL STRUCTURE

23. BIECCO LAWRIE LIMITED

(RS./LAKHS)

Particulars	1996-97	1997-98	1998-99
1. Authorised Capital	5000	5000	5000
2. i) Paid-up Capital	4200	4200	4200
ii) Preference Capital	0	0	0
iii) Reserves & Surpluses	31	31	31
3. Total loans (i+ii)	922	1340	1672
i) of which foreign	0	0	0
ii) of which Cash credits & advances	922	1340	1672
from banks & others	0	0	0
4. Net worth	959	773	818
5. i) Gross Block	1102	1256	1366
ii) Less Depreciation	356	427	499
iii) Net fixed assets	746	829	867
iv) Working Capital	1081	1308	1600
v) Capital Empl(iii + iv)	1827	2137	2467
6. i) Sales	11499	8042	7169
ii) Other income	61	12	13
TOTAL	11560	8054	7182
7. i)Total emoluments (incl.perks)	951	1220	975
ii) of which bonus	17	19	10
iii) Average Emol. per person	0.95	1.13	1.16
8. Inventories	659	1164	726
9. Gross profit (PBIT)	0	0	0
a)Gross Profit before Intt.&Tax	-221	-385	154
b) Adjusted gross profit	-139	-125	167
10. Net Profit	0	0	0
a)Net Profit after intt.& taxes	-269	-489	45
b) Adjusted net profit	-186	-229	57
11. Dividends declared	0	0	0
12. Corporate Tax	0	0	0
13. % age of	0.00	0.00	0.00
a) NP to paid-up capital	-6.40	-11.64	1.07
Adj.NP to paid-up capital	-4.43	-5.45	1.36
b) NP to Net Worth	-28.05	-63.26	5.50
Adj.NP to Net Worth	-19.40	-29.62	6.97
c) GP to capital emp.	-12.10	-18.02	6.24
Adj.GP to capital emp.	-7.61	-5.85	6.77
d) Sales to Capital Employed	629.39	376.32	290.60
e) GP to Sales	-1.92	-4.79	2.15
Adj.GP to Sales	-1.21	-1.55	2.33
f) Loans/Net Worth Ratio	0.96	1.73	2.04

24. CAPITAL INVESTMENT OF THE PUBLIC SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS AS ON 1.4.98 AND 1.4.99

(Rs.lakhs)

Name of Undertaking	<-----1.4.98----->				<-----1.4.99----->			
	Paid-up Capital	Loans	Total	Govt Share	Paid-up Capital	Loans	Total	Govt Share
A. EXPOLRATION & PRODUCTION	251425	1119329	1370754	232746	251425	1050928	1302353	229685
1. ONGC	142593	927340	1069933	137067	142593	815014	957607	137067
2. ONGC VIDESH	10000	7670	17670	0	10000	7324	17324	0
3. OIL	14267	36530	50797	14000	14267	30841	45108	14000
4. GAIL	84565	147789	232354	81679	84565	197749	282314	78618
B. REFINING & MARKETING	101851	1865092	1966943	71351	102269	1502316	1604585	71351
5. IOC	38928	1420463	1459391	35529	38931	1004208	1043139	35529
6. BPCL	15000	146090	161090	9930	15000	166444	181444	9930
7. HPCL	22144	125493	147637	11550	22559	139364	161923	11550
8. CRL	6894	30149	37043	4144	6894	43477	50371	4144
9. MRL	14710	91405	106115	7726	14710	92888	107598	7726
10. IBP Co.	2215	49242	51457	1320	2215	55500	57715	1320
11. LUBRIZOL	1920	2250	4170	1152	1920	435	2355	1152
12. IOBL	40	0	40	0	40	0	40	0
C. PETROCHEMICALS	19982	6256	26238	14879	19982	6176	26158	14879
13. BRPL	19982	6256	26238	14879	19982	6176	26158	14879
D. ENGINEERING UNITS	7701	27267	34968	5109	7701	24470	32171	5109
14. EIL	1872	0	1872	1692	1872	0	1872	1692
15. BALMER LAWRIE	1629	25927	27556	1007	1629	25927	27556	1007
16. BIECCO LAWRIE	4200	1340	5540	2410	4200	1672	5872	2410
GRAND TOTAL (A+B+C+D)	380959	3017944	3398903	324085	381377	2583890	2965267	321024

GLOSSARY OF TERMS USED FOR TABLES ON FINANCIAL STATISTICS

1. Loans	This includes both secured and unsecured loans but excludes interest accrued and due if any, included in the loans.
2. Net Worth*	This represents paid up capital plus free reserves less accumulated losses (deficit) and deferred revenue expenditure remaining unamortised.
3. Capital Employed*	This means gross block less accumulated depreciation there-on-plus working capital
4. Working Capital*	Means all current assets, loans & advances, deposits, investment (Other than non-trade investment less current liabilities and provisions) excluding cash credit & bank overdrafts and provisions for gratuity.
5. Sales	Means net sales turnover i.e. after excluding trade discounts and products uses for internal consumption.
6. Adjusted Gross Profit	Represents excess of income over expenditure before providing for interest on loans, taxes, appropriation to reserves, charges pertaining to previous years, donation, exchange fluctuation, loss on disposal of assets, bad debts, dividends etc.
7. Adjusted Net Profit	Represents the figure arrived at after deducting from the adjusted gross profit interest on loans, bad debts and taxes but before appropriation to reserves.
8. Dividend Declared	Includes also preference dividend, if any.
9. Gross & Net Profit	They are as given in the Annual Accounts of the Companies.

* - Figures shown on the above heads are in confirmity with the figures shown as per the review of Comptroller and Auditor General of India

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/BSM	:	Burmah Shell Oil Storage & Distributing Co. Ltd.
BSR	:	Burmah Shell Refineries Limited
Caltex/CIL	:	Caltex (India) Limited.
CORIL	:	Caltex Oil Refining (India) Limited.
CRL	:	Cochin Refineries Limited.
EIL	:	Engineers India Limited.
ESSO	:	Esso Standard Eastern Inc.
ESRC	:	Esso Standard Refining Company of India Limited.
GAIL	:	Gas Authority of India Ltd.
HPCL	:	Hindustan Petroleum Corporation Limited.
HIL	:	Hydrocarbons India Limited.
IBP Co. Ltd.	:	IBP Co. Limited.
CASTROL	:	Castrol Lubricants & Specialities Limited.
IIP	:	Indian Institute of Petroleum.
IPE	:	Institution of Petroleum Exploration
IOBL	:	Indian Oil Blending Limited.
IOC	:	Indian Oil Corporation Limited.
Lubrizol	:	Lubrizol India Limited.
MRL	:	Madras Refineries Limited.
POCL	:	Petrosil Oil Company Limited.
OIL	:	Oil India Limited.
ONGC	:	Oil & Natural Gas Commission.
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	:	Natural Gas Liquid

LIGHT DISTILLATES: (including Gases) : Gasolines, Naphtha, SBP Spirit, Solvent Oils, Hexane, Benzene, Toluene, L.P.G., 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=.001).
Centi	:	One Hundredth (1/100=.01).
Deci	:	One Tenth (1/10=.1).
Unit	:	One (1).
Deka	:	Ten (10)
Hecto	:	One Hundred (100).
Kilo	:	One Thousand (1,000).
Mega	:	One Million (1000,000)

(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
L:R I	:	Large Range I (45,000-79, 999 dwt).
LR II	:	Large Range II (80,000-159,999 dwt).
LVI	:	Medium Range (25,000-49,999 dwt).
MT	:	Metric Ton.
MTPA	:	Million Tonnes Per Annum.
MV	:	Medium Viscosity.
MVI	:	Medium Viscosity Index.
R&D	:	Research & Development.
ULCC	:	Ultra Large Crude Carrier (320,000-549,999 dwt).
VLCC	:	Very Large Crude Carrier (160,000 dwt and more).
NA	:	Not available.
-	:	Nil
Neg	:	Negligible.
Billion	:	10^9 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 Milimetres	=	1 Centimetre.
10 Centimetres	=	1 Decimetre
10 Decimetres	=	1 Metre.
10 Metres	=	1 Decametre
10 Decametres	=	1 Hectometre.
10 Hectometres	=	1 Kilometre
100 Sq. Milimetres	=	1 Sq. Centimetre.
100 Sq. Centimetres	=	1 Sq. Decimetre.
100 Sq. Decimetres	=	1 Sq. Metre
100 Sq. Metres	=	1 Sq. Decametre-1 Acre.
100 Sq. Acres	=	1 Sq. Hectometre-Hectare.
100 Hectares	=	1 Sq. Kilometre.

WEIGHT

10 Miligrams	=	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 Milimetres	=	1 Centilitre.
10 Centilitrees	=	1 Decilitre.
10 Decilitres	=	1 Litre.
10 Litres	=	1 Decalitre.
10 Decalitre	=	1 Hectolitre
10 Hectorlitres	=	1 Kilolitre.

VOLUME

1000 Cubic Milimetres	=	1 Cubic Centimetre
1000 Cubic Centimetres	=	1 Cubic Decimetre.
1000 Cubic Decimetres	=	1 Cubic Metre.

CONVERSION FACTORS USED IN THE OIL TRADE LINEAR AND SQUARE MEASURES

LENGTH

1 Inch	=	25.4 Milimetres (mm)
	=	0.0254 Metre.
1 Foot	=	12 Inches.
	=	0.333333 Yard.
	=	0.3048 Metre (m).
1 Yard	=	36 Inches.
	=	3 Feet.
	=	0.9144 Metre (m).
1 Metre	=	39.3701 Inches.
	=	3.28084 Feet
	=	1.09361 Yards.
	=	0.001 Kilometre (km)
1 Kilometre	=	1000 Metre (m)
	=	0.621371 Mile.
1 Mile	=	1760 Yards
	=	1.60934 Kilometres (km).
1 Inaternational	=	6076.12 Feet
Nautical Mile	=	1.852 Kilometres (km)
	=	1.5152 Statute mile

AREA

1 Square Inch	=	645.16 Square Milimetres (mm2).
1 Square Foot	=	0.0929030 Square Metre (m2).
1 Square Yard	=	9 Square Feet.
	=	0.836127 Square Metre (m2).
1 Square Metre	=	10,7639 Square Feet.
	=	1.19599 Square Yards.
1 Acre	=	4840 Square Yards.
	=	4046.86 Square Metres (m2).
	=	0.404686 Hectares.
1 Hectare	=	10,000 Square Metres (m2).
	=	2.47105 Acres.
	=	0.01 Square Kilometre (km2).
1 Square Kilometre	=	100 Hectares.
	=	0.386102 Square Mile.
91 Square Mile	=	640 Acres.
	=	258.999 Hectares
	=	2.58999 Square Kilometres (km2).

MASS — 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 Calorie (IT)	=	1000 Calories.
	=	3.96832 British Thermal Units.
	=	1.163 Watt Hours.
	=	1 Thermie.
1 Kilowat Hour	=	3412.14 British Thermal Units
	=	859.845 Kilocalories.
	=	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.
1 Metric 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 Horsepower.
	=	1.34102 Imperia Horsepower.
	=	1000 Watts.
1 BTU	=	0.252 Kilocalories.
	=	1.055 Kilojoules

CUBIC MEASURES

VOLUME

1 Cubic Inch	=	16.3871 Cubic Centimetres (cm3)
1 Pint	=	0.568261 Cubic Decimetres (dm 3) or Litres.
1 Litre	=	61.024 Cubic Inches.
	=	1.75975 Pints.
	=	1 Cubic Decimetre (dm3)
	=	0.264172 American Gallons.
	=	0.219963 Imperial Gallons.
	=	0.0353147 Cubic Foot.
1 Hectolitre	=	100 Cubic Decimetres (dm3) 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 (M3).
1 Imperial Gallon	=	277.420 Cubic Inches.
	=	4.54609 Cubic Decimetres (dm3) or Litres.
	=	1.20095 American Gallon.
	=	0.160544 Gubic Foot.
	=	0.02894 American Barrel.
	=	0.00454609 Cubic Metre (m3).
1 Cubic Foot	=	28.3168 Cubic Decimetres (dm3) or Litres.
	=	7.48052 American Gallons.
	=	6.22883 Imperial Gallons.
	=	0.17811 Americal Barrel.
	=	0.0283168 Cubic Metre (m3).
1 American Barrel	=	9702 cubic Inches.
	=	158.987 Cubic Decimetres (dm3) or Litres
	=	42 American Gallons.
	=	34.9726 Imperial Gallons
	=	5.6146 Cubic Feet.
		0.158987 Cubic Metre (m3).
1 Cubic Metre	=	1000 Litres.
	=	264.172 American Gallons
	=	219.969 Imperial Gallons.
	=	35.3147 Cubic Feet.
	=	6.28981 American Barrels.
1 Kilolitre	=	1000 Cubic Decimetres (dm3) or Litres.
	=	6.28981 American Barrels.
[1]Gross Ton (Shipping)	=	2.83168 Cubic Metres or 100 cubic.
		Feet or Permanently Enclosed Space.
1 Ton of Liquified	=	aprox. 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	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 Benzen Feed Stock	1205	0.8239	7.88

VOLUME PER METRIC TON OF PETROLEUM PRODUCTS

PRODUCTS	Kilolitre	Imperial Gallon	U.S. Gallon	Barrel
1	2	3	4	5
Liquified Pet. 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
Residuel Fuel Oils	1.0526	231.551	278.071	6.623
Asphalt and Bitumen	0.9615	211.515	254.013	6.050
Crude Oil	1.1856	260.910	313.340	7.441

CONVERSION FACTORS FOR DUTY REDUCTION FROM 15°C TO 29.5°C

	Product	Conversion Factor
1.	Aviation Spirit 100/130	0.9827
2.	Aviation Spirit 114/145	0.9820
3.	Aviation Spirit 73 Clear	0.9824
4.	Aviation Turbine Fuel	0.9862
5.	Motor Spirit 83	0.9830
6.	Motor Spirit 93	0.9836
7.	H.S.D.O.	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

3465/PH4-31B

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 degree 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 Oils	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 these	Metric Tons	Barrels	Kilo litres	1,000 Imp. Gallon	1,000 U.S. Gallon
Metric Tons	1	7.33	1.16	0.256	0.308
Barrels	0.136	1	0.159	0.035	0.042
Kilolitres	0.863	6.29	1	0.220	0.264
1,000 Imp. Gallons	3.91	28.6	4.55	1	1.201
1,000 U.S. Gallons	3.252	3.8	3.79	0.833	1

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

TO CONVERT ONE METRIC TONNE OF PETROLEUM PRODUCTS TO ONE TONNE OF OIL EQUIVALENT MUTIPLY BY

PRODUCT	MULTIPLIER
L.P.G.	1.130
Naphtha	1.075
Aviation gasoline	1.070
Motor gasoline	1.070
Jet Fuel	1.065
Kerosene	1.045
Gas/diesel	1.035
Residuel Fuel Oils	0.985
Others	0.960

AVERAGE INTERNATIONAL CALORIFIC VALUE OF DIFFERENT FUELS

		K Cals/Kg. M cals/Tonne	BTUS/Kg.
	1	2	3
A.	**Oil Equivalence:**		
	Average Crude Oil/NGLS (a)	10,300	40,870
	United Nations	10,175	40,375
B.	**Oils Products:**		
	NGL	12,135	48,150
	Motor Gasoline	11,135	44,190
	Kerosene	10,638	42,210
	Jet Fuel	11,790	46,790
	Gas Oil	10,790	42,820
	Fuel Oil	10,440	41,430
C.	**Coal Equivalence:**		
	Average Hard Coal (b)	7,000	27,775
D.	**INDIA:**		
	Hard Coal	5,000	19,840
	Lignite-Brown Coal	2,310	9,16
	Firewood@	4,750	18,848
	Charcoal@	6,900	27,379
			K cals/Cu. Metre
E.	**Natural Gas-Production: (Average) India**		**8,000-9480**
F.	**Electricity:**		
	Output Basis (c)		860
	Fuel Input basis (d)		2,500-2,700

(a) Represent average global factor for crude oil/NGL production. For a specific curde 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 productin to hard coal equivalent base.
(c) Calorific value of 1 kwh of electricity.
(d) Represents K cals of hydro-carbon energies required to produce 1 kwh 01 electricity.
@ = as per Report ot Fuel Policy Committee 1974
Conversion Factor : 1K cal = 4.19 K Joules.

COEFFICIENTS USED TO CONVERT FROM ORIGINAL UNITS INTO STANDARAD COAL EQUIVALENTS

Products	Hard Coal	Lignite Brown Coal	Fuel wood
1	2	3	4
A. PRIMARY SOLIDS			
1. Standard Factor	1.000	0.385	0.333
2. India	0.714	0.330	
B. OTHER Hydrocarbons			
1. Petroleum Crude		1.454	
2. Natural Gas liquids (wf.av.)		1.542	
3. Gasolines		1.500	
4. Kerosene & Jet Fuel		1.474	
5. Gas-Diesel Oil		1.450	
6. Residuel Fuel Oil		1.416	
7. Liquified Petroleum Gases		1.554	
8. Natural Gasoline		1.532	
9. Condensate		1.512	
10. Other Natural Gas Liquids		1.512	
11. Natural Gas (in Terajouls)*		34.121	
12. Other Gases ("")*		34.121	
13. Hydro, Nuclear and Geothermal Electricity (in 1,000 kwh)		0.123	

*=The average calorific value of gas is measured in Kcal/m3 (st.) i.e., in Kcal percubic metre of gas understandard conditions of 15°C, 013.25 mbar, dry:

COAL REPLACEMENT AND EQUIVALENTS OF DIFFERENT FUELS

Fuels	Original Unit	Unit of coal equivalent (mtce)	Unit of coal replacement (mtcr)
1	2	3	4
Coal (coking			
6640 K cal/kg.,			
Non-coking coal			
Used in steam			
generation (5000			
Kcal/Kg.)	1 mt	1.0	1.0
Hard Coke	1 mt	1.3	1.3
Soft Coke	1 mt	1.5	1.3
Firewood (4750 Kcal/Kg.)	1 mt	0.95	0.95
Char Coal (6900 Kca/Kg.	1 mt	1.0	1.0
2. Oil Products: 10,000 K cal/Kg.			
Black Products (i.e			
Fuel Oil; F.O.;			
Refinery Fuel,			
LSHS, HHS).	1 mt	2.0	2.0
Kerosene & LPG	1 mt	2.0	8.0
HSDO & LDO	1 mt	2.0	9.0
Motor Spirit &			
Jet Fuel	1 mt	2.0	7.5
Natural Gas			
(9000K cal/Kg.)	109xm3	1.8	3.6
Electricity	109 kwh	1.0	1.0

m = Million
mt = Million Tonnes
Source = Fuel Policy Committee 1974
mtce = Million Tonnes of Coal Equivalent
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.	Natural Gas (1 cub. ft.		
	= 1000 BTU)	=	(1 Cub metre=9000 K cal).
		=	1.1 11 thousand million cub metres
		=	39.2 thousand million cub. feet
		=	107 million cubic feet per day of a year
4.	Electricity (1 Kwh=3412 BTU) (1 Kwh-86 Kcal)	=	12 thousnad million KWH

Heat Units and others Expressed in Terms of million Tonnes of Oil

Items		Millions Tonnes of Oil equals
1.	Heat Units	
	10 million million BTU	0.25
	100 million therms	0.25
	10.000 teracalories	1.00
2.	Solid Fuels	
	1 million tonnes of coal	0.67
	1 million tonnes of lignite approximates to	0.33
3.	Natural Gas	
	1 thousand million cub. metres (BCM)	0.90
4.	Town Gas	
	1 thousand million cub. metres (BCM)	0.42
5.	Electricity	
	12 thousand million KWH	0.86

One million tonnes of oil produces about 4000 million units (KWH) of electricity in a modern power station,
Source: BP Statistical Review of World Energy.

Exchange Rate
1946-1970 and 1946-47-1970-71

(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
1946	n.a.	n.a.	n.a.	3.30852	3.30852	1946-47	n.a.
1947	3.30852	3.30852	3.30852	3.30852	3.30852	1947-48	3.30852
1948	3.30852	3.30852	3.30852	3.30852	3.30852	1948-49	3.30852
1949	3.30852	3.30852	4.76190	3.71792	3.71792	1949-50	4.08127
1950	4.76190	4.76190	4.76190	4.76190	4.76190	1950-51	4.76190
1951	4.76190	4.76190	4.76190	4.76190	4.76190	1951-52	4.76190
1952	4.76190	4.76190	4.76190	4.76190	4.76190	1952-53	4.76190
1953	4.76190	4.76190	4.76190	4.76190	4.76190	1953-54	4.76190
1954	4.76190	4.76190	4.76190	4.76190	4.76190	1954-55	4.76190
1955	4.76190	4.76190	4.76190	4.76190	4.76190	1955-56	4.76190
1956	4.76190	4.76190	4.76190	4.76190	4.76190	1956-57	4.76190
1957	4.76190	4.76190	4.76190	4.76190	4.76190	1957-58	4.76190
1958	4.76190	4.76190	4.76190	4.76190	4.76190	1958-59	4.76190
1959	4.76190	4.76190	4.76190	4.76190	4.76190	1959-60	4.76190
1960	4.76190	4.76190	4.76190	4.76190	4.76190	1960-61	4.76190
1961	4.76190	4.76190	4.76190	4.76190	4.76190	1961-62	4.76190
1962	4.76190	4.76190	4.76190	4.76190	4.76190	1962-63	4.76190
1963	4.76190	4.76190	4.76190	4.76190	4.76190	1963-64	4.76190
1964	4.76190	4.76190	4.76190	4.76190	4.76190	1964-65	4.76190
1965	4.76190	4.76190	4.76190	4.76190	4.76190	1965-66	4.76190
1966	4.76190	5.51413	7.50000	7.50000	6.31901	1966-67	7.00353
1967	7.50000	7.50000	7.50000	7.50000	7.50000	1967-68	7.50000
1968	7.50000	7.50000	7.50000	7.50000	7.50000	1968-69	7.50000
1969	7.50000	7.50000	7.50000	7.50000	7.50000	1969-70	7.50000
1970	7.50000	7.50000	7.50000	7.50000	7.50000	1970-71	7.50000

Contd---

Exchange Rate
1971-1996 and 1971-72 to 1996-97

(Rs. per U.S. Dollar)

Year	Calender Year					Financial Year	
	1st. Qr.	2nd. Qr.	3rd Qr.	4th Qr.	Average for the year	Year	Average for the year
1	2	3	4	5	6	7	8
1971	7.500	7.500	7.500	7.500	7.500	1971-72	7.44950
1972	7.298	7.297	7.759	8.023	7.594	1972-73	7.73025
1973	7.842	7.499	7.651	7.976	7.742	1973-74	7.86275
1974	8.325	7.912	8.073	8.096	8.102	1974-75	7.97550
1975	7.821	8.053	8.716	8.913	8.376	1975-76	8.65325
1976	8.931	9.063	8.967	8.881	8.960	1976-77	8.93850
1977	8.843	8.814	8.733	8.565	8.739	1977-78	8.56250
1978	8.138	8.465	8.051	8.118	8.193	1978-79	8.20625
1979	8.191	8.176	7.998	8.138	8.126	1979-80	8.07625
1980	7.993	7.921	7.747	7.791	7.863	1980-81	7.89278
1981	8.112	8.410	8.984	9.128	8.659	1981-82	7.92925
1982	9.195	9.354	9.579	9.702	9.455	1982-83	9.62850
1983	9.888	10.008	10.148	10.352	10.099	1983-84	10.31225
1984	10.741	10.972	11.579	12.158	11.363	1984-85	11.88675
1985	12.838	12.498	12.048	12.091	12.369	1985-86	12.23725
1986	12.312	12.500	12.592	13.039	12.611	1986-87	12.78650
1987	13.015	12.781	13.049	13.000	12.962	1987-88	12.96825
1988	13.043	13.429	14.276	14.920	13.917	1988-89	14.47650
1989	15.281	16.105	16.605	16.911	16.226	1989-90	16.66250
1990	17.029	17.344	17.554	18.087	17.504	1990-91	17.94850
1991	18.809	20.526	25.757	25.878	22.742	1991-92	24.51125
1992	25.914	25.890	25.890	25.979	25.918	1992-93	27.55250
1993	27.887	31.345	31.371	31.370	30.493	1993-94	31.36425
1994	31.371	31.310	31.371	31.388	31.375	1994-95	31.14132
1995	31.401	31.411	32.045	34.745	32.401	1995-96	33.450
1996	34.649	34.743	35.643	35.740	35.193	1996-97	35.500
1997	35.811	35.813	36.029	37.560	36.321	1997-98	37.165
1998	39.257	40.790	42.596	42.358*	41.250*	1998-99*	41.859

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 18, 1946 to September 21, 1949.

(2) Exchange rate for the years 1970 and 1971 are based on Trade conversion Factors.

(3) Exchange rate for the year 1972 onwards are based on Par rates/market rates.

e = estimated

Source: International Financial Statistics, Economic Survey

* : Upto November, 1998.

3463|PRA-32